



UI Design Principles

Learn to create beautiful and usable
interfaces from scratch

eBook by Michael Filipiuk

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Free bonuses, such as lists of my favorite fonts or tools I use to create UI Designs can be found in separate PDF files.

This eBook is going to get updates in the future. I am planning to write chapters explaining popups, design systems, dark mode and a whole lot more. If you have an idea for a chapter, please email me! You can reach out to me at mikef1808@gmail.com.

You bought the eBook, so you will receive all future updates for free :)

CHAPTER 01

Introduction

Thank you and why I wrote this eBook

Hey there!

My name is Michael, and I am the creator of this eBook. I wanted to personally thank you for grabbing it. With so many resources to learn UI Design out there, you decided to get this one, so thank you very much!

*This is me!
Great to see you!*



So... with so many resources about UI Design, why did I decide to write this eBook? A lot of the courses I watched about UI Design are just videos of how the creator designs a landing page step by step. He just shows you how to design, but does not explain anything!

This eBook is different. You will not only know how to design amazing interfaces, but also understand your decision making.

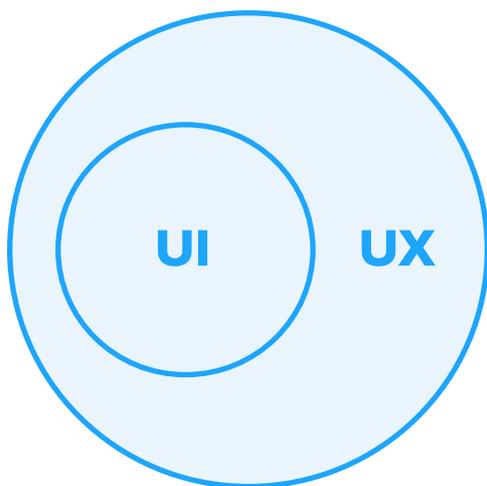
Regardless if you're a beginner or a bit more advanced in the UI Design field, this eBook will help you gain new skills, knowledge and confidence. I really hope that you will enjoy it!

UI vs UX

Before we begin, I want to make it clear that this book focuses on the UI Design - User Interface Design, and its core principles.

User Interface Design (or UI Design) refers to the visual elements of a digital product, while **User Experience Design** (UX Design) refers to the overall experience the user has while interacting with the product - so for example his emotions - a feeling of satisfaction, or frustration.

These two terms are two separate things, but if you really dig into the definition you will realise you can't talk about UX without talking about UI and other way around. A badly designed interface (e.g. bad contrast, a font that is too small, illegible text) will impact UX badly. Same as bad research done on the UX stage will impact UI Design decisions.



Even though in this eBook I focus on UI Design, things you will learn will also impact the User Experience.

In this eBook I won't focus on UX and the whole methodology behind it, but only on the visual side - UI Design. Both are important, but personally I am passionate about UI Design and I feel like I can share the most knowledge in this particular field.

Some people might disagree with what I said on the previous page about UI being a part of UX. I believe that at its core, it's true - if you really break down the definitions of those terms you'll realise that UX is impacted by UI. However, nowadays there's a lot of confusion in terms of job titles. UX Designers generally don't have to design interfaces and UI Designers don't have to do research. In terms of job titles, UI and UX are not a part of each other.

UI vs Branding

The discussion around UI Design vs Brand Design has been a cause of major confusion for me when I was early in my design career. Even though I knew that brand designers usually create a logo, color palettes, typography and language choices (and much more), working with them was not always the most pleasant experience for me.

As a UI/UX Designer, I was used to selecting typefaces, creating color palettes and building scalable design systems myself. However, the choices regarding the style were rarely an aftermath of real research - just my and stakeholder's personal preferences. Of course, making a banking app we'd probably go with blue to indicate trust (more on that in the chapter about colors), but it's not what you call "research"

And that's where a Brand Designer comes in. To describe his role in short: he does research on the target audience of the product, and based on his findings he decides on the visual appearance of the brand - a logo, colors, typefaces used, as well as language and even stationery mockups. Some of them also create some UI mockups, but these are rather for presentational purposes, not real usage on the market.

The most proper order would be going from Brand Design to UI

Design. This makes a job easier for the UI Designer and improves the possibility of positive feedback from the target audience. The product will also be more recognizable. It's common sense, really. Hours spent on research really pay off.

However, if the client's budget is limited, he often skips the Brand Design stage, and it's fine. The UI Designer can easily select colors and typography on his own. There's just less confidence that they're the best fit.

After reading this eBook you won't need to rely on a Brand Designer. You will know how to select typefaces, colors and much more for the project you're working on.

UI Design Mindset

If you type "UI Design" on Google or Pinterest, you will find many really beautiful interfaces. They look stunning and might make you jealous (I know they made me when I was new!), but before we begin you should adopt a certain mindset about UI Design.



This just looks sooooo beautiful! Work by Gavrisov Dmitri (Dribbble) and Tran Mau Tri Tram (Dribbble).

It's common to think that UI Design refers to making things "look good", which is already extremely subjective, but in reality it has a deeper purpose. Users that will use the UI you design don't care about how pretty it is. They care about getting their tasks done with minimal effort.

Aim for your design to be "invisible" - a non-intrusive one, that does not catch all attention, but rather redirects it to the main purpose of the app.

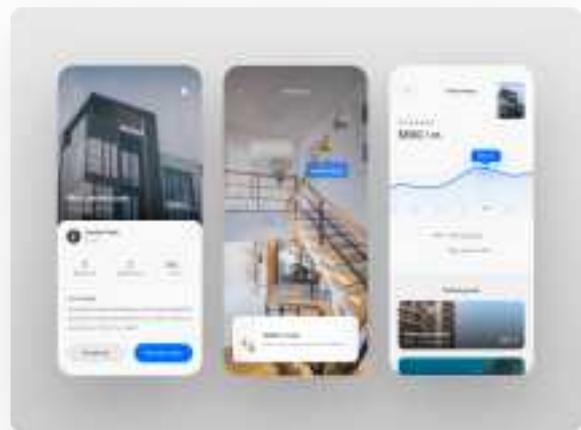
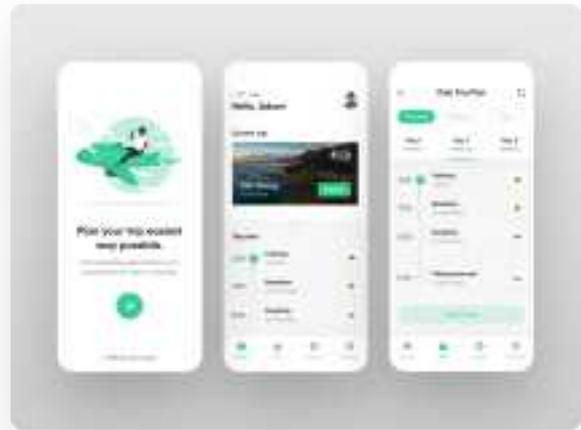
I can bet some serious money that at some point in time, we've all used an app that was designed fantastically. Some apps that we use daily were designed by huge, skilled teams that did everything in their power to make the experience fantastic.

As a designer, you can notice these little decisions that they made to make the experience better, but the regular user won't. Hundreds or thousands of human hours were spent designing something, just so that the user won't care.

I like to use the salt analogy when talking about UI/UX Design. When something doesn't taste right in your meal, you add some salt to it, or when you eat with friends/family you say "please pass the salt". However, when it tastes well, you don't say "it doesn't need salt. perfect!". You just carry on eating.

Same with design - most users will notice bad design, but the majority won't notice a great one.

TL;DR - No matter how pretty your design is, the user won't care if it doesn't help him solve his problem or complete his tasks.



Some of my Dribbble shots. I focused on making them pretty, not usable. Pretty work catches attention. I wouldn't make something like that for a real product.

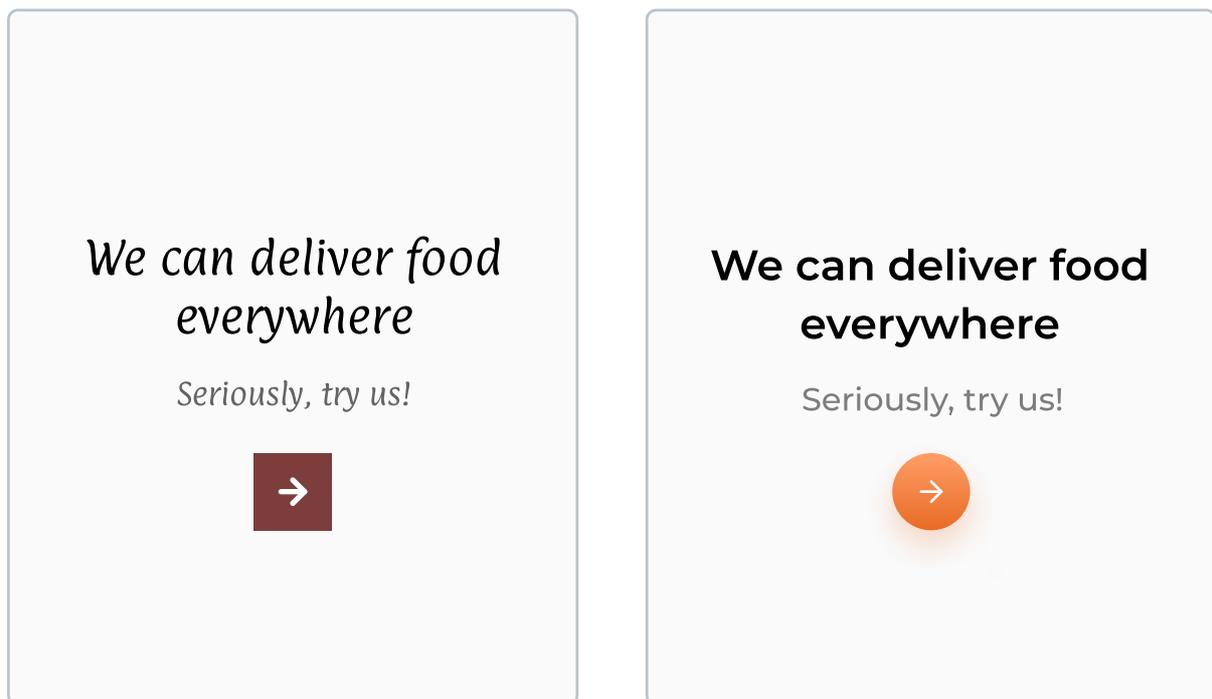
The screens that you see above are shots that I made for the sake of Instagram and Dribbble. Posting pretty work is a good way to build an audience and reach clients, but never forget that it's not the most important aspect of a well-designed product.

**“Good design is obvious.
Great design is transparent.”**

Joe Sparano

So... does that mean I can just design ugly stuff?

Not really. Even though usability should be your number one priority, people also tend to trust products which look good. Even the most usable application out there with an outdated design can make users frustrated and switch to the competition.



Both of these screens do the exact same thing. Which one do you like more?

Trends in UI Design come and go. That's a fact. Anyway, the example above has nothing to do with trends. The text on the left is hard to read, and the button looks completely off. The design on the right is not only better from the UI perspective, but also from the UX side. In this eBook you will learn how to make sure that your design not only looks great, but is also usable.

A quick disclaimer

The version that you are reading right now is the very first version of this eBook, and obviously not the last one. This eBook is going to get many updates in the future - I am going to be updating it with new chapters, as well as correcting mistakes that I did in this one.

I believe that all information I share in this eBook is valid and verified. There are not many opinions in it - mostly proven and frequently used principles and practices. That being said, if you believe that something in this eBook is wrong or false, please reach out to me so that I can correct it quickly. At the end of the eBook you will find the email address at which you can reach me.

If you bought this version, you will receive all future updates for free. Thank you for your support :)

CHAPTER 02

The Basics

In this chapter you will learn what is UI Design, why it matters, what it consists of and what makes it good. This knowledge is crucial for every beginner. If you feel like you already know the basics, feel free to skip this chapter. However, you might also want to refresh your knowledge. Regardless - let's begin!

Key content

- What is UI Design and what makes it good?
- What are screens in UI Design?
- What are objects in UI Design?
- Properties of objects
- Perception and visual hierarchy

What is UI Design?

User Interface Design (or UI Design) refers to the visual elements of a digital product. It focuses mostly on looks and style, and not the overall experience (like UX Design). UI Design has a big impact on the overall User Experience - you can think of it as a “surface” of a digital product.

What makes UI Design good?

Before you start designing user interfaces it's important to know what actually makes them good. Don't treat this part as a definitive checklist - more as a beginner's guide to creating good user interfaces. The topic of UI Design is very broad and it can't be broken down to “a few simple steps”.

Two crucial elements of a great User Interface

A great user interface has to be usable and delightful. The word “delightful” is quite broad and even subjective, so in other words, apart from being usable, user interfaces should also be likeable and enjoyable to use.

While most skilled designers will always preach usability as the most important aspect of a well designed product (which I totally agree with), making the interface delightful and enjoyable to use is also very important. On the next pages I'll dive deeper into the topics of usability, as well as making UIs enjoyable.

Usability

Usability is a measure of how well a specific user in a specific context can use a product/design to achieve a defined goal effectively, efficiently and satisfactorily.

Interaction Design Foundation

I couldn't have defined it better myself, so here's a definition from Interaction Design Foundation. To give an example: just think about it - why do you use any digital products? Do you use them because they have fantastic design, or because they help you complete certain tasks? I bet it's the second one.

It's a common opinion that usability relates to the UX field, and "delightfulness" - to the UI field. I believe that it is, quite frankly, bullshit. I've said it already and I'll say it again - a poorly designed user interface will impact user experience poorly. Period. A lot of these misconceptions have probably derived from all the mess caused by different job positions, such as "UI Designer", "UX Designer", "Product Designer" etc. Just accept it - even if you're "just" a UI Designer, you still impact the user experience, or UX.

One thing that I agree with is that usability of a product depends highly on people who conduct research - they find out what the user needs and expects from the product, and based on this knowledge they can make better design decisions.

Delightfulness

While usability is (and most likely will be) the priority for users, making the interface fun and engaging is also very important. We obviously all have very different definitions of fun, and that's why proper research is important.

Users judge your design really quickly. Even the smallest usability issue can put them off and annoy them. It's the same for looks - if they'll hate the way your UI Design looks, they just won't use the application, or will have trouble coming back to it.

It's commonly said that "the best interface is no interface". Quite depressing, right? Well, that's true. The simpler a UI Design is the better. A good example of this is Domino's Zero Click app. A popular pizza restaurant chain Domino's has once released an app to order pizza with literally zero clicks needed.



Yup. Literally. The only thing you had to do before using this app was to create an account on Domino's website and choose your favorite pizza, payment method and delivery address. After that, whenever you'd open the app pizza was automatically ordered.

Now, what can we learn from it? Just ask yourself: did this app have many stunning gradient buttons with drop shadows? No! Did it have animated 3D illustrations? Nope. Was it usable? Hell yeah! While having large selection is nice, being able to complete a desired goal by just opening the app is the pinnacle of great user experience, at least in my opinion.

Good design should include brand assets

Design is a great communication channel. It's a great place to use brand colors, typefaces, brand's tone of voice and other assets. A good experience that the user has inside a specific product is definitely memorable, so after having this good experience he'll associate it with the colors, typefaces and logo that he saw while using the app. This works both ways though - if the user has bad user experience, he'll dislike the brand.

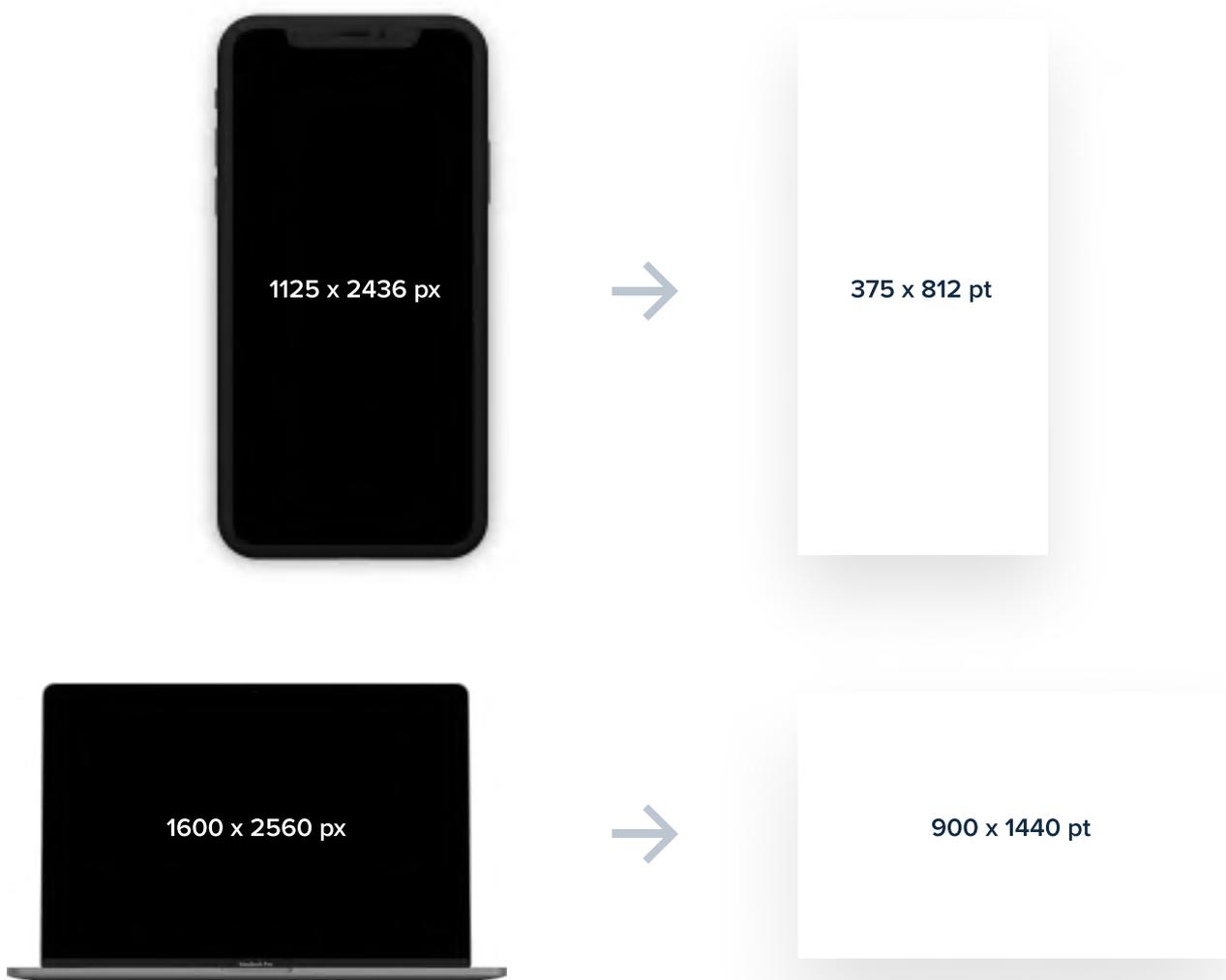
In this book I focus on UI Design - so just the "looks" of a digital product. I'll show you how to properly design various different elements and put them in a layout using grids. But first, let's start with the basics - screens and objects.

Screens

Every single UI Design is placed on a screen. That's not really surprising - after all, many digital devices that we interact with nowadays like a smartphone, laptop, tablet, or a smartwatch, have a screen on which the content is displayed. I'm sure you know that every screen has its own resolution, usually expressed in pixels (px).



Above you can see the screen resolutions of an iPhone X and a 13-inch MacBook Pro. These are the resolutions at which the content on the screen is displayed when we look at them in real life. However, what's important is that we don't actually create user interfaces for these devices in these resolutions, but we really use lower resolutions, expressed in points (p or pt). Take a look at the next page to see what I mean by that.



The screens that you see on the left have real resolutions on them. Frames that you see on the right have resolutions expressed in points (pt) in which we design for an iPhone X or MacBook Pro 13-inch (and other devices). In UI Design, we most often design for a smaller resolution than in reality. You don't need to remember those resolutions - they're available as presets in most design tools. Designing for smaller resolutions (but with maintaining the same aspect ratio) makes design easier and faster.

Objects

While screen is our “canvas” in UI Design, the design itself is made out of many different elements. Every object is a vector shape, so it can be re-sized without losing quality.

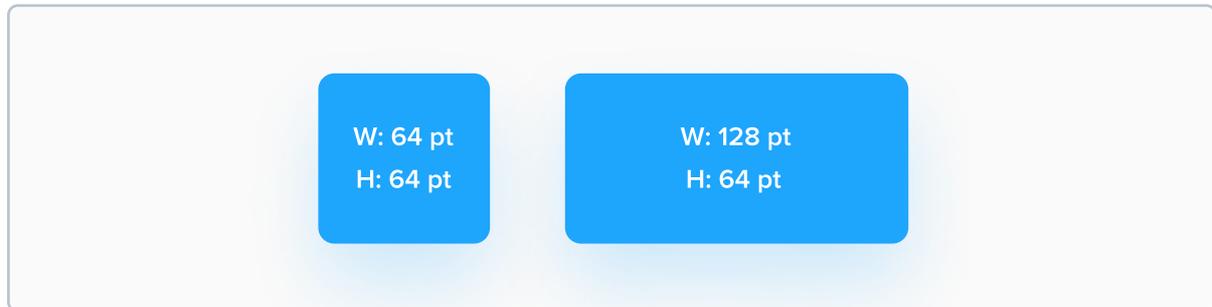
One time when I was designing my brother was looking at my work and asked me - "isn't this whole UI Design thing just moving shapes around?" My initial reaction? I was kinda infuriated! He had no idea how hard UI Design can be at times, but after some deep thought I realised that he's right!

Every UI Design is made out of elements, such as rectangles, ovals, other shapes and text, placed on the screen. Every single element has many properties such as width, height, X and Y position, fill, border and more. In this short part I'll go through every single one of them. It's crucial to understand what we're working with. If you've ever had any contact with software for graphic design, such as Photoshop for example, these things won't be surprising to you. These are the very basics, but if you're really, really new to UI Design - don't skip them.

On the next few pages I'll go through some properties that every UI Design element has, as well as some that it can have, such as shadows or other effects.

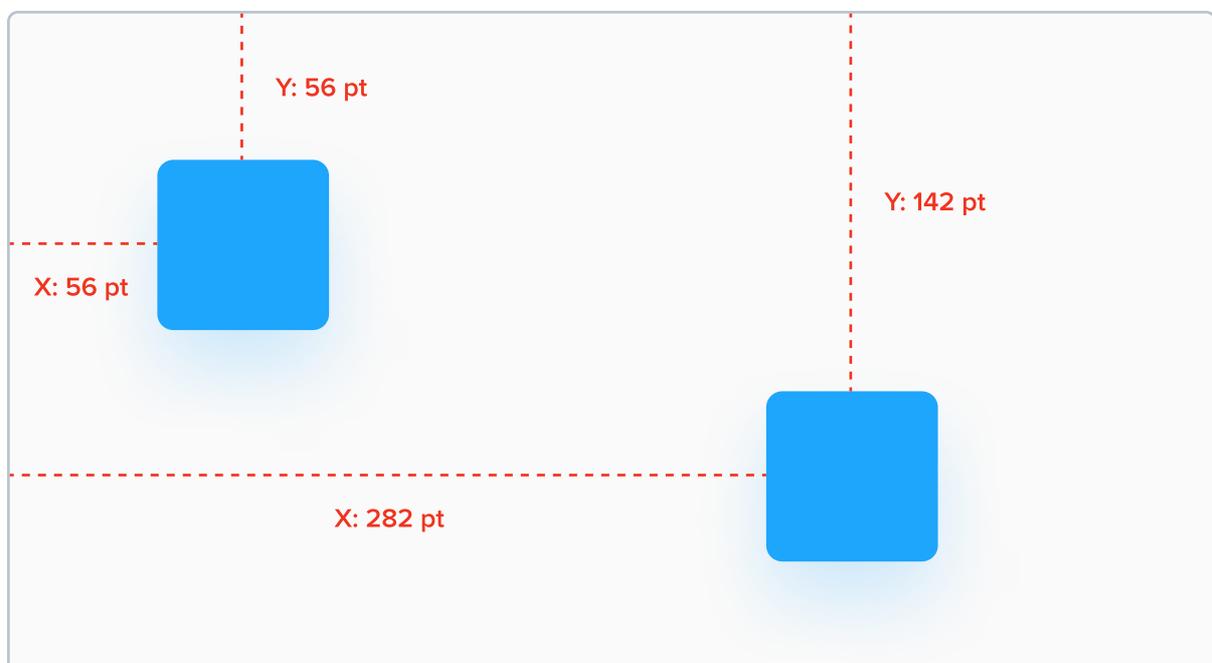
Size - width and height

Every single element has its own size, which consists of width and height, expressed in points.



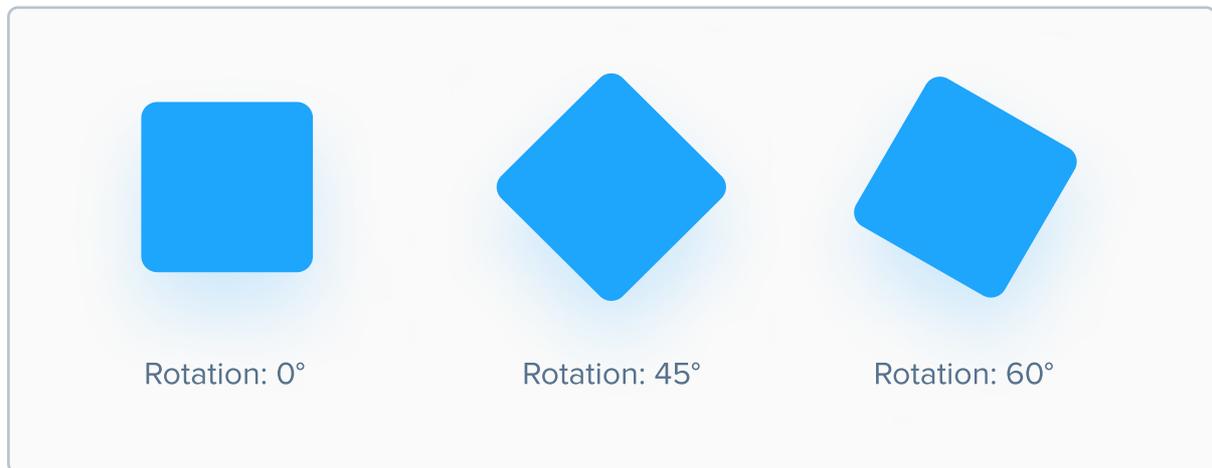
Position - X and Y values

Every element also has its own X and Y values. X value states how far (in points) the element is from the left edge of the screen, and Y value states how far the element is from the top edge of the screen.



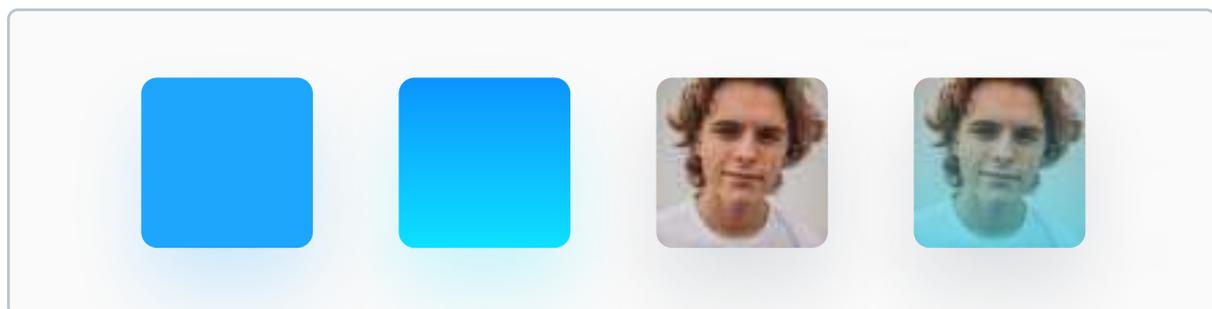
Rotation

Every element can also be rotated. The values range from 0° to 360°. You can also input negative values, such as -120°.



Fill

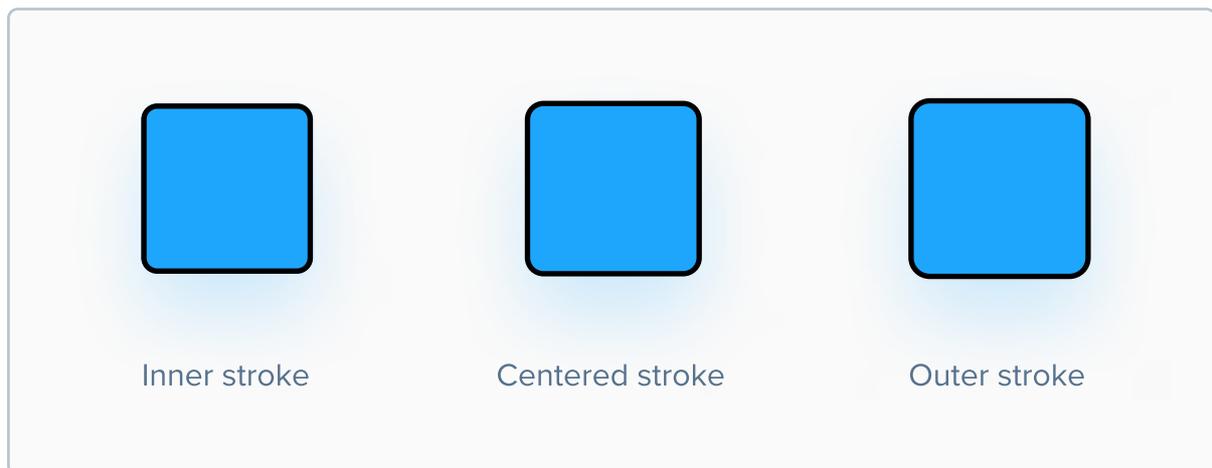
Every element can have various different types of fill, such as color, gradient (different types - more on that in the Gradients chapter), or even an image.



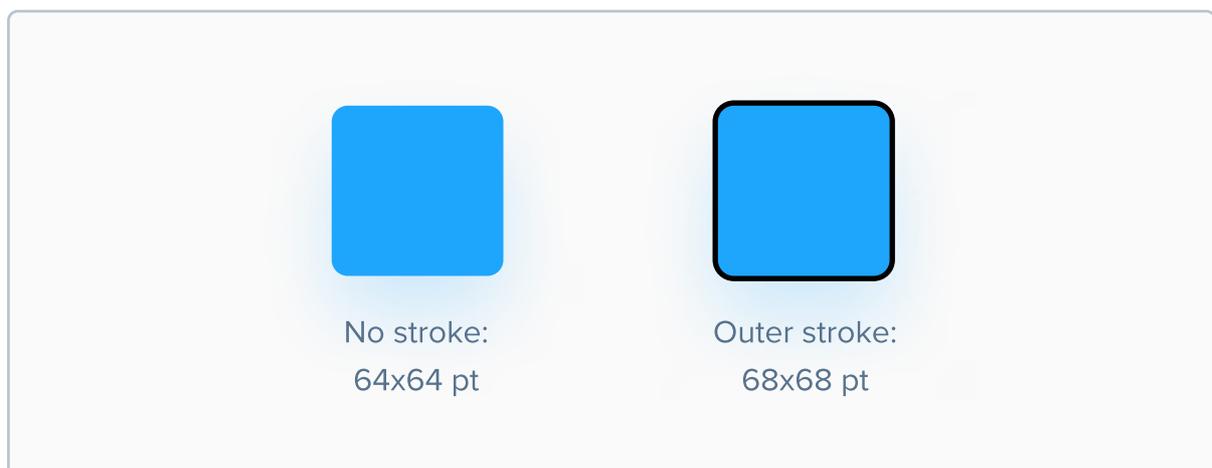
From left: color, gradient, image, image + gradient overlay. As you can see on the last example, you can also combine different fills with each other to get interesting results.

Border

You can add a border to every element in UI Design (also known as stroke), as well as modify its thickness. There are three types of borders in UI Design - inner, centered, and outer.

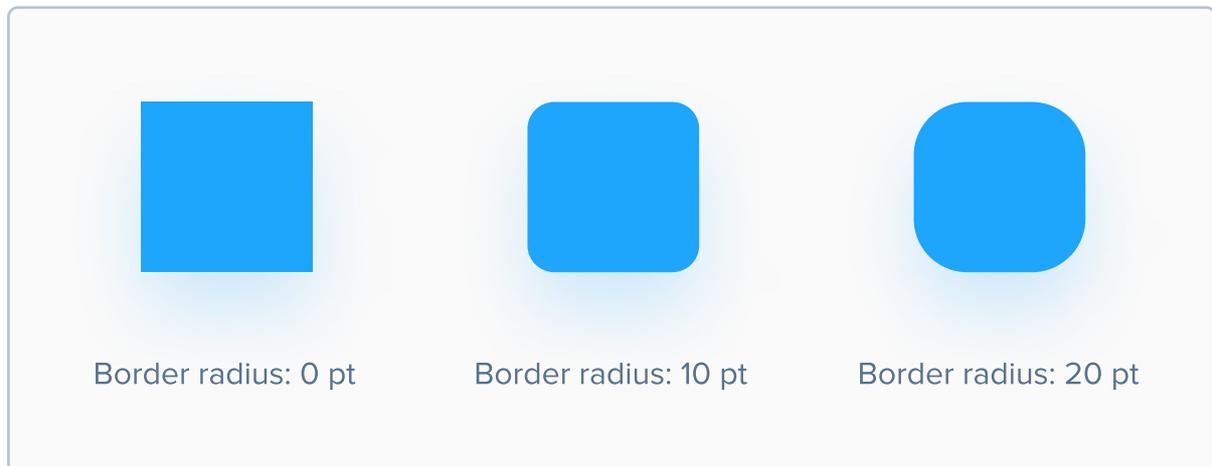


It's important to note that inner stroke is used most frequently in UI Design, because it does not increase the size of the element on which it is applied, like it is with centered or outer stroke. For example, if we have an element that has a size of 64x64 pt, after applying an outer stroke with the width of 2, it will be 68x68 pt.

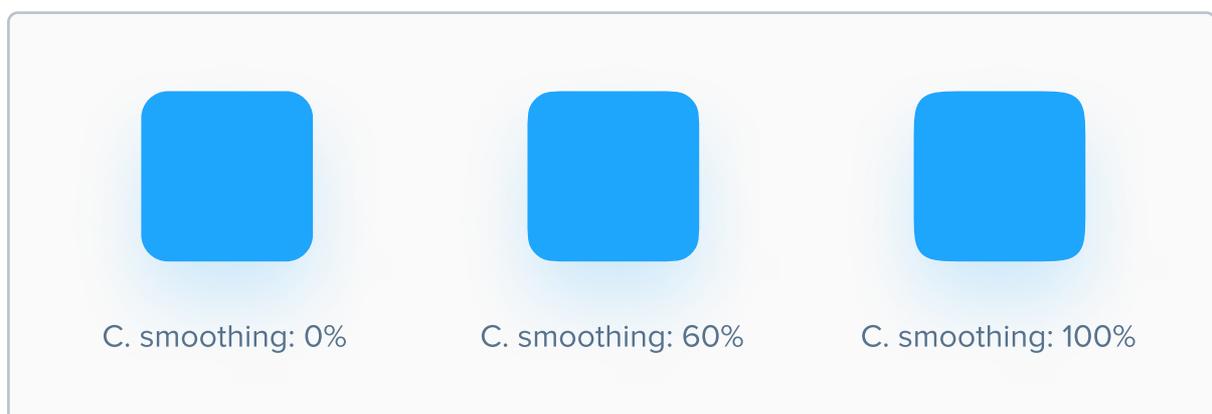


Border radius

This property relates only to shapes, not to text. Border radius defines how rounded the edges of a shape will be.

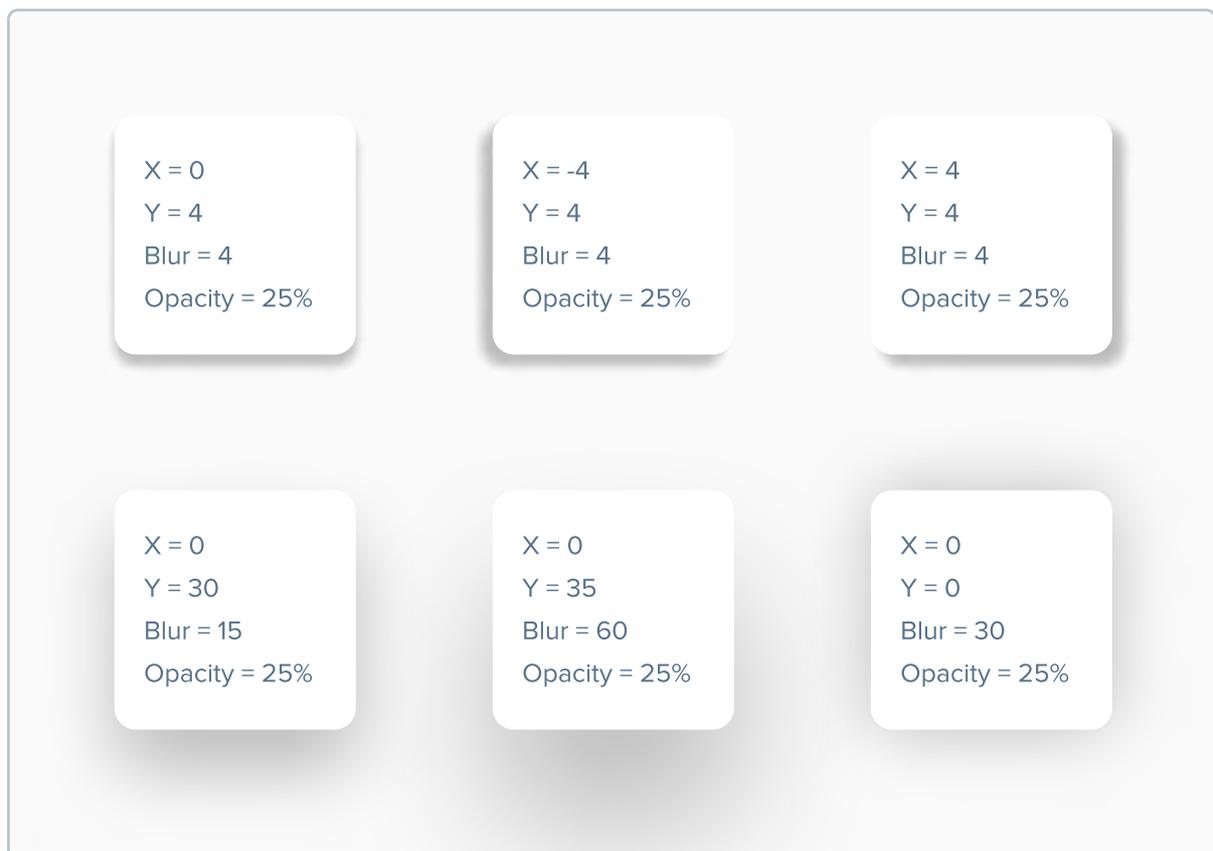


Using border radius of 0 pt is very rare - usually elements are rounded, even by just a bit. This gives a much friendlier feel to the design, especially when it comes to buttons for example (more on this topic later). Another property related to border radius worth mentioning is Corner smoothing, which, well - smooths the corners. It's sometimes used by Apple in their software. It ranges from 0% to 100%. Here's an example:



Shadows

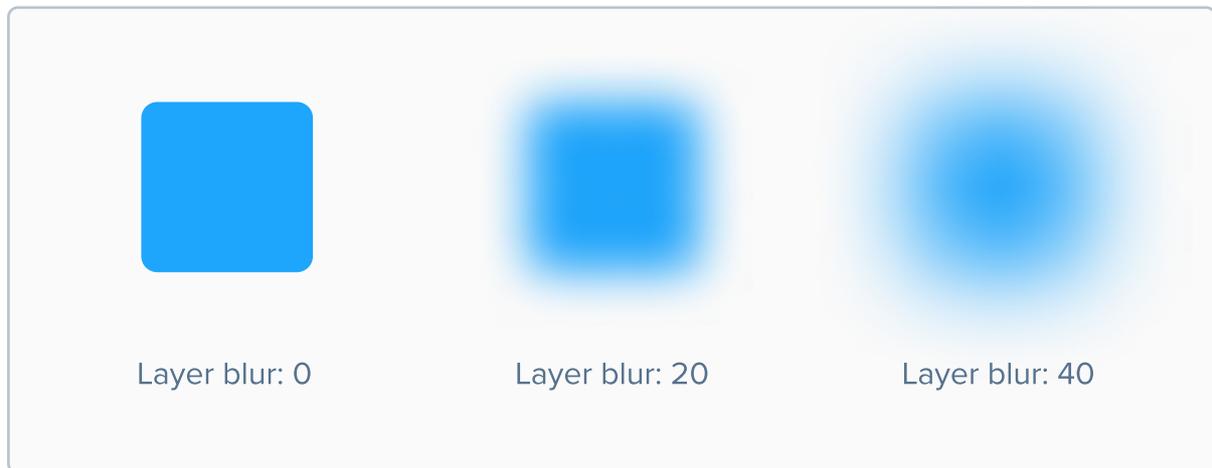
Every element can also have its shadow - think of them as a separate layer that is positioned in relation to the element that they're casted from. They play a big part in UI Design, so I wrote a dedicated chapter for them, and that's why I won't dive deep into them at this part of the book.



Every shadow has X, Y, Blur and Opacity values. More on that in the Shadows chapter.

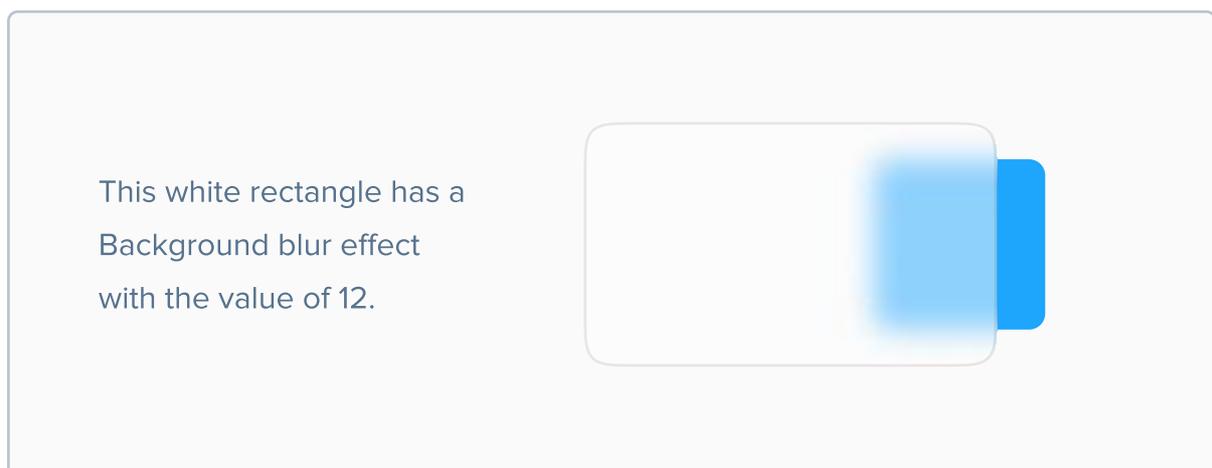
Layer blur

Every element can be blurred, reducing the level of its detail. In most design tools, Layer blur values range from 0 to 250.



Background blur

Objects with Background blur effect make elements underneath them blurred.



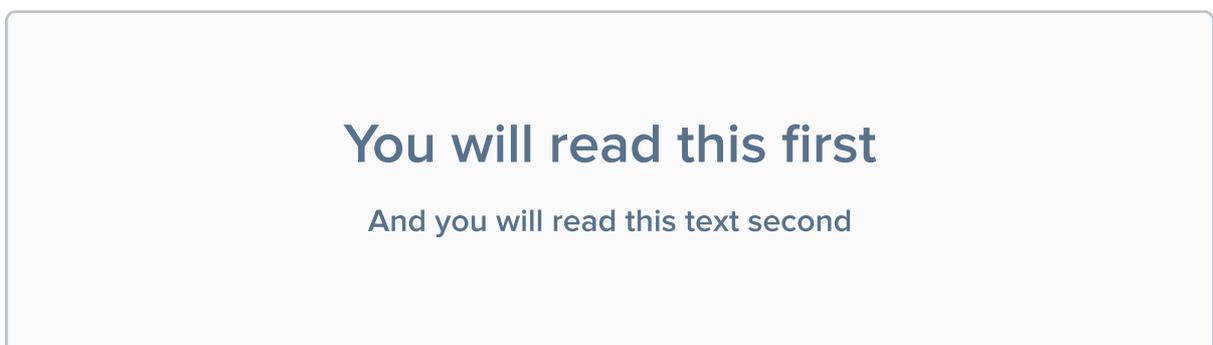
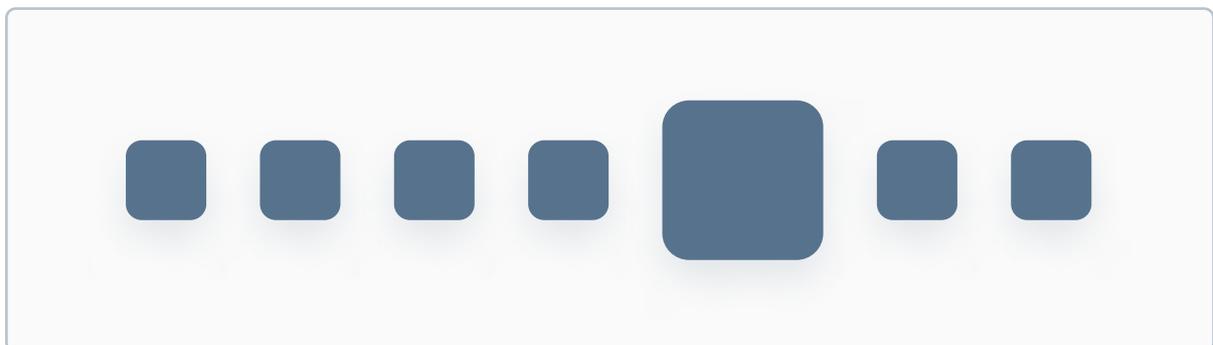
There are also other types of blurs, such as Motion blur, but they are very rarely used in UI Design (if ever), so I will skip them.

Perception and visual hierarchy

As a designer, you should be able to make the user focus on particular elements. By using visual hierarchy, we can make certain elements seem more important and prominent, thus grabbing user's attention. We can do that by changing some properties of an element. Which ones? Let me show you.

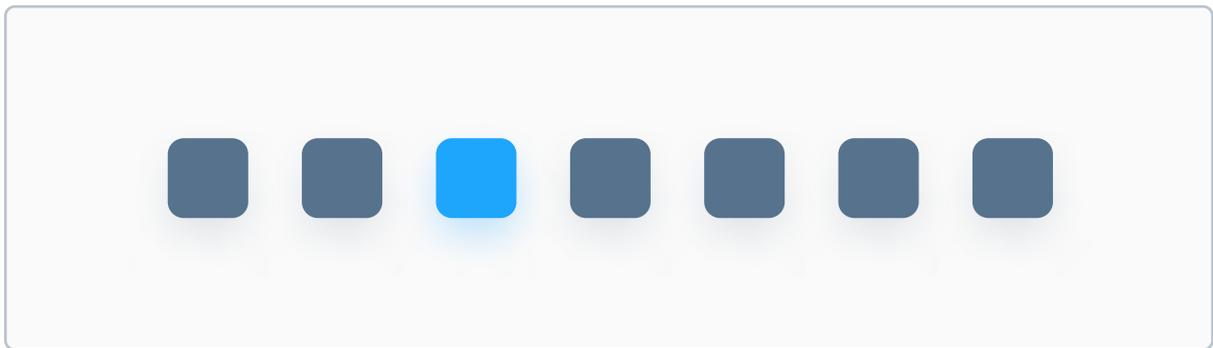
Size

It's natural for humans to perceive larger things as more important ones, especially when put in contrast to a smaller thing. Same in UI Design - a large button seems more important than a small one, large text seems more important than small text etc. This also applies to text.

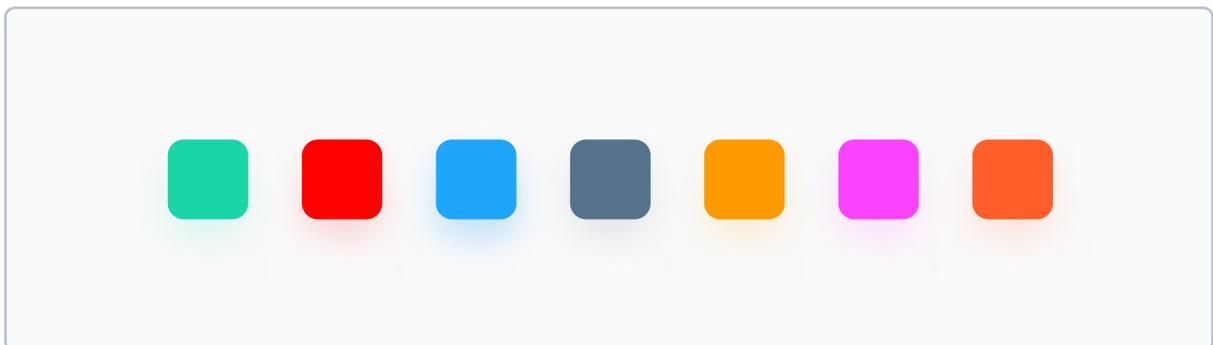


Color

Bold colors, such as blue, red or green can easily draw user's attention, while light colors such as white, light grey or cream will work better as a background. Giving a bold, visible color to an element can easily make it stand out.



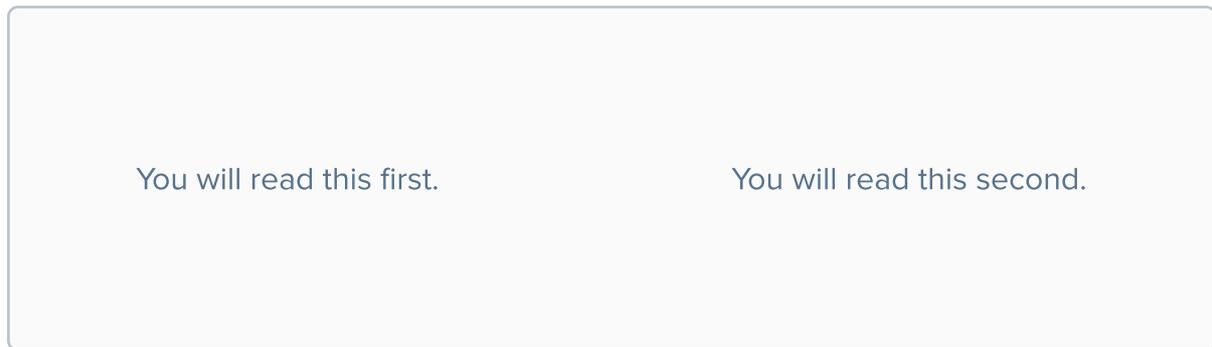
One thing that you should remember is that when everything is supposed to stand out, nothing stands out. That's why you should be careful when applying color to UI Design. More on that in chapters about Color and Gradients.



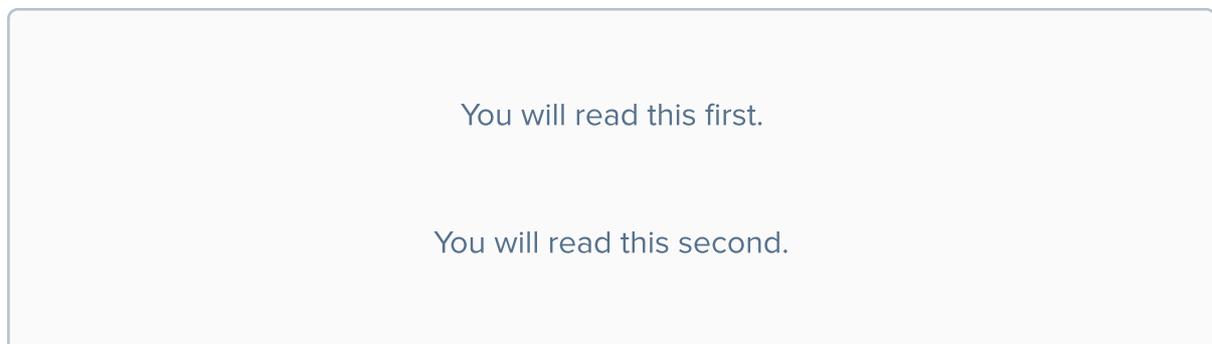
As you can see above, there's no visible hierarchy. No element seems more important than the rest.

Position

Most people read content left to right, top to bottom. That's why the user will most likely read content on the left first, and content on the right second, like on the example below:



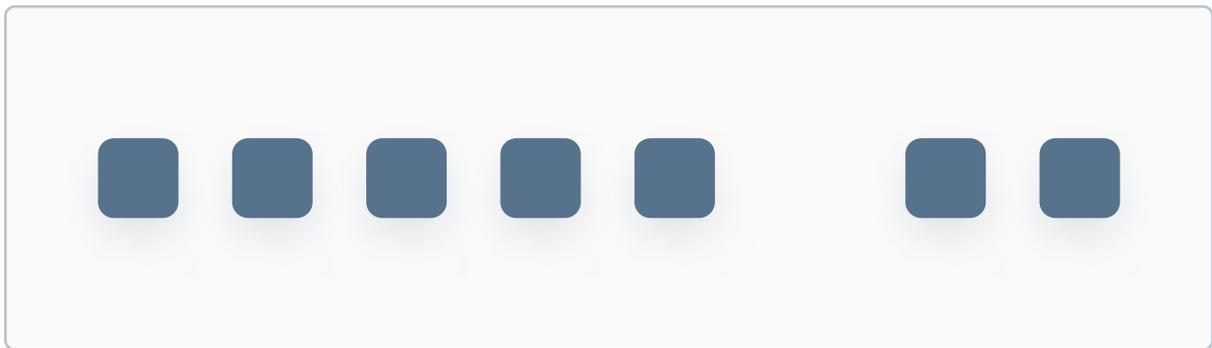
This also refers to content positioned on different heights. Content placed on the top will be read before the content below it.



You can take advantage of this fact by placing more important elements higher on the screen, and less important on the bottom. Remember that this is a cultural thing - in some cultures, people read from right to left.

Proximity

Elements that are close to each other are likely to be perceived as a group, so elements that are placed in a certain proximity seem related. This also means that if an element clearly is not a part of any group, it breaks the layout and stands out.



Alignment

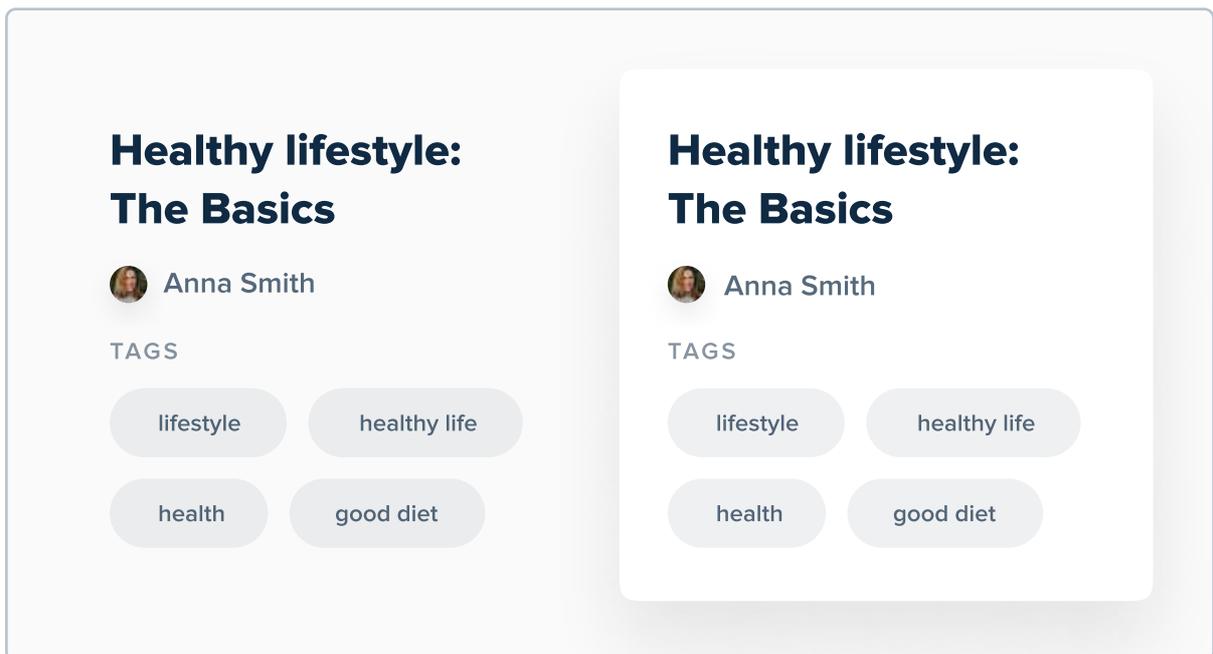
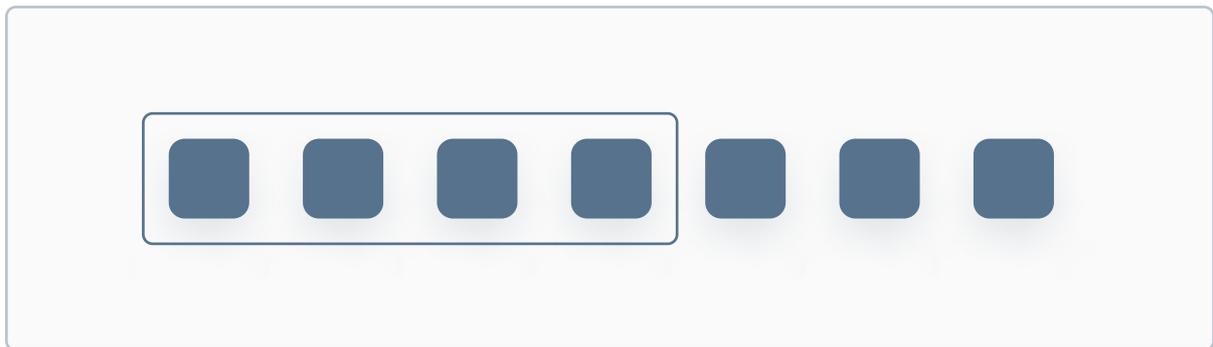
Elements that are aligned with each other seem related, so when an element is placed asymmetrically, it stands out.



Please remember that symmetrical layouts are perceived as more beautiful, so be careful when breaking symmetry and alignment in your UI Designs.

Common region

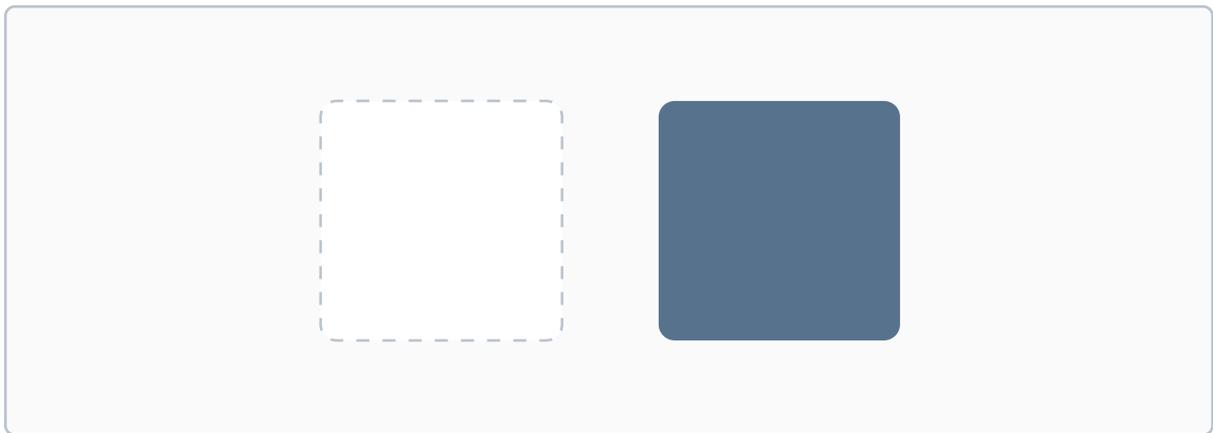
When elements are located within a closed region, they are perceived as a part of one group. In UI Design, this is useful for example when designing cards.



As you can see above, elements that are closed within a box seem more related to each other, as if they were from a group.

Figure-ground principle

This principle states that people quickly perceive objects as part of the background or the foreground. As you can probably tell, objects in the foreground seem “closer” to the user, and that’s why they’re considered as more important and interactive.



In general, backgrounds have soft, light colors. They’re not supposed to stand out, but to be a foundation for everything else. Using a strong, bold color or an image without an overlay for background can lead to people confusing background with foreground, which could result in massive confusion.

What’s next?

Most of these examples that I showed you come from Gestalt principles of visual perception, which describe how our brains create structure and hierarchy by default. I showed you the most important ones, but I highly recommend you google “Gestalt principles”, as the topic is very interesting.

Grid and layout

A grid is a set of horizontal and vertical lines that divide a screen into columns and rows. They're one of the most important principles in UI Design, yet sadly they often appear as confusing to beginner designers. I personally hated grids when I was a beginner, but after learning how to use them I noticed how valuable they really are.

Key content

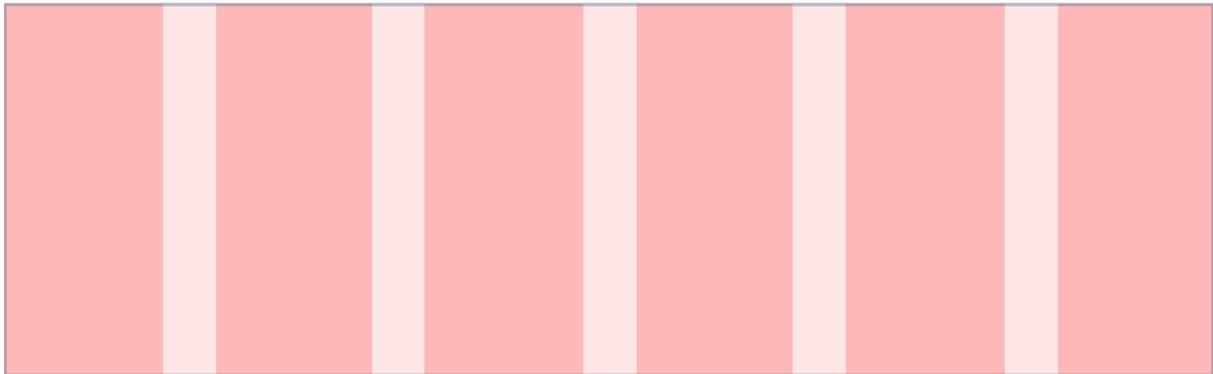
- What are grids in UI Design?
- Grid anatomy: columns, rows, gutters, margins
- Why it's important to use grids?
- Types of grids in UI Design
- Soft grids, spacing scales and grids for mobile devices

What are grids in UI Design?

As defined on the previous page, a grid is a set of horizontal and vertical lines, which divide the screen to columns and rows. Grids give structure to a page / an app and ensure consistent spacing between elements. Let's take a look at the anatomy.

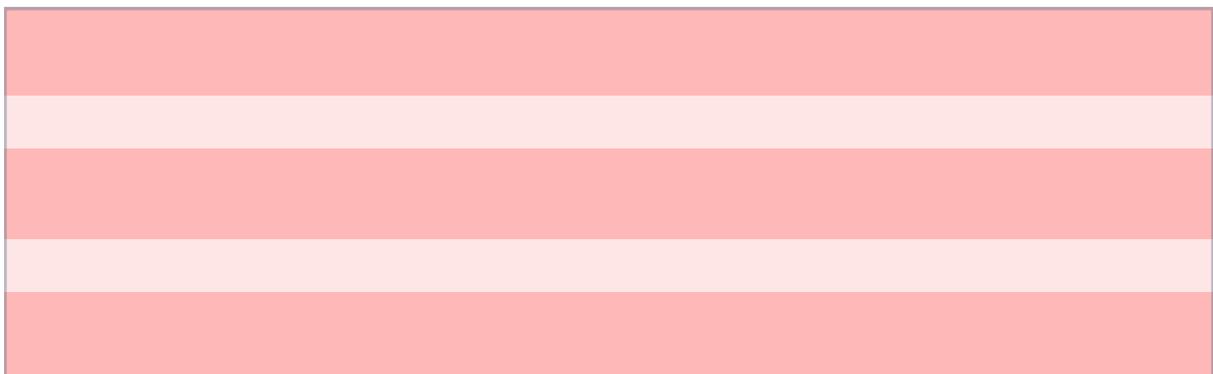
Columns

Columns are the vertical sections of a grid. The more columns the grid has the more flexible it is. Most web designs use 12 columns.



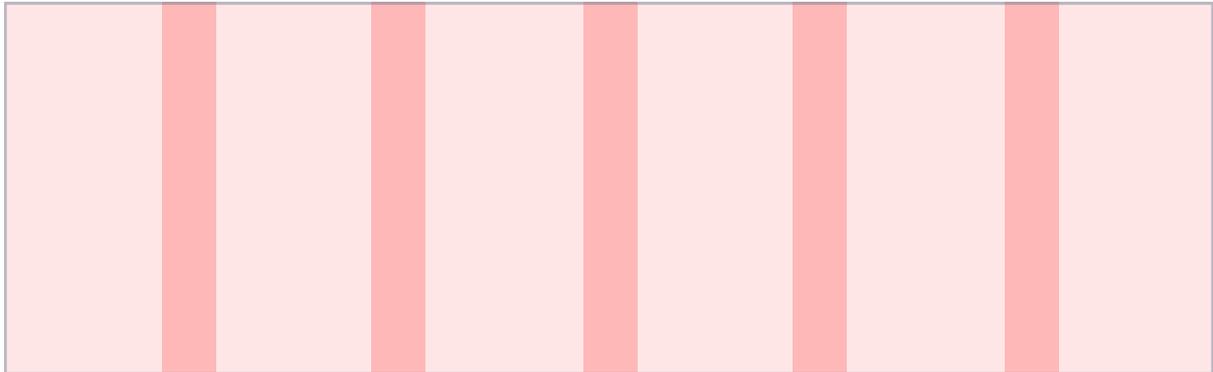
Rows

Rows are horizontal sections of a grid. They're used rather rarely in web design. Most usually, grids are based on columns.



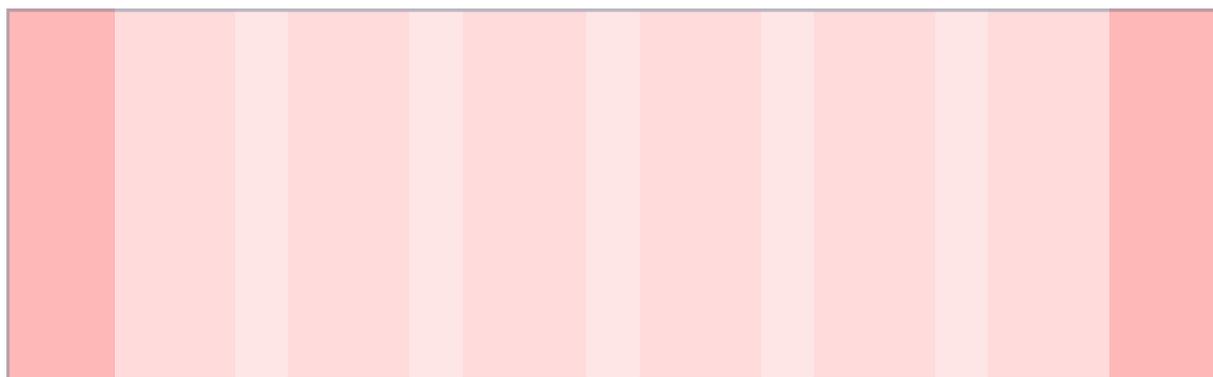
Gutters

Gutters are empty spaces that divide columns and rows. The smaller the gutter, the tighter the content on the screen.



Margins

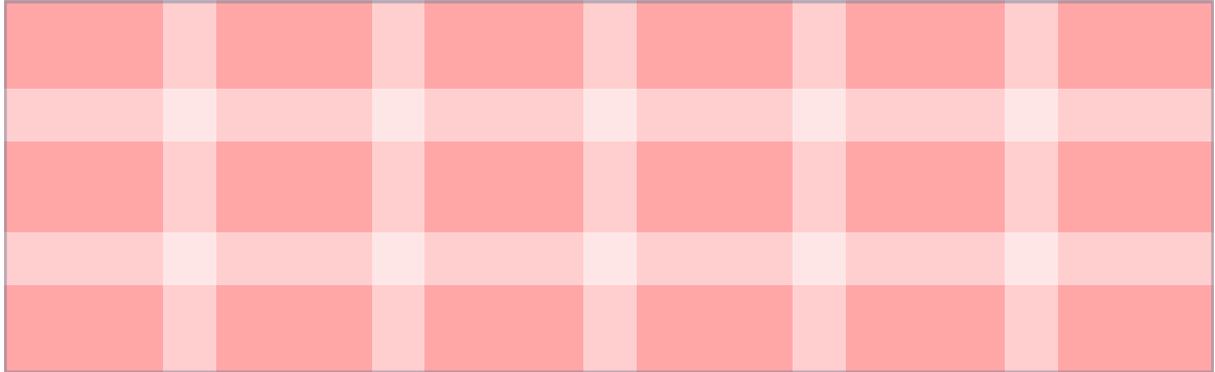
Margins are the space outside of columns / rows and gutters. You can think of them as gutters outside of the grid. While they can be set to 0, setting them to a higher value will result in more white space on the edges of your design.



It's important to get margins right. Using margins that are too low can make your design look worse because of less white space.

Modules

The area at which a column and a row intersect is called a module.



Why it's important to use grids?

All this theory behind grids can become complicated, so I think it's good to let you know why grids are important and why it's worth to take the time and master them.

1. Grids give structure and clarity to your designs

If you will just start placing elements on the screen randomly, you will quickly end up with unorganized mess. By applying and following a grid you can be sure that all elements are aligned.

2. Grids make the digital product easier to use

As you will learn from the part about layouts, elements that are closer to each other naturally seem more related than elements that are far from each other. Using a grid will help you create hierarchy inside your designs.

3. Grids make collaboration much easier

A grid system can be treated as a plan for where to place elements. This way, team collaboration is a whole lot easier. When the whole team understands where to and where not to place elements, designs will be more consistent.

4. A grid makes the design responsive

People use apps and products on a variety of different devices, ranging from small phones to large TV screens, and that's why

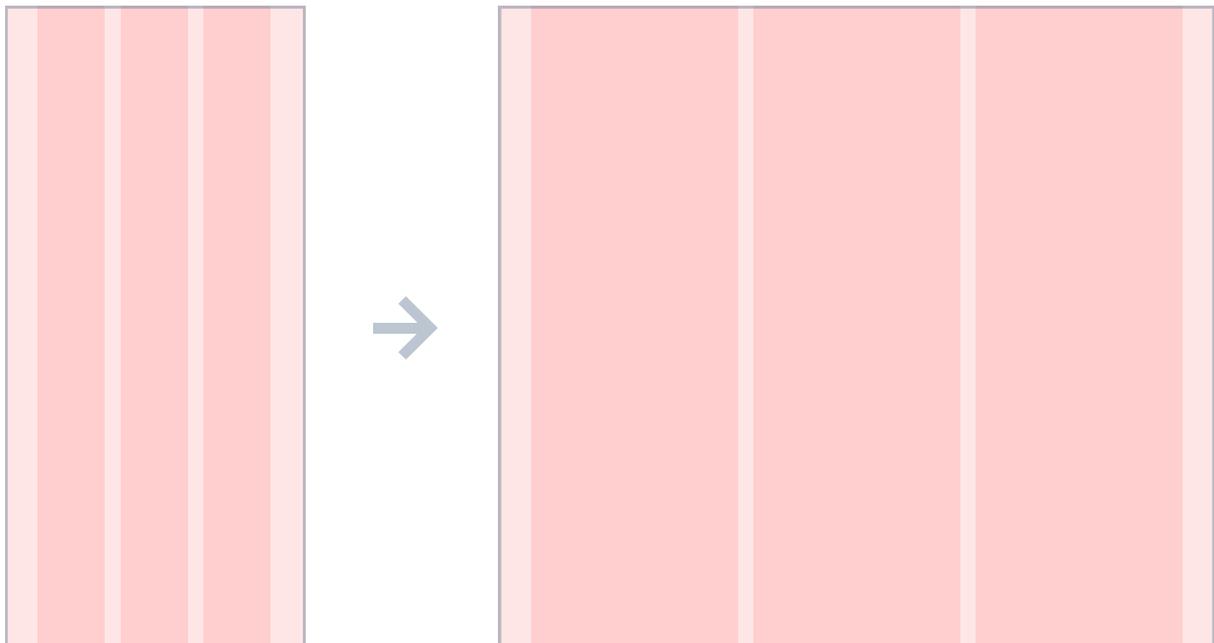
your UI Design should be responsive. Well, grids make it a lot easier. It takes some guesswork out of deciding how elements should behave when the screen gets smaller or bigger.

Grid types

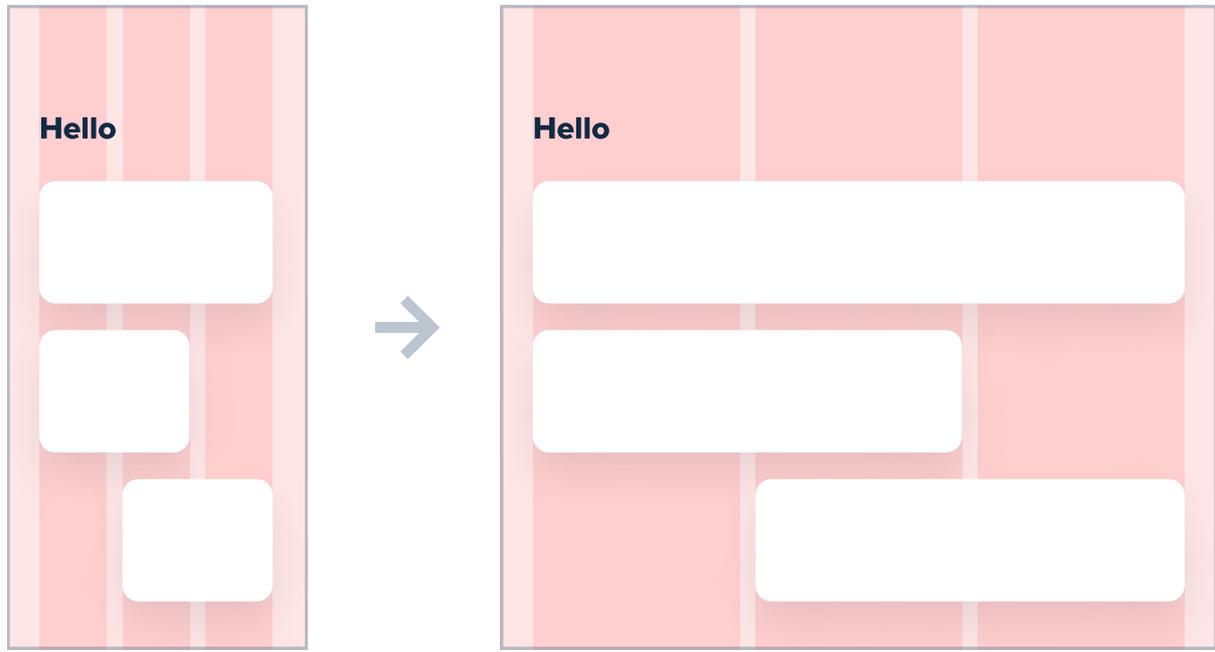
There aren't many types of grids in UI Design, but there's also no one type that's universal. That's why it's good to understand the ones that designers use most frequently.

1. Fluid grid

In a fluid grid, column width changes based on screen width, while margin and gutter widths are fixed. This type of grid is perfect for designing responsive interfaces, as the size of the content changes based on screen size.



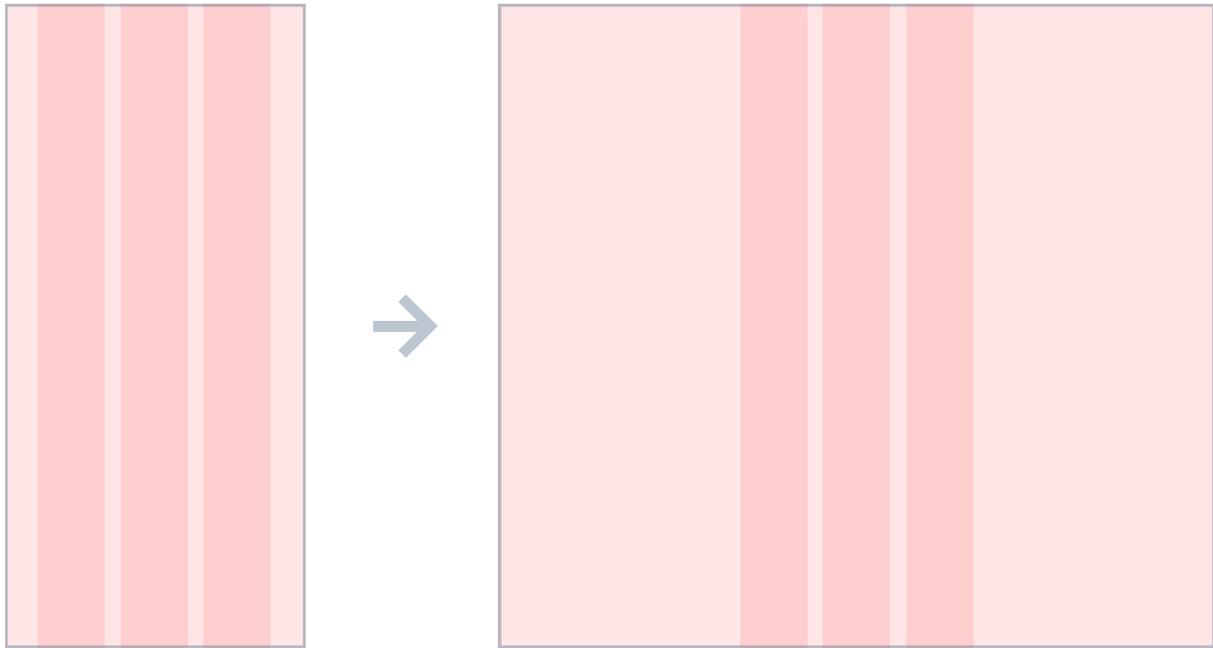
as you can see on the example above, gutters and margins are exactly the same regardless of the screen size. Let's see how this looks when we use some objects:



As you can see, the width of objects changes based on screen size, but their margins from screen edges stay the same. Fluid grids are frequently used, mostly because now we use digital products from many different devices.

2. Fixed grid

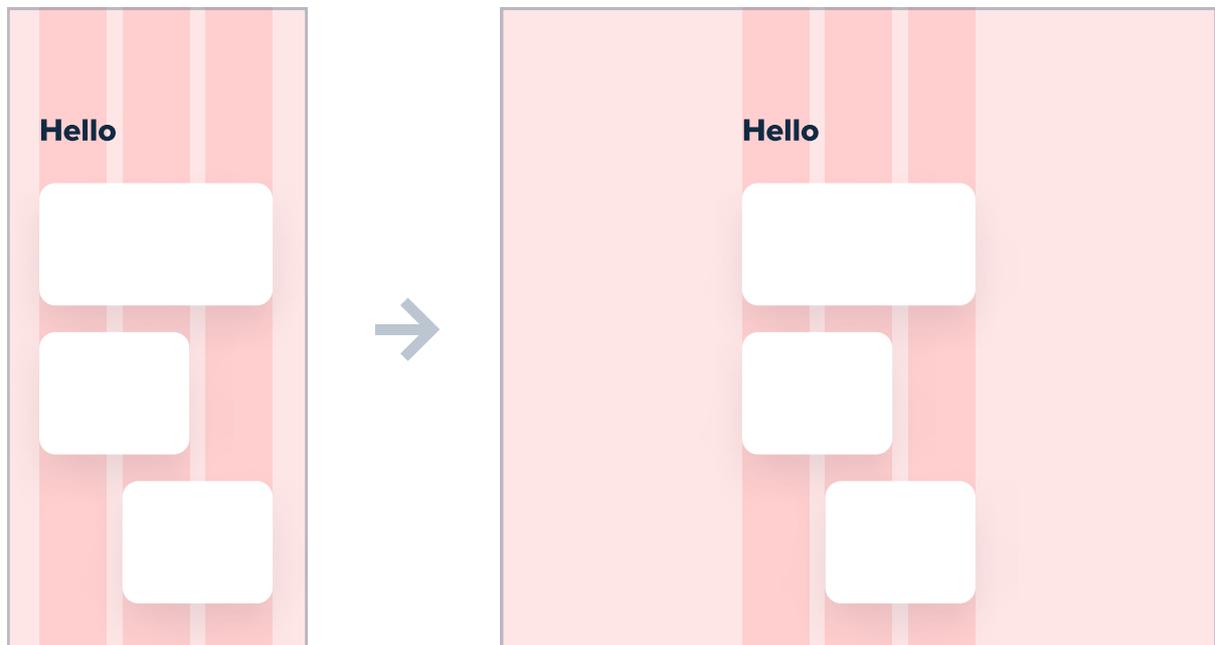
A fixed grid has a fixed value of columns and gutters, with margin width that changes based on screen width.



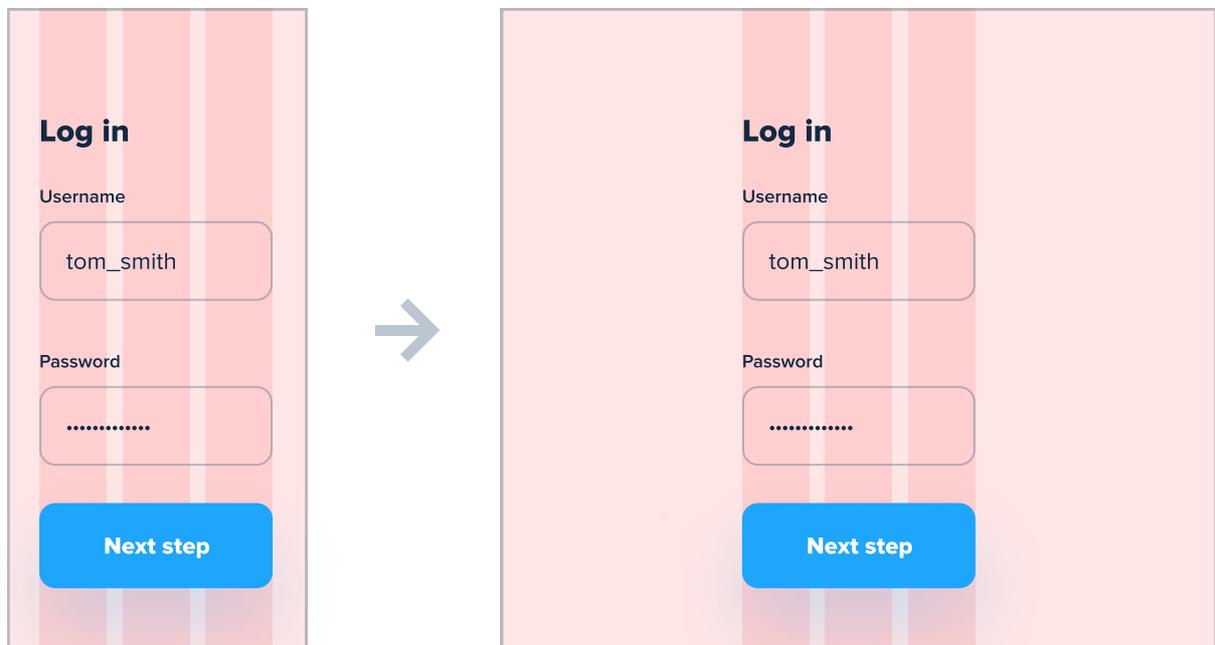
Because columns and gutters have set values that do not change based on screen size, fixed grids work best for content that is not supposed to look different on different screens, but rather stay the same.

While it might seem that fixed grids are used rarely because the content placed based on them will not be responsive, they are actually used quite frequently, for example for forms or articles. Stretching this type of content does not make much sense, so it's better to use a fixed grid for them. On the next page you will see a few examples.

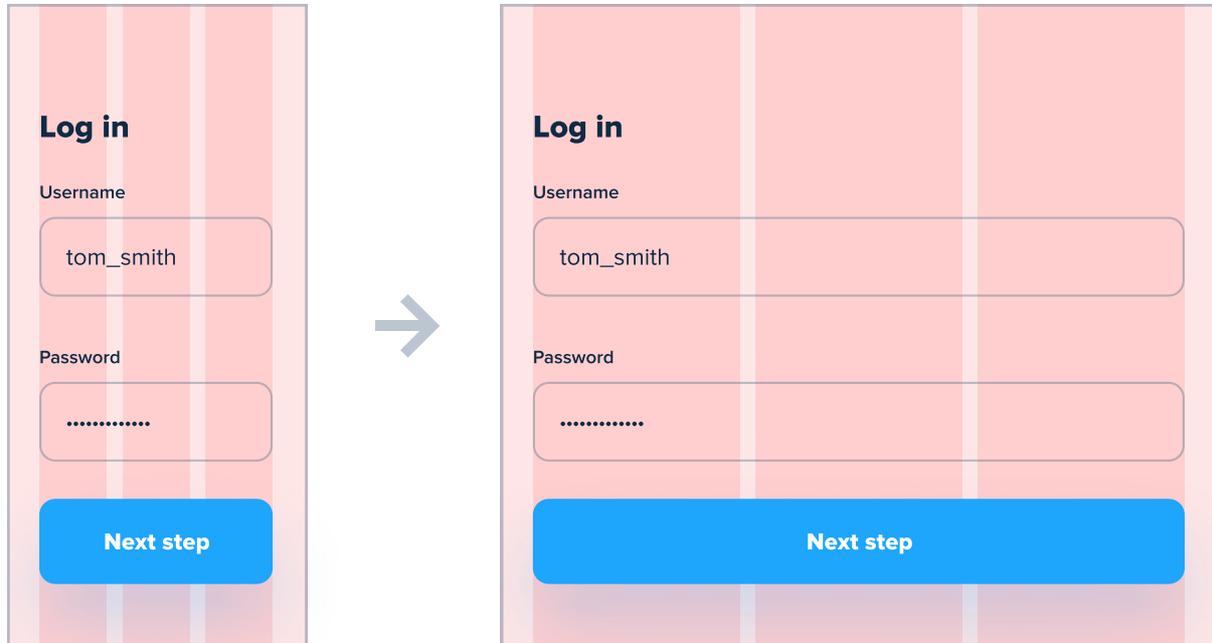
Here's how a fixed grid behaves:



And here's how it looks for a simple Log in form:



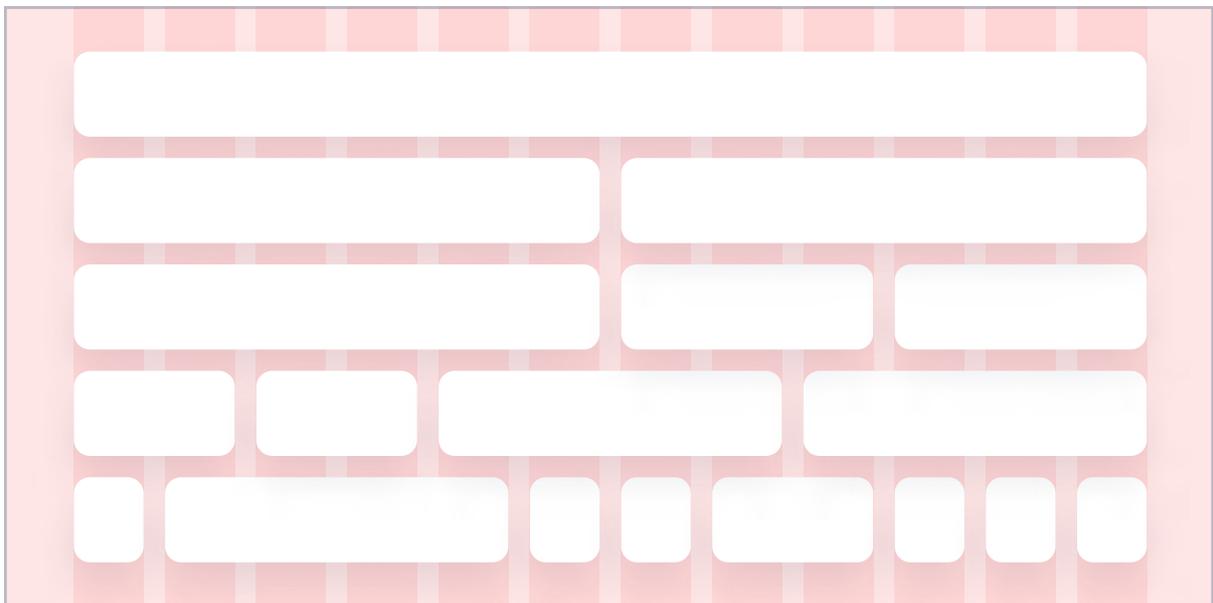
A lot of empty space on the edges for the desktop version, right? Well, let's see how it would look with a fluid grid:



This rectangle on the right looks quite small in this book, but just try to imagine how wide this form would be on your monitor if it was based on a fluid grid! It's less readable, and that's why we usually use fixed grid for forms.

How to build a column grid?

The first question you have to ask yourself whenever you start building a new grid is: “How many columns should it have?” The most common and safe approach is to use a 12-column grid. This way, the grid is divisible by many small numbers such as 12, 6, 4, 3, 2 and 1 - because of that, you’ll have a lot of flexibility over layout.



Above you can see an example of a 12-column grid. While it is the most popular one in web design, it’s not going to fit every single design. Not every design needs a 12-column grid. Sometimes, 8 columns will be enough. Just remember not to use values like 5, 7 or 11 for your column amounts - these values are divisible only by themselves, so you won’t be able to end up with evenly sized columns. In order to determine how many columns you will need, sketch out the layout of your screen on paper to get an idea of the complexity of your page. If you’re unsure, just start with 12 columns.

After you decided how many columns you are going to use, there are a few things left needed to build our grid. We're going to use some math here but don't worry - it's at a very basic level.

1. Find the width of your screen

First, find the width of your screen. Let's use 1440 as an example.

2. Set up your gutter and margin width

Remember that the smaller the width of gutters, the tighter the content of the screen. While there are no specific rules for that, I usually use 12pt, 14pt or 16pt for gutters and 160pt or 180pt for margins (this applies to web interfaces). For this example, I am going to use 20pt for gutters and 160pt for margins.

3. Find the number of gutters

This is easy. If you have 12 columns, you'll have 11 gutters. If 8 columns - you'll have 7 gutters etc.

4. Subtract total width of gutters and margins from screen width

$$1440 - (11*20) - (2*160) = 900$$

5. Divide the result by the number of columns

The final step is the easiest one - just divide the result that you got from step 4 by the number of columns in your grid. In this case, I went with 12.

$$900 / 12 = 75$$

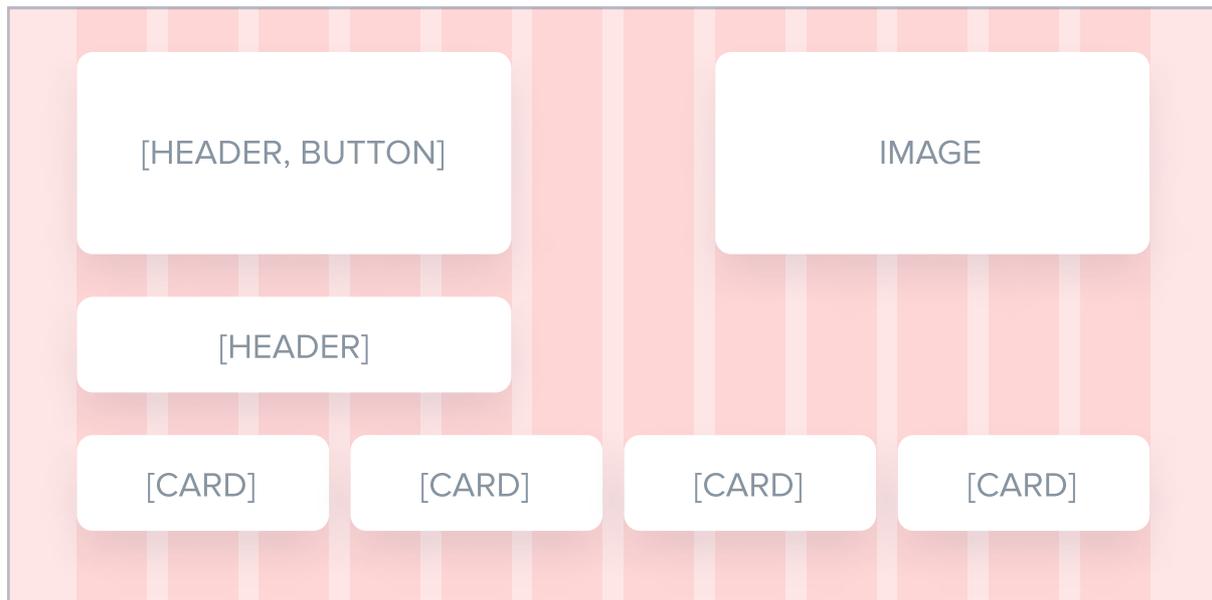
And that's it. Now you have all values you need to build your column grid. Sometimes the last result may come out as a non-integer - in that case, round that value up to the nearest full number. Most design tools will only need you to enter the number of columns, margin and gutter widths. Speaking of design tools - as the last step, just enter the values that we determined during this process to see the final result. This is how it looks in Figma:



Some design tools will have the option “Stretch” for the grid type, like in Figma. When this is selected, your design tool will automatically set the width of columns based on screen width. There are also other options such as “Center” in which you’ll have to enter column width yourself, but don’t worry - we calculated that.

My final tip for building your column grids

Always try out different options. Just take a piece of paper and sketch out your design roughly. Maybe you’ll realise that margins should be bigger or that you need more columns? Before you start working on the high-fidelity design it’s great to create very rough wireframes, either on paper or in your design tool, like this:



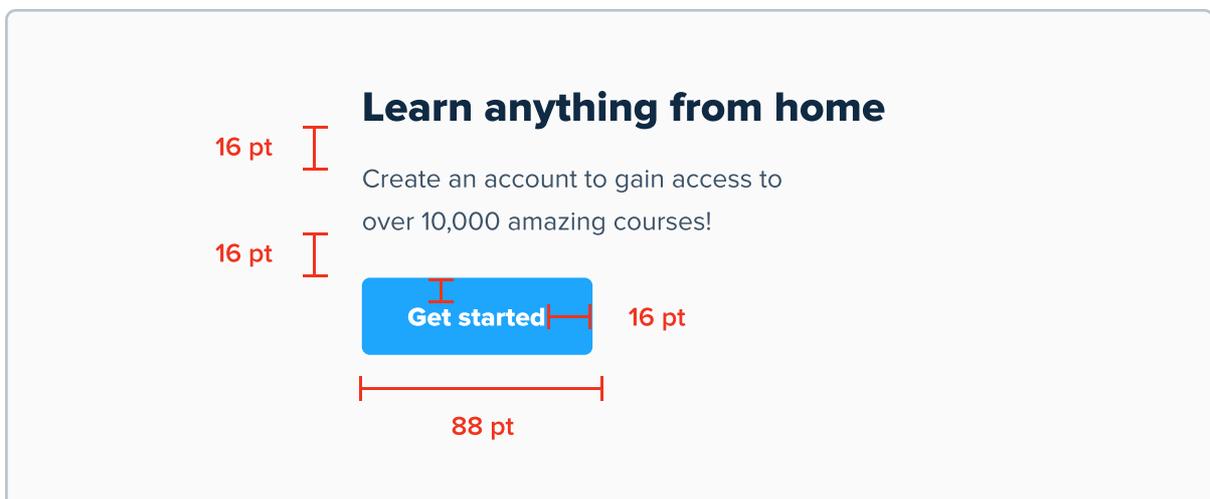
Creating rough content layouts like this one takes a few minutes or less, but it can give you a lot of clarity when it comes to deciding which grid to use.

8pt grid

While fluid and fixed column grids are a great way to organize content at a large scale, for example placing groups of elements and components inside each section, we also need a grid to design individual components, like cards or buttons. This is where the 8pt grid comes in.

What's an 8pt grid?

The 8pt grid system is based on the idea that you use multiples of 8, like 8, 16, 24, 32 etc. to set margins, padding, and sometimes dimensions of elements in UI Design. Most screen sizes are divisible by 8. That's why this system is used very frequently.



While this might sound hard at first, it's really not. Also, I think it's really worth doing. It will ensure consistent spacings and sizings in your UI Designs. If you decide to go with the 8pt grid, you have two different approaches - Hard grid or Soft grid.

Hard grid vs Soft grid

If you decide to go with the 8pt grid in your UI Design (which I highly recommend), you'll have to pick between a hard and a soft grid. Here are the differences between them.

Hard grid

In a hard grid, the dimensions and spacing between all elements is 8pt and its increments. In a hard grid, the content in your UI Design is going to snap to the grid in 8pt increments. Designing with this type of grid is hard, so I prefer the soft grid. More on that below.

Soft grid

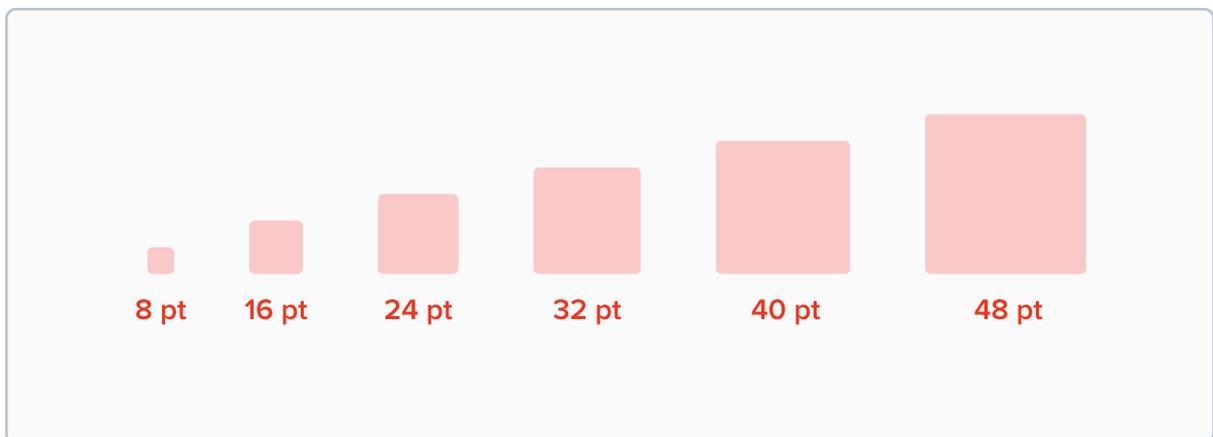
In a soft grid, elements don't have to be sized at 8pt and its increments. If you decide to go with a soft grid, you'll just have to measure 8pt or its increments (like 16, 24, 32 etc.) to space out elements. This way they will still be consistently spaced out (and responsive), but it's not as rigid as when it comes to hard grids.

When to use which?

It's rare for designers to end up using both of these grid types in the same UI Design - you either use the first or the second one. Me - and many more designers - prefer the soft grid, because you still get all the benefits of using a layout grid, and it's truly easier to design with it then with a hard grid, which is less flexible.

Creating a soft grid

Creating a soft grid should always begin by choosing the base value. For the 8pt grid that I mentioned above, it's obviously 8 points. However, for mobile designs 8 points is a lot, so I'm a fan of using a 4pt grid, in which you essentially have twice as many spacing options. Regardless of which one you choose, you should then create multiples of it. Here's an example:

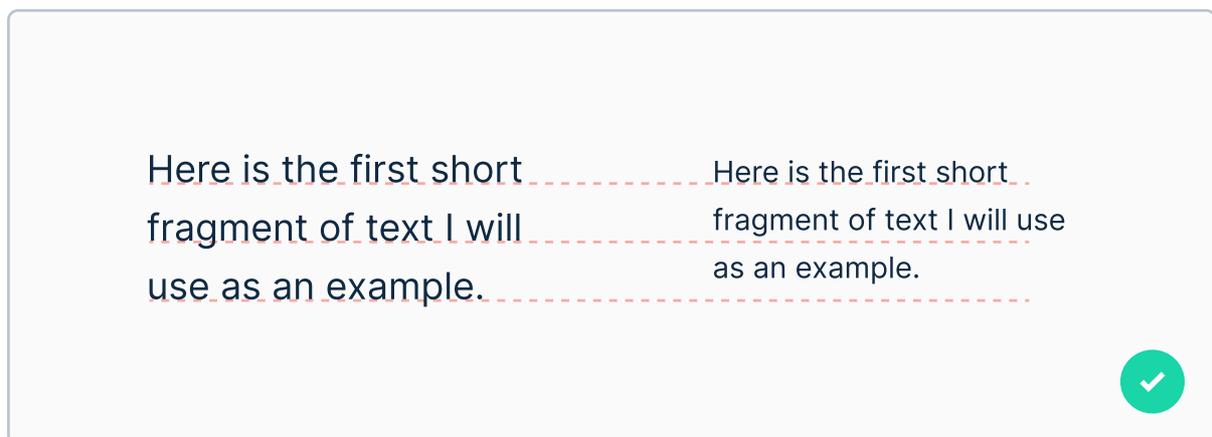
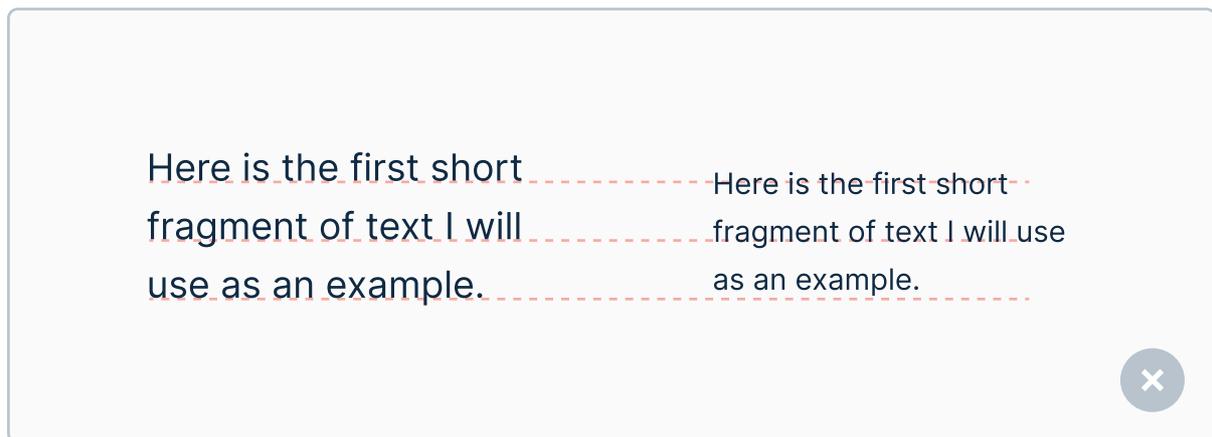


And that can go on to even higher numbers. After you have a spacing scale like that, you're pretty much done. Now every single element you place in your UI Design should be spaced out by a value from the spacing scale. This is extremely useful when designing components such as cards or buttons.

If you realize that you frequently need a value from in between two values, it might be a good idea to change the base value. While the idea of setting up a spacing scale like that is limiting, it in fact makes your designs much more consistent and saves time.

What about text?

When it comes to text, you should align it based on its baseline, or the “invisible” line on which its placed. This way, regardless of the font size your text is aligned properly.



In many places in your design you will have to align two pieces of text with each other. When that happens, align them based on the baseline of their first lines of text. Those pieces can frequently have different line heights, so aligning them based on the baseline of their first line works well.

Grids on mobile devices

Smartphones have screens that are way smaller in width than bigger, dekstop screens, so using a column grid is quite rare when designing for mobile devices. Instead of using it, you will just need to do two simple steps to set up a grid for mobile. Here they are:

1. Set margins

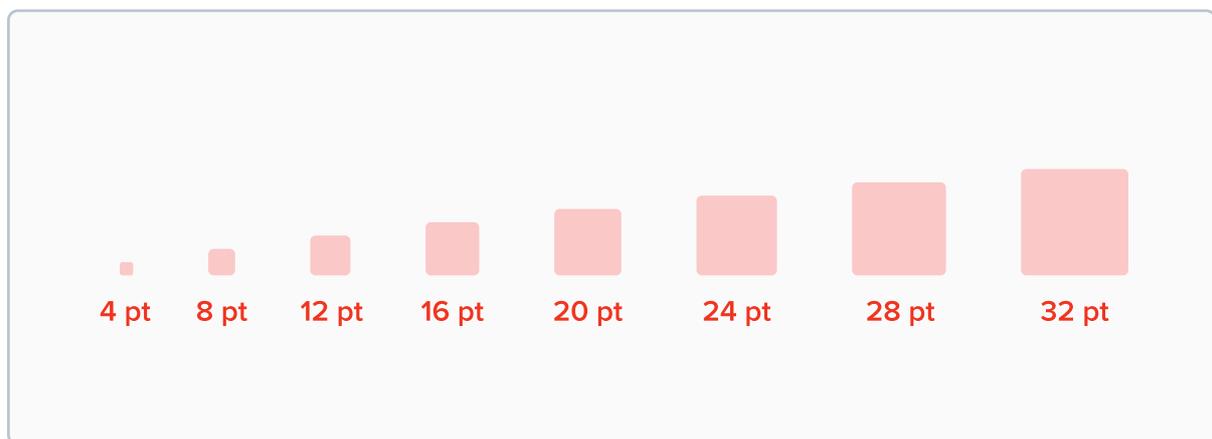
The first thing you should do to set up a layout for a mobile device is to set margins. I recommend using either 20pt or 24pt. Using larger values might look better, but it's a sacrifice to precious screen space.



These areas are also known as “safe space”. Essentially, these are areas that are completely free of any content.

2. Set a base value for the soft grid

After you set up your margins, pick a base value that you’re going to use for your soft grid. While using 8pt works well for larger screens, for mobile devices I recommend starting with 4pt. Then, we build the spacing scale based on this value. Here’s an example:



An this goes on to even higher values. Now, when working with mobile screens you just need to remember two things: never place elements in margin area (the safe space), and space elements out with values from your spacing scale. This simple, two step approach will be way more helpful than setting up a traditional, column / row grid. However, if you still feel like you need help in designing the general layout of a page, feel free to use them. The process of creating them is similar as for web design. However, for mobile design column grids have less columns - usually just 2, sometimes 4.

CHAPTER 04

Typography

Typography is a technique of arranging type to make written language legible, readable and appealing. Many designers believe that “text is just text”, and that it’s not very important. However, to properly communicate the message, certain rules should be followed when using type in UI Design.

Key content

- What is typography?
- The anatomy of type
- Selecting a perfect font, creating a type scale
- Working with type: line height, letter spacing and more
- Aligning text + useful tips and tricks

What is Typography?

Typography is the art and technique of arranging type to make written language legible, readable and appealing when displayed. It's a very broad topic, and pretty much every designer will have to deal with type at one point or another. Fortunately, its principles apply to many other areas such as Graphic Design, and not only UI Design.

Font and Typeface

First, let's understand the terminology, because there's a lot of confusion around that. **A typeface** refers to the collection of related fonts, and **a font** is a specific style existing within that typeface. It might sound confusing, but take a look at the examples below to understand it better.

Roboto is a **typeface**. It's a collection of many styles, such as Roboto Regular, Medium or Bold.

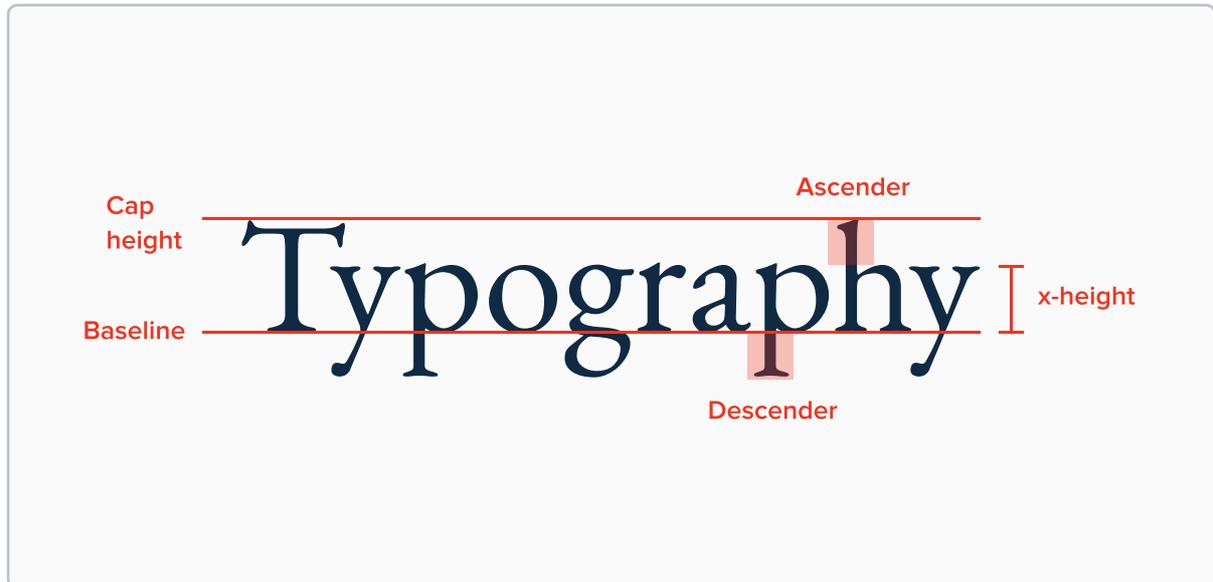
Roboto

Roboto Bold is a **font**. It's only one, particular style which exists within a typeface.

Roboto Bold

Understand type structure

It's important to understand some basic terminology when working with text. This will ensure you understand the rest of this chapter.



Luckily, as a UI Designer you won't be creating your own typefaces. However, you will have to select a typeface that will suit the project you're working on.

Why selecting a good typeface matters?

The typeface you select has a significant impact on your design. Unlike many people might think, the only difference between typefaces is not only how they LOOK. A typeface shouldn't be selected just because you or your client like it. It should be selected if it's designed properly and fits the brand personality.

Know your selection

The most common typeface categories used for UI Design are Serif and Sans Serif typefaces. The latter ones are the default and most common option nowadays. Serif fonts shouldn't be a primary typeface unless it fits brand personality. Script, Calligraphy or Handwritten typefaces are very hard to read and they should (almost) never be used as a primary typeface.

Sans Serif

Sans Serif typefaces are very common nowadays. They should almost always be a good fit.

Serif

Serif typefaces are a good choice for very long chunks of text such as articles on blog pages.

Script

Script typefaces, such as handwritten ones are very hard to read and should be avoided in UI Design.

Pick a readable typeface

Pick a typeface that is easy to read. In other words, pick a typeface that is simple in the way its built. It shouldn't look very fancy.

Remember - written content should be the main focus, and not how pretty the typeface you selected is. It should be simple enough, so it's not distracting.

*Paprika is too fancy
and hard to read*



Inter is simple and
easy to read



Pick a scalable typeface

Pick a typeface that is readable in even in very small sizes, and looks good in very large sizes. If a typeface is too complex to read easily when small, it's not the right fit. Also, if it does not look good in very large sizes, it's also not the right fit.

This is readable

This is readable

This is hard to read



This is readable

This is readable

This is also readable

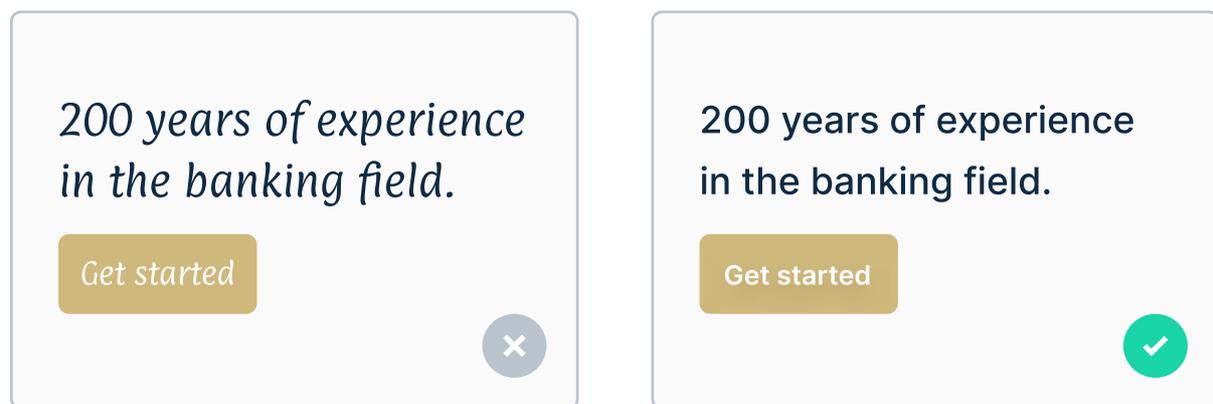


Pick a typeface with a lot of weights

Pick a typeface that has many weights. Some designers and foundries release typefaces with only one or two weights, which won't be enough to build a type scale, which we will talk about in future pages. Anything from 4-5 weights is enough, but obviously the bigger variety of weights the better.

Pick a typeface that reflects brand's personality

That might not be a decision that's up to you, but the client or Brand Designers, but be prepared. Geometric Sans Serif fonts seem to be a trend now, and for good reasons - they're legible and modern. Serif typefaces are being used less and less nowadays in digital product design.



Even though the message is exactly the same, the version on the right instantly seems more professional and trustworthy.

Finally: how many typefaces?

After you found the typeface you think will work perfectly, a new question arises - will it be enough, or should you look for the second one? Fortunately, in most cases one typeface should be enough. It's significantly harder to build a typographic system with two typefaces, so stick with one if possible.

Two typefaces

If you don't have to, don't go with 2 or more typefaces. It's harder to pair and use.



One typeface

If it's possible, stick with just one typeface. It's much easier to pair and use.



Building a type scale - start with the body text size

If we consider readability as our goal while working with type, we can't skip choosing a readable font size. To start, let's select a body text size (base size) - it's a font size of the body text in our design, also used inside of inputs. Here are some good suggestions from Apple and Google (for Android):



Apple suggests at least 16pt font size for the base size



Google suggests at least 17pt font size for the base size

These values apply mostly to mobile interfaces. You can still use lower values for other things, but it's good to stick to at least 16pt for the body copy and input fields. Trying to deliberately decrease font size just to fit more content on the screen is not the right way to go, because readability suffers a lot.

Building a type scale - about ratios

Obviously, just one size isn't enough, so we can use our base size as an entry point and get some more sizes. Maybe you've heard of the Golden Ratio or the Major Third ratio. Many designers use ratios like these to build a consistent type scale quickly and

easily, but that's not really my favorite approach for some reasons. First, let me show you how to create a type scale using the Golden Ratio.

First, select your base text size - for me it will be 16pt.

This text has a size of 16pt.

Next, multiply and divide this size by 1.618.

This text has a size of 10pt.

This text has a size of 16pt.

This text has a size of 26pt.

You received two new sizes. Round the values to the nearest full number.

Maybe you already noticed the problem with this approach - the gap between 16pt and 26pt is very large, and we might need a text size of 18pt, 20pt or 22pt in our design. What happens then? Anyway, let's keep going to create a bigger scale.

Next, divide the smallest size you got and multiply the largest size you got by 1.618 again.

This text has a size of 6pt.

This text has a size of 10pt.

This text has a size of 16pt.

This text has a size of 26pt.

This text has a size...

The biggest flaw with this method is that the gaps between each font size are really, really large. In most UI Designs you will need sizes that are very close to each other - for example 10pt, 12pt, 15pt, 18pt etc., and this method does not provide you with them.

The situation would be quite similar if you went with a different ratio, so I use a different method to create a scale of sizes. It takes a bit more work, but it gives better results.

Create a type scale yourself

The main objective of having a type scale is to have a consistent set of text sizes ready to use. You can easily do it manually.

Again, select your base size - for me it will be 16pt.

This text has a size of 16pt.

Next, create a few new sizes by adding and subtracting 2pt.

This text has a size of 10pt.

This text has a size of 12pt.

This text has a size of 14pt.

This text has a size of 16pt.

This text has a size of 18pt.

This text has a size of 20pt.

I don't expect to use a font size smaller than 10pt, so I don't go below that number. After I have a range from 10pt to 20pt, I can start adding increments of 4pt, because for higher sizes I don't need so much detail.

Next, add a few new sizes by adding 4pt to the highest size until you're happy with the result.

This text has a size of 10pt.

This text has a size of 12pt.

This text has a size of 14pt.

This text has a size of 16pt.

This text has a size of 18pt.

This text has a size of 20pt.

This text has a size of 24pt.

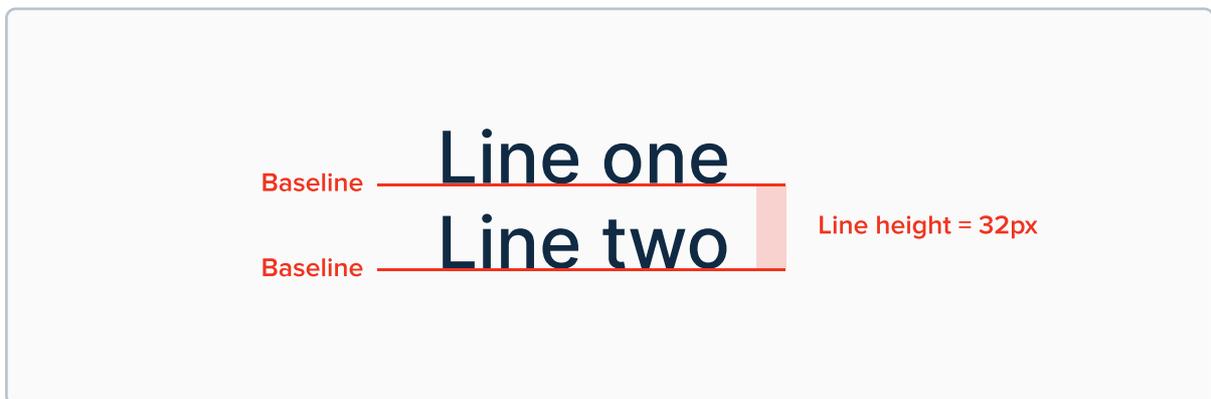
This text has a size of 28pt.

This text has a size of...

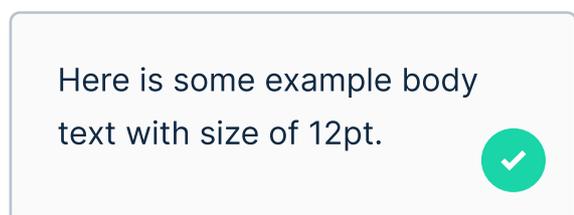
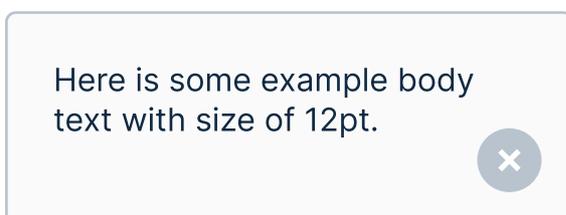
I ended up with a text size of 32pt, which will be great for headers! Anyway, if you need higher sizes, just add 8pt a few times and you're gonna get them. If not, just leave it like this. We've just hand-crafted a consistent type scale ready to use! Now let's focus on improving readability with stuff such as letter spacing and line height.

Use proper line height

Line height is the vertical distance between lines of text. Usually text with higher line height is more readable - that applies especially to body text, not so much to headers. One important thing you should know is that if you're using an even number for text size, you should also use an even number for line length. Otherwise, the vertical distribution of text inside its bounding box will be uneven.



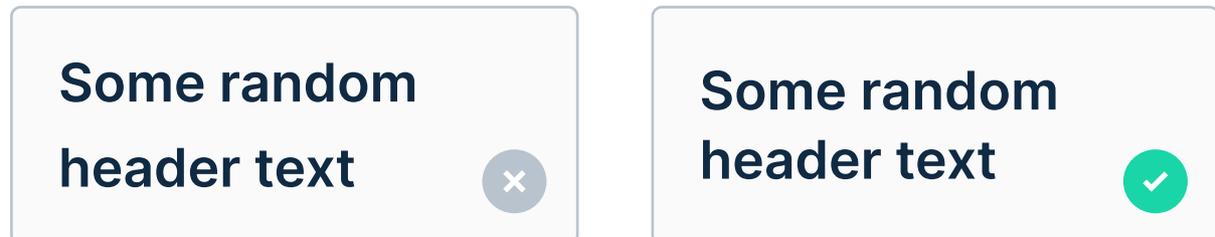
To set up line height easily, multiply the font size by 1.6. After that, round the result to the nearest full number. If the font size is odd, make the line height odd as well. Same applies to when the font size is even. This ensures proper text distribution.



On the left, the line height is 15pt, which is too small. On the right it's 20pt. I created it by multiplying 12pt by 1.6. I got 19.2, so I rounded it to 20pt (closest even number).

Use lower line height ratios for larger text

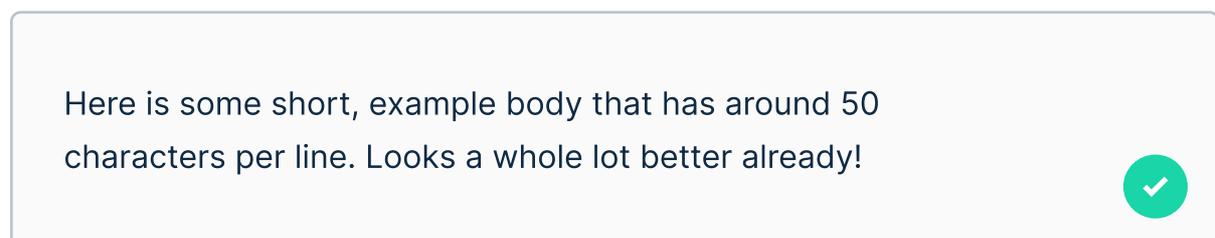
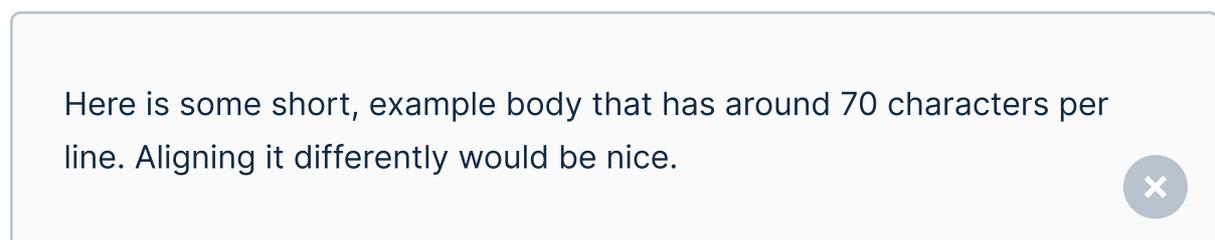
Unfortunately, it's not as easy as multiplying each of our font sizes by 1.6. Take a look at what happens with a header:



For headers with large font sizes you should use smaller ratios. Here for example I used 1.6 on the left which is very high for a header, and on the right I used 1.3 which worked just fine. For even larger sizes like 32pt you can use 1.1, or even just 1.0.

Optimal line length

The optimal line length for your body text is considered to be 50 to 60 words in a line. Using less or more can impact readability.



**“If you don’t control type,
it controls you.”**

The Futur

How to use letter spacing

Letter spacing (also known as tracking) is a consistent change in the spacing between letters in text. It shouldn't be confused with kerning, which refers to changing spacing between a pair of letters, but that's a rather rare thing to do for UI Designers. Proper usage of letter spacing can make the text more readable.



The default value is 0%, and in most cases there's not need to change it. Having letter spacing that is too narrow or too wide can lead to big readability problems, so use it responsibly.



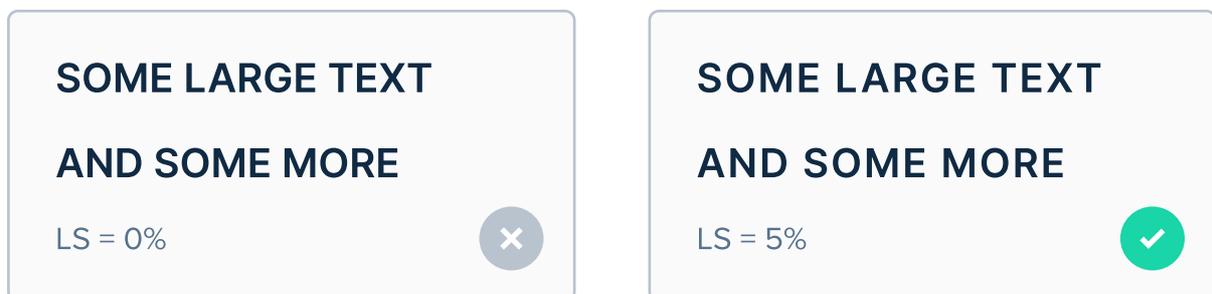
When to change letter spacing

As I mentioned, in most cases you will be fine just leaving the letter spacing alone. However, in some scenarios you can change it. For example, decrease letter spacing for headers:



The approach on the left is not really wrong. It's perfectly fine to be honest, but it's just a small detail that can make your UI Design better.

You can also increase letter spacing for all-caps text. The gaps in text like this are smaller, so you can make it more readable:



Again, these are just very minor tweaks that in most cases you don't have to do. Sticking to the default value - 0% - is just fine.

How to align text

You might have thought that the difference between alignment styles has to do only with how it looks, but that's not true. Text alignment is a cultural thing - the majority of Western countries read left to right, so we use alignment to left. Here's a basic breakdown of when to use which alignment style:

Aligning left is always the safest choice. It's easiest to read for most people.

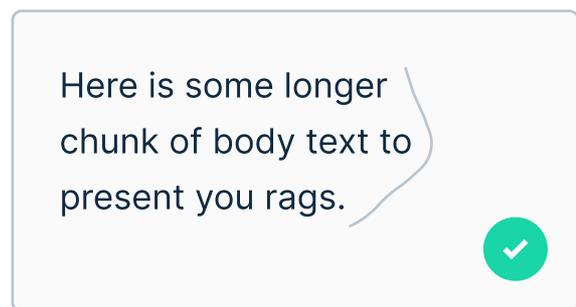
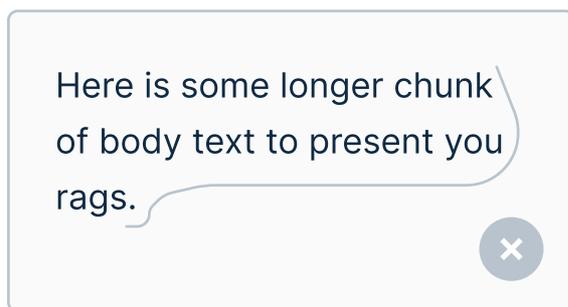
Aligning to center is harder to read. It should be used only for short text.

Aligning right should only be used when cultural reasons suggest so.

Aligning to center might seem tempting because it's symmetrical, but it's actually very hard to read for large chunks of text. This is due to the things that are known as "rags". Turn the page to learn more about them.

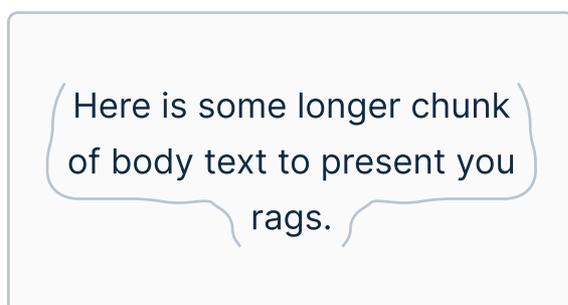
Avoid rags

When one line of text ends with a long word, and next line ends with a short word, we call that a rag. If the rag is big, user's eyes need to do a lot of work to jump from one line of text to the next one. It can become a concern with very long chunks of text, so keep that in mind when designing.



The jump from one line to another on the left side is very big, and it should be avoided whenever possible. It's especially true for long chunks of text.

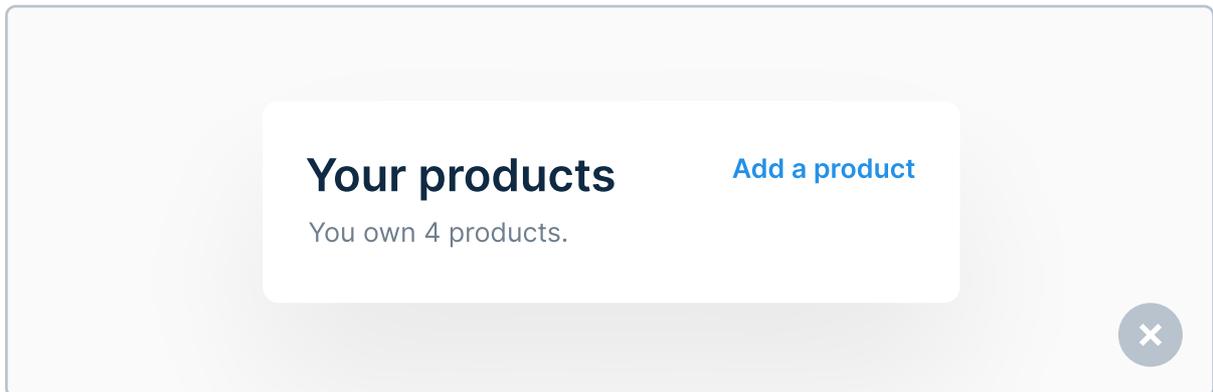
Obviously, you don't control every single piece of text. If you're designing a blog platform, you won't be able to control the rags inside of every article, but it's fine. Here's another example showing why centered text is harder to read:



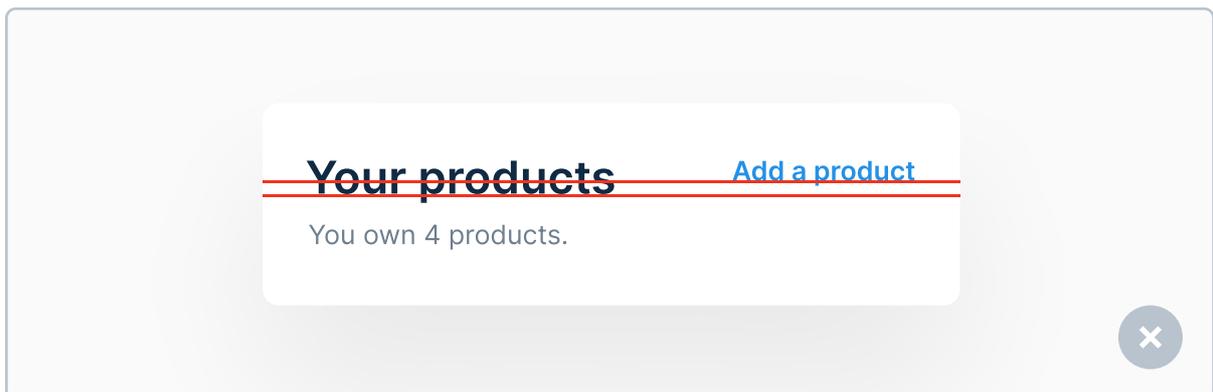
Centered text has rags on both sides, so for longer texts it can become hard to read.

Align different text sizes to the baseline

When you align something with a line of text, align it with its baseline, and not with the center. It might seem counter-intuitive NOT to align with the center, but take a look at this example:

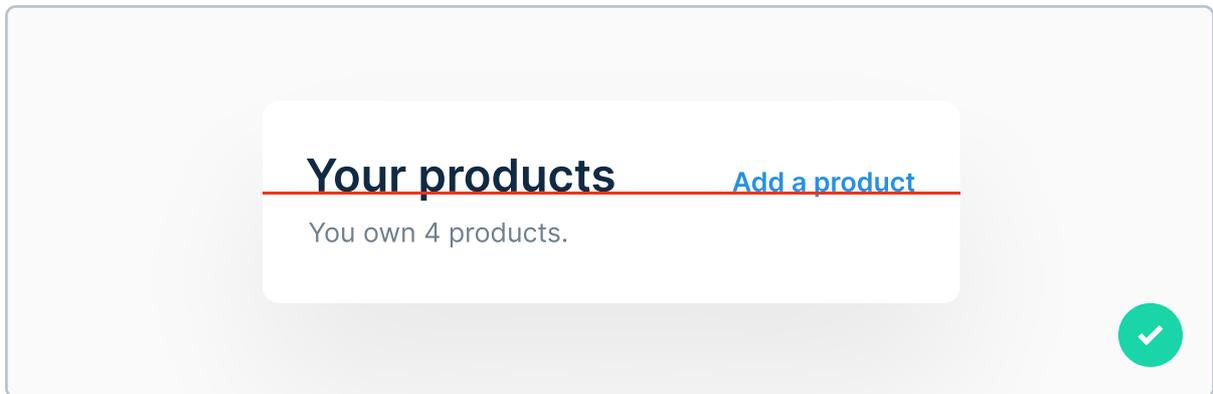


It might not look that bad now but if you add a baselines to these two text lines, you will see that they are completely misaligned.

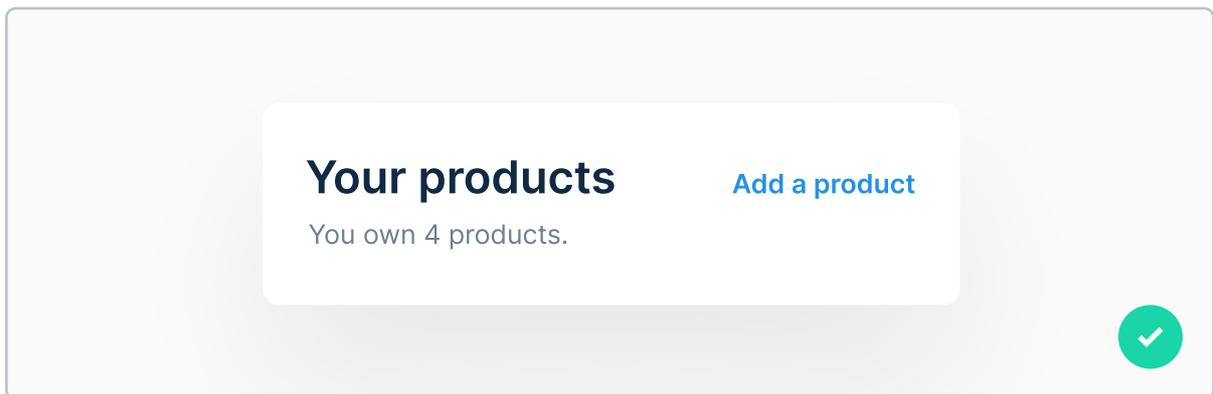


It's a minor detail that might even get lost, but details like these truly make a difference.

It makes more sense to align them on one baseline, like this:

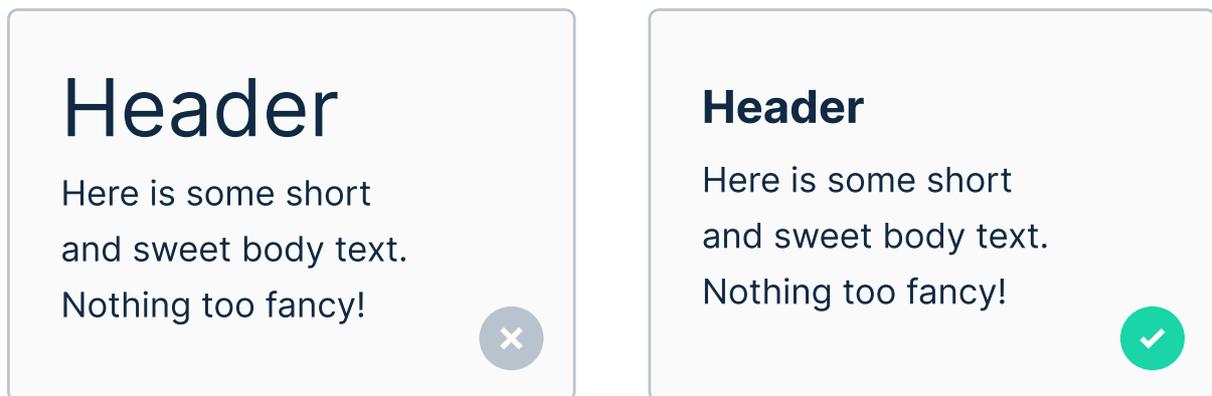


After removing the baselines, it instantly looks better:



Use font weights to establish hierarchy

A few pages ago we've created a type scale together. However, size is not the only way to establish hierarchy within our designs. We naturally want the users to focus on the important content first, so apart from size we can use weight to achieve it.



On the left side there's a large header, but both header and body text have a weight of regular. We can replace that with having a smaller, bold header.

The example on the left is not necessarily “wrong”. The user will read the header first, then the body text, just like we want. However, we can do the same thing and take less space on the screen by just using a higher weight, such as Bold or SemiBold.

You can also apply weights on the type scale we've created a few pages ago. As you probably guess, larger font sizes will have higher weights, and smaller font sizes - smaller weights.

Here's an example of how this could look like:

This text has a size of 12pt.	Regular
This text has a size of 14pt.	Regular
This text has a size of 16pt.	Medium
This text has a size of 18pt.	SemiBold
This text has a size of 20pt.	Bold

Also, don't be tempted to use Light weights for small text. It might make a lot of sense, but in fact it's just making it very hard to read. If you want, you can experiment with it for larger sizes.

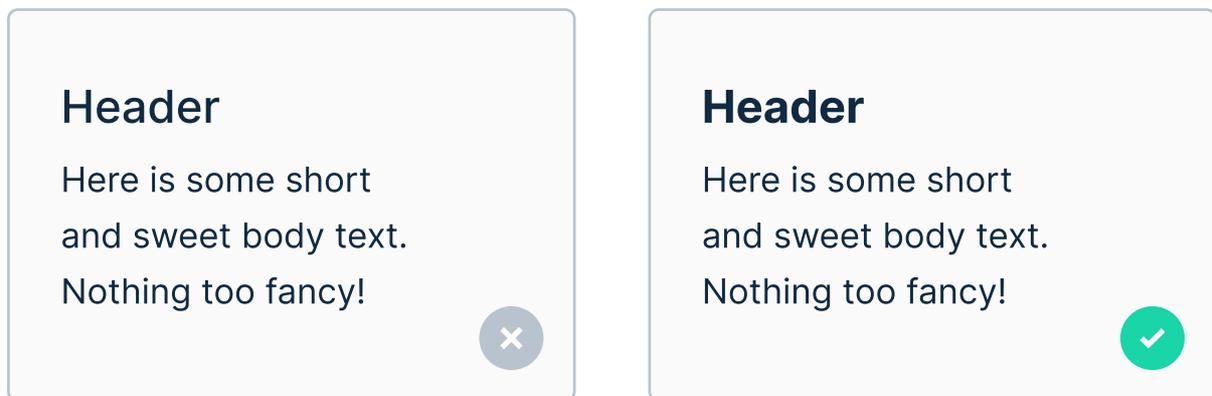
Small text with Light weight is very hard to read. 

So it's better to stick with at least Regular. 

It's best to define font sizes and weights before starting the project. This way you won't have to wonder if you should go with Medium or SemiBold, 24pt or 28pt etc.

When pairing, skip a weight or two

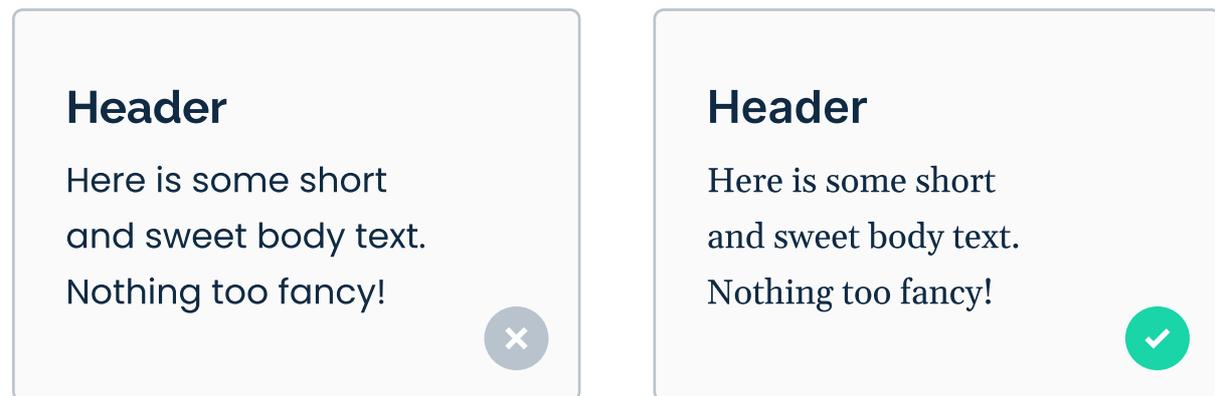
When you pair a header with body text, skip a weight to maintain proper contrast between them, so for example: use Regular weight for body text, skip Medium and SemiBold weights and use bold weight for header. If you use Medium for body text - skip SemiBold and Bold and use ExtraBold for header. Here's an example:



The pair on the left is Medium + Regular, which don't have enough contrast between each other. On the right we have Bold + Regular, which works well.

Avoid pairing typefaces that are very similar

When you want to pair two different typefaces with each other, make sure they're not very similar to each other. This will result in an inconsistent look and lack of contrast. Either use just one typeface, or use two that are different from each other.



The pair on the left is Raleway + Poppins, which are very similar. This does not look very consistent. On the right we have Inter + Gelasio.

I know I'm repeating myself, but seriously - try to stick with just one typeface. They're way easier to pair, and you don't need to worry when to use the first typeface or the second one.

If you need to go with both for some reason, at least pick two that are different from each other.

Color

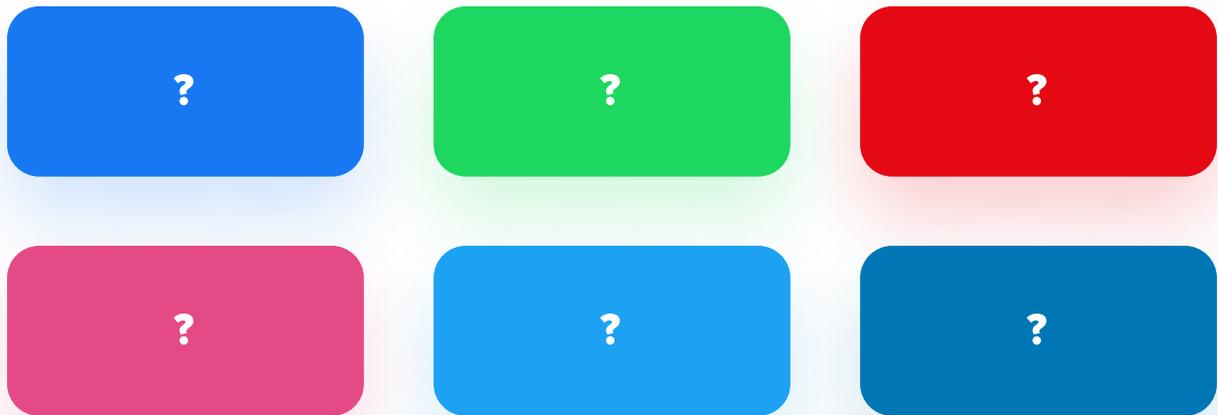
Proper usage of color is one of the most important aspect in UI Design. In the Introduction, I've mentioned that User Experience is based all around emotions - positive or negative ones. Using color is one of the most effective ways to evoke certain emotions in the user. Even though the choice behind colors in UI Design are often influenced by the work of Brand Designers, it's crucial you understand what colors mean and how to use them properly.

Key content

- Basic color terminology: hue, saturation, lightness and more
- Color psychology - meaning behind each color
- Pairing colors using the color wheel
- Creating a large color palette from scratch
- Applying colors and accessibility

Before we start let's do a short exercise:

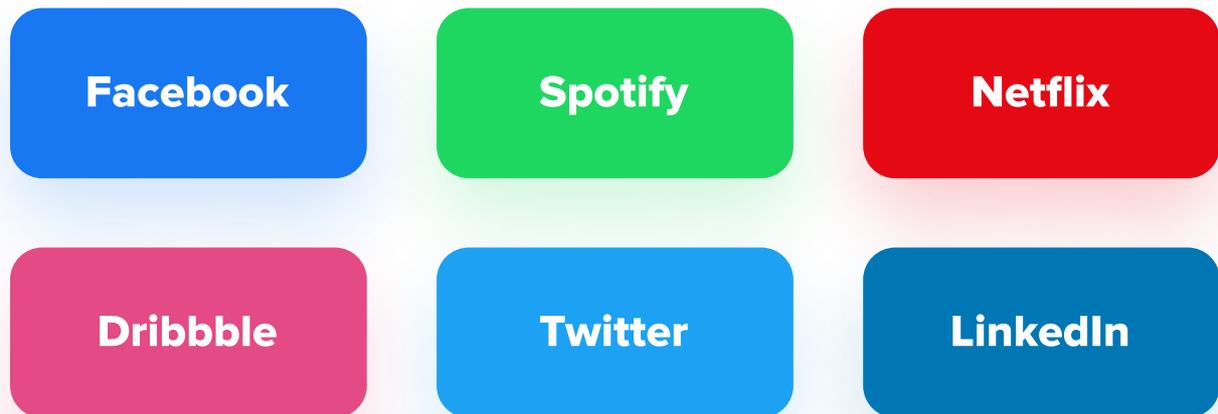
Let's begin this chapter a little differently. Can you recognize for which brand each one of these colors stand for?



Try to guess! These are big and popular brands. On the next page you can see the answers.

Here are the answers:

Below you can see the answers. How many have you guessed correctly? I hope it wasn't too hard!



Chances are, you got at least a few correctly - these are big, well-established brands that all highly depend on how memorable their colors are. You didn't even have to know their names, hear what they do or see their websites - you can recognize them by their color. This is how powerful color is.

Each color stands for something. It has a meaning behind it. I can guarantee you that CEOs of these companies didn't just go "OH! I LIKE THIS COLOR, LET'S USE IT!". There's data behind it. In this chapter I will help you choose colors for your projects and create beautiful, consistent color palettes.

Understand the terminology

We can't have a conversation about color if we don't set our definitions first. Below you can see some of the most important definitions in the world of color.

Hue

Hue is just another word for color.



These are all different colors - different hues.

Saturation

Saturation is a range from pure color (100%) to gray (0%).



This is all the same hue - just with different saturation values. On the very right side the saturation is 0%, so it's just pure gray.

Lightness

Lightness defines how bright the color is, from black to white.



These all have the same Hue and Saturation values, but they have different Lightness.

Shade

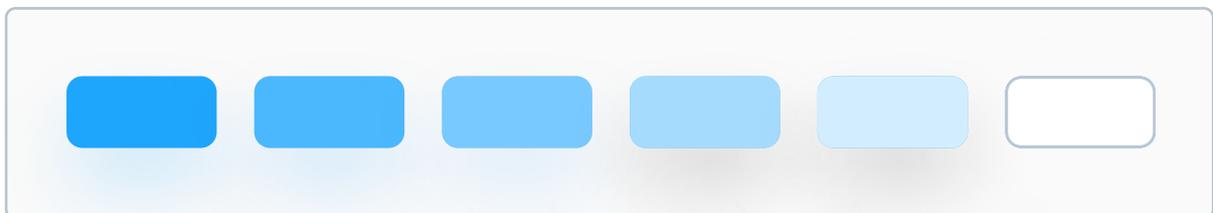
Shade is a color created when black is added to a hue.



An easy way to create a shade is to reduce the Lightness value of a color.

Tint

Tint is a color created when white is added to a hue.



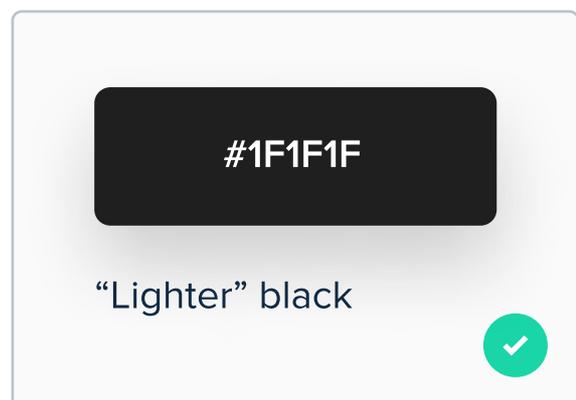
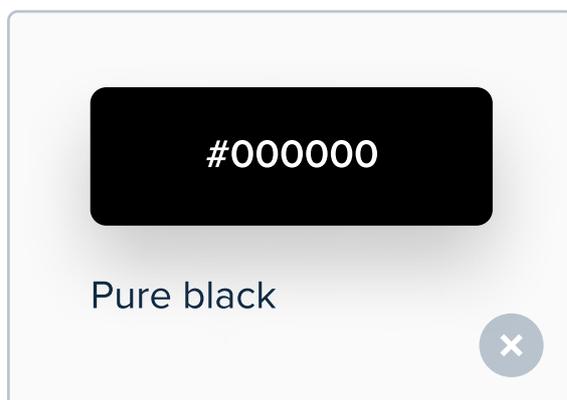
An easy way to create a tint is to increase the Lightness value of a color.

The most important colors

I want to dive into many different colors in detail in this chapter, but first I want to talk about two most important colors out there - black and white.



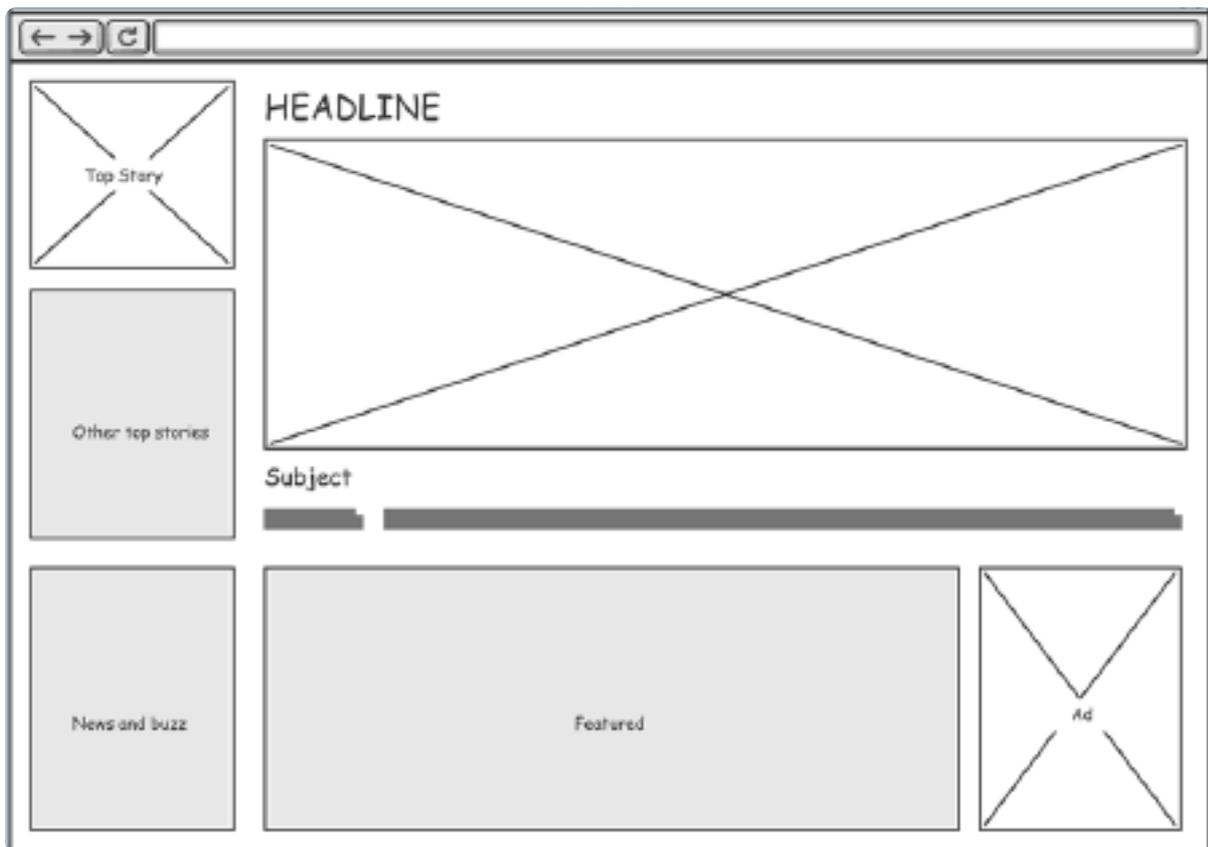
In fact, not even black and white, but also their tints and shades. Pure black (#000000) is rarely used in UI Design because of its very high contrast which can be bad for the eyes, but anyway. These two are the colors you will use most frequently - usually black for text and white for the background. They may not be very exciting, but using them properly is crucial.



Pure black is the darkest color out there - it can cause too much contrast between itself and the background, so it should almost never be used in UI Design.

Before using other colors, start with black and white

Chances are that you've heard of wireframing. It's essentially a technique which refers to designing a website or an app at a structural level. It's a stage which is (or at least should be) always done before creating real UI Designs.

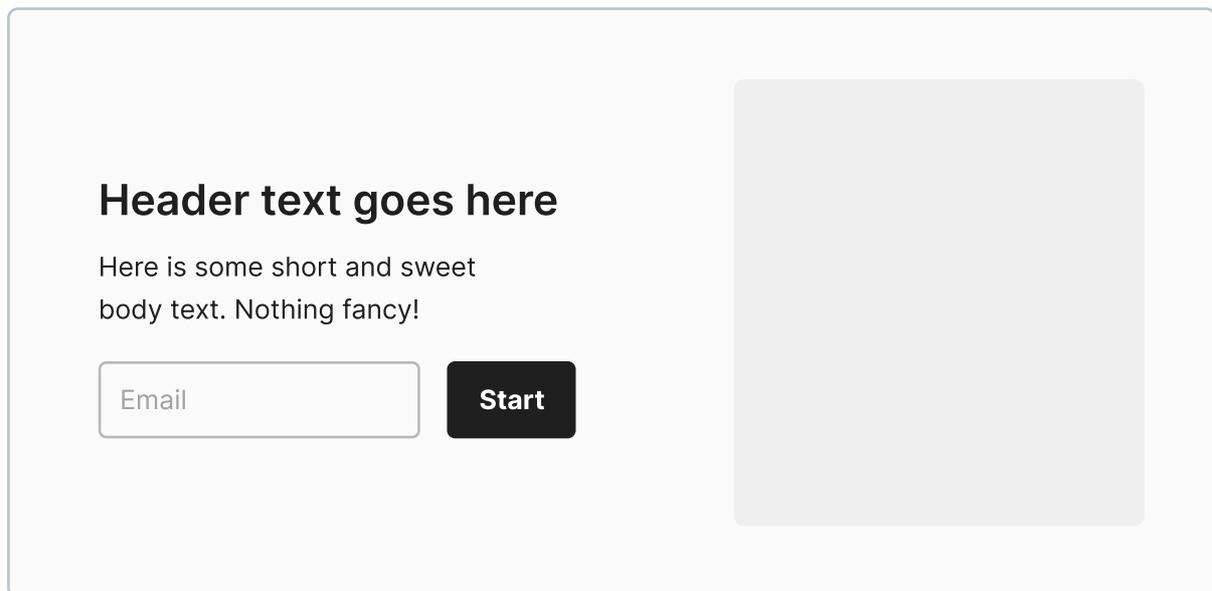


Example wireframe. Source: archimetric.com

Above you can see an example of a web wireframe. Notice that it doesn't have any colors apart from white, some shades of gray and black. This is exactly what you should do before applying color - start with white, black and optionally gray.

We'll start with black and white, and then apply color

Let's make a very basic part of a landing page together using black and white. After that, we'll dive deep into color psychology and apply some colors together, but for now starting with black and white should be enough.



As you can see, it clearly lacks some color, so in the next pages you'll learn which we should apply and for what purposes. On the right side we'll also put an illustration.

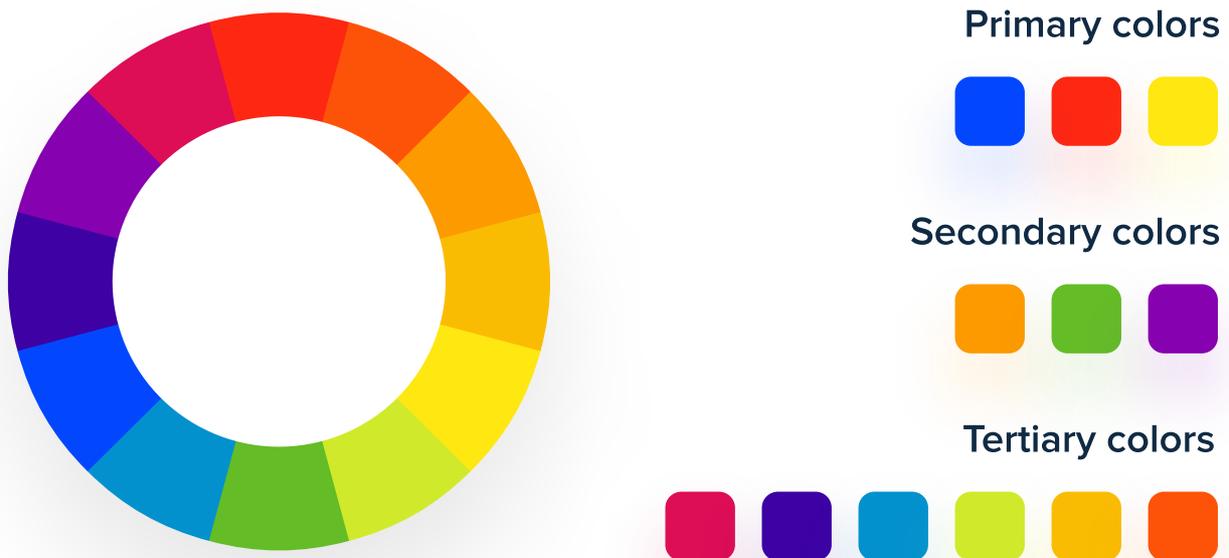
You can notice that there are also some elements that we haven't talked about yet, such as an input field, a button or an illustration, but don't worry. They're very basic at this level.

How to select colors - color psychology

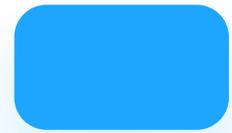
Color psychology is a study of how colors determine human emotions and behaviors. Unlike many people might think, selection of colors for UI Design is not only a matter of personal preference. Each color evokes emotions in the user, so it should be used wisely and based on research, and not on personal preferences of you or your client.

Meet the color wheel

To explain color psychology, let me present you the color wheel. It contains 3 primary colors, 3 secondary colors and 6 tertiary colors. I'll focus only on the primary and secondary ones. If you're interested, you can find a lot more details about color psychology for tertiary colors online.



Blue



The world's favorite color

Blue was proven to be the favorite color of most people. It's also the most commonly used color in digital product design (apart from black and white of course) due to its likeability.

Stands for: calmness, peacefulness, security, tranquility, trust.

Best for: social platforms (for example Facebook, Twitter, LinkedIn).

Negative sides: the most popular color out there. Can be hard to stand out as a brand.

A landing page for 'Investing for millennials'. On the left, there is a heading 'Investing for millennials', a sub-heading 'Everyone can invest! We help young people start their investing journey.', an input field labeled 'Email', and a blue 'Start' button. On the right, there is an illustration of a woman with long black hair and sunglasses, wearing a blue polka-dot top and a black skirt. She is holding a stack of blue banknotes. Surrounding her are various financial symbols: a blue money bag with a dollar sign, stacks of blue coins, and floating dollar signs and banknotes. The background is light gray with faint outlines of office equipment like a lamp and a printer.

Blue is an excellent choice for any brand that wants to promote trust.

Red



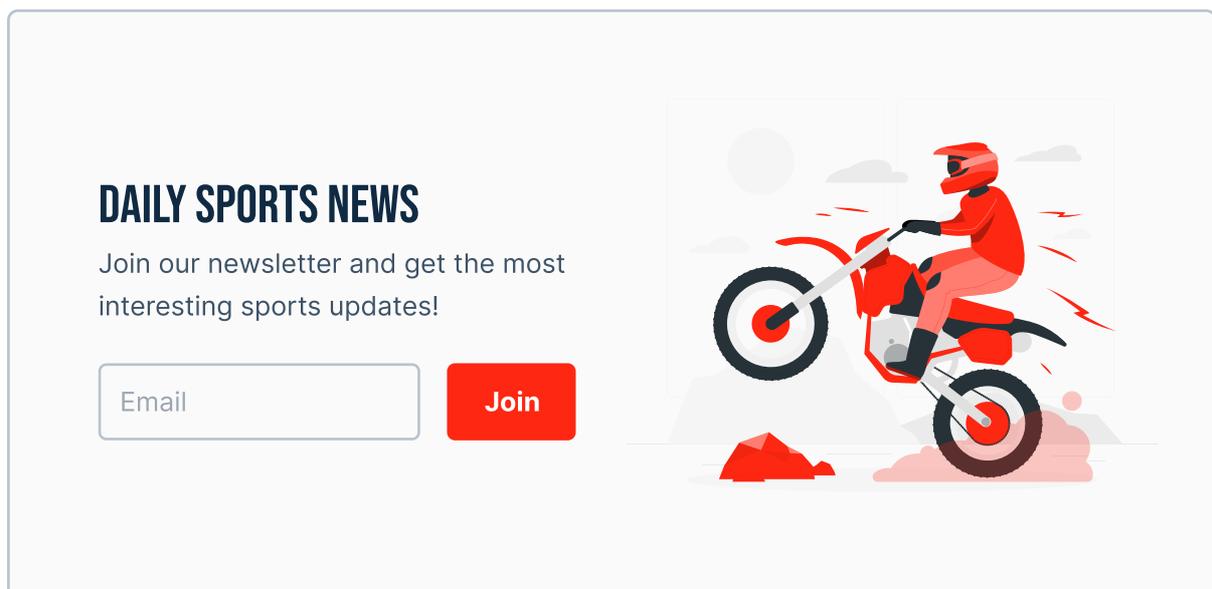
The energetic color

Red has a long wavelength, and therefore it's one of the most visible colors. It quickly catches attention - this is why it's often used for warning signs.

Stands for: excitement, energy, negativity, danger, aggression.

Best for: sports, cinema, energy-related products (Red Bull, Netflix, YouTube).

Negative sides: due to its visibility, red is often used for warnings. It's generally considered to be a negative color.



Any product which causes strong emotion can try using red.

Yellow

The most visible color

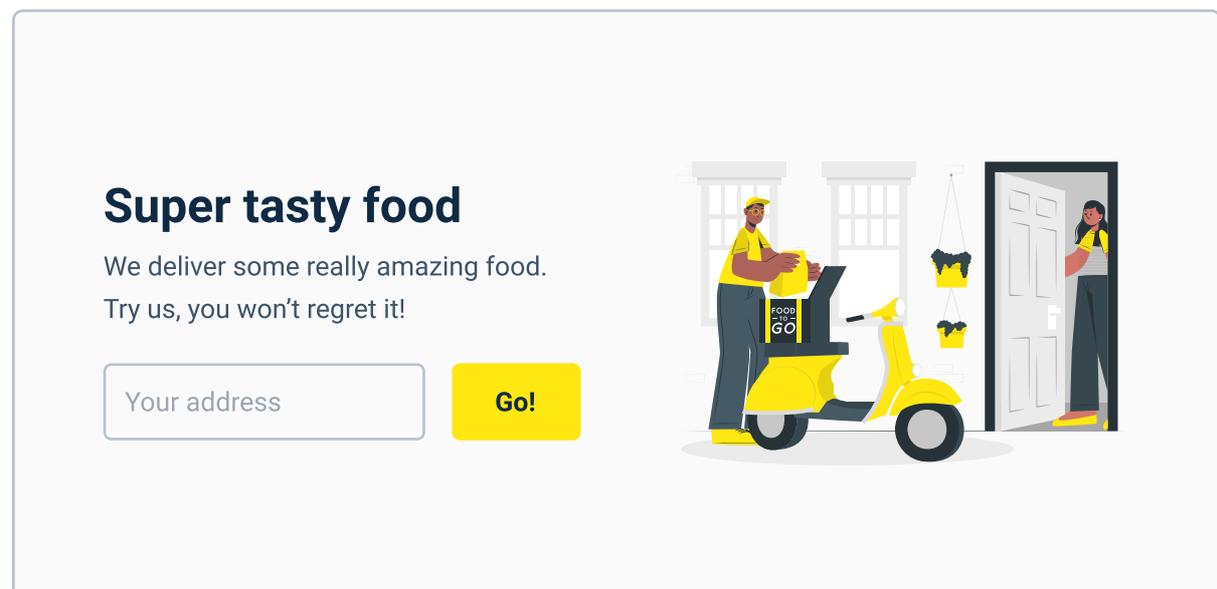


Yellow is the most visible color. It's often used for warning notifications. Like red, it quickly catches attention.

Stands for: excitement, warmth, positivity, but also frustration and anger.

Best for: food, travel, creative fields (Postmates, McDonald's, Snapchat).

Negative sides: because it's the brightest color, it's also bad for the eyes when light and saturated. Very negative in excess.



Yellow is often used for food-related products, such as McDonald's or Postmates.

Orange



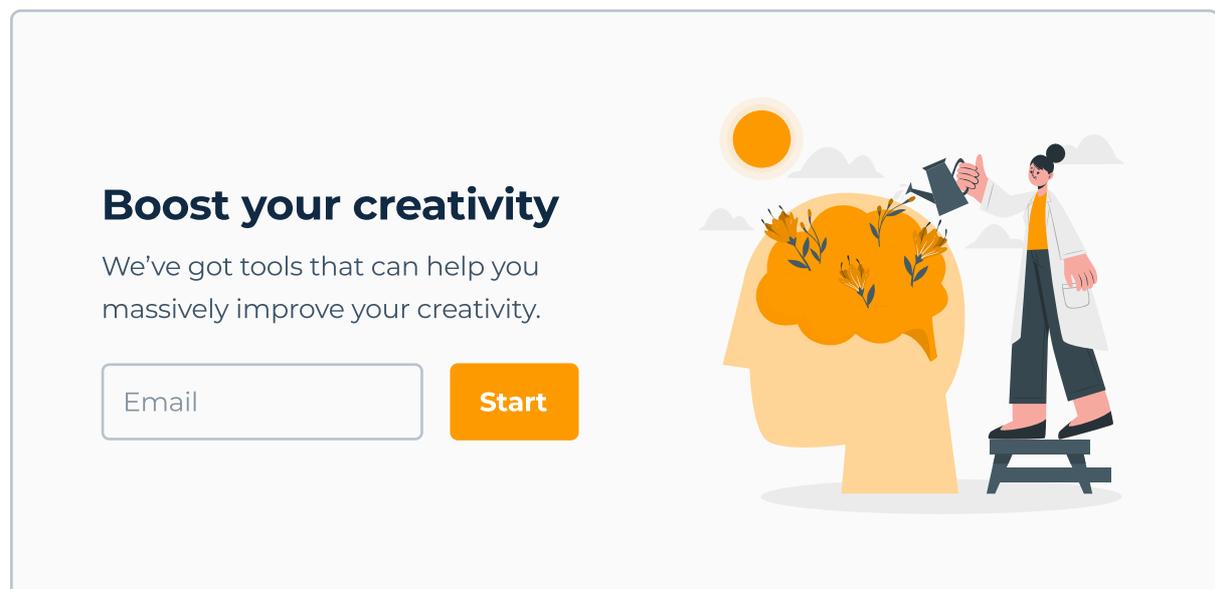
The color of creativity

Orange is considered to be a very energetic and enthusiastic color. It promotes activity and creative thinking. Its lighter shades are sometimes used as warning messages in UI Design.

Stands for: creativity, energy, enthusiasm, activity, impatience.

Best for: sports, sales, creative industry (Nike, Amazon, Headspace).

Negative sides: When used as a primary color it might require you to use a different color for warning notifications.



Orange evokes enthusiasm and creativity.

Green

The color of nature

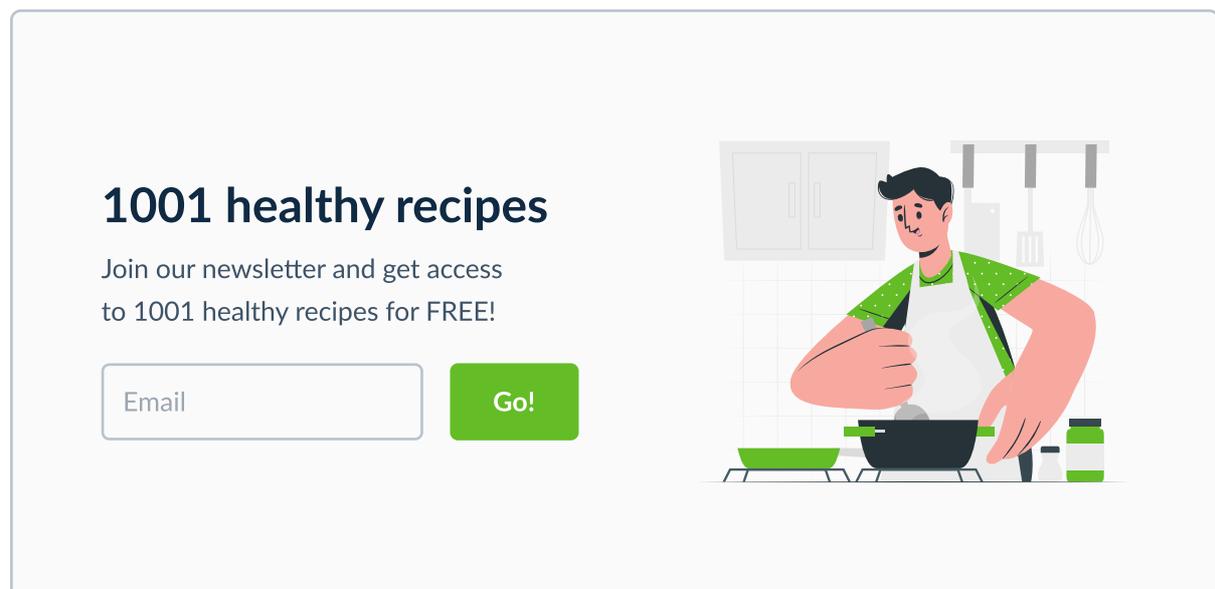


Green is the second favorite color for most people. Because of its likeability, it's frequently used for success messages in UI Design.

Stands for: health, nature, calmness, relaxation, growth.

Best for: health industry, banking, fitness, food (Robinhood, Whole Foods, Spotify).

Negative sides: When used as a primary color it might require you to use a different color for success notifications.



Green is a safe choice for anything fitness / health related.

Purple



The color of luxury

Purple is a very rare color in nature, so in color psychology it's also considered to stand for rarity, wealth and uniqueness. In UI Design it's used rarely, so it can let the brand stand out easily.

Stands for: wealth, royalty, luxury, mystery, frustration.

Best for: luxury goods, tech industry, religion (Milka, Yahoo, Twitch).

Negative sides: When used in excess it can cause frustration or cause feelings of unnecessary extravagance.

Castles for everyone

Live like the royalty. We find and buy luxury castles perfect for you.

A stylized illustration of a purple castle with multiple towers and spires, set against a light background with a large purple circle behind it.

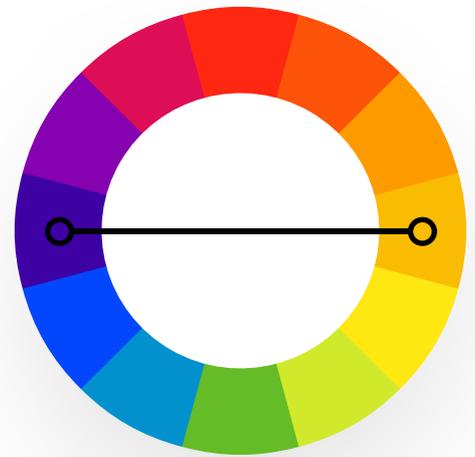
Purple is rarely used as brand's primary color. Not many brands promote luxury.

Pairing colors with the color wheel

Every UI Designer should have at least entry-level knowledge about pairing colors using the color wheel. After you select your first, primary color, you might need to pick a secondary or / and triadic ones as well sometimes. Learning to pair colors using the color wheel will take the guesswork out of this process.

Complementary

Complementary palette is made out of two colors that are on the opposite sides of the color wheel, so there's a lot of contrast between these colors.



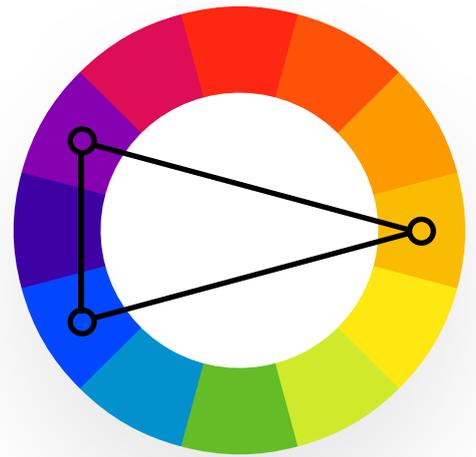
Analogous

Analogous palette is made out of three colors that are next to each other on the color wheel. It's often found in nature and is pleasant to the eye.



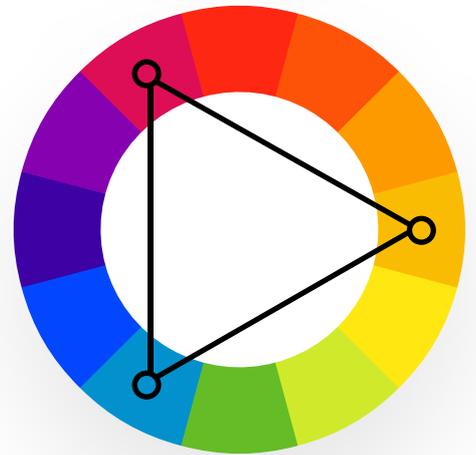
Split-Complementary

The split-complementary color palette is similar to complementary palette. It uses one color and the two colors adjacent to its complement.



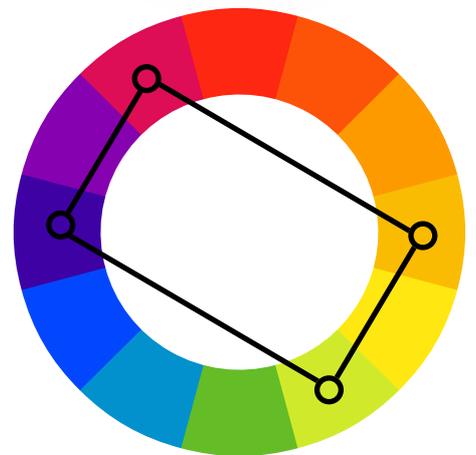
Triadic

Triadic palette consists of three colors evenly spaced on the color wheel, in the shape of a triangle. It tends to be quite vibrant and contrasting.



Rectangular

This palette consists of two pairs of complementary colors. It produces 4 colors, so only one should dominate, and other should be accent.



My favorite color palette - monochromatic palette

Monochromatic palette is made out of one primary color and its tints and shades. Tints can be used for example for the background or card backgrounds, shades can be used for text, while the primary color itself can be used for buttons.



You don't even need a color wheel to prepare a palette like this. On the next few pages, I will show you how to create a full color palette, step by step. Monochromatic palettes are extremely easy to apply, because you don't have multiple bold and vibrant colors. More on this below.

A short summary on color palettes based on the color wheel

All these palettes that I showed you on two previous pages are based on a field called color theory. It's used in a range of different fields in the world, such as fashion, interior design, graphic design etc. However, as you learned in The Basics chapter, color draws user's attention to something. If we have like 4 bold and vibrant colors, we need to work a lot more on creating hierarchy with them. That's why I love monochromatic palettes - they look great and are really easy to apply.

Creating a color palette

Your main goal for working with color in UI Design should be creating a color palette for the project that you're working on. Same as with your type scale, you want something that you can easily apply to the project without wondering which shade of blue will be better, or if you should use #FFFFFF instead of #FAFAFA etc.

For that reason, we need to create a color palette.

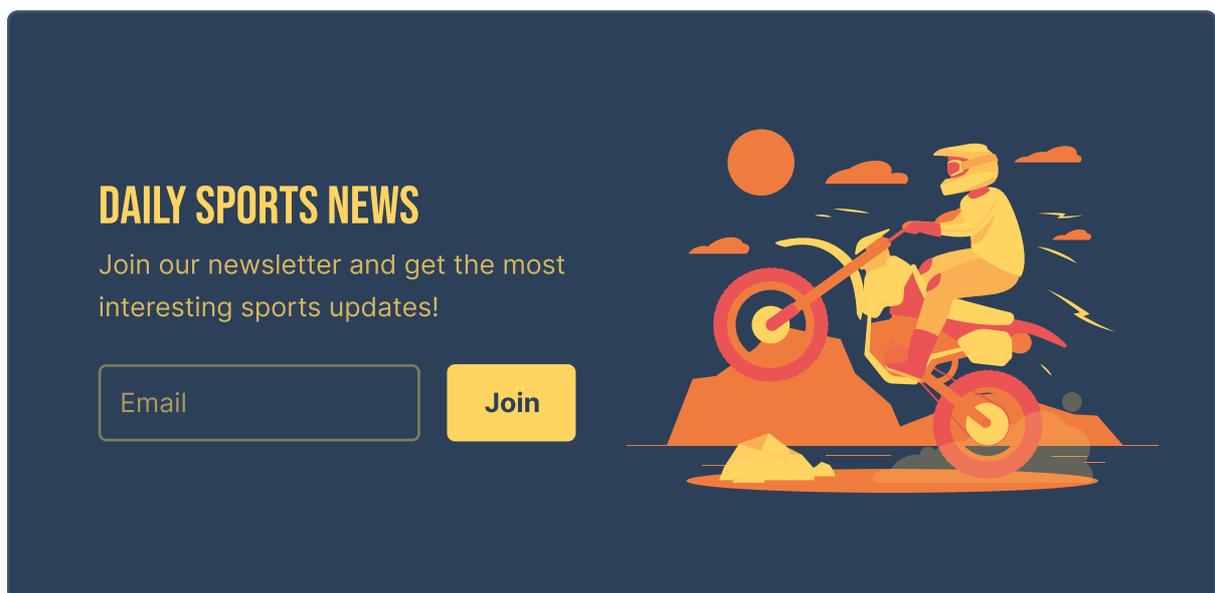
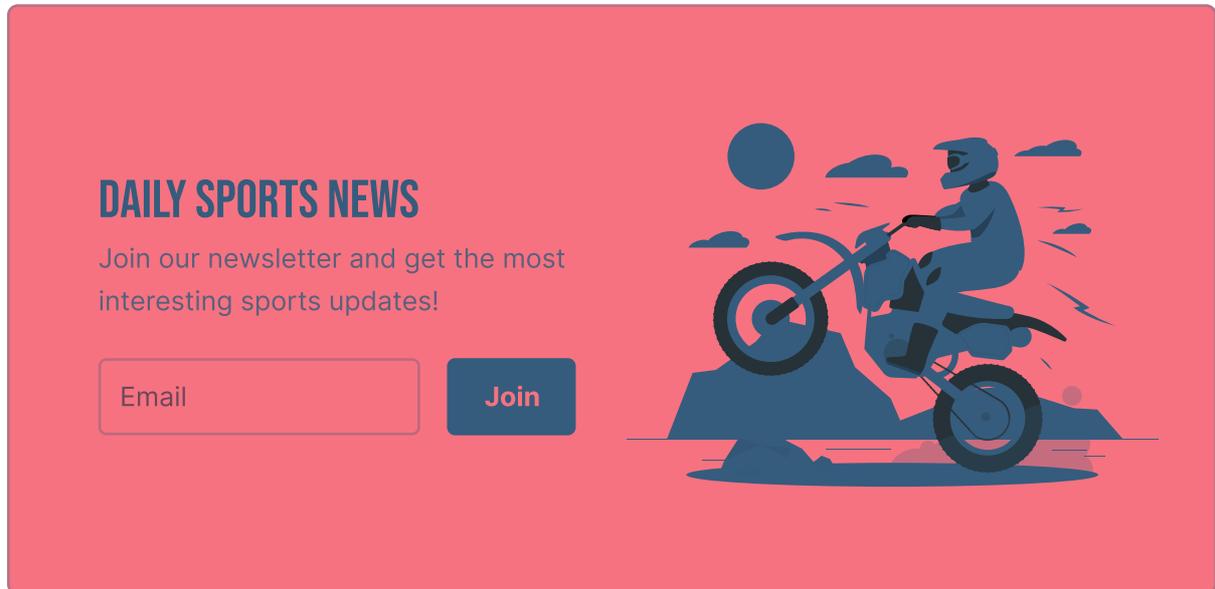
Color palette generators

Maybe you came across one of those color palette generators online - they generate color palettes which often are stunning, but are almost impossible to apply to a real design. Here are a few examples from one of the most popular generators:



There are many flaws with this approach. First of all, 4 colors is nowhere near what we need to create a full, applicable color palette. Secondly, some of these palettes lack the most important colors - black and white, or at least their tints and shades. Also, there's rarely any color-psychology-based decision behind using a palette like these. They just look attractive, that's all.

Anyway, let's try to apply one of these color palettes to the page we've created earlier to see if they will work or not.



These colors don't match the product, but regardless of that you can see that it looks just weird and unrealistic. There's a better solution - hand-crafting a color palette, like with the type scale.

Let's create a color palette

Our goal for this part of the chapter will be to create a large color palette of colors that go well with each other and that will include every color we might need in our UI Design.

STEP 1: Choose your Primary Color

Not to be confused with Primary Colors from the color wheel. Primary color is the color which will be used for elements like buttons, checkboxes, focused inputs etc. It is usually also the brand's primary color. How to choose it? Your starting point should be color psychology.

Here's my safe pick: blue!

#3E8EF4

STEP 2: If you need, select a Secondary Color

You might also want to have a Secondary Color - for stuff like secondary actions. Anyway, I usually stick to one Primary Color and that's enough for most of my projects, but feel free to use it.

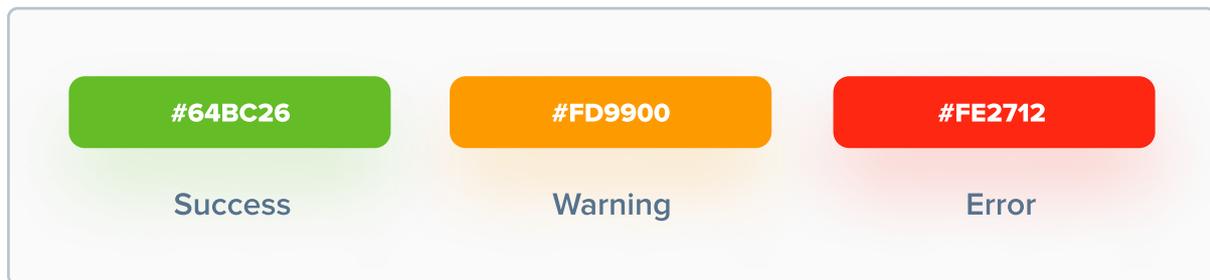
Secondary Color is optional.

#FD9900

Go back a few pages to learn how to pick Secondary or Tertiary colors.

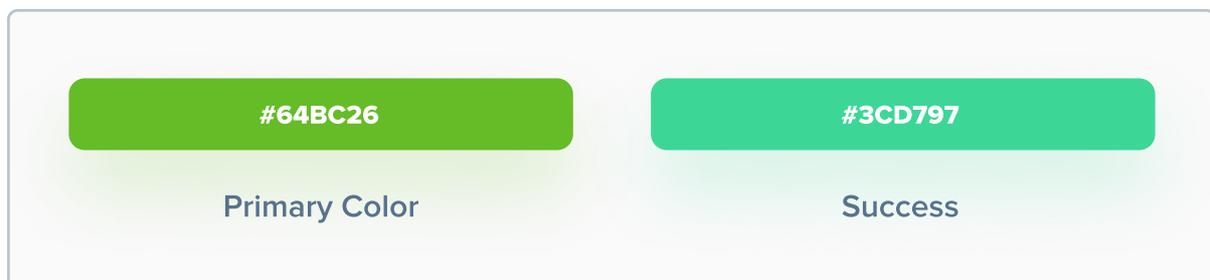
STEP 3: Choose your Notification Colors

One of the things I haven't talked about yet are Notification Colors - colors used for displaying success, warning or error messages. These messages can be displayed on the screen to give the user feedback for his actions. These are usually: green for success message, orange for warning and red for error.



WARNING: If you use one of these as your Primary Color:

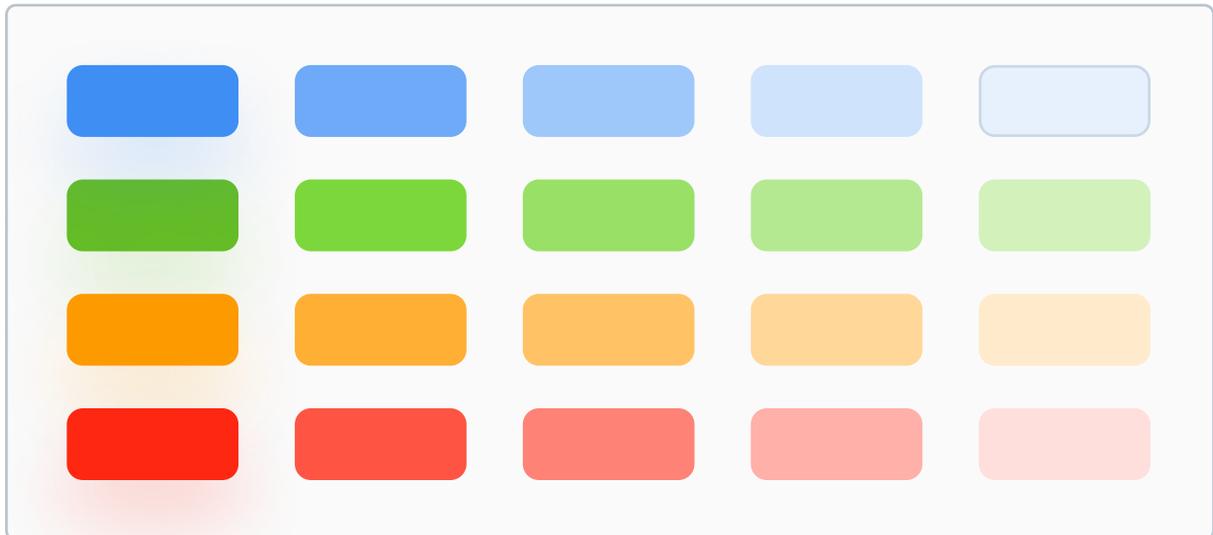
Chances are that you will want to use green, orange or red as your Primary Color, which can be problematic to differentiate it from notification colors. In that case, just make sure that the notification color has a slightly different hue, but still looks “green” enough or “red” enough to indicate success or error:



I started with blue, so I will skip this step.

STEP 4: Create tints of all colors you have so far

Creating tints will provide us with lighter versions of the colors we currently have. This can be useful in many places in our project - for example, the tint of our Primary Color can work just fine for the background in our project.

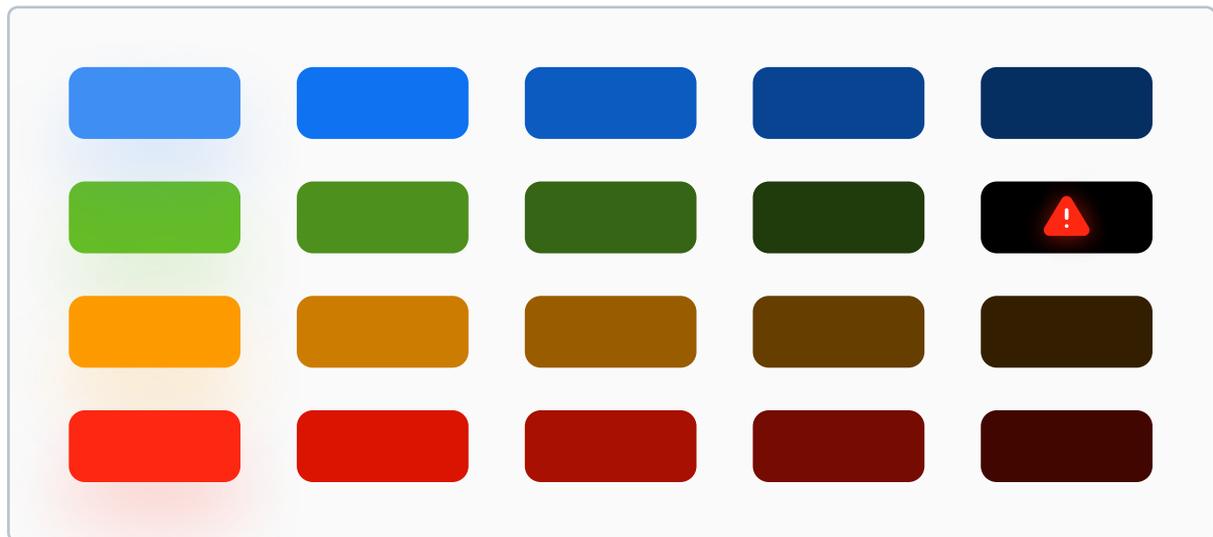


I created this by changing the Lightness value of each one of these colors. You can modify it in the “HSL” color mode in your design tool of choice. On the very left we have original colors. I was adding 10% (10 points) of Lightness to them at each step.

If you need more precision you can create much more tints by changing the Lightness value by for example 5% at each step, but do it only when you really need it.

STEP 5: Create shades of all colors you have so far

Creating shades will provide us with darker versions of the colors we currently have. This can be useful in many places in our project - for example, the shade of our Primary Color can work great as a text color.



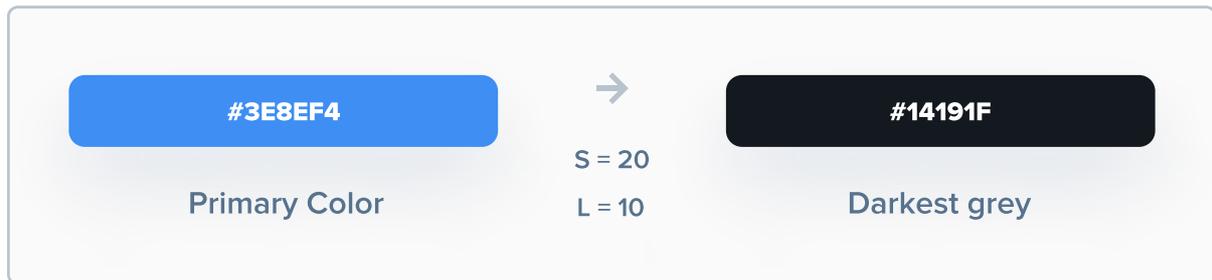
I also created this by changing the Lightness value of each one of these colors. On the very left we have original colors. I was subtracting 10% (10 points) of Lightness from them at each step.

Same with tints, if you need more precision just use a different number like 5%.

 Notice that our darkest shade of green turned to pure black. We can just remove it from the palette, or add some Lightness to it (for example 5%) to turn it to very dark green instead.

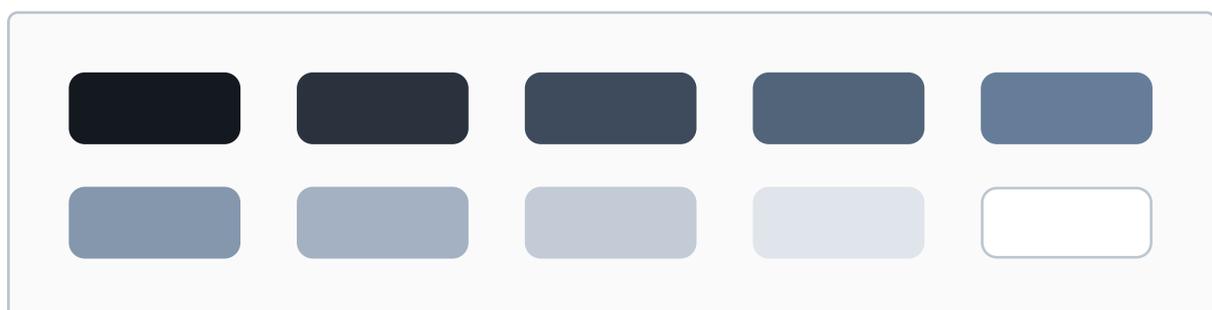
STEP 6: Create a grayscale

Apart from tints and shades for all colors, we will also need a grayscale. In fact, the majority of many designs is mostly filled with greys of some sort. To get our darkest grey, let's set the Saturation of our Primary Color to 20 and Lightness to 10%.



Our Primary Color is blue, so if we leave Saturation at 20 greys will be “cold”, which is what I want. If your Primary Color is for example orange, greys will be warm. If you want them to be fully neutral, set Saturation to 0 before the next step.

After we have our darkest grey, we can create a grey palette with it. Just take that darkest grey as your first color, and add 10% of Lightness at each step until you get something like this. It should end with pure white.



STEP 7: Think of how to apply the colors

Now your color palette is complete and ready to be applied. This topic also causes a lot of confusion, but in reality it's quite simple. Many people suggest using the Golden Ratio for color usage as well - in other words, the 60-30-10 rule. Example below:



Essentially it suggests to use 60% of one color, 30% of another and 10% of another to establish hierarchy. The problem with this approach is that we have way more than 3 colors. Also, the 60% would usually be the background color, 30% - text color, and 10% would be the Primary Color (buttons for example), which does not really help us at all.

A much better approach would be to manually assign use cases to the your colors (you don't have to use all of them of course). So for example: Primary Color will be used for buttons, focused inputs, checkboxes etc., darkest grey will be used for text and lightest for background.

Math is not the solution to all problems - same thing happened with the type scale. It's better to do some things manually.

STEP 8 Go and celebrate!

Great job! Now your color palette is complete, and you should have an overall idea of how to apply it to your work. It was definitely harder than grabbing some random 4-color palette from a generator, but it will be worth it.

Please remember that you don't need to use every single one of your colors, and if you will need to use another color (for example a slightly different shade of gray) you can do that. Just try to avoid these tweaks when possible.

Here's a recap of every step:

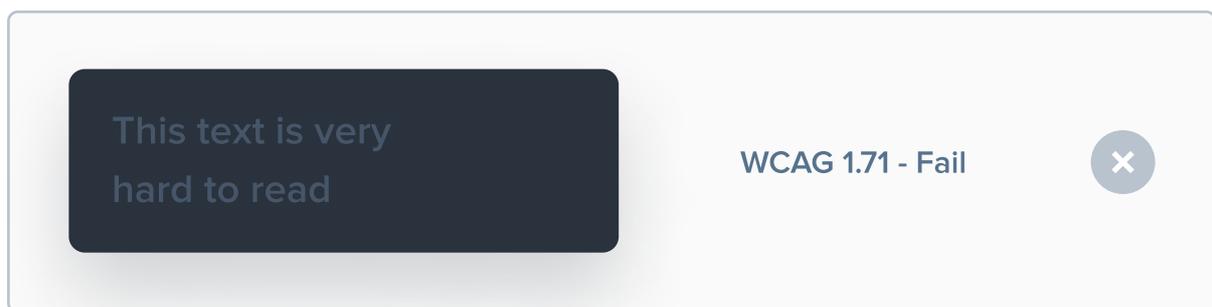
1. Select a Primary Color
2. If you need, select a Secondary Color / Tertiary Color
3. Choose notification colors
4. Create tints of all colors you have so far
5. Create shades of all colors you have so far
6. Create a grayscale
7. Think about the application

Sounds like a lot, but a well-made color palette can save you HOURS during the actual design stage. You can now save each one of these colors as a Color Style in your design tool for easier access. That's fully optional of course.

Accessibility

When placing one color on top of another, make sure they meet accessibility standards - that means, that there's enough contrast between them to read the content without problems.

Around 4,5% of our population is color blind. That's a very large number that you should take into consideration! There are numerous free plugins and web tools to help you measure contrast levels between two colors.



This text is very hard to read

WCAG 1.71 - Fail

✘

This example shows a dark blue rounded rectangle containing the text "This text is very hard to read" in a lighter blue font. To the right, the text "WCAG 1.71 - Fail" is displayed in a dark blue font, followed by a grey circle containing a white 'x' icon.



This text is fairly easy to read

WCAG 10.25 - AAA

✔

This example shows a dark blue rounded rectangle containing the text "This text is fairly easy to read" in a white font. To the right, the text "WCAG 10.25 - AAA" is displayed in a dark blue font, followed by a green circle containing a white checkmark icon.

It's always good to test this. What looks great on your computer screen will not necessarily work well on someone's 10 year old phone in full sunlight.

“If one says ‘Red’ (the name of the color) and there are 50 people listening, it can be expected that there will be 50 reds in their minds. And one can be sure that all these reds will be very different.”

Josef Albers

CHAPTER 06

Gradients

Gradient is a gradual blending from one color to another. They're very popular in UI Design nowadays. Paired with a nice, colorful shadow they can create stunning results. In this chapter I'd like to explain why we use gradients, show you different types of them, as well as show how to choose colors for a gradient.

Key content

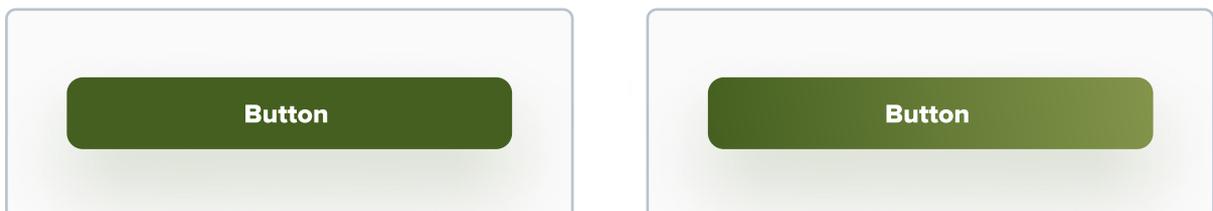
- What are gradients?
- Why we use gradients?
- Different types of gradients
- Tips on creating the perfect gradient
- A word about cognitive overload

Gradients are all around you

If you look around yourself right now, almost everything you'll see is a gradient. In fact, pretty much nothing has a solid color in a typical environment. When light comes into play, everything becomes a gradient.



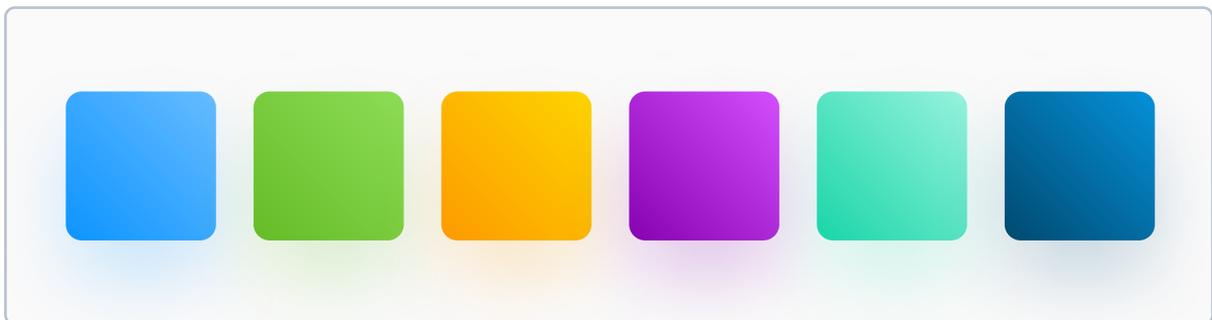
Now, why is this important? Because that means that using gradients can make our designs closer to the real world - in other words, more realistic. They (and shadows) are a great way of adding depth to UI Design.



Which button do you think looks more realistic?

Another reason to use gradients

Apart from the common answer (they look cool), gradients give designers creative freedom. The number of gradients you can create is nearly infinite. You can mix two colors with each other and get a stunning, original result. Elements with a gradient on it naturally stand out from the crowd, which can be helpful in creating hierarchy.



The amount of different gradients that you can create is nearly infinite.

Gradients can be as memorable as regular full colors. After all, people don't remember Hex codes or HSL values. With so many brands out there, many colors are already taken, so using a gradient can make the brand stand out easily.



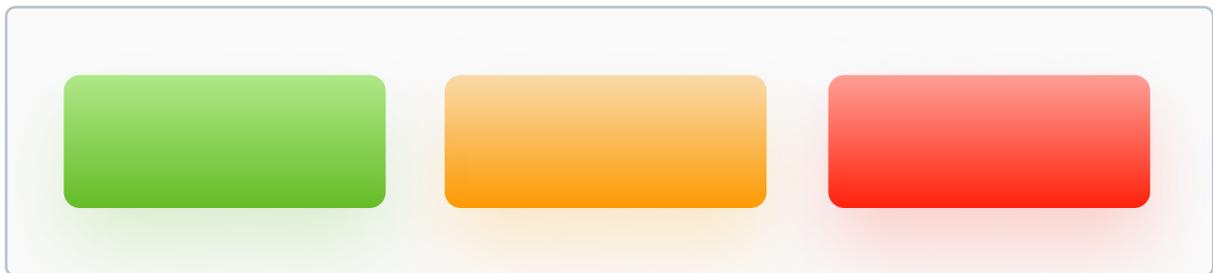
Instagram uses gradient for their app icon. It looks creative and stands out.

Gradient types

To make a gradient, you'll need two or more colors. You can combine them with different gradient types to achieve interesting results. You can also use handles for each color that let you "drag" it and change its position inside the gradient, or even drag the handles outside of the shape for a more subtle transition.

Linear gradient

It's a simple, linear transition between two or more colors.



Radial gradient

A radial gradient has a shape of an ellipse, with one color starting in the middle and the other on its edge. It's frequently used to make objects look 3D. When applied to an oval and positioned correctly, it can create a very interesting result.



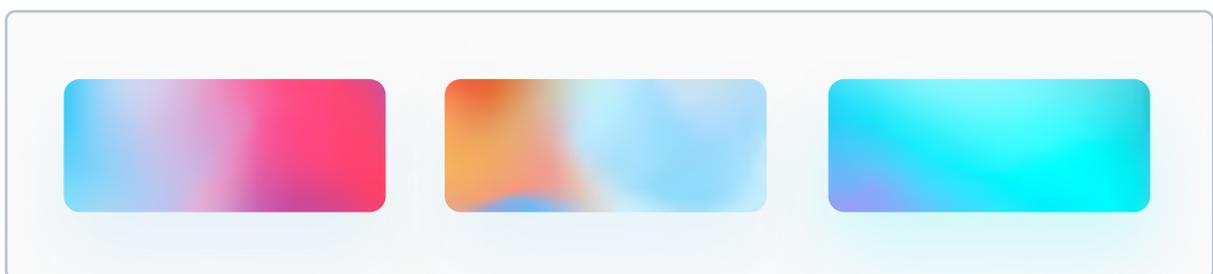
Angular / conic gradient

An angular gradient (also known as conic gradient) is quite similar to the radial gradient due to its shape. An angular gradient places color stops around the circle. It's a very rare choice for UI Design. It might look original, but it also looks distracting and unfamiliar.



Mesh gradients

Mesh gradients are very abstract combinations of multiple colors. They're hard to create on your own, but they can be downloaded for free from the internet from various generators. They're still almost inexistent in real products, so use them rather for experimentation or be careful not to overuse them.



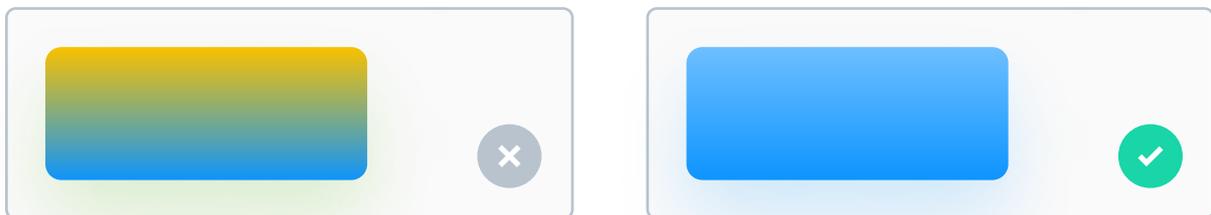
Downloaded from <https://products.ls.graphics/mesh-gradients/>

Choosing colors for gradients

You can create a gradient with any pair of colors, but there are some best practices regarding choosing hues for gradients.

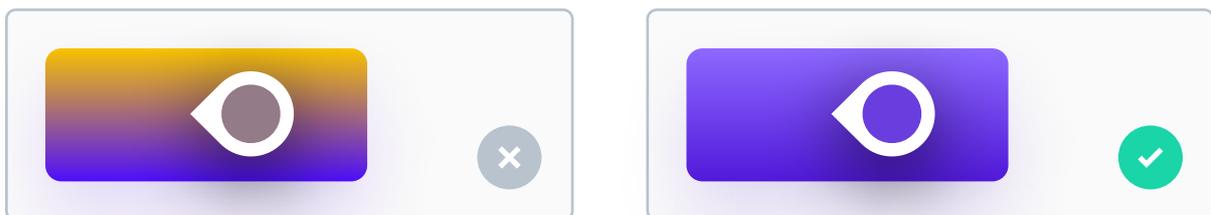
Use colors with similar hues to create smooth gradients

Always aim to make your gradients smooth, meaning that the transition between colors is not very harsh, like on the left here.



Avoid greyish colors in the center

Another reason to avoid “harsh” transitions is because of these ugly, grey areas in the middle. Take a look:



I’m sure you can tell when a gradient is good or not. Gradients with a very rough transition between colors instantly look ugly. If you want to create a good gradient, start with the same color on both sides, and then just change the Hue value of one of them by 20 or 25.

Too many gradients = cognitive overload

In late 2020, Tobias van Schneider shared a Tweet showcasing many app icons which use a lot of vibrant colors and gradients.



One of the reason why these apps have icons like these is because they want to get user's attention. I mentioned that gradients make elements stand out from the crowd. Well, as you can see above, if everything stands out - nothing stands out. Same goes for colors. While an unorganized mess of different vibrant gradients might look cool, it would be very distracting.

CHAPTER 07

Shadows

Shadows are the most common effect in UI Design. In fact, you'll find them in almost every design out there. They play an important role - they add depth to our designs, making some things farther from the user, and some things closer to him. In this chapter I'd like to show you why we use shadows and how to create them.

Key content

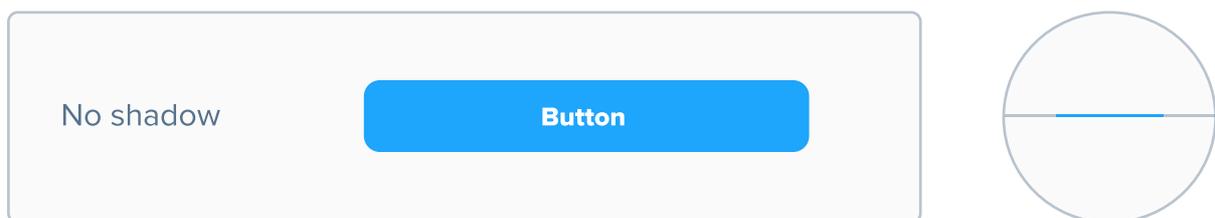
- Two types of shadows in UI Design
- Anatomy of a drop shadow
- Tips on making awesome shadows
- Colorful shadows and shadows in dark mode
- Inner shadows

Two types of shadows

In UI Design, we have two types of shadows - drop shadows and inner shadows. The latter ones are very rarely used, so let's focus on drop shadows first.

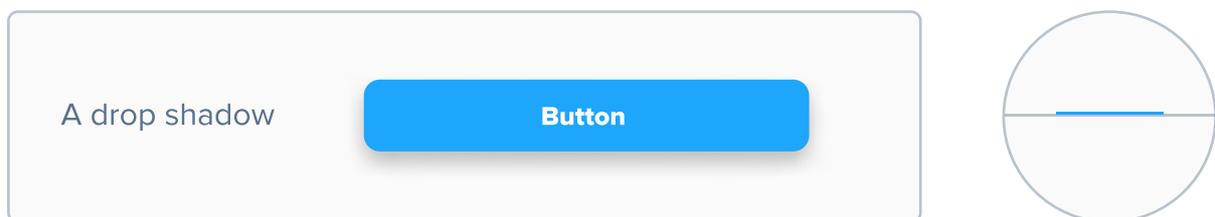
Drop shadow

The most commonly used type of shadows are drop shadows. After adding them to our element a slightly blurred shadow will appear under it. Drop shadows elevate elements from the surface. Below you can see an example of what I mean.



Here the button does not have a drop shadow. As you can see on the right side, it's on the same level as the background.

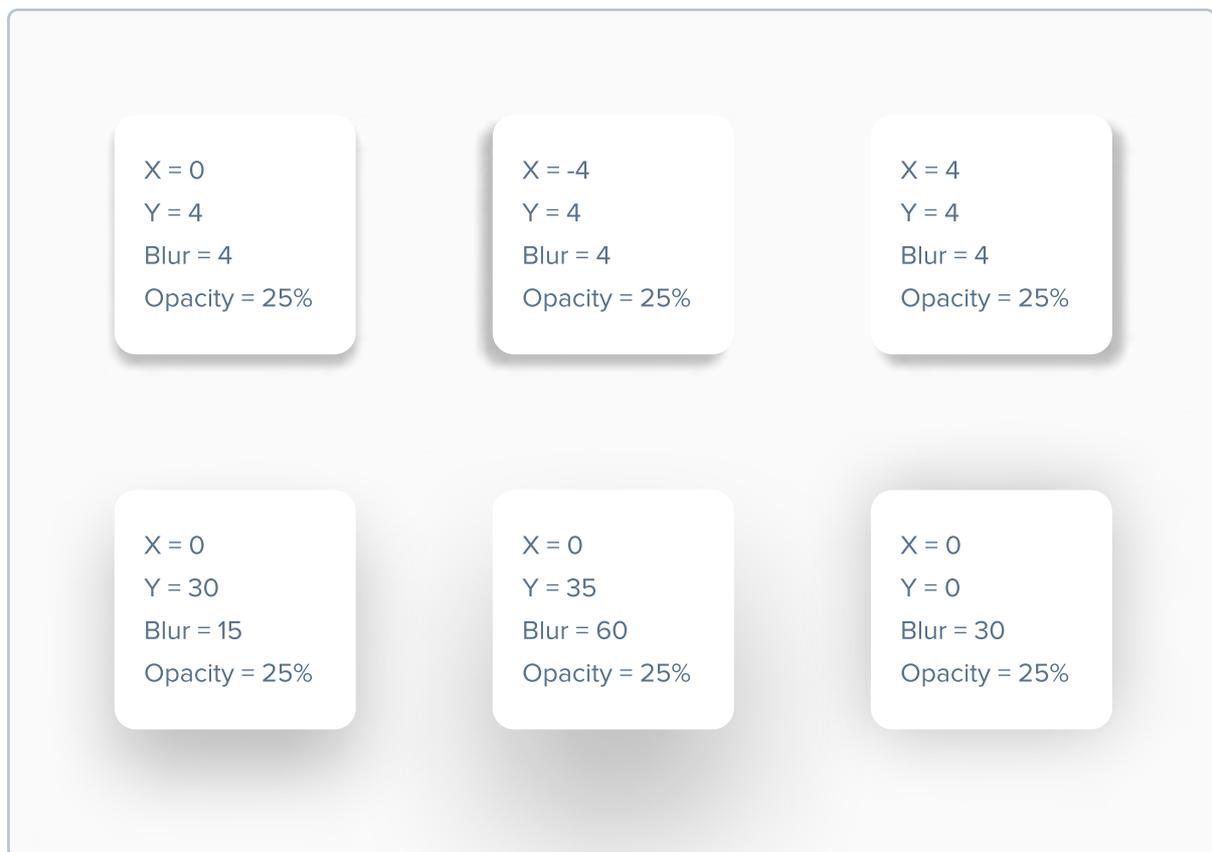
Here's an example of a drop shadow:



Here's an example of a button with a drop shadow. As you can see, now it's elevated from the background.

Anatomy of a drop shadow

Drop shadows have the same shape as the element they are casted from, and their position is also in relation to that element. The parts of any shadow are X value, Y value, Blur value and Opacity value. By changing the X and Y values the shadow can be moved in any direction, and by changing the Blur value the shadow can become more blurred, making it softer.



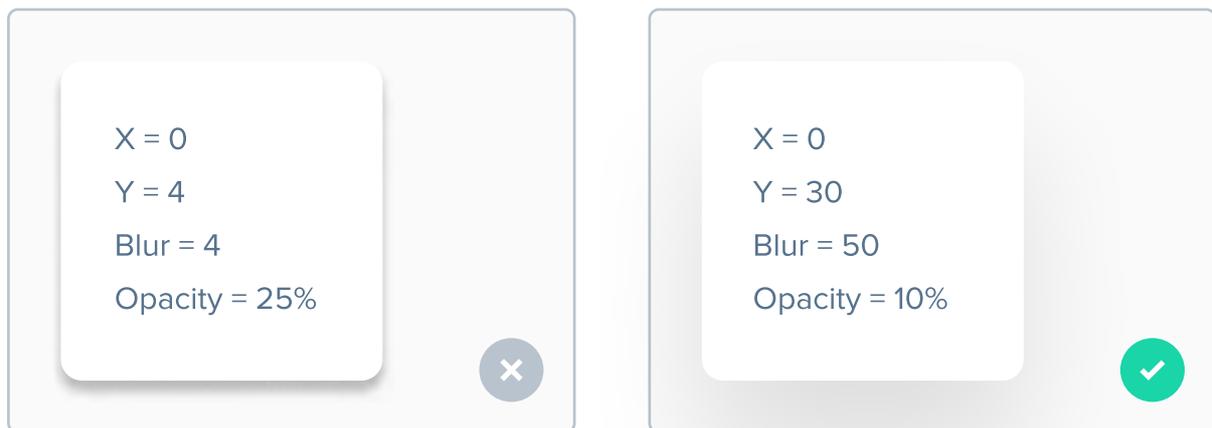
Different shadows give different interesting effects. All shadows have the same color - #000000. More on shadow color on next pages.

Making awesome shadows

You understand why we use drop shadows and how they're made. Now it's time to learn how to make them beautiful!

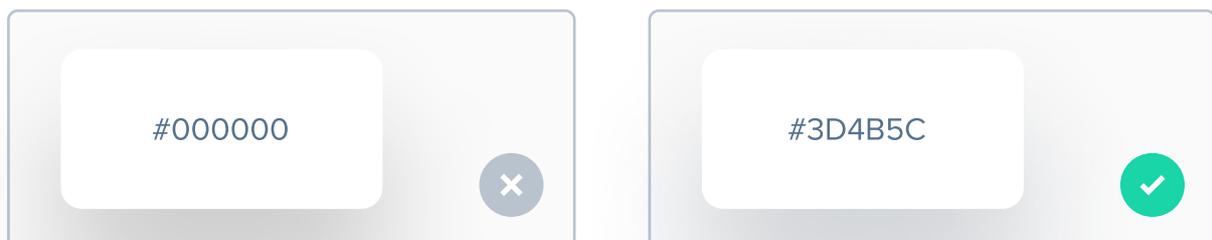
Make soft shadows

A soft shadow is a shadow with a relatively high Blur value and low opacity (usually 5-10%). These shadows are way more pleasant for the eye than the default option. Soft shadows also often have increased Y values to make them look more elevated.



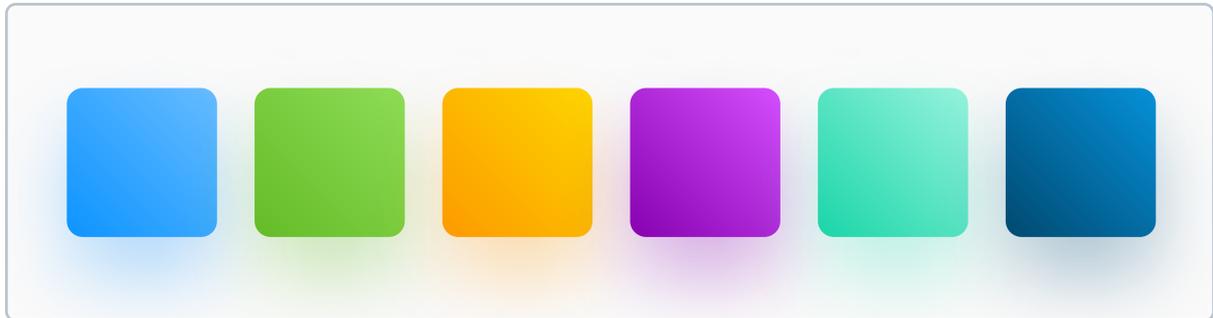
Avoid pure black shadows

Avoid shadows with a color of #000000. It looks unnatural. You can use a dark color from your grayscale from the Color chapter.



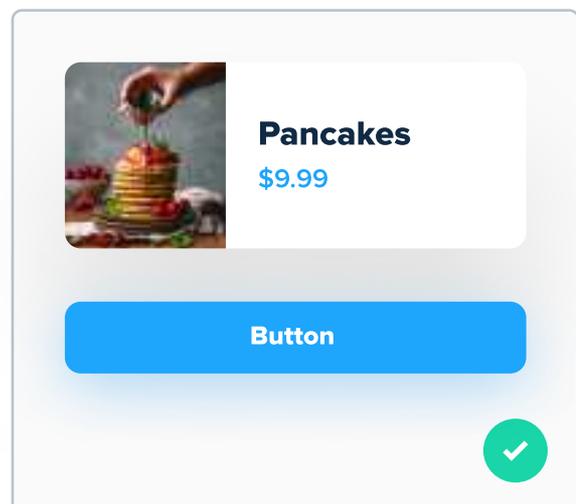
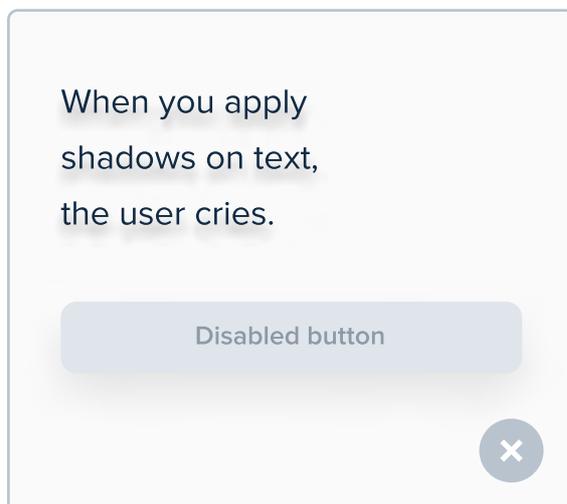
Try colorful shadows on colorful elements

Using dark shadows on colorful elements is fine, but adding a colorful shadow can easily make the design “pop”. Take a look:



Not every element needs a drop shadow

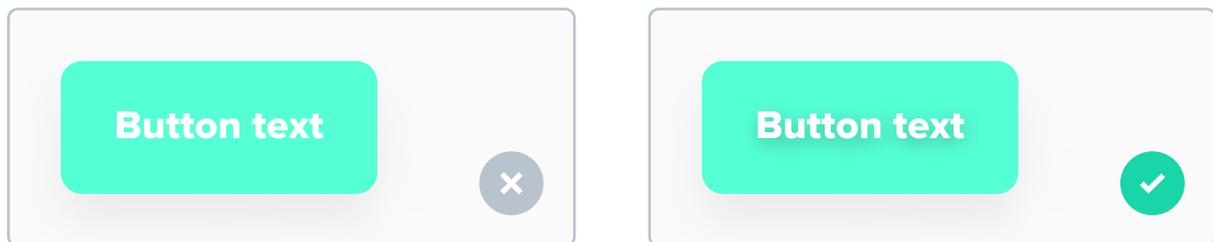
Drop shadows work best on elements that the user can interact with - such as buttons or cards. Elements that the user can't interact with, such as disabled buttons or text shouldn't have a drop shadow on them.



Most non-clickable elements shouldn't have a shadow.

Use shadows on button text to improve contrast

Even though it's not good to use a drop shadow on longer chunks of text, using a subtle drop shadow on button text can improve contrast, especially when the button is bright, and text is white.



The best solution would be to change the color of the button or make the text black, but if we can't do that, shadow is our best option.

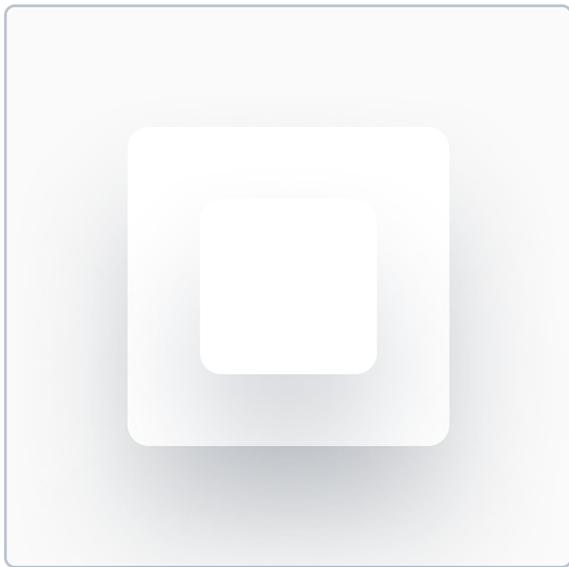
Don't make white shadows in Dark Mode

When you're designing a light and dark interface it might seem tempting to turn black shadows into white, but don't do that. It does not look very good and is confusing. Instead, just use a lighter shade of the background color to elevate the element.

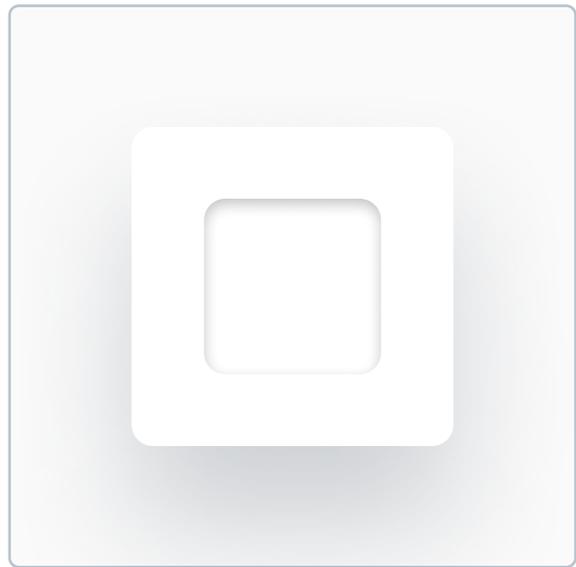


Inner shadows

Inner shadows are the opposite of drop shadows. While the latter elevate things from the surface, elements with an inner shadow look like they're "sunk" into the background. They're very rarely used in UI Design nowadays.



A drop shadow



An inner shadow

On the left you can see two white squares that are elevated from the surface using drop shadows. On the right you can see one elevated square, and one with an inner shadow. It look like the bigger square on the right has a hole in it!

Inner shadows are very, very rare in UI Design. While it's very common that elements with a drop shadow are clickable, objects with inner shadows are straight up confusing.

CHAPTER 08

Buttons

A button is an interactive element that allows users to take actions. Clicking (or tapping) them results in a specific action that is (or at least should be) described inside the button. At some point, the product will ask the user to take action - whether it's to create an account or order some food, we need buttons for that.

Key content

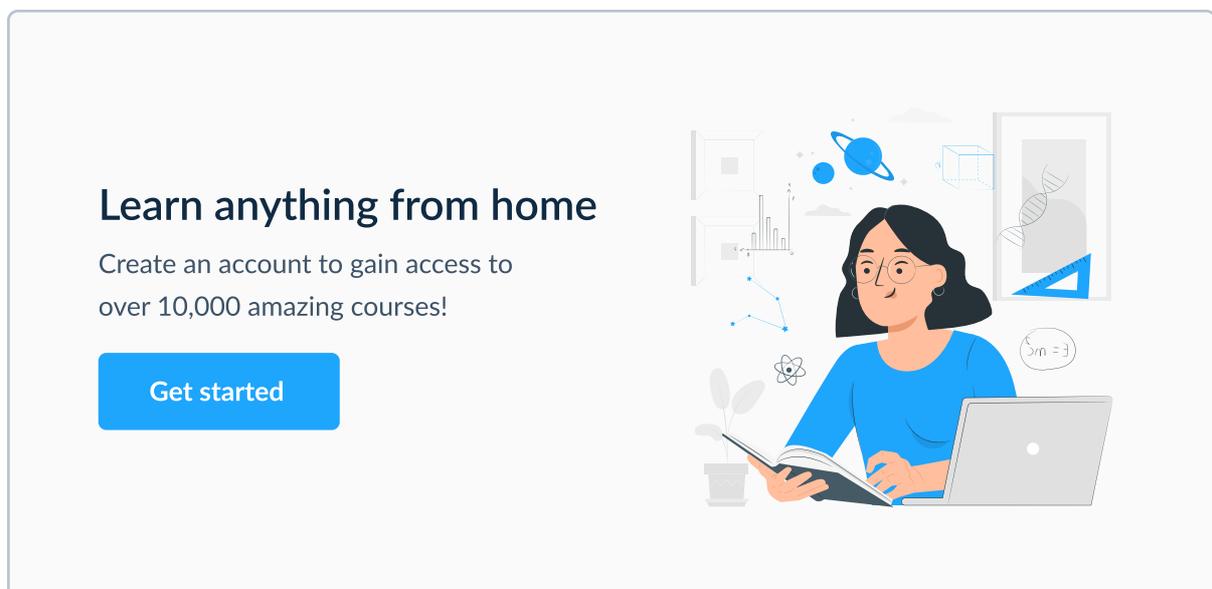
- Button types in UI Design
- Button styles in UI Design
- How to design buttons properly (corner radius, size etc.)
- Button pairs and VIBs (Very Important Buttons)
- + many other fantastic tips!

Button types

In general, buttons can be grouped by button styles and button actions. Button styling refers only to how it looks - the sizing, color or a shadow. Button action refers to what action it performs. It's quite simple actually - more important buttons should stand out more so that they can be found easier.

CTA (Call-To-Action)

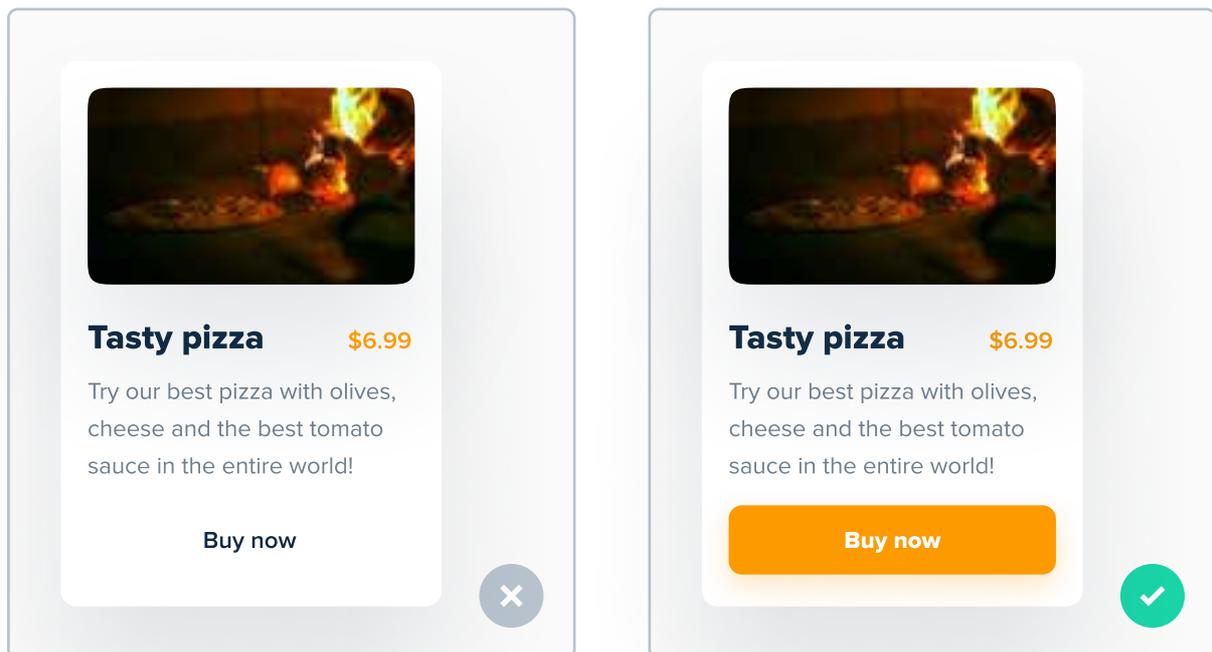
CTA stands for Call-To-Action. As the name suggests, a CTA Button (often referred to as just CTA) is expected to call the user to perform some action after clicking it. CTAs are very common on landing pages - for example "Create an account". After clicking it, the user can expect that he will be asked to enter information to create an account.



CTAs are on almost every landing page out there.

Call To Action buttons should stand out

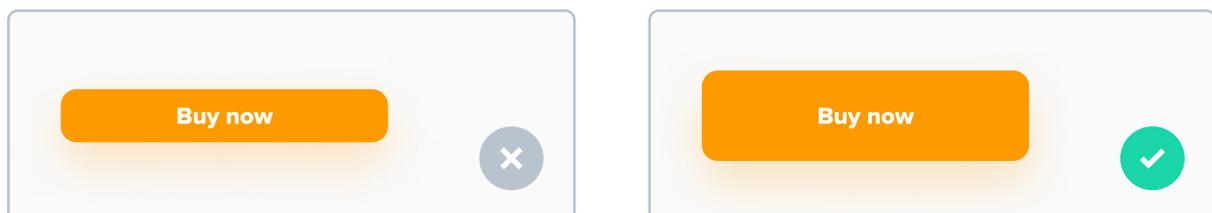
You should style a CTA so that it stands out on the screen. You can simply use a solid, Primary color to achieve that. You can also try to add a drop shadow, but that's fully optional. CTAs are usually the biggest buttons, so keep that in mind.



The button on the right looks like it wants to be clicked!

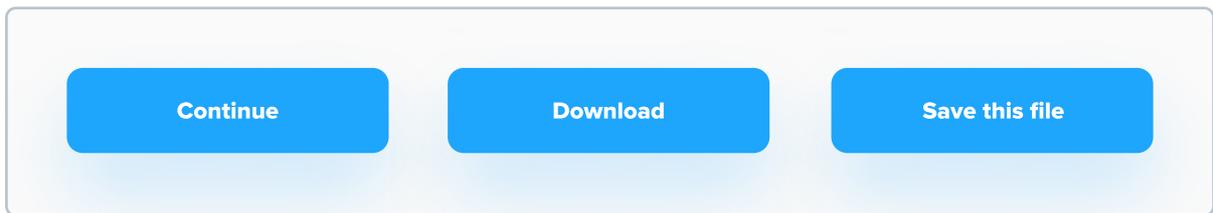
Height matters

CTAs should be very easy to tap on a mobile device, so it's best to keep the height between 40pt and 60pt, but not below 40pt.



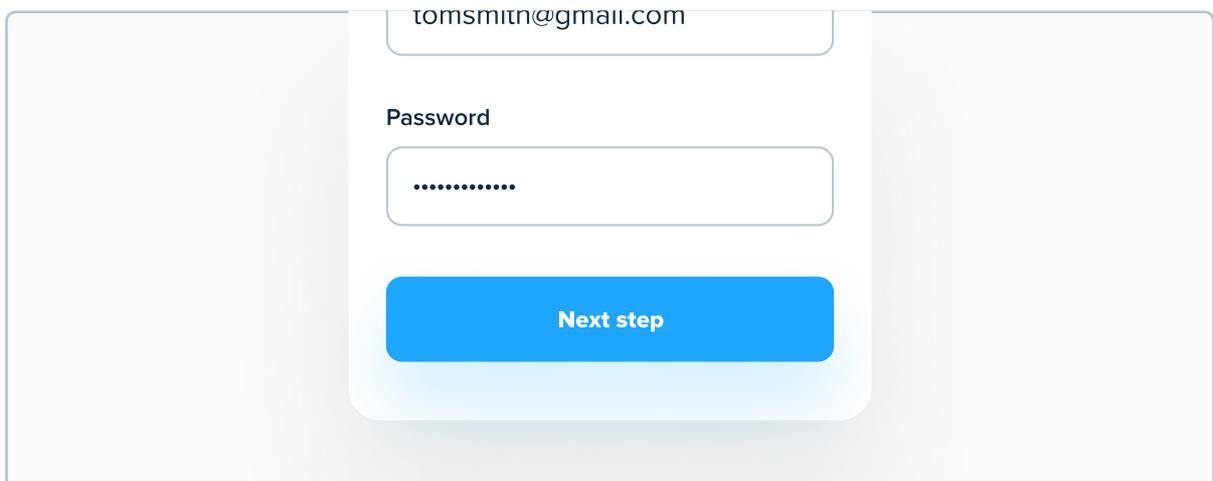
Primary buttons

Primary buttons are very similar to CTA buttons. In fact, they often look exactly the same in terms of styling. However, the difference is in the action - CTA buttons call the user to perform some action after clicking it, while Primary buttons just help the user use the product and perform an action for him.



A few examples of Primary buttons. Notice that none of them should require the user to take any additional “action” - a Continue button will probably just move the user to the next page, and a Download button will download the file.

Another good example of a Primary button is inside a form. Once the user fills necessary inputs and wants to continue, he will usually find a “Next step” or “Continue button”.

A login form with a light gray background. It contains a text input field with the email address "tomsmith@gmail.com", a label "Password" above another text input field with masked characters ".....", and a blue rounded rectangular button labeled "Next step" at the bottom.

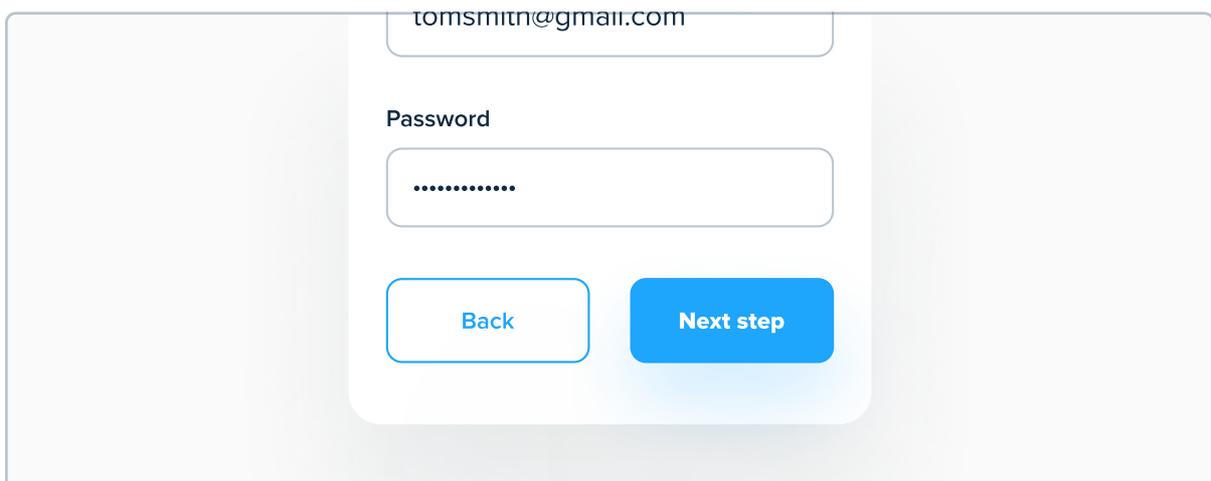
Secondary buttons

Secondary buttons are an alternative to the Primary button. These can be buttons such as "Back" or "Cancel" button. These aren't actions we necessarily encourage the users to take, but they might still want to take it.



As you can see above, the main actions are "Next step" and "Save file". Users will take these actions in most cases, but we should provide them with an alternative.

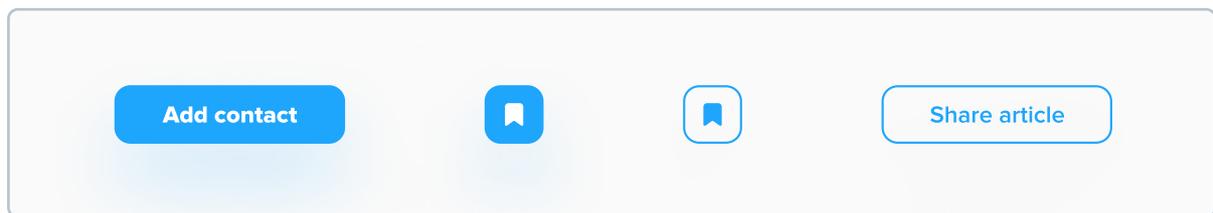
Secondary buttons often appear inside of forms, next to Primary buttons. They make it easy for the user to go back and edit some information if they entered it incorrectly for example.



Button pair like this shouldn't appear in the first stage of filling the form, because you can't really go back from the first step.

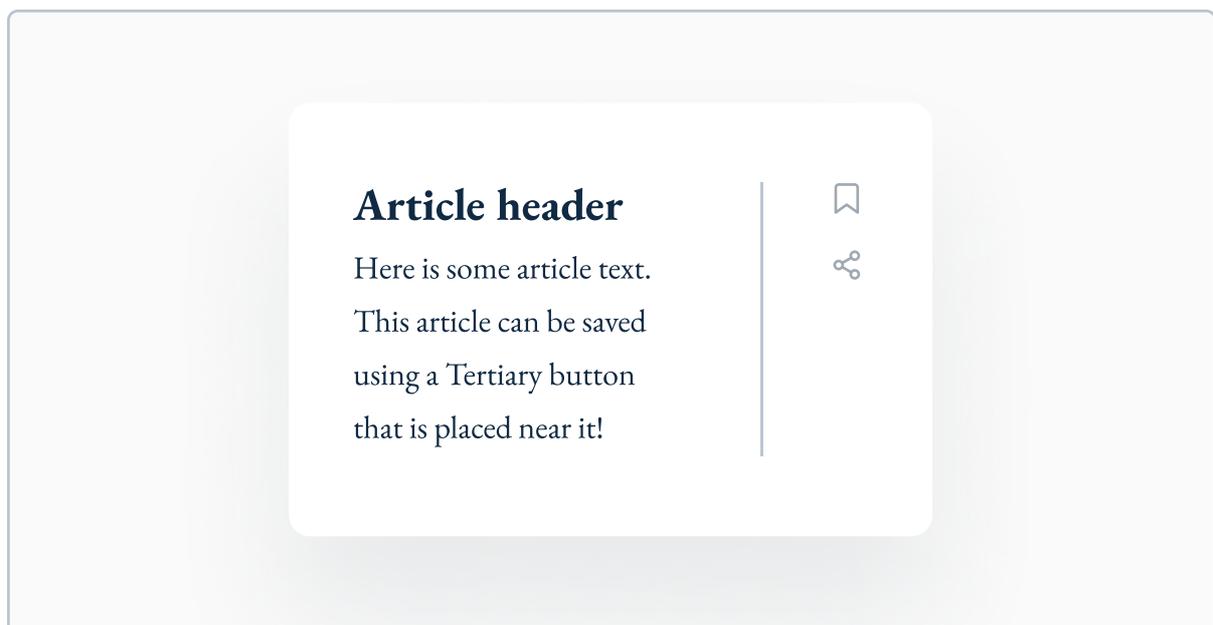
Tertiary buttons

Tertiary buttons are buttons that the user might not really be looking for all the time. These buttons are very situational. Let's say the user is reading an article - he will see a range of Tertiary buttons such as share or save. Considering that these are rather rare actions, they don't stand out a lot.



Buttons that you see above won't be clicked by every user. They're not a part of any specific process, such as creating an account. Notice that they are smaller than other buttons - after all, they're less important.

Buttons like “Bookmark” are often placed on article pages.

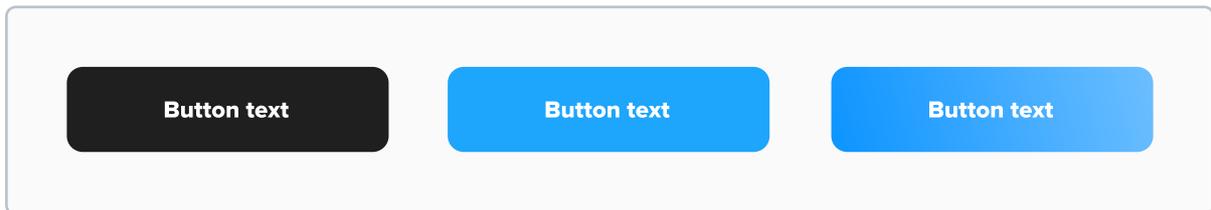


Button styles

In this part I want to focus only on styling buttons, and not when and how they should be used.

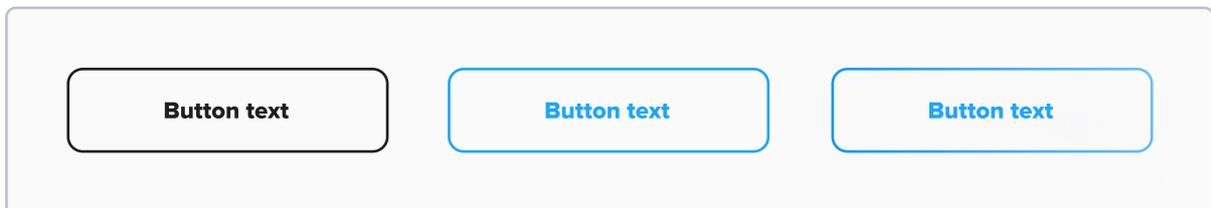
Filled button

A filled button is filled with a solid color or a gradient.



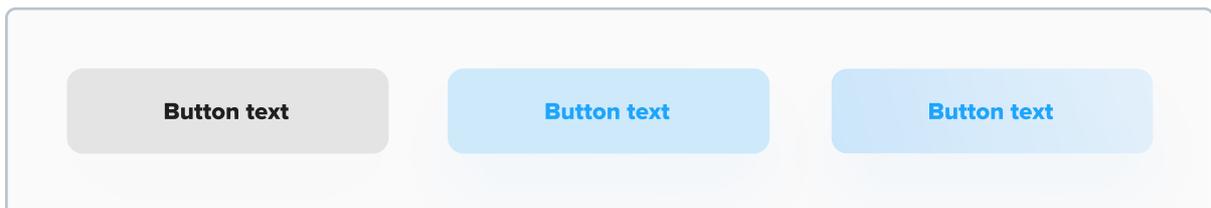
Line button

A line button does not have a fill - just an outline.



Transparent button (not an official name)

This button style uses a light tint of the text color for background.



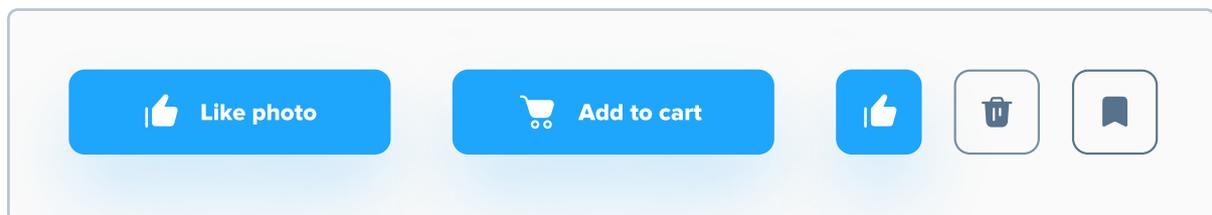
Text link buttons

Text link buttons are simply parts of text that are styled to make them look clickable. It's usually done by changing the color and increasing the weight on words that can be clicked.

Here is some example body text. The user can **click this part** to do something.

Icons inside buttons

Using icons inside buttons makes them easier to “scan” and in result - understand. You can also use just an icon for easily understandable actions.



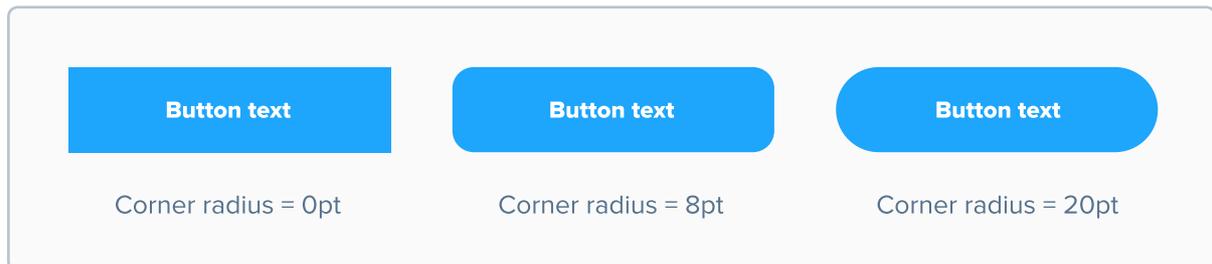
Icons look great paired when paired with some button text. However, you can leave just the icon if it's common and well-known. If you wonder if an icon will be understandable enough, just think if you've ever seen it in another product.

When to use which style?

In general, the more important the button is the more it should stand out, so for CTAs and primary buttons filled style will work best. Transparent and line styles work better for secondary and tertiary buttons.

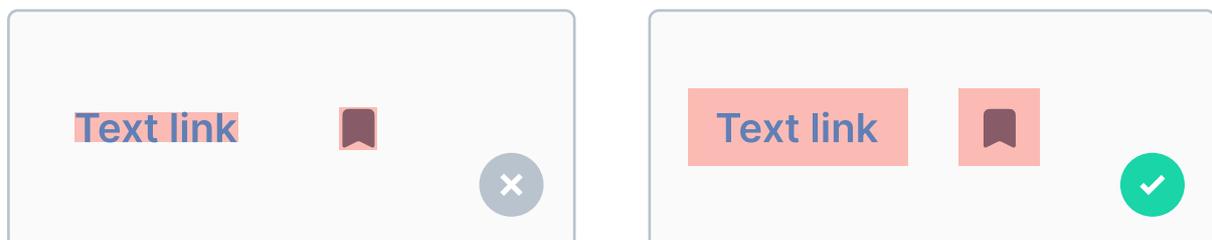
Corner radius

Adjusting the border radius of buttons can give it a different feel. Sharp buttons with very low corner radius (or just 0) feel more elegant and professional. More rounded buttons are more user-friendly, and better for the eye as well.



Mind the click / tap area of small buttons

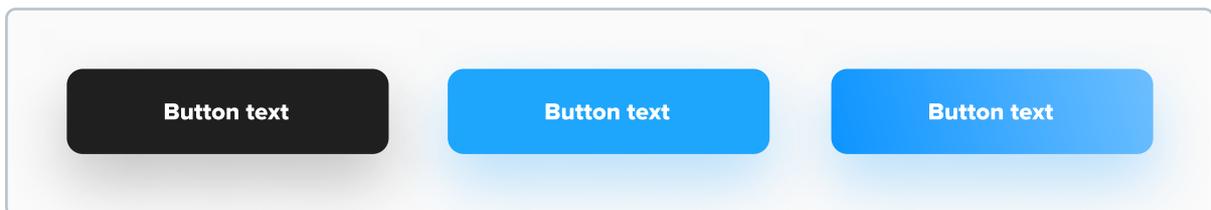
Text links and icon buttons should have a larger tap area than they actually are in size. They should have a small area around them that is also clickable to reach them easier. Details like these make buttons easier to use.



I indicated the tap area with red color. On mobile, the tappable area of any element should be at least 44x44pt. This way people with larger fingers won't missclick that often. Keep it in mind when designing small, but interactive elements.

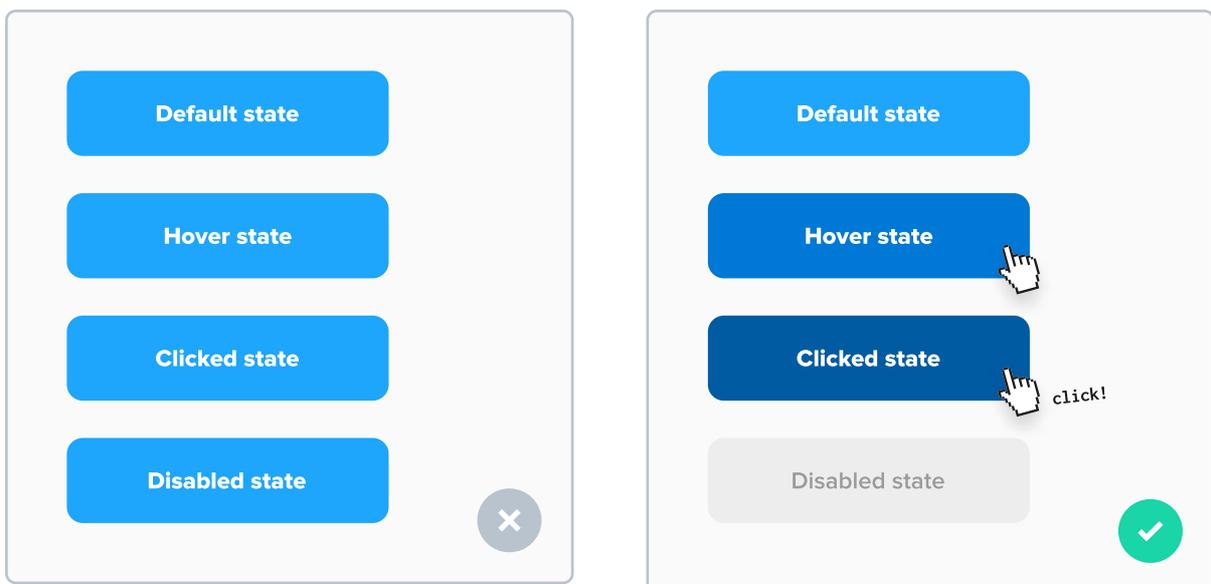
Button shadows

Adding a subtle shadow to your button can make it stand out more. It usually works best for filled buttons, not so much for line and transparent ones.



Button states

One of the things designers forget to design are styles for all button states. Apart from just the initial state, you should also design a hover, clicked and disabled states. Even though it's a small detail, it gives the user feedback for his actions, which is essential for designing a good product. Here's an example:



Button width

A great height for a button is anything between 40 to 60 points. What about the width? It depends on length of the text inside the button. I recommend using horizontal padding of 32 points for web interfaces, and full screen width for mobile interfaces.



As you can see above, button width should depend on the width of the text inside of it, at least for web interfaces. For mobile interfaces, in 99% of cases buttons cover the whole width of the screen (excluding the margins).

Please keep in mind that the value of 32pt for padding for buttons is not a golden rule. In many cases your grid system will influence the width of buttons. It's a common scenario when it comes to designing forms. Take a look at an example on the next page.

Log in

Username

Password

Next step



Log in

Username

Password

Next step

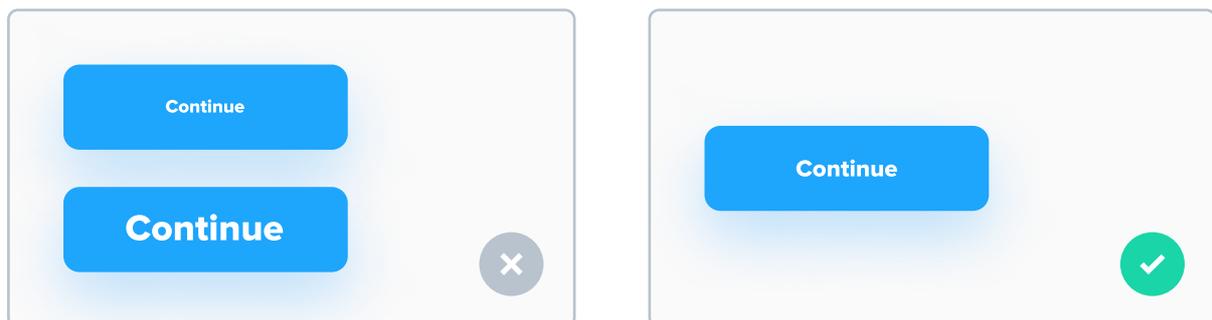


Button on the top has a horizontal padding of 32 points, but it's not aligned to other elements of the form. I personally think that it is fine to use even a wide button like on the bottom in order to keep alignment proper.

Button text size

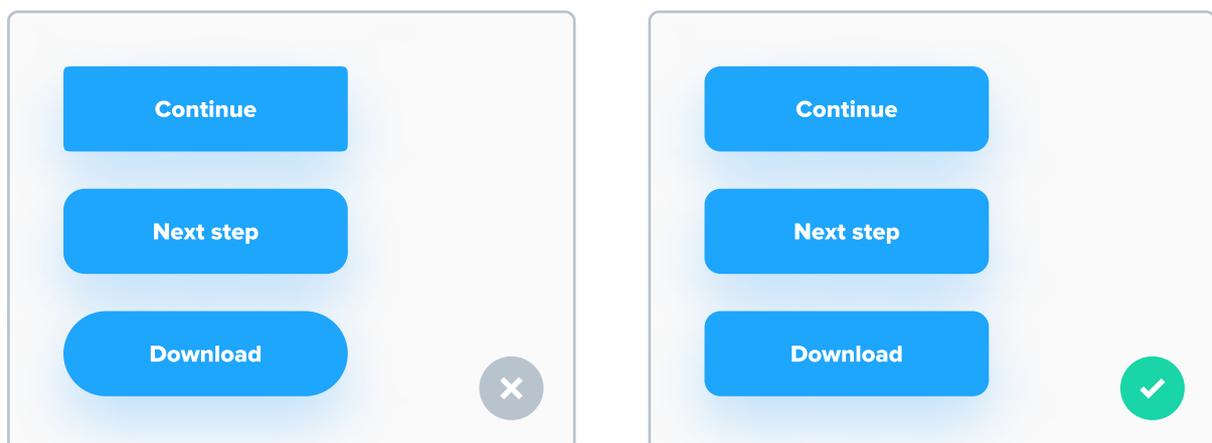
Text inside buttons should be very easy to read, so I recommend using a font size of 16pt. If you're using 15pt or 17pt as your base font size in your type scale, you can also use that value for buttons.

However, keep in mind that anything below 13pt can be hard to read, and anything over 20pt is unnecessary and makes the button bigger.



Be consistent with corner radiuses of buttons

Make sure that buttons you use have consistent corner radiuses throughout the whole design.

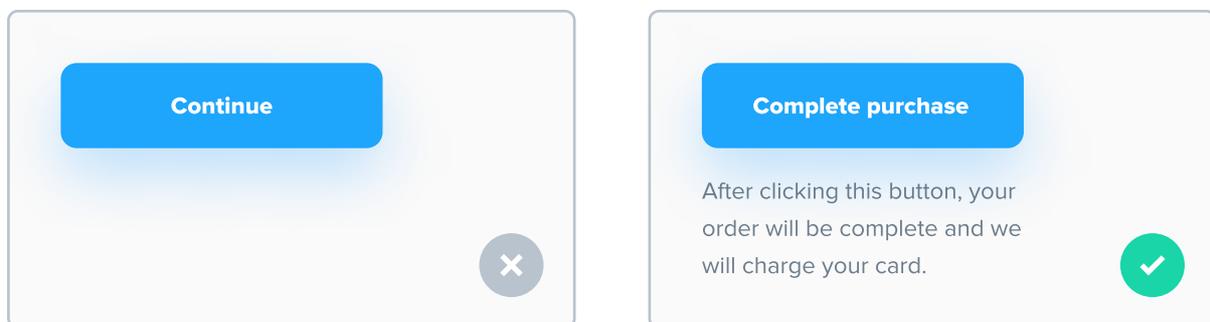


VIBs - Very Important Buttons

Many products have something that I like to call a Very Important Button - a button that has a very high degree of importance.

For example on e-commerce websites, when you buy something there are usually many Primary buttons to go through the steps or purchasing - entering your address, selecting a delivery and payment method etc.

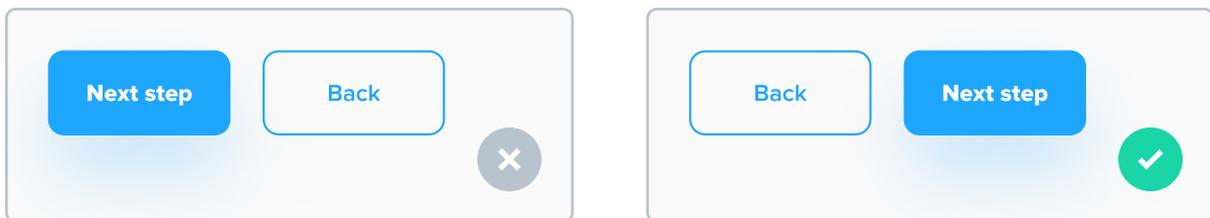
However, there's always one most important button to actually checkout. It should be very clear that after clicking it, you order something and will be charged. If a button for checking out has a text like "Continue", the user has no idea that he will be charged after clicking it, and that's bad user experience.



There are no strict rules used to determine if a button is very important or not. In general, if the product is going to “take” something from the user - for example charge his credit card - it's better to warn him, for example with text under the button.

Button pair positioning

It's quite common for buttons to come in pairs - for example inside of forms - "Continue" button on one side, "Back" button on the other. It can be confusing where each button should be placed. In short - the button that is more important should be placed on the right side, and less important on the left. This is especially true on mobile devices. Around 90% of people are right-handed, so a button placed on the right is easier to reach with their thumb.



Forms

A form is a User Interface element that lets the user send information to the server. It's one of the most common ways he uses to interact with the product. It's a step that's necessary whenever the product requires some information from the user, for example logging in, signing up for a newsletter or entering a delivery address. There are a lot of factors that go into creating a well designed form.

Key content

- What are forms and why we use them in UI Design?
- Measuring success
- Overview of all form elements
- Designing form elements
- A huge amount of awesome tips

Why we use forms?

We use forms to get information from the user. For reference to physical world - think of it as a piece of paperwork that needs to be filled out. In digital world its pretty much the same thing. When forms get lengthy, they're often not completed, which ultimately leads to user being unable to finish a desired task, which is an example of bad UX.

We want the user to complete the form

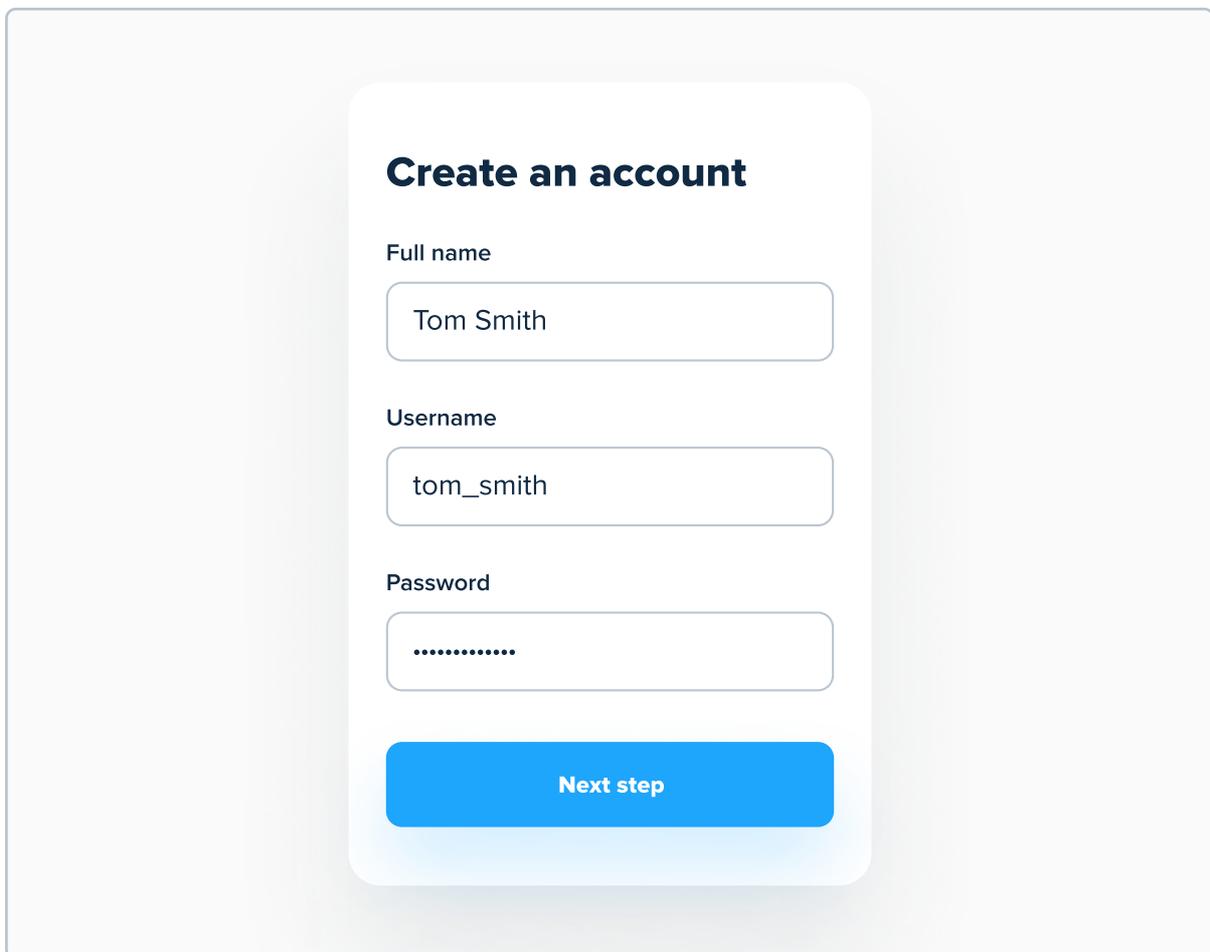
Our main goal while designing forms should be that the user completes it, meaning that he fills all required fields and submits the result to the server. This way he's able to complete his desired task (whether it's ordering pizza, creating an account or signing up for a newsletter). So in simple words - we need to do everything we can to help the user fill that damn form!

How we measure success

To measure and test our forms we use conversion rate - it's the percentage of people who successfully submitted the form out of all users. So for example if 1000 users will start filling a form, but only 100 will submit it, that's 10% conversion rate. Every single tip from this chapter should be implemented with one goal in mind - to increase the conversion.

Forms are built out of elements

Forms are built with many elements - headers, text fields, dropdowns, radio buttons, checkboxes, sliders and buttons. Each one of them serves a different purpose and is suitable for different data types. Using a suitable element for each data type is crucial in increasing our conversion rate. It's a good practice to design all elements of a form before actually building it. It will make the whole process easier.

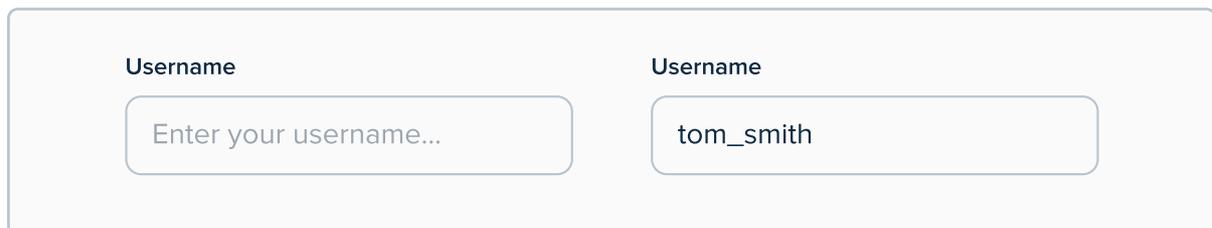


The image shows a 'Create an account' form. It has a title 'Create an account' in bold. Below the title are three input fields: 'Full name' with the value 'Tom Smith', 'Username' with the value 'tom_smith', and 'Password' with a masked value '.....'. At the bottom of the form is a blue button labeled 'Next step'.

Here's a very basic form.

Text field

The most common form element is the text field. It has a quite simple anatomy - just a rectangle with a label and placeholder text inside (it can have the same size as your base / body text size).

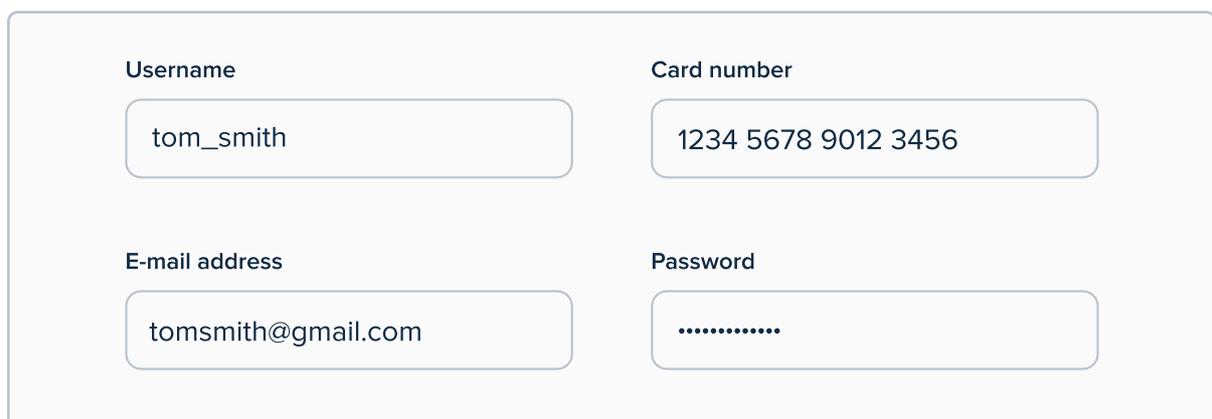


Username <input type="text" value="Enter your username..."/>	Username <input type="text" value="tom_smith"/>
--	---

On the left you can see an empty text field, and on the right - a filled one.

Text field types

Text fields can be used to acquire a variety of different data types from the user - from basic such as names, passwords, card numbers, addresses and many others. The majority of text fields simply hold text. The password fields hide it under bold dots.

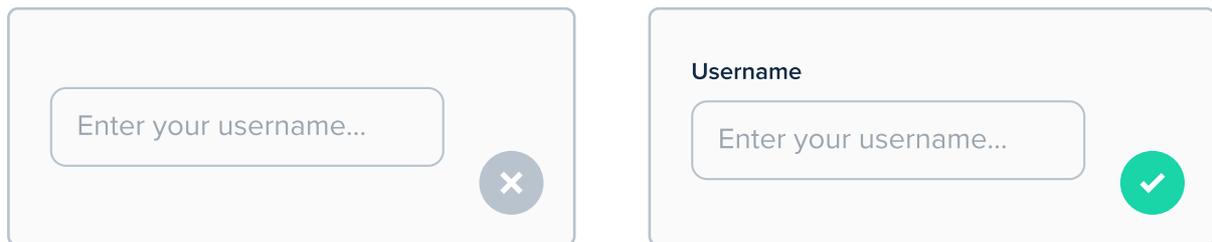


Username <input type="text" value="tom_smith"/>	Card number <input type="text" value="1234 5678 9012 3456"/>
E-mail address <input type="text" value="tomsmith@gmail.com"/>	Password <input type="password" value="....."/>

The majority of text fields hold just text or numbers (or both).

Keep the labels visible

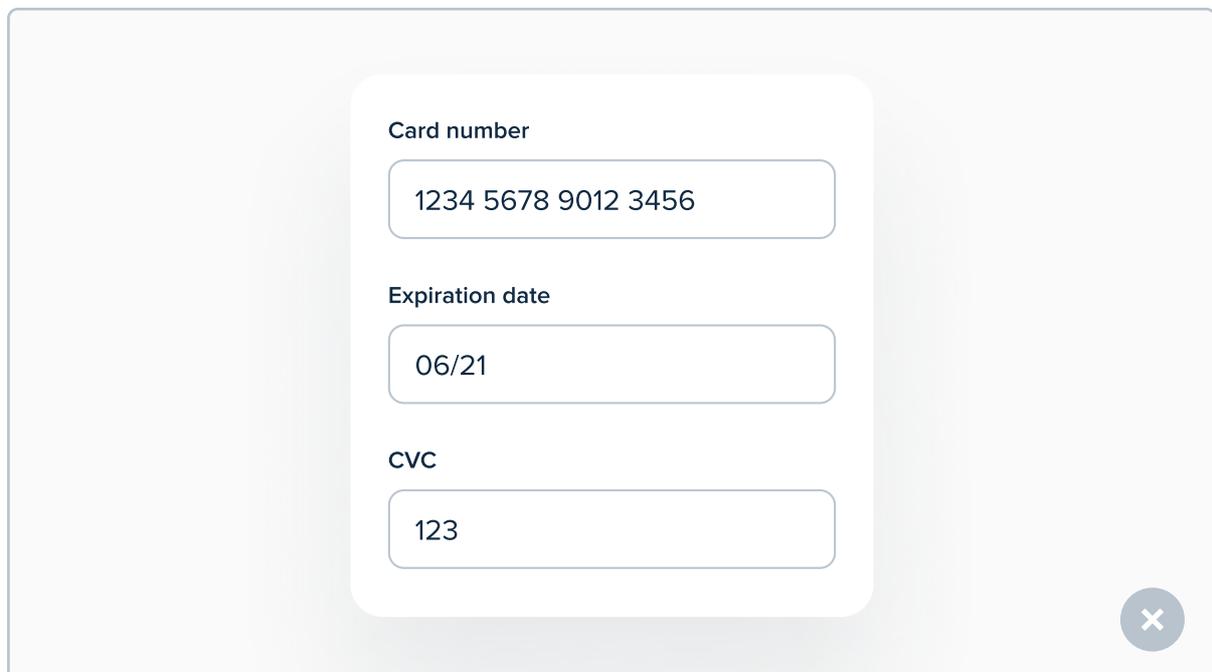
You might think that if labels have placeholder text, the labels aren't needed. However, it's better to keep them, because the placeholder disappears after the user starts typing, and he can forget what he's entering if there's no label.



The image shows two side-by-side examples of a text input field for a username. The left example shows a text box with the placeholder text "Enter your username..." and a grey circular button with a white 'x' icon to its right. The right example shows a text box with the same placeholder text, but with the label "Username" positioned above it. To the right of the text box in the right example is a green circular button with a white checkmark icon.

Text fields should have proper width

Some text fields only take input of a certain width - for example an expiration date of a credit card, postal code or a CVC code. It's a good practice to use a smaller width for these fields.



The image shows a credit card form with three input fields. The first field is labeled "Card number" and contains the text "1234 5678 9012 3456". The second field is labeled "Expiration date" and contains the text "06/21". The third field is labeled "CVC" and contains the text "123". The form is enclosed in a light grey border with a rounded corner. A grey circular button with a white 'x' icon is located in the bottom right corner of the form.

Card number

1234 5678 9012 3456

Expiration date CVC

06/21 123

✓

Text fields shouldn't be confused with other elements

Text fields are one of these elements that just shouldn't look super fancy - to be honest, they're rather boring. When you overstyle them, they no longer look like text fields - more like buttons, which makes it super confusing, so I recommend you stick with a rather basic rectangle with a border.

Username

Enter your username...

✕

Username

Enter your username...

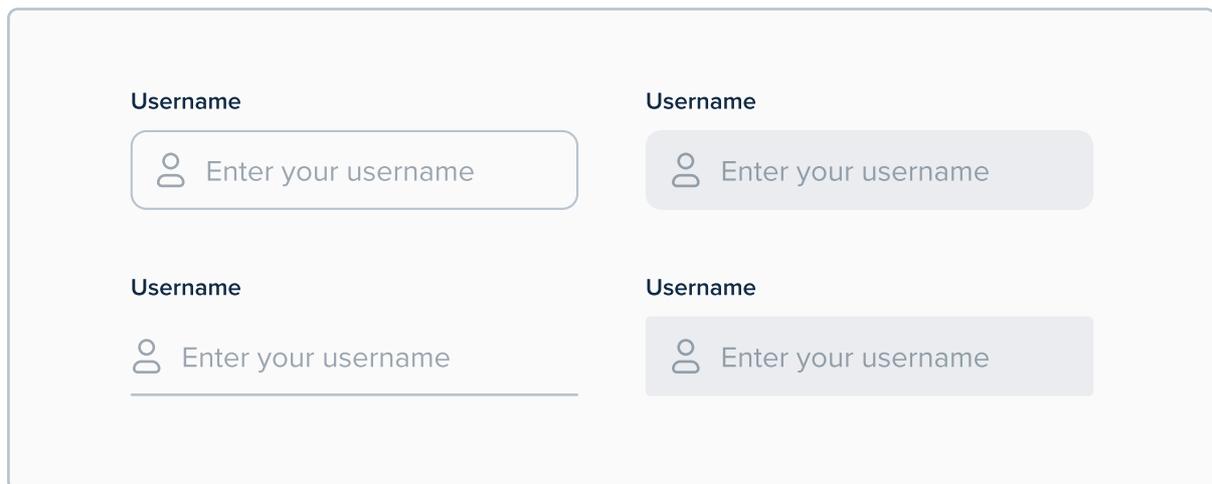
✓

The style that you can see on the left is a very popular trend. Text fields with a white background and a drop shadow look quite cool, but they can be very easily confused with a button or a card.

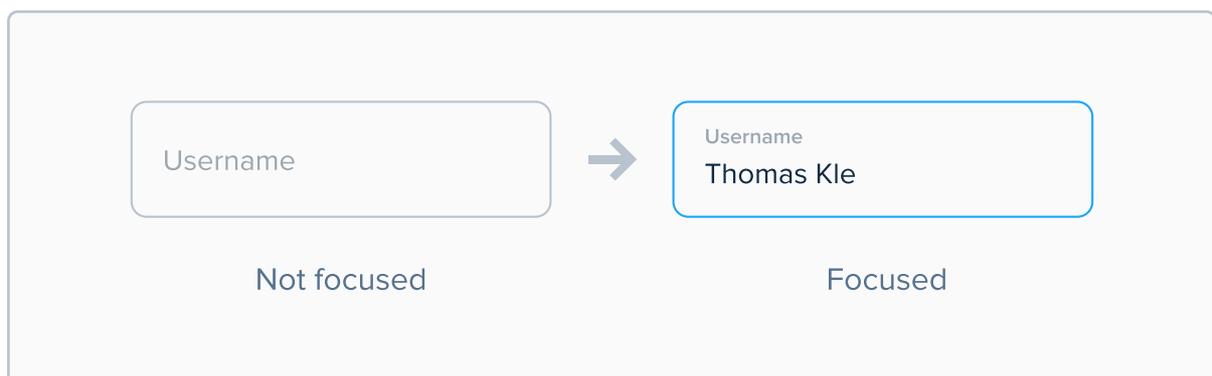
I recommend not to use them inside forms, or at least use a border instead of just a shadow.

Text field styles

Text fields can have a variety of different styles. Changes between them are purely visual, so there is no reason to use one over the other. Just make sure to be consistent throughout the whole design.



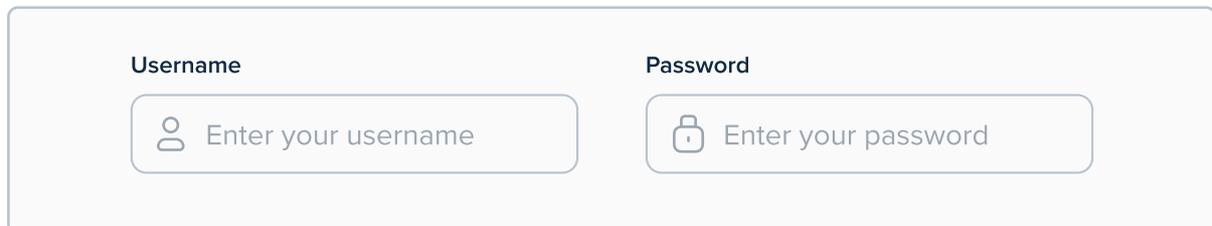
A good approach to designing text fields is to transform the placeholder into the label when the user starts typing, like here:



This approach usually requires that the text field is higher, but it's still good to follow it. It's used by companies like Google or Adidas.

Text fields with icons

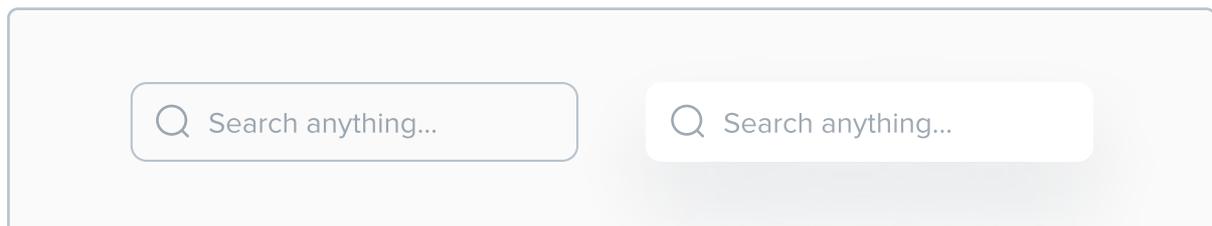
Feel free to use icons inside text fields. They make “scanning” the field easier. Just make sure to use an icon that is understandable.



Two text input fields are shown side-by-side. The left field is labeled "Username" and contains a person icon followed by the placeholder text "Enter your username". The right field is labeled "Password" and contains a lock icon followed by the placeholder text "Enter your password".

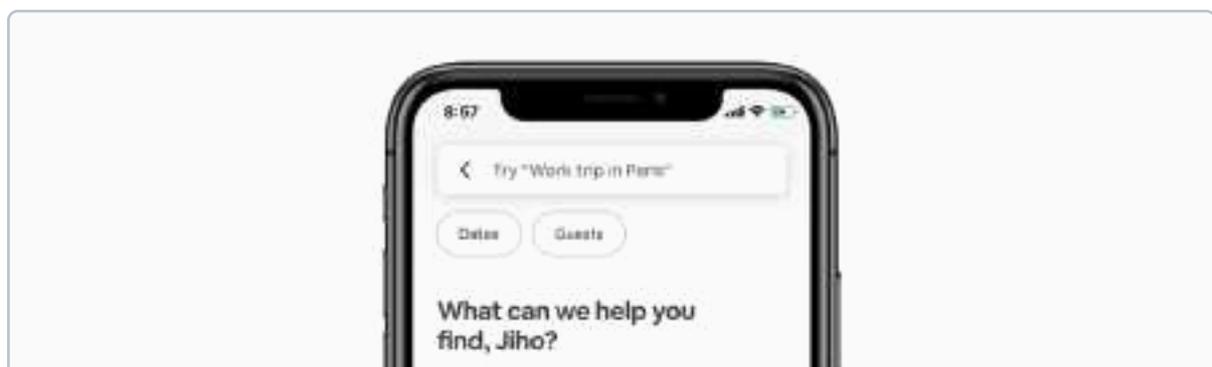
Some text fields are not a part of any form

Not every text field in UI Design needs to be a part of a typical form. Text fields are frequently used for example for search bars.



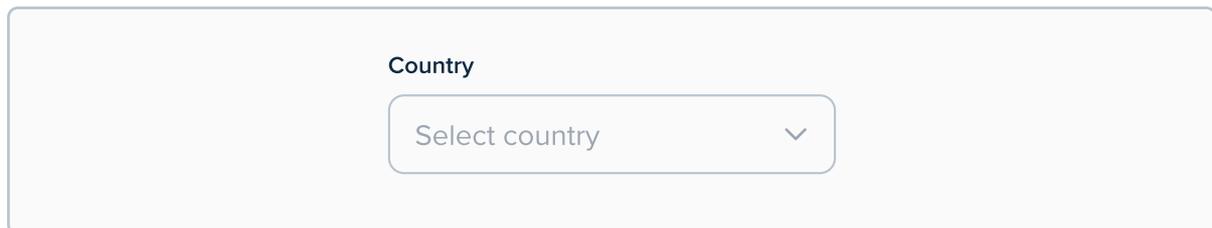
Two search bars are shown side-by-side. Each bar has a magnifying glass icon on the left and the placeholder text "Search anything..." inside. The bars are styled with rounded corners and a subtle shadow.

Fields like these don't need a label. They can even have a drop shadow and a more sophisticated style. Take a look at AirBnB:



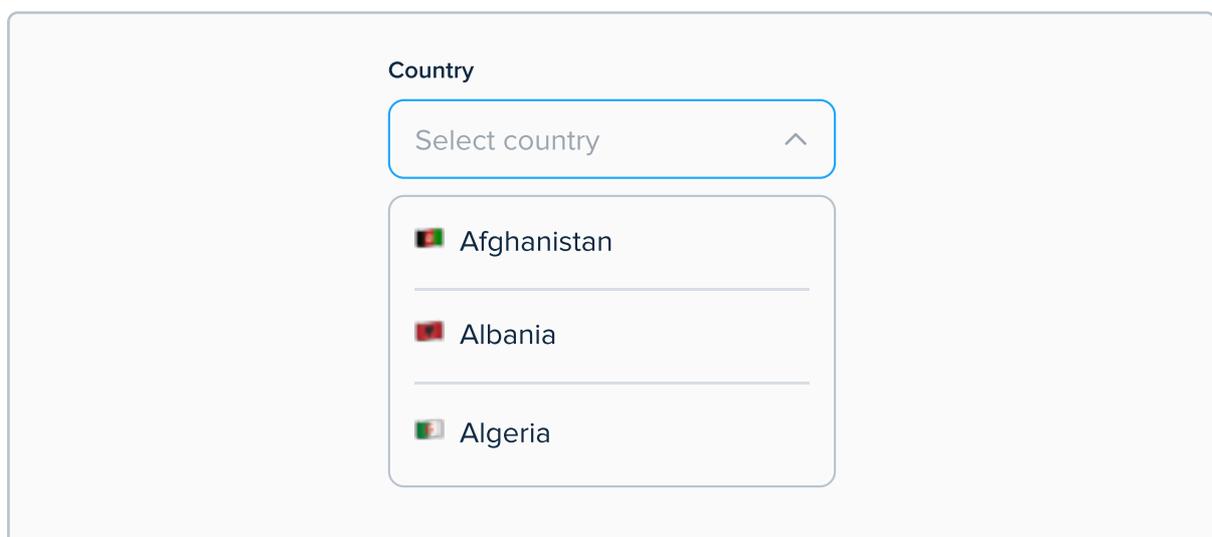
Dropdowns

In anatomy, dropdowns are very similar to text fields - they look almost exactly the same, only that they have a chevron on the right side of the form, and their placeholder text usually indicates that user has to make a selection, and not input text.



A screenshot of a closed dropdown menu. The label 'Country' is positioned above the input field. The input field contains the placeholder text 'Select country' and a small downward-pointing chevron icon on the right side.

On click, a list of elements expands, and the user has to make a selection. Dropdowns are used for long lists of elements - for example selecting a country or a state. Using dropdowns for short lists (4 and less items) is a bad practice - it's better to use a list of radio buttons instead (more on that later).

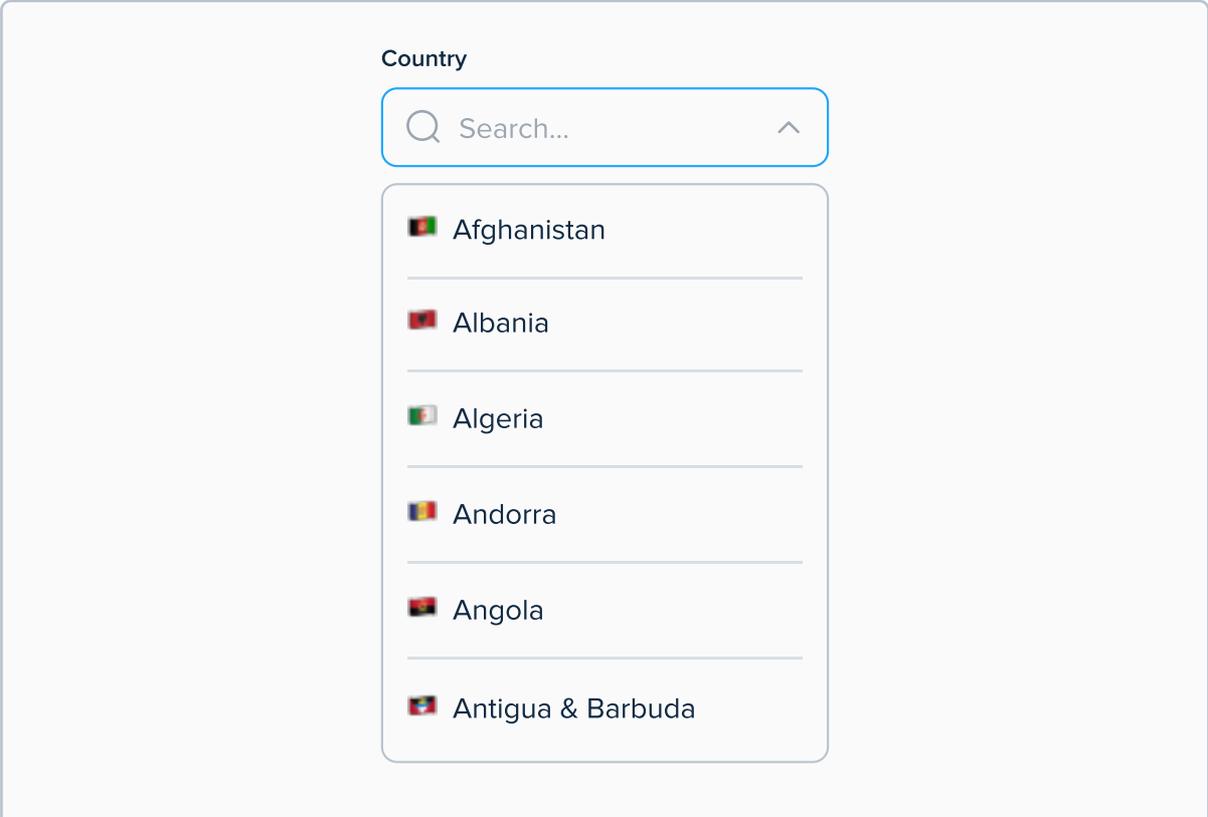


A screenshot of an expanded dropdown menu. The label 'Country' is above the input field. The input field contains the placeholder text 'Select country' and an upward-pointing chevron icon. Below the input field, a list of three countries is displayed, each with a small flag icon to its left: Afghanistan, Albania, and Algeria.

An example of a dropdown.

Consider adding a search bar inside a dropdown

Dropdowns are usually used for a very large number of elements. If that's the case, it's good to turn the dropdown into a search bar after it's toggled. This way the user can search through all elements without the need to scroll.

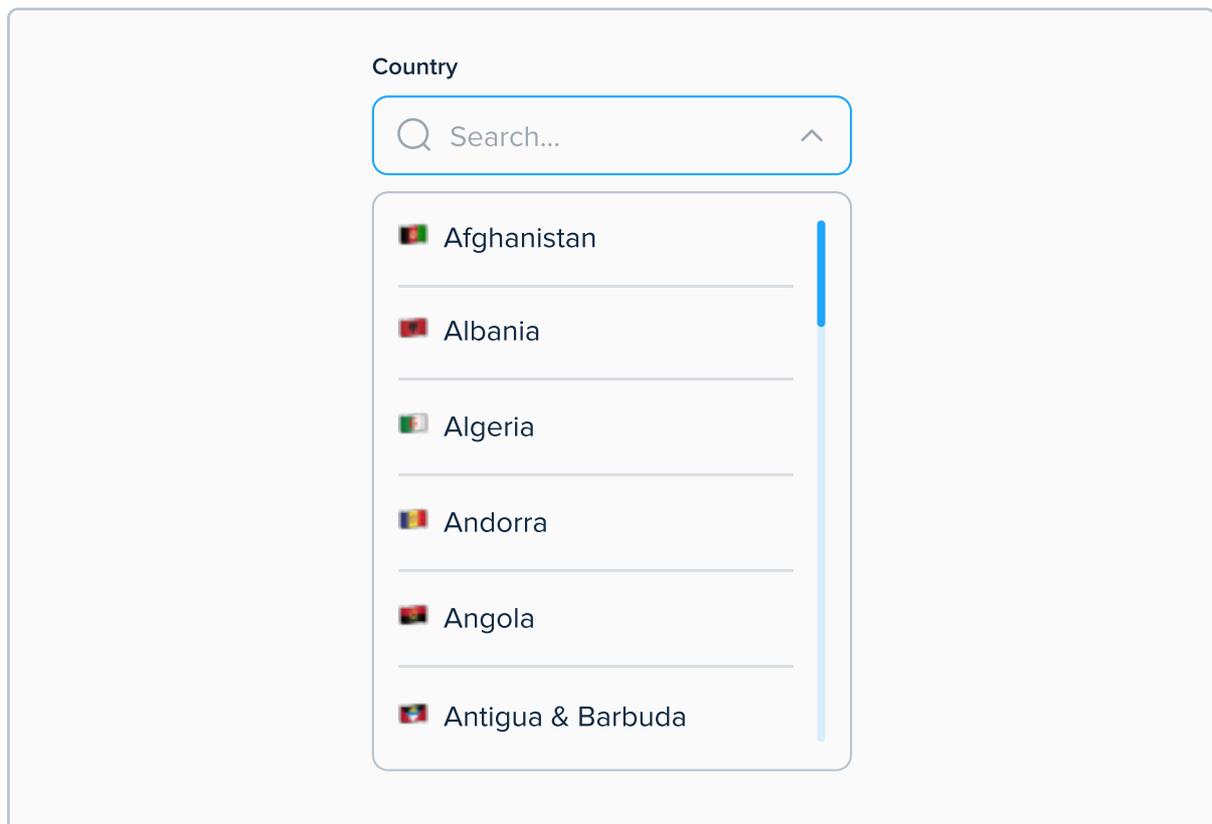


The image shows a user interface for a 'Country' dropdown menu. At the top, the word 'Country' is displayed. Below it is a search bar with a magnifying glass icon on the left and an upward-pointing arrow on the right. The search bar contains the text 'Search...'. Below the search bar, a list of countries is displayed, each with a small flag icon and the country name: Afghanistan, Albania, Algeria, Andorra, Angola, and Antigua & Barbuda.

This can be slightly harder in development, but overall it will result in way better UX, because the user won't have to scroll so much to find the value he's looking for.

Use a scrollbar inside a dropdown

Without a scrollbar, it can be confusing for the user to understand if a dropdown is scrollable or not. Just make a very simple one on the right side and you're good to go.

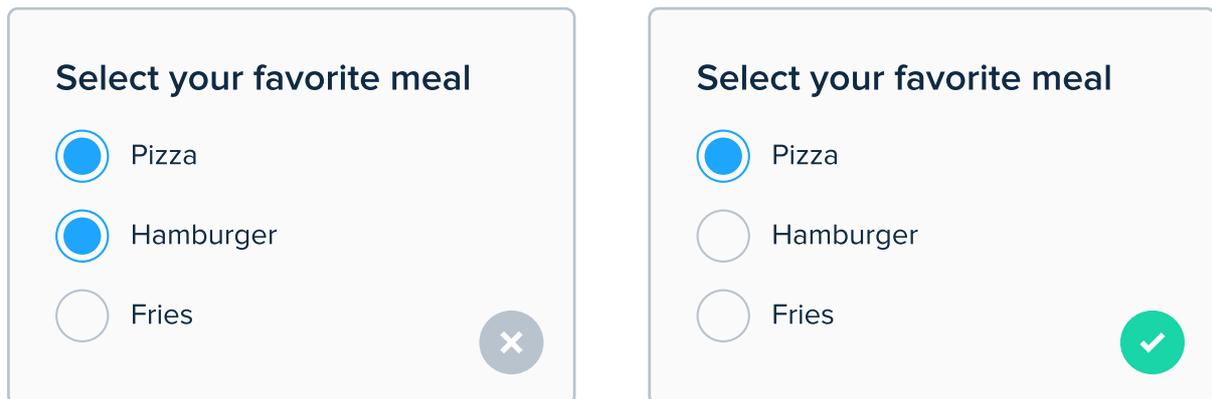


The image shows a UI component titled "Country". It features a search input field with a magnifying glass icon and the text "Search...". Below the search field is a list of countries, each with a small flag icon and the country name: Afghanistan, Albania, Algeria, Andorra, Angola, and Antigua & Barbuda. A vertical scrollbar is positioned on the right side of the list, indicating that the list is scrollable.

It's better to just use a scrollbar than to make a dropdown with a list of like 20 positions, taking half of the screen real estate. It's way less intrusive and not that hard in development.

Radio buttons

Radio buttons serve a similar purpose to dropdowns, except they do it for shorter arrays of items - usually 2 to 4. They are usually a small oval with a border, with a filled oval inside it when selected. Only one radio button can be selected at a time.



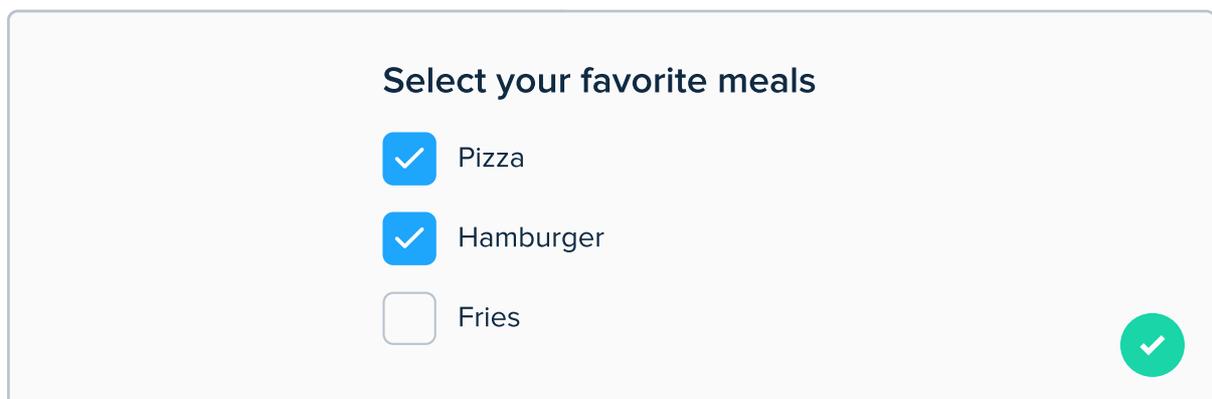
Two examples of radio button forms. Both are titled "Select your favorite meal".

The left form shows three options: Pizza (selected), Hamburger, and Fries. A grey circle with a white 'x' is in the bottom right corner.

The right form shows the same three options: Pizza (selected), Hamburger, and Fries. A green circle with a white checkmark is in the bottom right corner.

Checkboxes

Checkboxes act like Radio buttons, except they're used for multiple selection, meaning multiple items can be selected at once. They're usually styled as square boxes with a border, and they get a colored fill with a check icon when selected.

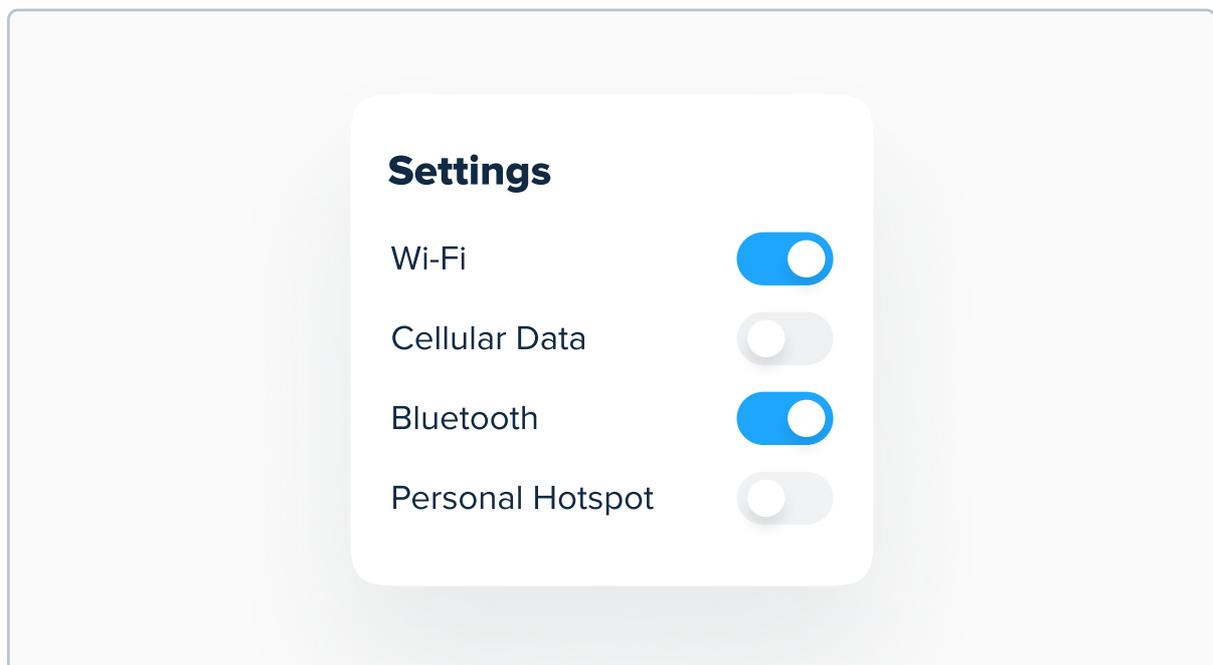


An example of a checkbox form titled "Select your favorite meals".

It shows three options: Pizza (checked), Hamburger (checked), and Fries (unchecked). A green circle with a white checkmark is in the bottom right corner.

Switches

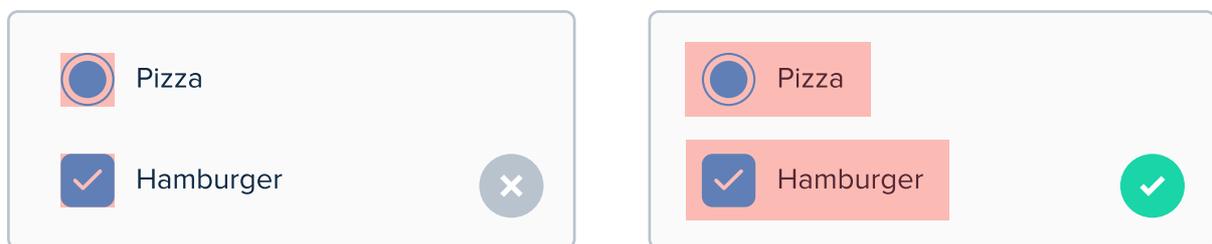
Switches have a similar purpose to checkboxes - they're a multiple choice element that is rarely used in forms, but rather as separate objects. The main difference between them and checkboxes is that action caused by switching a switch does not have to be confirmed by a "Submit" button.



Switches are better for places in which you change the values of unrelated elements - for example in settings. Using a checkbox in this scenario would be okay, but it's better to use switches if the user does not have to confirm changes with a button.

Sizing of Radio buttons and Checkboxes

You might have noticed that radio buttons, checkboxes and switches are all very small elements - actually, they're one of the smallest interactive elements in UI Design. On mobile devices, radio buttons and checkboxes both should have dimensions of 24pt, but they should have a larger tap area of at least 44pt around it (on mobile). This way they're more accessible.



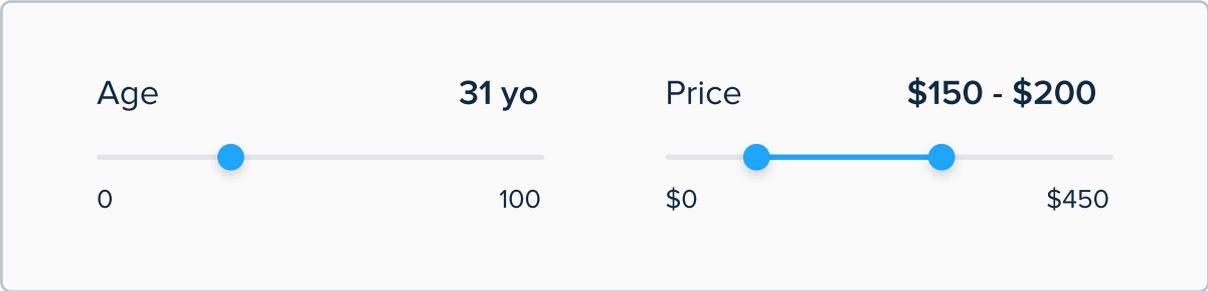
I indicated the tap area with red color. Please note that these values are only showed to illustrate my point, and these aren't exact sizes that tap areas should have. It's also a good idea to make text next to Radio buttons and Checkboxes tappable as well to make it more accessible.

Even though on desktop screens the cursor has higher precision than finger on mobile devices, it's still good to increase the click area a bit.



Slider

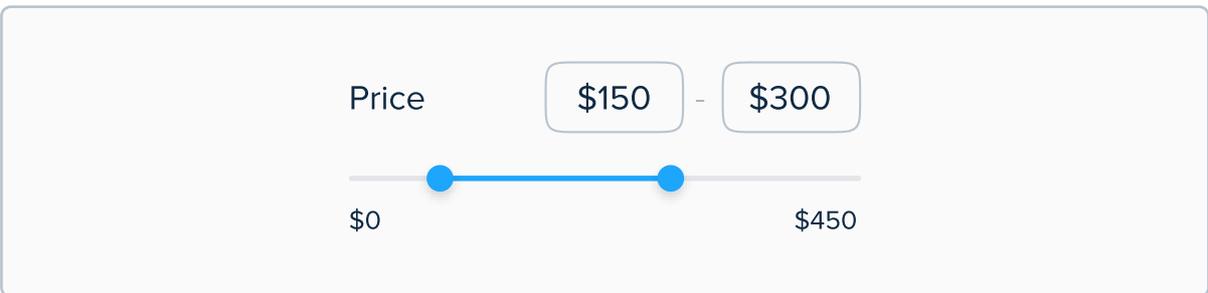
A slider is a different way of selecting a number value - for example a range of prices. The precision of a slider is smaller than just entering the numerical value, but when dealing with numbers that don't need to be very specific, it can be useful.



The image shows two slider controls. The first is labeled 'Age' and has a range from 0 to 100. A blue dot is positioned at 31, with the text '31 yo' displayed above it. The second is labeled 'Price' and has a range from \$0 to \$450. A blue line with two dots indicates a range from \$150 to \$200, with the text '\$150 - \$200' displayed above it.

As you can see above, sliders can be used for selecting a specific number or a range of numbers. It depends on the product. However, the latter type is used more frequently.

It's a good practice to use sliders with two text fields near the label, so if the user needs more precision, he can select how he wants to enter the numbers.



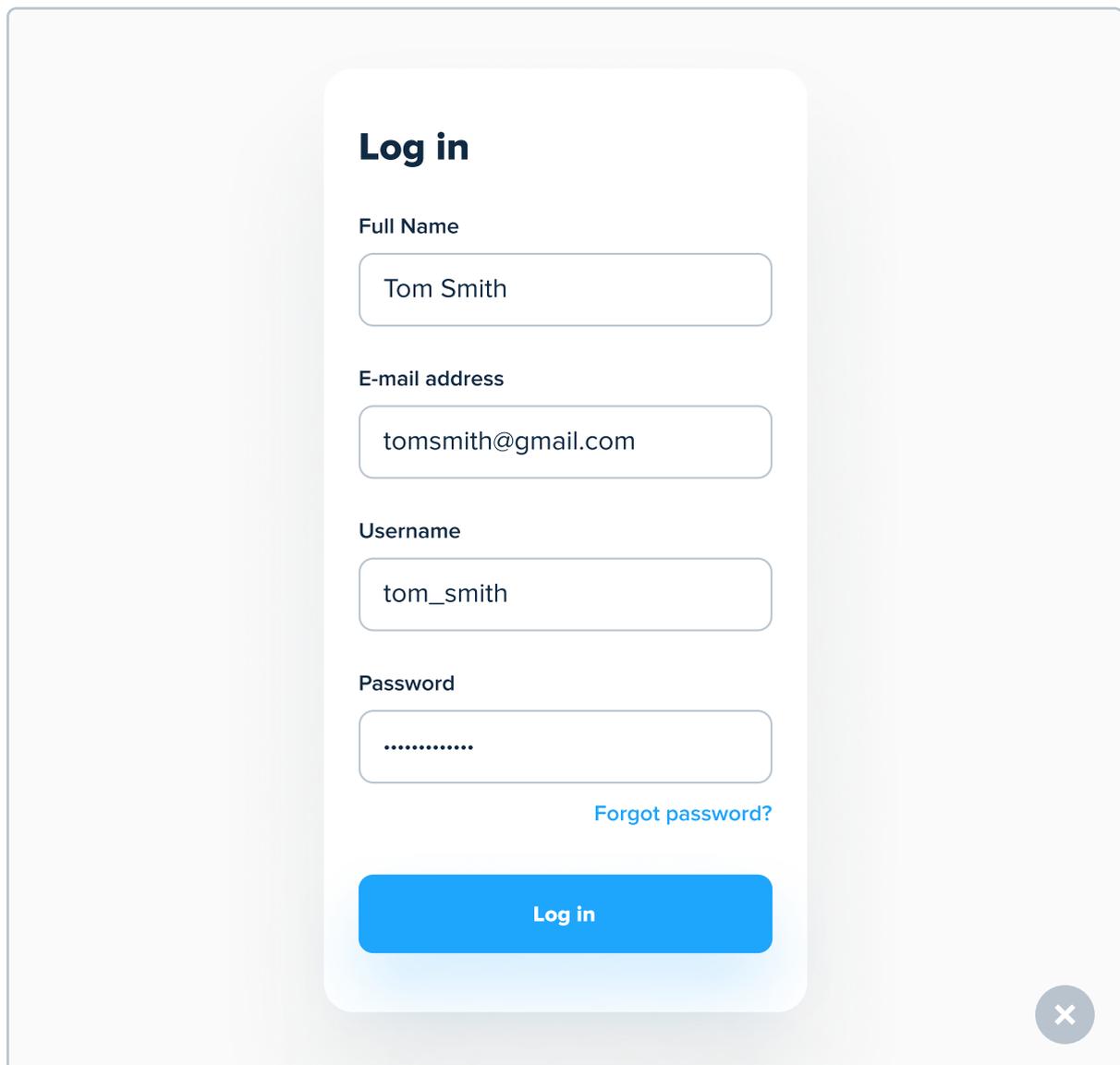
The image shows a slider control for 'Price' with a range from \$0 to \$450. A blue line with two dots indicates a range from \$150 to \$300. Above the slider, there are two text input fields containing '\$150' and '\$300', separated by a minus sign.

Best practices

So far I went through elements that forms are made out of. Remember that forms have elements such as headers and buttons, but I haven't included them as they aren't exclusive to forms. In the remaining part of this chapter I'd like to go through some best practices when designing forms.

Keep forms short and sweet

If a field is unnecessary, remove it. The shorter the form the better. Decisions of what's important and what isn't are often made by product owners, but just remember that less is more.



Log in

Full Name
Tom Smith

E-mail address
tomsmith@gmail.com

Username
tom_smith

Password
.....

[Forgot password?](#)

Log in

✕

Come on - we don't need user's name, and both e-mail and username to let him log in.

Log in

E-mail address

Password

[Forgot password?](#)

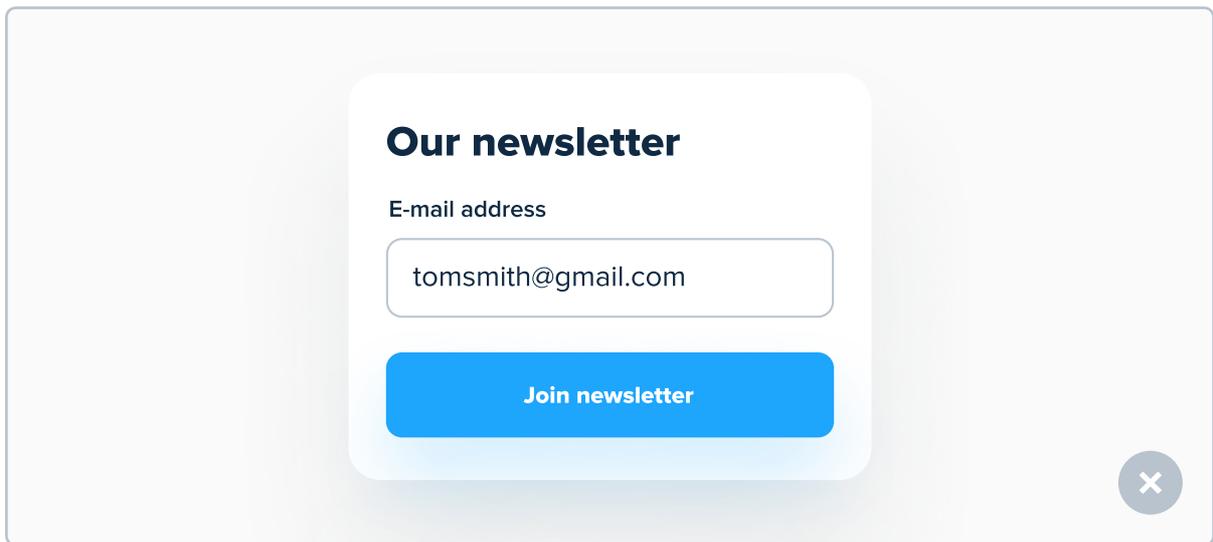
Log in



While more information about the user can be beneficial for the company, filling forms is usually a tedious process that users don't really want to do, so it's best to keep forms short.

Remind the user why the form is valuable

Some users might feel that filling a form is too demanding, and they don't know why they should even do it. That's why you should remind them that filling these forms will bring value to their life, and that it's worth doing it.

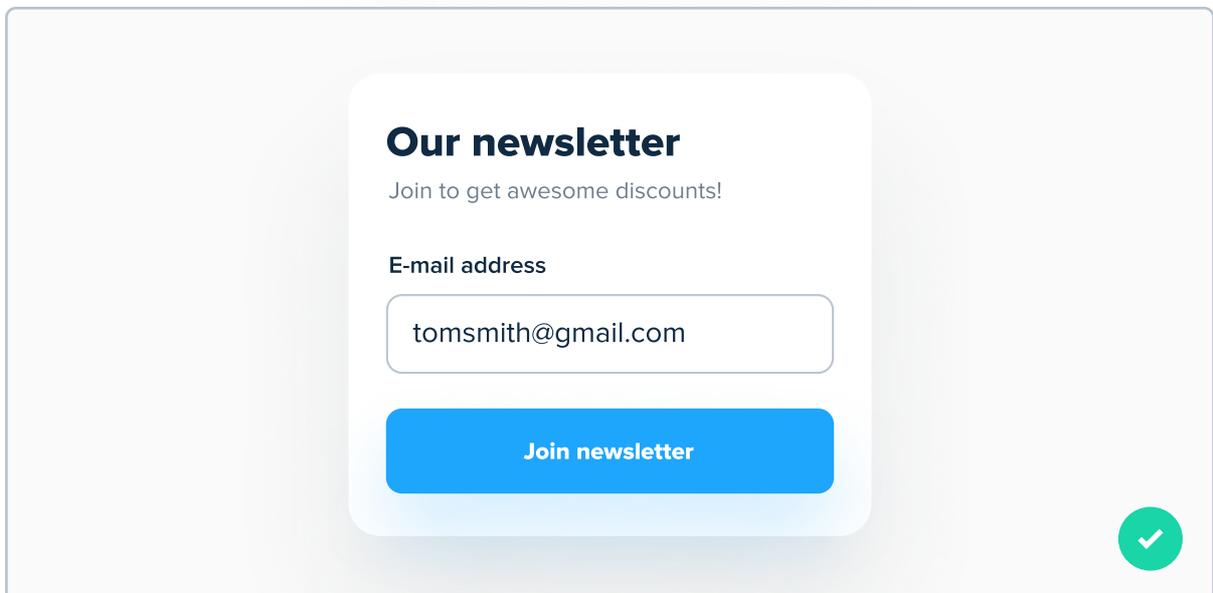


Our newsletter

E-mail address

[Join newsletter](#)

✕



Our newsletter

Join to get awesome discounts!

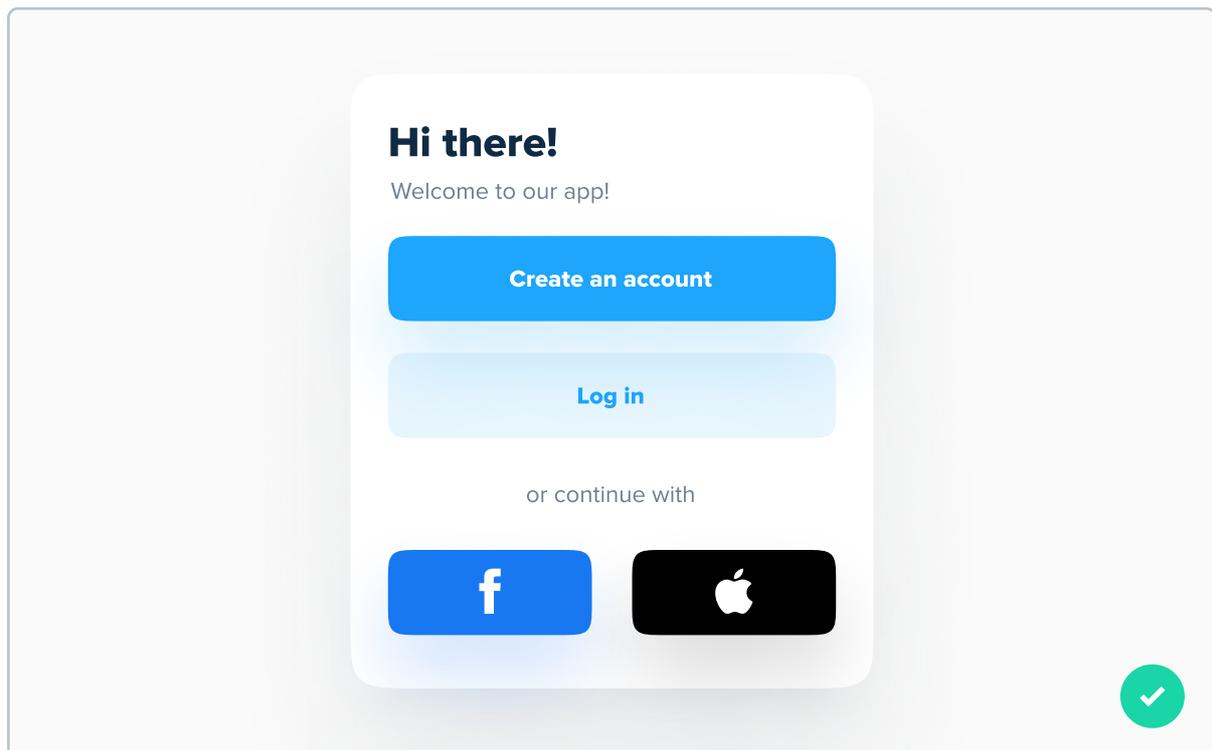
E-mail address

[Join newsletter](#)

✓

If possible, let users continue with social media

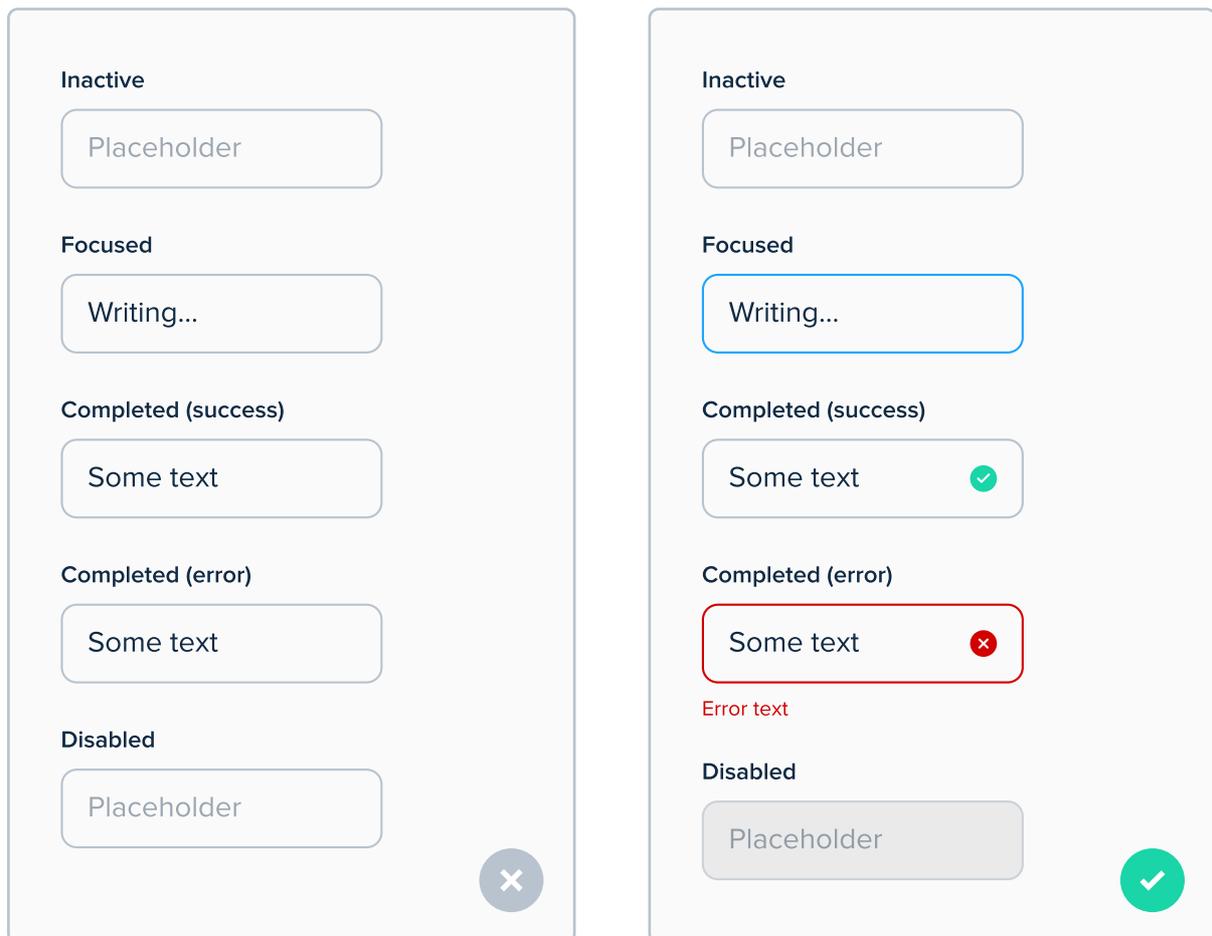
Signing up / logging in with social media makes the whole process way easier. It provides the server with all the information necessary for the sign up / log in process automatically, and the user does not have to enter any on his own.



Nowadays it's very rare for a product not to have support for logging in with social media or Apple ID. Implement it whenever possible!

Design all states for form elements

Make sure that you have every state for every form element designed. It might feel like an unnecessary thing to do, but in reality it's really important. Fortunately - also pretty simple.



Same goes for other elements, such as checkboxes and radio buttons. There however, it's even easier to design it.

Break down a long form into small pieces

If you have a very long form (5 fields and up) and you can't make it shorter because all fields are necessary to fill, break it down into small pieces and inform the user about his progress on the way. This way, at first glance it will look like filling that form is not such a big challenge.

Form name

Label

Label

Label

Label

Label

Complete



Form name

Step 1 of 2

Label

Label

Label

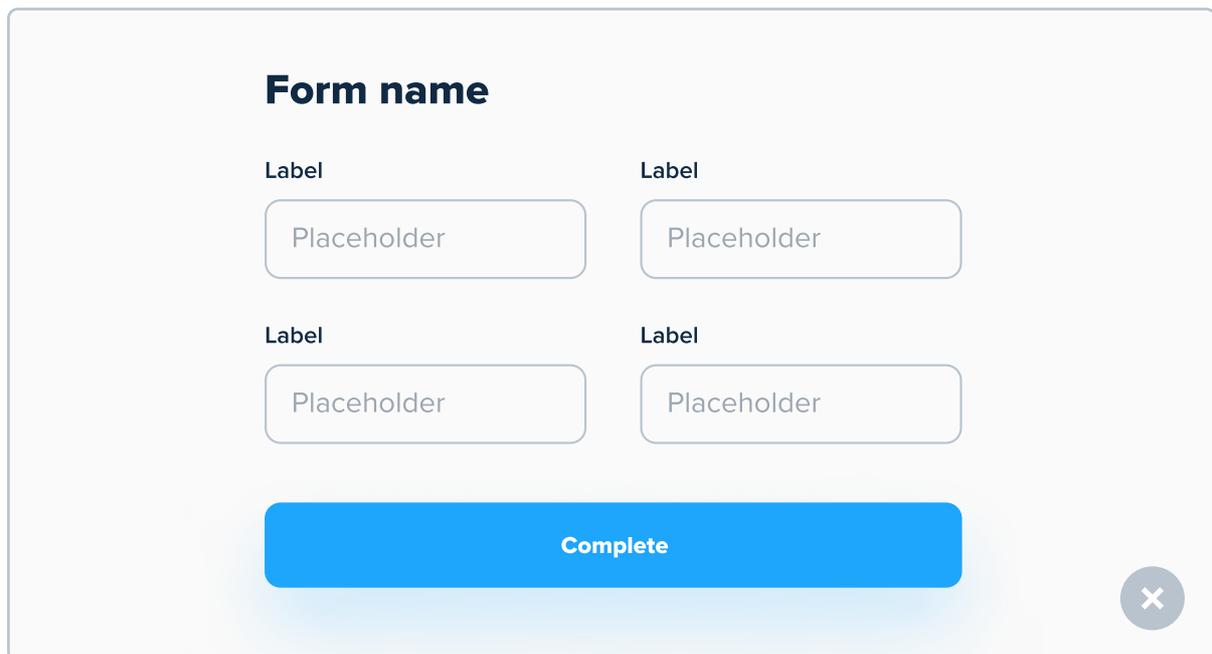
Next step



This form is not shorter - it's just broken down to two steps, so at first sight it looks easier to fill.

Use single column layout when designing forms

When using a single column form, user's eyes naturally jump from one field to another, without confusion. This way he understands the order in which he's asked to fill the form.



Form name

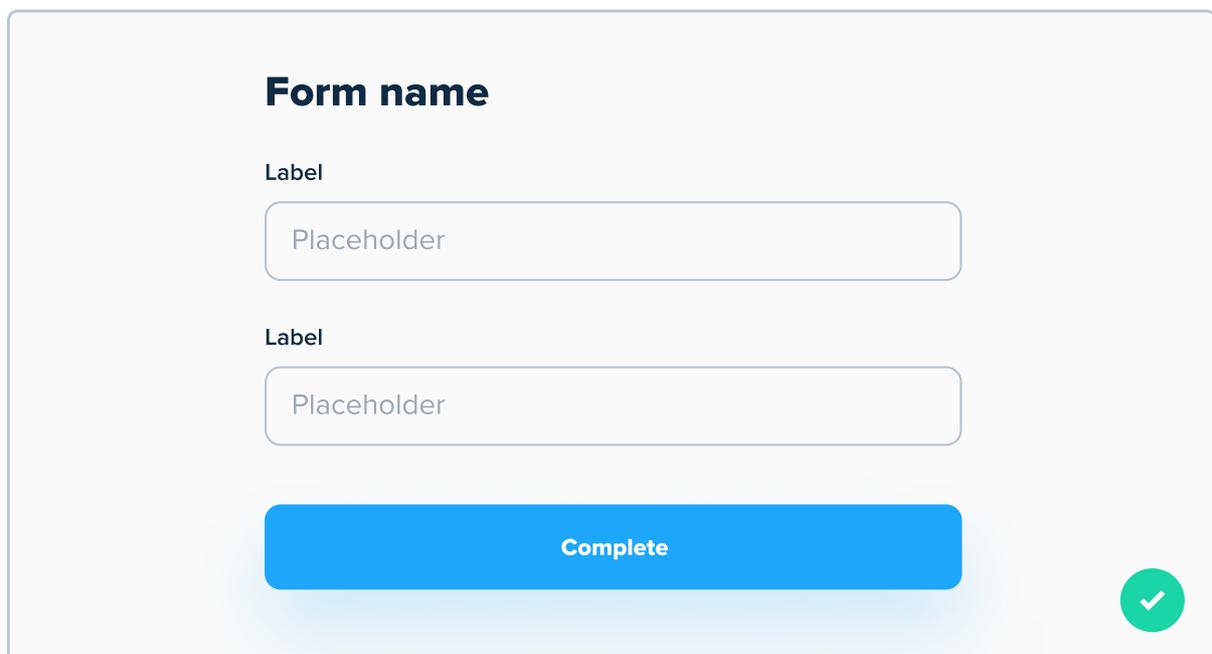
Label Placeholder Placeholder

Label Placeholder Placeholder

Complete

X

This form illustrates a two-column layout. It features a title 'Form name' at the top. Below the title, there are four input fields arranged in a 2x2 grid. Each field is preceded by a 'Label' and contains the text 'Placeholder'. At the bottom of the form is a wide blue button labeled 'Complete'. In the bottom right corner, there is a grey circular button with a white 'X' icon.



Form name

Label Placeholder

Label Placeholder

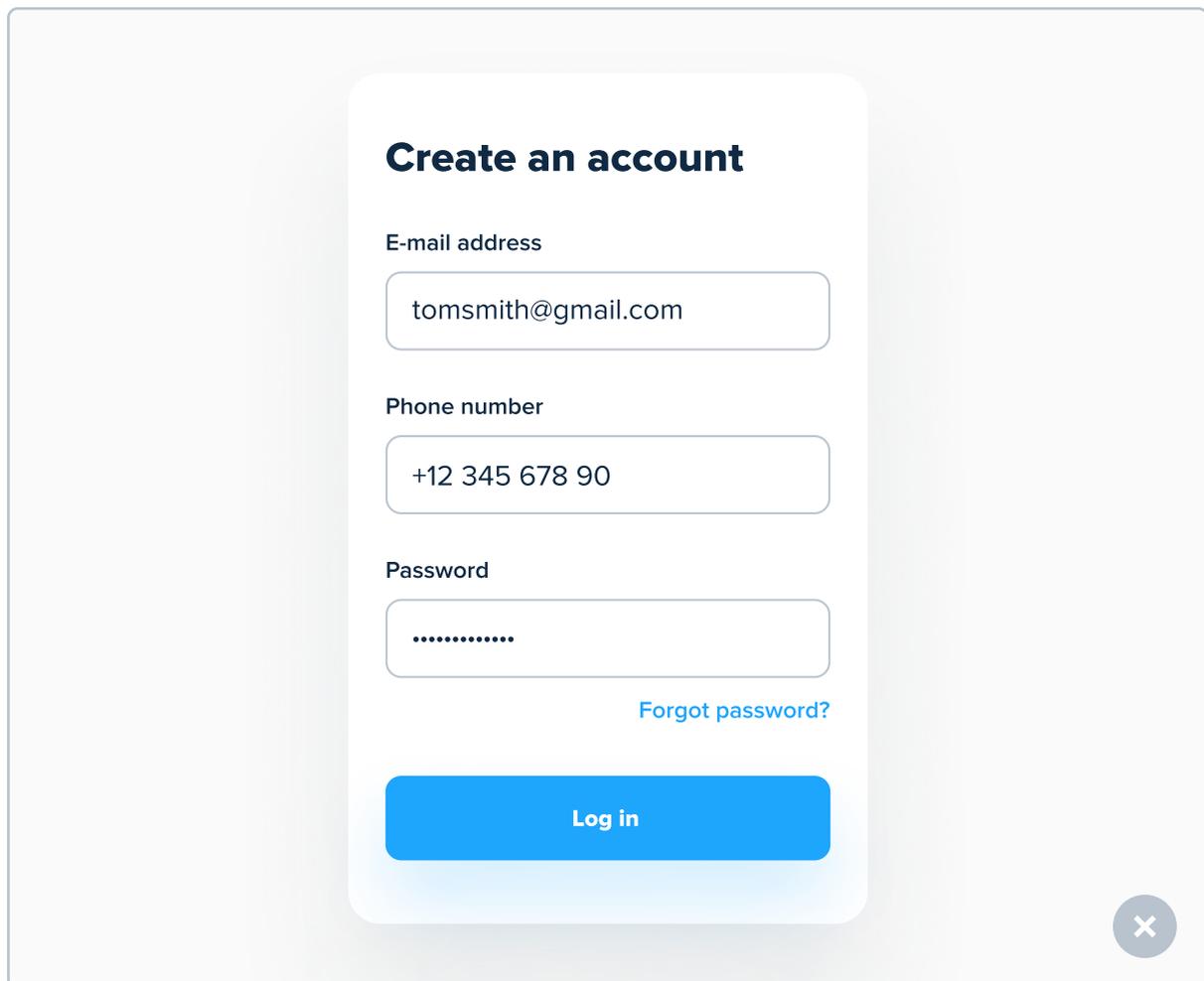
Complete

✓

This form illustrates a single-column layout. It features a title 'Form name' at the top. Below the title, there are two input fields stacked vertically. Each field is preceded by a 'Label' and contains the text 'Placeholder'. At the bottom of the form is a wide blue button labeled 'Complete'. In the bottom right corner, there is a green circular button with a white checkmark icon.

Let users know why you ask them for certain information

Some people aren't comfortable with sharing sensitive information such as their phone numbers or address. They might think the company will call them or will sell their data. If you explain why you ask for something, users are more likely to fill that field.



The image shows a 'Create an account' form. The form is titled 'Create an account' and contains three input fields: 'E-mail address' with the value 'tomsmith@gmail.com', 'Phone number' with the value '+12 345 678 90', and 'Password' with a masked value '.....'. Below the password field is a link 'Forgot password?'. At the bottom of the form is a blue 'Log in' button. The form is set against a light gray background with a close button (an 'X' in a circle) in the bottom right corner.

It's not necessarily a bad approach. However, it's more optimal to do something you will see on the next page.

Create an account

E-mail address

tomsmith@gmail.com

Phone number

+12 345 678 90 ?

Password

.....

We need this information for (X, Y, Z). We will never call you.

[Forgot password?](#)

Log in

✓

A very simple solution is to put a small “Info” or “Question mark” icon inside or near the form element, and after user hovers his cursor or taps on it - he will see the explanation.

Again - this is optional. If it's obvious why the product asks for specific information (for example a food delivery company asking for address) - you can skip this step. If it's not that obvious (for example an e-book store asking for address) - it's better to explain it.

Optional instead of required

In most forms, you'll most frequently see two pairs of content requirements - required + nothing, and nothing + optional. The second one is better. Asteriks are not clear for everyone. It's better to clearly state that some information is optional.

The image shows two side-by-side form panels. Both panels have a title 'Form name' at the top. The left panel shows three input fields, each with a label followed by an asterisk (*), indicating they are required. The right panel shows three input fields, with the first two having labels and the third having a label followed by '(optional)'. Both panels have a blue 'Complete' button at the bottom. The left panel has a grey 'X' icon in the bottom right corner, while the right panel has a green checkmark icon in the bottom right corner.

It's a minor detail that matters. Even if you skip this tip, always make sure that it's clear what information is optional, and what is required. Never leave user guessing if he has to fill something or not.

Divide fields into semantic groups

When you have a lot of fields in your form, divide them into semantic groups by leaving a small gap between each group. While this is a small tip, it can greatly increase conversion, because the user's mind has to do significantly less work - in other words, it's way simpler to fill a form that's divided like this.

The image shows two side-by-side form layouts, each titled "Form name".

The left form has six input fields stacked vertically with no gaps between them. Each field is labeled with a bold text above it: "Full name", "E-mail address", "Phone number", "Address", "City", and "Postal code". Each input field contains the word "Placeholder". At the bottom right of this form is a grey circular button with a white 'X' icon.

The right form has the same six input fields, but they are separated by small vertical gaps. Each field is labeled with a bold text above it: "Full name", "E-mail address", "Phone number", "Address", "City", and "Postal code". Each input field contains the word "Placeholder". At the bottom right of this form is a green circular button with a white checkmark icon.

Use real-time feedback

Real-time feedback means that immediately after the user completes entering something into the text field, he will get feedback regarding if it's okay or not. This way, he can be certain that after clicking the submit button everything will go smoothly.

The image displays two side-by-side form panels, each titled "Form name".

The left panel shows a form with four text input fields, each with a "Label" above it. The inputs contain "Some text", "Some text", "Writing...", and "Placeholder". The "Writing..." input is highlighted with a blue border. A grey circular icon with a white "X" is located in the bottom right corner of the form.

The right panel shows the same form, but with green checkmarks indicating successful input. Each input field has a small green checkmark in its bottom right corner. A larger green circular icon with a white checkmark is located in the bottom right corner of the form.

It's also common that after submitting the form something turned out to be entered incorrectly, the whole page refreshes and the user has to type in everything again. That's TERRIBLE UX! Never do that! It's a job for the developer, but remember about it.

CHAPTER 10

Icons

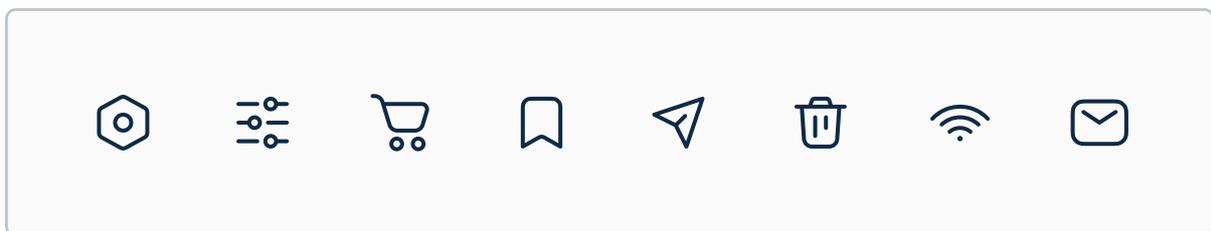
Icons are a crucial part of every interface. Most users “scan” the content - meaning they don’t read every single bit, but they look for something specific. Icons are important in this process, because they let the users read less. In this chapter I’d like to go through some important rules regarding using icons in UI Design.

Key content

- What’s an icon and why we use them in UI Design?
- Two types of icons in UI Design
- Different styles of icons in UI Design
- Tips on using icons
- Icon pack recommendations

What is an icon?

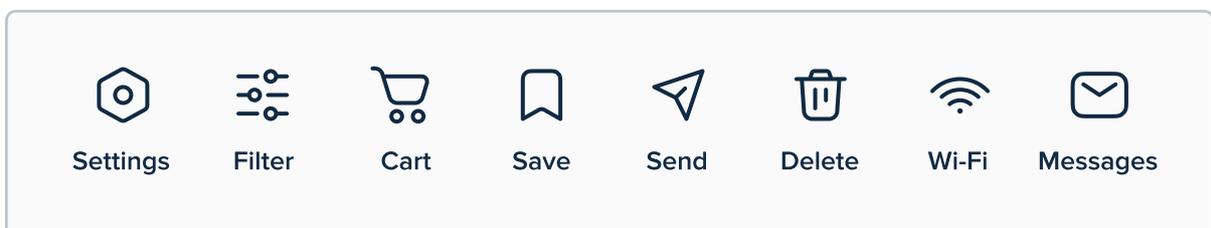
In simple words, an icon is an image used for communication purposes that has a very high symbolic value. They provide the user with a visual information that is (or at least should) be easy to read and understand. If it wasn't for icons, we would need to use text to communicate almost everything, which would require high effort to read it.



A few icons. Can you go through them and think of what they mean?

Icons replace text

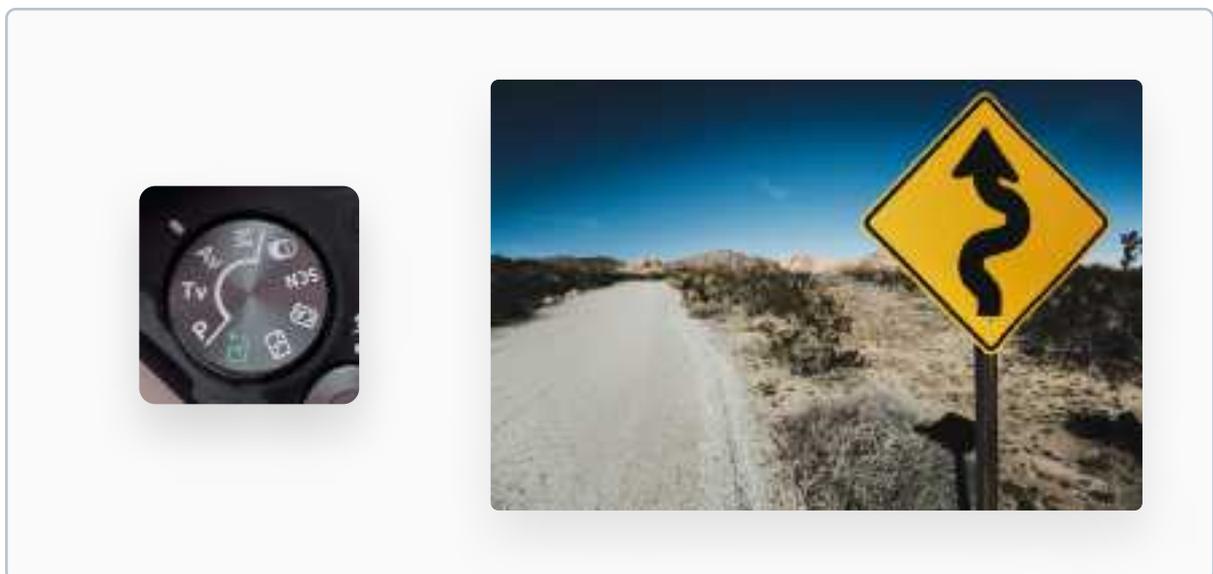
The most important purpose of an icon is to replace text. If you think about it, every single icon can be replaced with a label of some sort - some would be shorter, some would be longer. Icons are like a visual language - same as you understand English, you can understand the meaning of many icons.



A few example “meanings” of icons (just from my own perspective).

Icons are all around you

Icons weren't born for UI Design purposes. They existed in our world a long time ago. You can see them on a DSLR dial, on your microwave and many other places in real life. A very common place they also exist is on road signs. Think about it - before getting a driver's license, driver needs to pass the test meaning that he understands the meaning of the road signs. Imagine such a test made for users, before interacting with any UI Design!



Icons can be found in many places in real life. Photo: John Gibbons, Unsplash

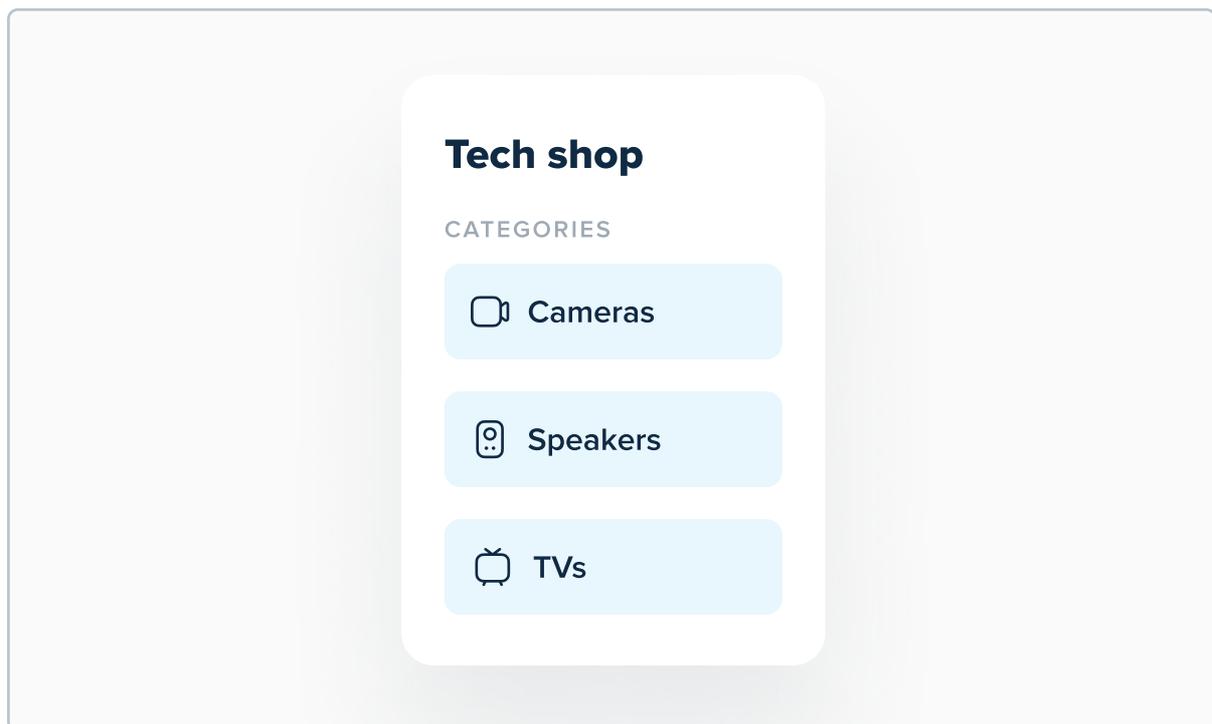
Just as icons used on real products should be simple, easy to understand and remember - so do icons in UI Design. Their main objective is not to look beautiful, but to be easy to understand.

Icons in UI Design - two types

In UI Design, there are two main types of icons - clarifying icons and interactive icons. Both are used frequently.

Clarifying icons

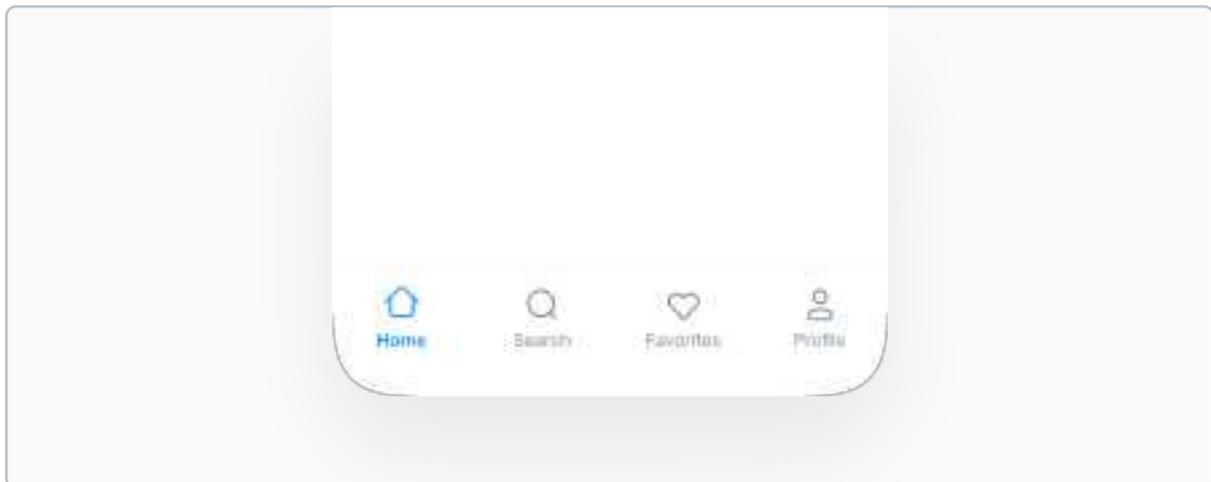
The first type - clarifying icons - are meant to explain something, for example a feature. A good example of them is for example categories in e-commerce products - icons aren't necessarily needed to interact with a category, but they make it clearer what is included in it.



As you can see, these icons aren't interactive. They just clarify what each category includes in it.

Interactive icons

The second type are interactive icons - most commonly used on the navbar. Users can interact with them to perform certain actions in the product. For example a "Heart" icon on a product card can lead adding that product to favorites.

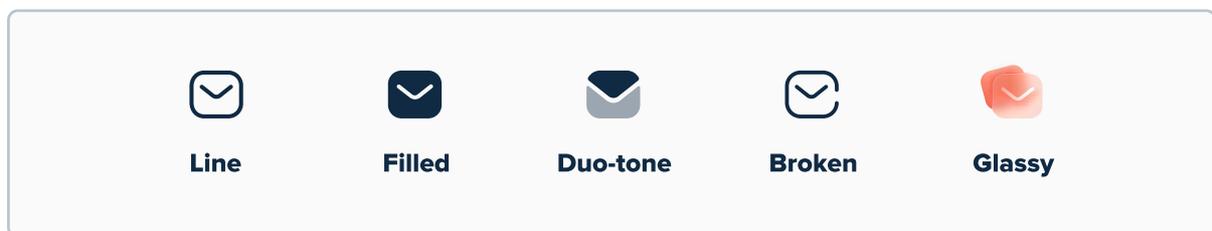


Interactive icons are basically buttons. Some of these icons can also be used without any label at all, but it's better to keep them to make sure they're understood.

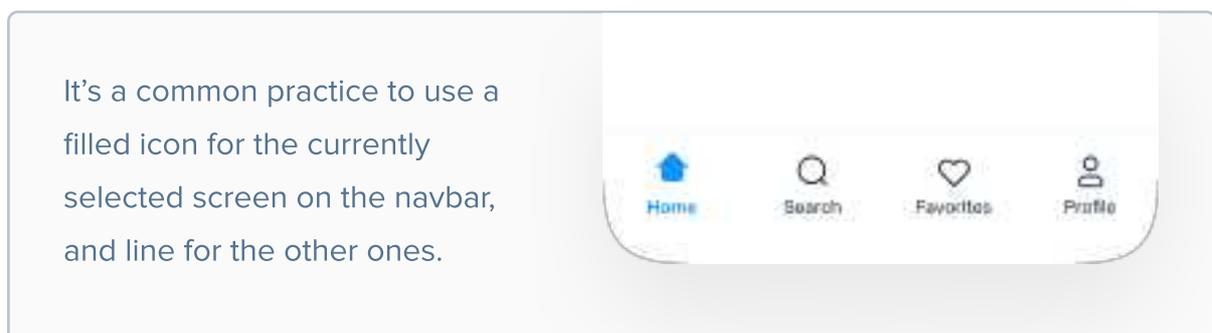
These icons work best if they're very simple and commonly known. After all, the user might be scared if he wants to tap an icon to do something, but he does not know what it will do. They should also have a larger tap area than the icon itself - they're one of the smallest elements in UI Design, but also the ones that the user interacts a lot with. Always make sure that the tap area is at least 44x44pt, as mentioned in previous chapters too.

Icon styles in UI Design

The main icons styles used in UI Design are Filled icons and Line icons. These are the most common icons out there. Filled icons are "filled" with a color or gradient, while line icons only have a stroke of a specific width. Nowadays there are also many other styles - Duo-tone, broken or even "glassy" icons. They are rather a piece of art which definitely look great, but in most cases it will be better to stick with primary two styles.

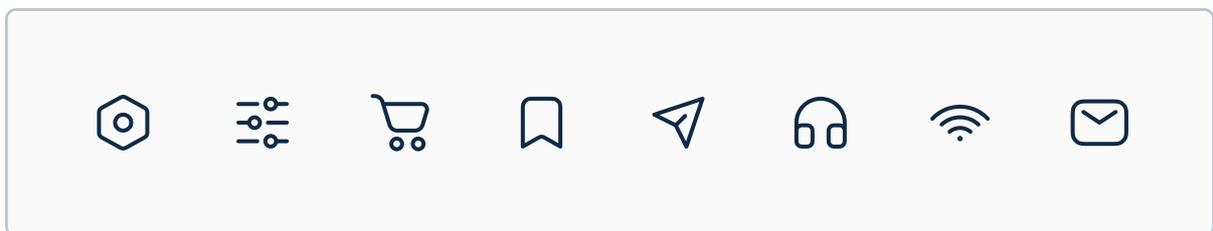


The first two styles you see above will work well in any situation. They're the most common styles out there, that are also very safe. The remaining three styles are not used as frequently in real products. That being said, they can be used, but they're not as easy to understand as Line and Filled icons. Also, it's better not to mix different styles. One exception can be the navbar:



Use icon packs, not icons

First of all, you don't need to create your own icons. That takes a lot of time, especially considering that there are many free, high quality icons on the internet. Second of all - don't pick icons from here and there - use a full icon pack, such as Anron Icons, Koloicons or Iconly. This way you're not risking that icons will be inconsistent. If they're all from the same pack, they should all have the same styling.



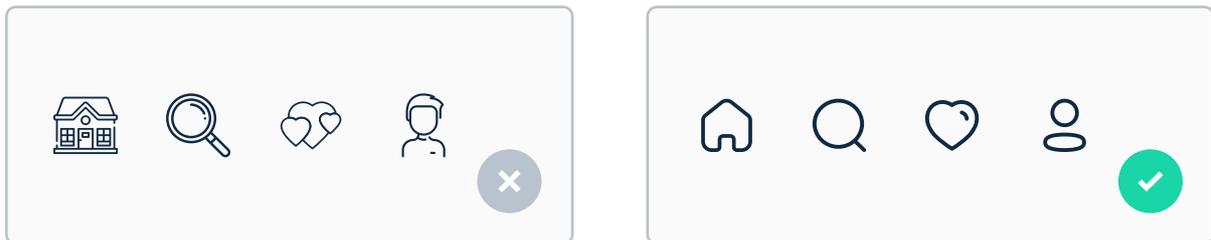
All of these icons are from the same icon pack - Anron Icons. They have a consistent styling, so I don't need to modify the icons when I'm designing, which saves a lot of time.

How to select & use icons in UI Design

In the remaining part of this chapter I will go through a few tips for selecting and using icons in UI Design.

Use very simple icons

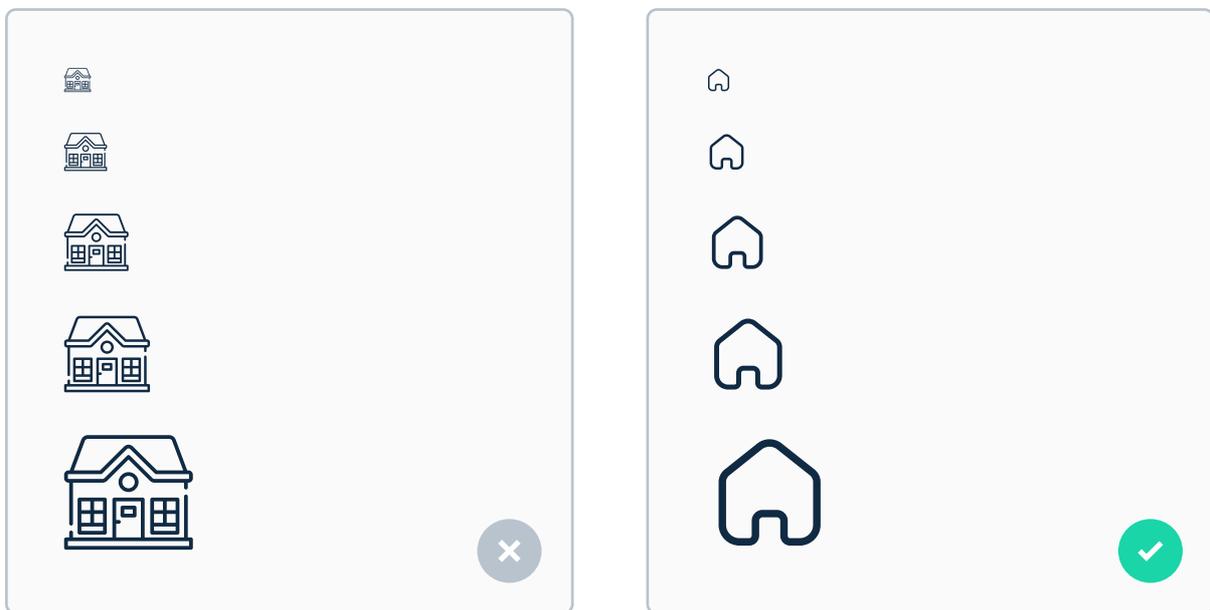
In UI Design, icons should be incredibly simple. Icons such as Home, Search, Favorites or Settings are commonly used and well-understood by most users - after all, they're used in almost every digital product. By making them very complicated, we're kinda forgetting their main purpose - replacing text.



Usually, icons from the same icon pack have the same level of detail. Icons on the left could work okay if they were Clarifying icons, but for those that are interactive, simple is always a better choice. That being said, if for some reason you decide to go for these more complicated ones, make sure you do it consistently, so you don't mix very simple and very complicated icons.

Use scalable icons

The icons you use in your UI Design will most likely appear in a variety of different scales - from small mobile phones, through tablets, all the way to TVs (depends on the product, but be prepared!). This is why it's good to test them in many different sizes before deciding to use them. It's another reason to pick simple icons - they will look way better at smaller sizes.

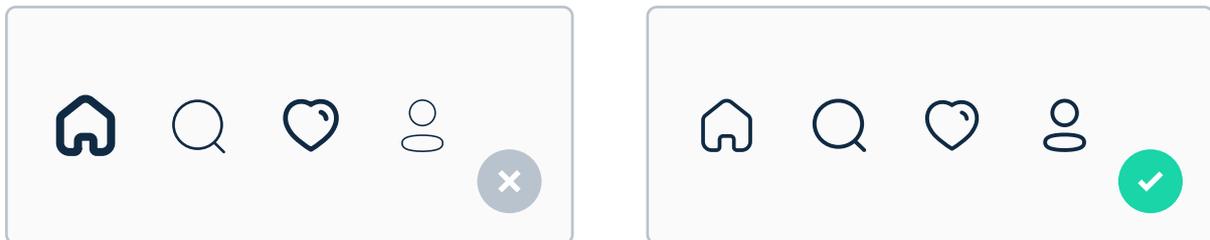


The icon on the left looks good for the bigger sizes, but at smaller ones it's completely unreadable. The simpler icon on the right is readable at all sizes, because its level of detail is smaller.

That being said - if you're designing a product ONLY for large screen display purposes, such as TVs, you can try going with icons with a higher level of detail.

Use icons with consistent line widths

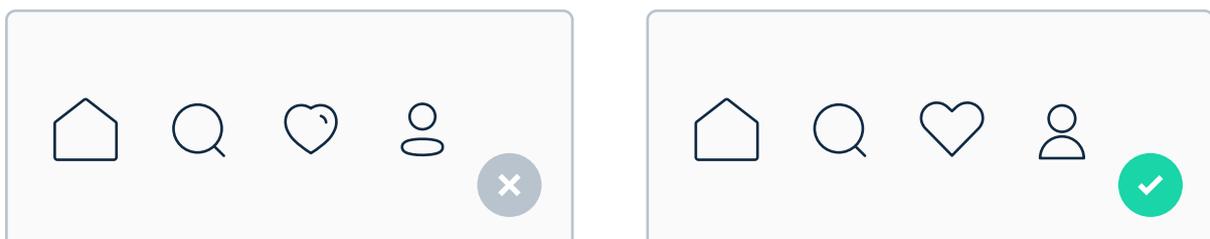
Line icons can have a line width that varies. Many icon sets nowadays let you modify the stroke width to any value you like, so take advantage of it and make sure it's the same for all icons.



If all icons you use are from the same icon pack, they should have the same line width. However, there will be scenarios in which you might need an icon from another pack, just because the one that you're using does not include it. In that case, make sure to modify its line width so that it fits your collection.

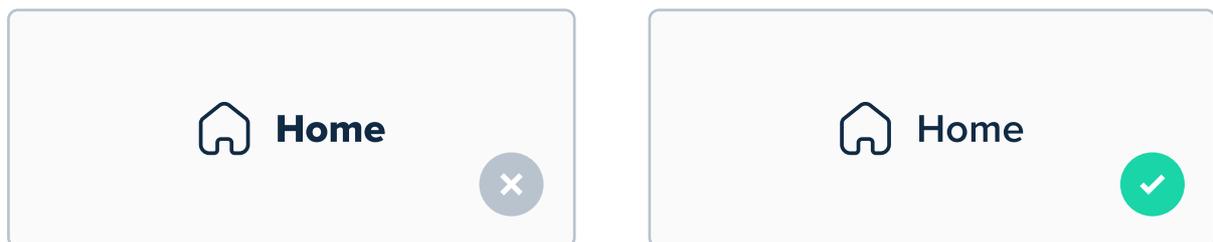
Use icons with consistent roundness

There are many icon styles out there, for example sharp and rounded. Sharp are more serious and formal, while rounded are more universal and user-friendly. Whichever you will go with, just make sure not to mix different styles.



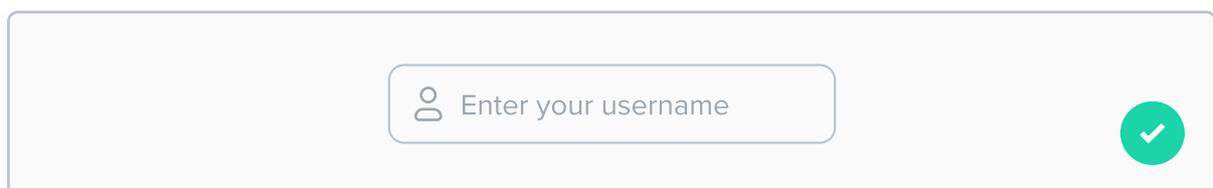
Pair icon line width with different font weights

If your icons have a line width that can be modified, you can try pairing them with different font weights if there's a label near it. This is a very small detail, but it can make your design really delightful! If you can't get the perfect match, just go with a pair of width and weight that are closest to each other.



This is a nice detail, but it shouldn't always be the priority. If you need to modify the line width of an icon just to make it fit the weight, don't do it. It will lead to many inconsistencies.

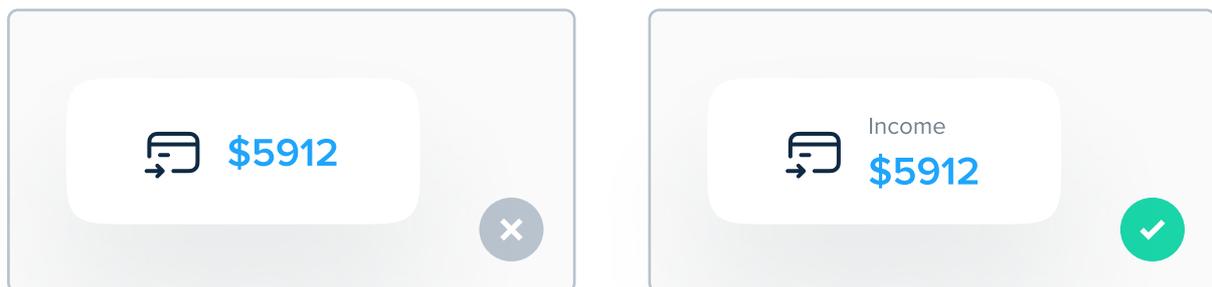
This can also work really well inside text fields. If you decide to use a text field with an icon, you can try making the perfect combination of widths - icon line width, text font weight and text field box width. If you can pull it off - great! But don't try to do it if it's going to result in inconsistencies.



Text field, icon and text have very consistent line weights, which looks very good.

Icons replace text... or not

Even though icons are supposed to replace text, they don't have to. In fact, they're much more understandable with a label under or next to them. That means that if you have an icon that isn't very commonly known, you should use it with a label so it's easier to understand what it does.

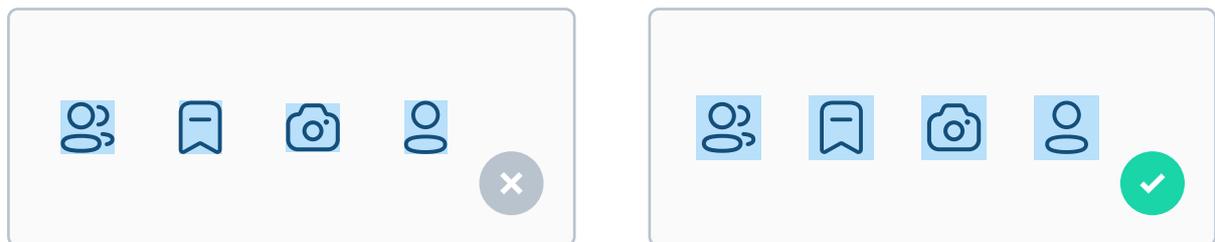


This can make you wonder: “So why we use icons at all if we can just use text?”. That’s a valid question - see, the same as people learn what road signs mean, they learn what icons mean - except they might need some help. Adding a label like on the right side makes it way clearer for all new users. After they understand it, they don’t even read the word “Income”. The icon is enough for them to understand what the number means.

Most simple icons like Home, Search or Profile won’t need a label, but it’s always safer to use them to avoid confusion.

All icons should be inside of a bounding box

Icons come in different shapes and sizes, but all of them should be placed in a bounding box. This way the sizes and margins are consistent and there are no half-pixels all over the place.



The blue box indicates bounding box of each icon (not to be confused with tap area). Icons come in many different shapes, even if they're from the same icon pack, so some can be 16x24pt, and some can be 12x22pt. The bounding box is usually 24x24pt, and when you resize the icon, you actually resize the bounding box which resizes the icon.

I know this might sound confusing. If you're not an icon designer in most cases you won't have to worry about it. Just make sure that you don't accidentally drag the icon out of its bounding box.

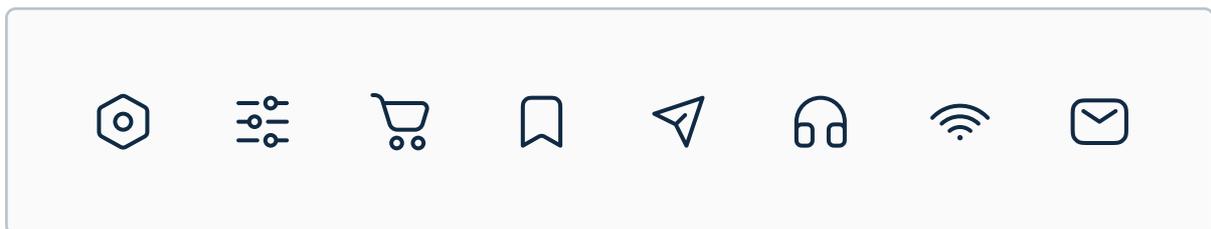
In most design tools, the bounding box is basically a Frame.

Some awesome icon packs

As I mentioned before, in most cases you won't have to create your own icons. Here are some amazing, consistent icon packs you can get on the internet and save countless hours:

Anron Icons

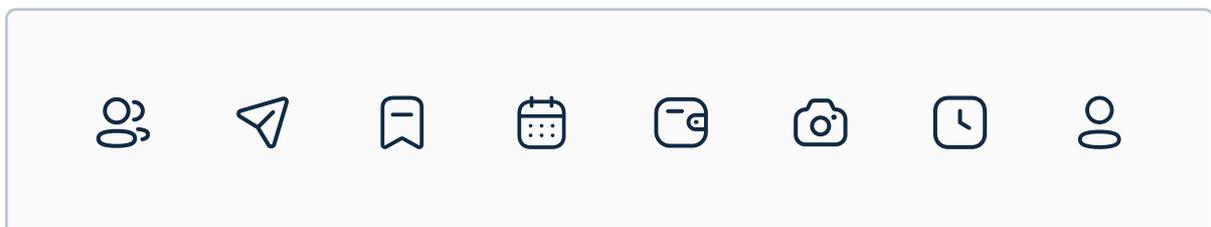
This pack was created by my friend Anton Lapko, and it consists of over 1700 icons in 3 styles. All icons have editable line widths and corner radiuses, which makes it extremely customisable. This might be the only icon pack you'll ever need.



Check them out at anron.pro

Iconly 2

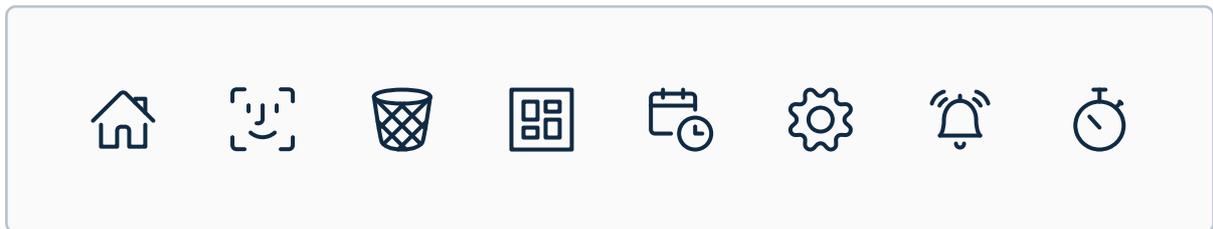
Another amazing pack I often use. This pack is smaller, but it consists of all popular icons you might need in a modern look.



Check them out at ui8.net/piqodesign/products/iconly-essential-icons

Streamline Icons

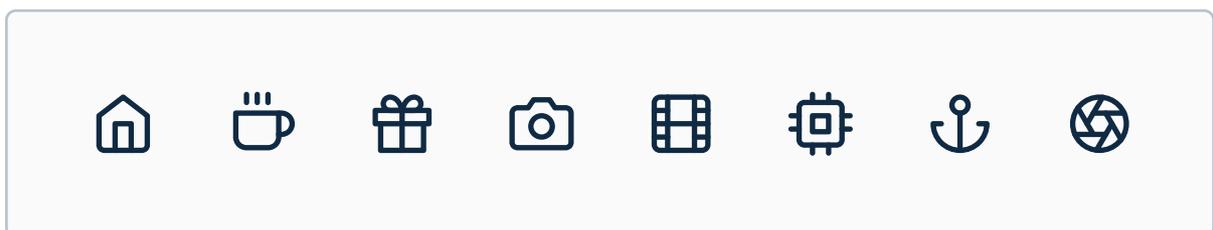
This is the biggest icon pack out there. It consists of over 30,000 icons in 3 styles. It's HUGE! I often use it for more "niche" products, in which I need very rare and specific icons, which aren't included in the previous two packs. All of them have a customisable line width.



Check them out at streamlineicons.com

Feather Icons

It's one of the first icon packs I've ever used. It's not as big as some of the previous ones, but it has all the essential icons with customisable line width. I don't use it that often nowadays. It's free though!



Check them out at feathericons.com

Photos

Don't worry, you won't have to run around with a camera before designing UIs! The internet is full of beautiful, free-to-use images, ready to use in your work. Photos are the most "real" part of your design - in other words, they're the closest thing to the real, non-digital world your design will have. While everything else is made out of abstract shapes and lines, photos of real things can add massive value to the product you're designing.

Key content

- Two types of photos in UI Design
- How to pick photos for your designs?
- How and why to have consistent photos in UI Design?
- The real reason to use photos
- Websites with stunning free photos

Two types of photos in UI Design

Before we dive in, I believe it's important to divide images by their type. There are two main types: photos selected from the product side (by designers, product owners etc.) and photos added by users. An example of the first category can be an image on the landing page, and an example of the second can be a profile picture or an image on Instagram. As designers, we only have the choice to select images for the first category.

Bad photos can ruin the design

Using low quality, poorly taken images can completely ruin the design. You can either hire a professional photographer (which is extremely rare and time consuming) or use websites such as unsplash.com or pexels.com and find a high quality, free photo.

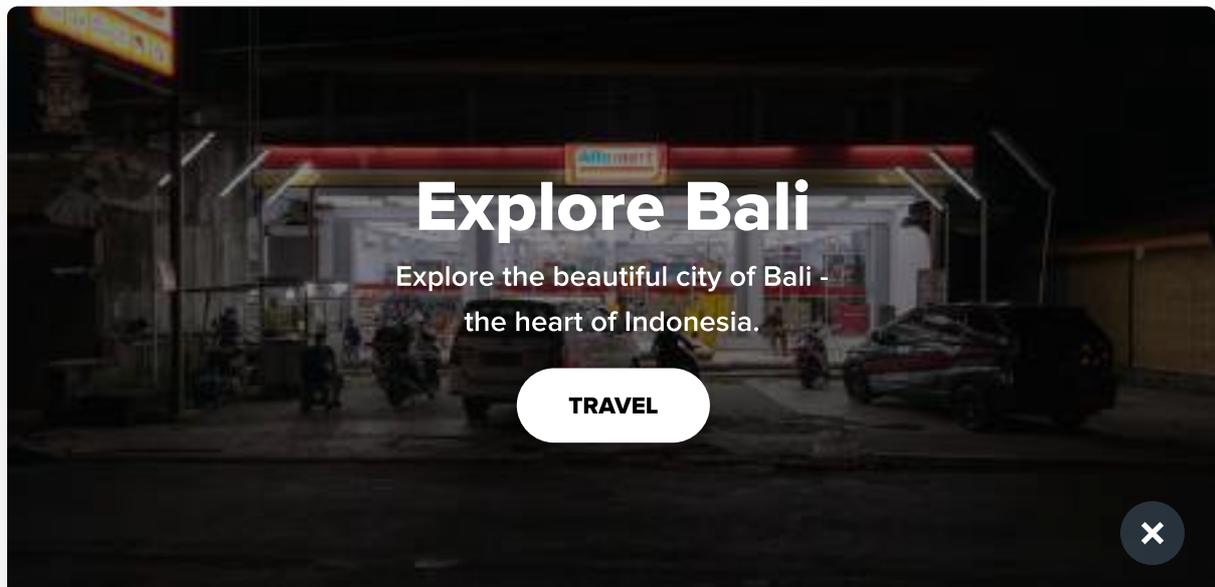
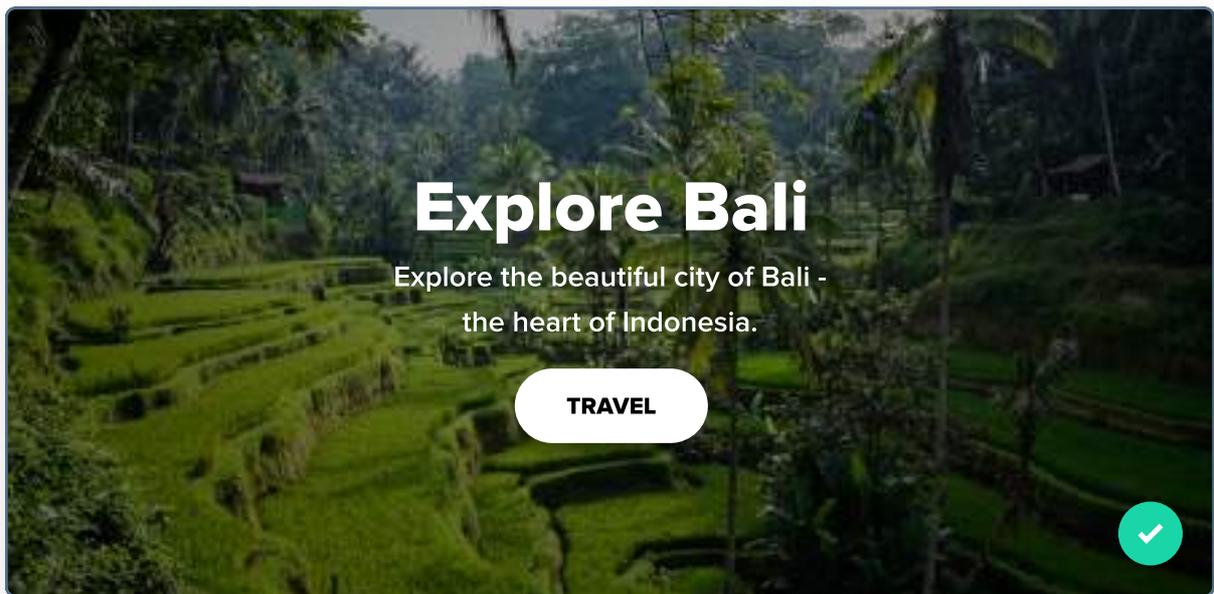


Photo: Khamkéo Vilaysing, Unsplash



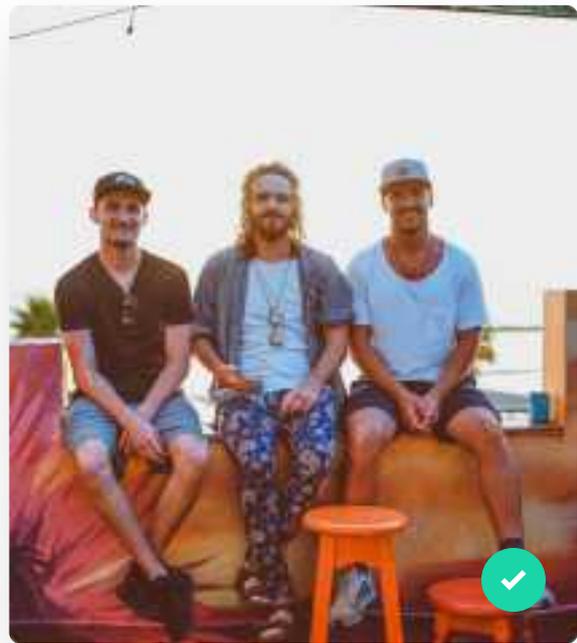
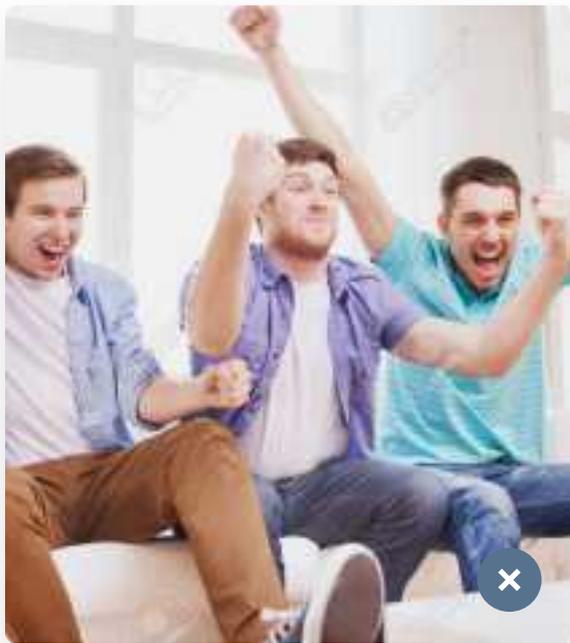
Of course, there's no definition to "bad photos" - it's subjective. In fact, the first photo is absolutely fine! It showcases a store in Bali. However, the design I made here is for the travel page, so it does not make sense to use a photo of a grocery store. I think that the closest definition we can get for a "bad photo" is that it's a photo that does not fit the purpose.

Also, try to show real people on your photos. This makes users trust the site more, letting them "connect" with other people.



Avoid stock-looking photos

Avoid cliché, generic looking photos as much as possible. Authentic photos not only look better, but are also more trustworthy, therefore increasing the level of trust the user has for the product. Show real people doing real things.



Photos: 123RF and Toa Heftiba on Unsplash

It's not only about that overlay! It's also about how real the images you use are. Users should be able to connect with what they see on the images. What you see on the left is disingenuous and clearly fake. To achieve that "realness", use photos without too much emotion inside them. People on the photos you use shouldn't look too angry or too happy. Three people on the right are clearly happy, but without expressing it too much, which is fine.

Use photos with high resolution

How many times have you searched Google, found an amazing photo, you rushed to download this but then it turned out it's 600x400? I knew this happened to me a lot, and sadly you can't use photos like that in your work. Pretty much every photo on unsplash.com should be fine though. The higher resolution the better. It can be compressed later if needed.

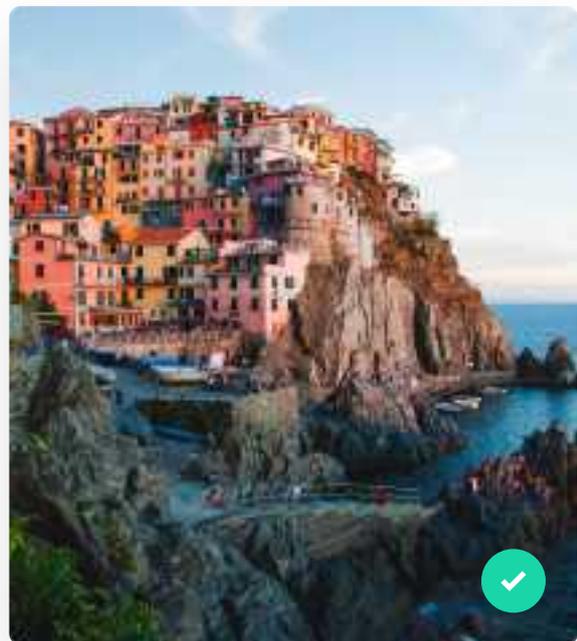
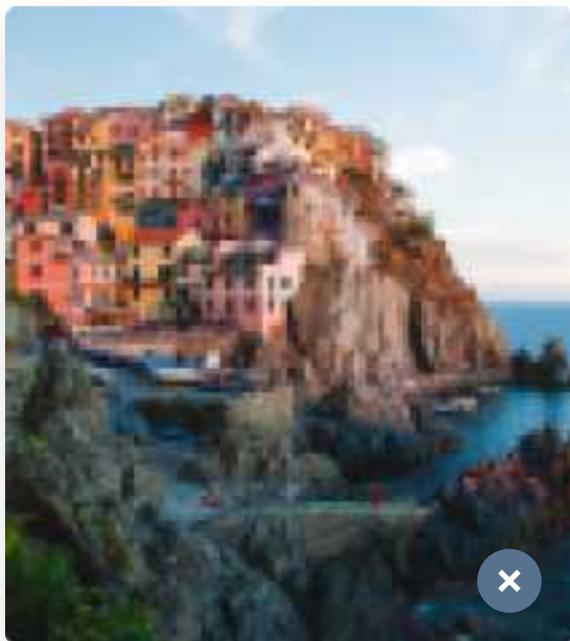
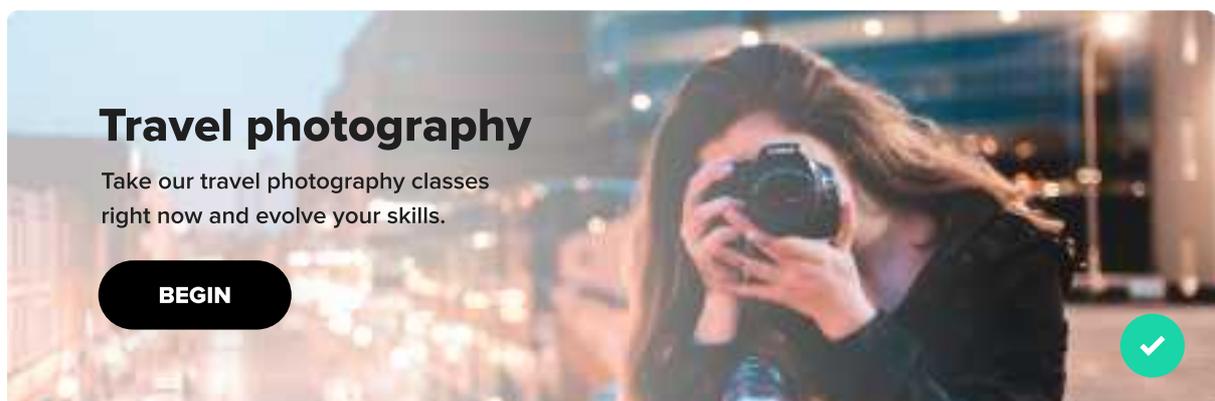


Photo: Jack Ward on Unsplash

It's important to compress the images before uploading them onto the website or app. It's a step for developers, but make sure that you can provide them with an array of different image sizes. Some times allow you to download photos in different sizes, for example S, M and L, which should be enough.

Use an overlay when writing on a photo

Photos are often used as backgrounds and they have text written on top of them. To ensure readability and contrast, use an overlay on top of the image. Just make sure it's not too strong, so that the beautiful photo will still be visible.



You can even try a colorful overlay

Overlays don't have to be only black or white - you can try using a color, for example the Primary color that you use in the design. Just make sure there's enough contrast and that the photo is not fully covered by the overlay.

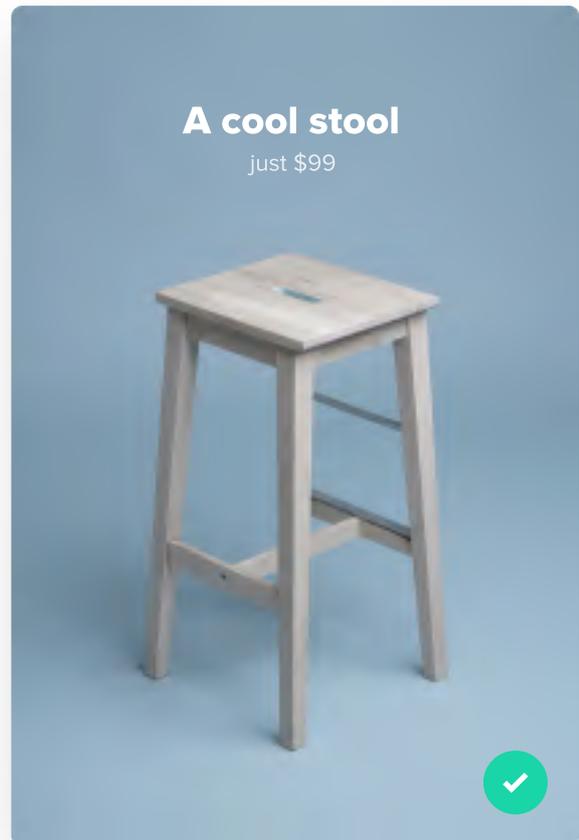
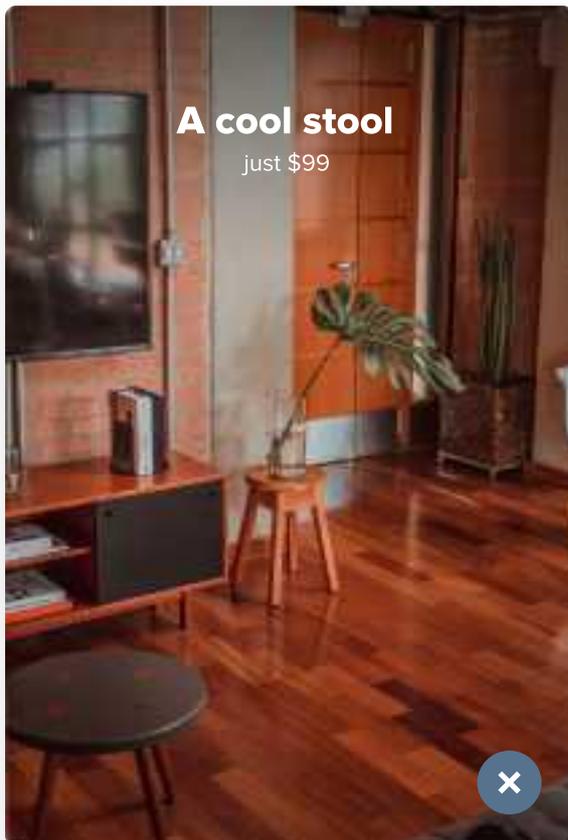


For the last three examples I used a gradient, so that only the part with text on top has a visible overlay. It's absolutely fine to use a solid, transparent color as well, like here:



Use images with a single focal point

If the user has to look around the whole photo to find what it's about, it's not good! Use images with a clear purpose and optimally one thing you want the user to look at.

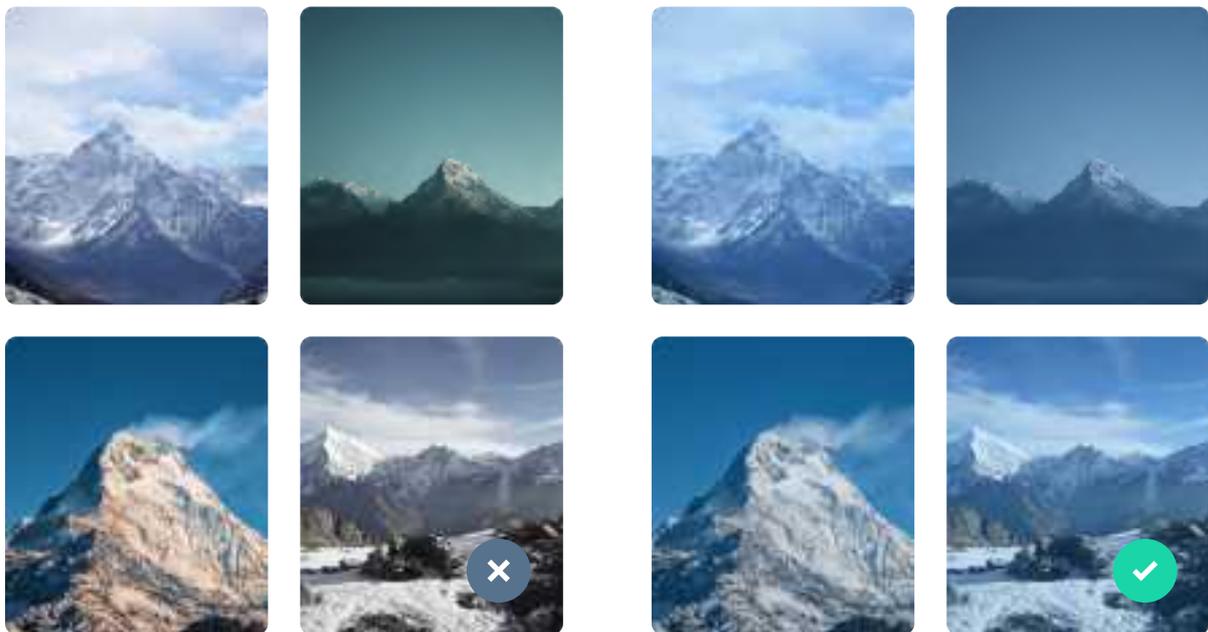


Photos: Ruslan Bardash, Gláuber Sampaio, Unsplash

Be careful with this example. Furniture is something that the user might want to see in a “real-life situation”. A photo of a beautiful room can make the user want the furniture piece more than any other image. I’d suggest using the second one as the main photo, but leaving the first one as another photo for the next slides.

The images you use should be consistent

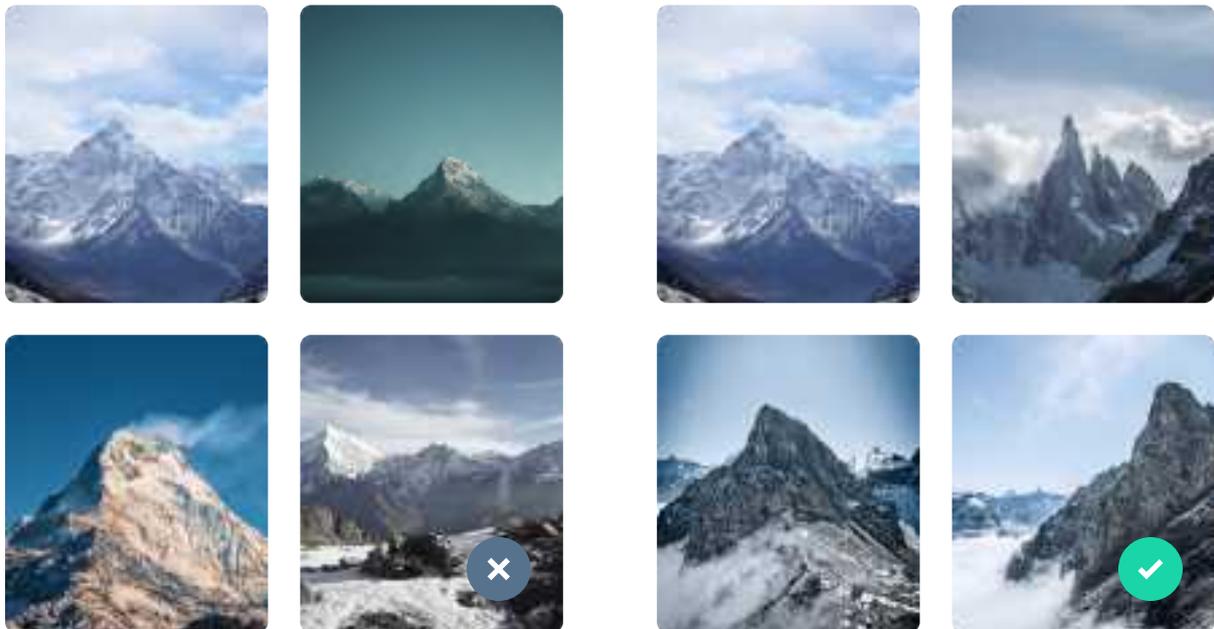
The images you use in your project should complement each other and look quite similar. This is a challenging task, especially if you have to find many images, but it can be achieved quite simply by using a color overlay. Add a subtle colorful overlay to all of the images to make them look similar.



Photos: Teddy Hartanto, Daniel Leone, Samrat Khadka, Rohit Tandon, Unsplash

This changes the way that photos in your design look like, so if you need to show a product as close as possible to reality (for example products on e-commerce sites), it's better to avoid it. Don't treat it that seriously too. It does not have to be 100% consistent, just slightly similar.

If you want to avoid having changing the way that images look like in your design by adding these overlays, you can always just spend some time looking for images that look quite similar to each other. This can be boring, but it's rewarding:

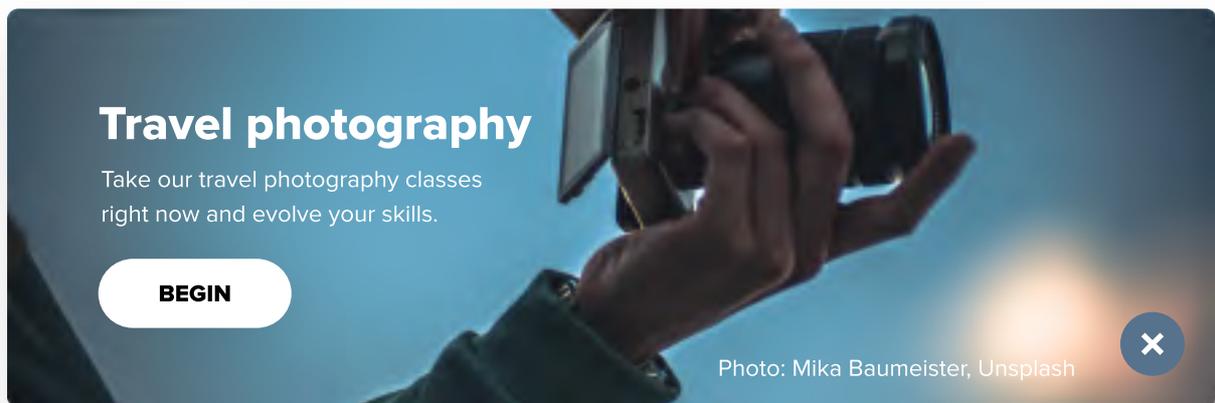


Photos: Teddy Hartanto, Daniel Leone, Samrat Khadka, Rohit Tandon, Christopher Burns, samsommer, Unsplash

Another amazing and simple trick you can do is to slightly modify the image inside the design tool you're using. Most design tools give you the option to do small tweaks on your photos, such as changing its Saturation or Temperature, which can be helpful.

Make photos lead to something

Studies have shown that when we see an image of a person looking in a certain direction, we also look there. It's a common practice to make images "lead" to something. This way you can use the image to direct user's focus to a form, button, a header or anything you think he should see.



By using this method, your photos not only look good, but also serve a deeper purpose - they lead the user to something important, making it easier for him to find it.

The true reason to use images

I also wanted to give an example of the true reason why we actually use images. Photographers often say that a good photo is not a photo taken with an expensive camera. They claim that a good photo tells a story. A story that can be perceived and understood differently by different people.

Photos are also used to replace text. Of course, they can't replace every paragraph, because they're more open to interpretation than just written copy.

That being said, try to imagine this scenario: the user visits a site that sells kitchen gear. This is the first photo that he sees:



Photo: Brett Jordan, Unsplash

He will probably just think “what is this, just some forks and knives?”. The thing is - that photo does not really tell any story. Even though it showcases the products well, it does not really evoke any emotions.

Now, imagine a different scenario. User goes to another website that sells kitchen gear, and this is the first photo he sees:



Photo: Jimmy Dean, Unsplash

This photo does not even focus on the product. It shows a happy family cooking together. They’re probably using gear sold by the website, and they’re very happy! This is the true reason to use photos - to evoke certain emotions and tell a story. This is one of the fundamental rules of sales - people don’t buy because of logic, but because of emotions, especially those positive ones.

Test your images with different aspect ratios

An image is rarely used in only one aspect ratio. Depending on the screen size, an image that was initially 4:3 can become a 1:1, 16:9 can become a 4:5 etc. It's good to test each image in a few different ratios and use it only when it works in most of them.

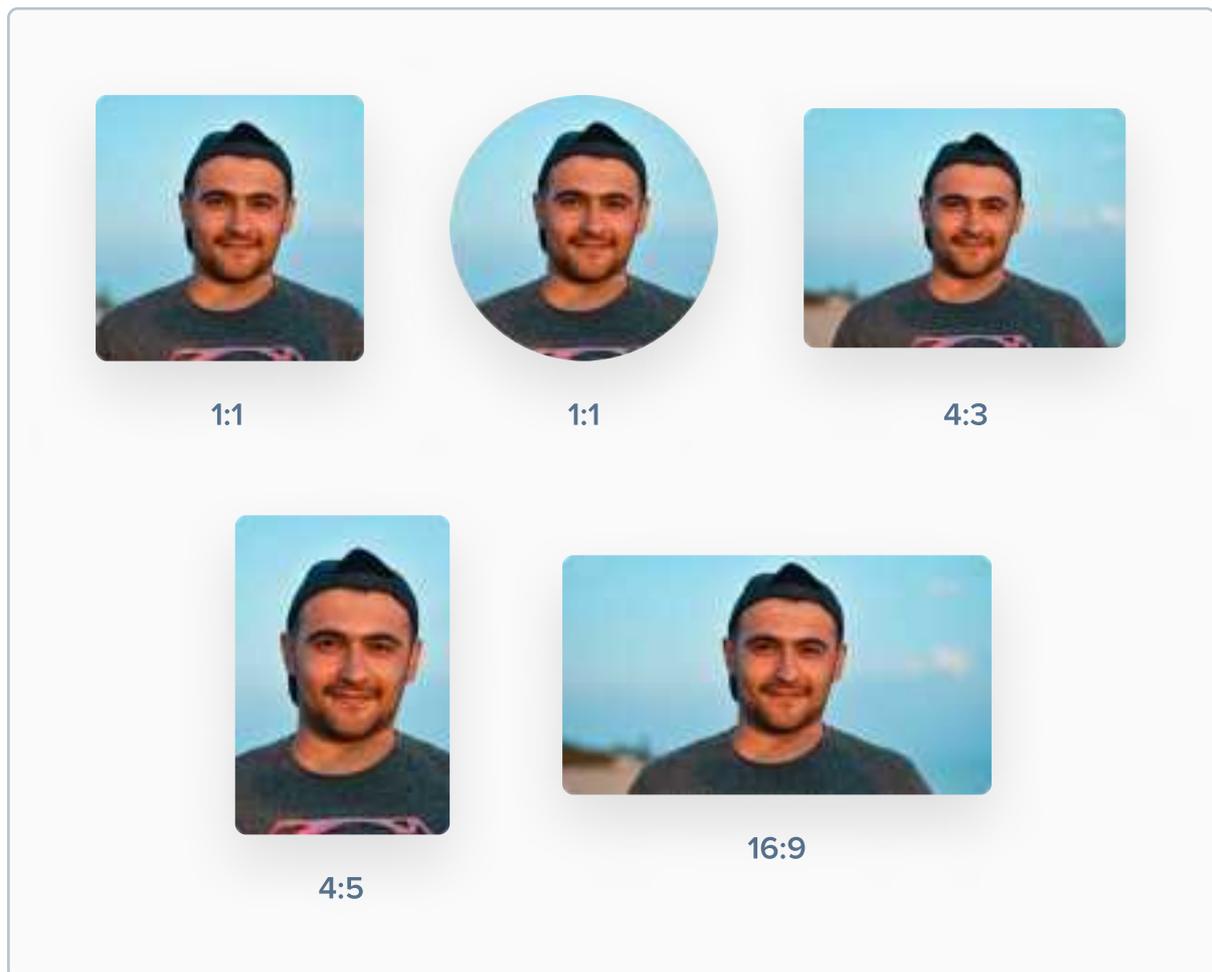
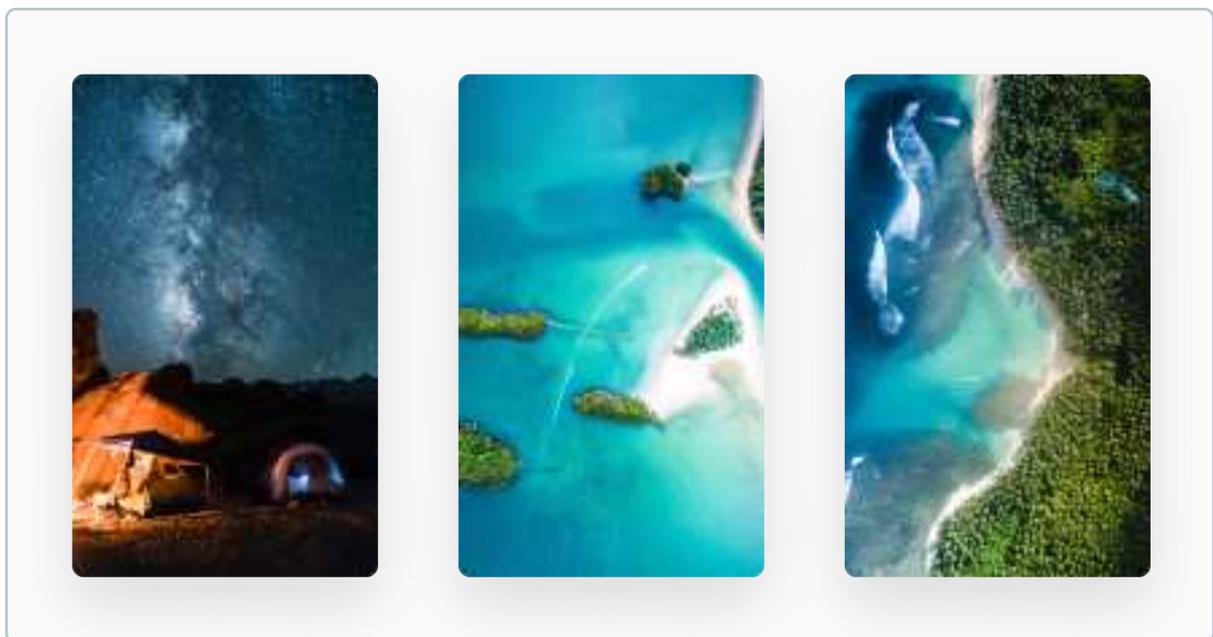


Photo: Irene Strong, Unsplash

Of course, there are countless aspect ratios out there, but it's enough to test images in at least the ones shown above.

The “WOW” factor

It’s not really a scientific term, but it’s rather straightforward. Some images can easily make the user go “WOW!!!”. They’re often stunning and present something unusual and not seen very often on the internet. The “WOW” factor can make the product more memorable for users by triggering a strong emotional response. It’s hard to define them, but you’ll know it when you’ll find a “WOW” image!



Photos: Clarisse Meyer, Denys Nevozhai, James Donaldson, Unsplash

I personally love travelling, so the photos above amazed me when I first saw them. They might not be as shocking or amazing to you though. That just shows that the “WOW” factor is a very subjective thing, so going for it shouldn’t be your #1 priority.

Mind the license

Not everything you find on Google Images is free to use. Many images require you to purchase a license to use it for commercial purposes, such as client work. You can use it in your design software, but before it goes public make sure you have the proper license if you need one.

If you're working with a client, make sure to let him know if an image is free or if he should purchase the license before making the website / app public. They often overlook those things.

Anyway, there are way better sources for amazing images than just Google Images. On the next page I'll share some of my personal favorites that I use for most of my projects.

My favorite free sources for amazing images

You don't need to run around with a DSLR or hire a professional photographer to have awesome images in your UI Designs. Here are a few of my favorite sources with free images.

unsplash.com

Unsplash is my all time favorite. It has pretty much every image I ever need in very high qualities. All images there are free for both personal and commercial use, and they don't even require an attribution (but it's always appreciated!).

pexels.com

Another fantastic website with free images. If I can't find an image on Unsplash, I go to Pexels (that happens rarely though).

barnimages.com and gratisography.com

I use them ONLY when I can't find images on previous two sites, which pretty much does not happen. Worth checking out anyway!

CHAPTER 12

Illustrations

Illustrations are a great way to present an idea in a visual, abstract way. A well-used illustration can mean more than a thousand words. With their simple shapes, they're frequently very user-friendly and approachable. They're rarely just a decoration - just like photos, they frequently complement text, for example on the landing page.

Key content

- Why we use illustrations?
- Illustrations vs Photos
- Where and why to use illustrations?
- Tips on using illustrations in your designs
- Websites with fantastic illustrations

Why we use illustrations?

The main reason to use illustrations is because they are easier to "read" than text and they can present a concept idea in a visual way. A well-designed illustration can communicate a message better and faster than words would do. They're also very eye-catching and aesthetic, especially when subtly animated.

Illustrations vs Photos

The reason to use illustrations and photos is quite similar - they both explain something in a visual way. Photos however are more realistic, and illustrations - more abstract. With illustrations the possibilities are limitless - the illustrator can design literally anything to convey any message.



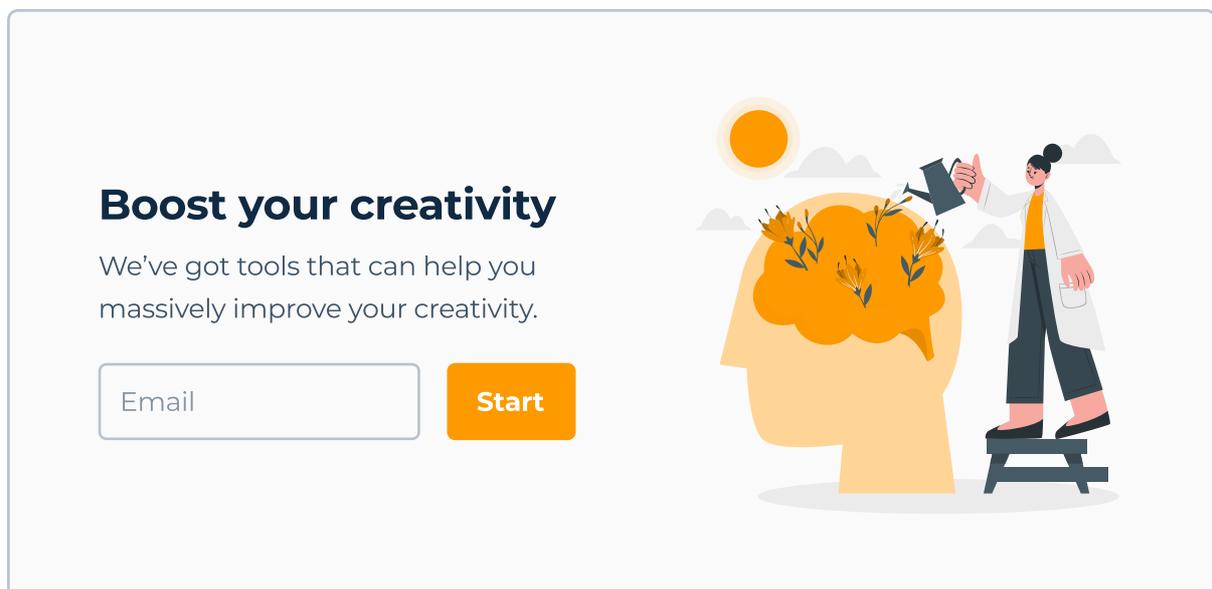
Both the photo and the illustration here show a group of friends. One is more realistic, and the other one - more abstract. Photo: Naassom Azevedo, Unsplash.

Where to use illustrations?

There are many places to use illustrations in UI Design. They can explain something difficult in an easy way, they can introduce the user to the product or just have a pure aesthetic purpose.

Landing pages

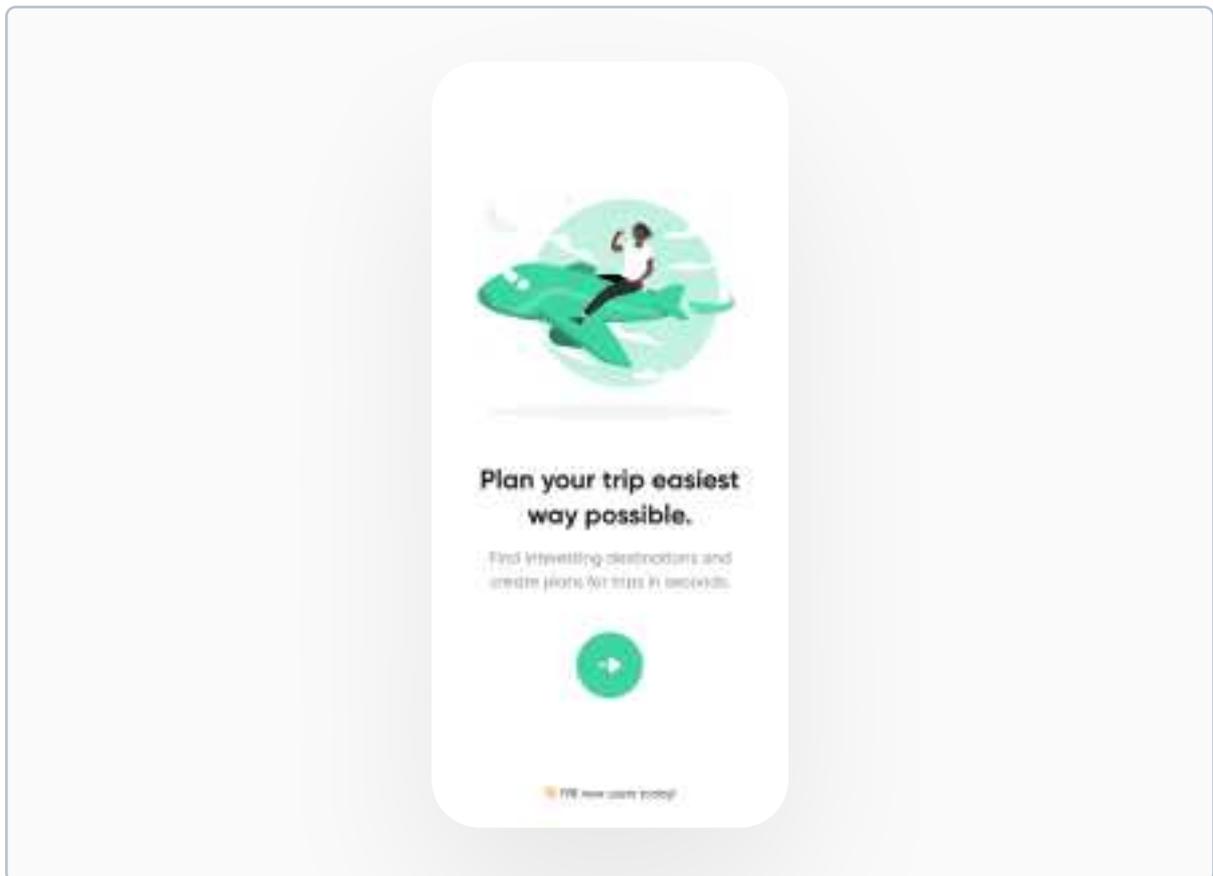
The most important purpose of the landing page is to make visitors familiar with the product and convert them into users. The most common way to do that is combine a good copy with some visual elements. You can use illustrations there to make visitors familiar with what the product does.



It would be very hard to explain “boosting creativity” with a photo, so we can use an illustration here to explain the idea in a creative and friendly way.

Onboarding / tutorials

Many apps often have tutorials for new users that teach them what the app is about and what you can do in it. You can use illustrations to, well, "illustrate" some of these features.



The example you see above does not really explain how to use the application. It just shows what the app is related to - travel. Don't aim to explain every single feature of the app during the onboarding, just the general idea. It's better if the user learns by doing.

Achievements

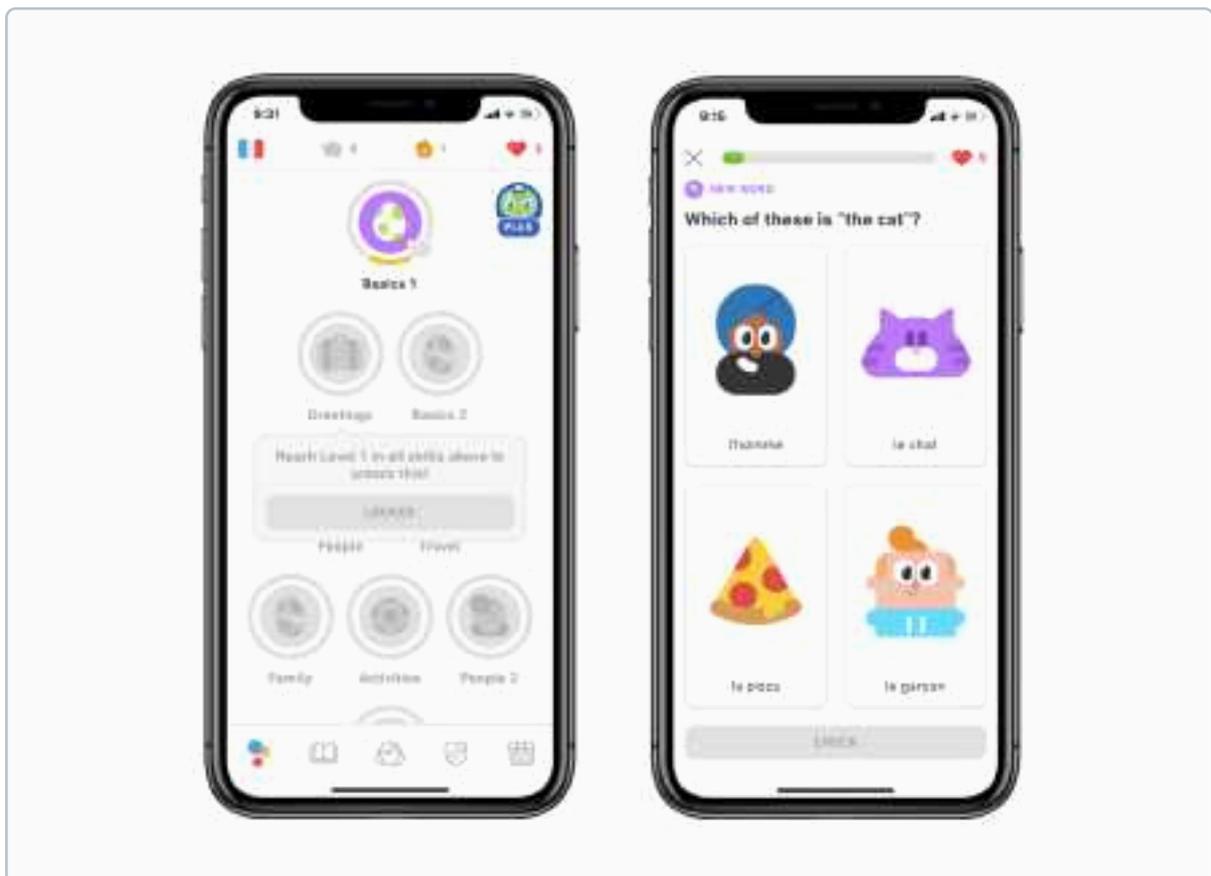
Illustrations can also be used for gamification purposes. Instead of using icons for achievements, you can use beautiful illustrations - for example medals or badges. A great example is Duolingo - a language learning app. They integrated illustrations into their UI in a beautiful and playful way.



Apps that use achievements to motivate the user to keep using the product often use small, vibrant illustrations to motivate him. They look great, and completing one after another is engaging!

Progress

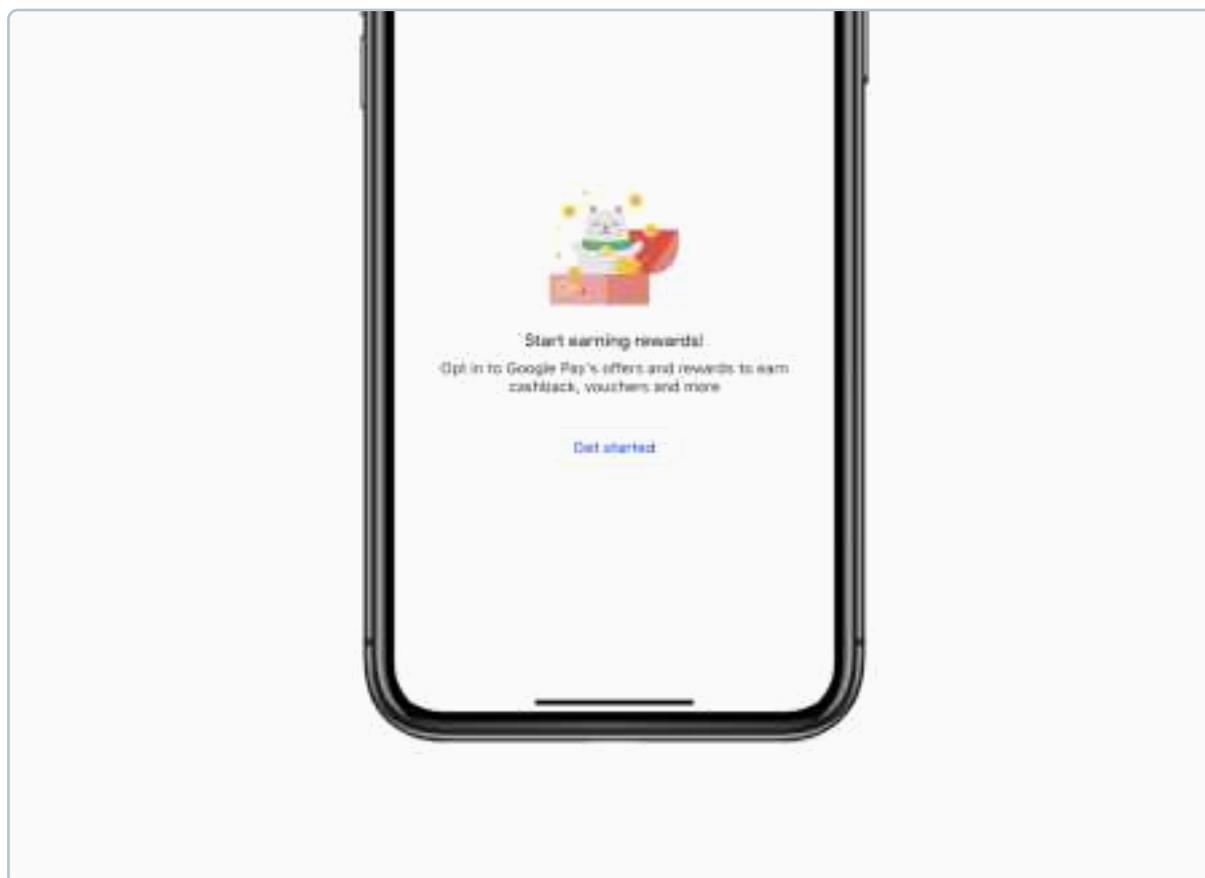
Illustrations are also used inside the app itself, for example in Duolingo again. They use illustrations to teach the user different languages. Their UI is very user friendly and approachable even for a very young audience, so illustrations fit great.



Look at the examples above. Nothing stops Duolingo from using real photos instead of illustrations! Look at these characters though - they're always smiling and seem very friendly, which works fantastic, especially for the younger demographic.

Empty states

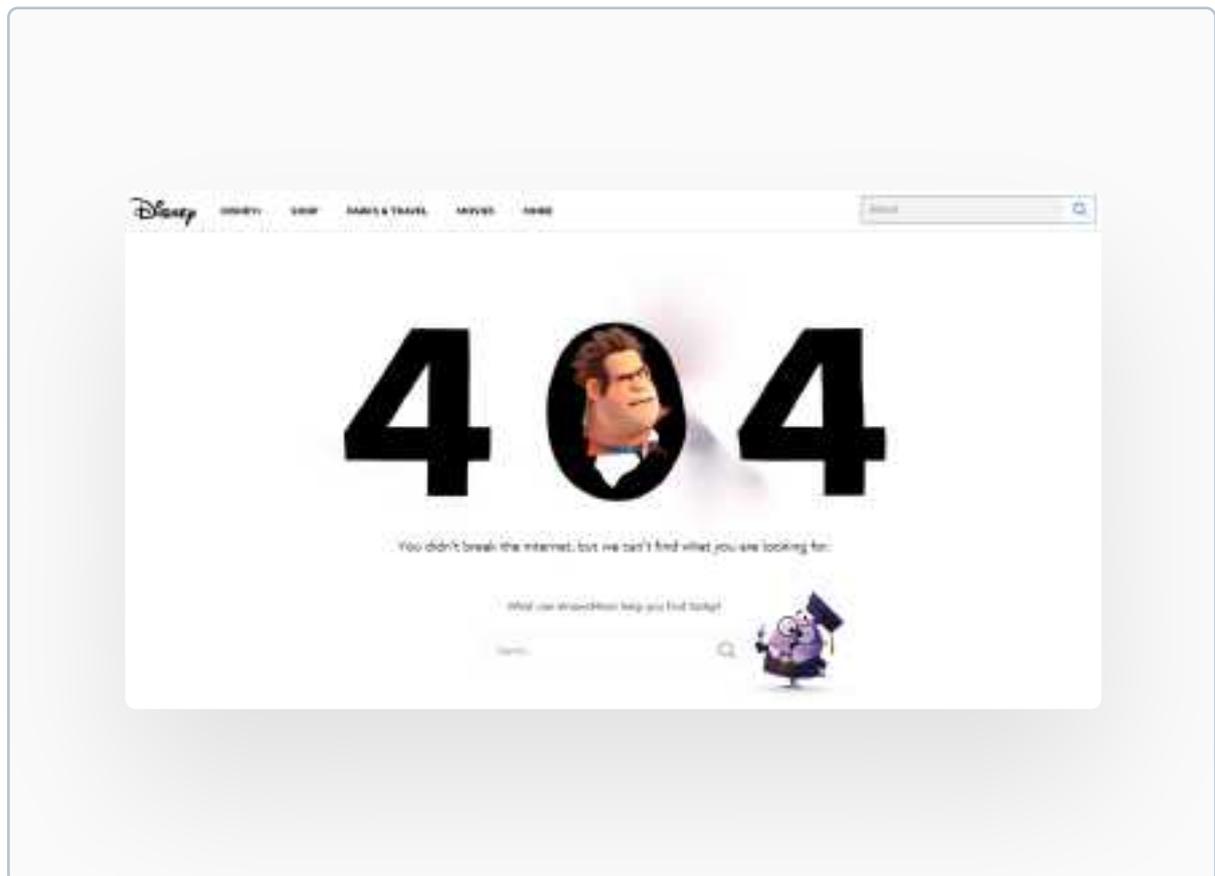
Empty states should be designed for almost every (if not just every) digital product out there, yet they're frequently overlooked by designers. An easy way to design them is to use an illustration with some copy text and a button which suggests to take action, to "remove" that empty state.



If you think about it, illustration is not even needed here! You can easily leave just text and button. However, it looks fun and engaging with an illustration. They don't have to be overly complicated. Even a small, detailed icon is OK for empty states.

404 pages

Mistakes and typos happen. Every now and then some user will type the website address incorrectly and he will land on a 404 page. It's good to put some effort into designing it. Usually you will need only an illustration, some text and a button that will redirect the user to the home page for example.



This is a 404 page by Disney. It has some fun illustrations, an engaging copy and a search bar to help the user find what he's looking for.

Not every product should have illustrations

Even though illustrations are trendy and can make ideas visual, not every product should include them. Illustrations tend to have a playful vibe, so they might not be the best choice for companies selling let's say luxurious jewelry or clothing. If you're unsure, you can ask the product owner for his opinion or see what the competition is doing.



Can you imagine if a website like this existed? A website that sells luxury yachts is clearly targeted towards wealthy, serious people, so a funny, engaging illustration is not the right choice. Illustration are best for a rather younger audience. For older demographic it's often better to use real images, because they resemble the real world more, especially for companies that sell real products.

Don't use illustrations for real products

Be careful when using illustrations while designing online stores. When the user is buying something, he wants to see the EXACT product that he will receive, so it's better to use a real photo. You can still use illustrations for empty states, 404 pages or the onboarding - just never use them for real products that the page is selling!

iPhone 12 Pro
\$999.00

The newest iPhone from Apple.
Better than ever before.

Buy



X

iPhone 12 Pro
\$999.00

The newest iPhone from Apple.
Better than ever before.

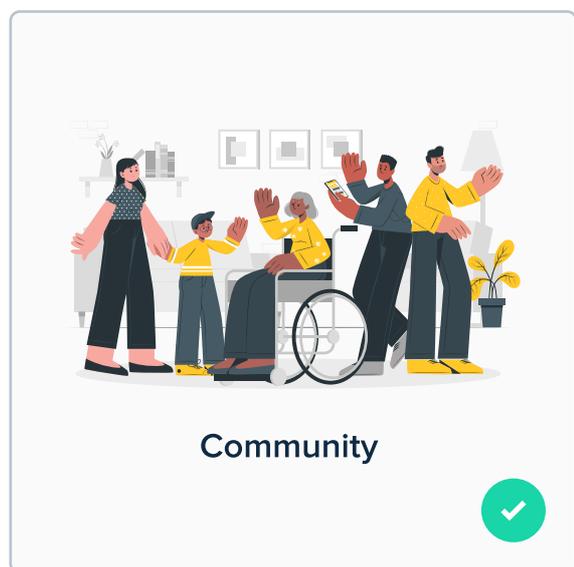
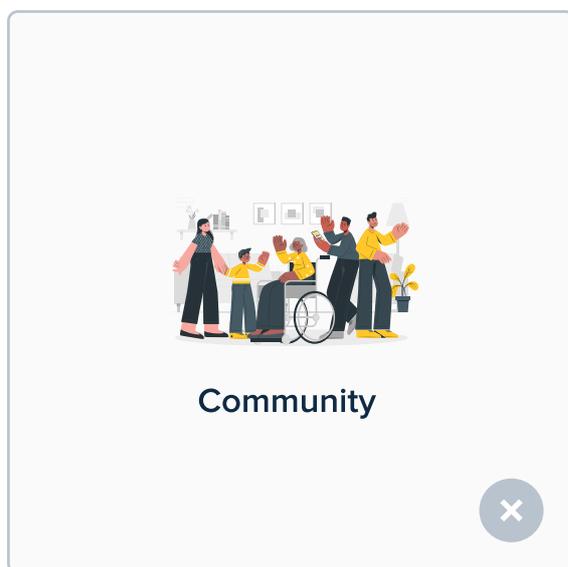
Buy



✓

Illustrations shouldn't be too small

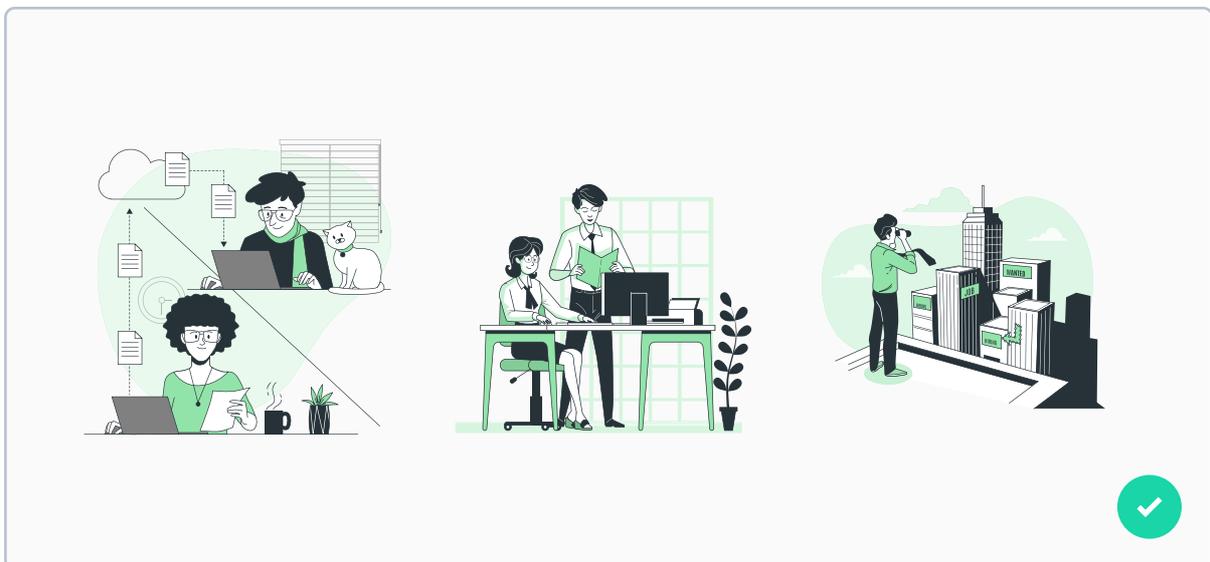
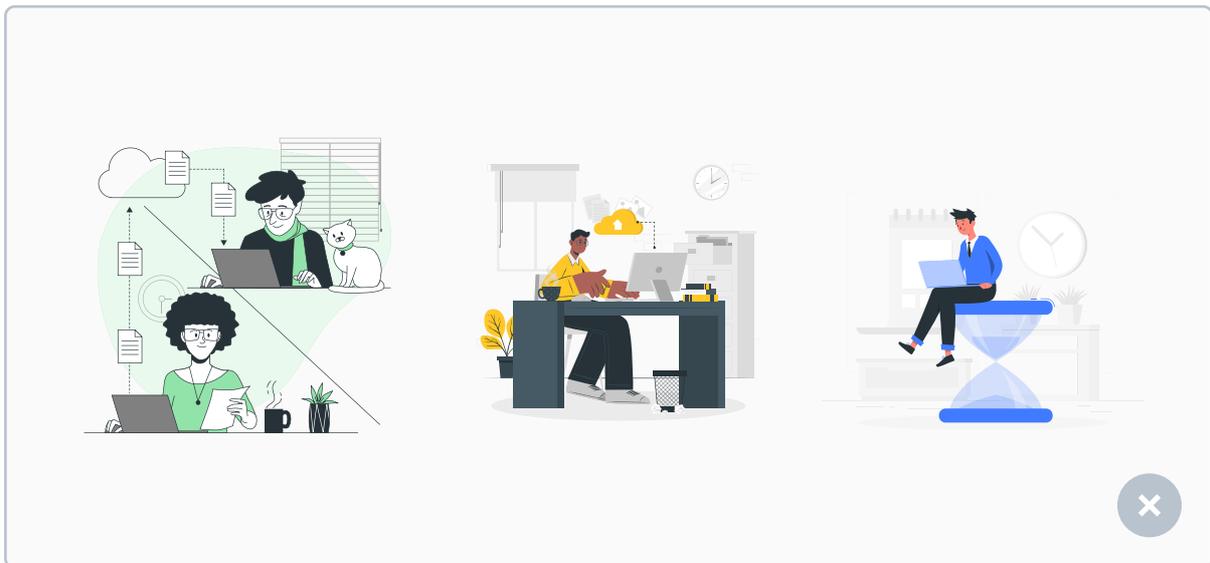
Illustrations are much more complex than icons, so don't try to decrease them to very small sizes (at least not complicated ones). All details of the illustration should be visible, so pick a proper size, or if you need to use them in a smaller size - for example, for a card - you'll probably be better off just finding another illustration or an icon. Otherwise, the illustration won't be readable.



The details on the illustration on the left side are barely visible. When possible, make illustrations large or just find a simpler illustration. I'll leave some of my favorite sources for illustrations at the end of this chapter.

Keep illustrations consistent

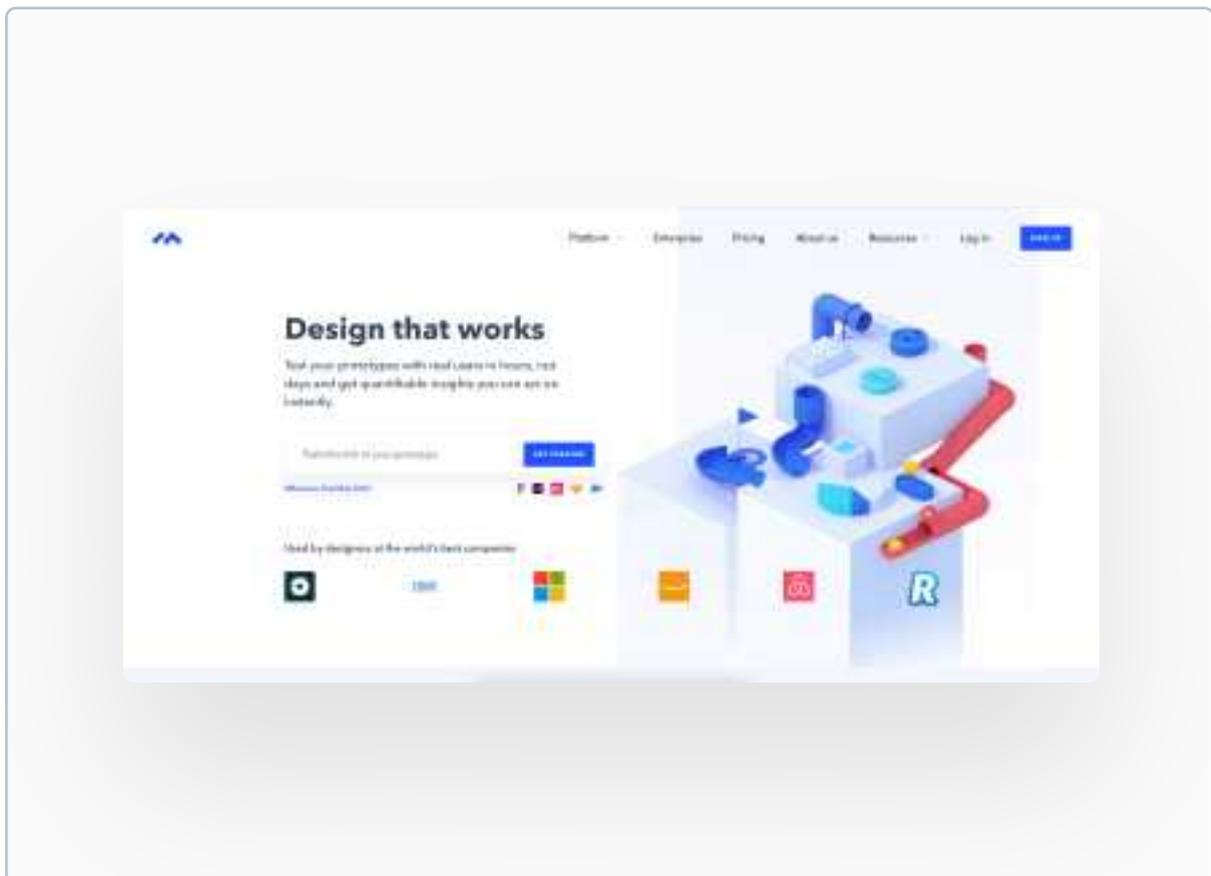
It's best to keep illustrations consistent. Don't use many different styles in the same product - when illustrations are introduced to the website or an app, they become a part of the brand, so they should be consistent, same as typefaces, colors etc.



Same as you should use icon packs to maintain consistency, use illustration packs as well. I'll leave some of my favorite ones at the end of this chapter.

3D illustrations

3D illustrations are probably the biggest UI Design trend nowadays (it's January 2021 when I'm writing this). When used correctly, they often lead to really stunning results, especially when animated. I think they are the equivalent of photos with a "WOW" factor. They're still relatively new, but they're promising.



Above you can see the landing page of a website maze.design, a platform used for User Testing. They use an animated, isometric 3D illustration which is just amazing. They're hard to create, but I'll include some resources at the end of this chapter.

You don't need to make your own illustrations

Creating illustrations can be very challenging, especially if you don't know Adobe Photoshop and Illustrator very well. Good news! You can find hundreds of beautiful, consistent and free illustrations online.

storyset.com

My all time favorite. It has pretty much every illustration I need in 5 different styles. And guess what - they're completely free! You can even modify the colors, layers and animate it, all on their website. I highly recommend you check them out.

icons8.com/ouch

Another fantastic collection. It has tons of different styles, free to download in .png format.

streamlineicons.com

Streamline does not only have icons, but also a gigantic pack of really cool and consistent illustrations. They can be downloaded for free in low resolution, but it's worth paying the price.

storytale.io

This page is full of really beautiful illustrations, including 3D ones! To use them you need a subscription, but it's worth checking out.

CHAPTER 13

Cards

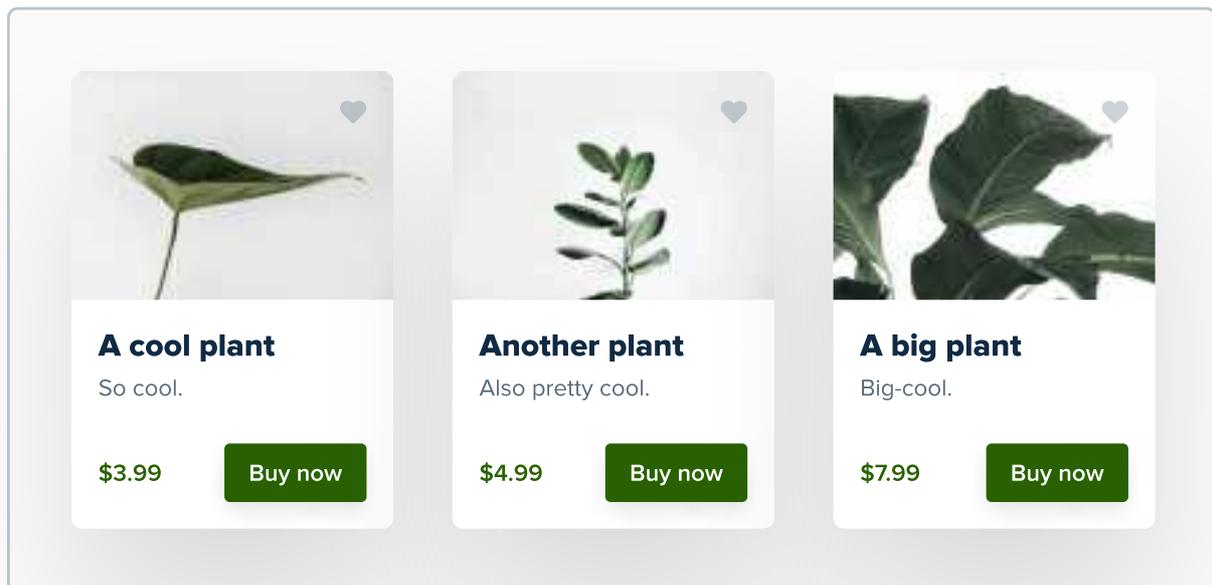
Cards are UI Design elements that consist of content about one, specific subject. This content is usually an image, text and action elements, such as buttons (or just icons that act like buttons). The purpose of a card is to group information into responsive, easy to browse through containers.

Key content

- What are Cards in UI Design?
- Anatomy of a card
- Testing cards
- Styling cards

Cards are a shorter version of a specific page

In most cases, cards are clickable, and after clicking them the user goes to another page with a more expanded view for the content from the card. So for example - on an e-commerce website, you will see many cards with different products:

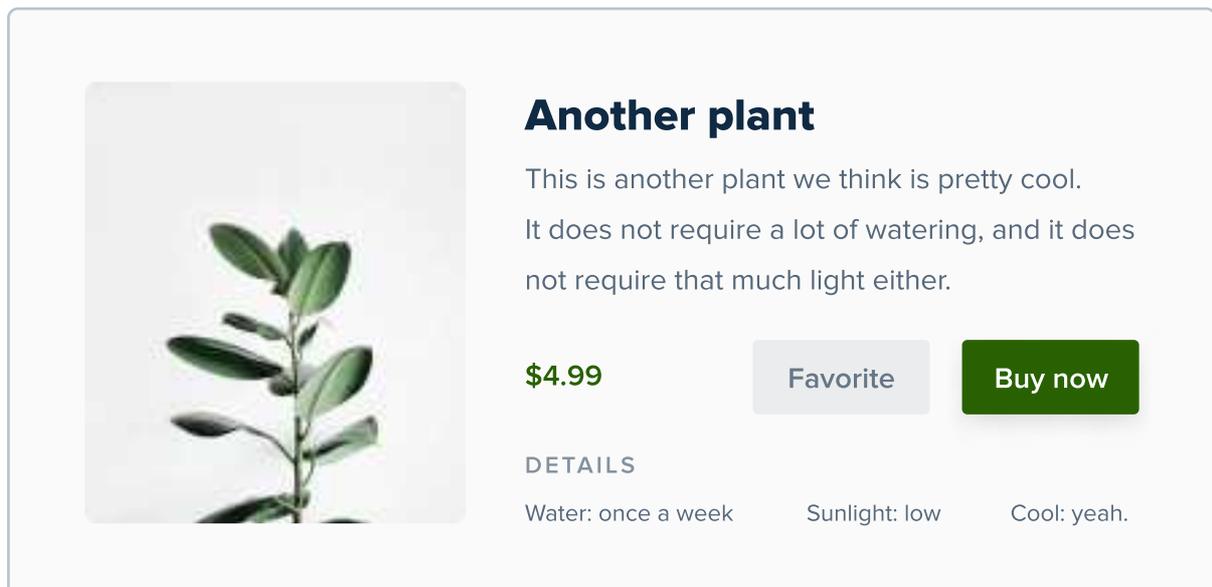
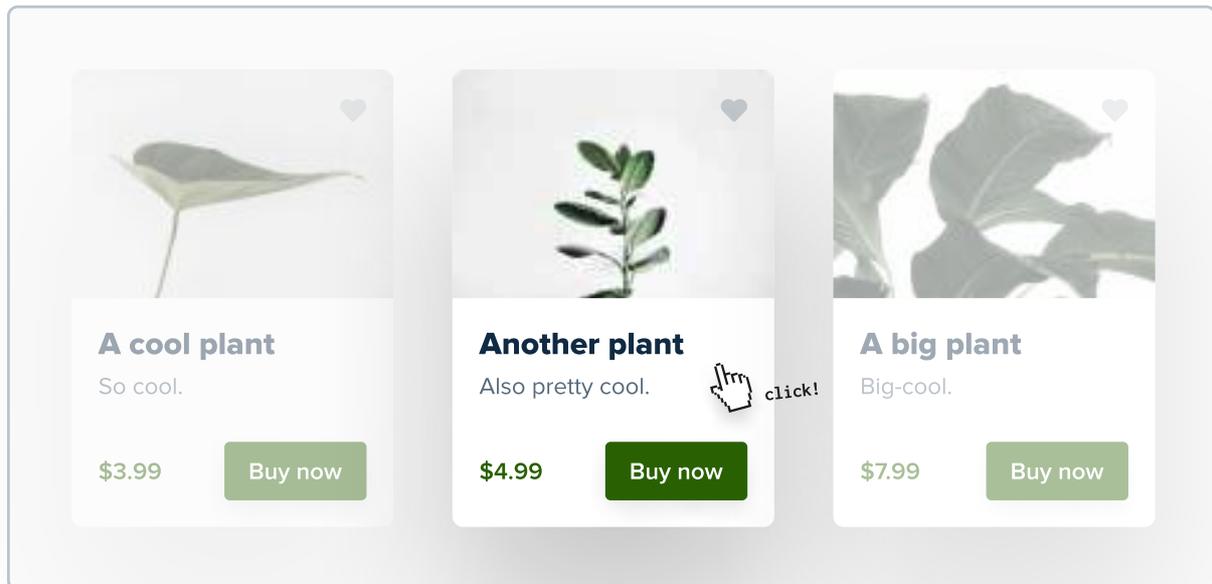


They contain some useful information that will help the user make a decision on which one he should click. We judge the book by its cover. If we don't like the way the plant looks like, we don't care about how often it should be watered, what is the delivery time and what other people have said about it in the reviews.

And that's the purpose of cards - they help users decide on what they should click and learn more about, and what they should just skip.

“Think of a card as of a shorter version of a specific page. Next, figure out which content from that page is important enough to place on a card.”

Anyway, back to our example. After the user makes the selection and he clicks on the plant that interests him, he will go to the product page with more details:



Now, why is this important? It's because your most important job as a designer is to figure out which information is worth putting on a card, and which isn't. It's easy to think that more is better, because the user has access to more information without having to open the product page, but if we put too much the card can get cluttered and make the selection process even harder.

So... how do we figure this out?

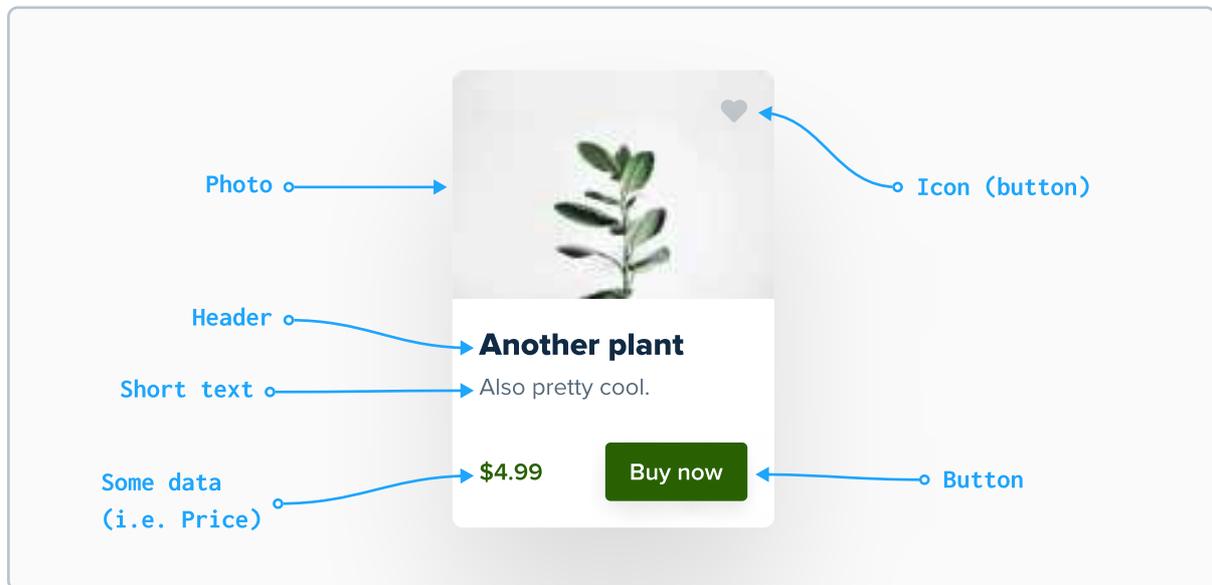
The first step is to list all the information about something that we're designing a card for. For example - if we're designing a website with recipes, this information can be stuff like recipe title, meal photo, time needed to cook it, amount of servings, difficulty level, ingredients needed, reviews, step-by-step process etc.

Now let's think which ones are important and can fit in a card easily - I'd say that a photo, recipe title, time needed to cook it, amount of servings and difficulty level will be enough. Information like ingredients needed or step-by-step process are not only very long, but are also not the factors that are important to make a decision.

In this case we don't really need a CTA such as "Buy now" like on the previous page, but a Heart icon button could be useful to let users save recipes for later.

Card anatomy

Let's break a card into smaller pieces. They're usually made with simple objects, and they create a more complex component:

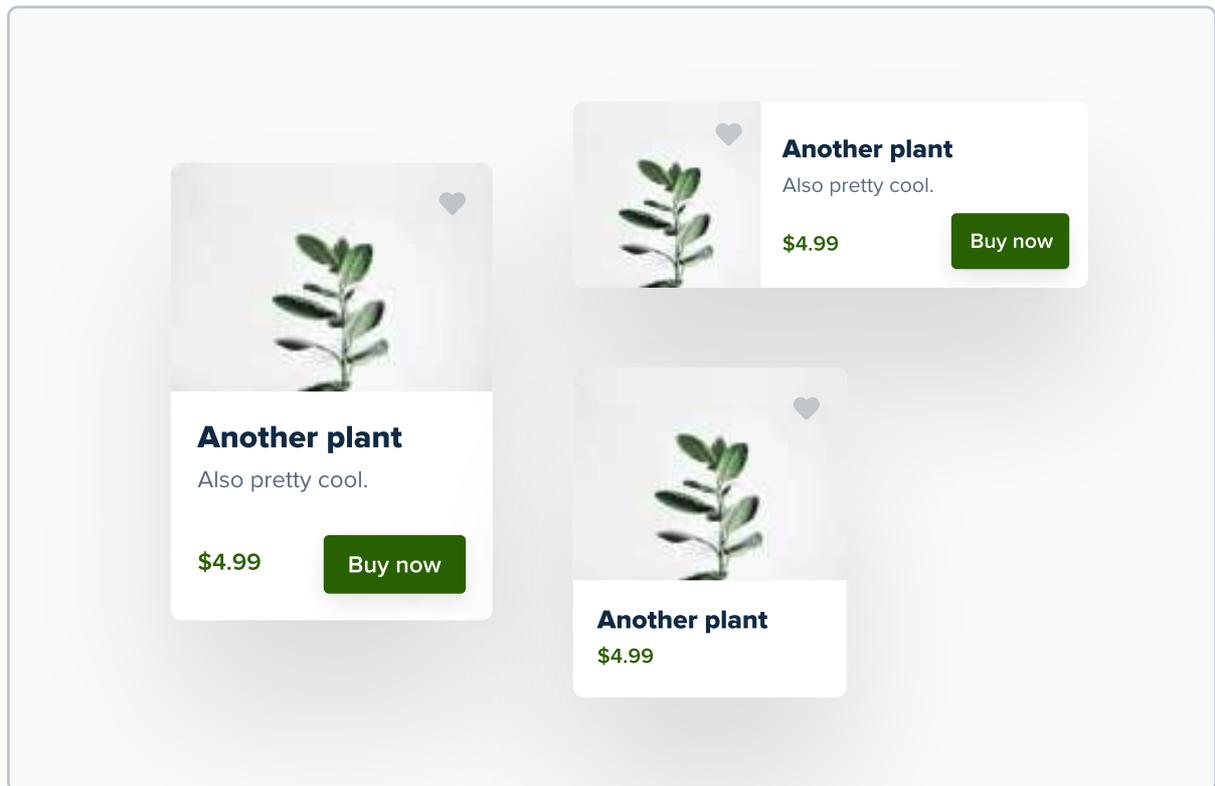


The majority of cards are built with these elements. Sometimes the text is longer, there's more data or there are more buttons, but it's good to practice by creating simple cards first.

In fact, there are infinite ways to design cards, so don't limit yourself to the example above. As long as you've determined which information is important, make sure that it makes it easier to make a decision and looks clickable - feel free to experiment with designing cards in many different ways.

Cards come in different versions

In more complex digital products, there's rarely only one version of a card. Depending on the screen size, cards should display in an appropriate version. Here are a few examples.

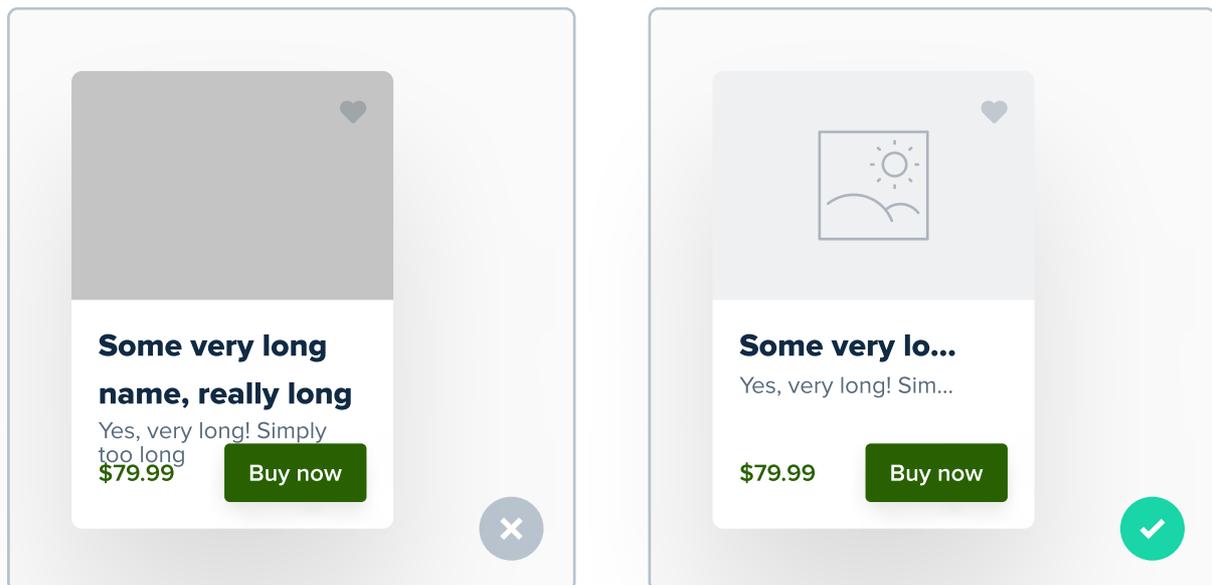


I recommend you to create a few different templates for cards before starting a project. As you can see they're mostly very simple, but it's worth creating them beforehand.

Cards should be tested

As a designer, you can't control the length of the name or description of every product, or if every product has a photo.

However, you have control over how you deal with very long names or lack of photos. Take a look at this example:

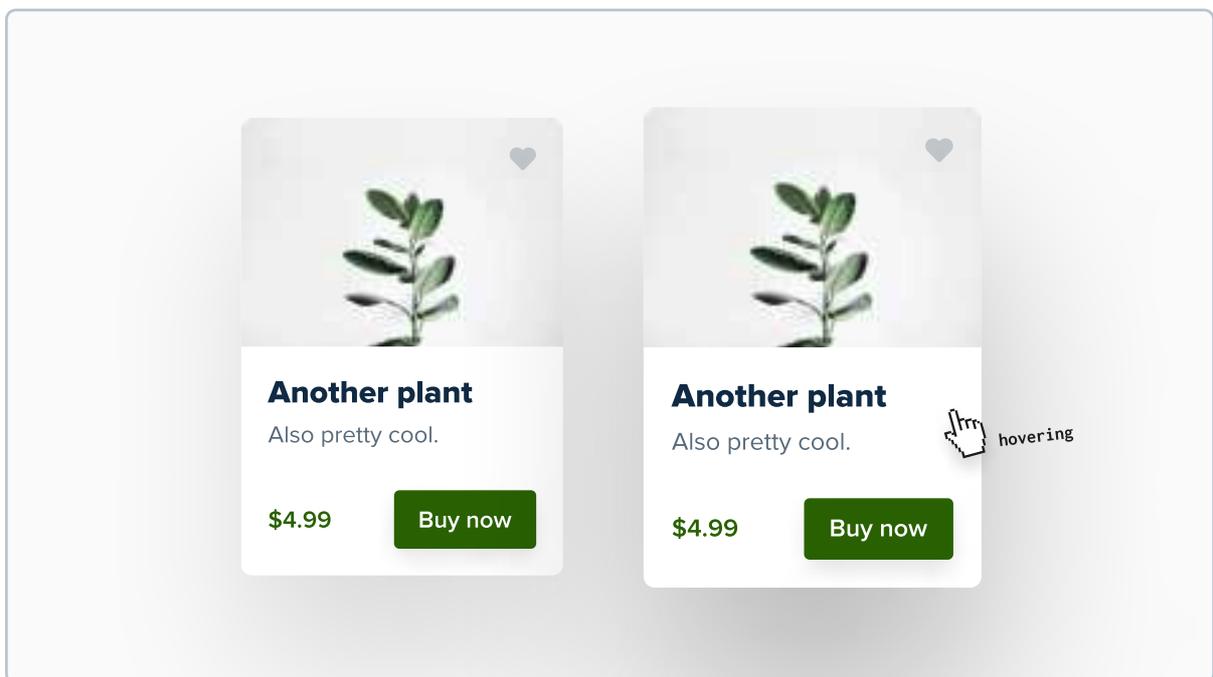


Looks terrible, right? This is what can happen if you don't set clear rules of what should happen when there's no image for the product or when the name and description don't have any letter number limitations.

The example on the right has some simple limits set for the number of letters, and a placeholder icon that displays when there's not image. That's enough to make it look way better.

Cards should look clickable

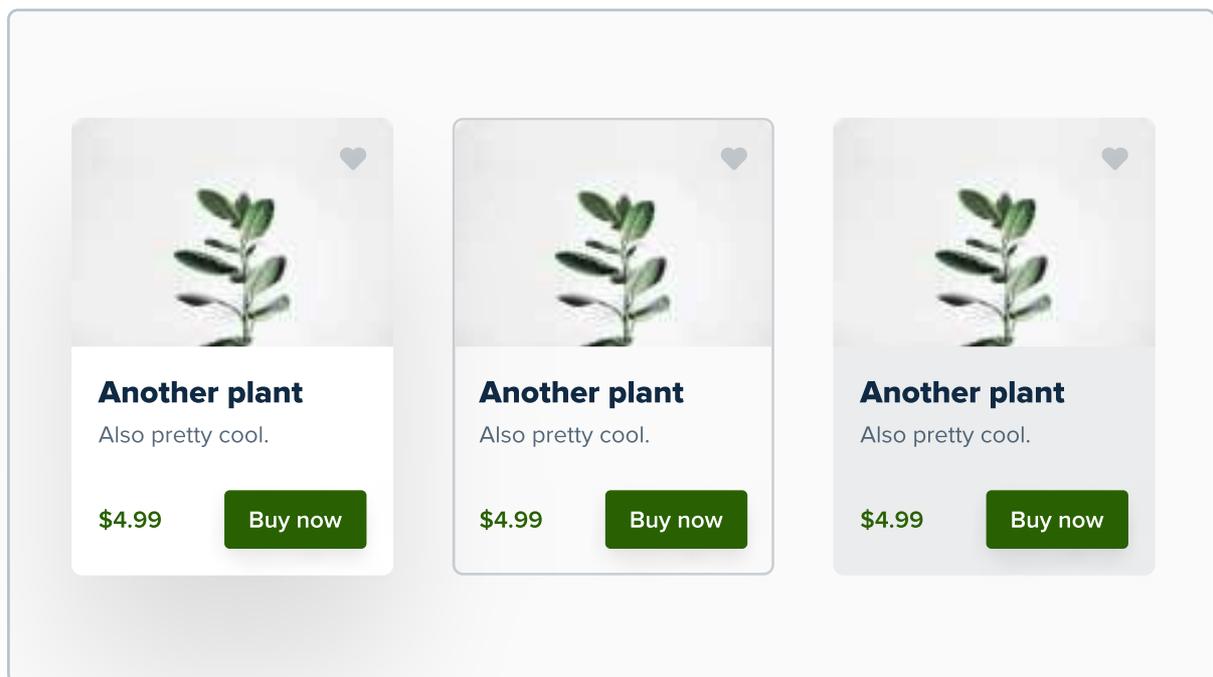
It's important to make cards stand out from the background by a bit. This indicates that they are clickable, and it can be done by adding a subtle shadow. It's also a good practice to add a subtle hover animation - for example - on hover, the card and its shadow become slightly bigger.



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Other card styles

Not all cards have to be white and have a shadow under them. Even though now it seems to be the most popular style, there are other out there as well. You can try making a card with a stroke, or instead of white fill and a shadow use a darker shade of the background for card's color.



From my experience, the first one will work best in most cases. It looks great and clickable. However, feel free to experiment with other styles as well. Just make sure you're not mixing the styles inside one website or app - inconsistency isn't good.

CHAPTER 14

White space

White space or negative space is the empty space between elements in your design. It's very often neglected and overlooked by designers - after all, it's easy to think you don't design the white space, or that it's the only thing on the canvas that is not designed. However, it's very important to get it right.

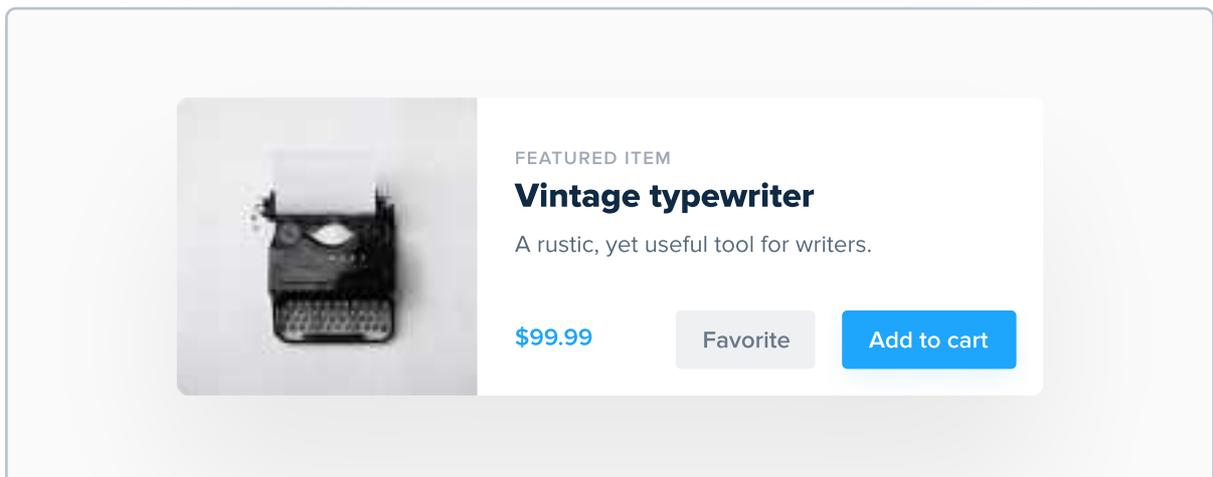
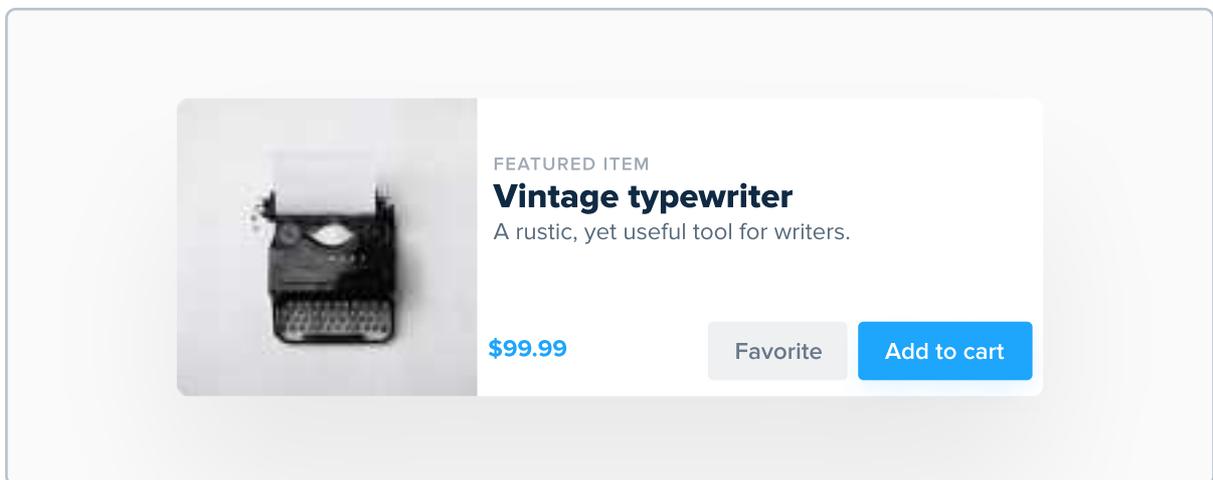
Key content

- Why white space is so important in UI Design?
- The most important reason to aim for a lot of white space
- Developing “an eye” for white space
- The impact of margins and paddings on white space
- Talking with your client about white space

White space

When used correctly, white space is extremely helpful. It creates focus on the rest of the content. It's "empty", but it shifts the user's focus on to all the elements on the screen. It also lets the elements breathe, making them much more legible and understandable.

Take a look at these two card designs. Which one of them looks better in your opinion?



I'm pretty sure that you think that the second version is better. Notice how all elements are exactly the same. All font styles, colors and images are exactly the same. The only thing that has changed is the white space - the spacing between all of these elements.

This chapter will be shorter than the rest. There are no strict rules for designing whitespace and to be honest - it's pretty subjective. I am going to give you some tips you can use, but it comes down to general tips, and not very specific ones.

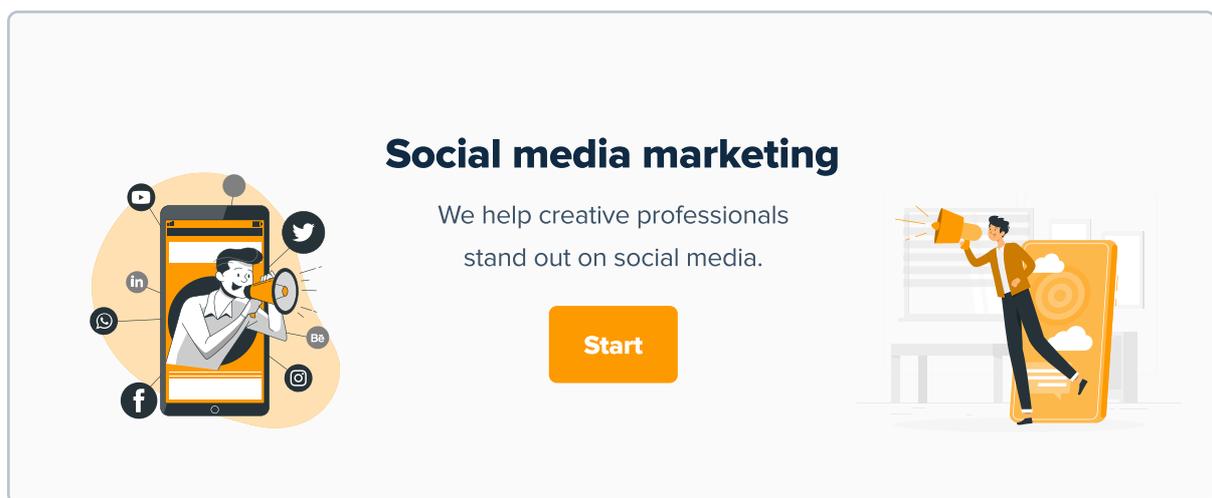
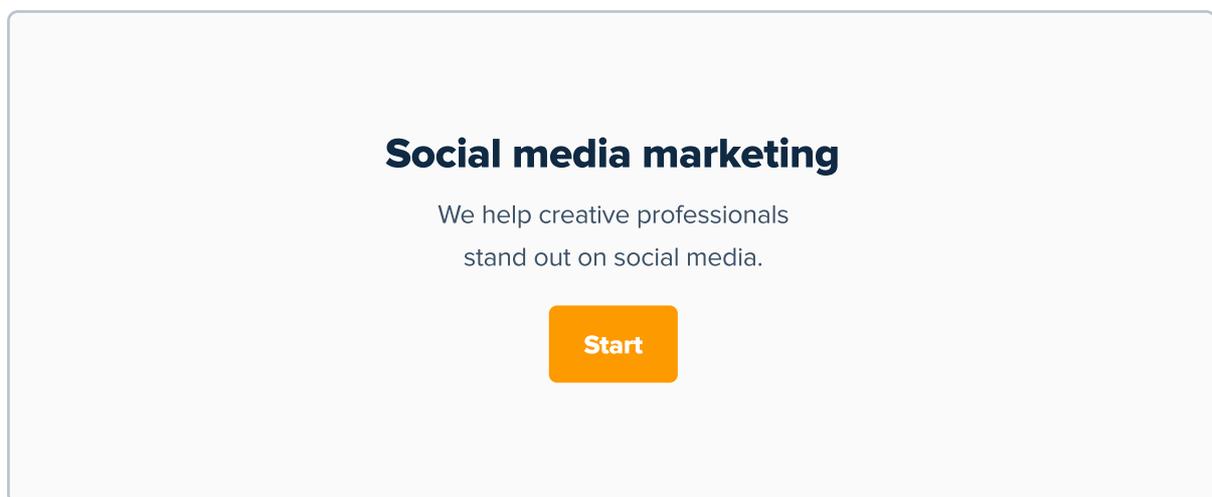
“White space is like the supporting cast whose duty is to make that the star of the show stands out more by not standing out so much themselves.”

CanvasFlip on medium.com

White space makes the user focus on what's important

The less elements are on the screen, the more the user focuses on the elements that are on the screen. Read that out loud.

To give you an example, let's imagine two different landing pages - one is extremely simple and the other has some illustrations to make it look better. Take a look:

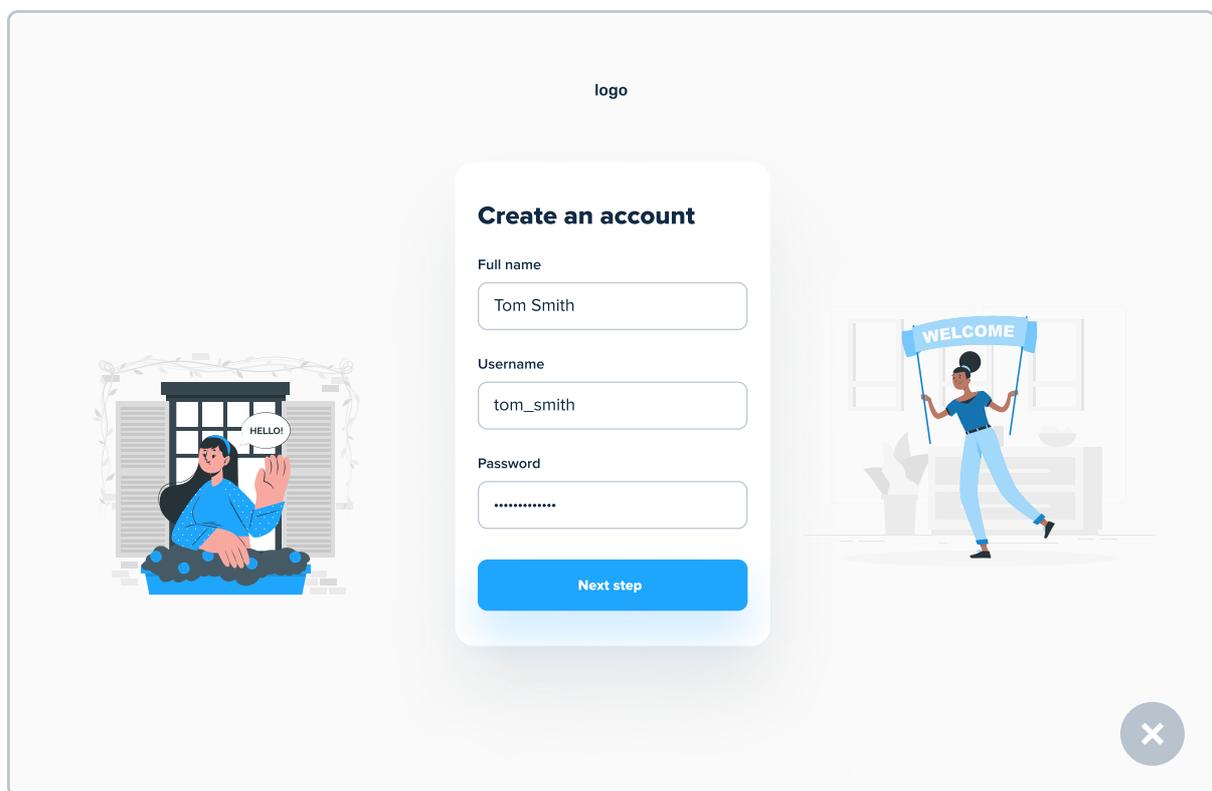


If you think that the second one looks better, I agree with you. But think which really focuses on what's important? The first or the second one? The first one has only necessary elements, which are in full focus, while the latter has illustrations to make the product look better and give some personality to it.

I'm not saying that the first version is better. In fact, it's hard to find a website that looks like it - just text and buttons. I just wanted to use this example to show that by adding more whitespace we create more focus to what really matters.

White space should not be filled without a good reason

I can't tell you how many times I've been asked by the product owner to "fill that empty space", because "it looks plain" or "it can be utilized better". While sometimes that was true, adding some random illustrations or stuffing more content on the screens was usually a bad solution. Properly used negative space makes the user focus on what's truly important, and it looks more elegant.



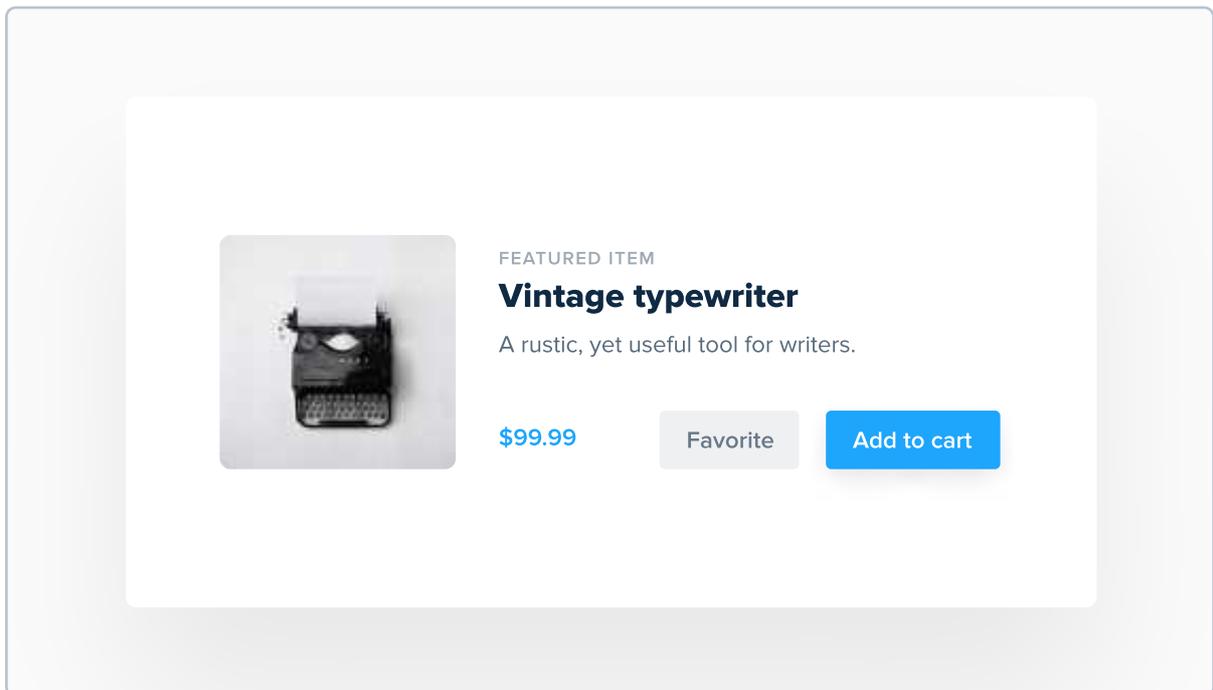
A situation like this happened a lot. When designing forms for desktop screens, there's a lot of empty space, which I was frequently asked to fill. That's understandable, because it can look a bit "boring", but it's usually better to leave it empty.

“Designers love it, website owners want to fill it. Whitespace seems to be one of the most controversial aspects of design.”

Paul Boag

Can there be too much white space?

A simple rule is that the more white space, the better. However, don't sacrifice crucial elements of the design just to have more space. Make sure the design can breathe, but also that it's functional and has all the necessary features. An example I gave a few pages ago with removing illustrations on the landing page is something that you should almost never do. Illustrations or photos are great, even if they're only for decorative purposes, so don't confuse having enough whitespace with going 100% minimalistic.



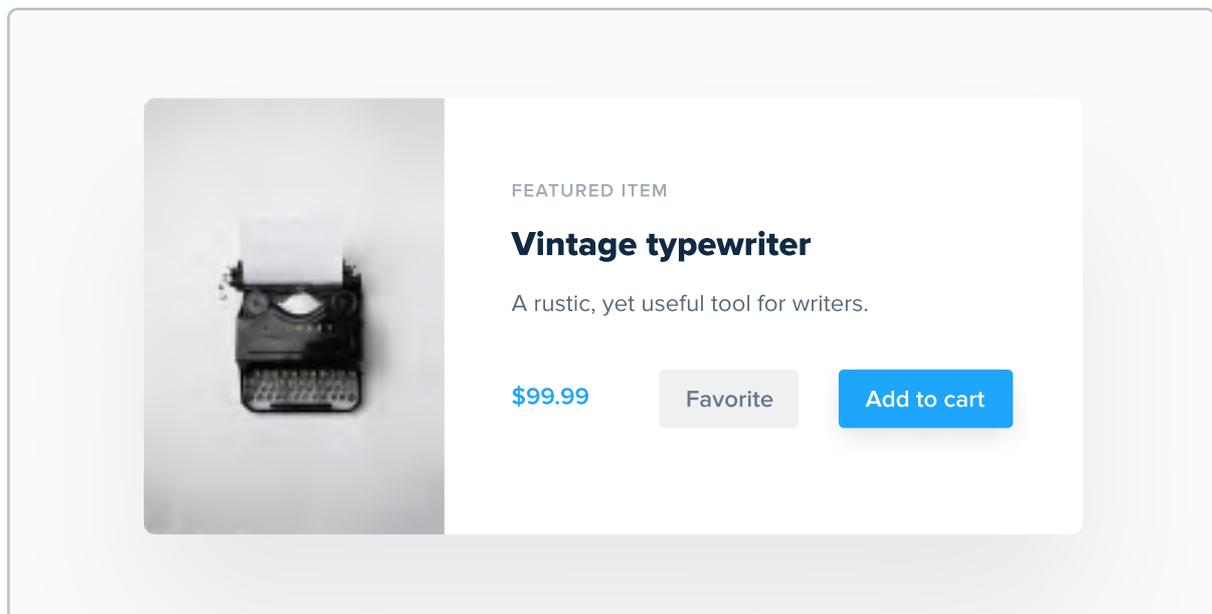
This is an example of too much white space. Unfortunately it's very subjective and there are no strict rules for setting the right amount. As you will progress as a designer you will develop an eye for white space, so don't worry.

Some tips for using whitespace

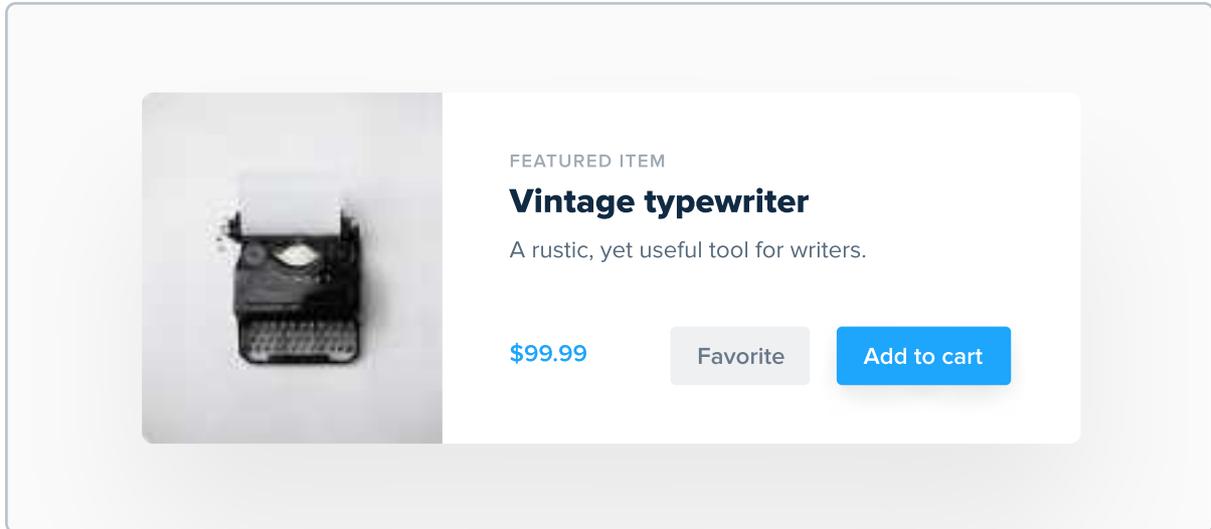
Even though there are no strict rules, I have prepared some tips on properly using white space. Feel free to try them out, but as I mentioned before, as you progress you will develop an eye for the correct level of whitespace.

Always start with too much white space

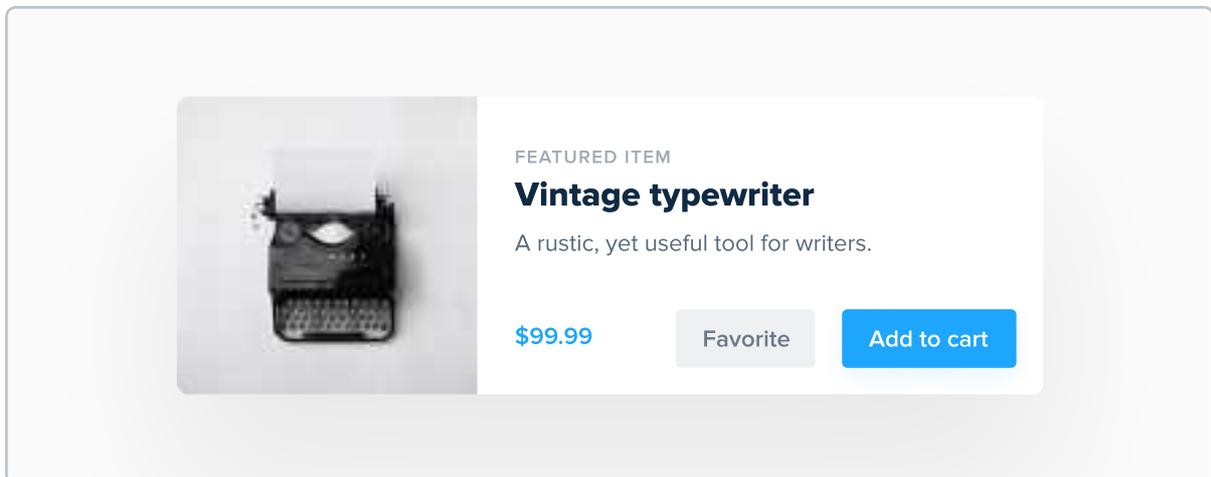
Many designers design something just to realise that it should breathe more and they add white space to it. While it's a common and not entirely wrong approach, it's way easier to design something with too much white space, and then reduce it (if needed). You might realise that something does not have to be smaller and keep the large version with a lot of white space, which is fine! For example, let's start with something like this:



It clearly has too much whitespace, so let's make elements a bit tighter and see how it looks.



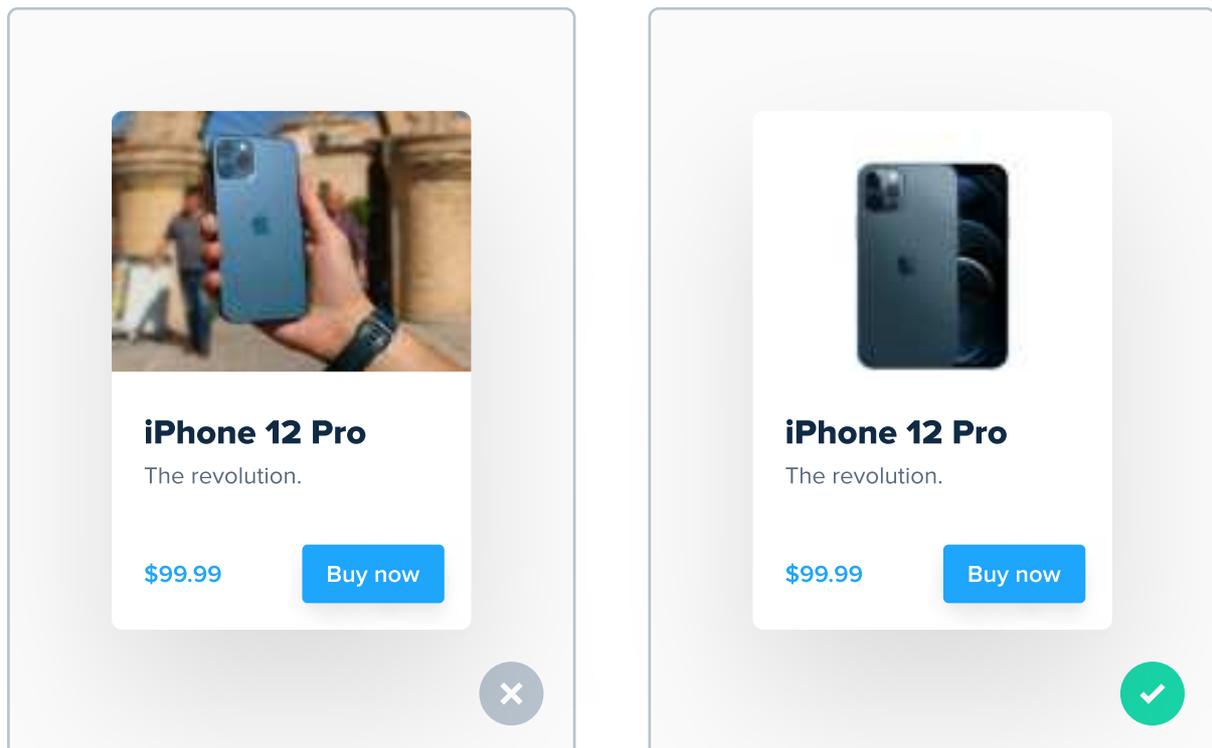
Looks better, but we can still make it a bit smaller.



Bingo! Starting with too much white space is better than starting with not enough and then trying to add it bit by bit, and then settling for “good enough”. This short exercise can become useful when you’re trying to develop your eye for whitespace.

“Unbox” products from photos to add white space

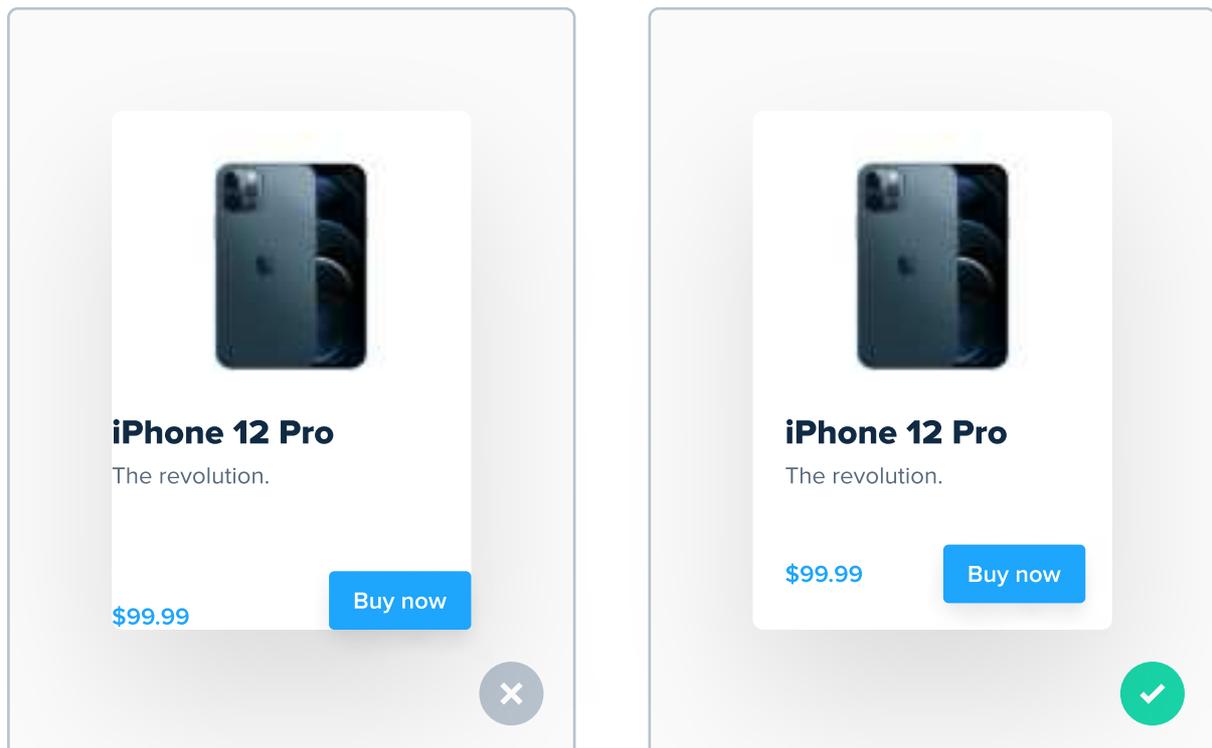
If you’re designing an e-commerce website and you have to deal with a lot of product photos, you can try “unboxing” them by removing the background and leaving just the product. This way the whole thing looks way cleaner and better for the eyes.



You probably won’t be able to do that with all photos, but it’s worth experimenting with, as you can really save a lot of white space in your UIs.

Stay away from the corners

In 99% of situations text should never touch the borders of the screen. It just looks bad and makes it harder to read! In fact, most elements should stay away from the corners - maybe the top navigation bar and the footer are an exception, but that's it!



Okay, that's an extreme example, but I hope you get the point!

You will soon develop an eye for white space

White space is one of the things that most beginners frequently get wrong, because it can't be brought down to a simple rule. There are tips that state that balance between content and empty space should be 50% to 50%, but these numbers aren't all that specific. I can give you many practical tips about other principles from this book, but sadly there aren't many for white space.

The best tip that I can give you is to take real, well-designed products for an example - they were made by professionals that most likely have developed an eye for white space already. Observing how white space is used in those products and learning from it will help you improve your skills in this matter.

How to explain the product owner that whitespace is good

It's not a book focused on communicating with clients, but this just has to be addressed! It's very possible that when you will use whitespace correctly, the stakeholder will say that it can be filled and used in a better way. There are many better ways than filling the white space right away. Here are some of them:

1. Social proof

Show them a relevant product that uses a lot of white space. Designers behind successful products know the power of negative space. You can show them a screenshot of their app with a lot of white space to see that it's a common practice to use a lot of it.

2. Try explaining it in simple words

Explain why it's better to leave that space empty. Explain them what I explained to you. Tell them that if we fill that space, it's distracting users from the real, important content. Most clients don't want you to follow their orders, but to tell them if there's a better solution.

3. If that and everything else fails, try filling it

If that does not work, you can actually try to fill it and pull something off. Adding a colorful background or some abstract shapes can lead to some interesting results, without being all that distracting.

CHAPTER 15

Personality

I think that this chapter might be the most important one from this whole book. The topic of personality is basically a connecting almost everything we've talked about so far. The whole reason why the decisions regarding your typeface, color palette and language are important is because every design needs a specific personality.

Key content

- What is personality in UI Design?
- Analogy to personality in real life
- Examples of different personalities in UI Design
- Why a UI Design should have a consistent personality?
- Personality in UI Design cheatsheet

Personality depends on brand identity

One of the first things you should do when designing a digital product is understand what the brand that will own the product stands for. What do they care about? Who is their target audience? What is the demographic data of the target audience? If you're unable to answer these questions, it will be very hard to select assets that will make sense.

Design is all about experience, feelings and emotions

We've talked about picking colors, typefaces and other elements. Each one of these decisions will cause a specific set of emotions in the user. Your goal as a designer is to understand what emotions the company you're designing for would like to evoke in the user using their product, and then design a product that will do that.

The importance of personality

Understanding the importance of personality is what I believe to be the gap between good and great designers. Instead of just picking great looking assets like a good UI Designer would do, a great UI Designer makes these decisions based on who will be using the finished product. To become better, stop making design decisions based on your or your client's personal preferences.

Personalities in real life

To make personality in UI Design easier to understand, think of a personality as not something related only to design, but to humans.

When someone tells jokes all the time and is easygoing, many people will consider him as funny.

When someone walks in a suit all the time, never laughs and uses sophisticated words, people will consider him as serious.

When someone is 35 years old but plays computer games all the time and does not care about anything other than that, many people will perceive him as childish.

Of course, I'm not qualified to make statements like these, so please treat them as assumptions and opinions. However, what I'm trying to say is - the way we perceive somebody depends on many different factors. It can be the way he talks, the way he dresses, his positive and negative habits etc.

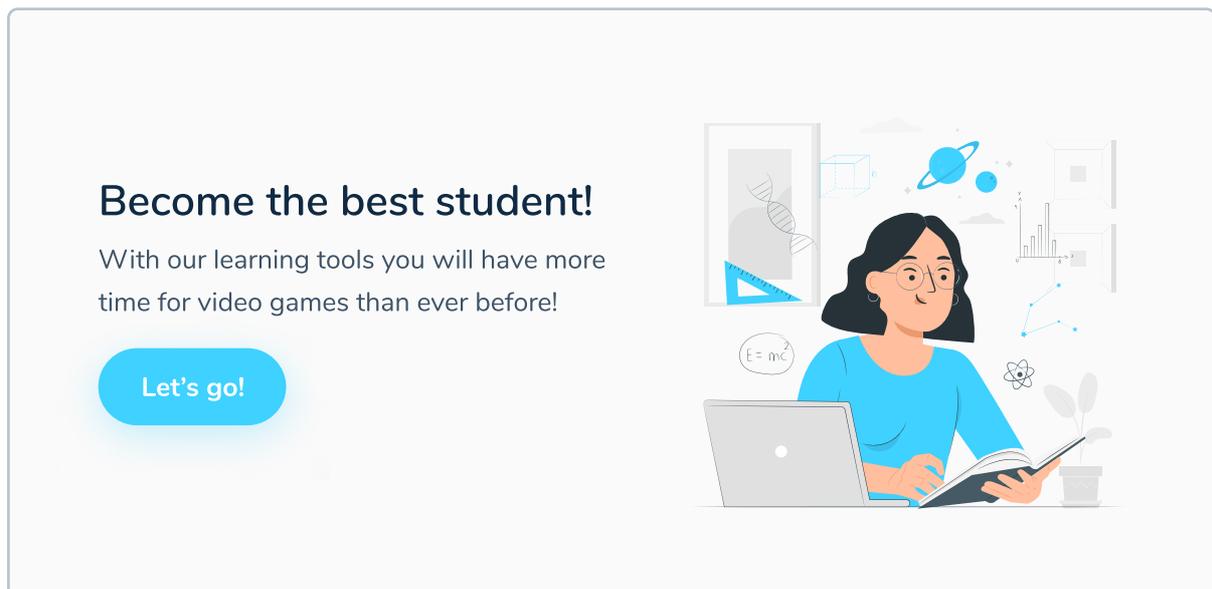
Same in design. The way that users will perceive a digital product depends on many factors, such as colors, typefaces, photos or illustrations used etc.

A few examples

To clarify this topic, I'd like to give a few examples of different personalities. I'm doing this mostly to explain my point, so don't treat these as definite guides.

Playful

Playful personality is kind of "childish" - vibrant colors, soft, rounded fonts, colorful illustrations and funny language. It's clearly targeted towards a very young audience, but can also speak to the parents looking for something for their kids.



This personality works best for digital products aimed at young audience (or their parents). It's fun and engaging, but won't work very well for products that aim to be trustworthy, such as banks.

Serious / formal

A complete opposite of the Playful personality. It has rather muted and low-saturated colors, elegant fonts, often Serifs, uses real images instead of illustrations and has formal language. It works very well when you want to make the user feel secure.

Investing in the future

Let us help you with your finances.
We invest in growth companies,
bringing extraordinary returns.

Get started



Luxury clothing for everyone

Dive into our world of premium quality clothing.
Over 172 luxury brands in one place.

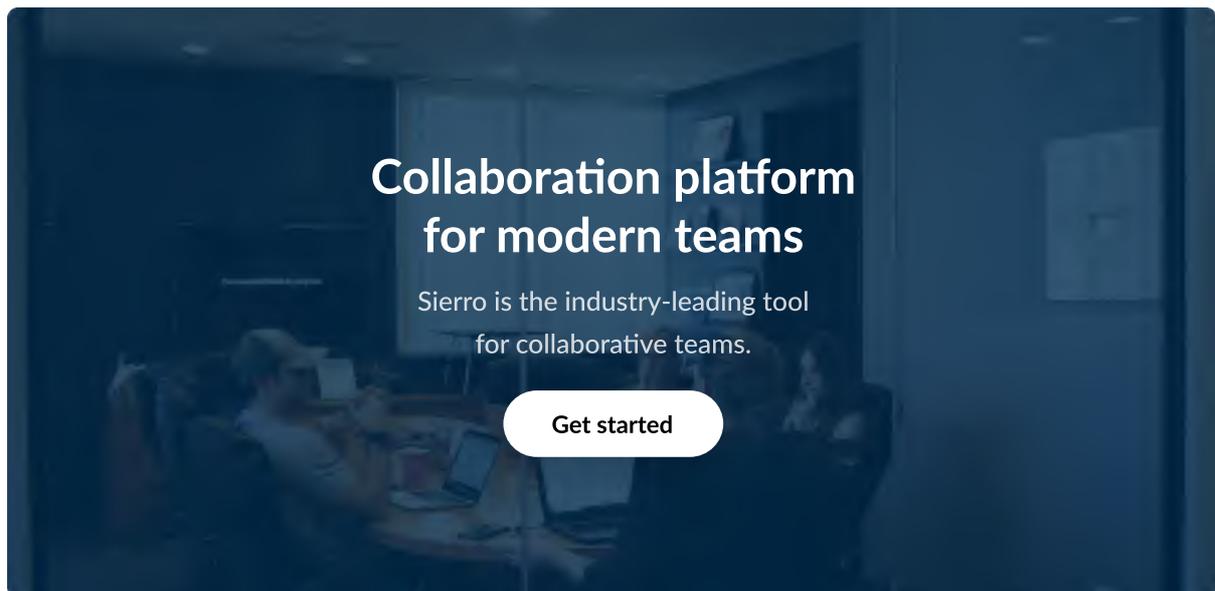
Get started



Formal personality will work for products that want to seem trustworthy. It's not really aimed at the young demographic such as children, due to its lack of playfulness.

Neutral / plain

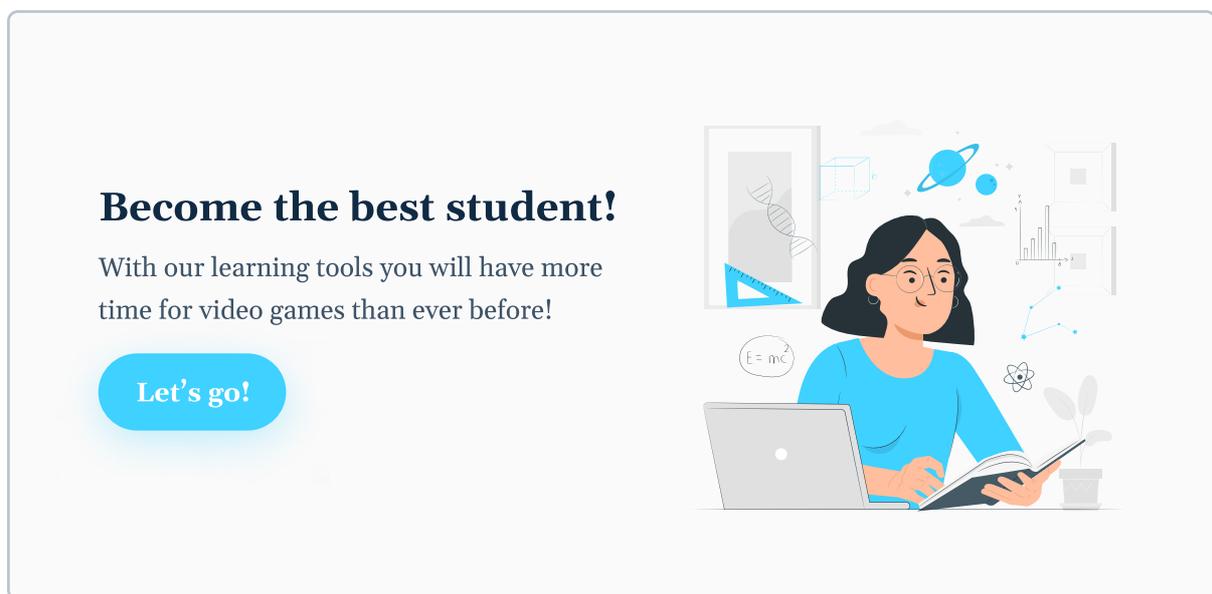
Neutral personality is really, really simple. It uses assets and language that aren't overstyled and focused on readability. It can work for pretty much any product out there and is the safest choice, but it also does not cause any extreme emotions in the user. It's... well, plain.



This personality is the safest choice out there because it does not evoke any extreme emotions.

Personality should be consistent

Same as brand's personality should be consistent in different channels (their social media profiles, their products, their newsletter messages) - the same UI Design personality should be consistent throughout the whole product. Some decisions are just straight up bad - for example mixing Serif fonts with colorful, playful colors and illustrations:



This looks weird. Make sure that before starting the design process you decide for which personality you'd like to go for. After that, you can pick typefaces, colors, as well as decide if you'll be using illustrations, real images or both. Having this clarity at the beginning of your design process will be very helpful in later stages.

Please don't feel constrained

I wrote this chapter mostly to let you know what UI Design personality is and why it matters. Please feel free to explore new ones. After all, the best brands are the ones that stand out from the crowd, so don't just copy other successful products. They more likely have different values and want to communicate a different message than the brand that you're designing for.

After reading about color psychology and typography you should have a good idea of how to influence user's emotions and therefore - how to create a personality. Don't overthink this anyway - it's not rocket science. I'm sure you can tell what feels serious and what feels playful to you.

With this chapter I wanted to bring one more important thing to your attention. You should not make design decisions based on your personal preferences, but rather based on the target audience of the product that you're designing.

Maybe you love pink color, rounded fonts and illustrations, but if you're designing a banking platform that might not really be the right choice!

Personality cheatsheet

As I mentioned, you don't have to be an expert to recognize if something feels playful or serious. After all, you know best how something feels to you. However, in this short cheatsheet I wanted to give you a few examples of different design decisions and how they impact personality.

Color

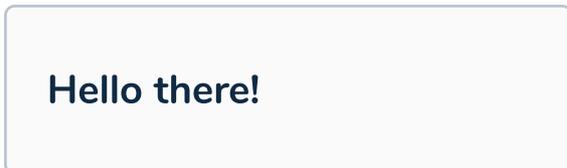


Saturated colors: more playful



Muted colors: more serious

Typography

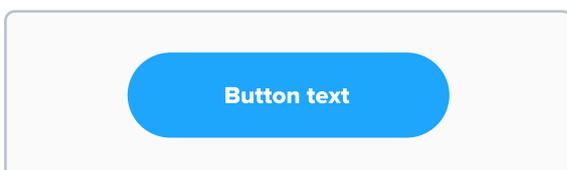


Rounded Sans Serifs - more playful

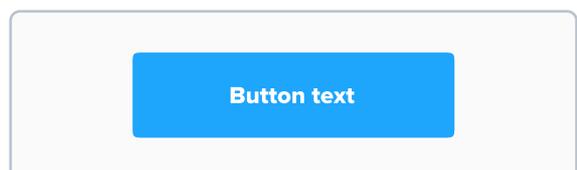


Serifs - more serious

Roundness of elements



More rounded: more playful



Sharper - more serious

Roundness of icons



More rounded: more playful

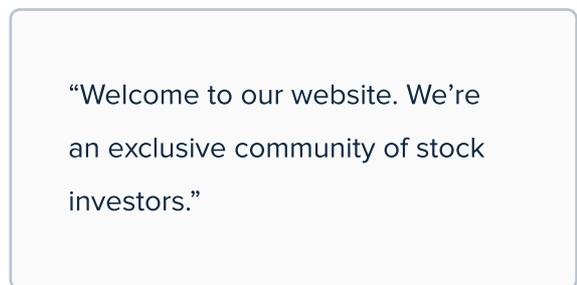


Sharper: more serious

Language



Friendly tone: more playful



Formal tone: more serious

Ending note

Don't treat this cheatsheet (and this chapter) like some kind of an oracle. Just keep the topic of personality in mind before starting your next project. Also, if you're designing something and it does not feel right to you or your client, re-visit this chapter and maybe it will help you find a solution.

CHAPTER 16

Language

The topic of language in UI/UX Design has been a topic of discussion for a long time now. Many people believe that it's designer's responsibility to come up with a good copy, while others believe that the client should just hire a copywriter for that. In this short chapter I'd like to address some of these claims and ultimately give some tips for using proper language as a designer.

Key content

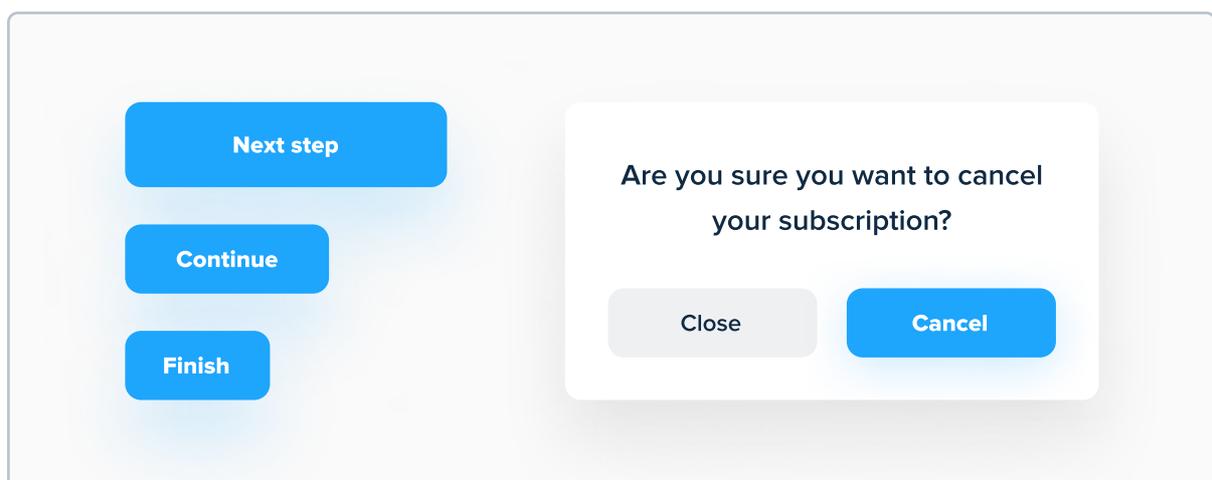
- Dear designer, you're not a copywriter
- What is microcopy?
- Text inside buttons
- Text inside popups
- What is Lorem Ipsum and why it sucks

Designers are not copywriters

The main objective of a business is to make money. The owner of the product you're designing has the same goal. Writing a copy that sells is way harder than you think, and that's why a profession called "Copywriter" was born. Designers don't need to know copywriting. You can recommend the client to hire a copywriter for optimal results, and as a designer just write some generic, basic stuff where final text will be put later.

Designers are responsible for microcopy

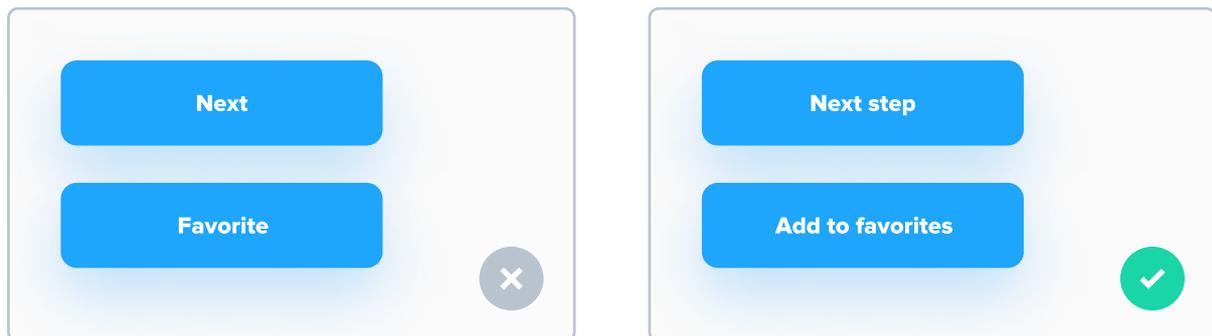
The wording used on buttons and popups might seem basic and straightforward, so it's often overlooked. However, these seemingly small details play a big role in overall user experience. This type of text is referred to as microcopy, and it's what I will focus on in this short chapter.



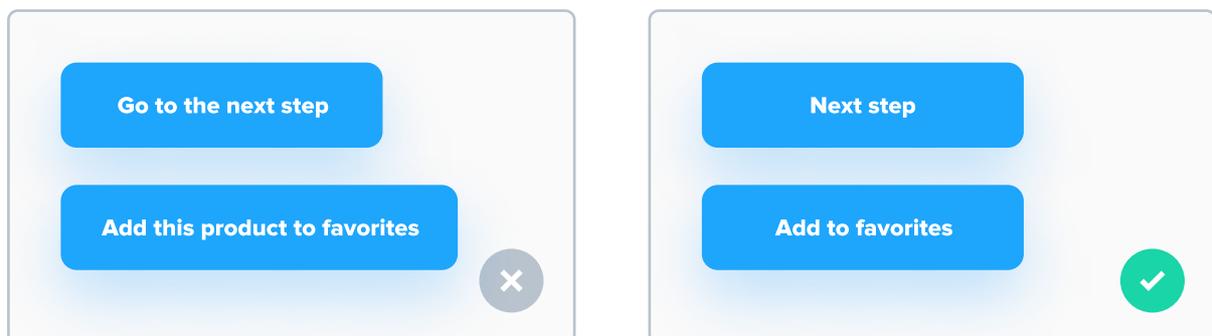
Designers are responsible mostly for text on buttons and popups.

Text inside buttons

I've already mentioned this in the chapter about buttons, but text inside buttons should be as specific as possible. It should precisely state what will happen after clicking the button. Here are a few examples:



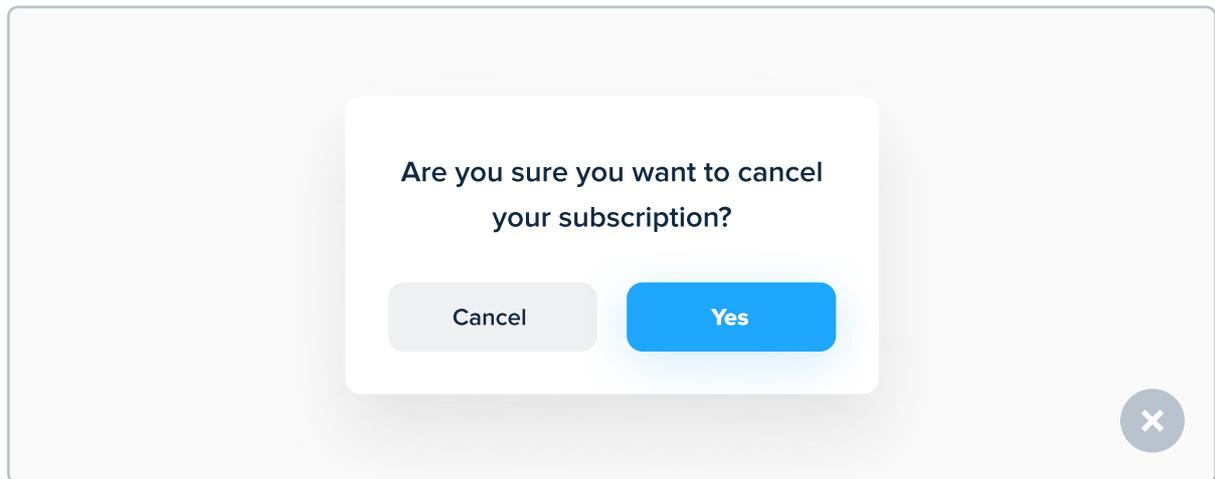
It's good to be specific on buttons, but don't be too descriptive:



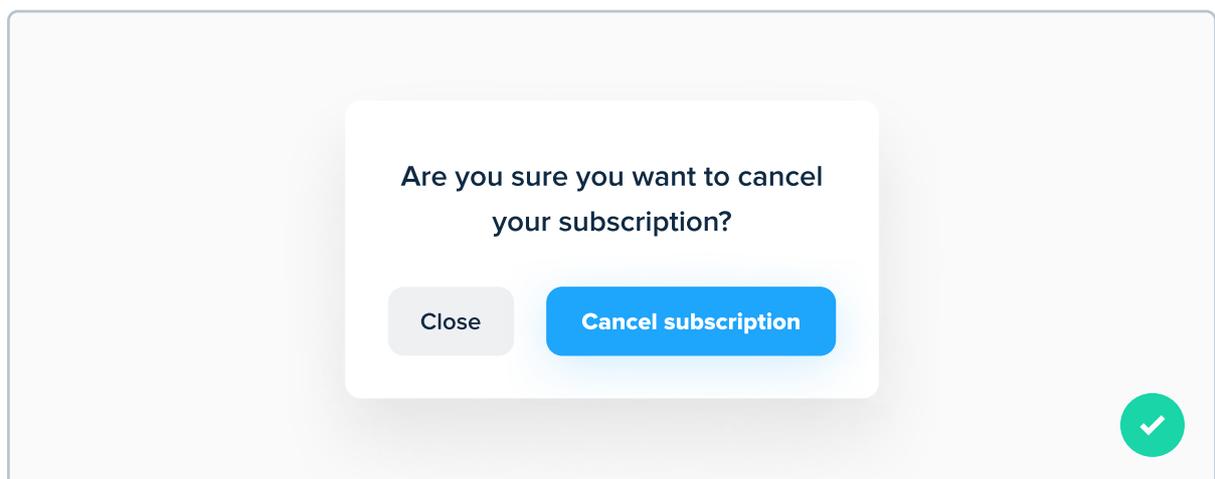
This is really the only principle you should remember for text on buttons. However, it can be hard to understand the importance of button text without context, so on the next page I'll show you how to properly write text inside popups, where buttons also appear.

Text inside popups

Apart from buttons, designers should also write for all common popups. A very common mistake is to use double negatives inside popups, like here:



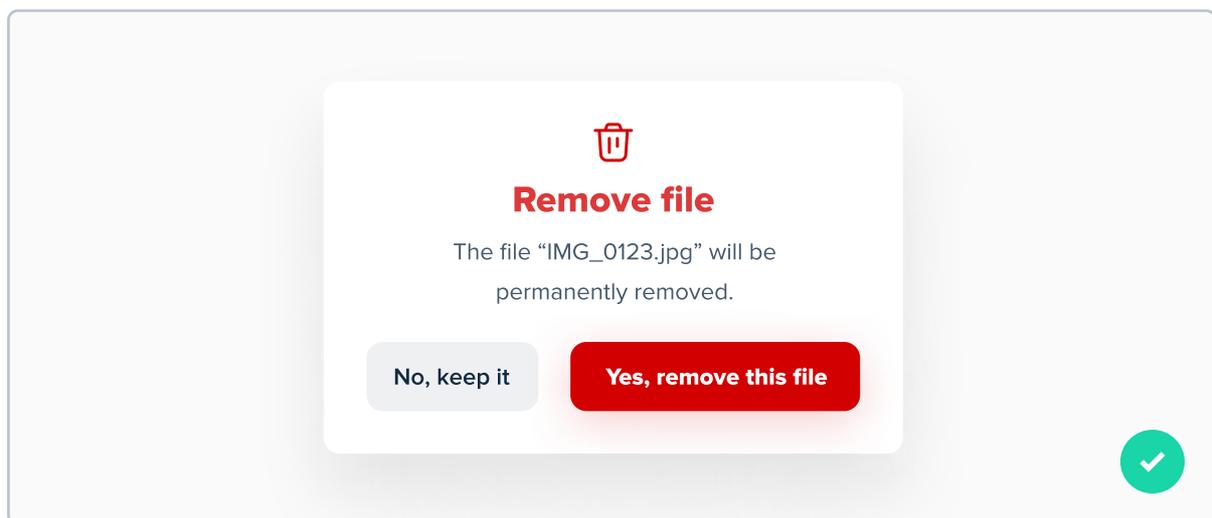
Confusing, isn't it? We ask the user if he wants to cancel his subscription, but after he taps "Cancel", the window just closes. Instead, he has to tap "Yes", but that wording is just confusing! Here's a better alternative:



By providing the user with specific text on buttons, it's easier for him to predict what will happen after clicking them, so he'll be able to make better choices.

Let's do it even better

If you have enough space, we can go that extra mile and make our popup even more specific. This way the user has 100% certainty that the app will do what he wants it to do. Take a look:



This is a popup for removing a file from a drive. In our copy, we're even giving the name of the file we're removing, so the user can be sure that he's not removing another file by mistake. Also, the wording on buttons states EXACTLY what will happen after clicking them, without being too long.

Try to sound as human as possible

Don't use complicated and sophisticated wording. Try to sound as simple as possible so that many people will understand the message. Also, whenever an error pops up, it's good to suggest user a solution, so that he knows what he can do.

No wireless connection found.



No internet connection.

Try restarting your router.



Use short forms where possible

It's a good practice to use expressions like "that's" instead of "that is" or "don't" instead of "do not". If you're designing a product that is supposed to feel very formal and serious, it might be better to stick to the longer form.

That is a good idea,
do not forget it!



That's a good idea,
don't forget it!



It's a simple change, but makes the design feel more human. Just please remember that it's not applicable in every single case.

Don't use Lorem Ipsum

Lorem ipsum is dummy placeholder text used by many designers out there. It's put in places where other, final text will be placed in the future. The problem is... it makes the design look terrible and not realistic! Instead, just write some semi-realistic text about what you're designing. Take a look at this example



Lorem ipsum

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

\$4.99 Favorite Buy now

DETAILS

Water: once a week Sunlight: low

✕



Another plant

This is another plant we think is pretty cool. It does not require a lot of watering, and it does not require that much light either.

\$4.99 Favorite Buy now

DETAILS

Water: once a week Sunlight: low

✓

In the second version I wrote some really, REALLY random text! It does not even make sense, but at least it's kinda funny and related to the product. Lorem ipsum however makes the first version look random.

How about longer chunks of text?

In some cases using Lorem ipsum just seems like the only valid choice - for example when you need to add a placeholder where a long article will be put later. Believe it or not, but even in this scenario you can avoid using Lorem ipsum!

Let's say you're designing a website for a blog about recipes, but you have no idea how to write an article like that, so you use Lorem ipsum. Instead of doing that, you can just google "recipe blog" and copy the content from an article it to your design. Let the client know that this article is not yours, and don't worry - it won't go public. It's only going to be visible in your design tool.

Navigation

Navigation is one of the most important parts of a well-designed product. It lets the user navigate through the app. If it will be hard for the user to find what he's looking for, he will get frustrated and probably just leave the app. Even if your design looks stunning, has awesome animations and overall is just delightful, but it lacks good navigation, the product will lose many users.

Key content

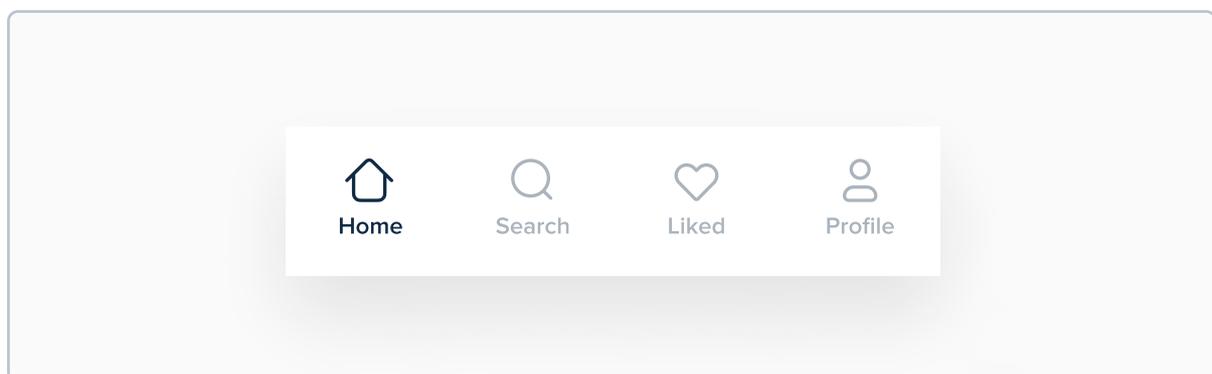
- Types of navigation in UI Design
- Designing visible navigation
- Designing hidden navigation
- Designing contextual navigation
- When to choose which navigation type?

Types of navigation in design

There are three common types of navigation in UI Design - visible navigation, hidden navigation and contextual navigation. I think it's worth to go through all of them in detail, because all of them exist in most products. You should know when to use which one them and how to design them properly.

Visible navigation

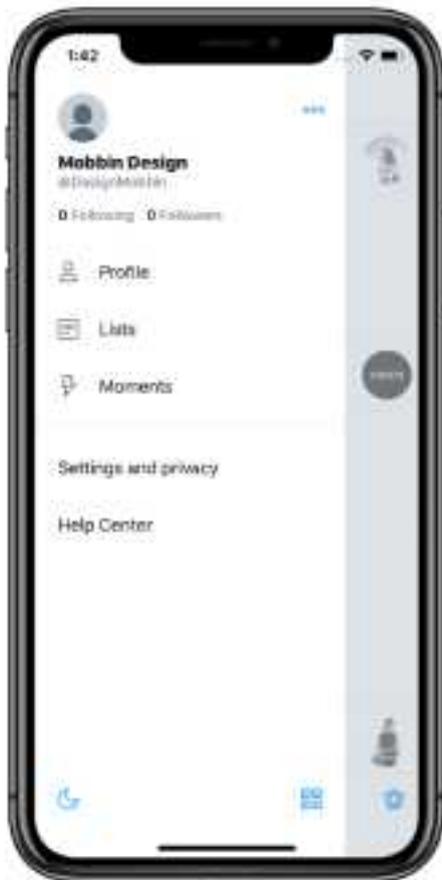
Visible navigation is usually a set of tabs (frequently with icons) that contains a few of the most important pages of the product, with the current selection being highlighted. It usually has a static position, meaning that it does not scroll with the rest of the content, so it's always easy to access.



Examples of navigation for mobile and web interfaces. Visible navigation on mobile is usually positioned at the bottom of the screen, and for web - on top.

Hidden navigation

Hidden navigation is not always visible and it requires the user to click on something for it to show. It's main advantage over visible navigation is that it usually can contain more tabs, as well as expandable dropdown menus.

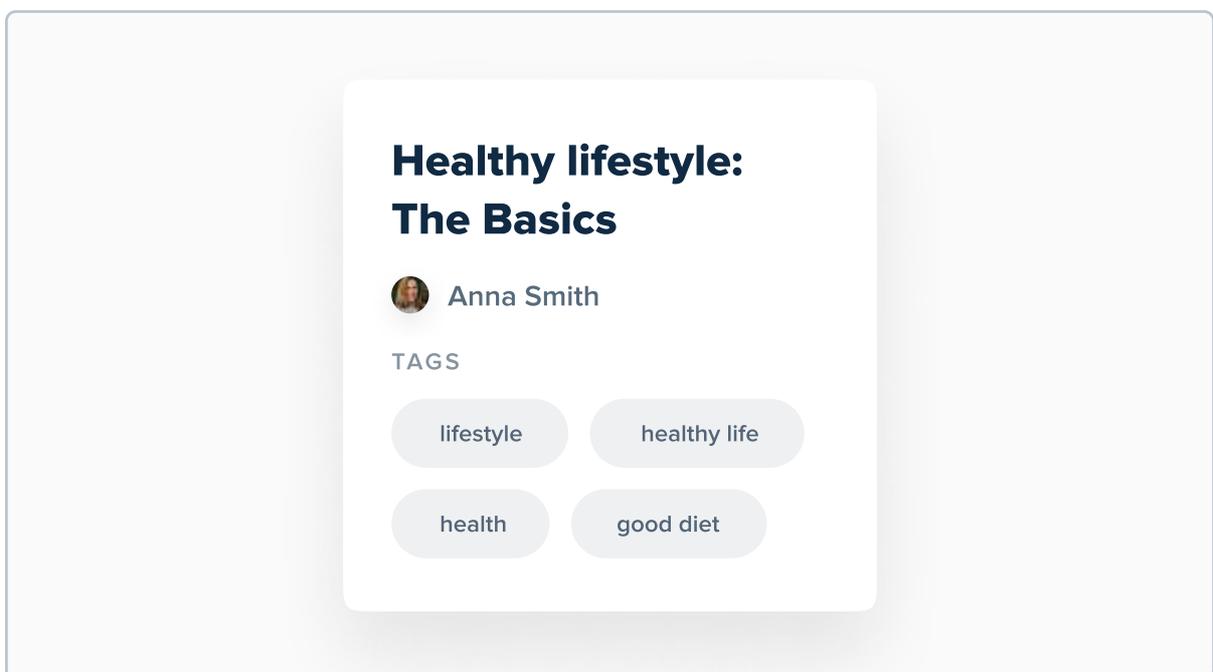


Hidden navigation in Twitter's app.
Screenshot by Mobbin Design.

The disadvantage of hidden navigation, such as the hamburger menu you see above, is that it requires an additional click or tap to open it, so it's not as easily accessible as visual navigation.

Contextual navigation

Contextual navigation does not consist of any tabs - it's just a clickable link inside the page itself. A good example can be a hashtag on a post on Instagram - after you click on it, it will take you to that hashtag page. It's essential to navigate in most products, even though in most cases when people think "navigation in UI Design", they mostly think of the first two.



Above you can see the example of contextual navigation. After clicking or tapping on a tag, the user will be redirected to another page that will display every article with the tag that he clicked on. It can be said that elements of contextual navigation are simply buttons that aren't very distinctive.

What to remember & which navigation type to choose?

The most important aspect of a well-designed navigation is its accessibility - that's why visible navigation wins in most cases. The only problem with it is the limited amount of choices - this type of navigation works well only with up to 5 tabs. If you're sure the product will need more pages included in navigation, hidden navigation might be the best choice. It's also good because it saves screen real estate - it might not seem like a lot, but for apps that really depend on it (like Google Calendar for example) it will be important.

Contextual navigation will most likely be present in every app in one way or another, so the choice comes down to either visible or hidden navigation.

So... which one to choose?

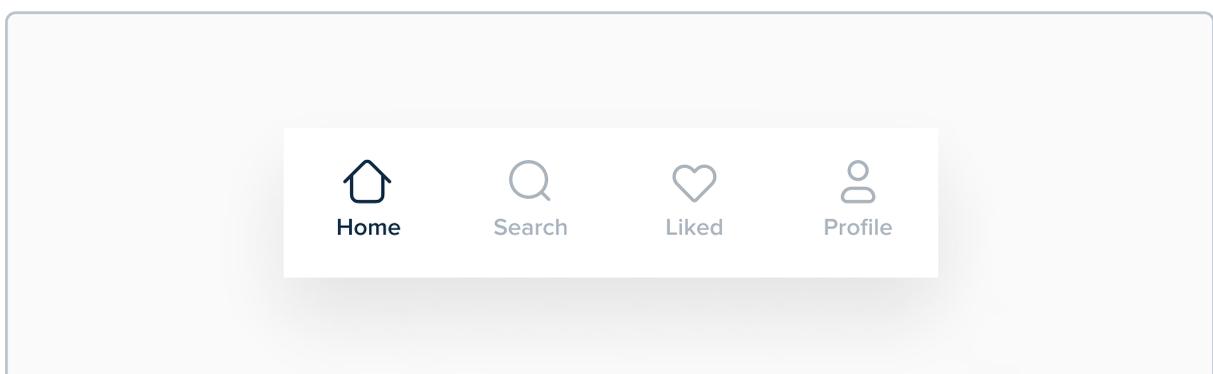
In short - if you can go with 5 or less pages included in the navigation, go with visible one. If you can't - go with hidden navigation, but don't go over 7 pages. After that user can experience cognitive overload and it will be hard to make a decision. Some products use two types of navigation at once, for example Twitter. They use visible navigation with the most important pages and hidden with less important ones. Anyway, let's learn how to actually design navigations.

Designing visible navigation

As the name suggests, visible navigation is supposed to be always visible, without an option to hide it. It should contain only the most important pages the user might want to interact with - optimally 5 or less, but if you need you can go up to 7 on desktop. On mobile it should be located at the bottom of the screen and on desktop - on top. In most cases, this type of navigation is the most optimal one, because it's always visible and does not require any additional clicks to interact with.

Visible navigation on mobile - a Tab Bar

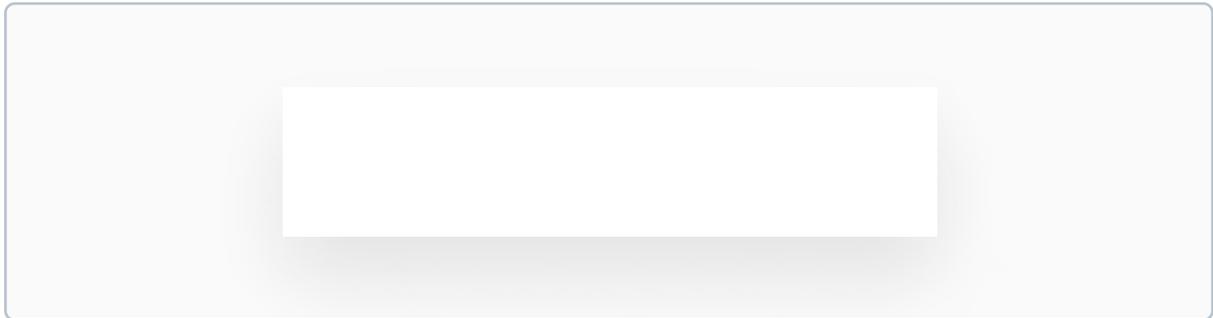
The best way to design visible navigation is to use a Tab Bar. It's usually a set of icons with optional labels under them. Currently selected page is highlighted, usually with color, and these that are not selected are de-emphasized, by for example decreasing their opacity.



The best type of visible navigation on mobile is a Tab Bar - it's easily accessible and lets the user switch pages quickly. Turn the page to see how to design it.

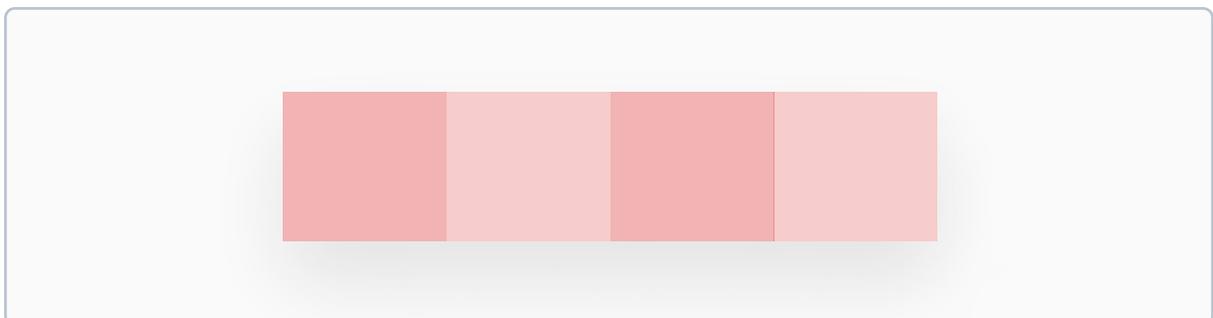
How to design a Tab Bar

There are many ways to design a Tab Bar, but the simplest solution is to make a rectangle at the bottom of your mobile screen - in width, it should cover the whole screen. In height, a range between 60 to 84 pixels will work fine.



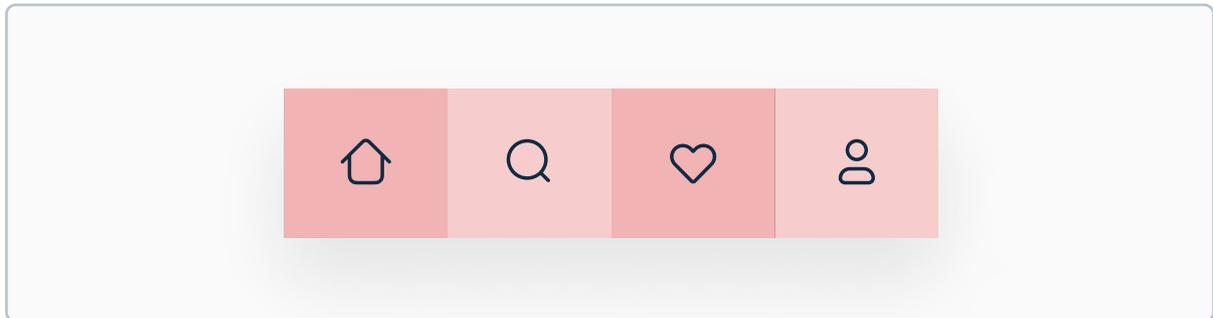
The width of this rectangle should cover the whole width of the screen, and height should be between 60 to 84 points.

Then decide how many pages you'd like to have on the Tab Bar. I choose four, so I will create four rectangles that have width of 25% of the screen - so that when they are placed next to each other, they will cover the whole screen. Next, place them on your Tab Bar to divide it into four equal parts.

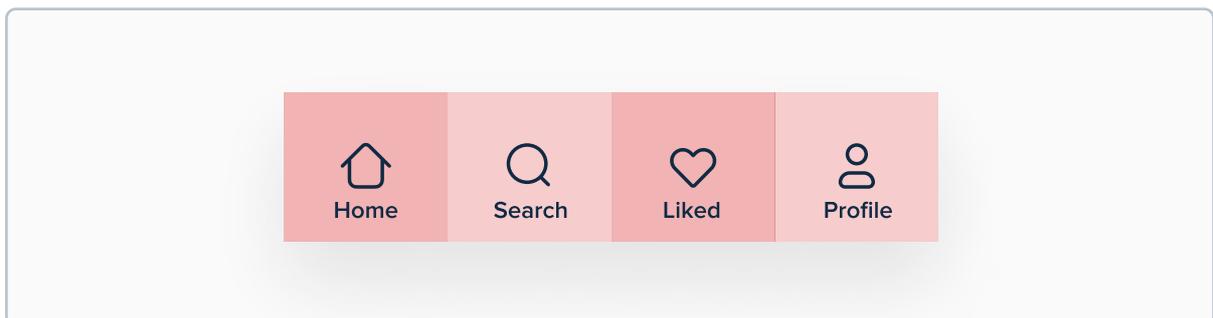


I used the red color in different opacities because it's distinctive.

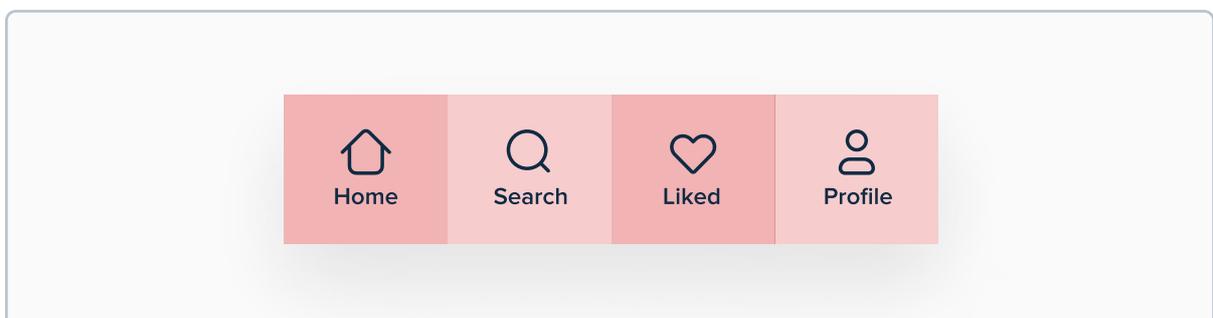
After that, place the icons in the center of each rectangle. We created the rectangles to distribute the icons properly, so this should be really easy.



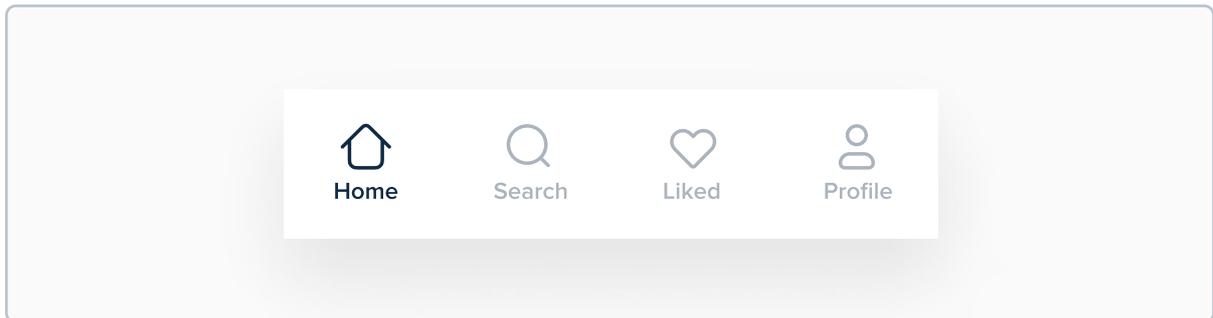
Next, add a label under each icon. Make sure they're centered.



Looks off, right? No worries, we just need to move the icons with they're labels up so that they're centered vertically inside each of our red rectangles.



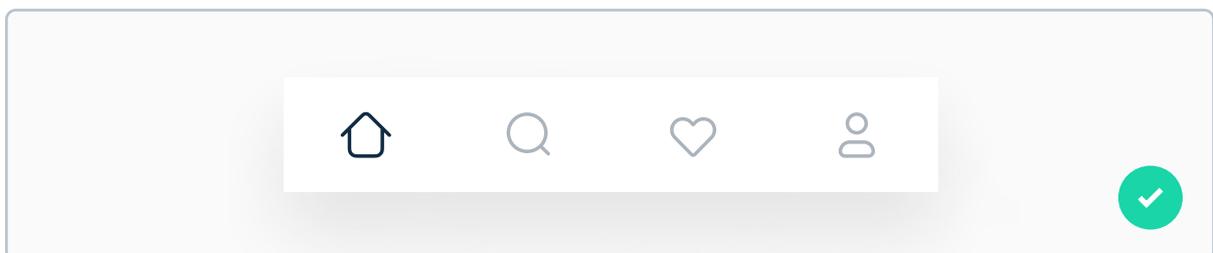
Next, we can remove the red rectangles, and decide which page should be currently selected (this will obviously vary throughout the app, but it's good to design it beforehand to see how it will look like. In this case, I lowered the opacity of every element that is not selected to 35%, so that they stand out less.



And voilà! We now have a Tab Bar ready. This process will work great in most (if not all) situations when you need to design visible navigation for mobile. However, there are some good, practical tips I wanted to share with you before we continue.

Labels aren't always necessary

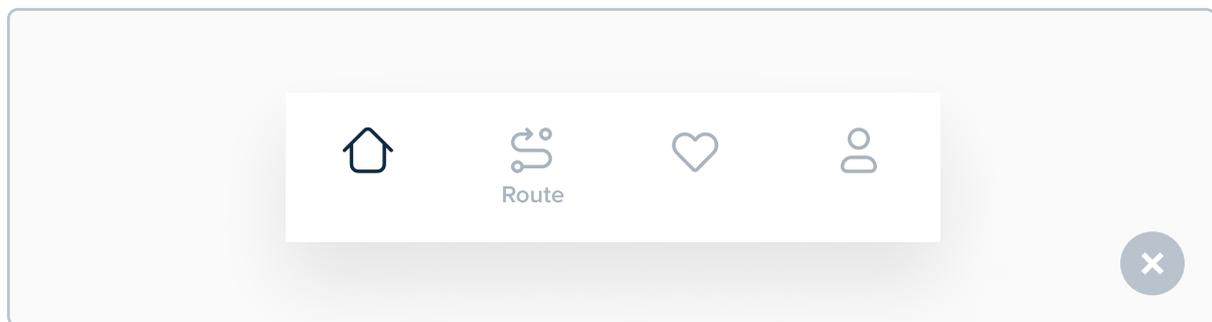
Not every icon needs a label. Icons from the Tab Bar you see above can be easily understood because they're highly popular in most products nowadays, so you can easily go with this:



A basic rule of thumb is that if you've never seen a successful product with a specific icon used without a label in a Tab Bar, you should not use it without a label.

If you decide to use labels, go all in

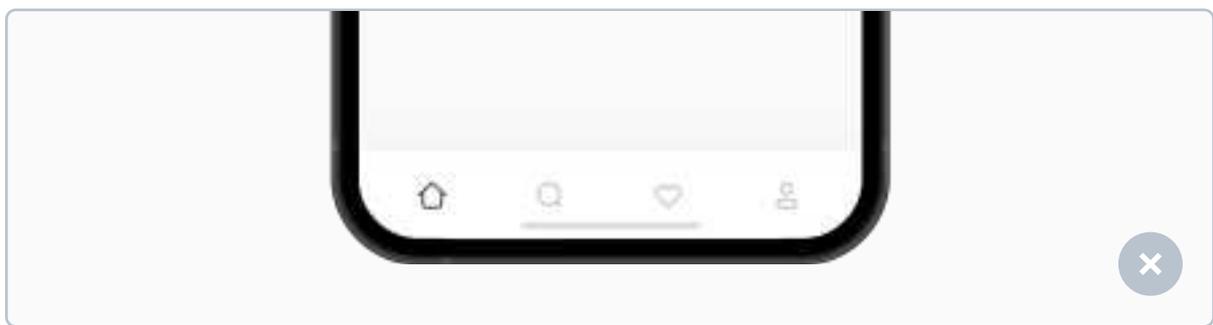
Never design a Tab Bar that looks like the one below, in which some icons have a label and some don't. Either use labels for your Tab Bar or don't, but please - never mix it up!



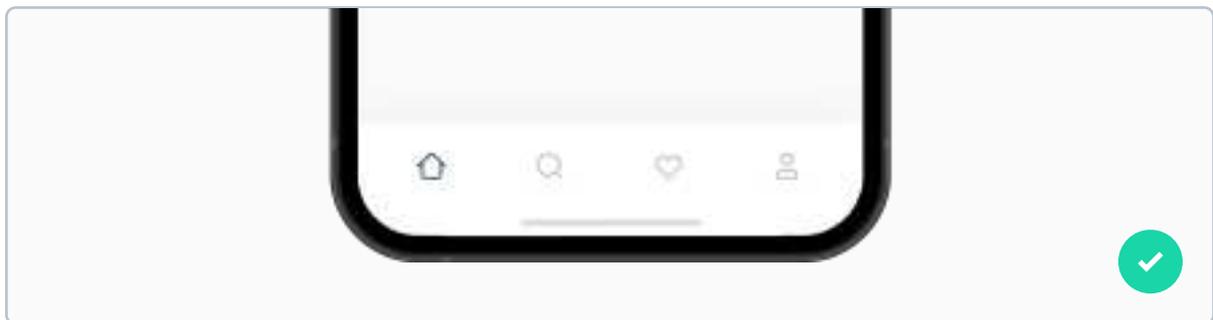
Remember that it's always safer to use labels for the Tab Bar. Even though a Tab Bar without labels looks (subjectively) better, that's not the main reason to use it. It should be used if you really care about saving space on the screen.

Important tip for designing Tab Bars for iPhones

You've most likely seen that iPhones, starting from iPhone X all the way up (when I'm writing this the newest iPhone is 12 Pro) have no home button, instead the user navigates between apps using a swipe-up gesture from the bottom of the screen. This is important, because if our Tab Bar will be too small, the gesture might interfere with the it:



When the user will try to interact with “Search” or “Liked” page, he might encounter some problems due to the home bar. It's good to add some additional height to the Tab Bar, as well as center icons and labels more towards the upper side, like here:



I expect that we won't see a release of a phone with a home button anytime soon (if ever), so it's good to keep system gestures in mind when designing.

Visible navigation on desktop - Text Tabs

Text Tabs are a desktop alternative to Tab Bars. They're placed on the top of the screen and usually consist of just text. They take less space than navigation bars and on mobile they can also be scrolled left and right. They can't really replace a Tab Bar on mobile because they're harder to reach with the user's finger (they're on top of the screen).



I'm not going to dive very deep into designing text tabs, because if you know how to design Tab Bars, Text Tabs should not be a problem for you. However, I'll give you some general tips.

Text Tabs don't always cover the whole screen

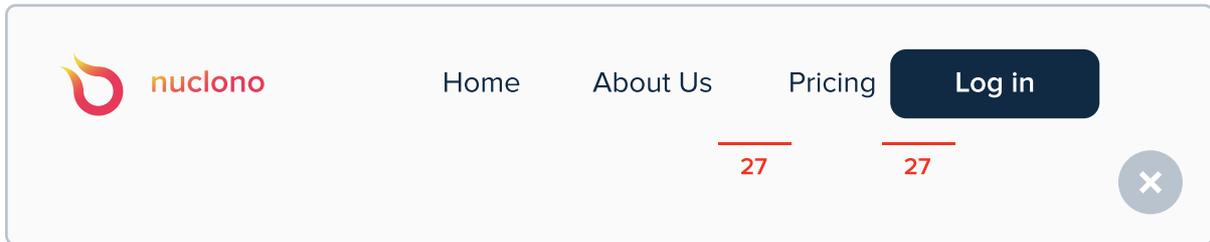
Unlike Tab Bars on mobile, Text Tabs rarely cover the whole screen, but just a dedicated part of it. Take a look:



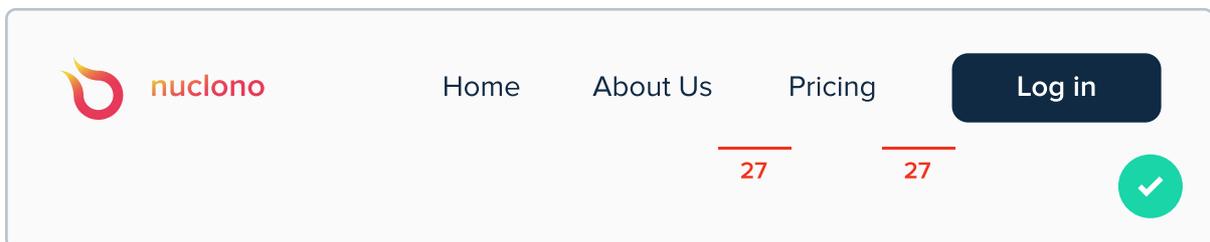
The orange area is for the logo. The blue one is for Text Tabs. There are no specific proportions for those, just remember that Text Tabs rarely cover the whole screen.

Using buttons in Text Tabs

Unlike on mobile, you can actually add buttons to visible navigation on desktop. Make sure that they're spaced out properly and have the same font size as other tabs.

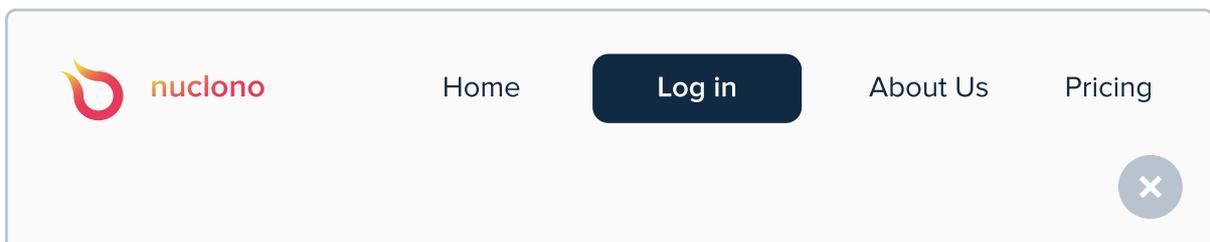


Above you see an example of bad spacing - you should consider the margin between a Text Tab and the button, not the Text Tab and the text inside the button. Here's an example:

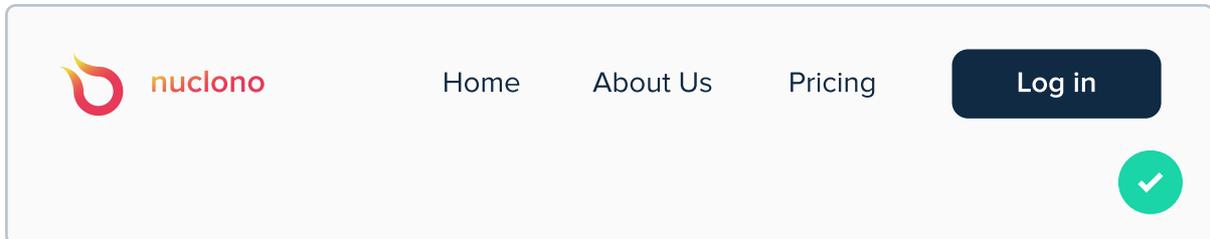


Positioning buttons

Don't position buttons in between of other text tabs. This looks distracting and might even be confusing.

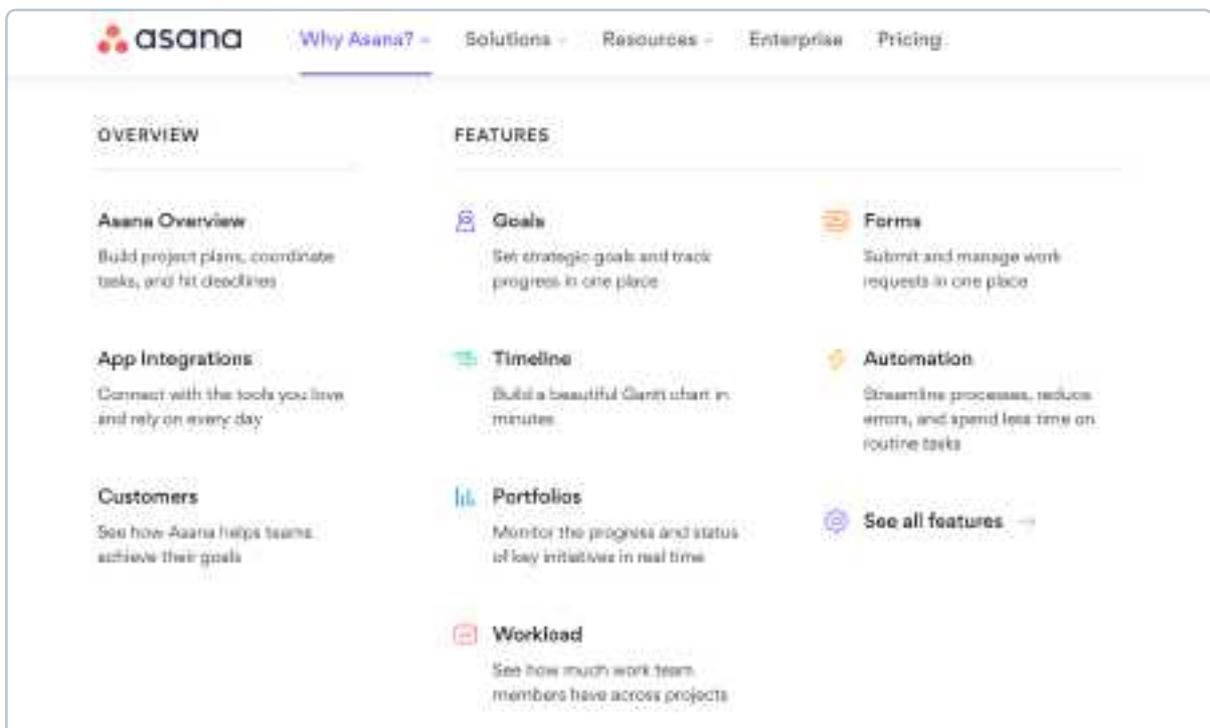


It's best to position buttons as last elements in a set of Text Tabs. This looks better and is also easy to read.



Dropdowns in visible navigation on desktop

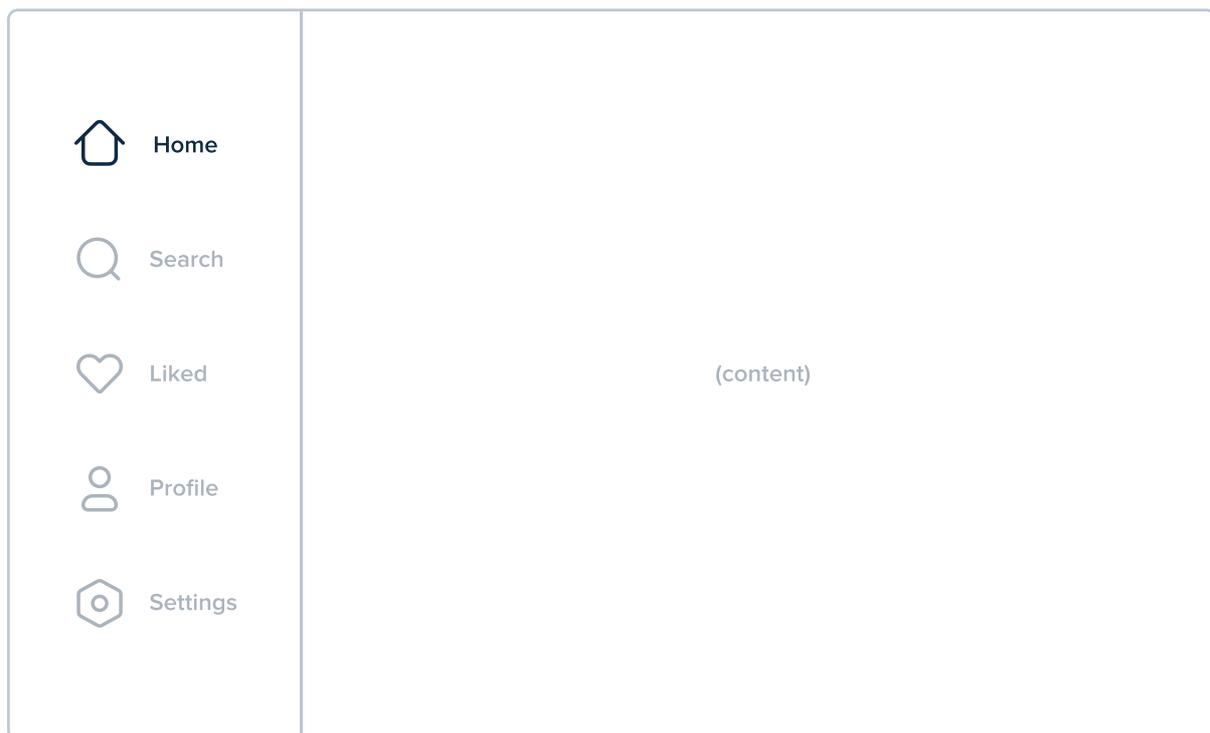
If you want to “fit” more pages to Text Tabs, don't just simply add more of them. After 7 pages cognitive overload can kick in and it becomes hard to make a decision. Instead, use a dropdown menu designed specifically for visible navigation on desktop:



On the previous page you can see a complex dropdown menu from the landing page of Asana - a project management app. Instead of fitting all these pages to the navigation bar, they've created a beautiful dropdown, from which the user can select what interests him.

Vertical visible navigation on desktop

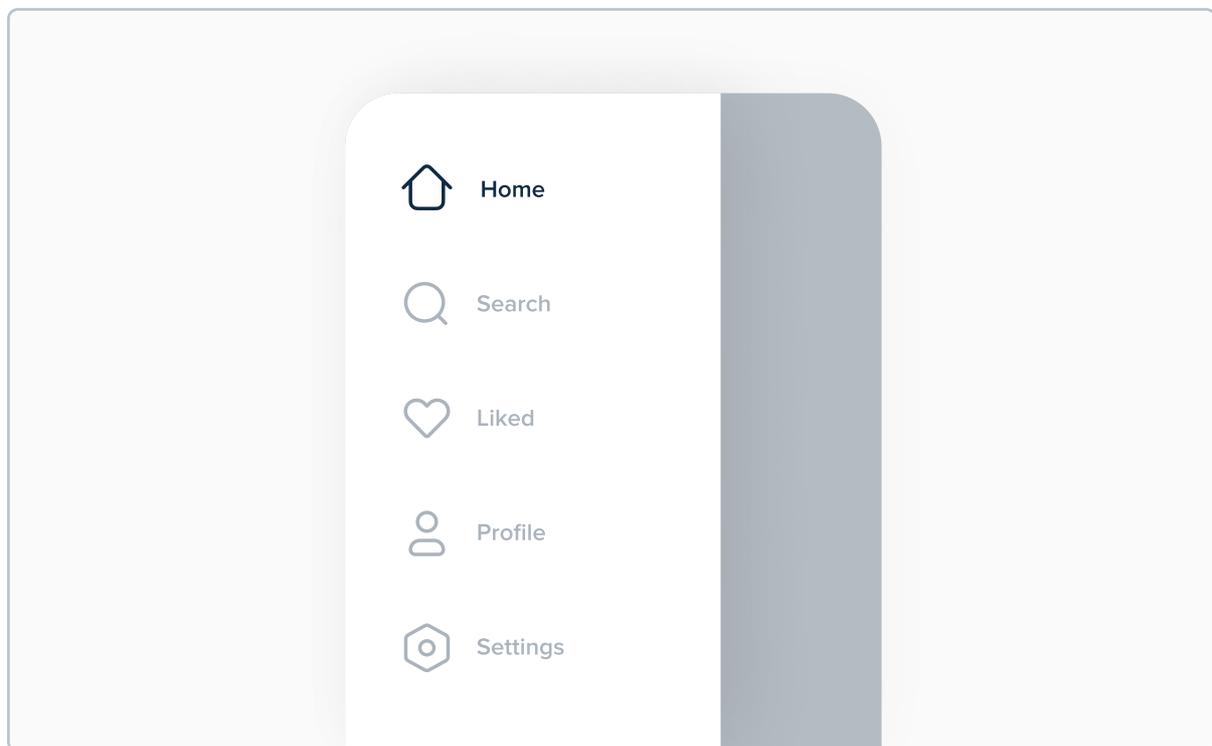
Many web applications often use a vertical visible navigation, meaning that the navigation bar is attached to the side of the screen, and not the top. Here's an example:



This style of navigation is very similar to sidebars - more about them on the next page. The only difference is that navigation you see above is usually not collapsable, unlike a sidebar.

Hidden navigation - sidebars

The most common type of a hidden navigation is a sidebar. They're usually accessed by tapping on a "hamburger" icon in the top left corner. Their main advantage is that they can have more items than 5, as well as that they save some screen real estate, unlike visible navigation. However, because they're not always visible they're much harder to access, especially on mobile, because the user has to reach to one of the hardest places of the screen to access it.

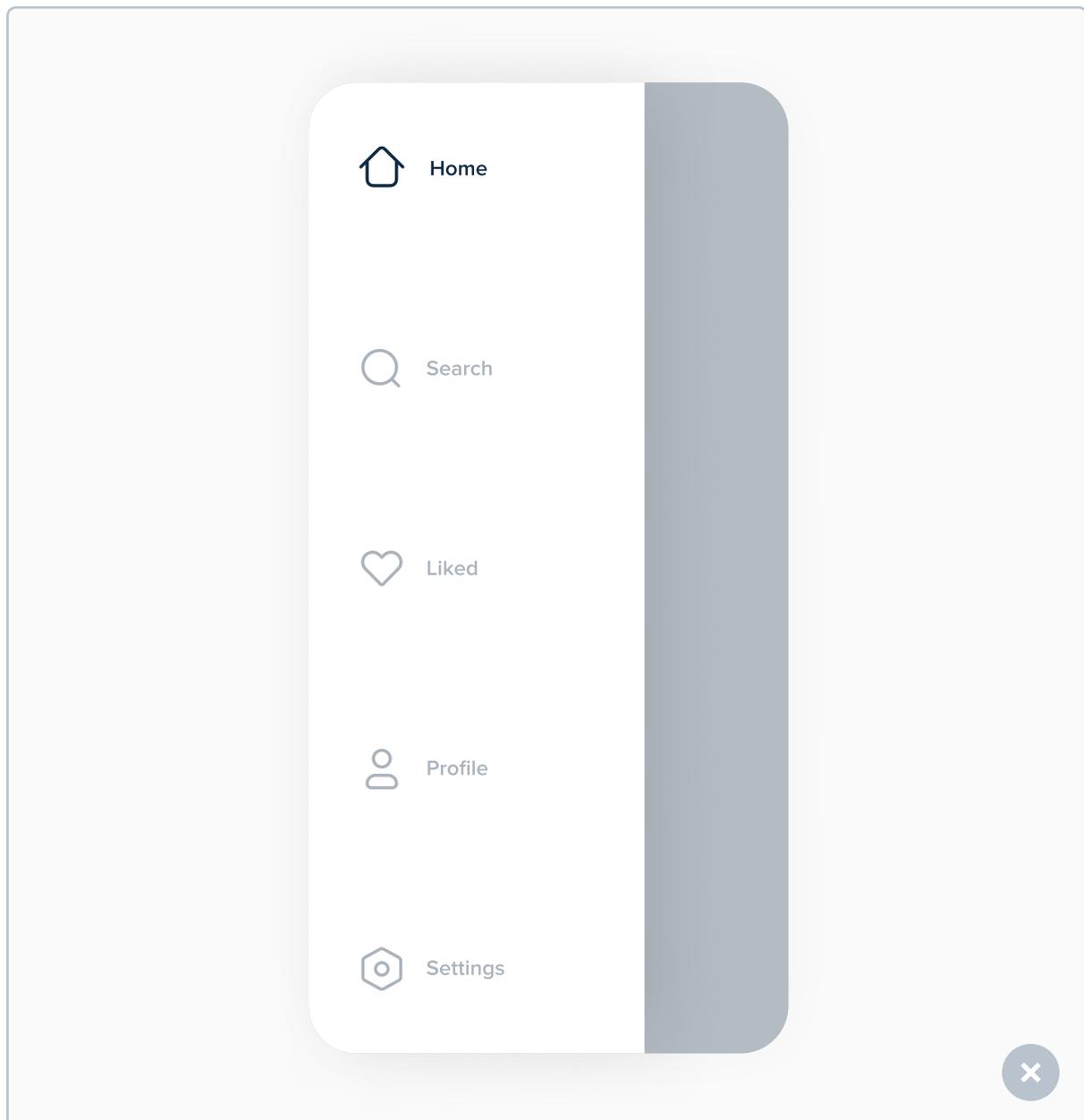


After tapping outside the sidebar it should automatically close, so the "X" button is not really needed (but is still okay to add).

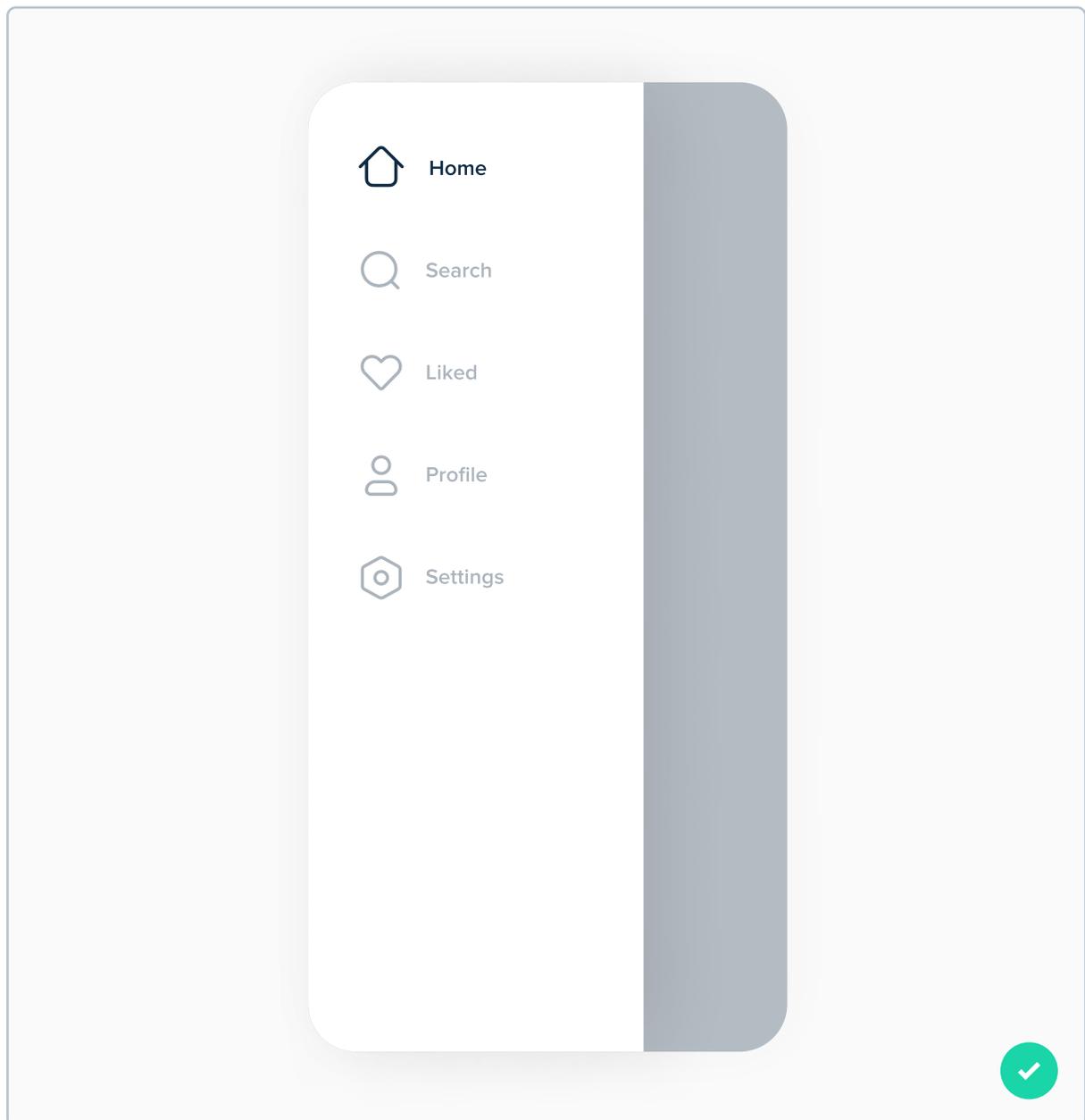
Sidebars on desktop aren't that different, so I'll focus on mobile. If you're sure you know how to design it, you can skip this step.

Sidebar - the basics

The fundamental difference between designing Tab Bars and sidebars is that icons inside Tab Bars are distributed equally throughout the whole width of the screen, but icons in sidebars are not distributed equally throughout the whole height of the screen. Take a look at this example:

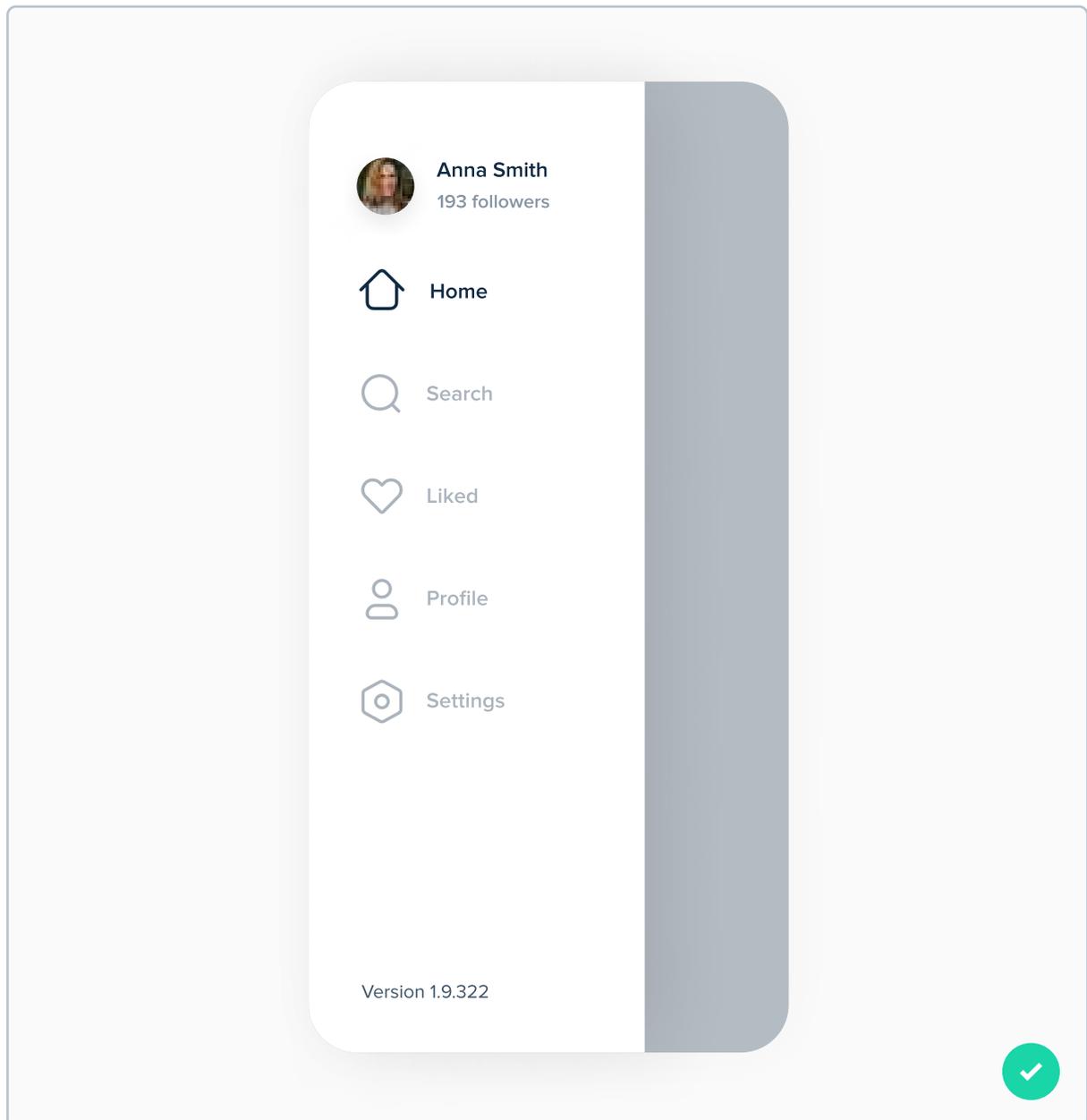


Elements of the sidebar do not have to be spaced out so much. It's way better to pick a margin based on your spacing scale (see chapter about grids) and space icons without having to cover the whole height of the screen, like in this example:



Additional elements on a sidebar

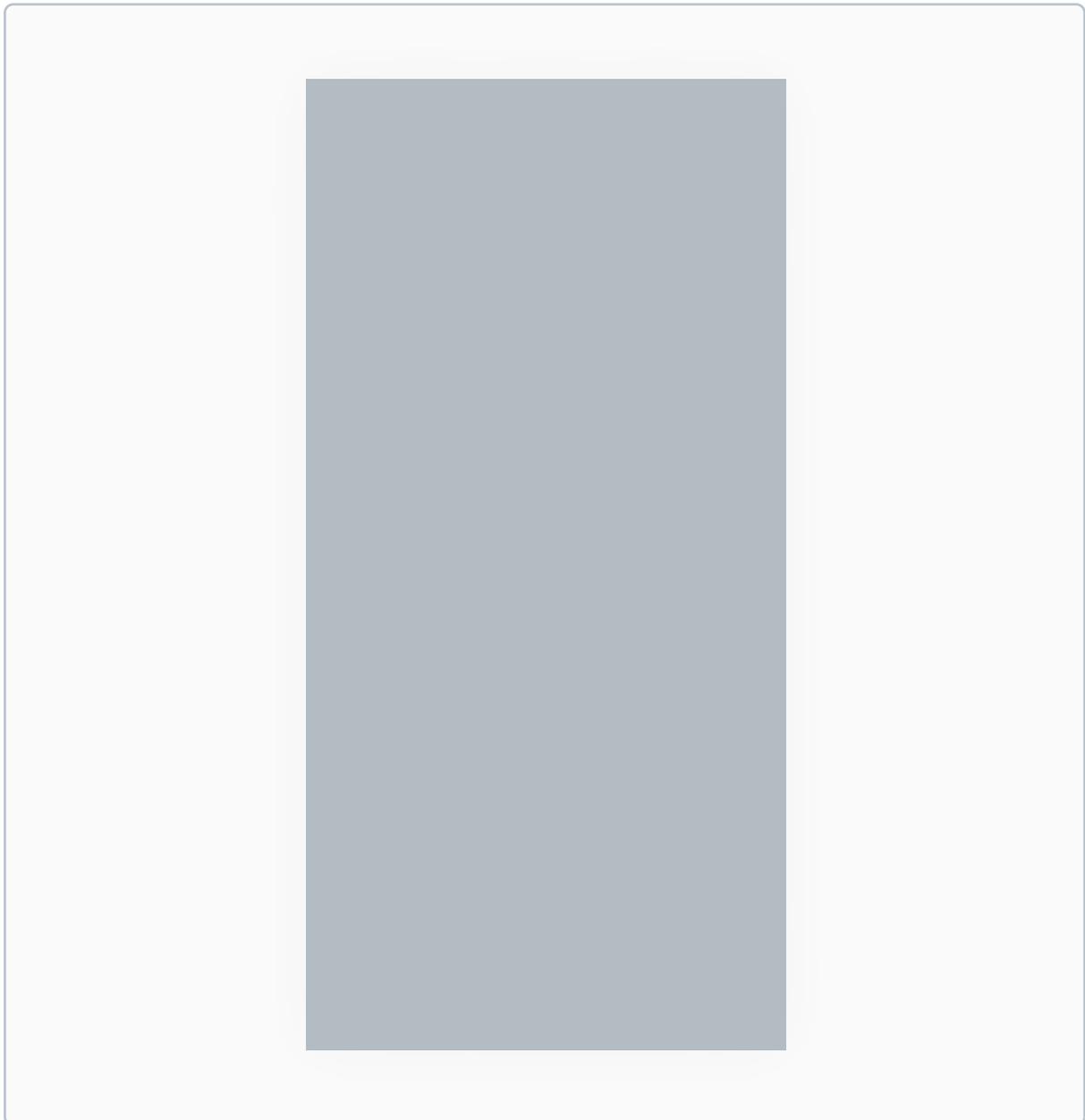
Big advantage of using sidebars is the ability to add various elements, such as additional information, buttons or even a logo. Just don't overload it with unnecessary elements.



Using relevant information on sidebars makes it more valuable to the user.

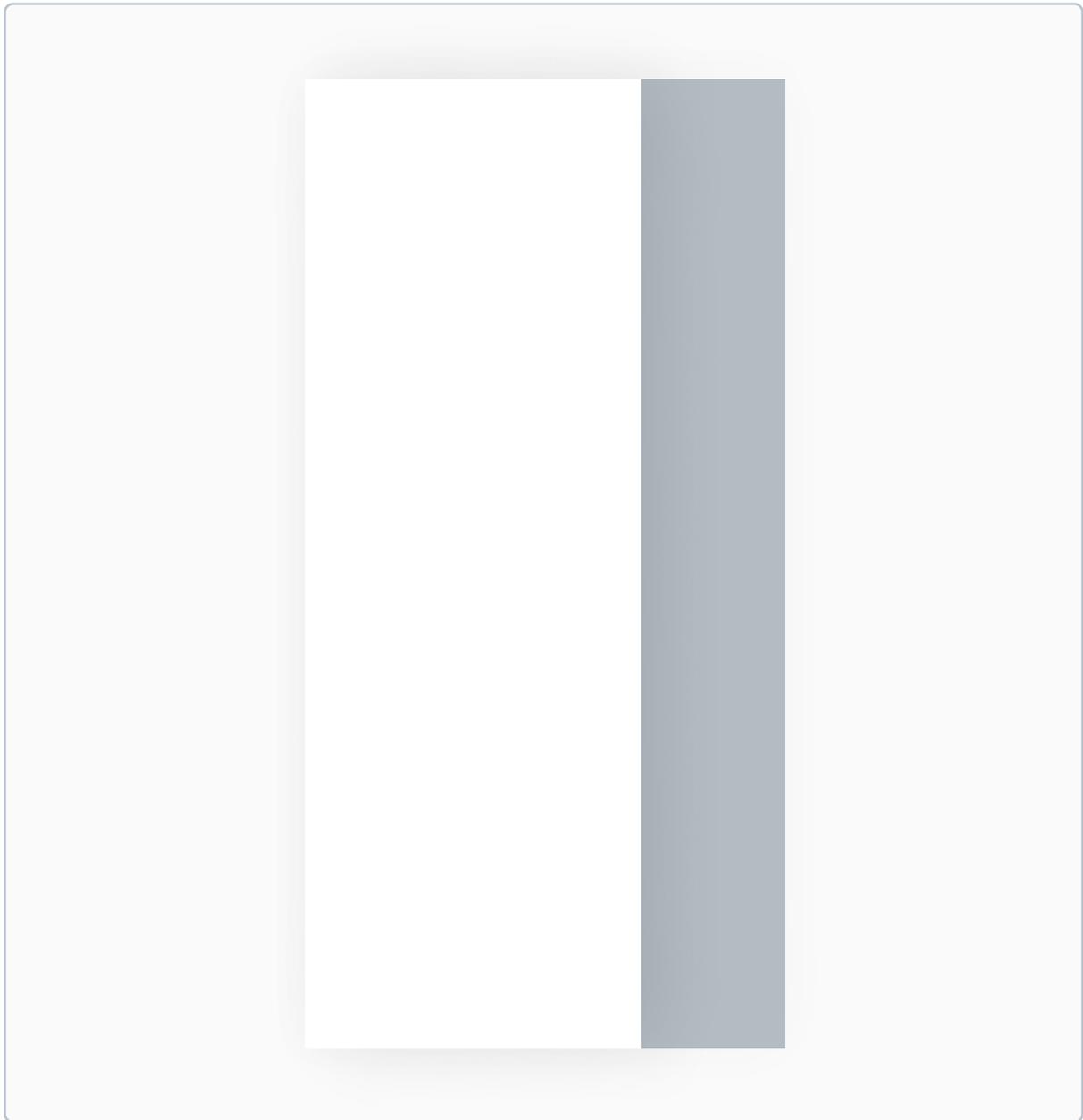
Designing a sidebar

Designing a sidebar is simpler than it looks. First, take your home screen (or any other screen from which you can access the sidebar). After that, put a black overlay with an opacity between 60% and 70% (use your primary dark color).

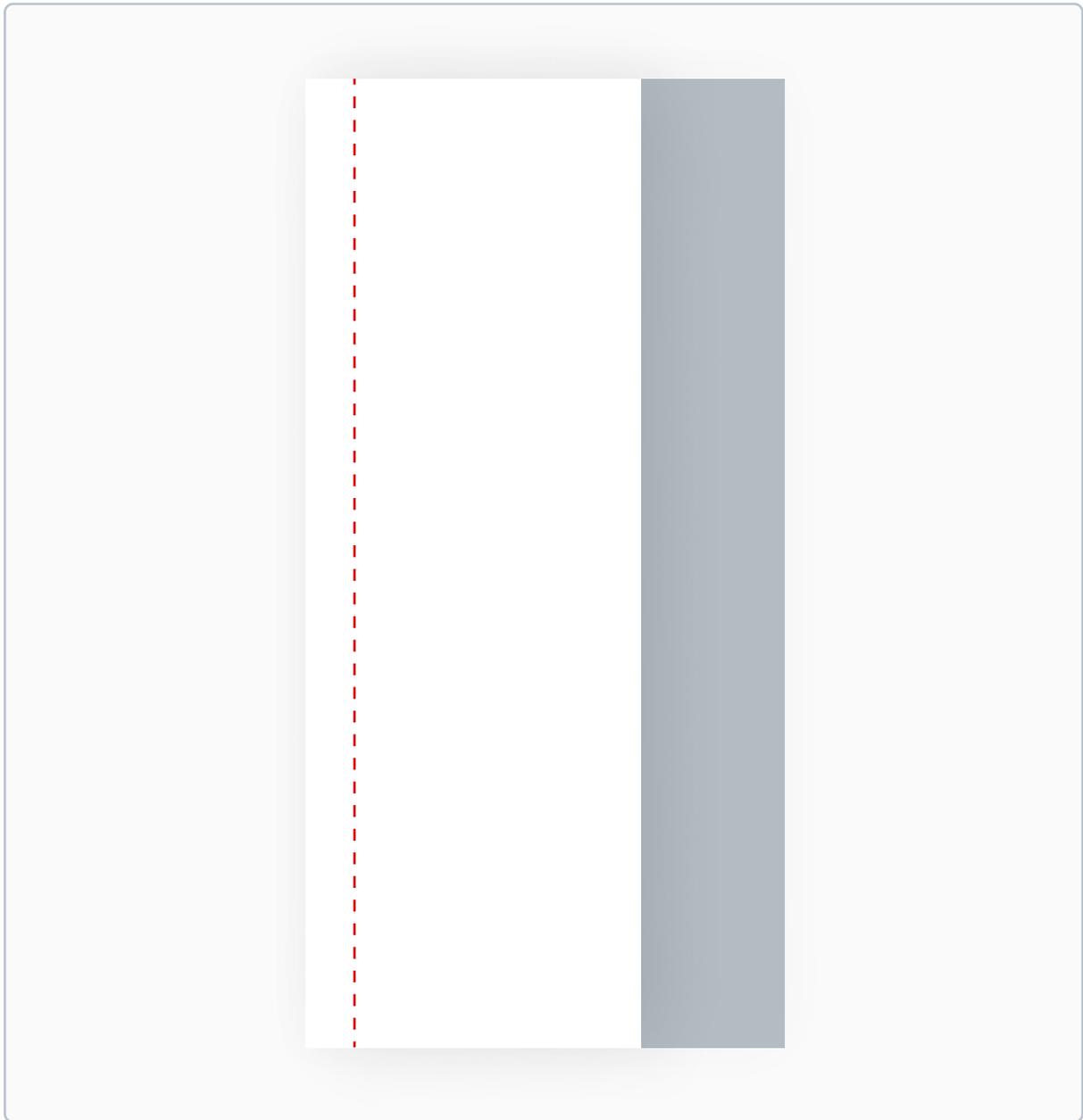


Imagine there's real content there. It's not really important for this tutorial.

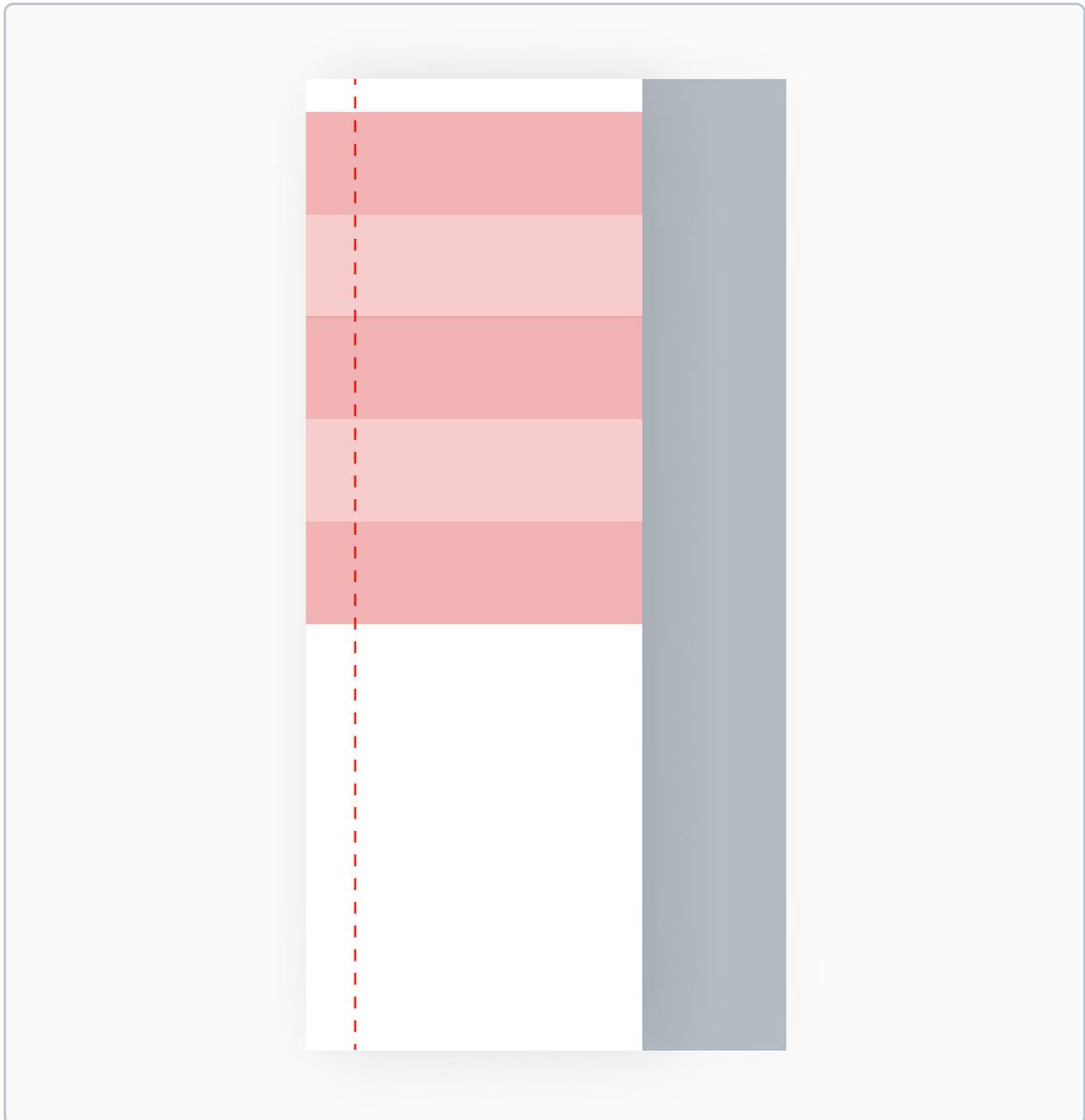
After that, on the left side add a white rectangle with a width of 70% - 80% of the screen (these values only apply to mobile design, not desktop). You can also add a drop shadow with a small, positive X value (like 10 for example) to add some depth.



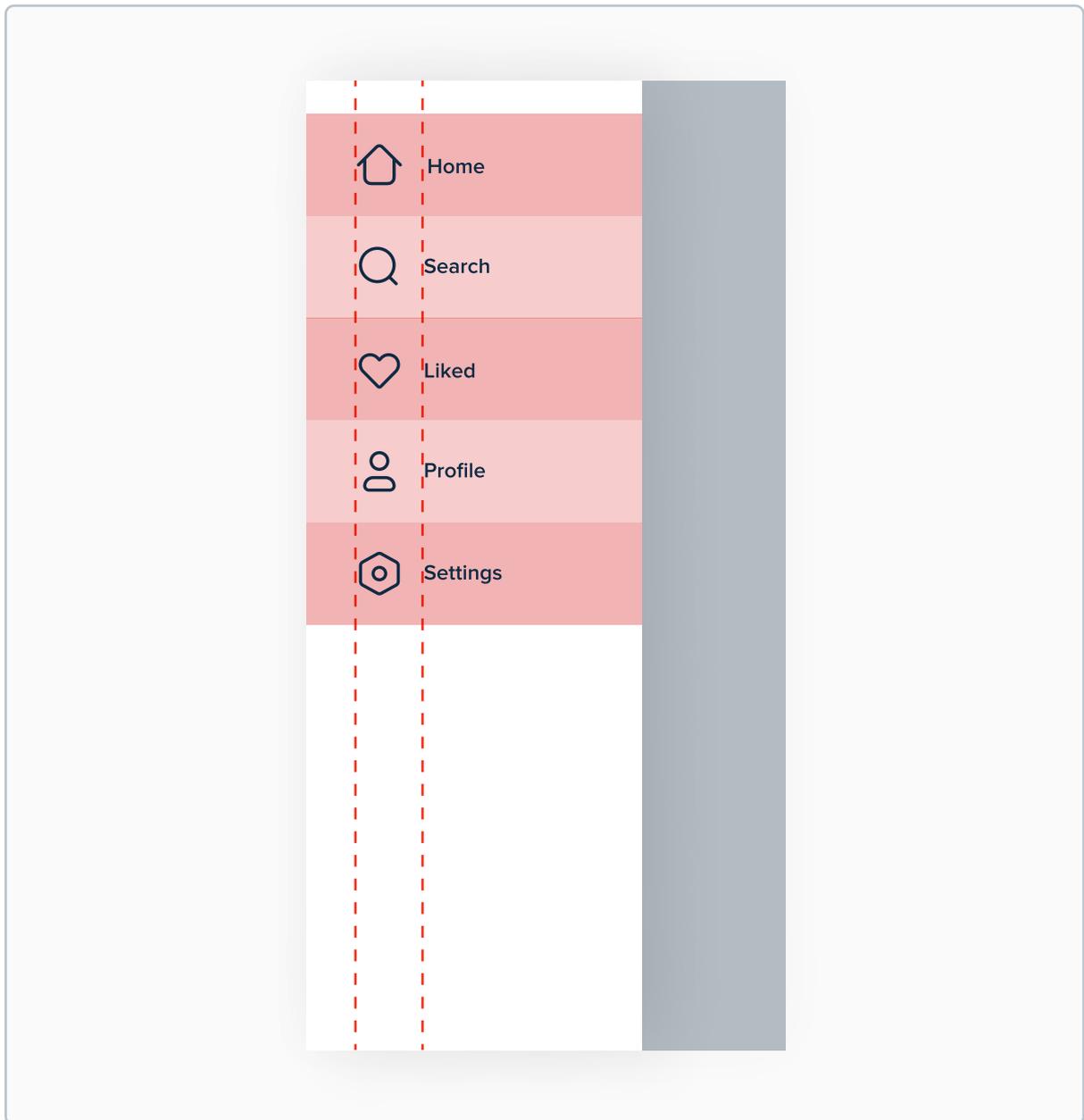
Next, add a margin from the edge of the screen - it can have the same value as the margin you use for this mobile project. My recommendations are 20px or 24px, but more on this is in the chapter about grids.



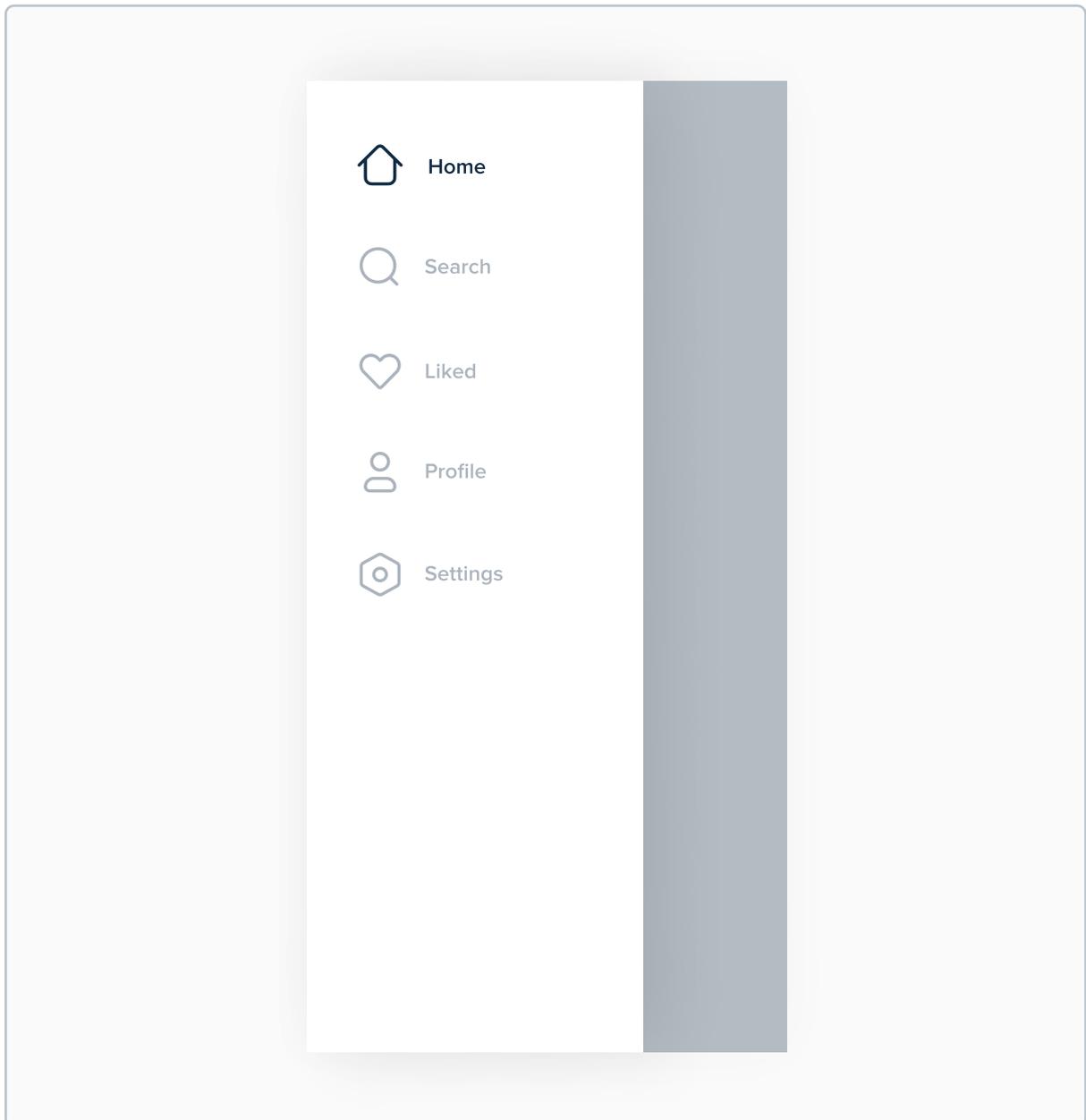
After that, create a few temporary rectangles (like the red ones we used for the Tab Bar) to space icons and labels properly. Don't start placing them from the very top - leave some empty space there as well.



Next, simply place the icons and labels inside red rectangles, making sure they're vertically centered. Also make sure that icons are aligned to your margin to make the spacing consistent. At this step you're pretty much done.



Finally you can remove the lines and rectangles, as well as change the opacity of pages that aren't selected. You should now have a beautiful and simple sidebar done and ready to use in your designs. On desktop, the process is really similar.

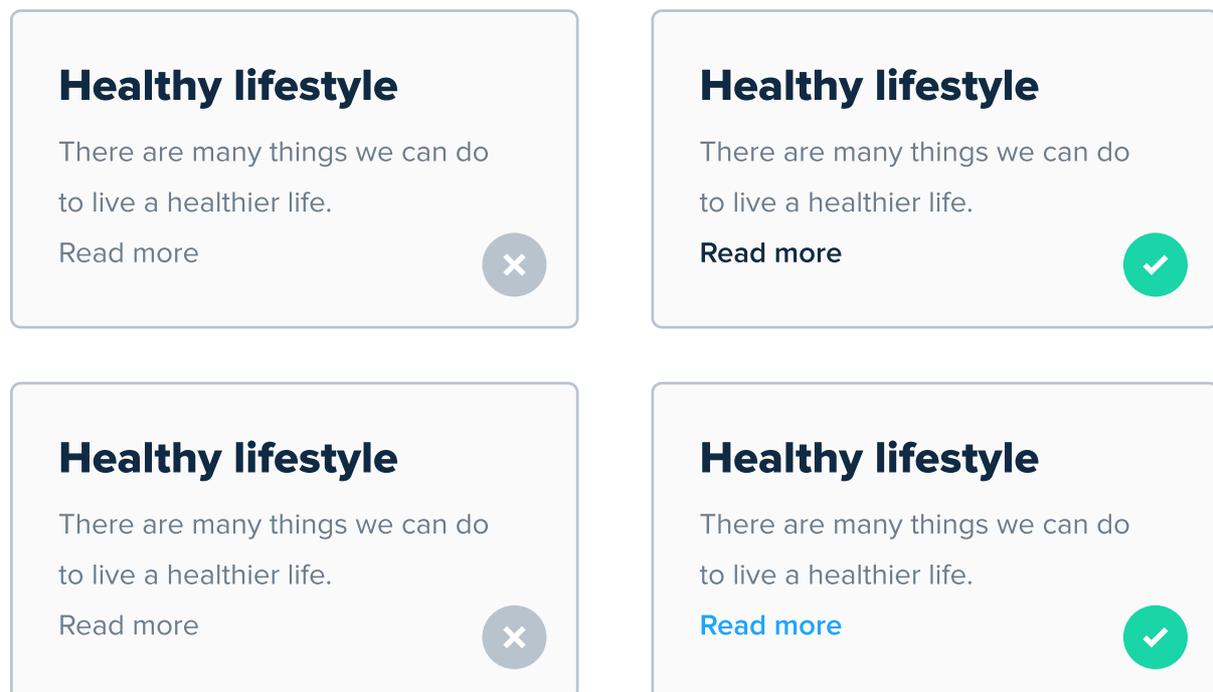


Contextual navigation

Contextual navigation is a part of the content on the screen. It can be a clickable link inside a chunk of text, a hashtag on Instagram or a tag under an article. It can exist inside of the product regardless if you choose to use visible or hidden navigation. Designing it is fairly simple - it comes down to highlighting that something on the screen is clickable.

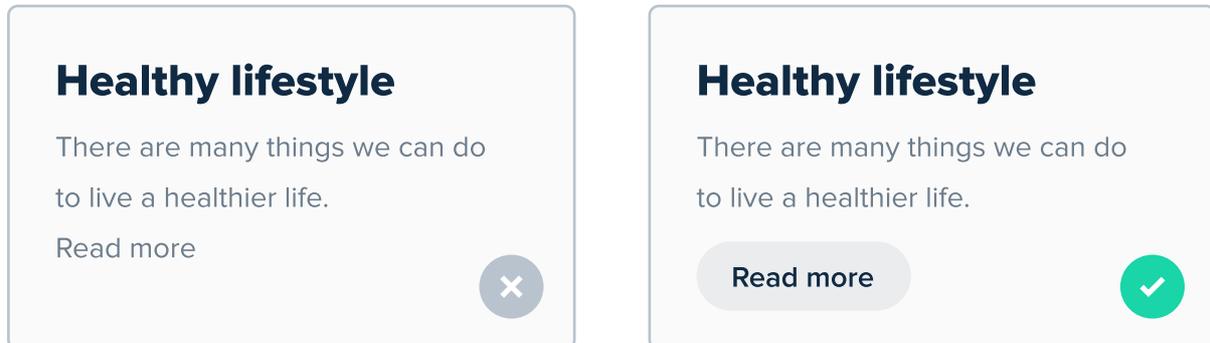
How to make sure an element looks “clickable”?

There are many ways to indicate a piece of text is clickable. I don't want to repeat everything from the Buttons chapter, so here are a few simple and basic tips to help you with that.



The “Read more” on the left can be understood as a part of the preview text, so it's good to increase opacity or even add some color to indicate its clickability.

Another good way of achieving the same result is making the button look more like a button by making it a “chip”:



In terms of UI Design, contextual design is really simple to create. It’s more challenging from the information architecture perspective, but as “just” a UI Designer you most likely won’t be dealing with it. It’s still good to understand it, but I won’t be diving deeper in it in this book, as its a topic more UX Design than UI Design related.

Navigation - ending note

This was one of the longest chapters in this eBook! I really hope that you got something out of it. While navigation designing navigation in terms of UI Design is not really hard (I hope that after reading this chapter you agree!), knowing when to use which type is important. Every app or website is different and sadly there's no one navigation type that fits all purposes.

Also, I apologize if the explanation of desktop navigation was a bit too shallow. I focused mostly on mobile, because in many cases same principles can be applied on bigger screens as well.

CHAPTER 18

Microinteractions

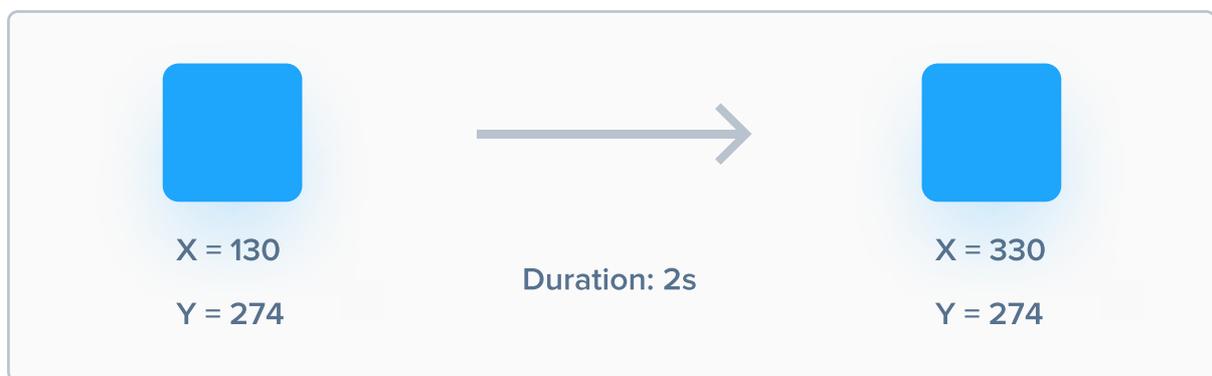
Microinteractions and animations are an essential part of a well-designed product. They're often a thing that differentiates average apps from these really delightful ones. Proper usage of microinteractions are a great way to provide feedback for user's actions. In this chapter you'll learn the basics of using them.

Key content

- Animations vs Microinteractions
- Why we use microinteractions in UI Design?
- Different transition types
- Examples of microinteractions
- Tools to create microinteractions + my favorite course

Animations

Animation is a change of state of an object over time. Unfortunately I won't be able to show you any examples because this is a PDF, but I will try to cover the most important parts of the matter. Animations have a range of different purposes - from really important ones to purely aesthetic ones. Many different properties can be animated, such as position, rotation, color, opacity and scale.



If this animation was coded, the blue square would move by 200 pixels to the right in 2 seconds.

Microinteractions

The most prevalent and important type of animations in UI Design are microinteractions. They're everywhere. When you like a photo on Facebook, the like button goes from outlined to filled. When you play a YouTube video and you use the slider to go through it, it's a microinteraction. When you're waiting for the content to load, you're usually going to see some kind of a spinner or skeleton loading - these are also microinteractions.

Why we use microinteractions?

In simple words, we use microinteractions to give the user feedback for an action he triggered. If he presses "Send" on Gmail, he will see a popup saying that the email was successfully sent. This way he knows it worked, and he did not missclick or something like that.

Microinteraction vs animation

The main difference between microinteractions and animations is that microinteractions are a result of a conscious action taken by the user, while animations can be purely aesthetic and happen on their own - they don't show any change of state, but just an effect to delight users.

Microinteractions should be delightful, but still "micro"

One of my favorite microinteractions used in popular products is when you like a tweet on Twitter. The heart turns red very fast, but featuring a really beautiful animation. This is an example of what an interaction should be. It should be fast, beautiful and not distract the user from what's really important - the content. One thing that you should never do is make a microinteraction longer on purpose, just to make it look beautiful. It should be short and sweet, without being too obtrusive.

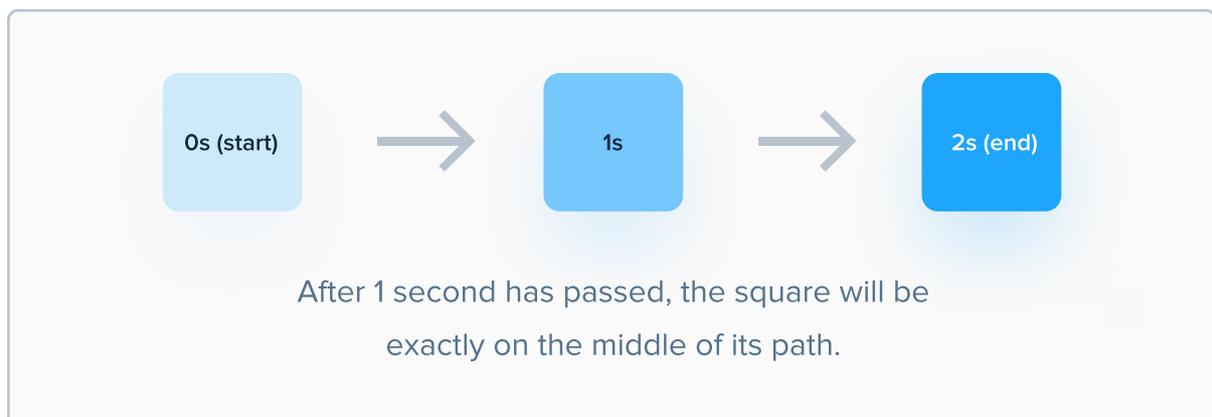
“The most important purpose of a microinteraction is to give the user feedback for an action that he performed.”

Different transition types

The most common types of animations are linear, ease in and ease out. I believe it's important to go through them in detail, because they're usually supported in most design tools like Figma or Adobe XD. More advanced interactions require learning additional tools and to be honest - they're a field of their own.

Linear

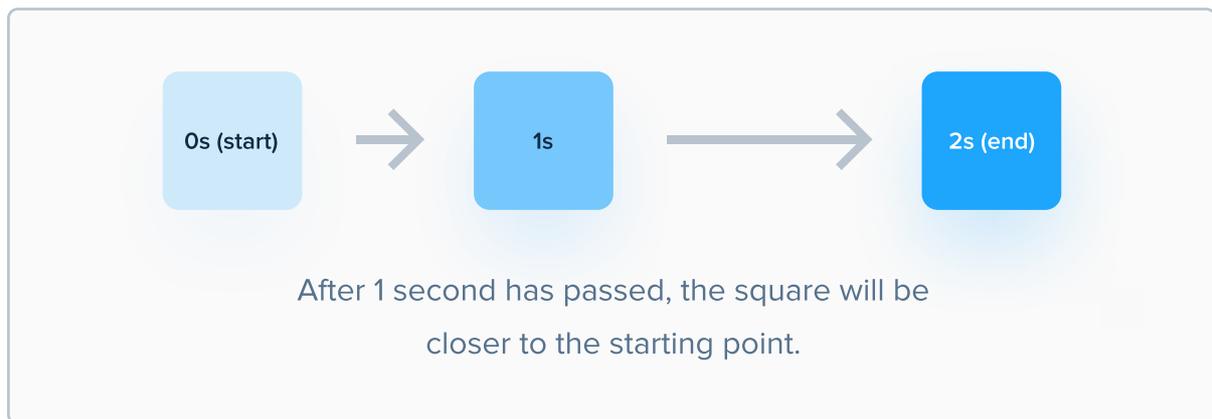
Objects that feature a linear animation type move in the same speed during the whole animation. In the middle of the duration of the animation, they will be exactly in the middle of their path.



Please note that linear animations do not look very natural. Most objects in real world need to accelerate before getting to a certain speed. Imagine if a car started at 100 km/h. It first needs to accelerate for a few seconds.

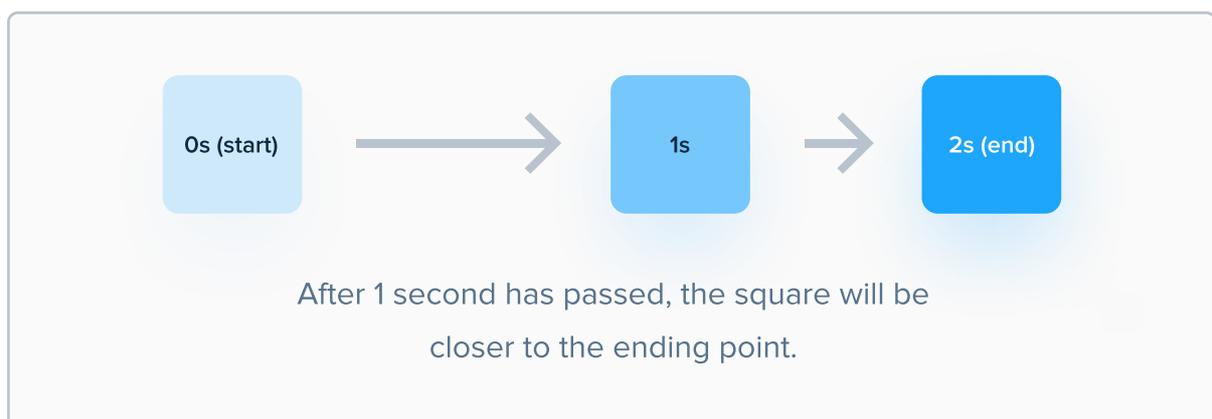
Ease In

Objects that feature the Ease In animation type start moving (or changing their state) slowly, just to accelerate after the half-time of the animation has passed. It's kind of like an accelerating car.



Ease Out

Opposite to objects with Ease In animation type, objects with Ease Out animations start fast and end slow. It's kind of like a braking car, that is slowing down after driving fast.



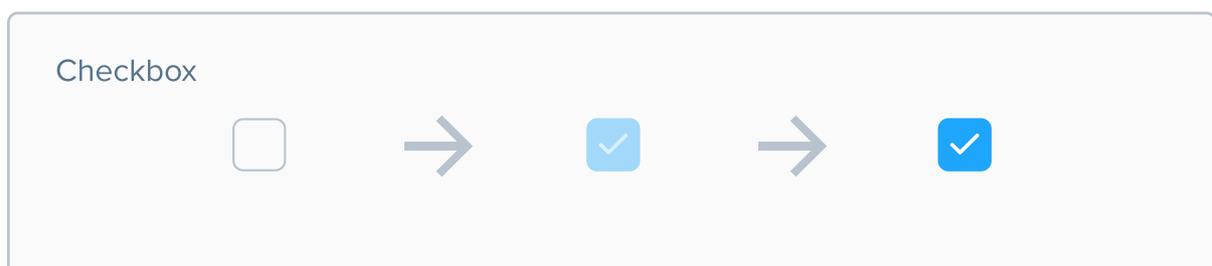
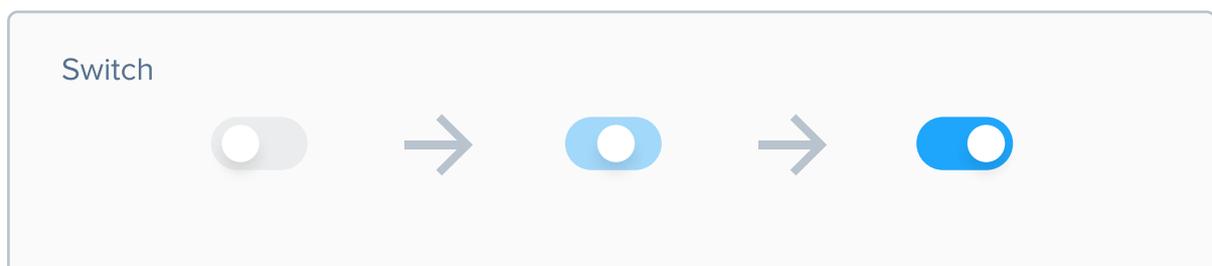
In those examples the 2 seconds are just an example value.

How long should microinteractions be?

There are no specific rules in terms of the duration of microinteractions. However, my advice would be to create microinteractions with a duration no longer than 1000ms - or one second. Most users use apps pretty fast, and animations should not be slowing them down.

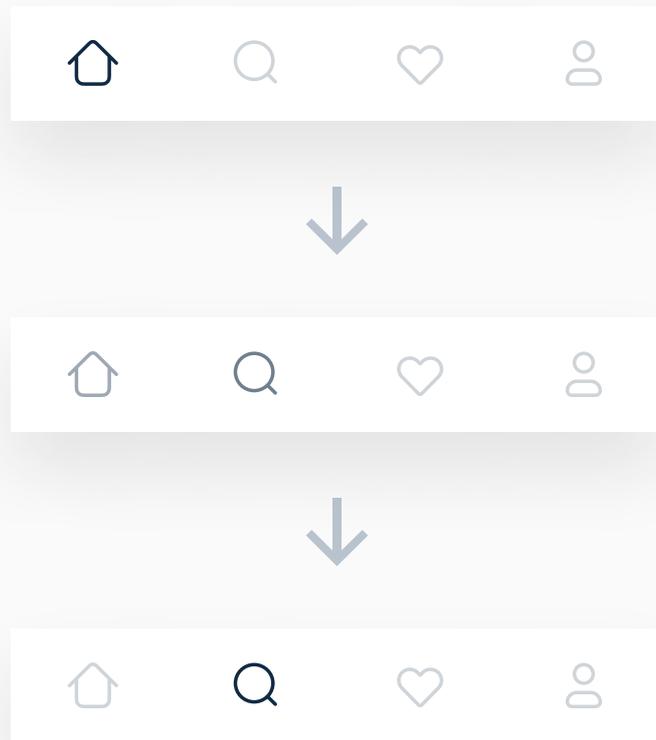
Examples of microinteractions

Now that you understand what microinteractions are and why we use them, I'm going to give you a few examples of them. Sadly you won't be able to see them in "their whole glory" because it's a static eBook, but these examples are quite common, so I'm sure you'll get the point.



Microinteractions are often used for form elements, like switches or checkboxes. These animations are very subtle and short.

Tab Bar



Switching icons on a Tab Bar is a great place to add a very subtle and short microinteraction. Most users won't notice it, but it's delightful!

Button



This button animation would be triggered after the user hovers his cursor over the button. This way he can be more certain that it is clickable.

I hope you get the idea. Microinteractions are very subtle, and that's how they're supposed to be. Someone could argue that they're not necessary for a digital product to function properly, and that's partly true - a product is usable without animations and microinteractions, but it's simply not delightful.

As I defined in the Basics chapter, a well designed product is both usable and delightful. Providing user feedback for his actions through small, beautiful changes of state is definitely a good way to make the app or website more usable.

What about those fancy animations from Dribbble?

Chances are that you've seen concept UI Designs with stunning animations on places like Dribbble or Instagram. Motion designers can do a lot of crazy stuff, even animate 3D elements to look absolutely breathtaking. Sad news are that it's really hard to implement to real product. It's often that after an attempt to add fancy animations to a product users uninstall the app because it's just too slow, or the website takes too long to load due to the animations.

In short - fancy, 3D animations are very hard to implement and can slow down user's device.

Alright... so what now?

I highly encourage you to experiment with microinteractions and animations on your own. Simple ones, such as the ones I've shown you a few pages ago, can be easily created in free design tools such as Figma or Adobe XD. They're really easy to create.

I'm sorry that I couldn't show you more in this eBook. If we ever get to embed a video inside a .PDF, I'll update this eBook with some real, dynamic examples. Until then, I encourage you to go to YouTube and search for example "Figma animations" or "Adobe XD animations". There are many free tutorials that will teach you how to create microinteractions in practice. This chapter taught you the most important aspects of theory and hopefully now you understand what microinteractions are, as well as why and where to use them.

Leveling up

If you're really serious about mastering animations and microinteractions, my friend Alex has released an amazing course on the topic of Motion Design. It will teach you everything you need to know, starting from a deep dive into theory, ending at creating stunning animations. This mention is not sponsored or affiliated. I just think he did a great job with that course. If you'd like to join it, visit him on Instagram: [@alexunderhess.design](https://www.instagram.com/alexunderhess.design).

Tools to create animations and microinteractions

Before we end this chapter I wanted to share some great tools for creating animations and microinteractions. Some of them are free, some of them are not, but all of them are really useful.



Figma

Price: free plan available

Apart from being an amazing UI Design tool, Figma also has a lot of great prototyping features, so it's most likely all you really need to begin your adventure with motion design.



Principle

Price: \$129

Principle is another fantastic tool, focused only on motion design. It has way more fantastic features than Figma, and the tool itself is very well designed. If you want to level up, it will be great.



Adobe After Effects

Price: Free with CC plan

One of the most advanced (if not the most advanced) tools used to create animations out there. It's not directly focused on UI/UX Design, but if you find yourself loving animations - give it a try.

CHAPTER 19

What's next?

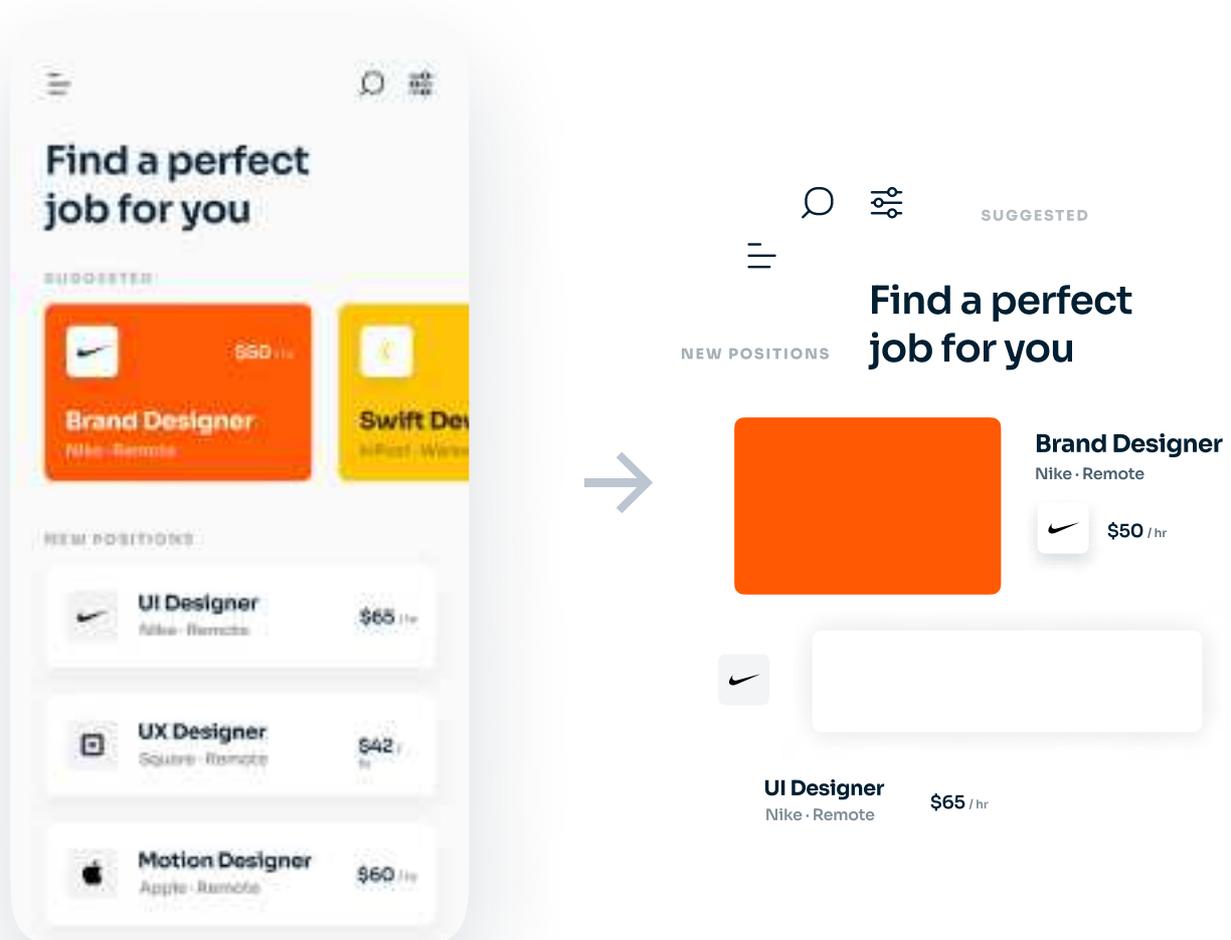
You've just finished reading the "main" part of the eBook, in which you've learnt all the important things about various elements and principles in UI Design. Great! Regardless - if you're a relatively new designer, you might still feel a bit lost. In this chapter I will share some tips and tricks that should help you kickstart your journey.

Key content

- Breaking down UI Design to elements
- Developing an eye for UI Design
- Why copying designs from other people is beneficial?
- A great challenge to get started in UI Design
- + many other tips

Every UI Design is made out of elements

A significant majority of this eBook is dedicated to explaining UI Design principles, as the title suggests. Teaching you how to design a specific screen would be easier for sure! I could just say something like “draw a rectangle here, place some text here” etc, but after something like that you’d just know how to make that specific design, which is not the goal of learning UI Design. Instead, I think that if you learn to design various elements and learn to put them in a layout, you’ll learn UI Design faster and easier.



Now, why is this important? It's because if you know how to design individual components and put them in a layout that makes sense, based on hierarchy, you can design anything you want.

Just think about it. Every UI Design is made out of simple elements like text, rectangles, circles etc. Design tools are really easy to learn, which means that if you learn how to design individual components properly, you can design anything you want.

I could show you, step by step, how to design a landing page, an onboarding section, an e-commerce page and a whole lot more, but don't you think it would be working backwards? I hope that by now you know how to design basic components like buttons, input fields, navigation bars or cards. With this knowledge, you should be able to design any interface you want.

Developing an eye for UI Design

People that have a few years of experience in UI Design usually have something that can be called an “eye for UI Design”. A lot of the decisions that they make during their UI Design process is second nature to them - they don't overthink if they should use Bold instead of SemiBold for their header or if they should use #1F1F1F or #121212 for their primary dark color. As you will progress, you will inevitably develop an eye and your process of creating UIs will be way faster than at the beginning. The more you practice, the faster

this process will be. How to practice? More on that below.

Why copying UIs from other people is beneficial?

Maybe you've heard of pages like Dribbble or mobbin.design. On these pages, you will find tons of well-designed screens - on the latter one, the screens come from real, tested apps, so if you're into mobile design I recommend you check it out.

One of my favorite ways of practicing UI Design when I was a beginner was copying designs from those pages, one-to-one. I was not posting that work anywhere because that's stealing, but by doing so I learned the steps that creators of those screens had to take to achieve a specific result. UI Design is way simpler than say 3D or illustration design in the way its built - its based on simple, vector shapes, so copying it is easier. While learning and reading about principles is definitely going to help your knowledge, without real practice you will only go so far.

I especially recommend that you check out mobbin.design, because by copying work from Dribbble you risk copying unrealistic designs that would never work in real life, and on mobbin.design there are real, great apps.

If however you want to jump straight into designing products without following designs from other people, check out next page.

Daily UI challenge - a great way to practice UI Design

Daily UI is a series of daily design challenges, design inspiration and some cool surprise awards. Every day, you get a challenge to design something different, and the challenge lasts 100 days. This way you can practice daily with 150,000+ designers that have already completed the challenge. You can also post that work on social media for 100 days straight, so you get additional motivation to complete the challenge and grow your account.

Visit dailyui.co if you're interested. It's free.

When can I start offering my services to others?

If you're a beginner in UI Design, it's best that you practice on "fake" projects before you actually start offering your services as a freelancer (if that's your goal). Essentially, I think that as soon as someone offers you a freelance gig on Instagram or Dribbble, you should accept it. That's a simple yet effective indicator that there is a demand for your skills and that someone appreciates your work.

Freelancing vs working at an agency / company

Both of these employment forms have their pros and cons, so it's entirely up to you. It's true that when you work at an agency or a company you can learn more because you're working with a team, so when you're a beginner - that's a great way to learn.

CHAPTER 20

My UI Design process

In this chapter I wanted to share my exact process of creating UI Designs. This process refers to both real and concept or "fake" projects. You don't need to follow along. You can just check out my process, see if it makes sense for what you're doing and try it out yourself. I'd like to mention that I am a freelancer, so if you work at an agency or a company your process will most likely be different.

Before we start...

Of course, I can't share the way my brain works with you. A huge part of being a good designer is creativity, which is something you gain as you practice. At first you probably won't have a lot of great ideas, but don't try to create perfect work. You will become better as you progress.

Also, this is just my process. I'm just one of many designers out there. I don't pretend it's the best, or I can't even guarantee this process will work for you.

However, if you like my work and you'd like to see how I create it, dive deep into this chapter! You can try replicating my process and see the results for yourself.

Oh... and it's not anything original or unpopular. I use the same methods as many other people. If you're new to UI Design, you can try treating this chapter as a "blueprint" to creating UI Designs. In design you don't get extra points by using original and sophisticated methods. Ultimately, the end result will matter.

If any part of this process is unclear - please let me know. You can always email me at mikef1808@gmail.com and I will try to explain anything.

My 6 steps

Here are the 6 steps I go through whenever I create UI Designs:

- 1. Understand the problem**
- 2. Create very rough sketches**
- 3. Create detailed wireframes**
- 4. Select assets - e.g. fonts and colors**
- 5. Apply assets to wireframes**
- 6. Present it properly**

I'm going to explain every single step in more detail in a moment, but just to talk through it briefly: I start by understanding what I'm designing and why I'm designing it. Then I sketch out a quick and basic solution. Then I take it to the next level and add some detail. After that, I decide on assets, such as fonts, colors and icons. After that, I just apply them to my wireframes!

Finally, it's time to present my work - either on social media or to a client (depending on if I'm creating a concept or a real project). Even awesome work that's presented poorly won't do well in the eyes of the client, so take presentation into consideration.

(this rhyme was not planned)

1. Understand the problem

It's probably the most important part of any process that ensures that the design will be usable. If you're working with a design team or you have UX background, you will most likely won't have trouble defining and understanding the problem. For creating concept projects I don't put a lot of effort into it because the designs won't be used in a real life scenario.

As you've probably already noticed from the previous chapters, this book focuses on UI Design. To be perfectly honest with you, good UX Design is more important than just good UI Design.

If you're working at an agency or a company as a UI Designer you probably have nothing to worry about, because there are likely UX Designers in the team as well. They will ensure that you can base your UI-related decisions on real data and research.

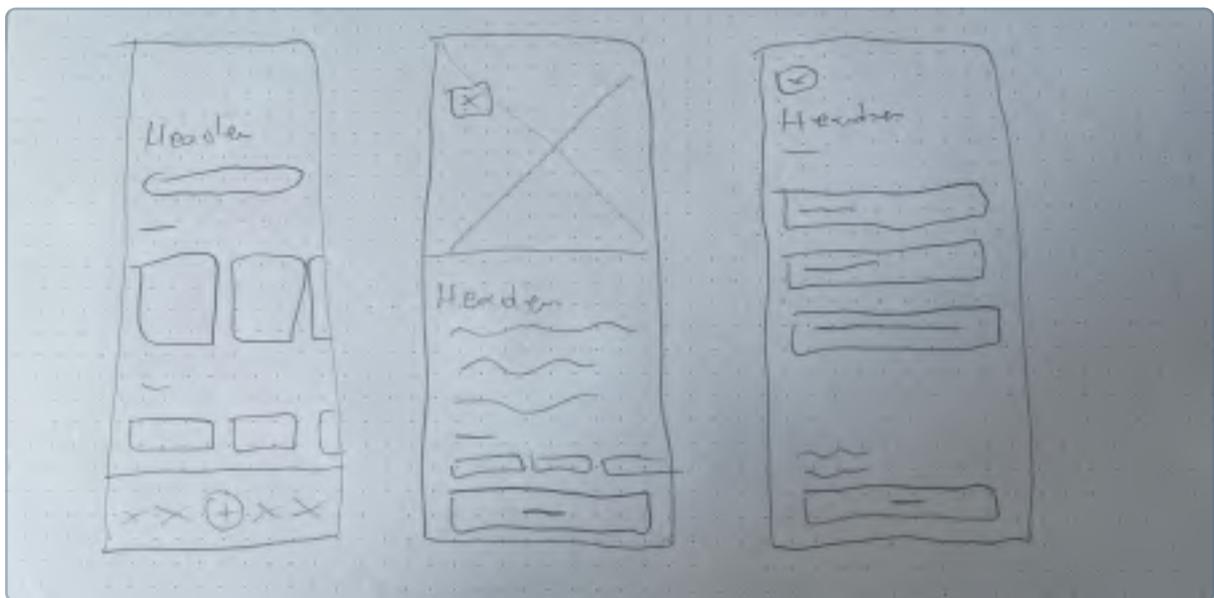
However, if you're a freelancer your clients might often think that your job is just to design an app, or a website, or whatever really. That means that even if they would be satisfied with a design that just looks pretty and is not based on any research, you should do your homework and spend time on researching...

...unless you made it clear that you're a UI Designer and research is not in the scope of work.

2. Create very rough sketches

The next step is to create super rough sketches of my ideas. After thinking about the problems and solutions, I create very rough wireframes of the design. This lets me throw ideas out of my head, without focusing about the look of it - just how well it solves the problem.

I can't stress this enough - DO NOT pay attention to how they look - in fact, the more ugly they are the better. They are supposed to be very quick and simple. Don't try to think about fonts, colors and other stuff like that at this stage. At this stage, 10 ugly, but different sketches are better than just 1 pretty sketch. In other words, at this stage quantity > quality.

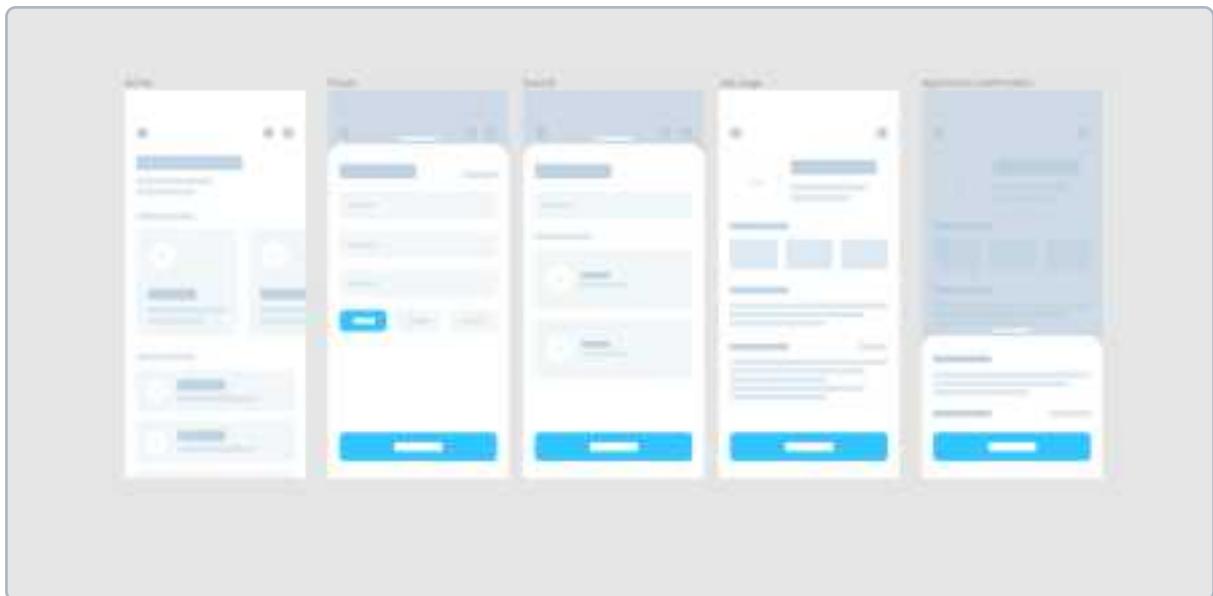


Some rough sketches I made a long time ago. Notice how ugly they are. They only took a few minutes to create, but they were really helpful.

3. Create detailed wireframes

After I'm more or less happy with the sketches (they don't need to be perfect, again!), I use Figma or Whimsical to create more detailed wireframes. This gives me clarity and makes the design somewhat "presentable", so I can show them to a client for example. This way we're both on the same page and I won't be wasting time creating UI's for a badly designed solution.

This is really the very first time that me or my client have a clear vision of how the final product can look like. Detailed wireframes is pretty much a set of finished screens, except they obviously lack real content and assets, but that's fine at this stage.



Quite detailed wireframes created in Figma. I used the wireframe kit called iFrame by piqo design. They took only a few minutes to make!

4. Select assets - e.g. fonts and colors

After the wireframes are done, I choose fonts, colors and icons for the project. I might also pick some photos or illustrations. If I'm working with a client I include him in the process and we make sure that my picks align with the brand personality. If I'm working on a concept, I'll just pick assets that I think will look well together. I sometimes also create a color palette and type scale at this stage.

It's really good to have clarity of what assets you will be using during the project. You can discuss this decision with a client before creating a single screen so that there will be no misunderstandings during the process.

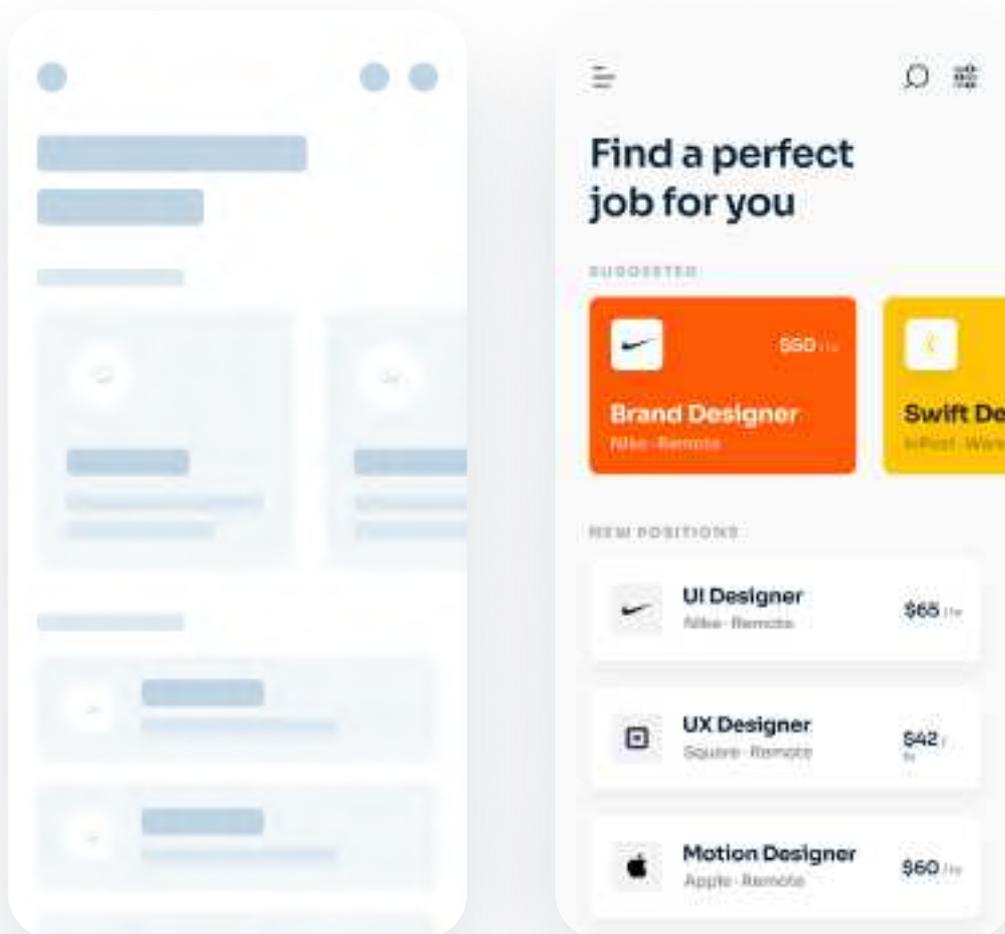
As I mentioned in the introduction, the decision on assets for the design might be done by someone else, for example brand designers. If you're working at an agency or a corporation you might not even be involved in the decision making process. In that case, you can just skip this step.



5. Applying assets to wireframes

Obviously it's easier said than done, but after reading this book you should have a solid understanding of how to do it. This is why I put a lot of attention and effort into the third step. Well-made wireframes make these final steps so much easier.

After this step it's pretty much done. It's basically connecting detailed wireframes and assets together to a real screen.



6. Presentation

When I'm creating a real project, I'll usually hop on a call or send a Loom video to present my work to the client. Just sending him the screens is a bad idea, because the client does not get to hear any explanation and reasoning behind my decisions. Even simply sending the client a Loom video with an explanation can massively reduce revisions and save a lot of time. Always remember that your clients most likely have less UI/UX related knowledge than you do. If you can explain your decisions well, you will save a lot of time and make your clients happy.

When I'm creating a concept project, I will create a 1080x1080 artboard (or 1600x1200 if for Dribbble), fill it with a pastel color and place my screens inside. If you have a basic understanding of Figma or any other design tool, it should be easy for you.

If you're not a freelancer or you're not posting your work on social media, I don't think this step is really that necessary. You should just know how to explain your design decisions.

CHAPTER 21

Attracting clients and followers with your designs

This is a short guide in which I included my learnings from leveraging social media to get clients and build an audience. If you're able to get attention of clients on social media, you can start freelancing full time - at least that's what has worked for me.

Before we start - a word about UI Design on social media

You've probably heard of a platform called Dribbble. It's essentially a social media platform made for designers to share their work with the world. After sharing their work they can get feedback, build an audience and get clients. Seems great, right?

Well, for me it is. But there are many people that have a huge problem with Dribbble. It's mostly because many designers are artists there. The majority of UI Designs published on Dribbble aren't usable in the real world. They don't follow basic principles and don't solve any problems. After all, they're just concepts!

I think that Dribbble is a fantastic source of inspiration and a place for designers to be creatively free. I found that for me it's much more fun to work on a project in which I set the rules and I can do whatever I want than when I get a very specific brief and need to follow style guidelines.

If you're using Dribbble content for inspiration - that's great. Just please remember that most "real" designs you will make for clients won't look nearly as good as the stuff on Dribbble.

Another reason why I like Dribbble is because there are many potential clients there. Even though there's a lot of competition, it's not a rare thing to post a few shots there and get a client. In this chapter I want to focus on how you can use platforms such as Instagram and Dribbble to attract and get clients. I will share things that have worked for me and for many other creators.

In fact, those tips will not only help you get clients and build an audience. After implementing them you are much more likely to get awarded with the most important and one of the most scarce currencies in the world:

Attention.

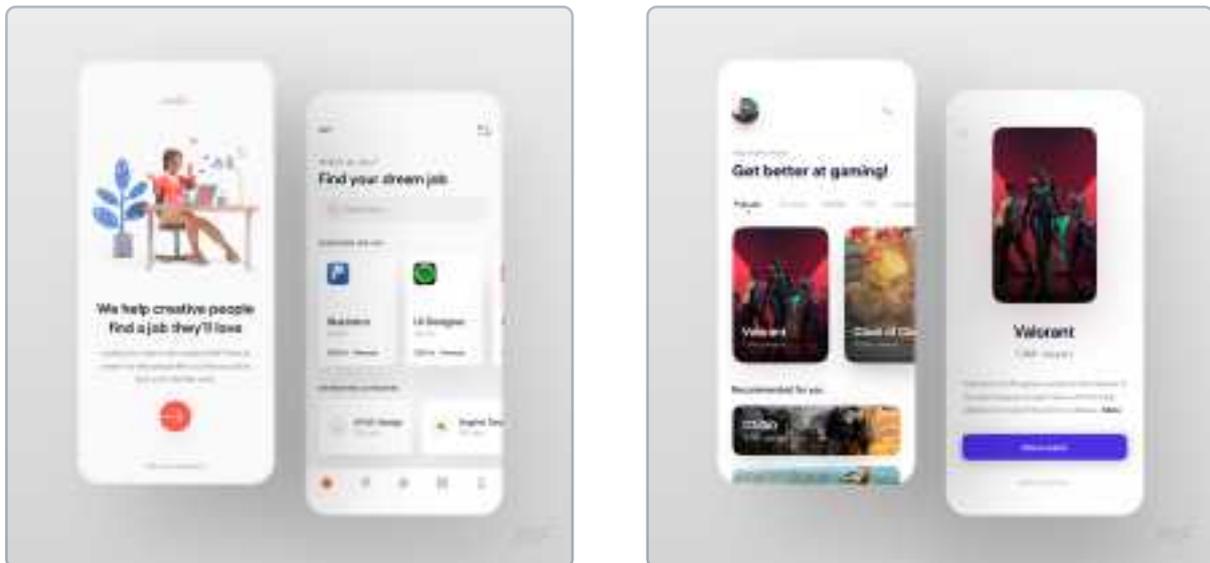
By becoming noticed your work gets seen and your profile grows bigger and bigger (same as your bank account if you learn how to close deals with potential clients!).

And in this bonus chapter I want to show you how to do it, based on what has worked for me.

1. Post pretty stuff

That's the reality. This is what is valuable on social media - eye-catching, inspiring work. If you will put the majority of efforts into posting designs that are usable and very well-thought, chances are you will get worse reach than work that's just pretty.

Is this brutal? Well, I'm not here to judge. Most designers are used to the fact that social media is full of designs that could never be implemented to a real product.



Here are two designs I posted on social media - they're both concept projects I made to practice and for fun. When I was creating the left one, I put more effort in making it more realistic, so smaller paddings and less overloaded with effects. The one on the right however is a complete opposite, but it's subjectively prettier.

2. Create something everyday

This is the single best piece of advice I can give to any creative person out there. When I was learning UI Design, I used to wake up at 5 AM everyday and create a concept project just to learn. I wasn't getting many clients, but I was practicing and posting my work on Dribbble and Instagram everyday. This not only leads to improvement, but also quicker growth on social media.

When I was doing that, I was growing maybe like 20 followers a day on Instagram and maybe 5 followers a day on Dribbble, and I was not getting many clients. However, I was really passionate about UI Design, so I kept going and first clients started rolling in, one after another.

There's really no downside to creating every day. If you like the thing you're doing, creating every day will lead to exponential improvement, as well as building an audience and getting leads.

3. Please, get out there with your work!

Instagram, Dribbble, Behance, uplabs, Facebook, Upwork, Twitter, LinkedIn...

All of these platforms are used by millions of people (billions in total!). Also, all of these platforms are free.

Want to know an interesting thing?

A design you create for Instagram can also be posted on every single one of those platforms. It will just take you a few minutes to post that piece of content on them, but it's worth it!

After all, why grow on one platform if you can grow on multiple ones with the same piece of content?

Leveraging social media is one of the most important skills in the times that we live in. By showing your work on different social media platforms, you're likely to attract many clients.

4. Make it incredibly clear that you're open for freelance gigs

Make sure your potential clients know that you're looking for freelance gigs. Many creators on Dribbble actually work somewhere full time and aren't open for work, so if you are - make it clear. Add your contact email in the description of your shot or in your bio.

Same goes for Instagram - your bio is the best place to describe you. Add something like “DM me for freelance work” there, or better yet “email me for freelance work: your@mail.com”. You can also post a story once a month saying that you’re a freelancer and you’re open for new, interesting projects.

5. Make work that relates to your target customer

A few months ago I created a concept called "eBank". After I posted it, a few people messaged me asking if I'm open for work, because they have an idea for an app that has to do with banking, money etc.

It's not a coincidence! People often look through Dribbble looking for specific things. If a client has an app about travel, he might search Dribbble for "travel app". If he finds your shot there, he might reach out!

Related piece of advice I can give you is to avoid creating unrealistic app ideas. I've seen many concepts such as a "Space travel app" which even though looked great, they can't be implemented (at least just yet!).

So in short - create work that relates to your target client. You're not likely to get a banking app gig if you're only posting food delivery projects (and vice versa!).

6. Be aware of trends in the mobile app industry

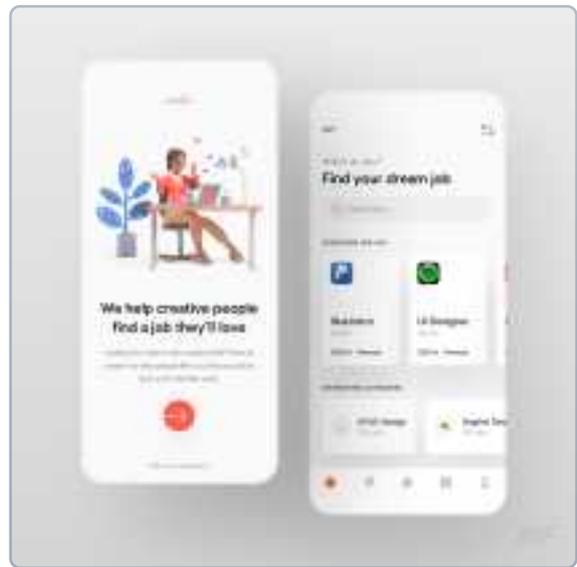
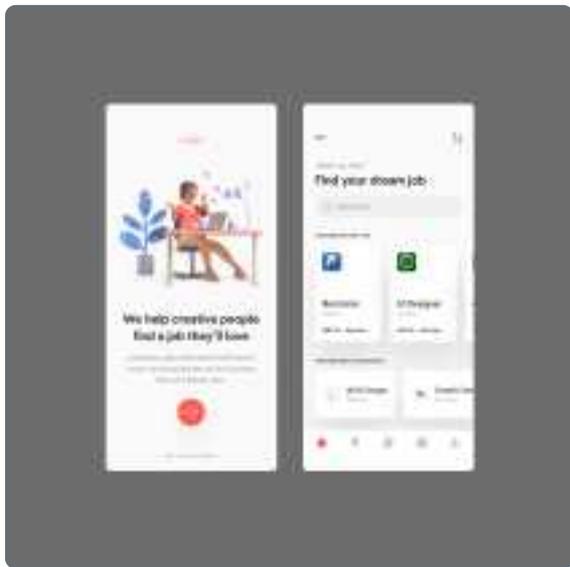
And I'm not talking only about UI trends. There are many app categories that are basically a good business idea. If a client has not idea what app he wants to make, he can just google "mobile app trends 2021" and he'll have new ideas. If your concepts will be made around these trends, you'll have a much higher chance of getting a gig!

That does not mean that you should blindly follow trends, but if you're really looking for some work, following trends can be a good thing to do.

It does not apply only to mobile app industry - generally, every tech startup will need a designer. While you can't predict the next million-dollar idea (at least I think so, but if you can let me know!), you can increase your chances of getting a project by following the hottest and promising trends.

7. Present like a Pro

Your work instantly looks way better if it's presented nicely. Add a pastel background to your screens, tilt them slightly, add a nice shadow and stuff like that. You can look at what other creators on Dribbble area doing. This really makes your work reach way more people!



Which one of these do you think will perform better? Even though it's the same UI Design, the presentation on the right looks way better, at least in my opinion.

An incredibly important message about working with clients

Creating “just” pretty work for social media purposes is tricky. I had a situation in which I shared some not usable concepts on Instagram. Thanks to them, I got a new client - he really liked them and he wanted something quite similar for his app.

The problem was - these concepts were not realistic! I couldn't create the same thing for his app because it would be terrible to use for the users.

So I created the best version I could, but he was not fully satisfied. He said that it's not exactly what he was looking for. After some revisions he was happy, but I definitely learned something new.

And that is: always make sure that projects you post on social media are not completely different from your “real” work. Otherwise, your concepts might turn out to be deceiving for clients who don't fully understand the value of usability and just focus on the looks.

CHAPTER 22

Ending

Congratulations! You just finished reading *UI Design Principles*. Please, don't go just yet. There are a few more things I wanted to share, just one or two pages.

Please reach out to me!

As I mentioned in the introduction to this eBook, this is not its final version. There will be future updates that you will receive for free. They will include new chapters as well as corrections to the current content. I'd really appreciate your opinion and testimonial about what you've just finished reading. [You can click or tap here to access a Google Form in which you can share your testimonial.](#) I would MASSIVELY appreciate it!

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Thank you!

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End credits

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The idea to write this eBook came to my head after reading a few different eBooks and watching some courses about UI Design. I don't claim that information found in this book is something that I invented. UI Design has been a field for long before I started designing, and most of the things you found in this book are frequently used practices and ideas.