

UI Design Principles

Fayoum Track (Day2)
Eng : Youssef Karam



Table of Content

1. Visual design and UI Elements

- What is Visual Design?
- Principles of Good UI Design
- UI Elements
- Best & Bad Practices

2. Design Hand-off & Front-end collaboration

- Collaborating with front-end developers
- Deliverables and assets

Visual Design & UI Elements



What is Visual Design?

Visual design is the process of Planning, arranging, and integrating visual elements of art to accomplish or address a particular purpose.

Visual design is important when designing printable documents, presentations for viewing, or other elements which need to attract and retain interest.



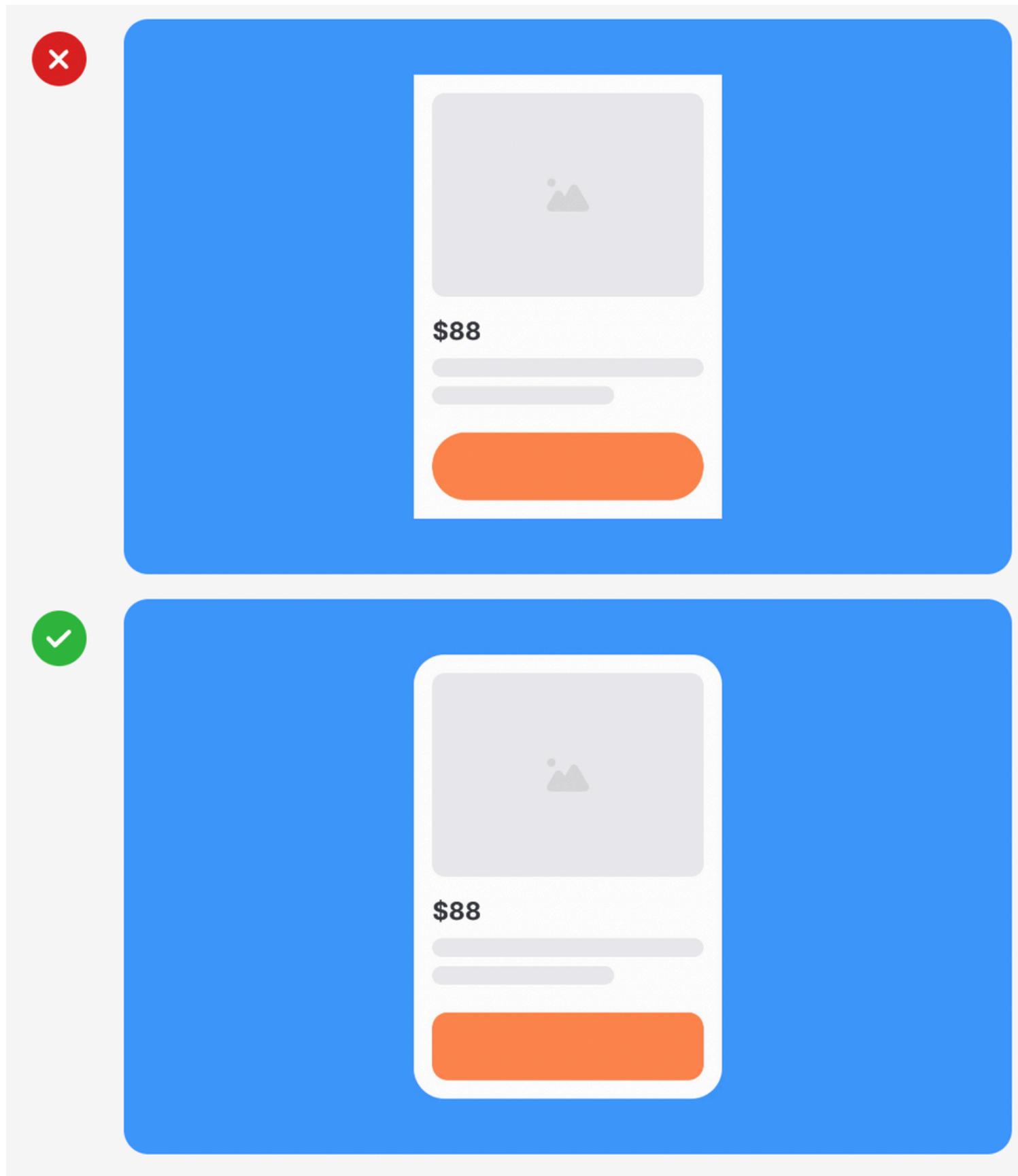
Principles of visual design

1. Unity:

Unity is a design principle that brings a sense of harmony and cohesion. Designers achieve it by arranging similar content nearby and applying visual consistency to elements that serve one purpose.

For example, product cards usually have the same priority and should demonstrate repeating styles, like colors, shapes, and sizes, to maintain visual consistency.

By unifying topic-related content and using consistent styles, you reduce cognitive overload and help users complete their tasks faster.



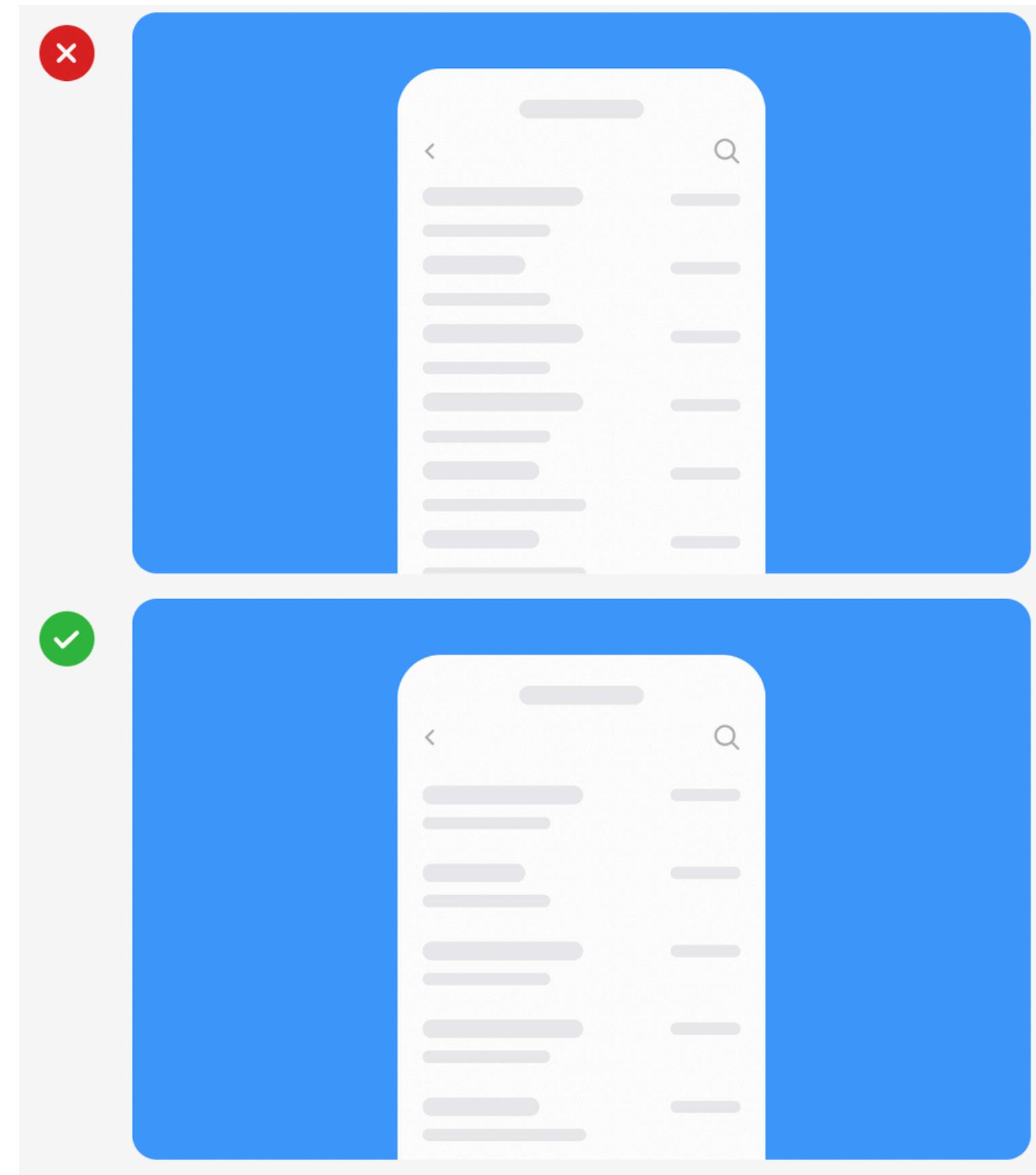
Principles of visual design

2. Proximity

Proximity, which basically means "closeness," has all related and similar elements close to each other. Grouping related content also means adding space from unrelated stuff.

Designers should use varying amounts of white space to either unite or separate items to help viewers understand the relationships between groups.[1]

This principle supports visual hierarchy and balance, and it often goes hand in hand with repetition.

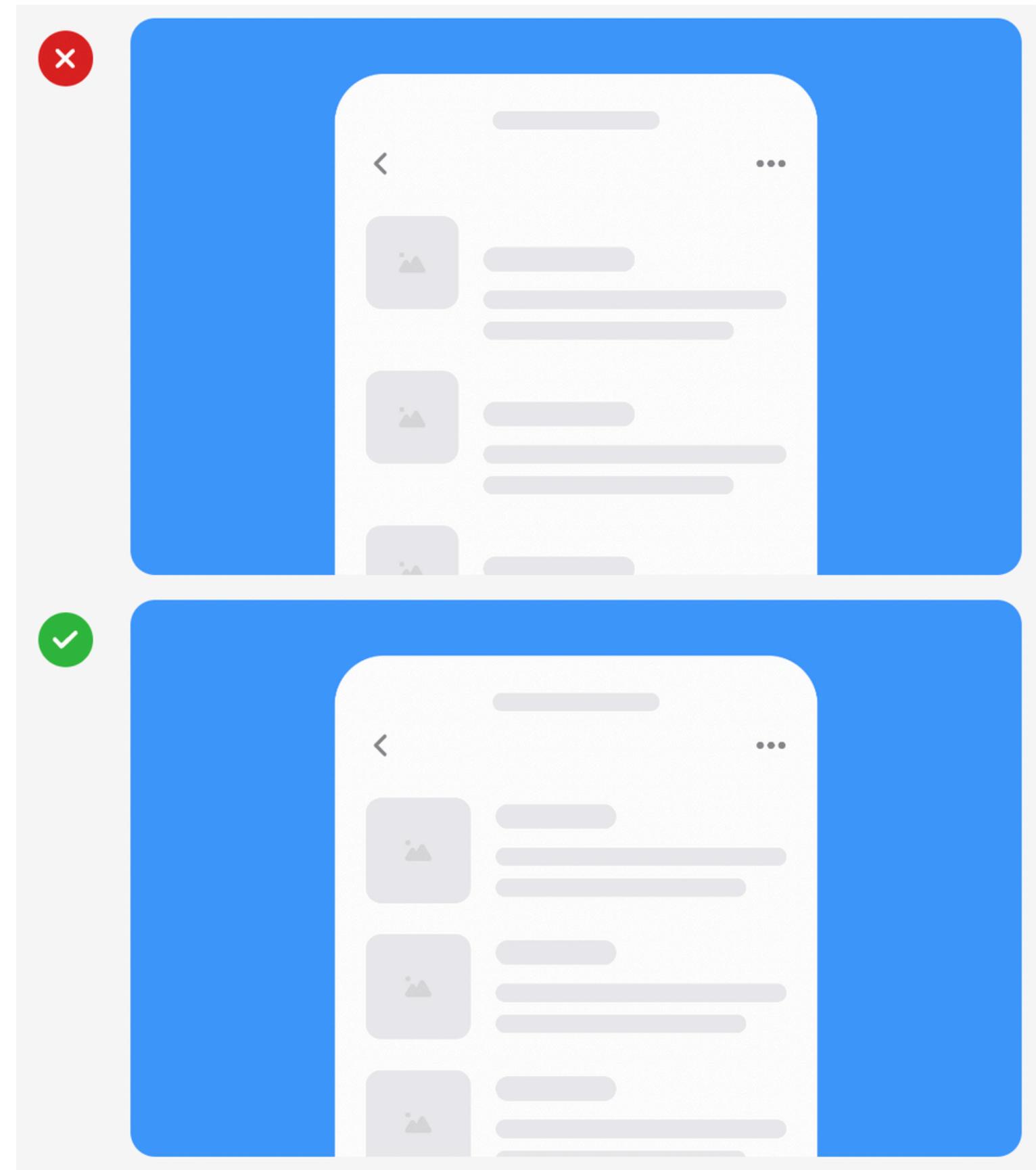


Principles of visual design

3. Alignment

According to the alignment principle, related elements should be arranged along a common axis. Applying it minimizes chaos and helps users scan content more efficiently.

Cohesive alignment is crucial for text blocks. Left alignment is the most convenient for users' eyes as it follows a natural flow and doesn't create extra cognitive load.

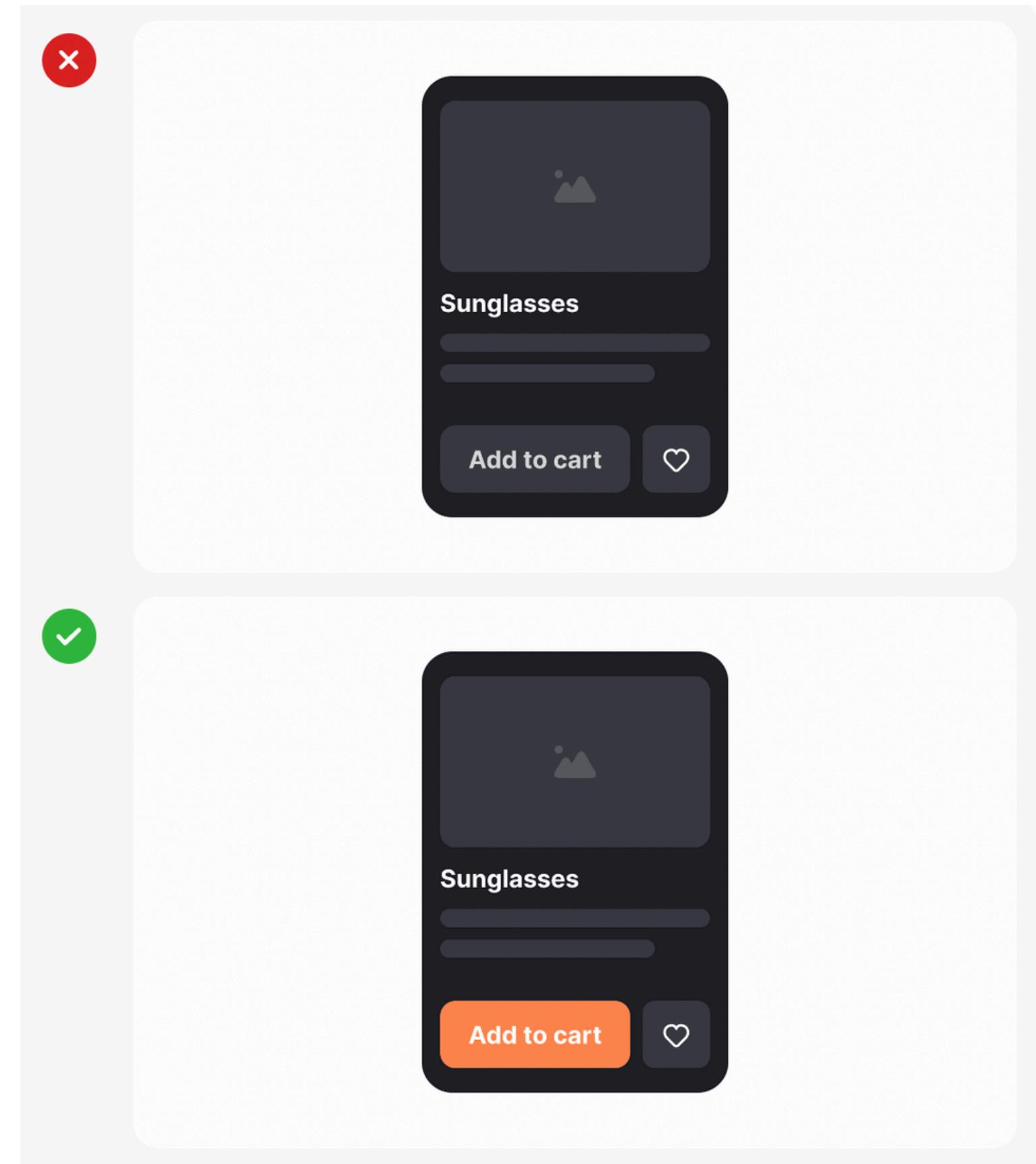


Principles of visual design

4. Emphasis design principle

Emphasis is used to draw users' eyes to something specific. It can be an image, button, piece of content, or anything else on a page. You can achieve emphasis by using visual tools like color, shape, size, texture, or patterns.

Surprisingly, designers can emphasize elements by breaking other design principles. For example, by making the element "rebel" and going against overall alignment, you immediately draw users' eyes to this area.



Principles of visual design

5. Negative space

Negative space, often referred to as white space, refers to the unoccupied areas in a design that surround and separate different elements. This space isn't necessarily white; it can be any color, texture, or pattern. By creating a sense of visual comfort and order, negative space makes designs look organized and appealing. It provides essential breathing room for various components, enhancing the overall user experience.

Here's how to use negative space effectively:

- Balance the elements: Use negative space to balance visual elements, ensuring that the layout doesn't feel overcrowded or too sparse.
- Highlight key features: Surround important elements with negative space to make them stand out and draw users' attention.
- Improve readability: Utilize space between lines, paragraphs, and other text elements to increase legibility.
- Create grouping: Use negative space to group related elements and separate them from unrelated ones, creating a logical flow.

The image shows two identical mobile device screens side-by-side. Each screen displays a dark-themed article card. At the top left is a red circular close button with a white 'X'. At the top right is a green circular checkmark button. The card has a black header bar with the title "How to write a UX case study" in white text. Below the title is the author information "by John Doe • 5 min read". A yellow "Read" button is at the bottom left of the header. To the right of the header is a purple rounded square icon containing a white document with "CASE STUDY" and a pencil, with question marks at the corners. The main content area of the card is white.

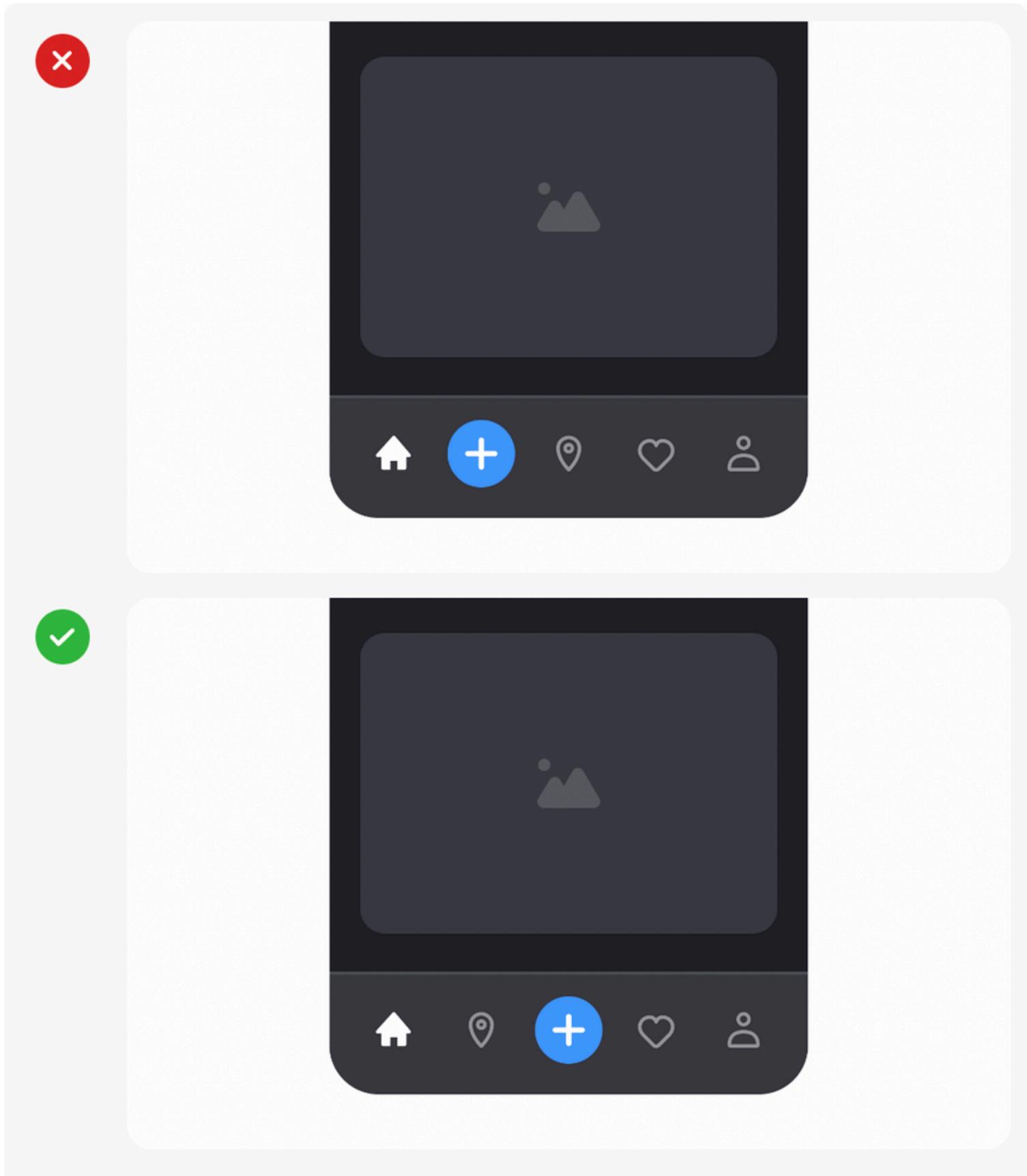
Principles of visual design

6. Balance

In the design world, balance is achieved by combining elements, such as images, shapes, fonts, and colors, in just the right way.

Symmetric layouts distribute items with equal weight on both sides of an imaginary central axis. They make pages look arranged and help users navigate products more efficiently.

Asymmetric layouts are a better fit for advertising materials (banners, emails, brochures, etc.) or landing pages to bring a feeling of surprise and catch users' attention.

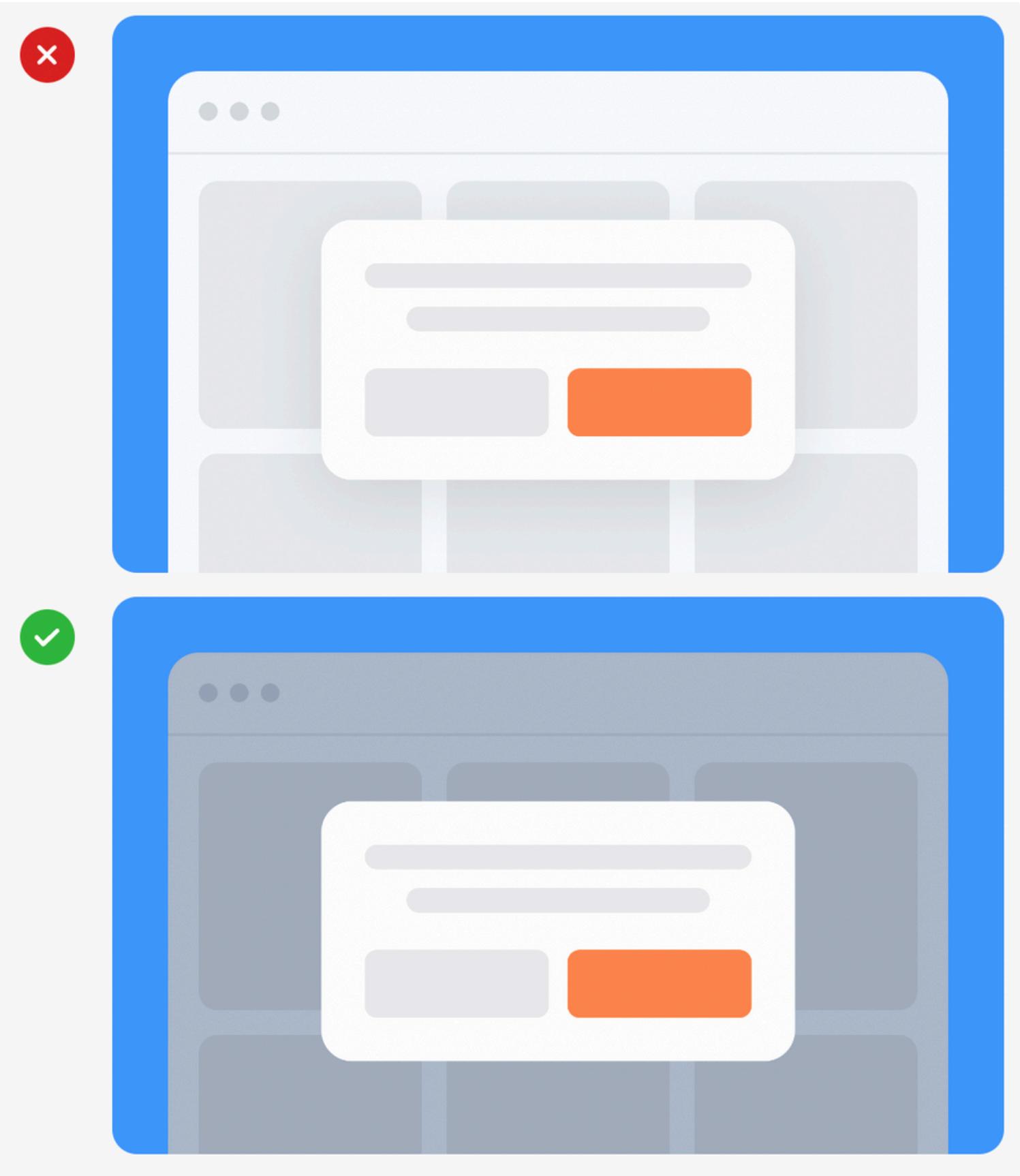


Principles of visual design

7. Figure-ground

Gestalt figure-ground principle states that our brains naturally distinguish between foreground and background objects in an image. The relationship becomes ambiguous when both the foreground and background contain two distinct images. This effect is widely used by logo and graphic designers.

UI and UX designers also utilize this principle to draw users' attention to specific areas on a screen. For example, when a modal appears on a screen, the background darkens or gets blurry, so users' eyes stick to the message inside a modal.[3]



Elements of visual design

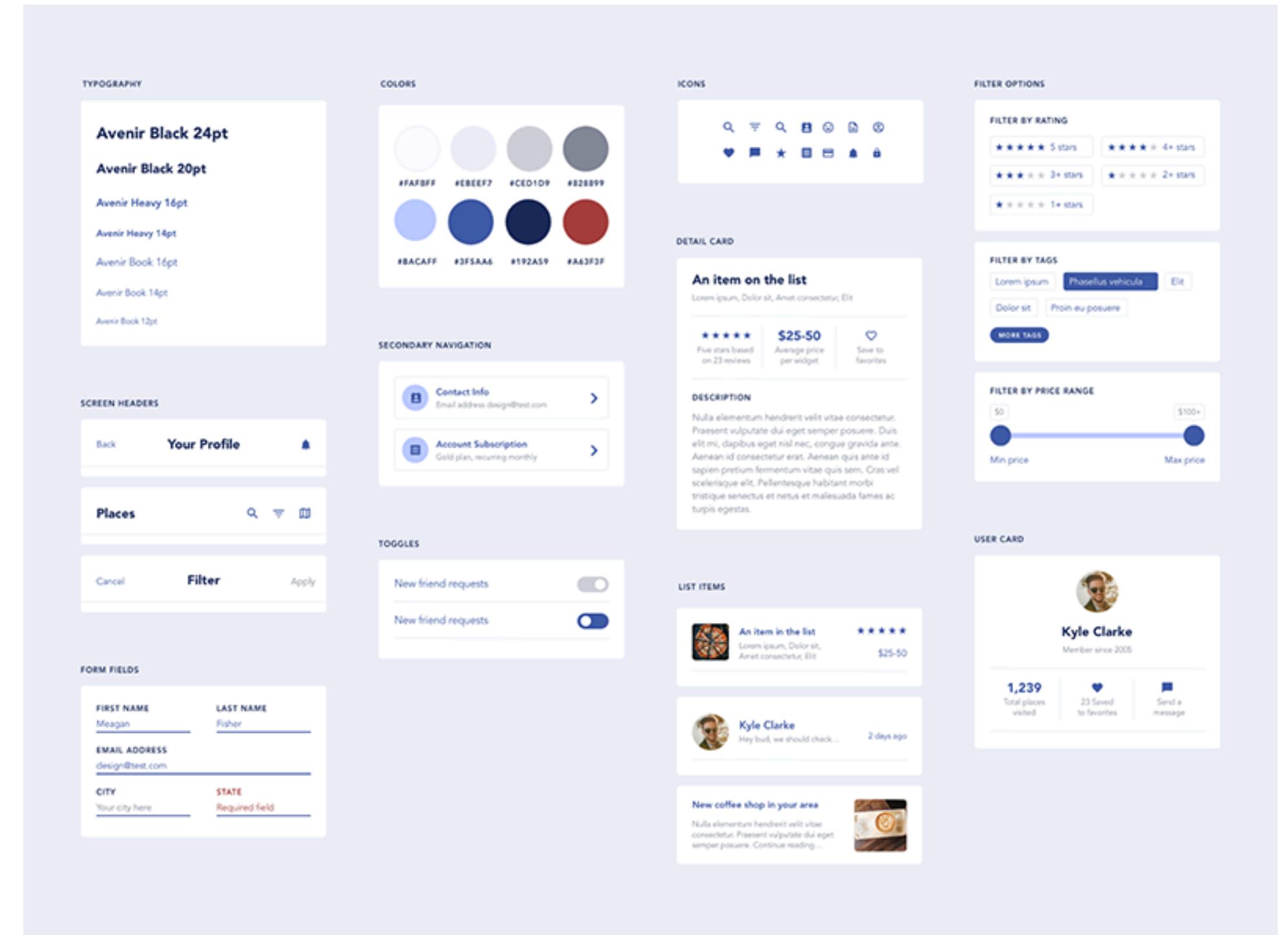
Color is an important design basic and it dictates the overall mood of a design. The colors picked represent one's brand and its tonality. The understanding of color theory helps create works that evoke emotions, for example, gold & neutral shades evoke an overall feel of sophistication, bright colors signal happiness, and blue creates a feeling of calmness. Color palettes can be used as a contrast or even to complement the elements.



Elements of visual design

Users are used to certain elements acting in a specific way, so it's very important to stay consistent and predictable in choices and layout. Doing so will ensure the task completion, efficiency, and satisfaction.

1. Input Controls
2. Navigational Components
3. Information Components
4. Containers



Elements of visual design

01. Input Controls

allow users to input information into the system. If you need your users to tell you what country they are in, for example, you'll use an input control to let them do so.

- Checkboxes
- Radio Buttons
- Toggles
- List Boxes
- Dropdown lists
- Buttons
- Dropdown button
- Text fields
- Date fields

Elements of visual design

Checkboxes : Checkboxes allow the user to select one or more options from a set. It is usually best to present checkboxes in a vertical list.

- Pepperoni Option 1
- Cheese Option 2
- Olives Option 3
- Tomatoes Option 4

Elements of visual design

Radio buttons : Radio buttons are used to allow users to select one item at a time.

- One
- Two
- Three
- Option 1
- Option 2
- Option 3
- Option 4

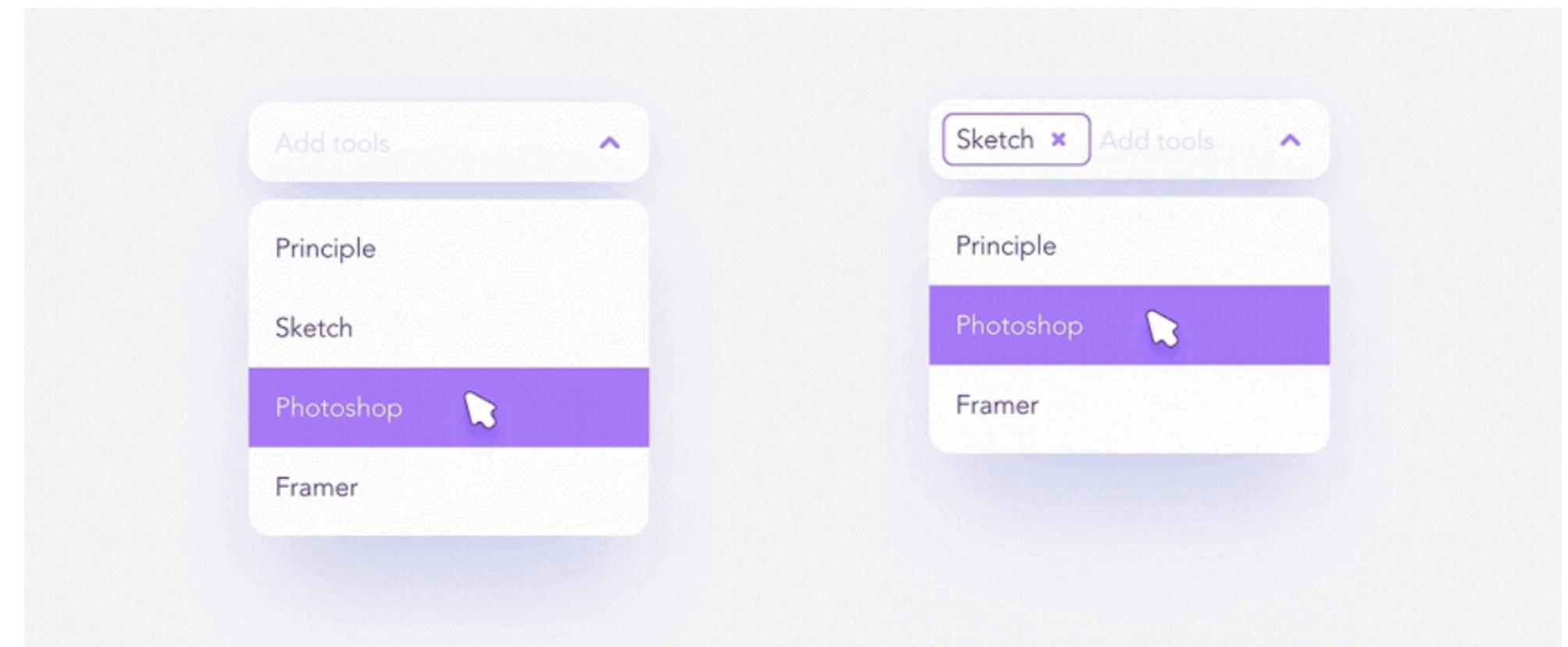
Toggles :A toggle button allows the user to change a setting between two states. They are most effective when the on/off states are visually distinct.

Airplane mode



Elements of visual design

List Boxes : List boxes, like checkboxes, allow users to select a multiple items at a time, but are more compact and can support a longer list of options if needed.



Elements of visual design

Dropdown lists allow users to select one item at a time, similarly to radio buttons, but are more compact allowing you to save space. Consider adding text to the field, such as 'Select one' to help the user recognize the necessary action.

The image shows three dropdown menus side-by-side. The first menu, labeled 'Country', has a blue border and contains the text 'American Samoa' in a dropdown state. A list of countries is visible below it: Country, Afghanistan, Albania, Algeria, and American Samoa. The word 'American Samoa' is highlighted with a blue background. The second menu, labeled 'State', has a grey border and contains the text 'State'. The third menu, labeled 'City', has a grey border and contains the text 'City'.

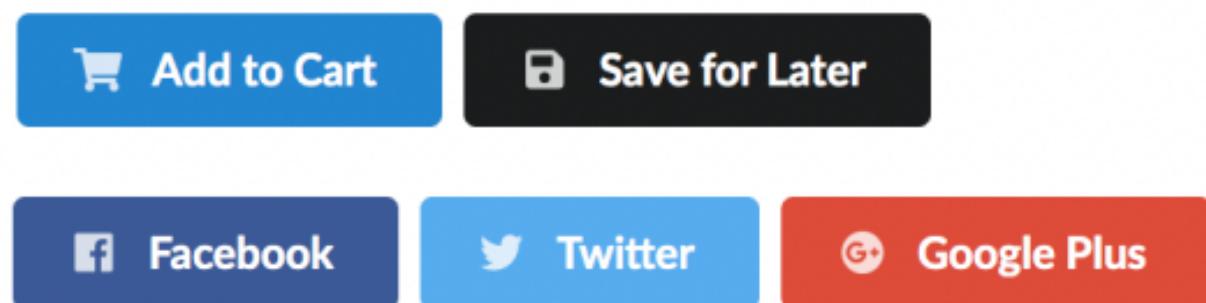
Country
American Samoa
Country
Afghanistan
Albania
Algeria
American Samoa

State
State

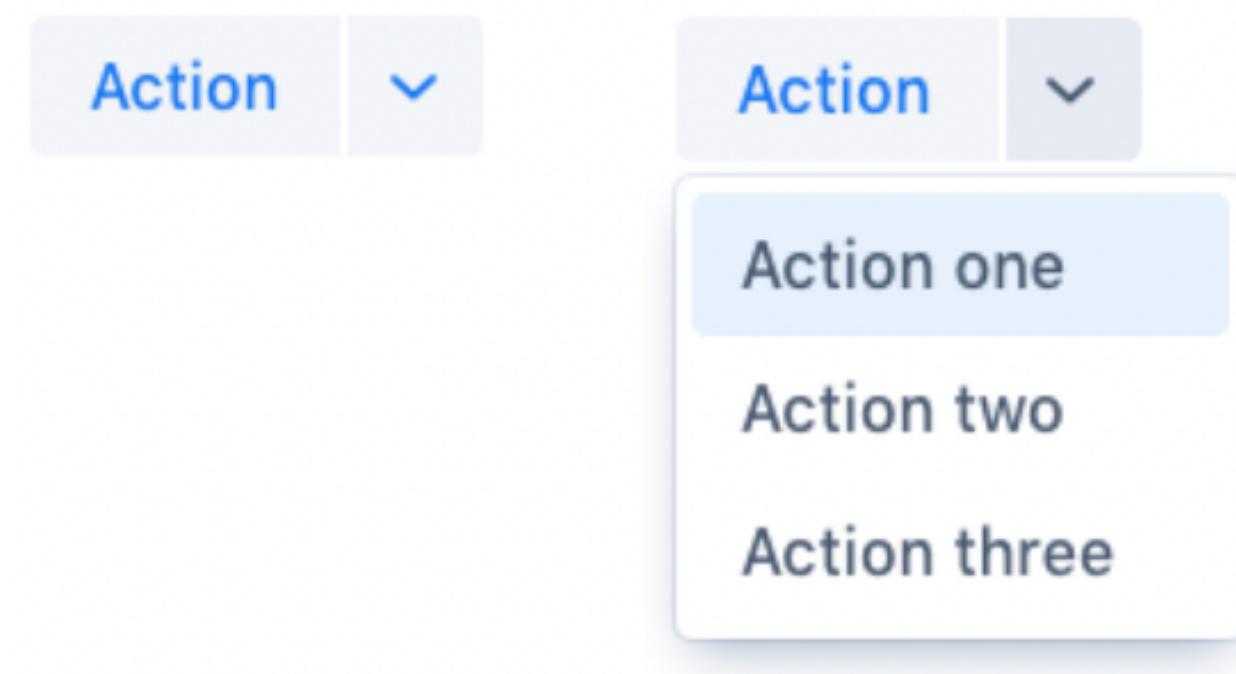
City
City

Elements of visual design

Buttons : A button indicates an action upon touch and is typically labeled using text, an icon, or both.



Buttons : A button indicates an action upon touch and is typically labeled using text, an icon, or both.



Elements of visual design

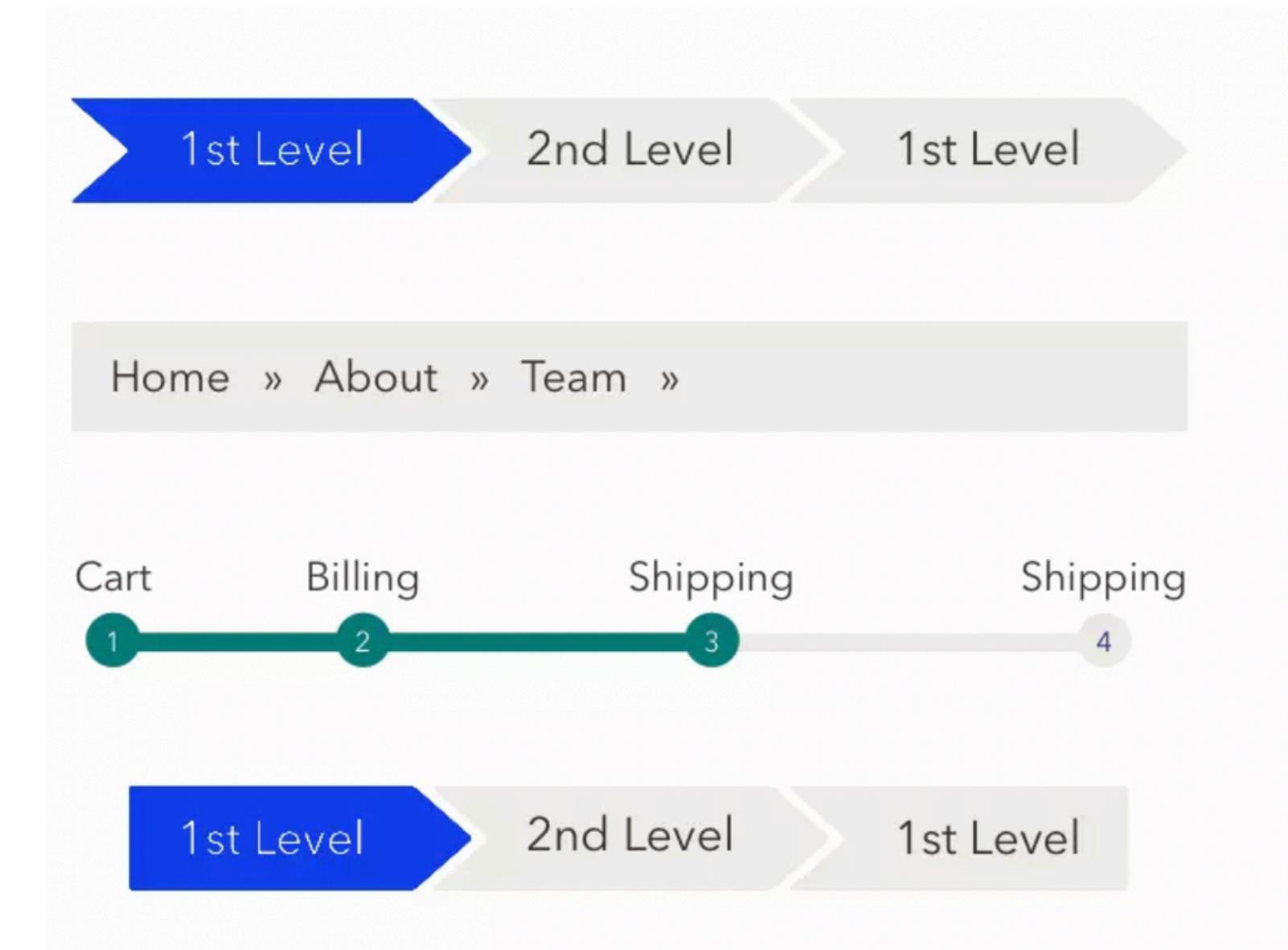
02. Navigational Components

help users move around a product or website. Common navigational components include tab bars on an iOS device and a hamburger menu on an Android.

- Search Field
- Breadcrumb
- Pagination
- Tags
- Sliders
- Image carousel

Elements of visual design

Breadcrumb : These little trails of links help users figure out where they are within a website. Often located at the top of a site, breadcrumbs let users see their current location and the proceeding pages. Users are also able to click on them to move between steps.



Elements of visual design

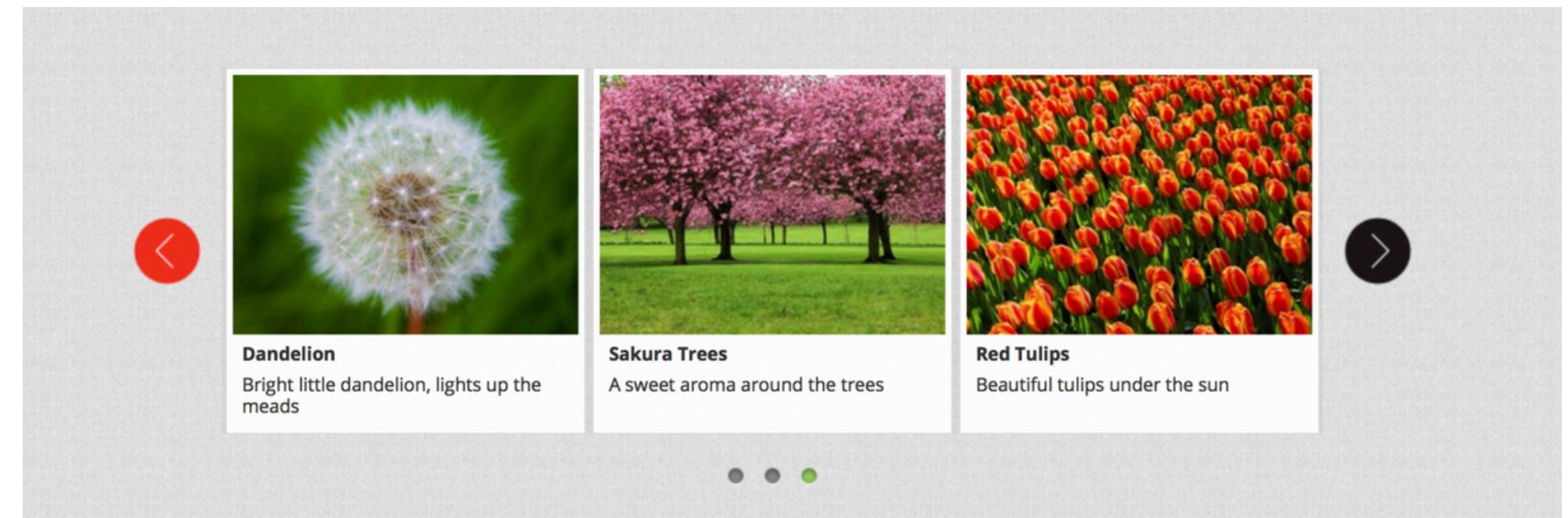
Pagination : Pagination divides content up between pages and allows users to skip between pages or go in order through the content.

Repository ^	Project	Owners	Last updated	Permission
 1up		Pete de Zwart	2012-09-07	
 3rd_library	Project: Atlassian	Atlassian	2015-08-14	
 3rd-party-analytics-plugin	Atlassian labs	Atlassian labs	2016-03-01	
 a11y-dashboard-input	Project: Atlassian	Atlassian	2016-03-08	
 a11y-dashboard-webservice	Project: Atlassian	Atlassian	2016-03-08	
 aac-maintenance-page	CST Site reliability engineering	Atlassian	2016-09-29	

< 1 2 3 4 5 6 7 >

Elements of visual design

Image carousels allow users to browse through a set of items and make a selection of one if they so choose. Typically, the images are hyperlinked.



Elements of visual design

03. Information Components
share information with users.

- Notifications
- Progress Bars
- Tool Tips
- Message Boxes
- Modal Window (pop-up)

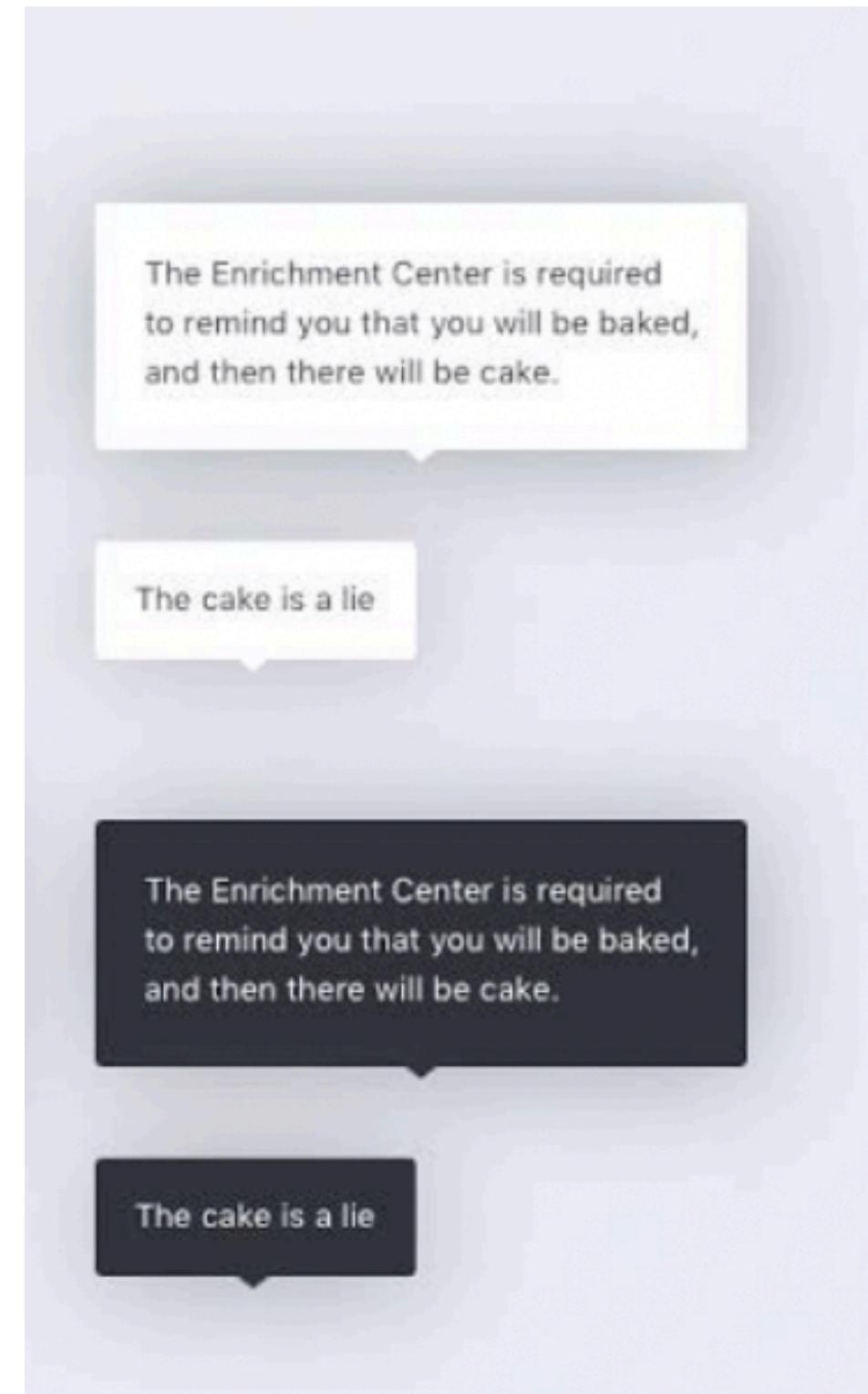
Elements of visual design

Progress Bars : A progress bar indicates where a user is as they advance through a series of steps in a process. Typically, progress bars are not clickable.



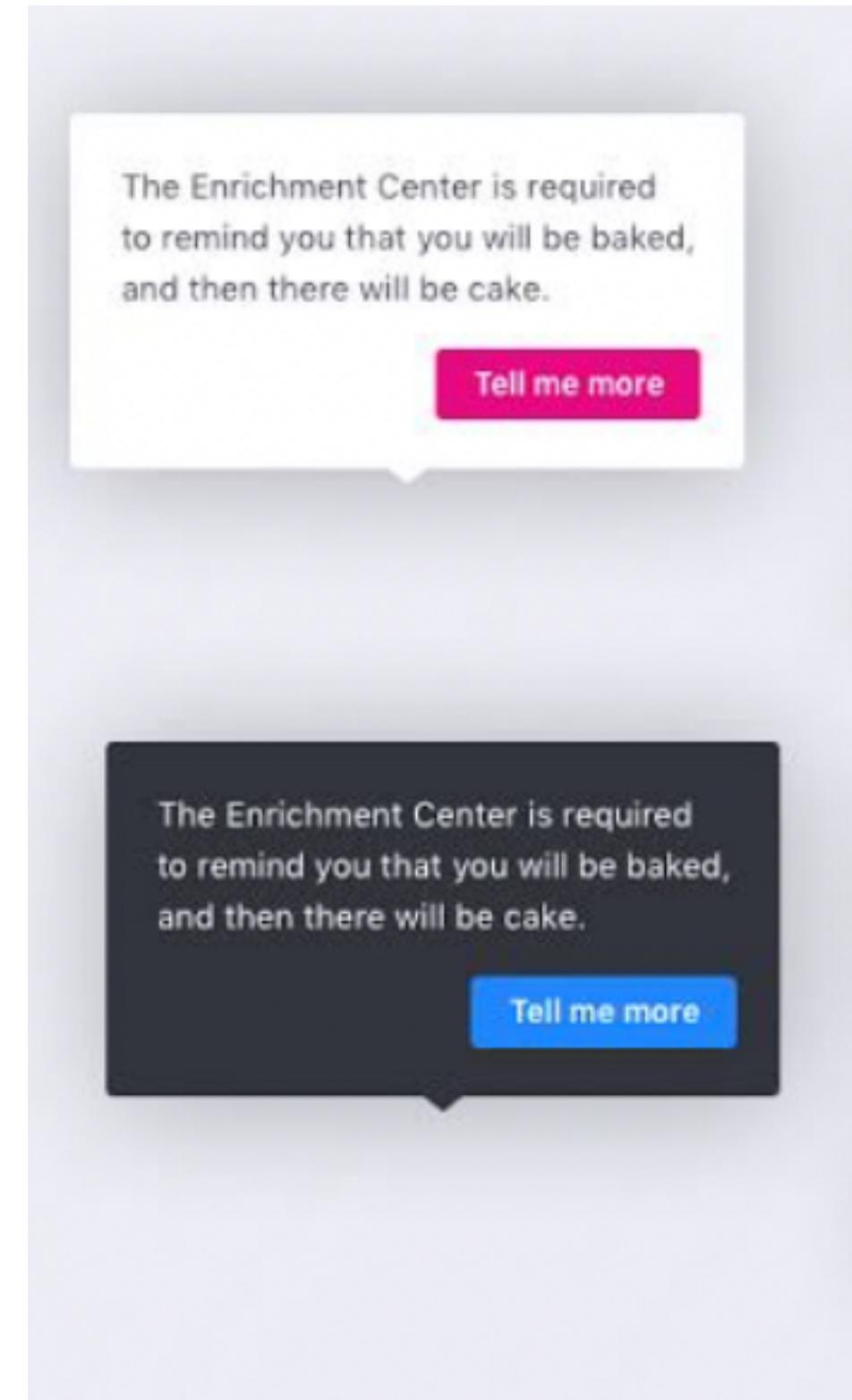
Elements of visual design

Tootip : A tooltip allows a user to see hints when they hover over an item indicating the name or purpose of the item.



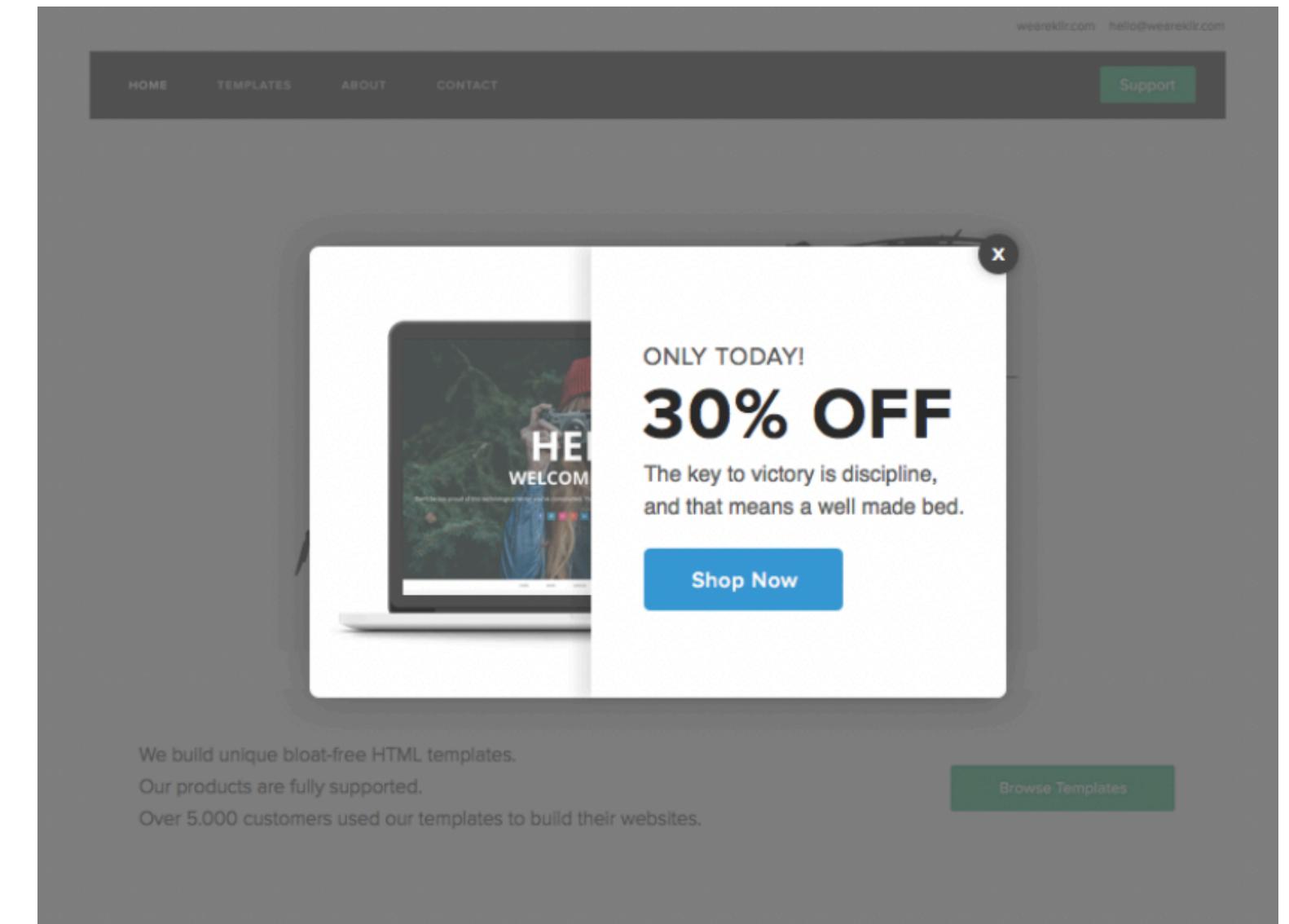
Elements of visual design

Message Boxes: A message box is a small window that provides information to users and requires them to take an action before they can move forward.



Elements of visual design

Modal Window : A modal window requires users to interact with it in some way before they can return to the system.



Elements of visual design

04. Containers : hold related content together.

Accordion:

An accordion is a vertically stacked list of items that utilize show/ hide functionality. When a label is clicked, it expands the section showing the content within. There can have one or more items showing at a time and may have default states that reveal one or more sections without the user clicking.

First Amendment

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Second Amendment

Third Amendment

Fourth Amendment

Fifth Amendment

UI Examples Best & Bad Practices

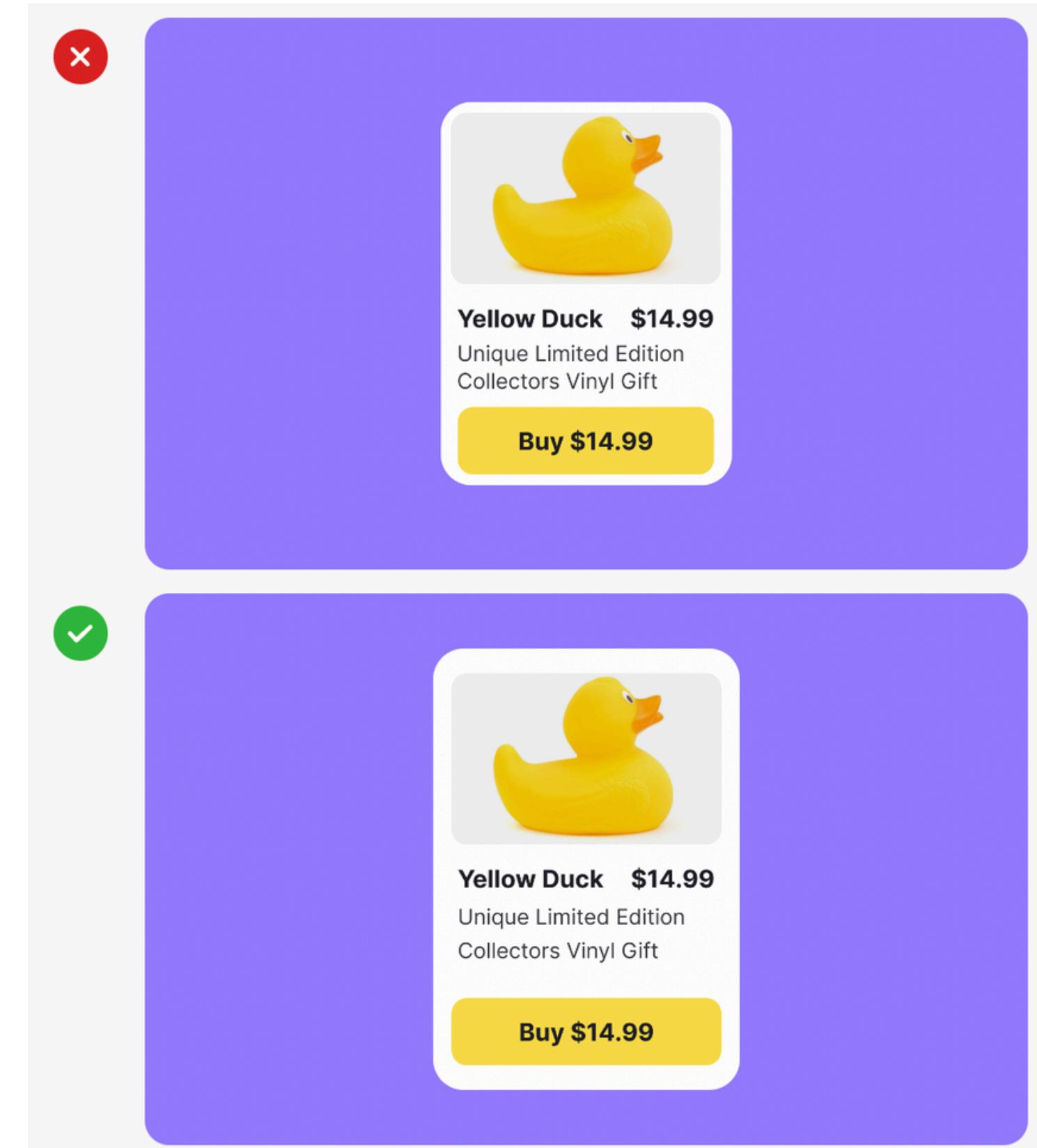
Positive and negative space:

In design, positive space represents the area of interest. Any space taken by design elements is called positive. Negative or white space is the empty area between, around, and even inside design elements.

Negative space improves readability and makes vital elements easier to scan and discover. It creates breathing room for elements and content groups and makes designs look neat and clutter-free.[1]

Negative space can also contribute to the overall feeling of a website or an app. Websites with large amounts of macro white space appear more minimalistic, elegant, and luxurious.

.



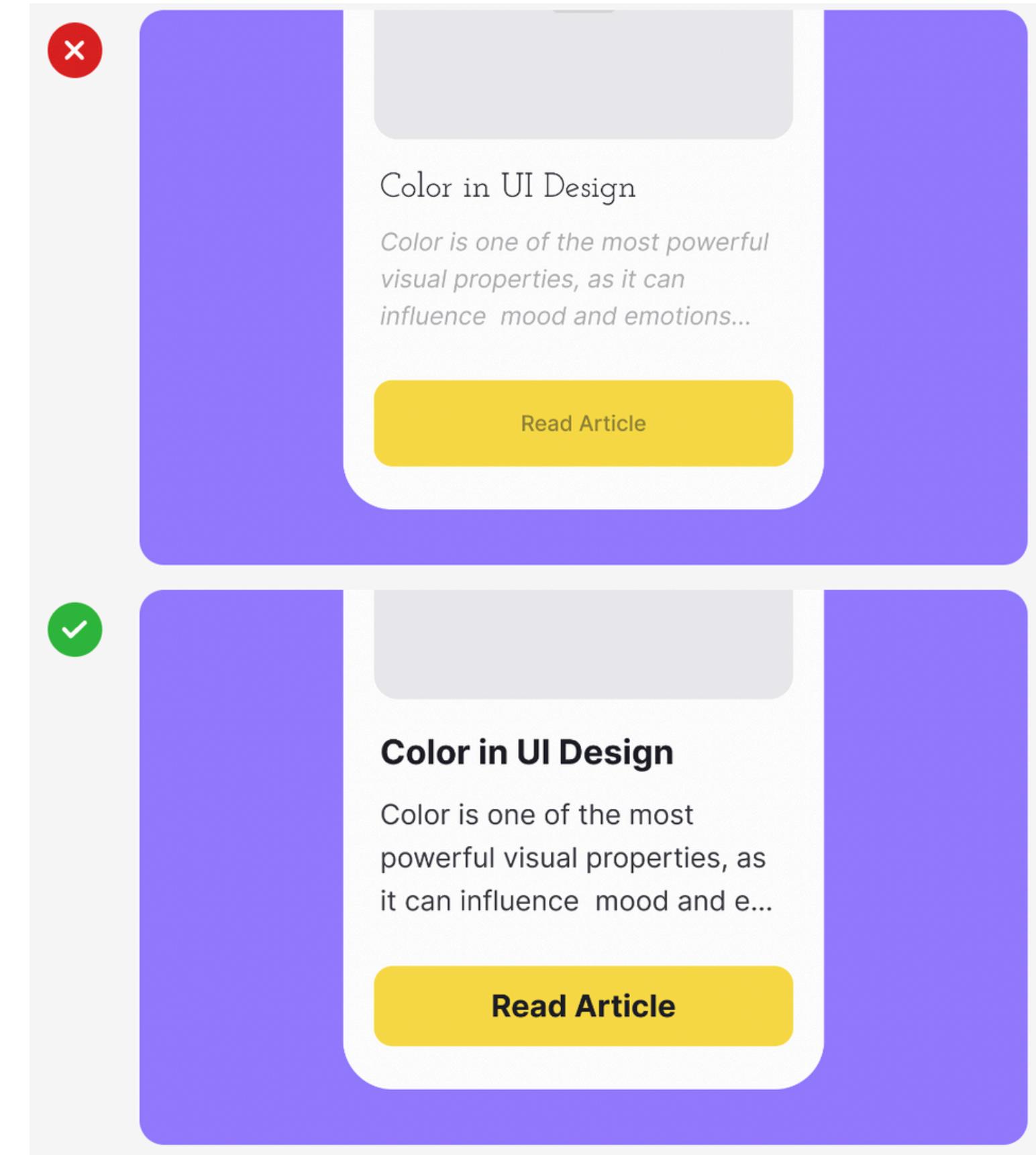
Typography:

Typography can be viewed from two angles. First, it's the style and appearance of printed text. Second, it's the art and process of arranging text to make it readable and legible to meet print or digital design needs.

Typography encompasses selecting and adjusting:

- Typefaces
- Point sizes
- Line lengths
- Line spacing
- Letter spacing
- Paragraph spacing
- Kerning
- Text alignment[2]

Good typography has several benefits. It establishes a strong visual hierarchy that helps users navigate content. Choosing the right typefaces also improves legibility and readability, making products more accessible. Unique, consistent typography helps build brand recognition as users associate the typeface with a brand.

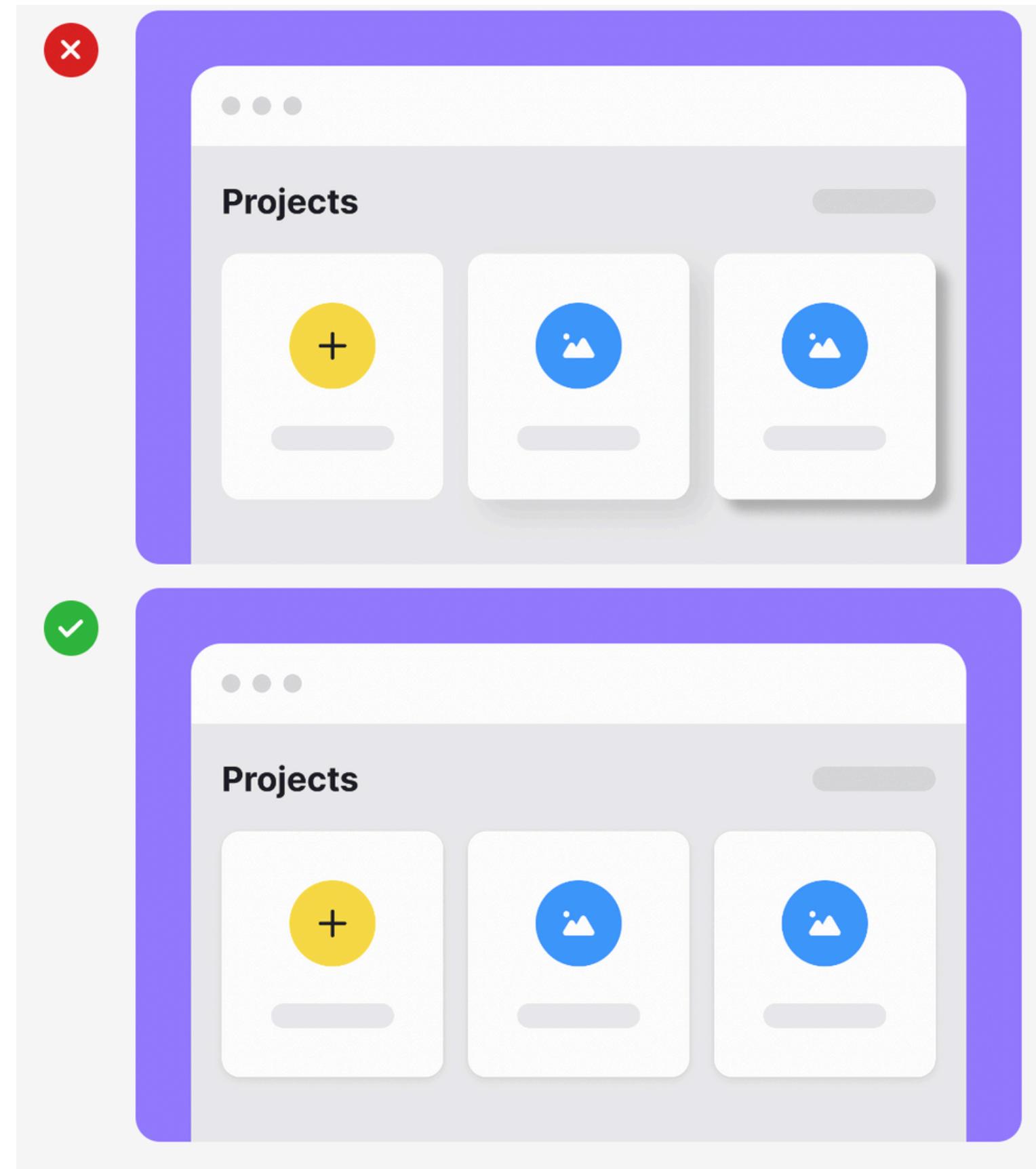


Shadows:

In digital interfaces, designers use shadows to create a natural aesthetic to elements. Shadows add depth and make elements stand out against their backgrounds.

Modern interfaces are layered and use shadows to indicate the distance between surfaces (elevation) and show hierarchy. The larger the distance between an element (e.g., a floating button) and the surface is, the higher the elevation is, and the blurrier the shadow of the button gets. These spatial relationships between elements help users navigate across an interface and determine clickability.

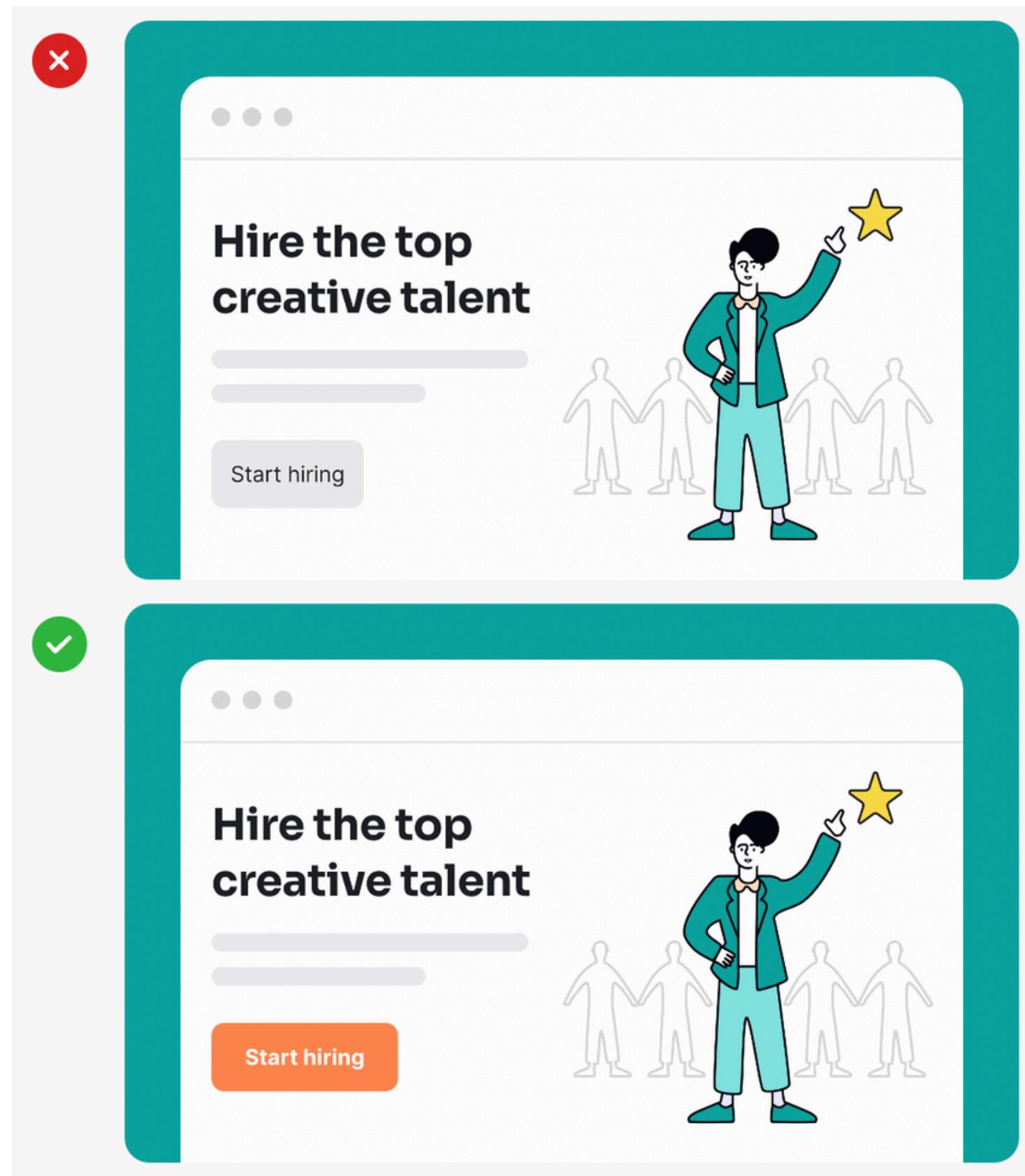
Shadows also increase scannability so users can more easily detect elements on a page.[5].



Pay attention to your CTA button:

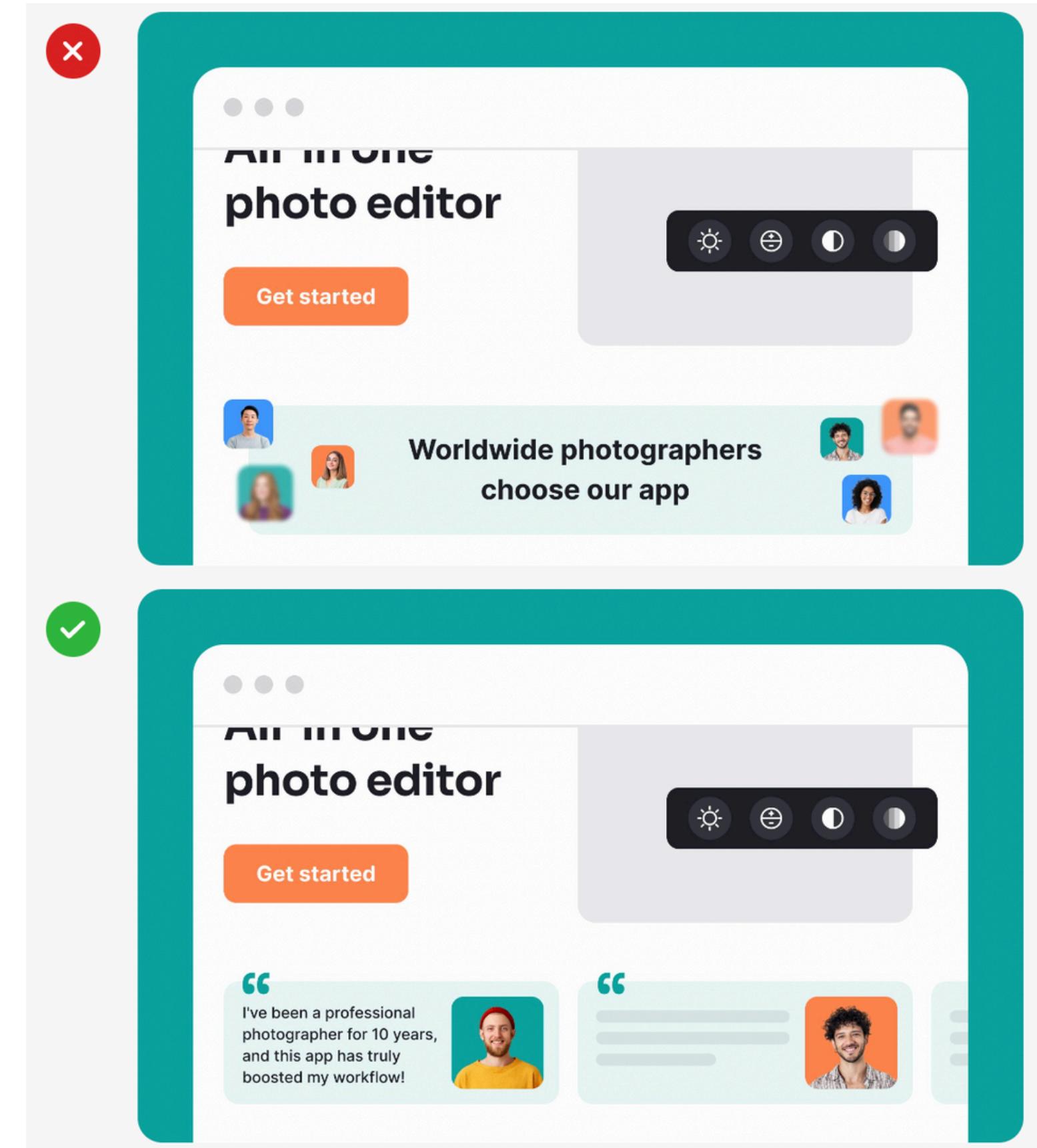
Call-to-action (CTA) buttons are pivotal on landing pages, guiding users towards actions like subscribing, signing up, or making a purchase. Here are some tips to make sure they stand out and do their job:

- High visibility: Make CTAs stand out with an accent color, potentially even using a contrasting hue from the background for better results. [4]
- Immediate visibility: Place CTAs prominently without requiring users to scroll. This boosts click-through rates.[5].
- Strategic placement: On longer pages, sprinkle additional CTAs at intervals to increase conversions.
- Clear and direct language: Use active verbs and avoid jargon for straightforward instructions. Ensure users understand the action they're taking.
- Ample size: Employ a larger CTA button for clear visibility and ease of clicking, irrespective of device or screen resolution.
- Accessibility considerations: Comply with WCAG 2.0 recommendations, providing a minimum touch target of 44x44 CSS pixels, benefiting users with vision or motor disabilities.[6].



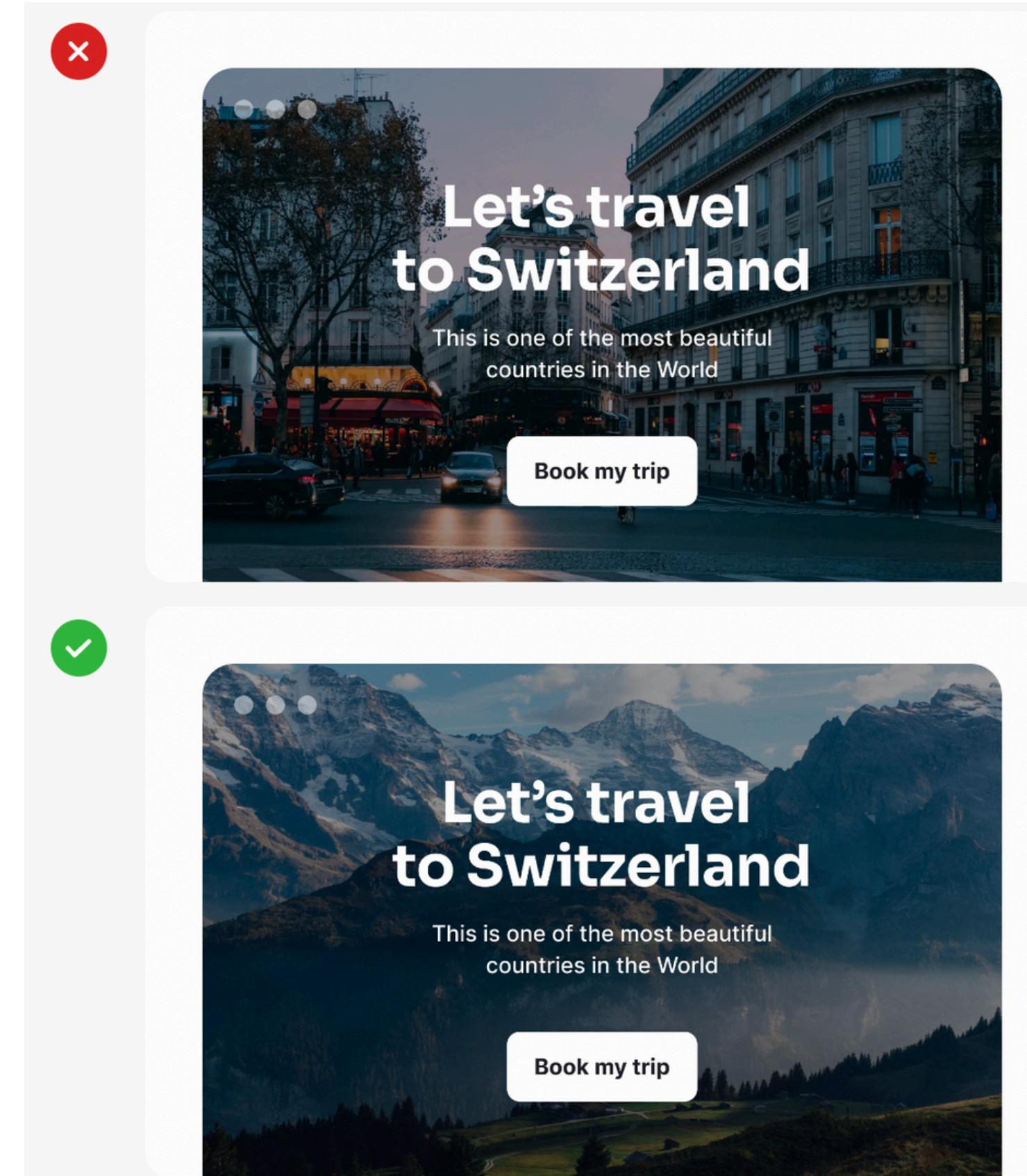
Increase credibility with social proof:

Most people don't want to be the first to try something new. They want to know that the decision they're making has already been vetted by others. In fact, 91% of consumers find a product more trustworthy if they get recommendations from people they know. 70% also trust public comments and opinions about products online.[8] Social proof offers strong reassurance for people considering making a purchase. Including reviews, ratings, stats, and other social proof on your landing page can persuade many consumers to make a purchase.



Use contextual images:

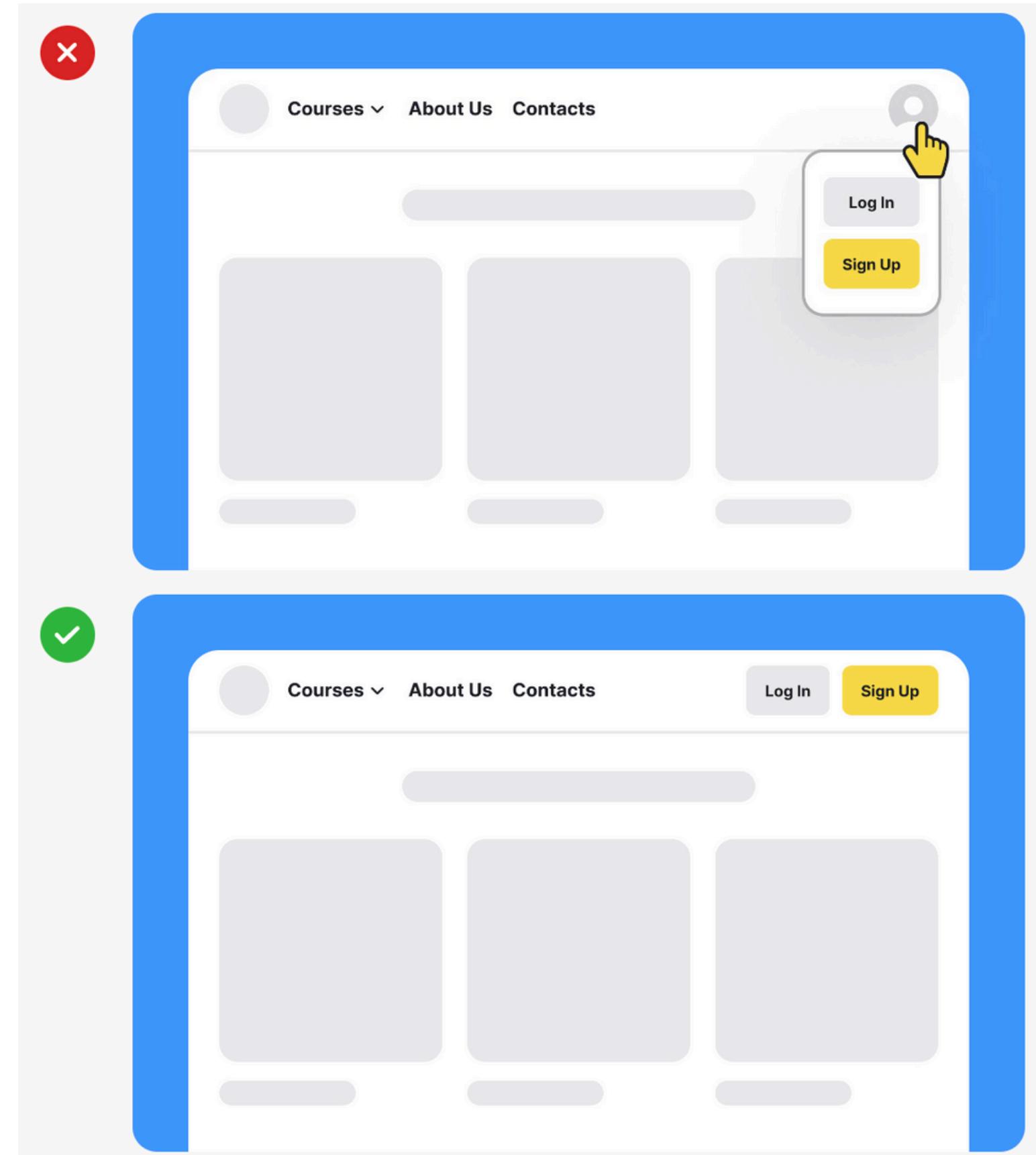
Support your landing page's content with relevant images that add to the meaning. Use them to convey or reinforce the information elsewhere on your page. A picture is worth a thousand words, so make sure your images assist in conveying information to your visitors, even going so far as to explain elements that are difficult to put into words.



Make your CTAs easy to spot:

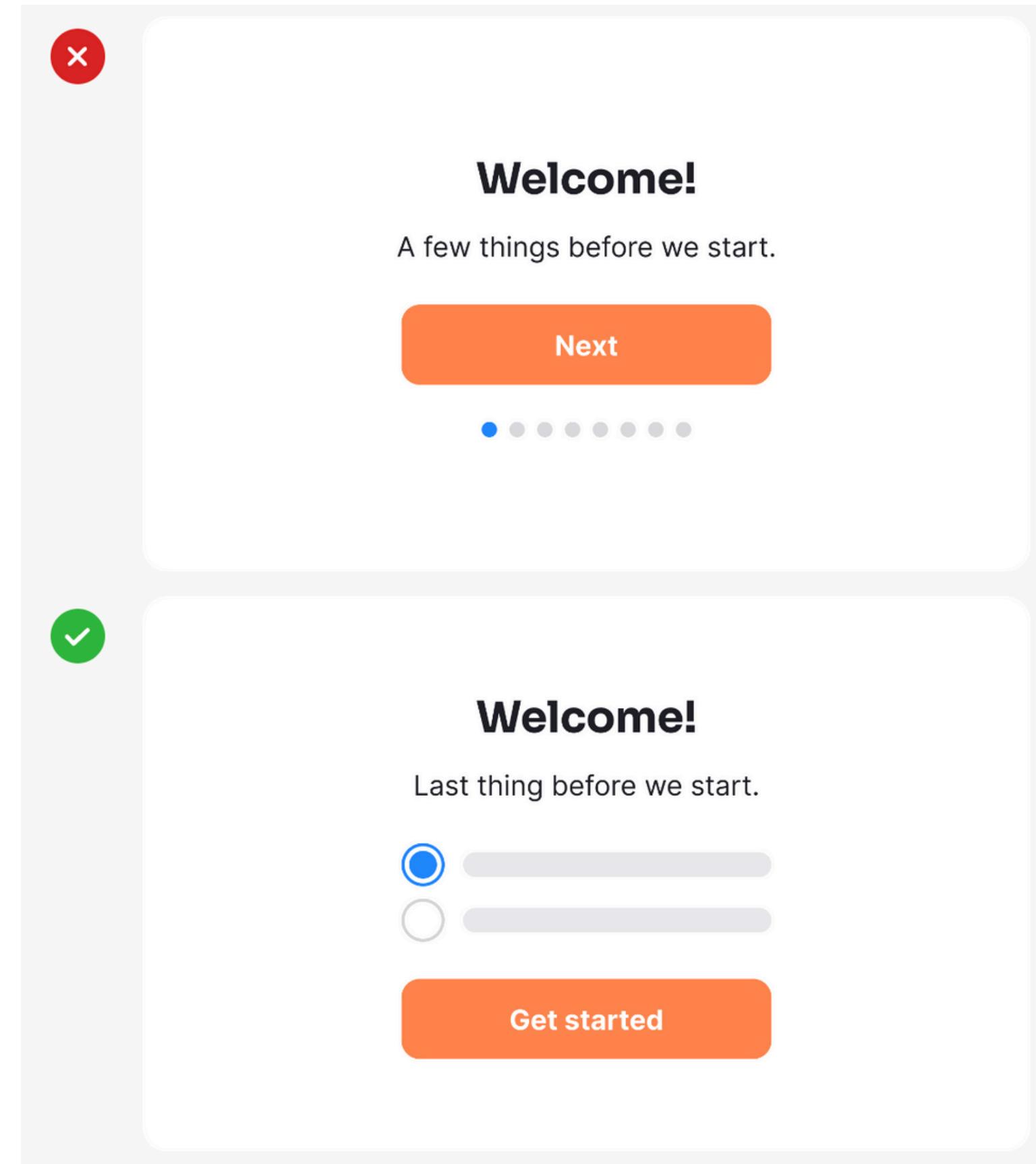
In many digital products, the login and signup pages serve as the gateway to the user experience. They're not just initial steps; they're critical touchpoints that can make or break the user's perception of your design. Therefore, the placement of the login and signup buttons is vital.

While the exact "sweet spot" might vary depending on your layout and user flow, a common best practice is to position these buttons where they are immediately visible and accessible – often in the site's header or upper navigation area. This reduces the cognitive load on users and makes it straightforward for them to take action, whether they're new to your platform or returning for another session.



Make the introduction quick:

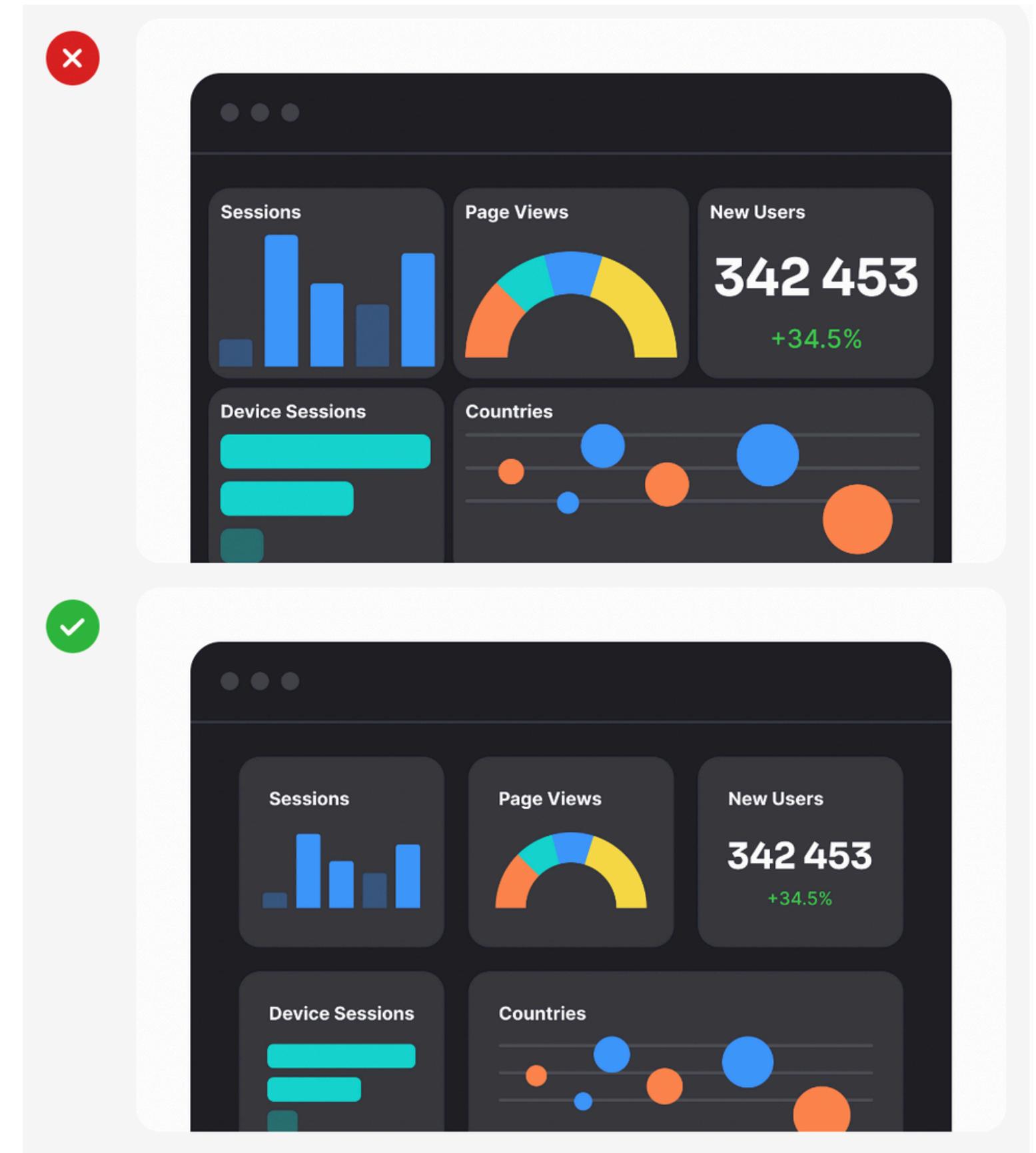
Don't bombard new users with a ton of questions when you start onboarding. Asking for too many details before you've built trust and enthusiasm with those users feels like an imposition. Respect your users' time and efforts by only asking for the minimum amount of information required to use the product, while also clearly identifying the value users will get.



Use enough white space to simplify content scanning:

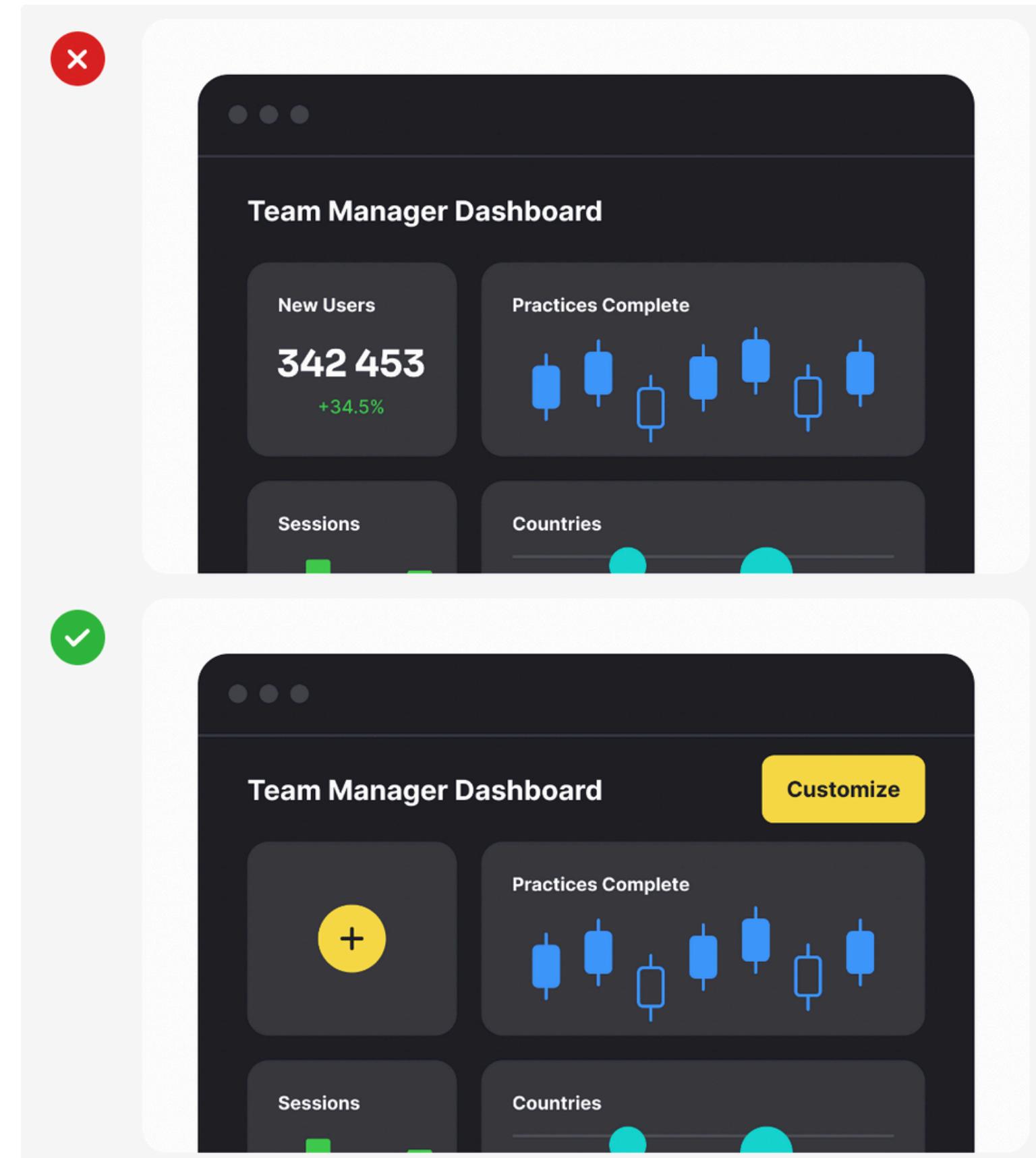
The human brain has limitations when it comes to processing large amounts of information simultaneously. While this might seem counterintuitive for data-rich dashboards, there's a solution. The strategic use of white space can effectively segment related content, improving its overall legibility. Moreover, it serves to highlight crucial elements, providing them with breathing space for better comprehension.

Ensure that there's ample space between different data points, graphs, and textual elements. This not only prevents visual overload but also directs the user's attention to the most critical information.



Allow users to customize dashboards:

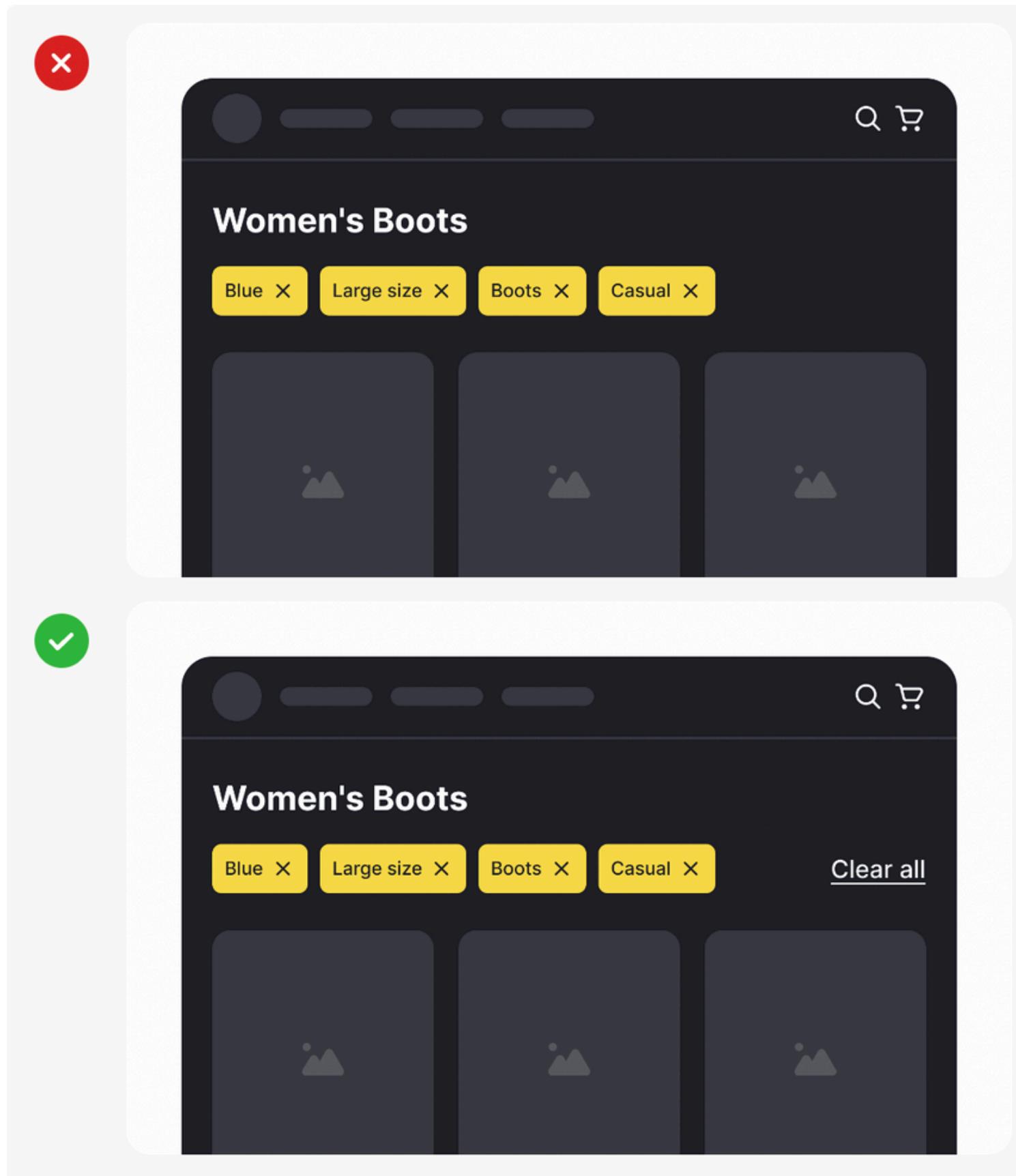
A personal touch can help your dashboard users feel comfortable. This means offering content and tools that suit different user roles. Customization is a big part of this because it lets users arrange content and tools to their liking. In systems with many different roles, customization is crucial. It ensures that everyone, with their unique needs and tasks, can make the dashboard work just right for them. For example, a sales manager might want to see revenue figures first thing, while a customer service agent might prioritize support ticket updates. Customization makes these adjustments possible.



Allow users to clear all filters:

It's quite common for users to apply multiple filters in their search for specific content. However, this can sometimes lead to a very narrow set of results. Additionally, users may change their minds and wish to search for something entirely different.

While it's helpful to be able to remove filters one by one, it can be quite laborious and time-intensive to go through and remove each applied filter individually. Providing a feature that allows users to clear all filters with a single click can be a significant time-saver and convenience, especially for those shopping on mobile devices.

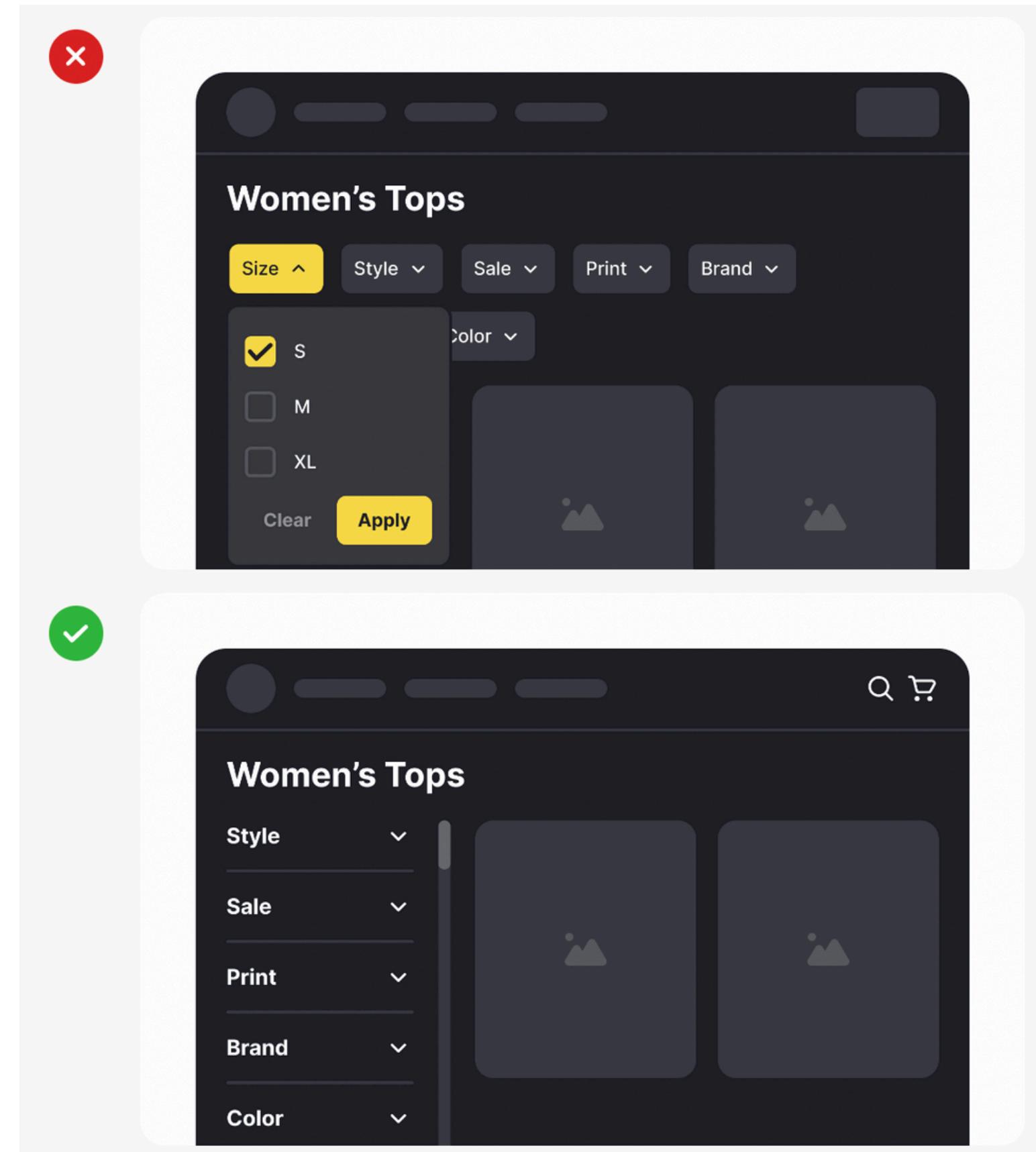


Vertical filter panel:

Vertical filter panels are a classic and widely recognized filtering tool. Unlike their horizontal counterparts, vertical panels have the advantage of accommodating large numbers of filter groups, making them particularly suitable for desktop devices.

However, it's worth noting that vertical filter panels tend to consume a significant amount of horizontal space. [Research](#) from the Baymard Institute indicates that users often overlook them entirely.[4]

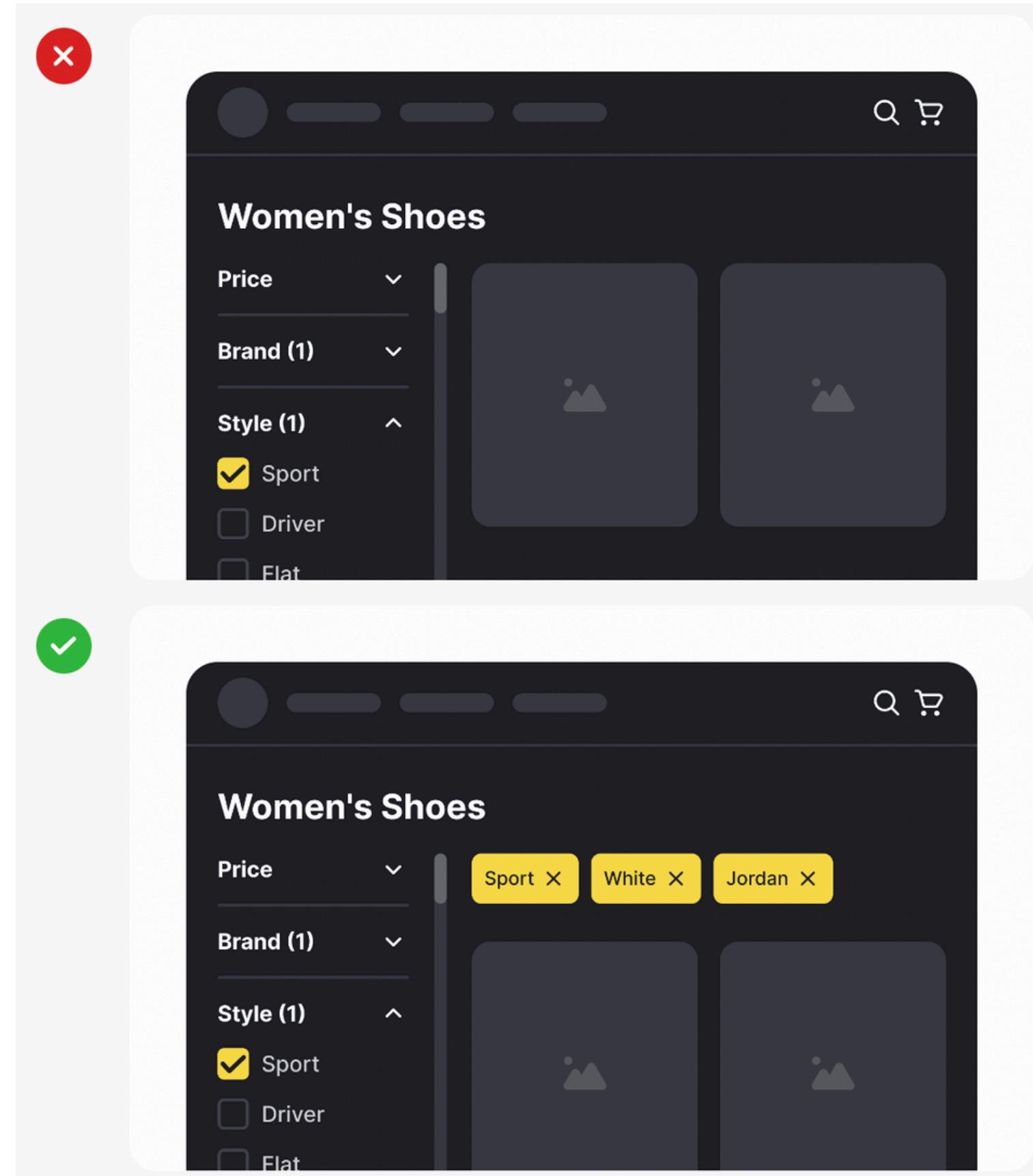
Therefore, the choice of filter panel type should be based on your specific requirements, the space available, and the quantity of filter options you're dealing with.



Display applied filters in an overview:

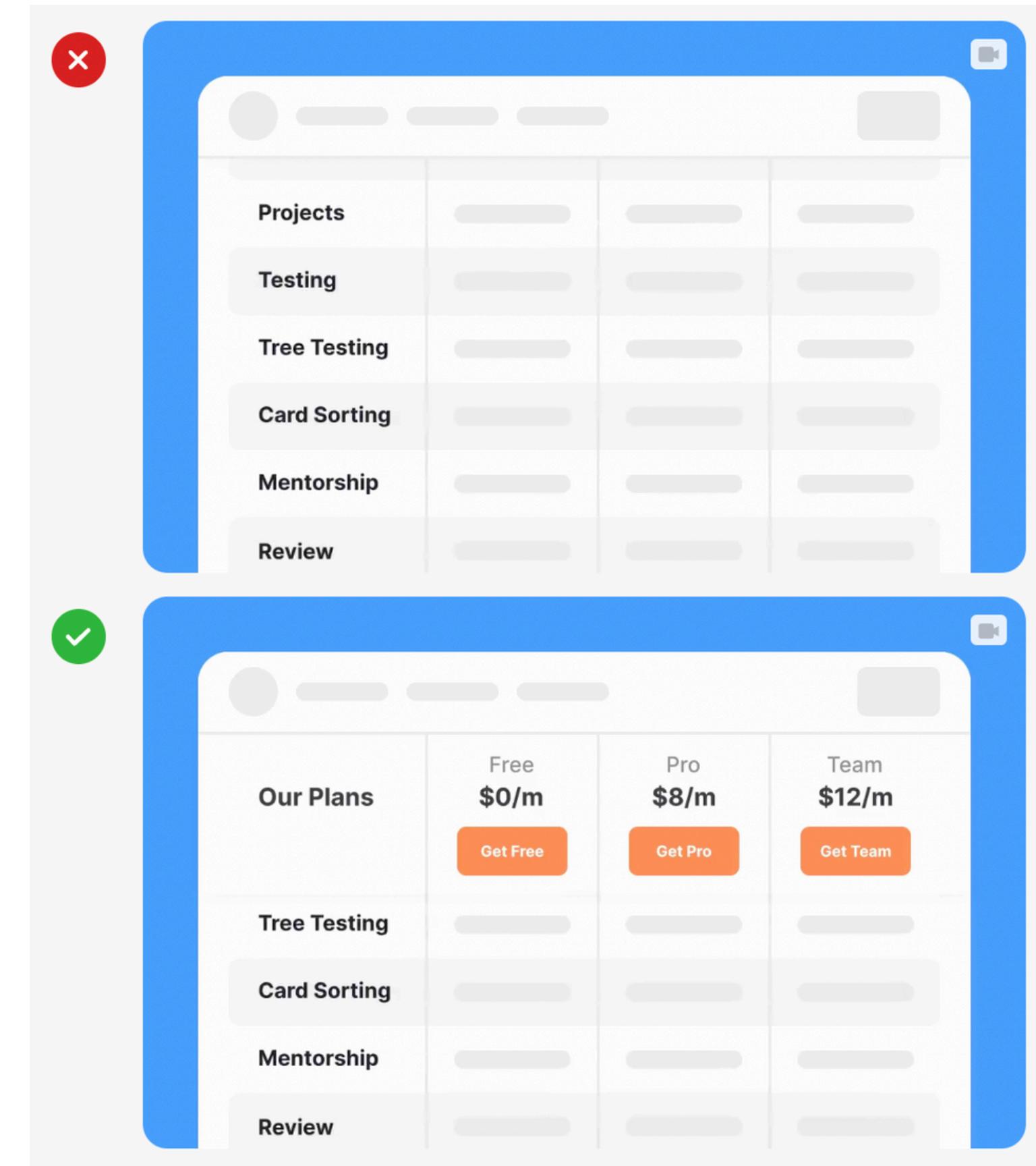
Research tells us that websites should display applied filters twice — by adding a checkmark in the selected option's checkbox and by providing an overview.^[5]

Utilize tags to present applied filters in a clear overview. They summarize the chosen criteria, offering users a quick reference for their selections. This enhances user awareness of their active filters and facilitates easy removal or adjustment, streamlining the browsing experience.



Use sticky headers for pricing tiers:

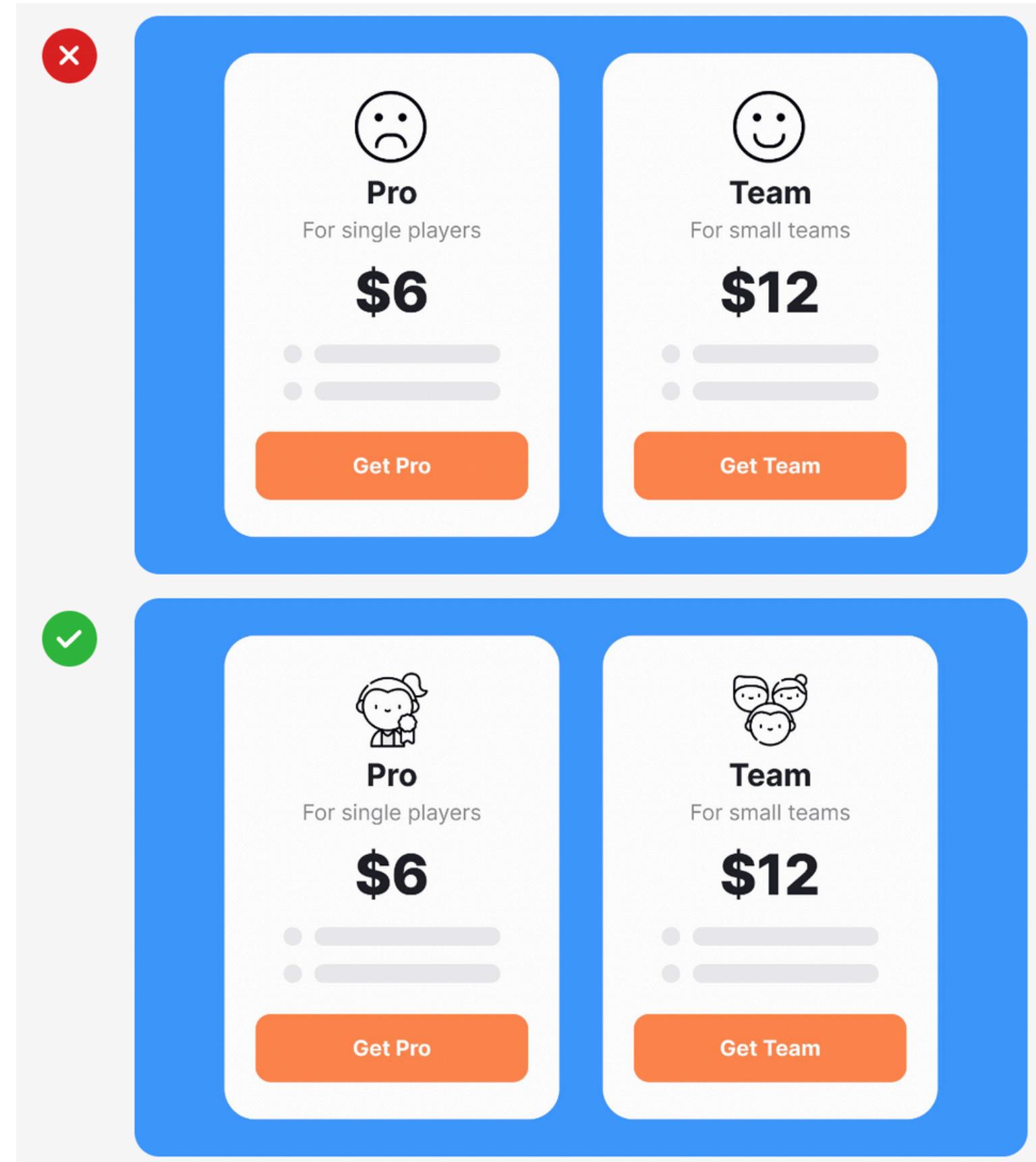
If your pricing page contains extensive information that requires vertical scrolling, it's wise to duplicate primary action buttons, such as "Upgrade Plan" or "Get Premium," both at the top and bottom of the page. This ensures a seamless user experience, allowing them to take action without having to navigate back and forth within the page



Illustrate the difference:

Graphics in pricing tables are not only for visual appeal but also for communicating each plan's message and its features. A picture is worth a thousand words, and users should understand the value and difference between plans at a glance with the help of images or illustrations.

Moreover, incorporating elements of playfulness, such as interactive buttons, drag-and-drop features, sliders, and other engaging elements, encourages users to spend more time on the pricing page.

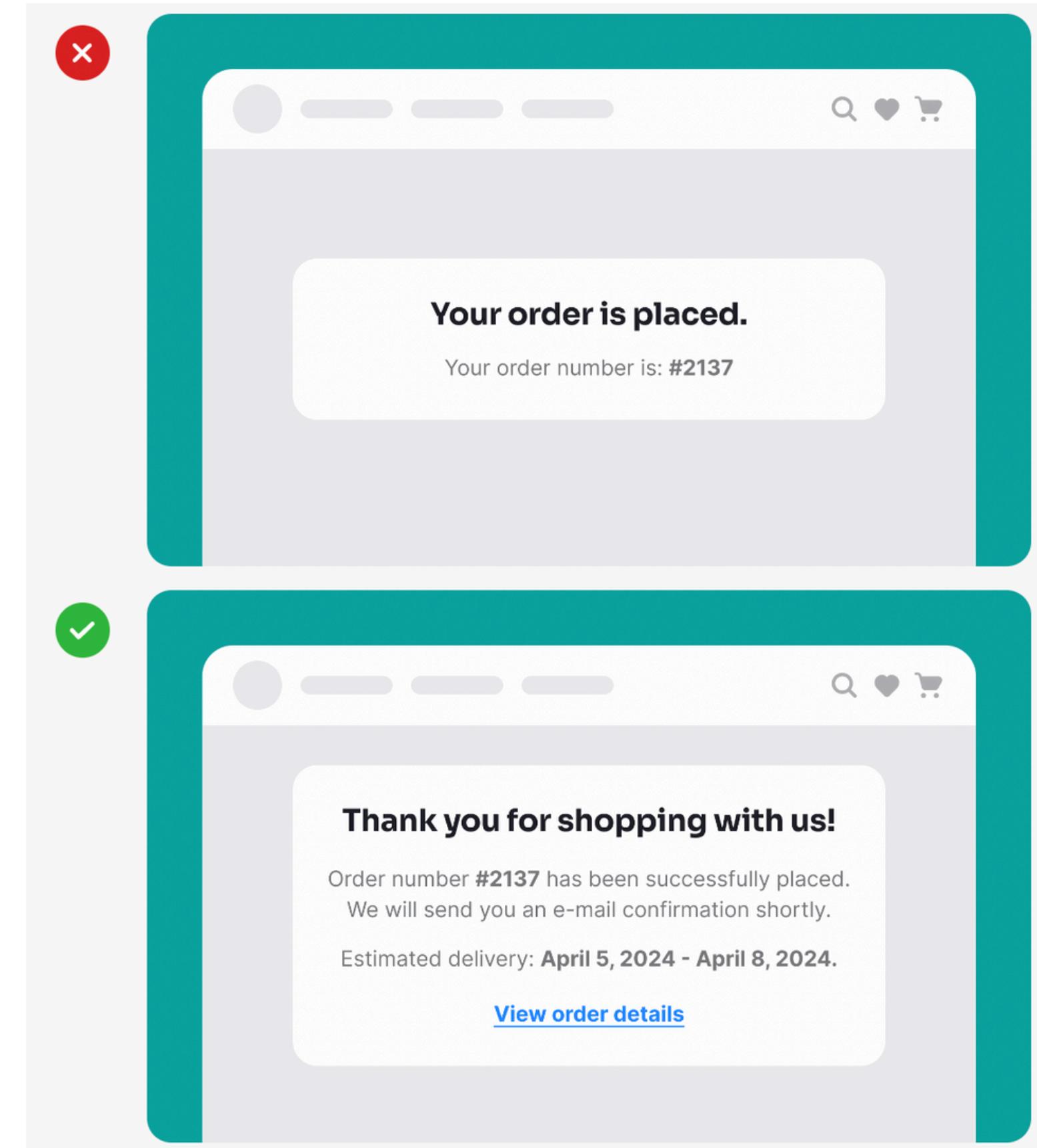


Provide order confirmation after payment:

Don't leave your users hanging after they've placed their order and made the payment. Let them know you've received it and are processing it with a confirmation screen.

Don't forget to send out a detailed confirmation email that covers the:

- Order summary
- Final price and cost breakdown
- Estimated date of delivery
- Order tracking details (if applicable)
- Customer support details
- Registration option for guest checkouts

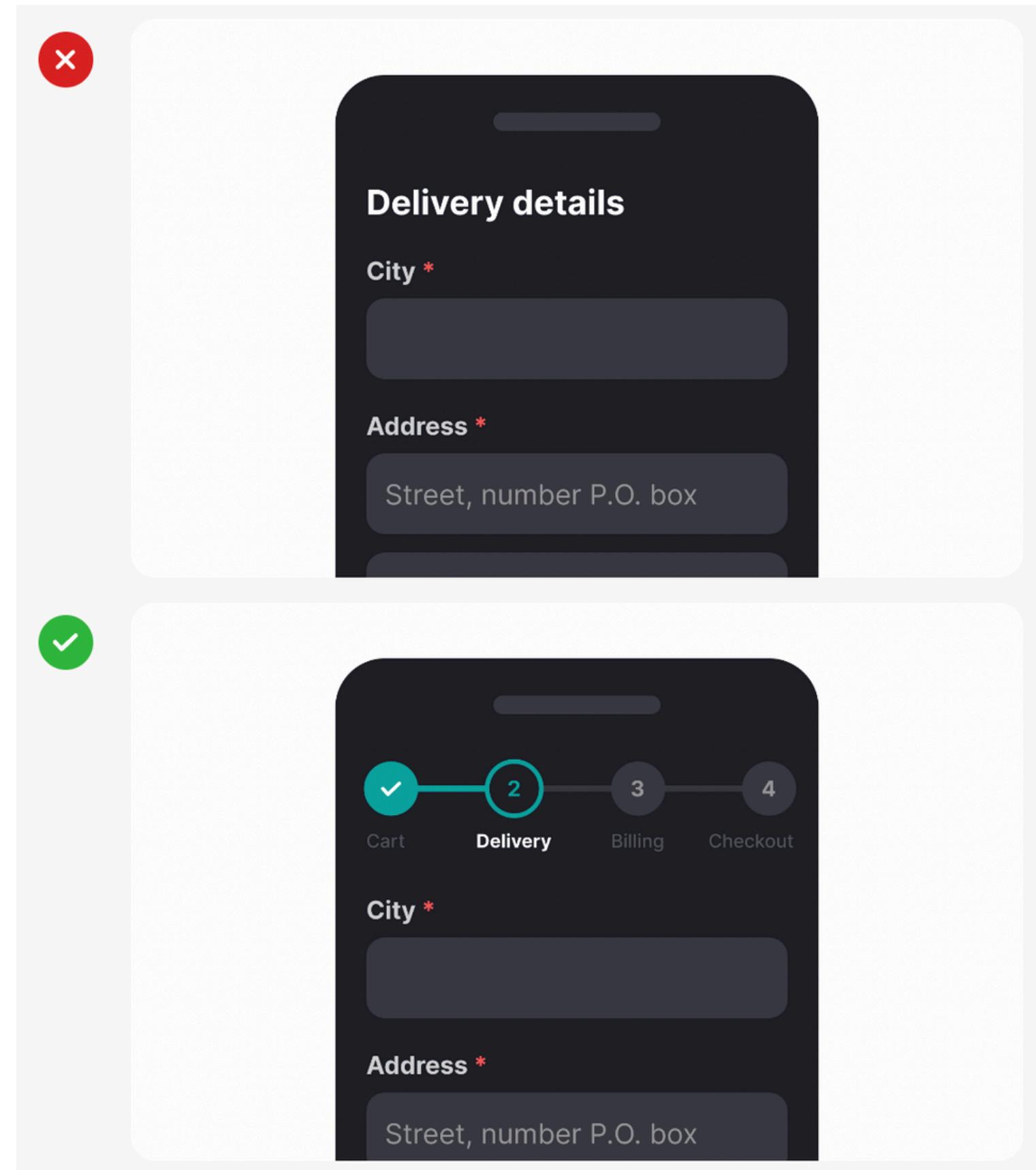


Display a progress tracker:

It doesn't matter if your process spans one page or multiple pages, when more than a few steps are involved, give users an outline of what to expect using a progress tracker. This will let them know how far they've come and how many steps are left before the purchase is completed.

Moreover, breaking down forms into multiple steps or pages makes them more digestible and reduces the cognitive load required to fill them out.

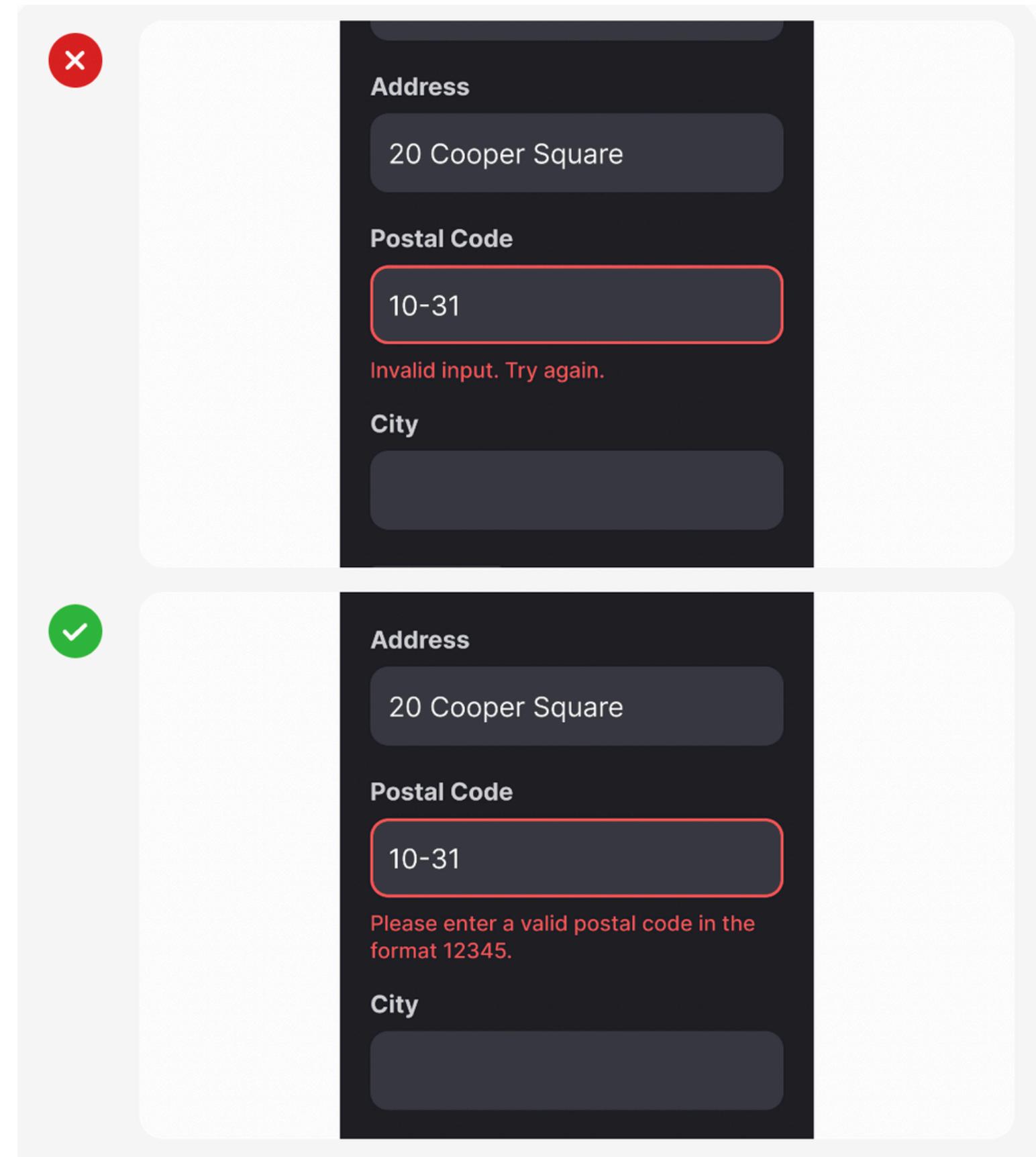
Another single-page alternative to progress trackers is fitting all the steps of the checkout process under an accordion menu on one page. As users complete each step, they'll scroll down and move on to the next one while knowing exactly how many steps are left.



Write clear error messages:

Errors are inevitable in any product — what really matters is how helpful you are towards guiding your users out of these error states. According to the Nielsen Norman Group, the principles that go into a good error message are pretty straightforward — keep the language explicit, concise, polite, precise, constructive, and human.[1].

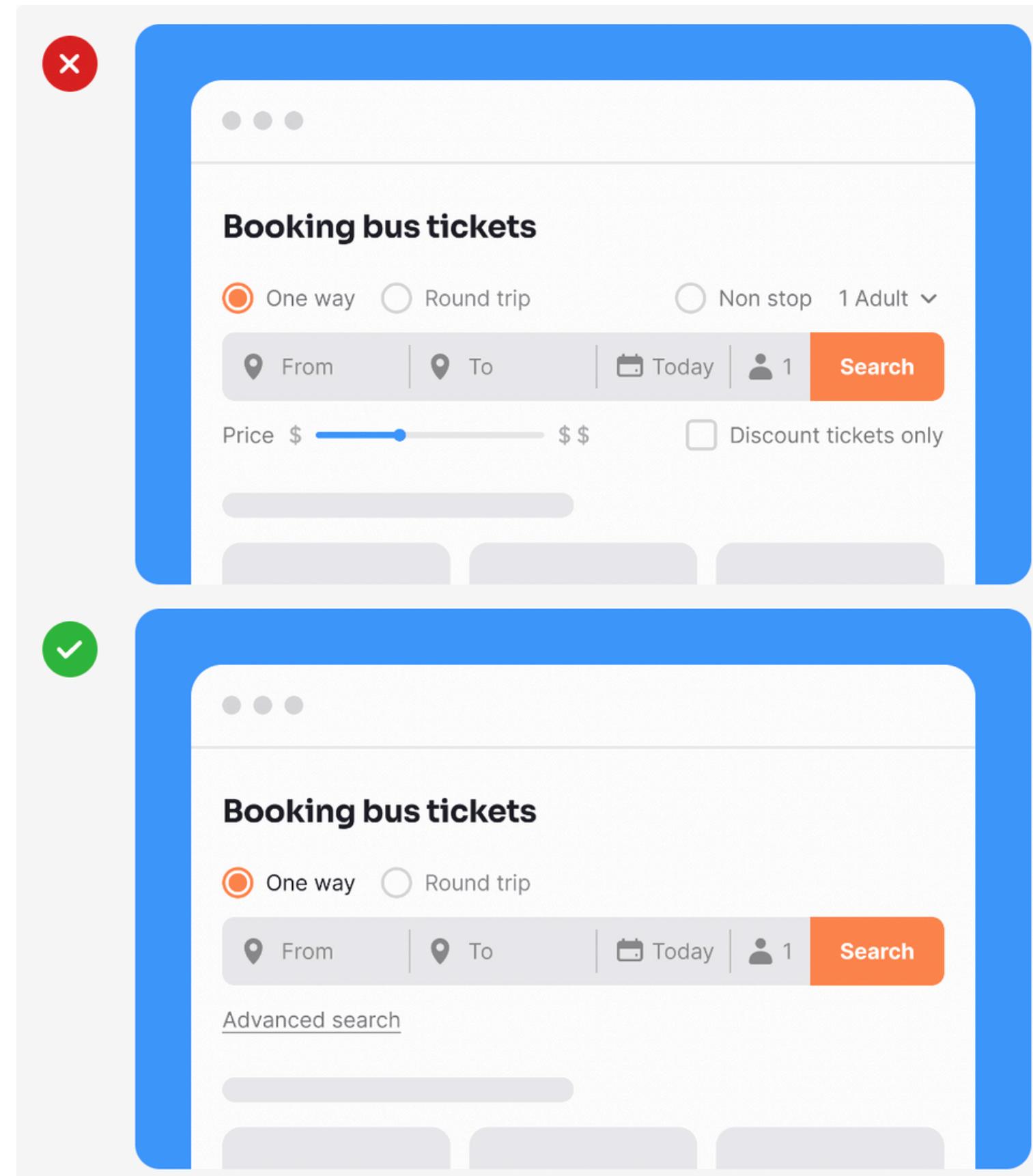
Errors can also occur on the part of users — for example, a mistyped postal code or a non-existent email address. In this case, avoid blaming users for their mistakes and let them know what went wrong and how to fix it. Better yet, make your microcopy on form labels, placeholder text, and CTAs unmistakably clear, in turn cutting down the chances of errors happening.



Keep the search process simple:

"Keep it simple" should be every designer's motto. Good booking sites entice users to start their search by presenting just the essential elements. This design strategy is known as "progressive disclosure," where the page initially showcases the most basic and commonly used features or options. More advanced and complex options are revealed only when users request them.

Progressive disclosure not only maintains simplicity but also ensures that novice users are not overwhelmed. Furthermore, employing a minimalist search bar not only conserves screen space but also improves the overall scannability of the interface.



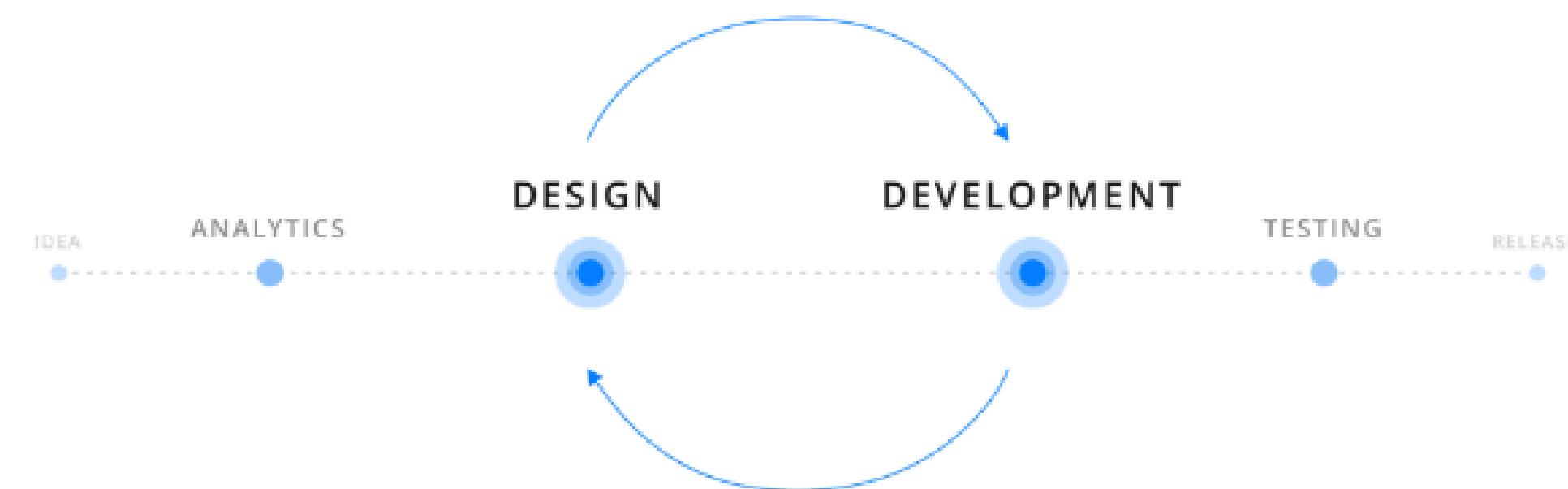


Design Development Hand-off Process

What is design hand-off ?

The design handoff is a point in the product development process where developers implement the finished design.

It is the process the UI designer does when the design is finished and ready for development.



What does UI designer deliver?

Responsibilities:

- Style Guides and design systems.
- Assets and specs.
- Flow.
- Prototype.
- Animations.



Color Palette

You should deliver all colors you use
in the design and define them for the developer.

Primary Blue



0C3861

Secondary Blue



15276D

Red



EF3B3B

Orange



F5A623

Black



101011

Dark Grey



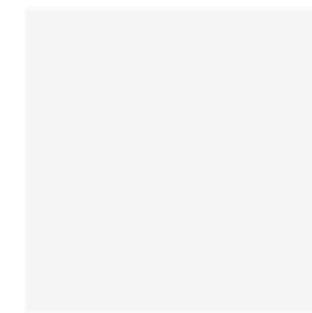
464648

Medium Grey



7B7B80

Light Grey



F9F9F9

White



FFFFFF

Typography & Fonts

You should define font family and all font sizes that you use in the design.

Display Modal Titles	light	42pt
Header Page titles	bold	34pt
Title 1 Tabs, titles, forms	medium	28pt
Title 2 Buttons, tabs, titles, forms	medium	22pt
Headline Info paragraphs	regular	20pt
Body Station descriptions	regular	14pt/13pt
Caption Time stamps, footers	regular	12pt

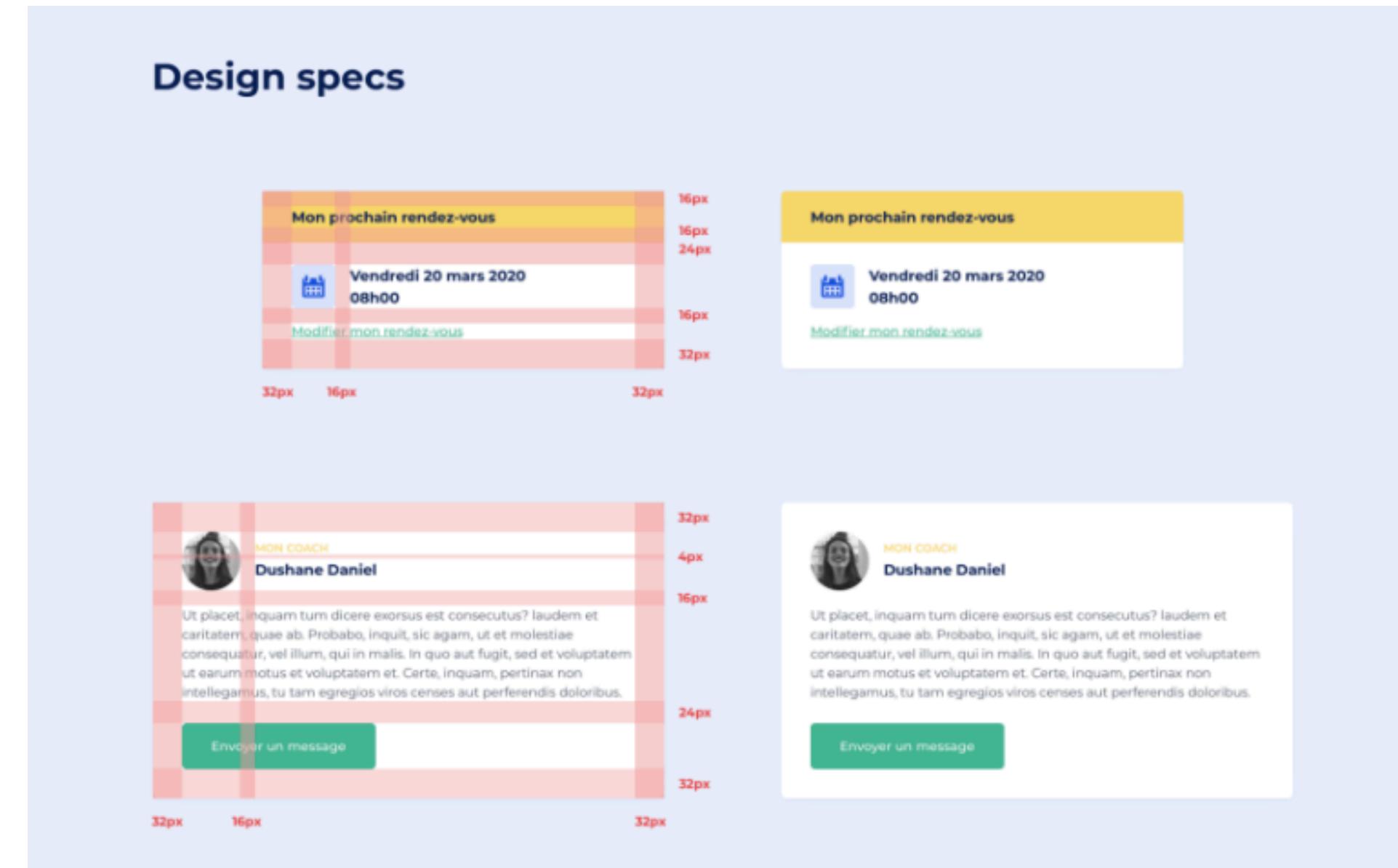
Icons

You should provide the icons you use in the design and these should have same styles and sizes.



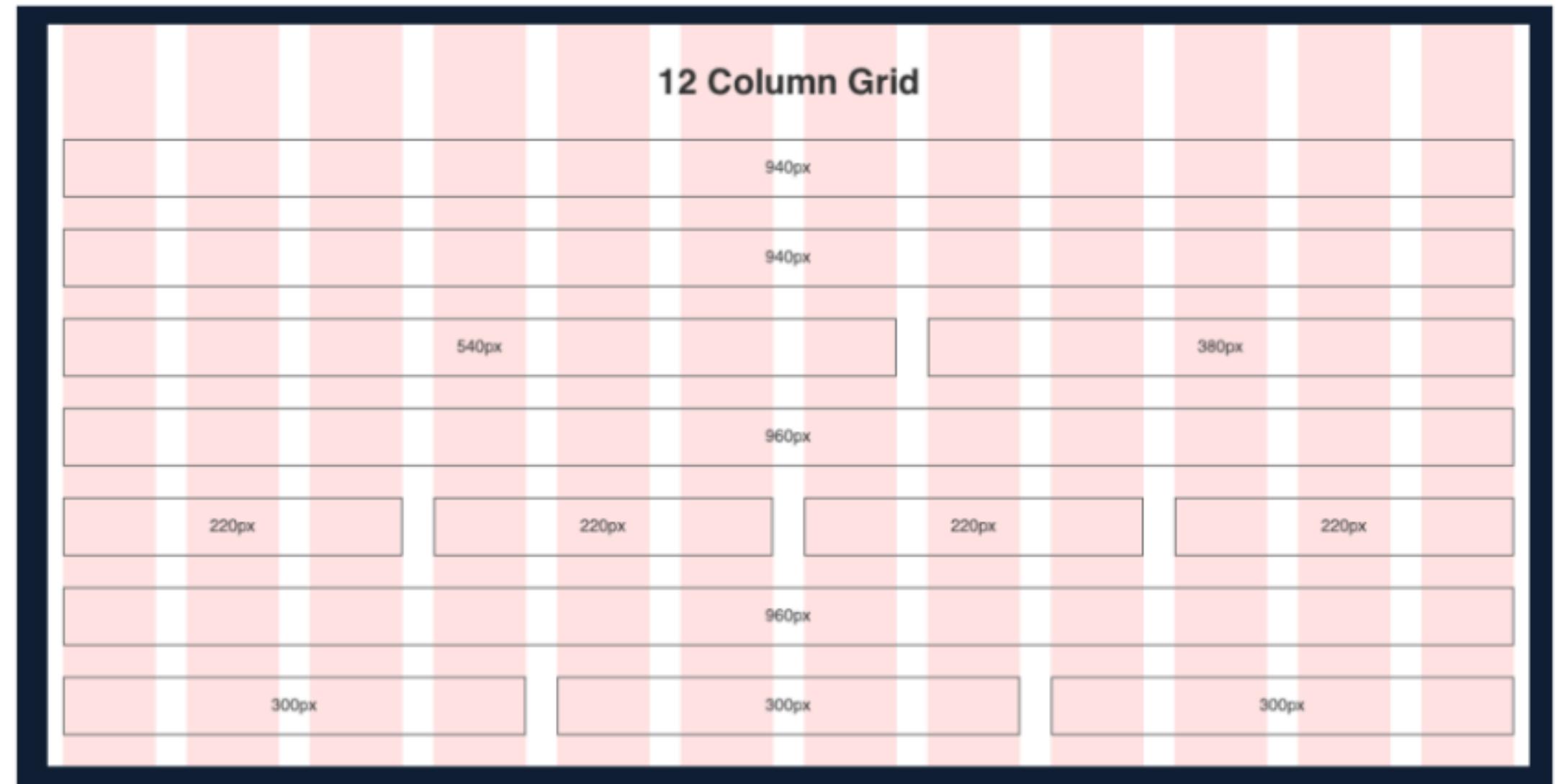
Design Specs

You should provide the specs you use in the design.



Guideline & Grid system

You should know the grid system and web guideline.
(Bootstrap 12 Column Grid)



States

You should provide the states of the design like buttons, input fields, etc...

Primary Buttons

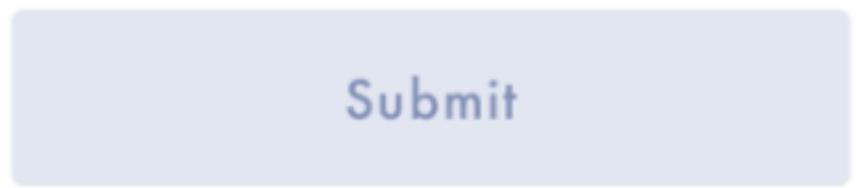
Active



Tapped

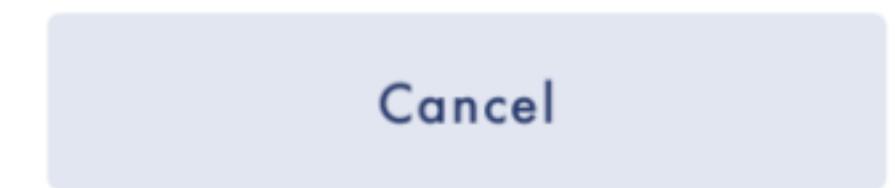


Inactive



Secondary Buttons

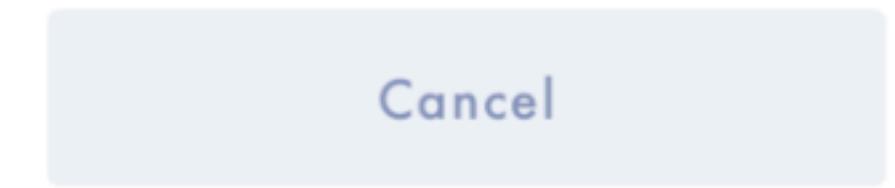
Active



Tapped

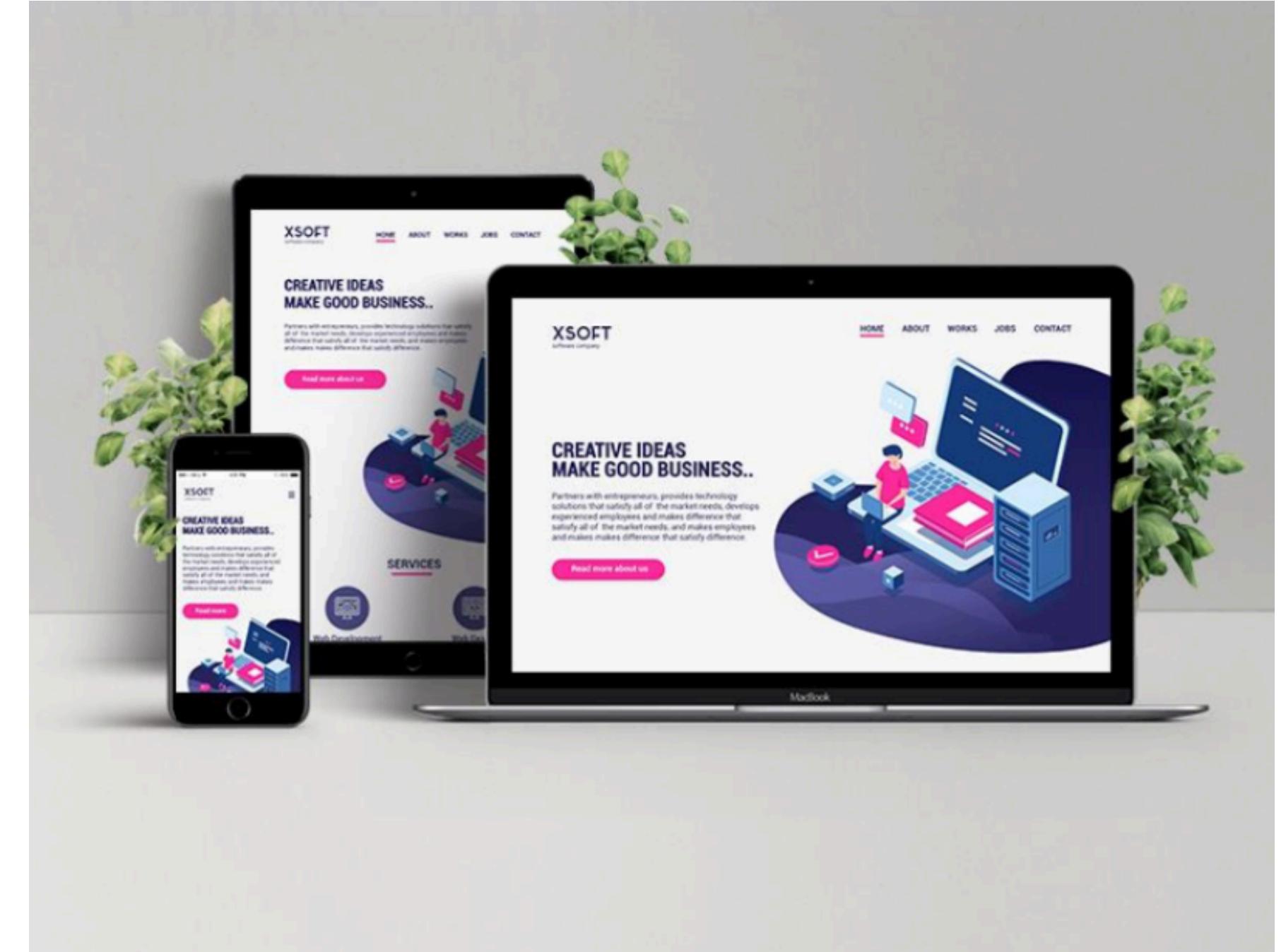


Inactive



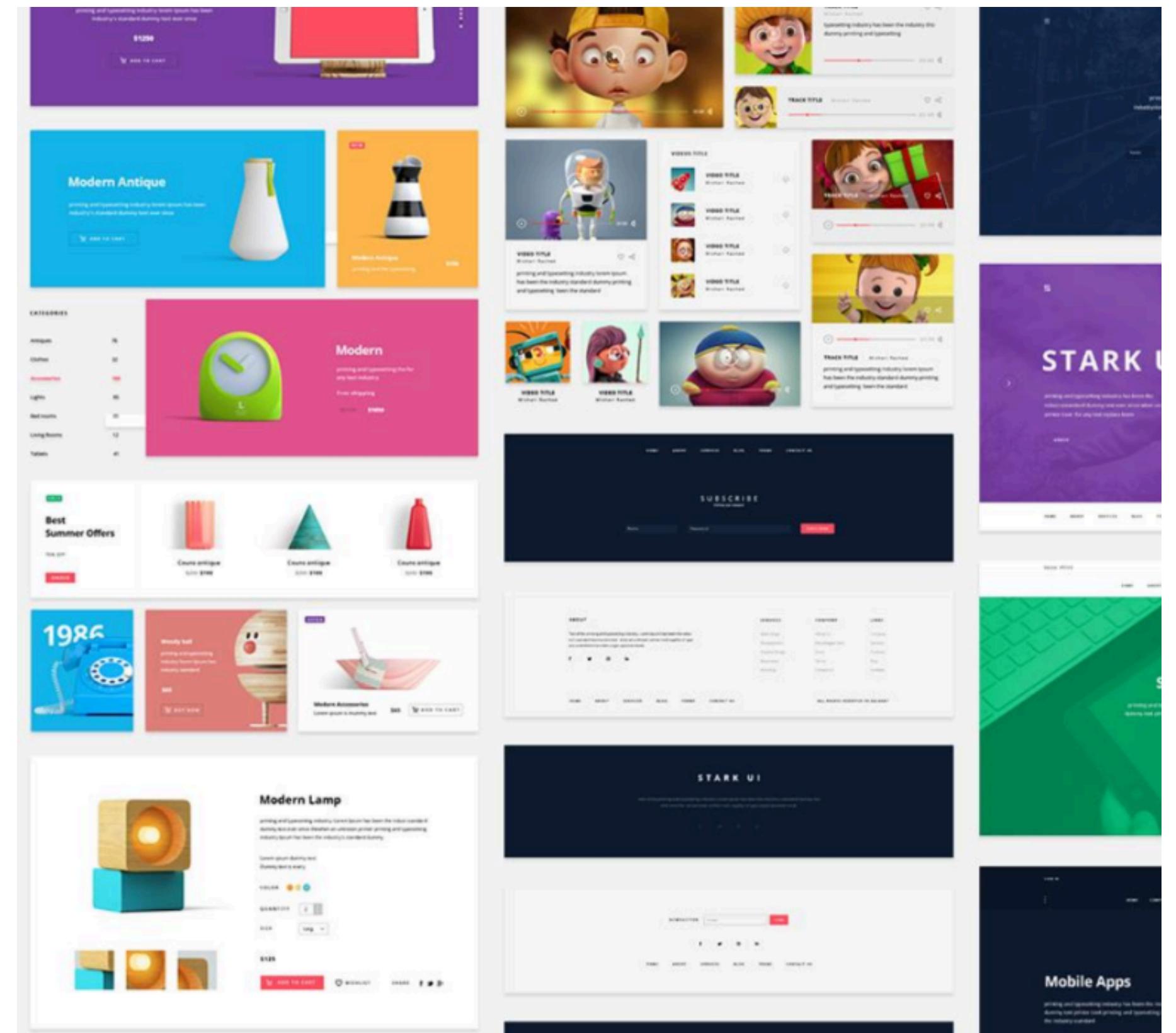
Responsive Design

You should provide responsive design for web design and make the interface of mobile and table view.



Design Assets

You should provide the design assets you use in the design like photos, backgrounds & graphic elements.



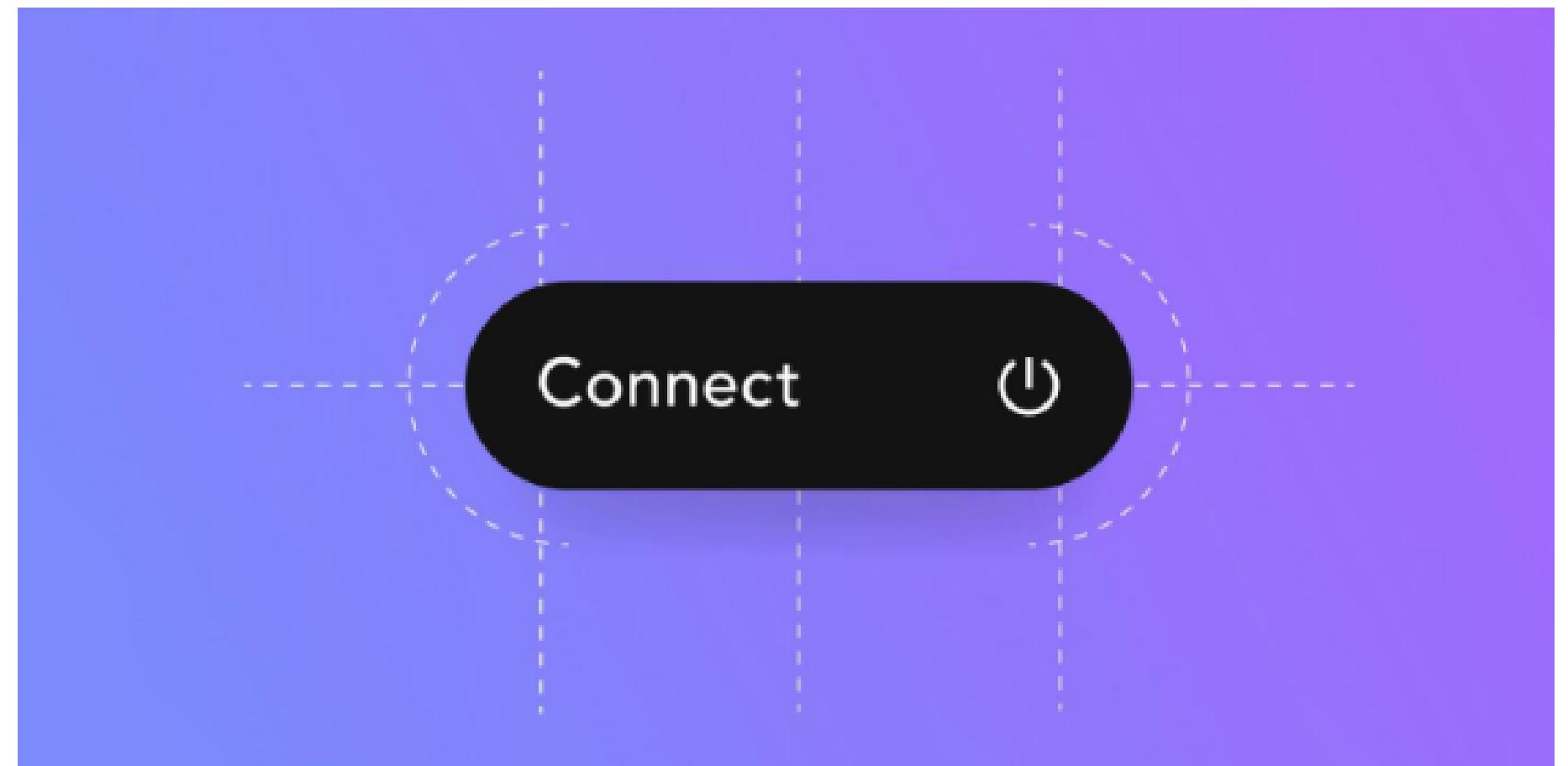
Prototype

Deliver design prototypes for developer make him understand the flow of the application.

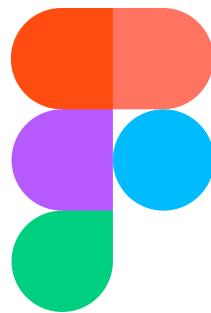


Animation designs

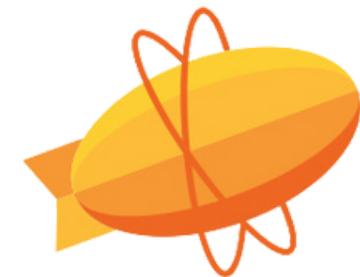
You should provide the animations you use in the design to help the developer to understand the interaction designs and animations in the applications.



Best Design Hand-off Tools



Figma



Zeplin



Adobe XD

References

- What Is Empathy in Design Thinking? A Comprehensive Guide
- What Are User Flows in UX Design? +Benefits, Types (2022)
- User personas: What are they and why they matter in UX design
- 16 little UI design rules that make a big impact
- Bad UX: 20 Common Mistakes in User Experience
- How to Hand-off Design like a Pro
- Handoff your designs to Engineering
- User Interface Design Guidelines: 10 Rules of Thumb
- 4 UI Design Tips Every Designer Needs to Know

Tools

- [Figma](#)
- [Zeplin](#)
- [Miro Board](#)
- [Notion](#)
- [Invision](#)

Website

- [Behance](#)
- [UXPin](#)
- [Medium.com](#)
- [UX Collective](#)
- [Landfolio](#)
- [Mobbin](#)
- [Refero](#)
- [Godly](#)

Thank You For Watching!

Fayoum Track (Day2)
Eng : Yussef Karam

