

Design Guidelines

Learning Objectives

Explore design guidelines



A screenshot of a mobile application interface for a "Morning Yoga Workout". The top half shows a woman in profile, facing right, with her hands clasped in front of her chest in a prayer-like pose against a blurred background of water. Below this is the title "Morning Yoga Workout" in blue, followed by "WITH BROOKLYN SIMS". A rating of "5.0 (23 reviews)" is displayed next to five yellow stars. Below the rating are four buttons: "Inhale Good Vibes" (highlighted in blue), "20 mins", "Beginner", "Ambient", and "None". A descriptive paragraph follows: "Escape the stresses of quotidian existence with this harmonious fusion of contemplative pranayama techniques and corporeal postures. You will feel rejuvenated and ready to take on the day." Another paragraph states: "The session commences with a succinct centering exercise, fostering a seamless detachment from external distractions and inviting full immersion into the present moment." At the bottom, a note reads: "You shall cultivate an unwavering focus on your breath, laying the foundation for the ensuing practice."

A screenshot of a mobile application interface for a "Morning yoga workout". The top half shows a woman in profile, facing right, with her hands clasped in front of her chest in a prayer-like pose against a blurred background of water. Below this is the title "Morning yoga workout" in bold black, followed by "With Brooklyn Sims". A rating of "5.0 (23 reviews)" is displayed next to five yellow stars. Below the rating are four buttons: "20 mins", "Beginner", "Ambient", and "None". A descriptive paragraph follows: "Escape the stresses of everyday life with this balanced blend of mindful breathing techniques and physical postures. You'll feel refreshed and ready to take on the day." At the bottom is a large blue button with the white text "Start workout".

Which design is better (the one on the right or the one on the left)? why?

Design Guidelines

Ensure an interface is accessible

Make sure that your designs meet Web Content Accessibility Guidelines (WCAG)

Aim to at least meet WCAG 2.1 level AA requirements



Design Guidelines

Ensure an interface is accessible

Many of the guidelines for creating an accessible interface for people with disabilities also helps create a more user-friendly interface for everyone else

Things like ensuring sufficient contrast, minimising interaction cost, and minimising cognitive load, are all essential for good usability

good accessibility = great usability



Mountain retreat

SNOWY PEAKS, NSW, AUSTRALIA

★★★★★ 5.0 (23 reviews)

House 2 1 1

Experience the wonders of nature as you hike through the snow-capped mountains and fish in the nearby river. This newly built cabin sits high in the mountains, offering breathtaking views that stretch as far as the eye can see.

With the capacity to comfortably sleep four people, this cozy retreat provides an intimate escape into the heart of the wilderness. The cabin's interior boasts a warm and inviting

[Book now](#) \$299.00 / night



Mountain retreat

Snowy Peaks, NSW, Australia

★★★★★ 5.0 (23 reviews)

House 2 beds 1 bath 1 garage

Experience the wonders of nature as you hike through the snow-capped mountains and fish in the nearby river. This newly built cabin is sits high in the mountains, offering breathtaking views that stretch as far as the eye can see.

With the capacity to comfortably sleep four people, this cozy retreat provides an intimate escape into the heart of the wilderness. The cabin's interior boasts a warm and inviting

[Book now](#) \$299.00 / night

Identify the usability issues in the UI on the left that are resolved in the UI on the right

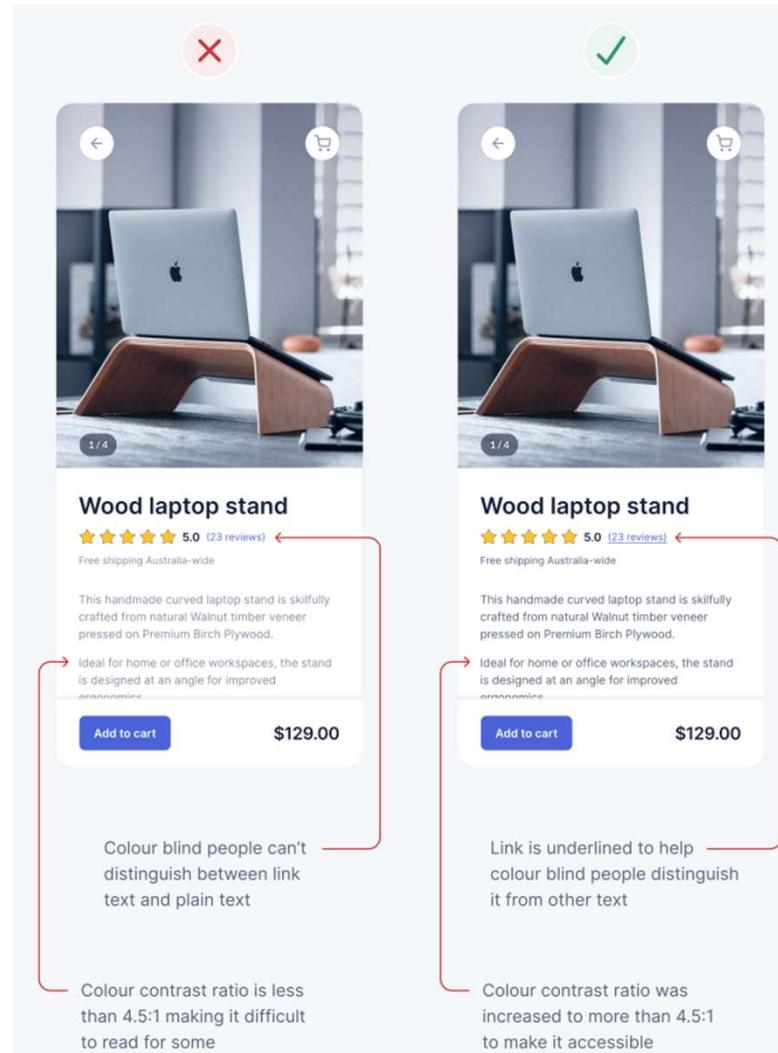
Low contrast form field versus high contrast form field

The image displays two side-by-side form fields for entering a first name. Both fields are labeled "First name".

- Left Field:** This field is marked as incorrect. It features a red circular icon containing a white "X" to the left of the label. The input box is a light gray rectangle with a thin black border. The overall contrast between the label, icon, and input box is low.
- Right Field:** This field is marked as correct. It features a green circular icon containing a white checkmark to the left of the label. The input box is a white rectangle with a thick black border, providing high contrast. The overall design is clean and modern.



Why the UI marked ✓ on the right side is better with respect to accessibility?



Design Guidelines

Have a logical reason for every design detail

It's important to have a rationale (logical reason) behind each design decision you make and to be able to clearly articulate it to support your designs



Example Logical Design Reasons



Website builder

With access to over 100 beautifully designed website templates, your site will be up and running in no time.

[Explore templates](#)



Email marketing

Launch professionally branded email campaigns in minutes and monitor engagement with powerful analytics.

[Email marketing features](#)



Affiliate program

Empower your business by creating your own affiliate program and turning your customers into a sales team.

[How affiliates work](#)

Example Logical Design Reasons

Icons and text are left aligned to improve readability and aesthetics while decreasing cognitive load



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[How affiliates work](#)

Example Logical Design Reasons

Headings and text links are descriptive, making them scannable and understandable out of context for screen readers



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Example Logical Design Reasons

Secondary text is less important than headings, so it's made less prominent (using size and contrast) to create a clear visual hierarchy



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[How affiliates work](#)

Example Logical Design Reasons

Secondary text line height is at least 1.5 to improve readability



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[How affiliates work](#)

Example Logical Design Reasons

Text links are coloured blue to indicate they're interactive and underlined so the color blind can distinguish them from other text



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[How affiliates work](#)

Example Logical Design Reasons

Spacing inside each block is less than the spacing between each block to create groups of related information



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Email marketing

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[Email marketing features](#)



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[How affiliates work](#)

Example Logical Design Reasons

Information is broken up into smaller groups to make it easier to understand and to help speed up decision making



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[Explore templates](#)



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[How affiliates work](#)

Design Guidelines

Minimise interaction cost

Interaction cost is the sum of physical and mental effort required to achieve a task

Looking, scrolling, searching, reading, clicking, waiting, typing, thinking, and remembering all add to interaction cost

The higher the interaction cost, the harder it is for someone to achieve their task

How to minimise interaction cost

Keep related actions close

According to Fitts's Law, the closer and larger a target, the faster it is to click on that target

Keep actions close to the element they relate to and try to ensure they have a sufficient target area (at least 48pt by 48pt is a safe size)



How to minimise interaction cost

Reduce distractions

Attention grabbing distractions like animated banners, pop-ups, and unnecessary visuals, can pull people's attention away from the task they're trying to complete



How to minimise interaction cost

Minimise choice

According to Hick's Law, the time it takes to make a decision increases with the number and complexity of choices

Reduce choices to speed up decisions

Highlight a smaller set of recommended or popular items to help people make decisions faster

Example

Removing unnecessary form fields can make forms faster and easier to complete


Design tips emailed to you weekly
Subscribe to join 6,899 designers getting practical design tips each week.
Required fields are marked with an asterisk *

First name *

Company name *

Email *


Design tips emailed to you weekly
Subscribe to join 6,899 designers getting practical design tips each week.

Email

Example

High interaction cost

The screenshot shows a product page for a white mug on a website called homeshop.com. At the top, there's a navigation bar with a home icon, the site name "homeshop", and links for "Shop", "Blog", and "Contact". On the right, there's a "Cart" icon. Below the navigation, there's a large image of a white mug. To the left of the image is a red circular button with a white "X" inside. To the right of the image, the product details are listed: "White mug", "\$12 USD", and a 5.0 star rating from 38 reviews. A descriptive text follows: "This white porcelain mug is the perfect companion for lazy afternoons reading your favourite book. It's also microwave and dishwasher safe." At the bottom, there's a "Quantity" selector set to "1" with a dropdown arrow, followed by an "Add to cart" button. A red dashed arrow points from the "Add to cart" button to the text "1 click", and another red dashed arrow points from the "Quantity" selector to the text "2 clicks + 1 scroll".

homeshop

Shop Blog Contact

Cart

White mug

\$12 USD

★★★★★ 5.0 (38 reviews)

This white porcelain mug is the perfect companion for lazy afternoons reading your favourite book. It's also microwave and dishwasher safe.

Quantity

1

2 clicks + 1 scroll

Add to cart

1 click

Example

Reduced interaction cost

The screenshot shows a product page for a white mug on the homeshop website. At the top left is the logo, followed by navigation links for Shop, Blog, and Contact, and a Cart icon. A green circular overlay with a checkmark is positioned on the left side of the image. The main content area features a large image of a white mug. To its right, the product title "White mug" is displayed in bold, followed by the price "\$12 USD" and a rating of "5.0 (38 reviews)". Below this, a descriptive text states: "This white porcelain mug is the perfect companion for lazy afternoons reading your favourite book. It's also microwave and dishwasher safe." At the bottom, there is a quantity selector with a minus button, a value of "1", and a plus button circled in red with the text "1 click" above it. An arrow points from this circle down to the "Add to cart" button, which is highlighted with a blue border and the text "1 click" to its right.

Design Guidelines

Minimise cognitive load

Cognitive load is the amount of brain power required to use an interface

Minimise cognitive load to make your interface as easy to use as possible

How to reduce unnecessary cognitive load

Remove unnecessary styles, information, and decisions to reduce distractions

Break up information into smaller groups to clearly show relationships and speed up decision making

Use conventional design patterns that people are familiar with

Maintain consistency by ensuring that similar elements look and work in a similar way

Create a clear visual hierarchy to show the level of importance of information

Example

Why the UI marked ✓ on the right side is better with respect to cognitive load?

The image shows two side-by-side screenshots of a survey application. The left screenshot represents Step 1, which has a red 'X' icon at the top right. It contains a title 'Survey' and a note 'Required fields are marked with an asterisk *'. Below this is a question 'How often do you use our app? *' with three radio button options: 'Daily', 'Weekly', and 'Monthly'. The right screenshot represents Step 2 of 4, indicated by a green checkmark icon at the top right. It shows 'Step 2 of 4' and a back arrow. The question 'Which of our product features did you find most useful? *' is followed by a list of six checkbox options: 'Trend monitoring', 'Custom reports', 'User segmentation', 'Live dashboard', 'Website builder', and 'Email marketing'. A large blue 'Continue' button is at the bottom. Both screenshots have a light gray background.

Survey
Required fields are marked with an asterisk *

How often do you use our app? *

Daily
 Weekly
 Monthly

Which of our product features did you find most useful? *

Trend monitoring
 Custom reports
 User segmentation
 Live dashboard
 Website builder
 Email marketing

Would you recommend our app? *

Yes
 No
 Maybe

What would you like to see improved? *

Submit survey

Step 2 of 4

< Back

SURVEY

Which of our product features did you find most useful?

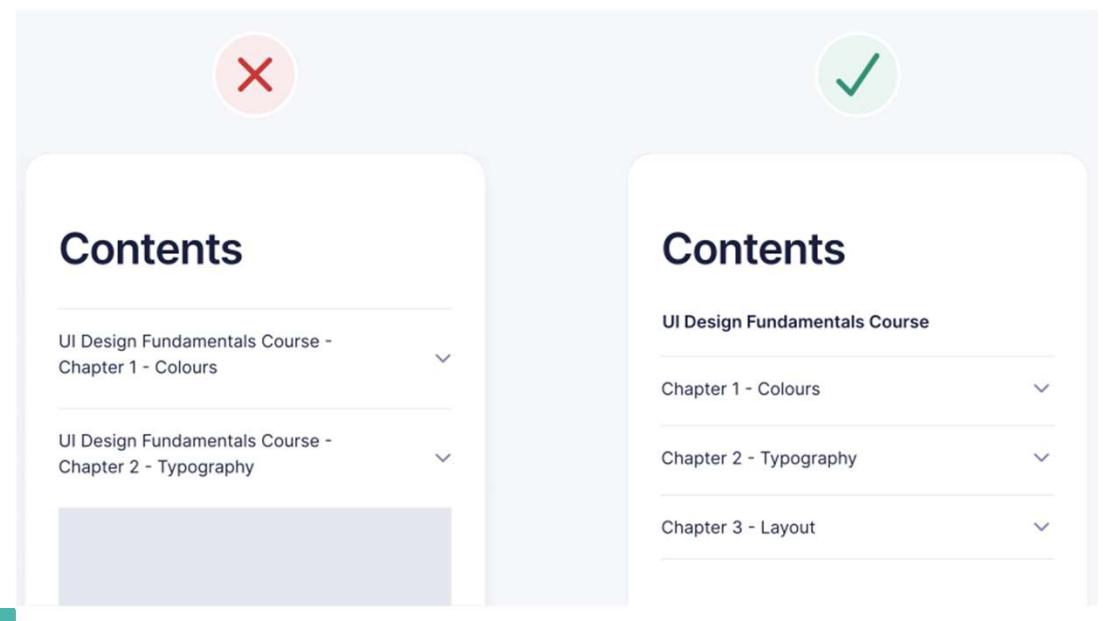
Trend monitoring
 Custom reports
 User segmentation
 Live dashboard
 Website builder
 Email marketing

Continue

Example

Why the UI marked ✓ on the right side is better with respect to cognitive load?

Reveal less important information gradually (progressive disclosure)

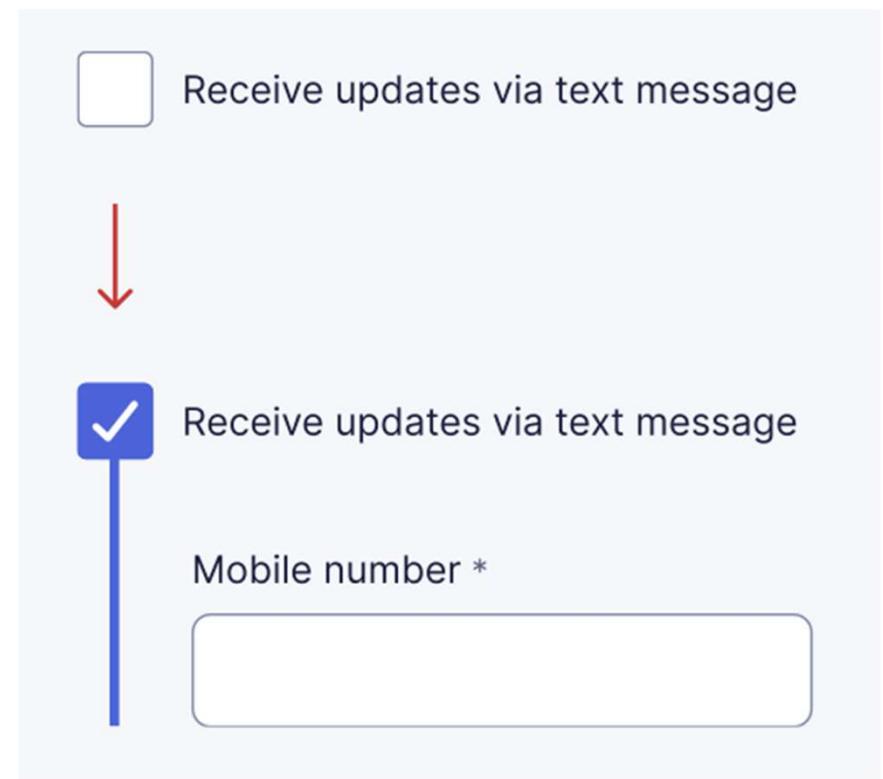


Example

Why the UI marked ✓ on the right side is better with respect to cognitive load?

Using progressive disclosure

The mobile number field is displayed on click of the checkbox



Example

Why the UI marked ✓ on the right side is better with respect to cognitive load?

Using progressive disclosure

The image shows two side-by-side UI prototypes. Both prototypes feature a large red 'X' icon at the top left and a small 'X' icon at the top right.

Left Prototype (Incorrect): This version has a blue circular icon with a white checkmark inside it located on the left side of the main content area. The main content includes:

- Section Header:** **Strengthen your brand with a custom domain**
- Description:** Look professional and help your customers find you online by adding a custom domain.
- Section Header:** **Benefits of a custom domain**
- Description:** Unlock the full potential of your online presence with the numerous benefits a custom domain brings to your digital identity. A custom domain not only enhances your brand's professionalism but also fosters trust among your audience.
- List:** A bulleted list with three items:
 - ✓ Boost search engine visibility
 - ✓ Improve credibility and build trust
 - ✓ Strengthen your brand
- Description:** Secure your custom domain today and take the first step towards a stronger online presence.
- Call-to-action:** A blue button labeled "Add domain".

Right Prototype (Correct): This version has a blue circular icon with a white checkmark inside it located on the right side of the main content area. The main content is identical to the left prototype.

Differences: The primary difference is the placement of the checkmark icon. In the left prototype, it is positioned on the left side of the content area, which is considered less effective for cognitive load. In the right prototype, it is positioned on the right side, which is considered more effective.

Example

Reduce the number and complexity of choices people need to make by grouping or categorising the options

The image shows two side-by-side mobile application screens for an "Articles" section.

Left Screen (Incorrect): A red "X" icon is at the top right. It displays a list of five articles with no category filtering:

- Contemporary apartment design tips (by John Smith)
- Our top 10 favourite chairs this year (by Taylor Samson)
- Interior decor styling tips (by Tamara Hodgekiss)
- Lush linens to warm up your bed room (by Tamara Hodgekiss)

Right Screen (Correct): A green checkmark icon is at the top right. It shows the same articles, but they are categorized under "Interiors". The "Interiors" tab is highlighted in blue, while "Architecture" and "Gardens" are in grey:

- Contemporary apartment design tips (by John Smith)
- Our top 10 favourite chairs this year (by Taylor Samson)
- Interior decor styling tips (by Tamara Hodgekiss)
- Lush linens to warm up your bed room (by Tamara Hodgekiss)

Example

To make large, complex tasks seem less overwhelming, break them up into multiple smaller steps

The screenshot shows the homepage of the GoTech website. At the top, there is a navigation bar with the logo, a search bar labeled "Features ^", "Pricing", "Contact", "Log in", and a "Get started" button. Below the navigation bar, there are two main sections: "ANALYTICS" and "MARKETING".

ANALYTICS

- Trend monitoring**
Surface hidden trends
- Custom reports**
Limitless reporting options
- User segmentation**
Personalise your service
- Live dashboard**
Real-time monitoring

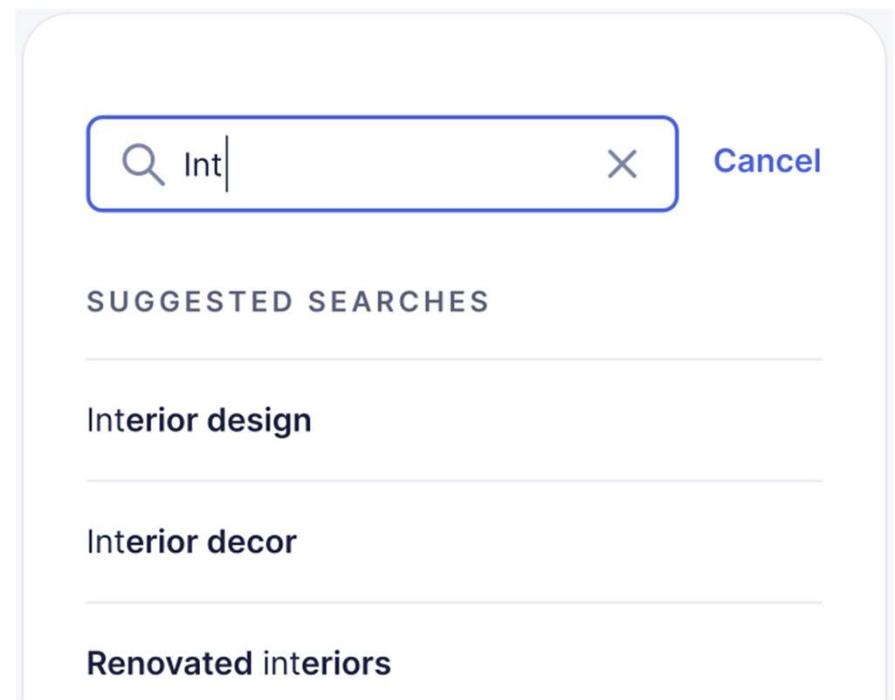
MARKETING

- Website builder**
Professional templates
- Email marketing**
Create and send emails
- Discount codes**
Create unique coupon codes
- Affiliate program**
Get help to grow faster

Example

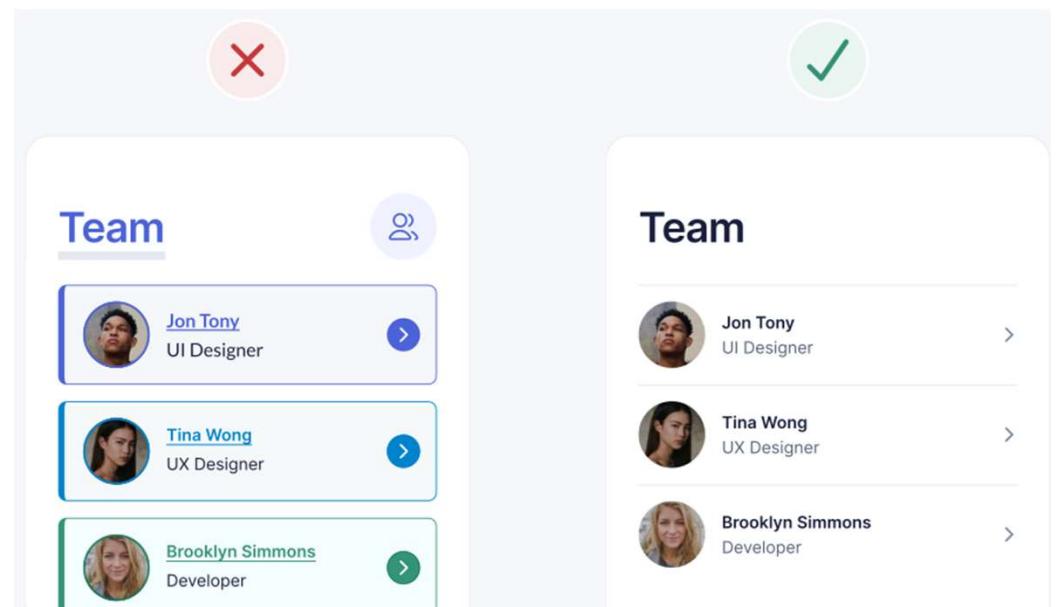
Video streaming websites often recommend popular videos

Search boxes often suggest common search terms to help people narrow down their search faster



Example

Remove unnecessary styles



Design Guidelines

Use common design patterns

According to Jakob's Law, it's safest to stick with common or conventional design patterns that people are already familiar with

Design patterns are established solutions to recurring problems

Using common design patterns is a quick and easy way to reduce usability issues, cognitive load, and interaction cost

Example

The following accordion component is a common design pattern used to save space when displaying information

Frequently asked questions

If you have any other questions or feedback, please [contact me](#) and I'll get back to you shortly.

Is UX design covered too? ▼

Does this book cover UI design for apps or websites? ▼

Who is this book for? ▼

Example

Unconventional form field styles
versus conventional form field
styles

The image shows two versions of a "Payment details" form side-by-side, each with a large red "X" or green checkmark icon at the top right.

Left (Unconventional):

- Header: "Payment details" with a back arrow.
- Buttons: "Credit card" and "Paypal" (the latter is underlined).
- Text: "Required fields are marked with an asterisk *".
- Fields:
 - "Name on card *": A single horizontal input field.
 - "Card number *": A single horizontal input field.
 - "Expiry date *": A single horizontal input field.
 - "CVC *": A single horizontal input field.
- Buttons: "Pay \$99.00" (blue button) and "Cancel" (grey button).

Right (Conventional):

- Header: "Payment details" with a back arrow.
- Buttons: "Credit card" and "Paypal".
- Text: "Required fields are marked with an asterisk *".
- Fields:
 - "Name on card *": A single horizontal input field.
 - "Card number *": A single horizontal input field.
 - "Expiry date *": A single horizontal input field.
 - "CVC *": A single horizontal input field.
- Buttons: "Pay \$99.00" (blue button) and "Cancel" (grey button).

Design Guidelines

Be consistent

Make similar elements look and work in a similar way

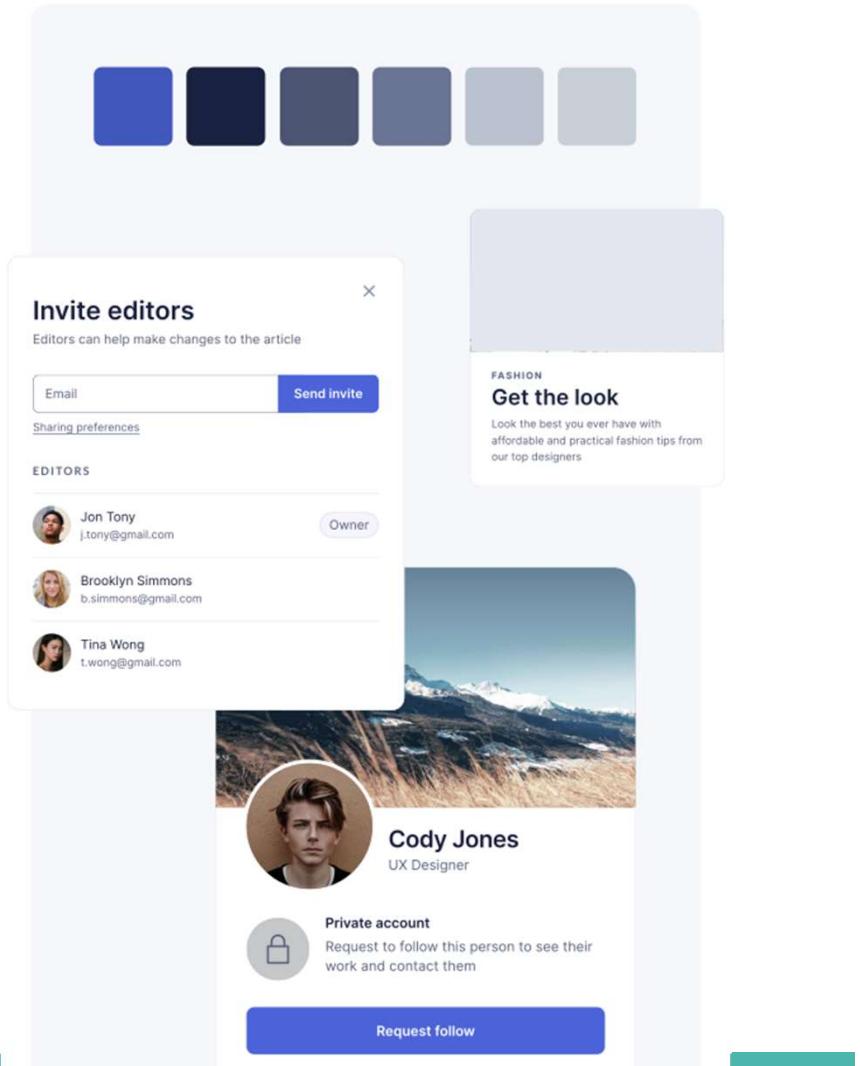
Consistency should be applied both within your product and when compared with other well-established products

Consistency improves usability and reduces errors, as people don't need to keep learning how things work

Design system and design system guideline helps ensure consistency with in your product

Example

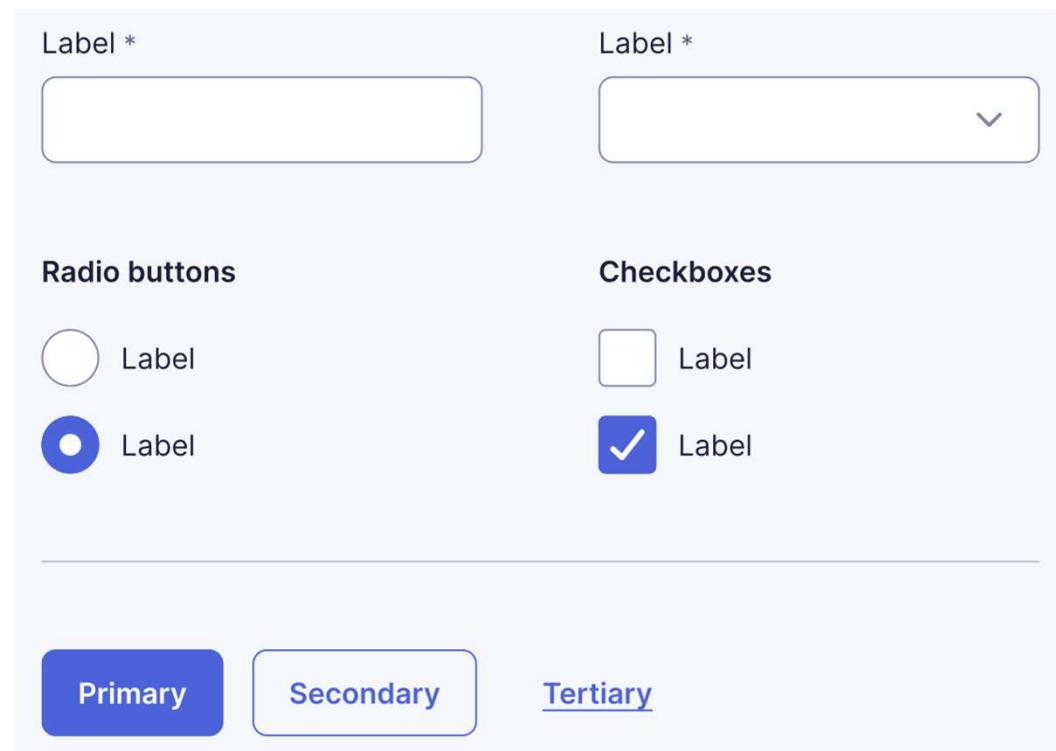
Consistency within a product



Example

Consistency with other product

If your product sits on a certain platform, like an app on iOS or Android, it's generally safest to follow the platform guidelines



Design Guidelines

Clearly indicate interaction states

Interactive elements, like buttons and text links should change their appearance when they're interacted with



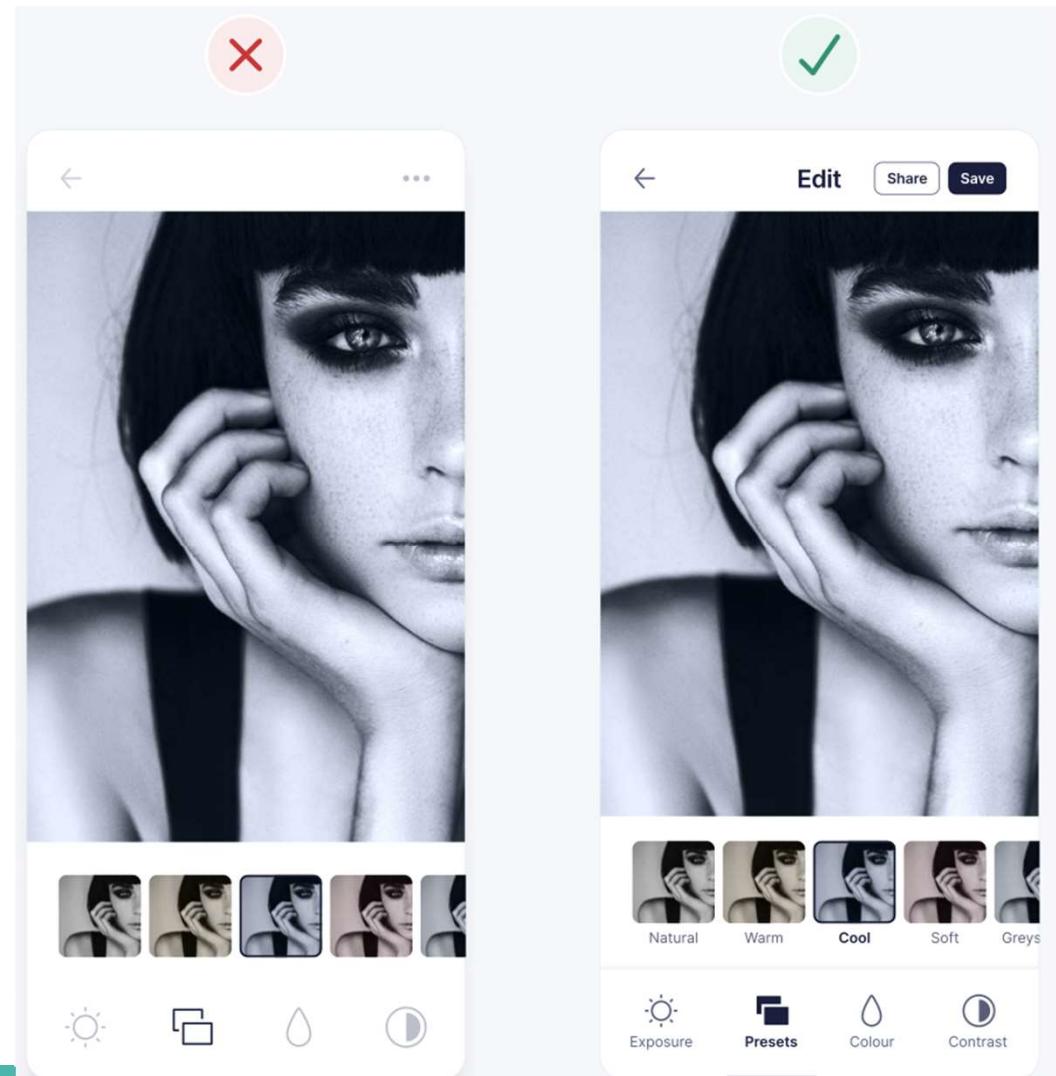
Design Guidelines

Don't confuse minimalism with simplicity

Simplification isn't just about reduction

Removing or hiding too much can harm usability

You need to make sure that you're not removing critical information or details

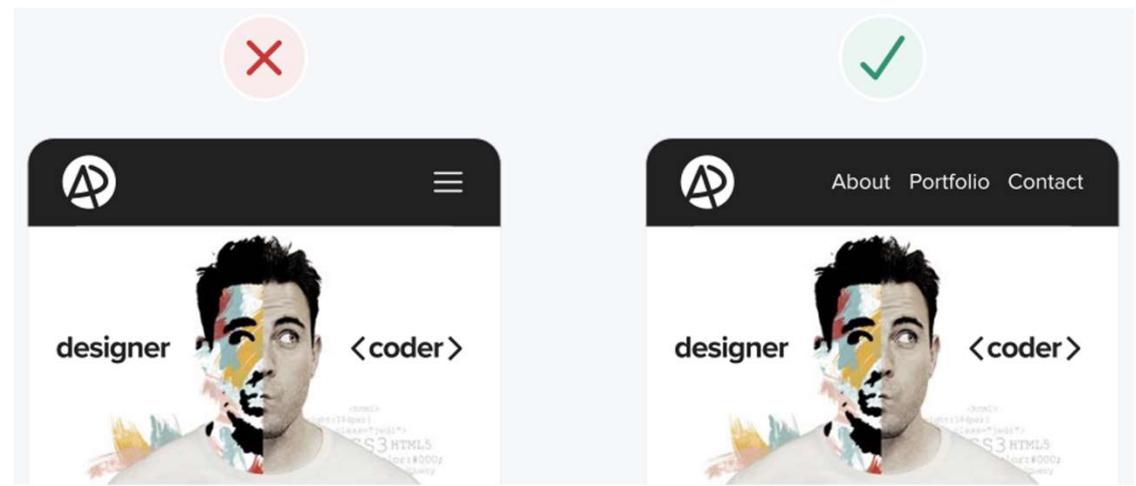


Design Guidelines

Make sure important content is visible

People don't use what they can't see

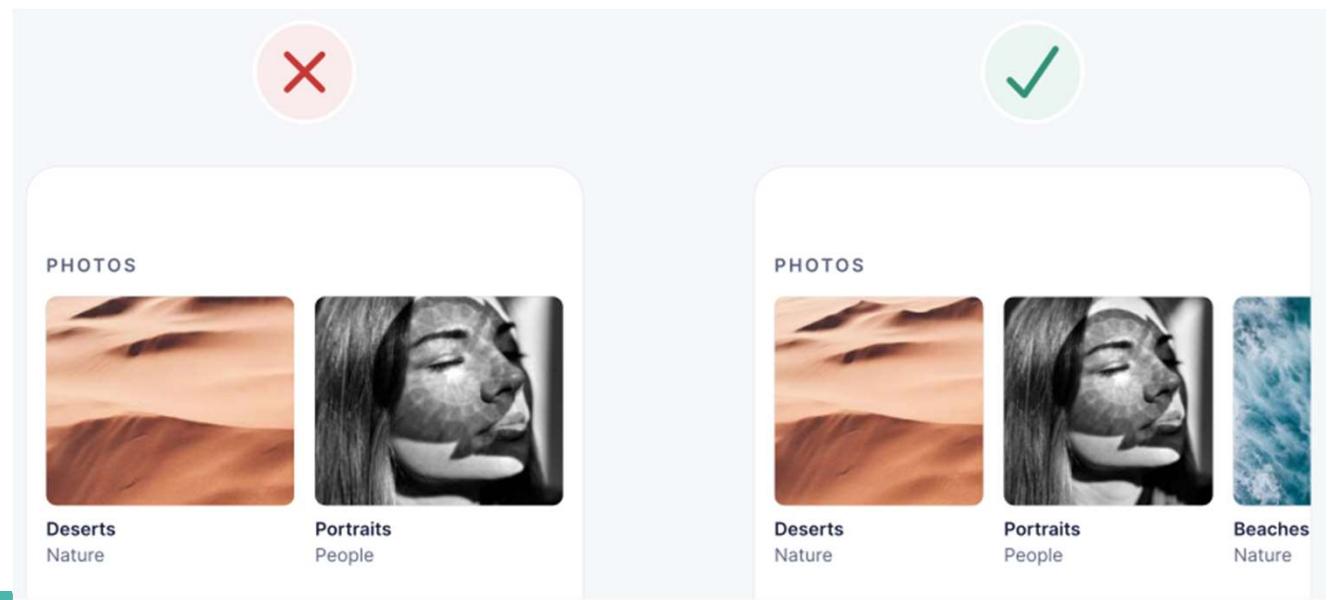
Hiding things behind interactive menus is risky, as some people might miss those things



Design Guidelines

Make sure important content is visible

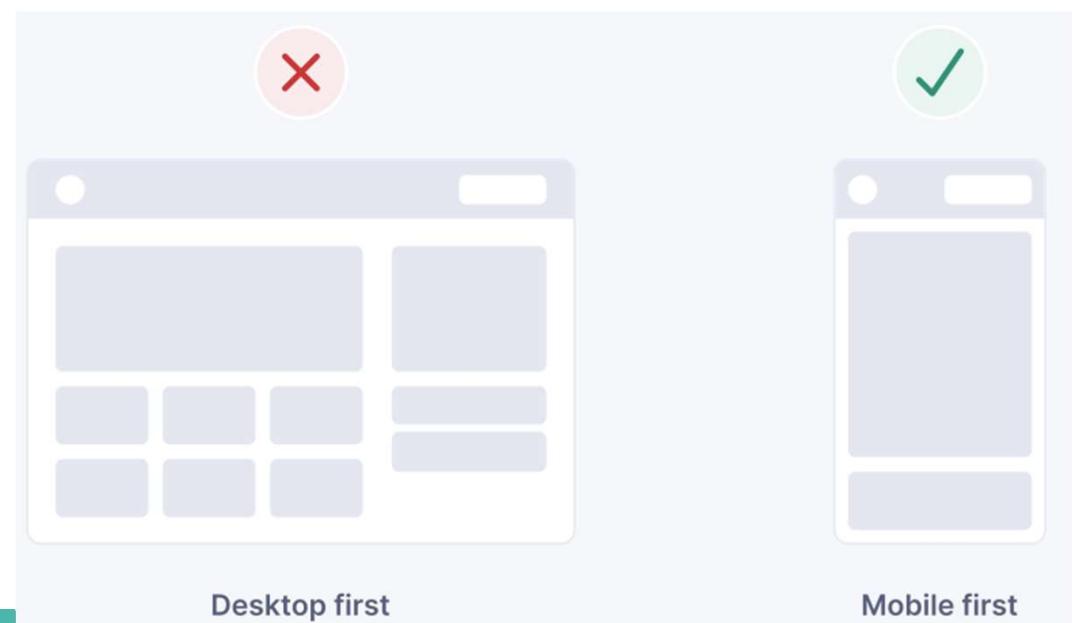
If you need to hide content due to space constraints, make sure it's discoverable



Design Guidelines

Design for the smallest screen first

The restricted space forces you to prioritise important elements and remove unnecessary ones



Design Guidelines

Create a design system

When designing an interface, there are so many options to choose from regarding layout, spacing, typography, and color

Having a system of predefined options and guidelines helps to make efficient design decisions



How to create a Design System

Use the following steps to create a Design System

Set predefined style options

Create reusable modules

Define usage guidelines



Set predefined style options

Rather than choosing from unlimited options for things like color, typography, and spacing, create a small set of predefined options to choose from

Limiting your options helps improve consistency and speeds up decision making

These predefined reusable options are often referred to as “tokens”



Example: Set predefined style options

Color Options



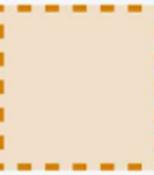
Example: Set predefined style options

Typography options

TYPE SCALE (1.200)	SIZE	LINE HEIGHT
Heading 1	40px	48px
Heading 2	32px	40px
Heading 3	24px	32px
Heading 4	20px	28px
Small	16px	24px
Tiny	14px	20px

Example: Set predefined style options

Spacing options

XS	S	M	L	XL	XXL
8pt	16pt	24pt	32pt	48pt	80pt
					



Example: Set predefined style options

Shadow options

Raised

Overlay

Example: Set predefined style options

Border radius options

Small
8pt

Medium
16pt

Large
32pt

Create reusable modules

Modular design involves breaking things down into smaller, reusable, and replaceable parts called modules or components

Aim to design interfaces in a modular way

Modularity helps to improve productivity, efficiency and consistency

The goal is to create a collection of all components, known as a component library or UI kit

How to design interfaces in a modular way

Start by creating the smallest components such as buttons, avatars, and form input fields

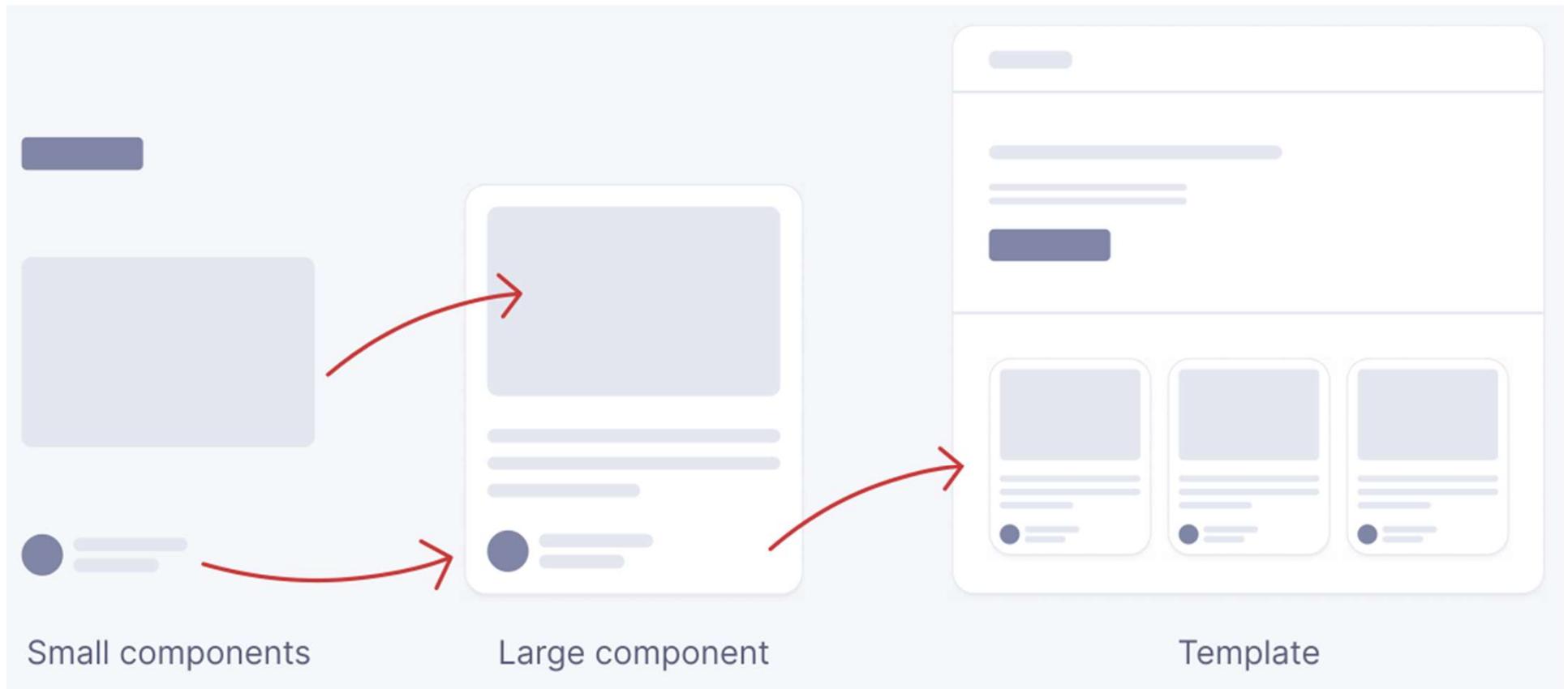
These will be your building blocks

Combine small components to create larger, more complex ones

Arrange components in specific layouts to create reusable page templates



Example: Designing interfaces in a modular way



Example

Designing interfaces in a modular way

The diagram illustrates a modular design approach for a travel blog interface, showing how components can be reused and combined.

Top Left Component: A circular profile picture of Tina Wong, with a dashed red oval highlighting the top portion. A red arrow points from this component to a similar one in the main interface below.

Top Right Component: A rectangular card featuring a landscape image of Mount Fuji at sunset, titled "Beautiful Japan". Below the image is the text: "Our curated list of must-see locations that will take your breath away." and a smaller profile picture of Tina Wong with the date "16 Feb 2022". A red arrow points from this card to the main interface below.

Main Interface (travelblog): A larger version of the travel blog landing page. It features a header with the site name "travelblog" and navigation links for "Destinations", "Tours", "About", and "Contact". The main content area has a title "Never stop exploring" and a subtitle "Get top travel tips from real travellers all over the world". It includes a "Explore destinations" button, a group of traveler profiles, and three modular cards:

- Sightseeing in San Francisco:** Features an image of the Golden Gate Bridge at sunset, the text "Top sightseeing spots in the jewel of Northern California.", and a post by "Jon Tony" dated "16 Feb 2022".
- Beautiful Japan:** Features an image of Mount Fuji and a traditional Japanese building, the text "Our curated list of must-see locations that will take your breath away.", and a post by "Tina Wong" dated "16 Feb 2022". This card is highlighted with a dashed red rectangle and a red arrow points from the top right component to it.
- Marvels of China:** Features an image of the Great Wall of China, the text "Discover fascinating, unusual, and adventurous things to do.", and a post by "Brooklyn Simmons" dated "14 Feb 2022".

Define usage guidelines

After/while creating the design systems include guidance on how to use the components and visual styles in the system



Example usage guidelines

Indicate interactive elements using the brand color

Use sentence case

Left align button

Left align text

Try to avoid disabled button

Front-load text

Be concise and use plain and simple language



Applying Design Guidelines

Identify design issues on the UI shown on the right

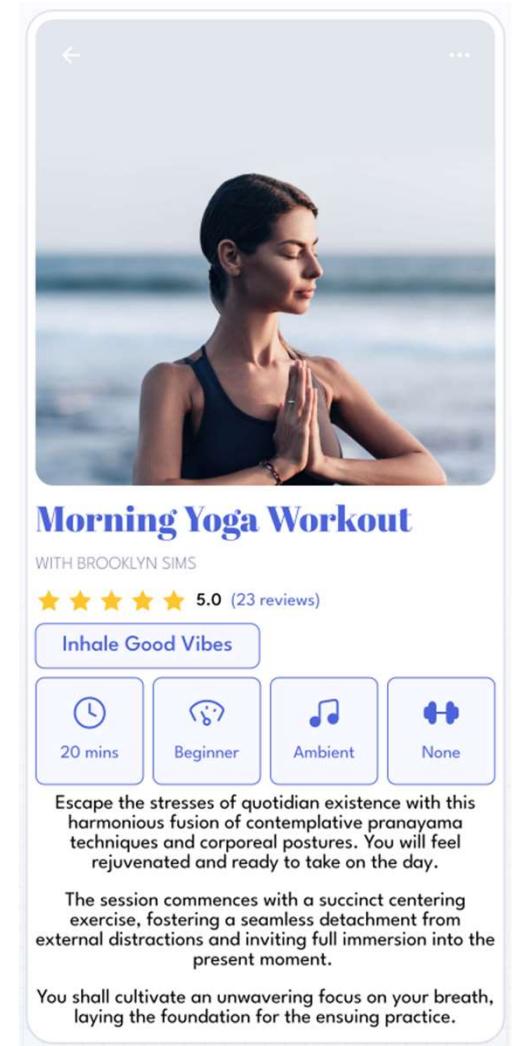
The image shows a mobile application screen for a "Morning Yoga Workout". At the top is a large, blurry photograph of a woman in a meditative pose with her hands clasped in front of her. Below the photo, the title "Morning Yoga Workout" is displayed in a bold blue font. Underneath the title, it says "WITH BROOKLYN SIMS". A rating of "5.0 (23 reviews)" is shown with five yellow stars. A button labeled "Inhale Good Vibes" is highlighted with a blue border. Below the rating are four icons: a clock icon with "20 mins", a person icon with "Beginner", a music note icon with "Ambient", and a dumbbell icon with "None". A descriptive paragraph reads: "Escape the stresses of quotidian existence with this harmonious fusion of contemplative pranayama techniques and corporeal postures. You will feel rejuvenated and ready to take on the day." Another paragraph states: "The session commences with a succinct centering exercise, fostering a seamless detachment from external distractions and inviting full immersion into the present moment." At the bottom, a final note says: "You shall cultivate an unwavering focus on your breath, laying the foundation for the ensuing practice."

Minimise interaction cost

The main call to action button is relatively small

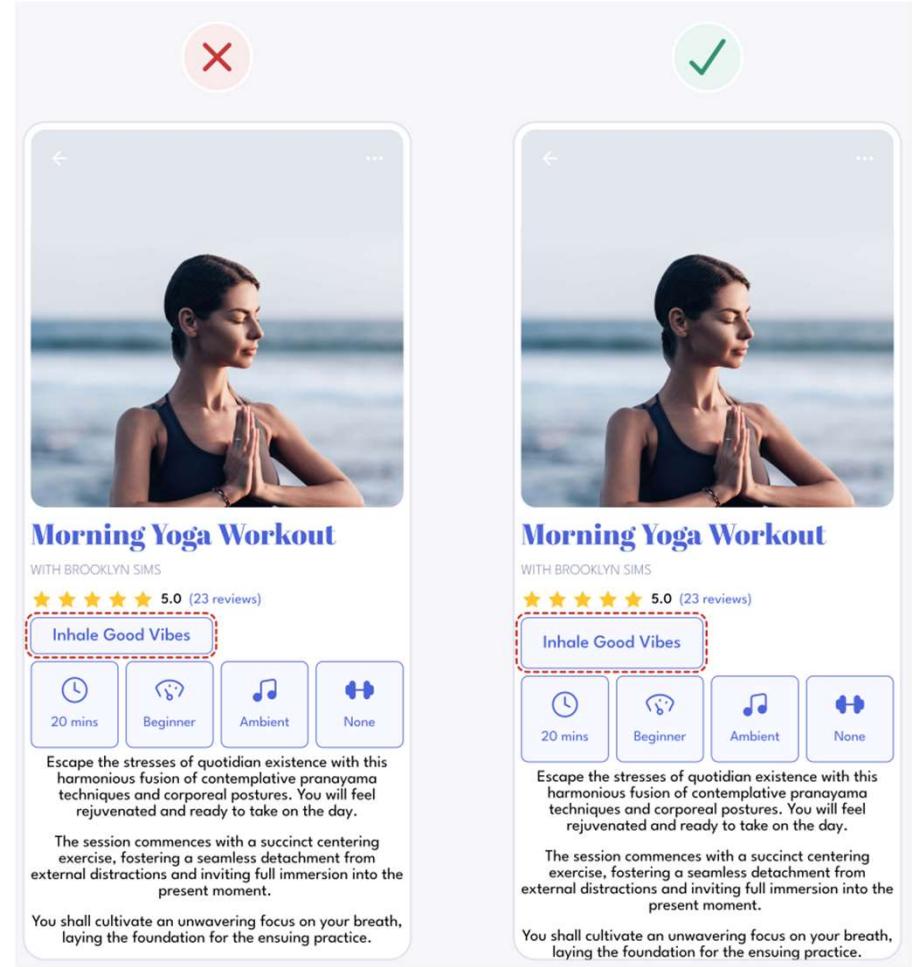
Small targets are more difficult to touch than large ones

This is especially true for those with impaired motor control, or even someone holding their phone with one hand and using their thumb



Minimise interaction cost

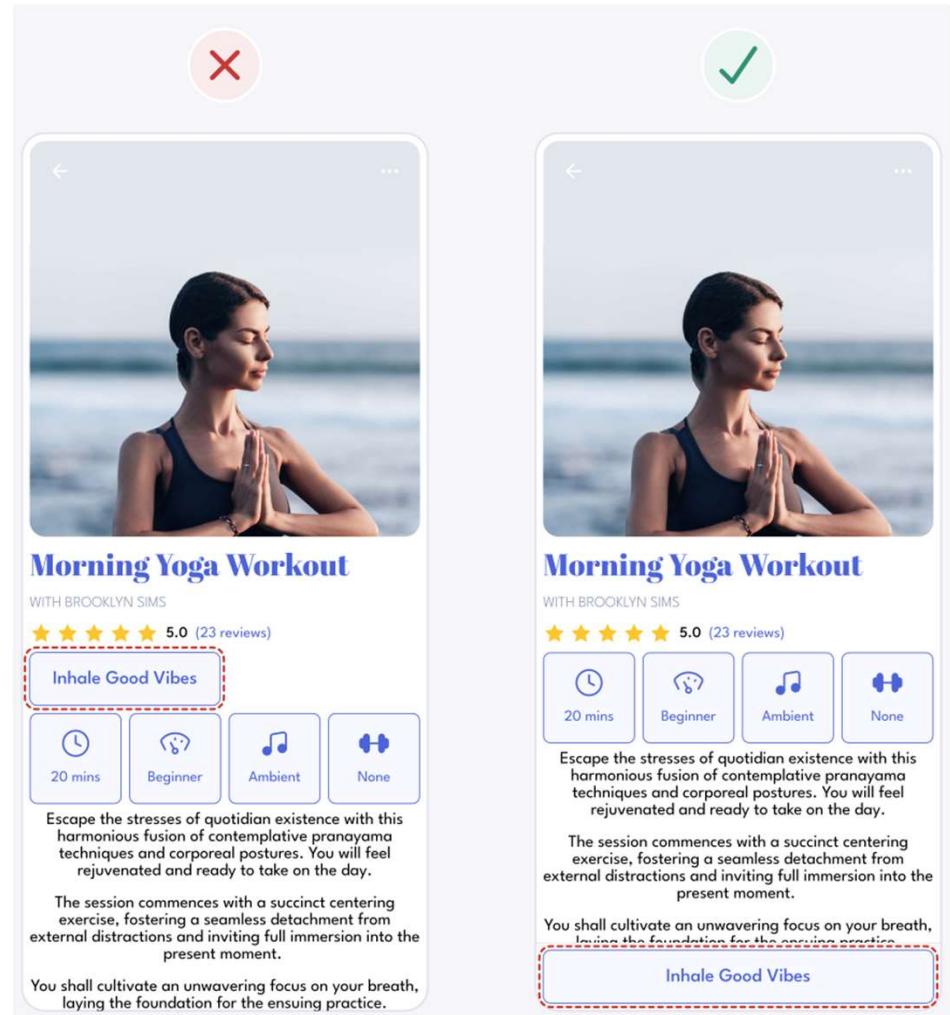
Increasing the button size to at least 48pt tall makes it faster and easier for people to press it



Minimise interaction cost

Moving the button to the bottom of the screen makes it easier to reach for those using one hand

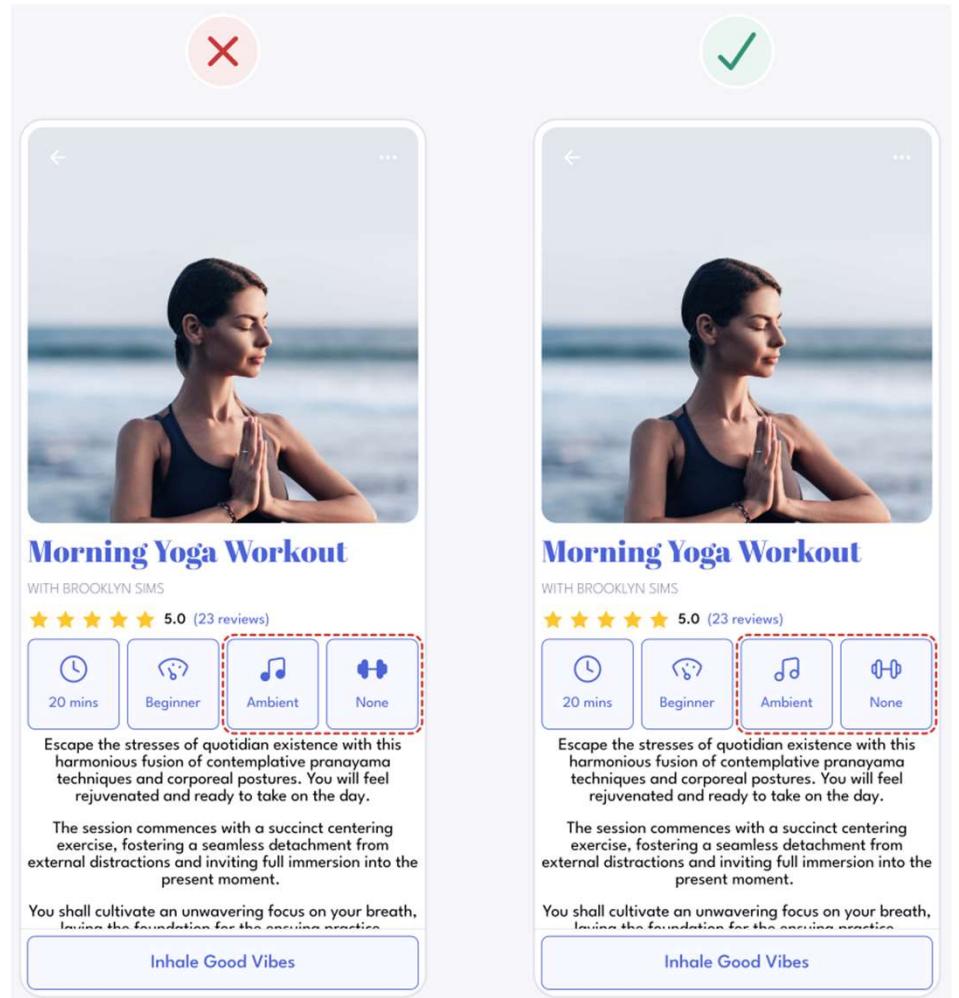
Stretching the button the full-width of the screen helps both left and right handed people to reach it



Minimise interaction cost

The icon styles are inconsistent, as some are filled and others aren't

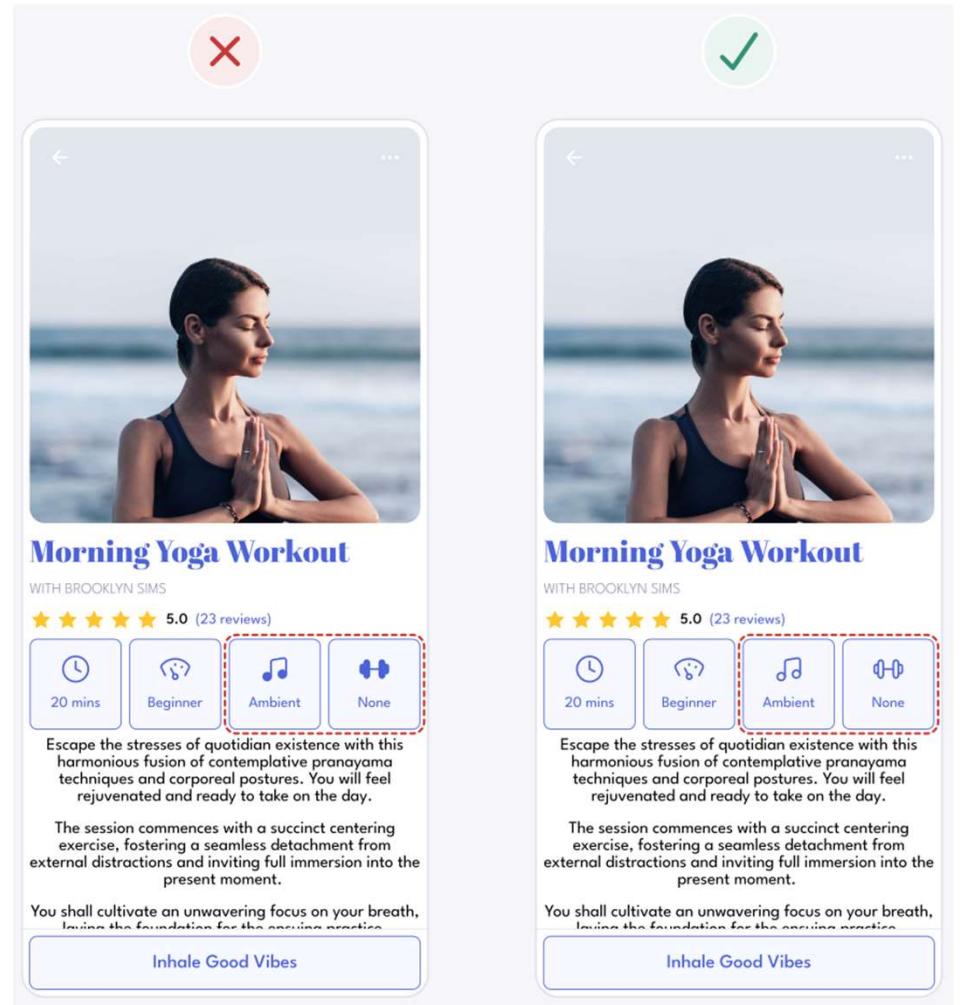
This could confuse some people, as filled icons often indicate that an element is selected



Minimise interaction cost

Sticking with an outlined style for all icons helps improve consistency and gives each icon a similar level of prominence

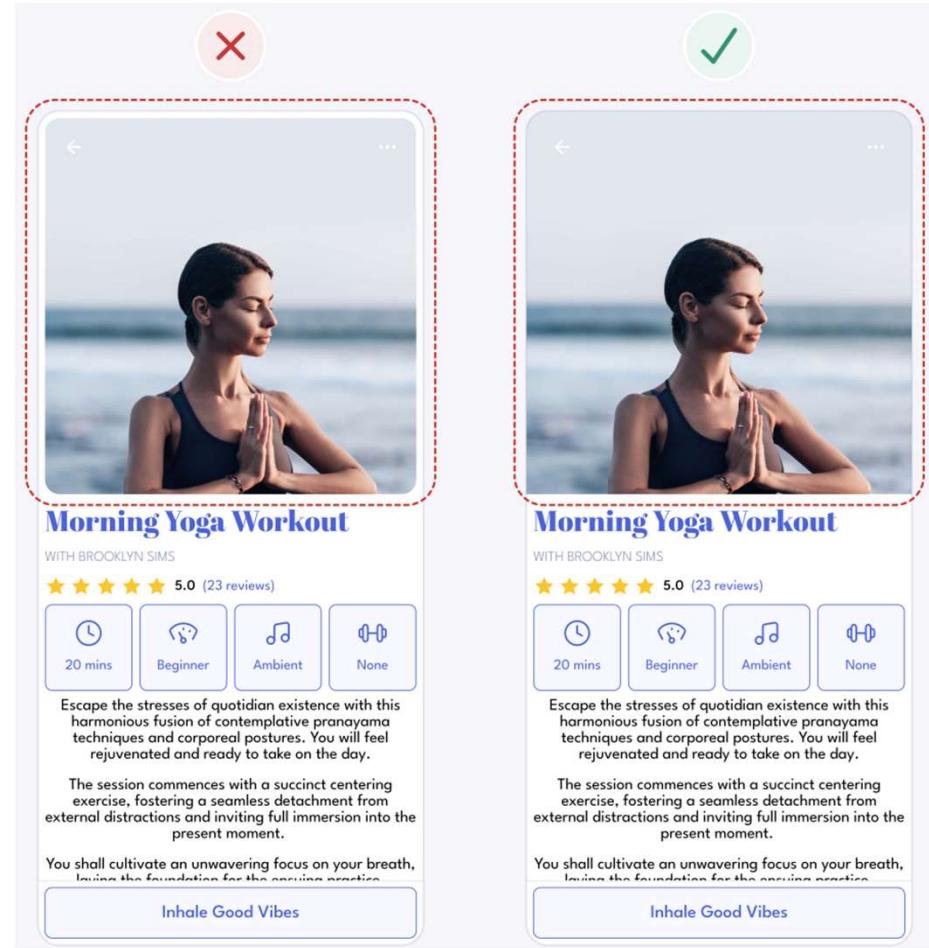
Make the thickness of outlines consistent



Remove unnecessary styles

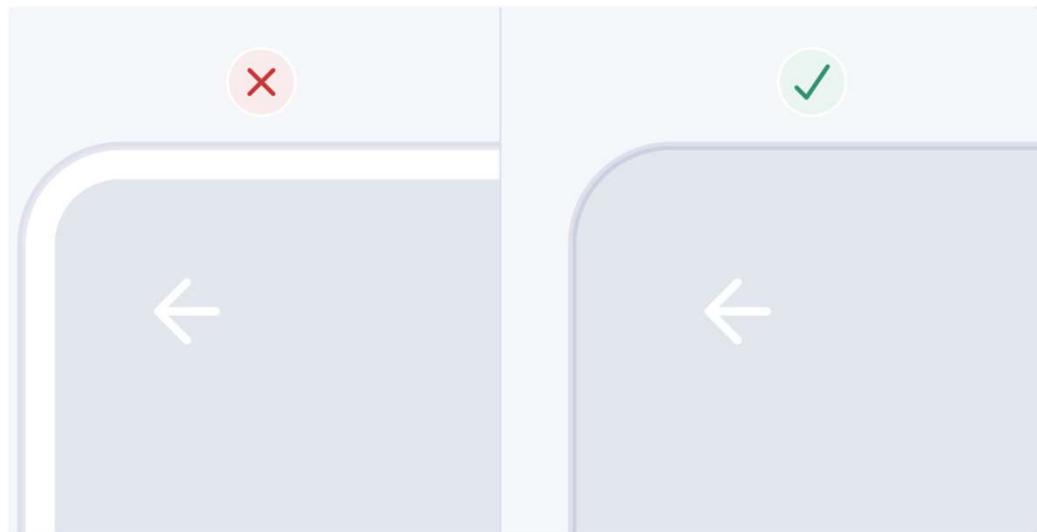
Avoid unnecessary lines, colours, backgrounds, and animations to create a simpler, more focused interface

The white space around the photo adds unnecessary visual complexity. It's not needed to convey information or group elements, so you can safely remove it to simplify the design



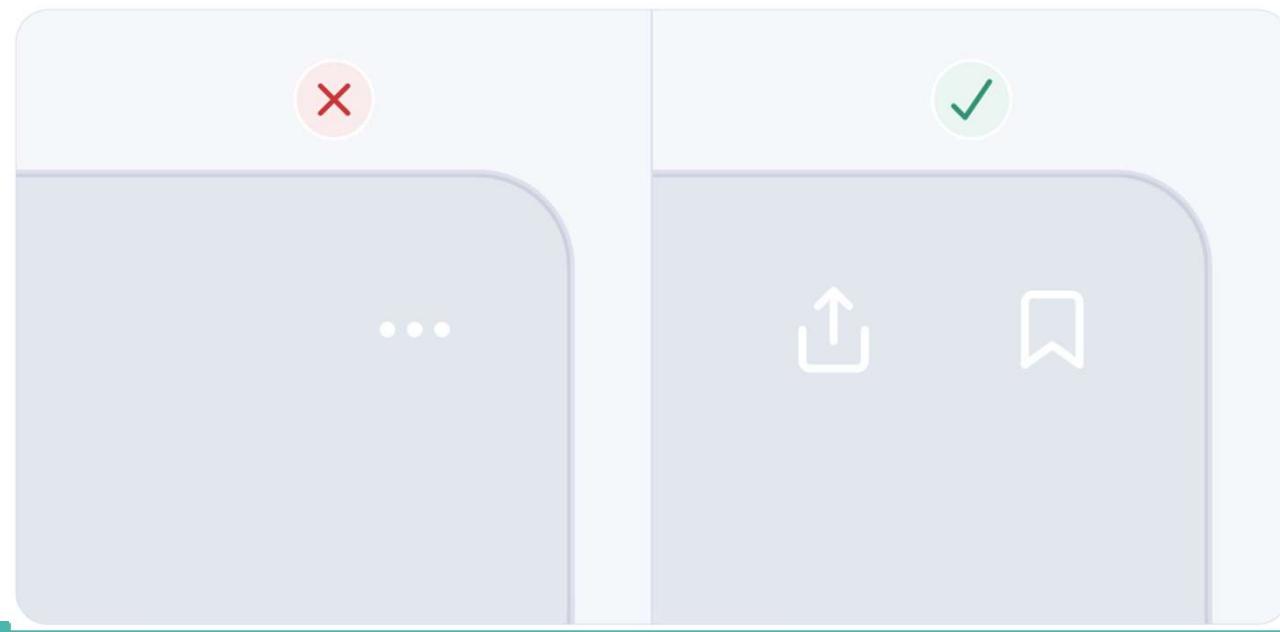
Remove unnecessary styles

White space around the photo is removed to reduce complexity



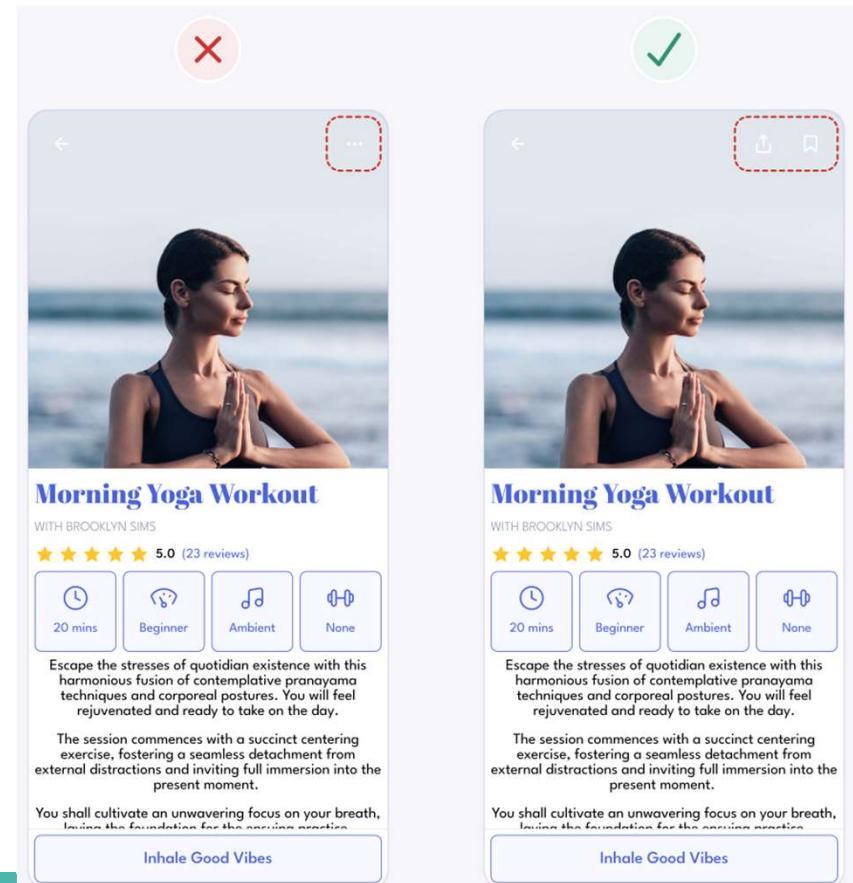
Make important content visible

Since there's space to display the 2 actions, "share" and "bookmark", keep them visible to help ensure they're not missed



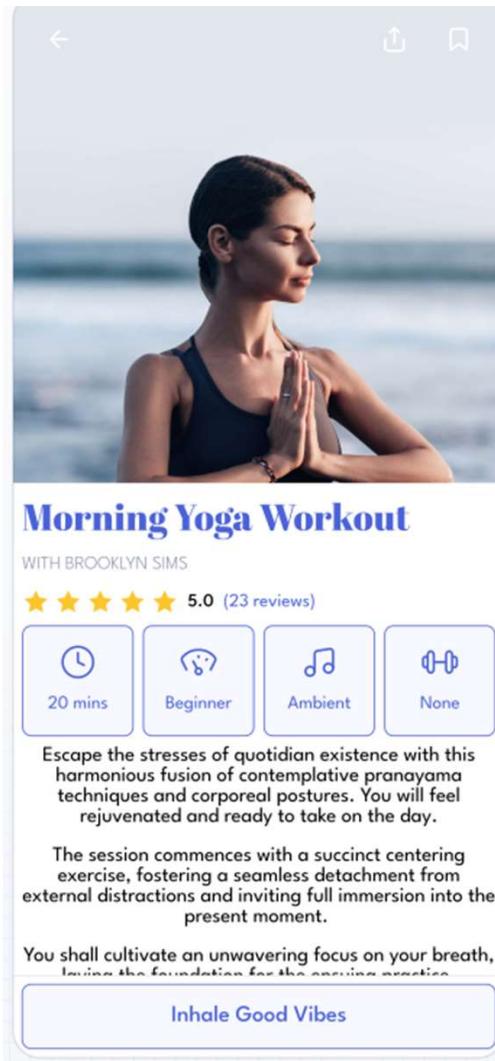
Make important content visible

Actions are made visible, rather than being hidden inside an interactive menu



Color Usage Guidelines

Are there any color related issues on the UI displayed?



Ensure sufficient contrast

Contrast is a measure of the difference in perceived brightness between two colors

It's expressed as a ratio ranging from 1:1 to 21:1

For example, black text on a black background has the lowest 1:1 contrast ratio, whereas black text on a white background has the highest 21:1 ratio



Ensure sufficient contrast

In order to help ensure that people with low vision can clearly see interface details, aim to at least meet Web Content Accessibility Guidelines (WCAG) 2.1 level AA colour contrast requirements



Ensure sufficient contrast

Below are the two WCAG 2.1 level AA color contrast requirements

3:1 - Minimum for large text (above 18px with bold weight or above 24px with regular weight) and user interface elements (like form fields)

4.5:1 - Minimum for small text (18px or less)

Ensure sufficient contrast

WCAG 2.1 level AA color contrast requirements

3 : 1

Large text

24px regular & above

18px bold & above

UI elements

Like form inputs, radio

buttons, & checkboxes.

4.5 : 1

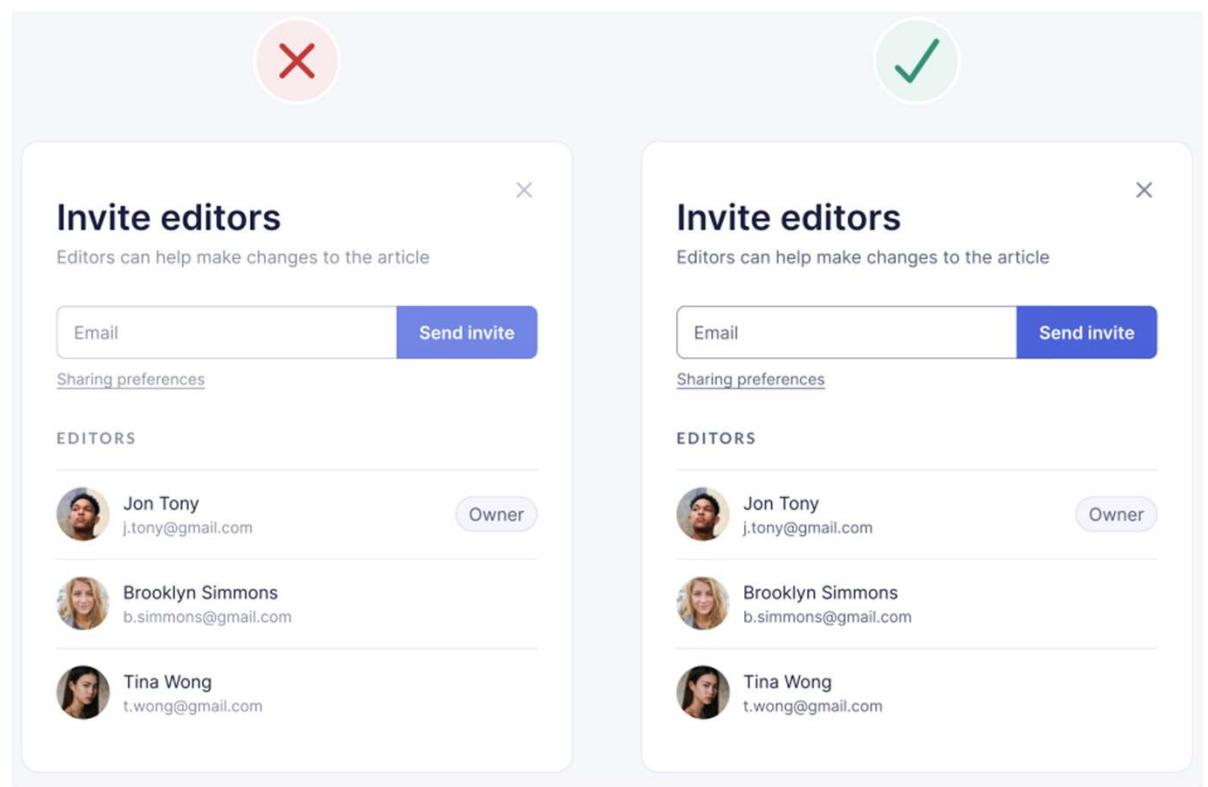
Small text

18px or less

Example

Low contrast interface
versus a high contrast
interface

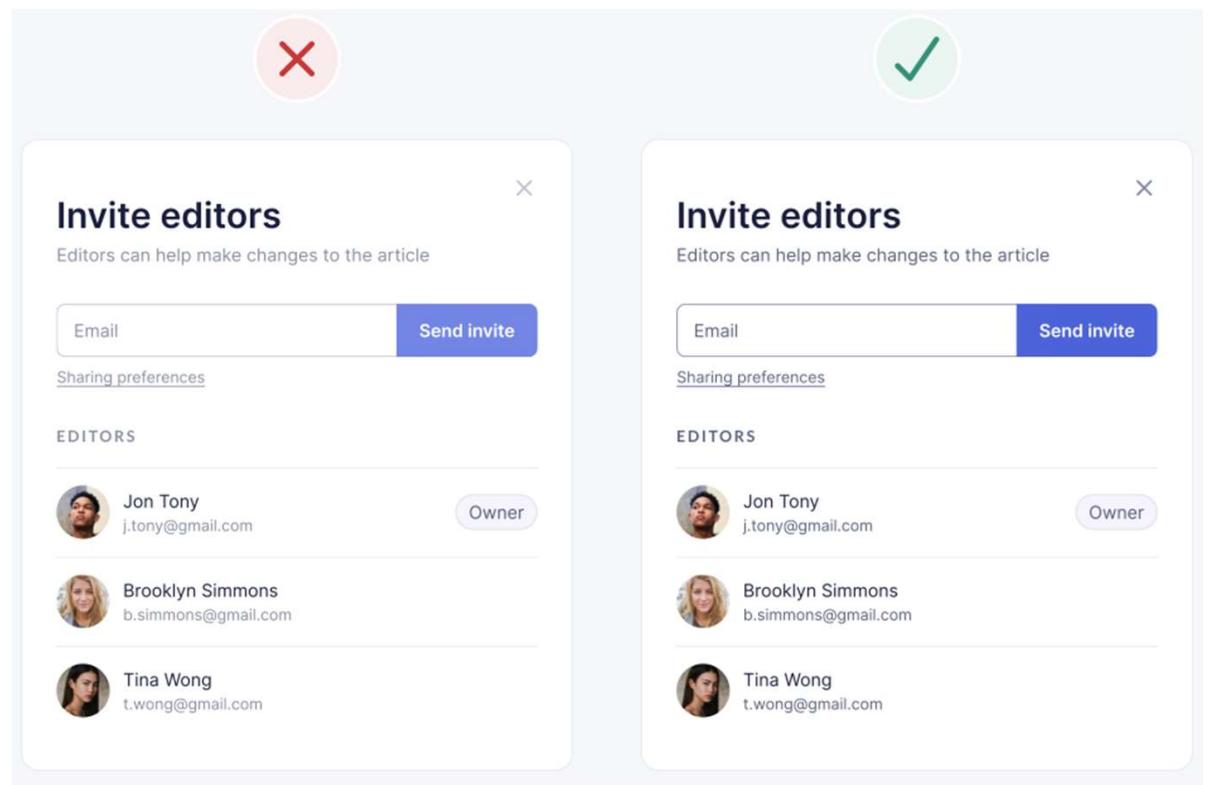
Identify the contrast issues



Example

Low contrast interface
versus a high contrast
interface

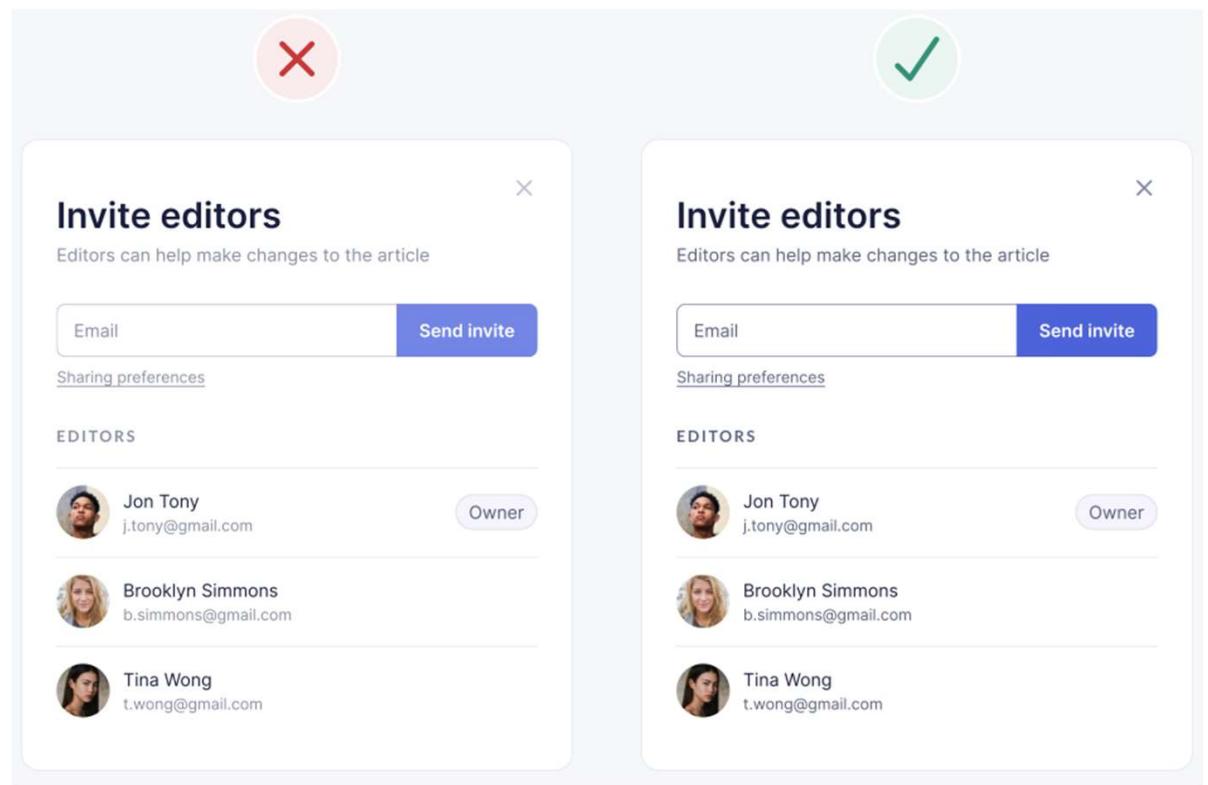
Close icon contrast is less
than 3:1



Example

Low contrast interface
versus a high contrast
interface

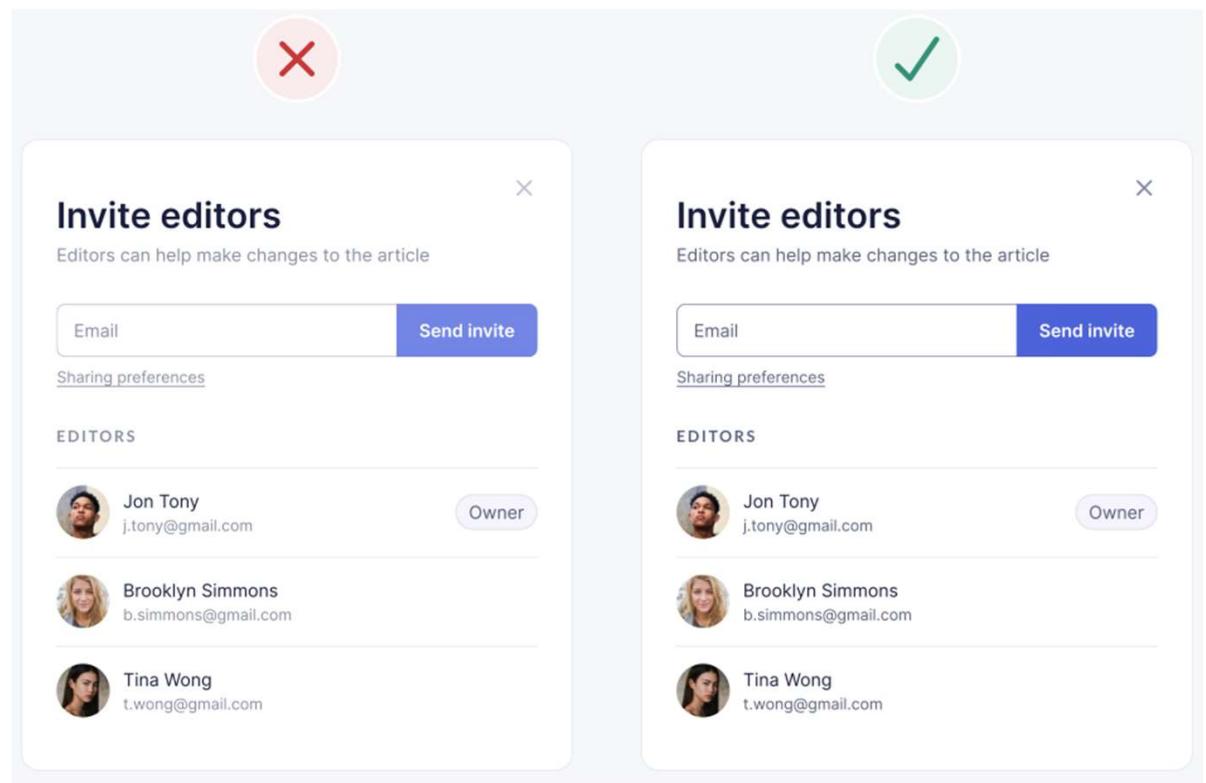
Secondary text contrast is
less than 4.5:1



Example

Low contrast interface
versus a high contrast
interface

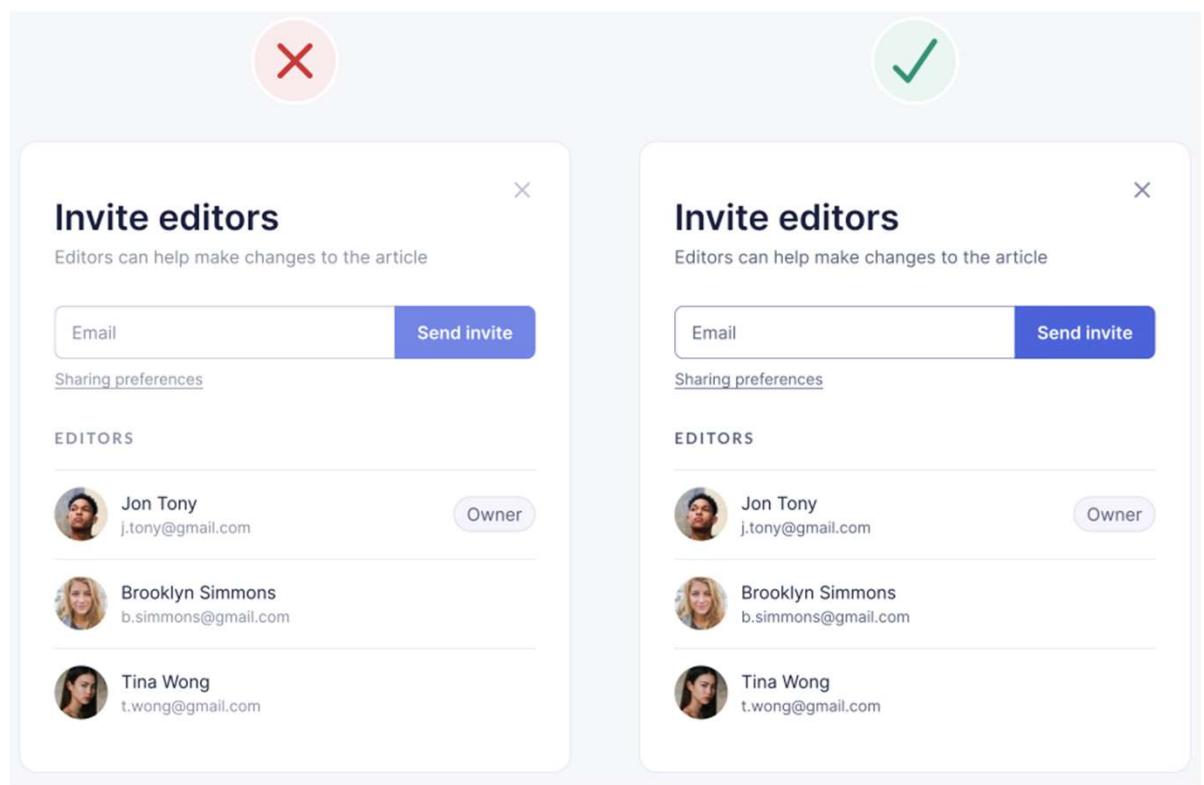
Email field border contrast
ratio is less than 3:1



Example

Low contrast interface
versus a high contrast
interface

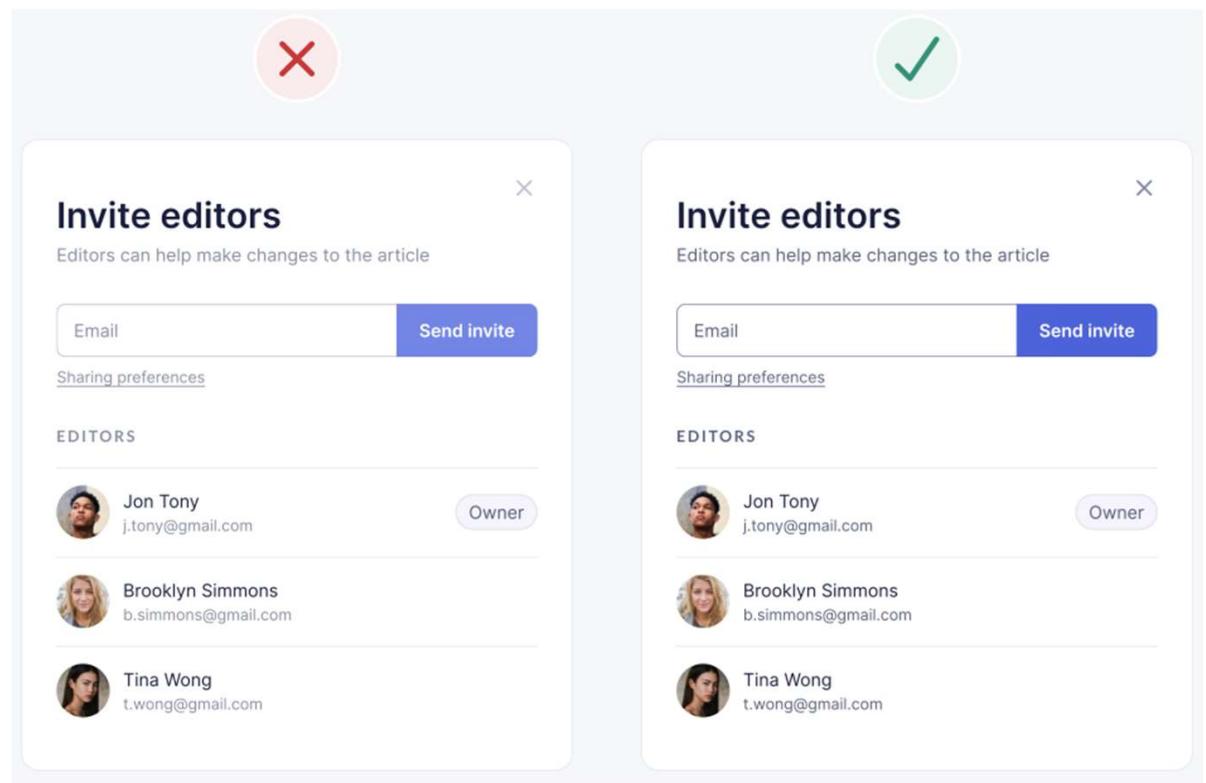
Placeholder text in the
email field is less than 4.5:1



Example

Low contrast interface
versus a high contrast
interface

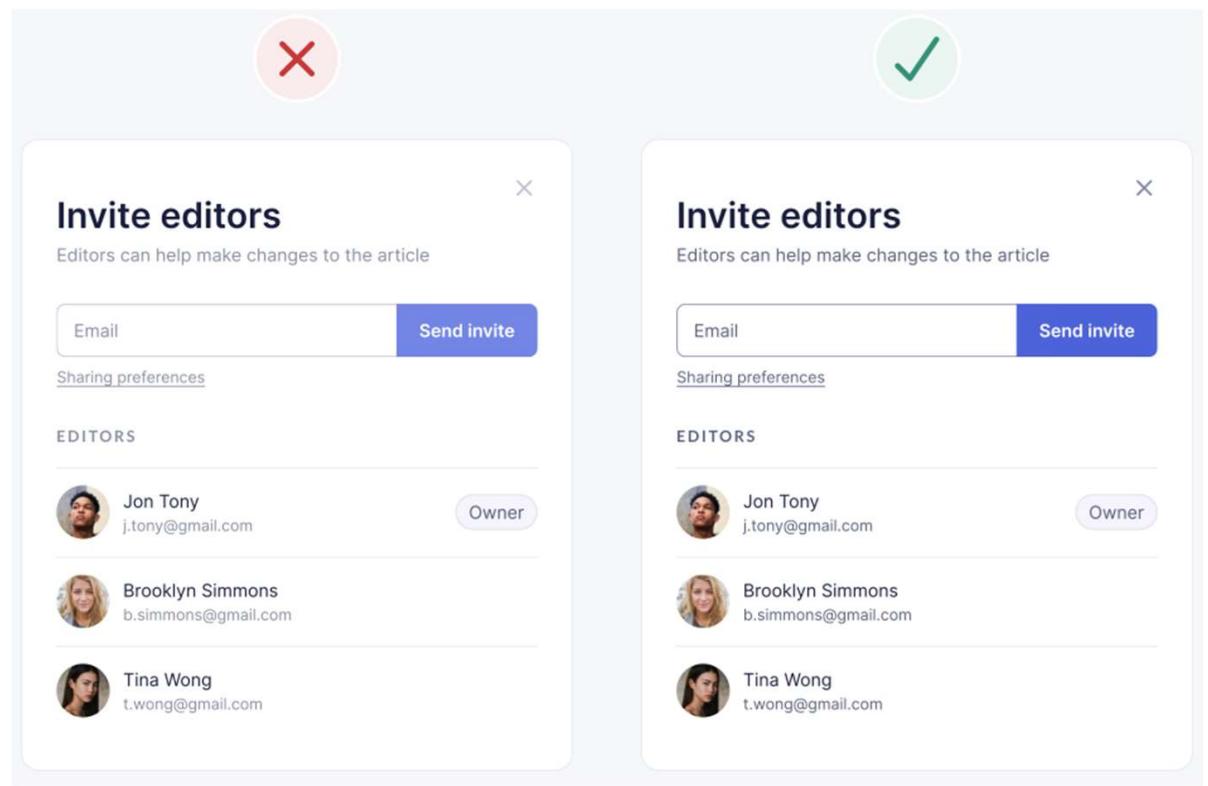
Button background
contrast against white text
is less than 4.5:1



Example

Low contrast interface
versus a high contrast
interface

Link text contrast is less
than 4.5:1



Accessible Perceptual Contrast Algorithm (APCA)

It is a new and improved way to measure contrast

It's part of the WCAG 3 draft and it helps solve some of the limitations of the WCAG 2 method



APCA vs WCAG 2

In the example shown, white text on an orange background fails WCAG 2, while black text passes

Using APCA, the white text passes and the black text fails. This matches our actual perception of the text

	Easier to read	Harder to read
WCAG 2	3.04 : 1 Fail	4.5 : 1 Pass
APCA	62 Pass	43 Fail

Accessible Perceptual Contrast Algorithm (APCA)

APCA contrast is measured in numbers

The higher the number, the higher the contrast

The APCA contrast value also depends on the size and weight of text

Smaller and thinner text gets a lower score



APCA key contrast values for neutral grey

90 - Preferred for body text (14px regular and above)

75 - Minimum for body text (18px regular and above)

60 - Minimum for other text (24px regular or 16px bold and above)



APCA key contrast values for neutral grey

45 - Minimum for large text (36px regular or 24px bold and above) and interface elements

30 - Absolute minimum for text like form field placeholder text and disabled button text

15 - Minimum for non-text elements



Accessible Perceptual Contrast Algorithm (APCA)

The APCA contrast measurement differs depending on whether the color is being used on text or a background

For example, white text on a blue background passes, while blue text on a white background doesn't

WCAG 2	APCA	Button	Button
		2.98 : 1 Fail	2.98 : 1 Fail
		61 Pass	56 Fail

Accessible Perceptual Contrast Algorithm (APCA)

Unlike APCA, WCAG 2 contrast requirements don't work well for interfaces with dark backgrounds

It results in text that's hard to read

		Button	Button
WCAG 2	4.5 : 1 Pass	7.67 : 1 Pass	
APCA	38 Fail	62 Pass	

Don't rely on color alone to convey meaning

To ensure an interface is accessible to those who are colour blind, you need to use additional visual cues to differentiate interface elements

The image displays two versions of a mobile application's sign-up screen side-by-side, separated by a vertical grey line. Both screens have a light blue header bar at the bottom.

Left Screen (Incorrect): This screen features a red circular icon with a white 'X' in the top-left corner. It contains the following fields:

- Mobile number:** A text input field containing the number "0444 111 222".
- Email:** A text input field with the placeholder "Enter email".
- Apply now:** A blue rectangular button with white text.

Right Screen (Correct): This screen lacks the red 'X' icon. It contains the same fields and button as the left screen, but uses different visual cues to maintain accessibility:

- Mobile number:** A text input field containing the number "0444 111 222".
- Email:** A text input field with the placeholder "Enter email".
- Apply now:** A dark grey rectangular button with white text.

Don't rely on color alone to convey meaning

To ensure an interface is accessible to those who are colour blind, you need to use additional visual cues to differentiate interface elements

The image displays two versions of a user interface for entering personal information. Both versions include fields for 'Mobile number' (containing '0444 111 222') and 'Email' (with an error message 'Enter email'). A large green checkmark icon is present in the top-left corner of the left version. The 'Apply now' button at the bottom is blue in the left version and gray in the right version. The background features a teal horizontal bar at the bottom.

Mobile number
0444 111 222

Email
✖ Enter email

Apply now

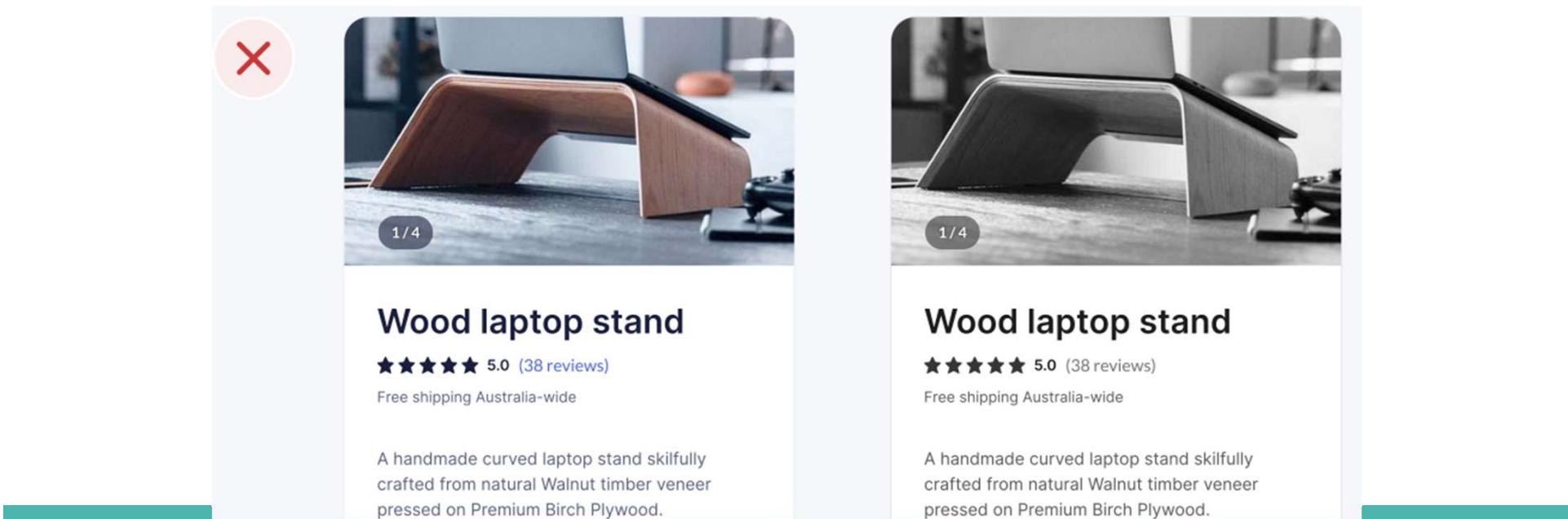
Mobile number
0444 111 222

Email
✖ Enter email

Apply now

Don't rely on color alone to convey meaning

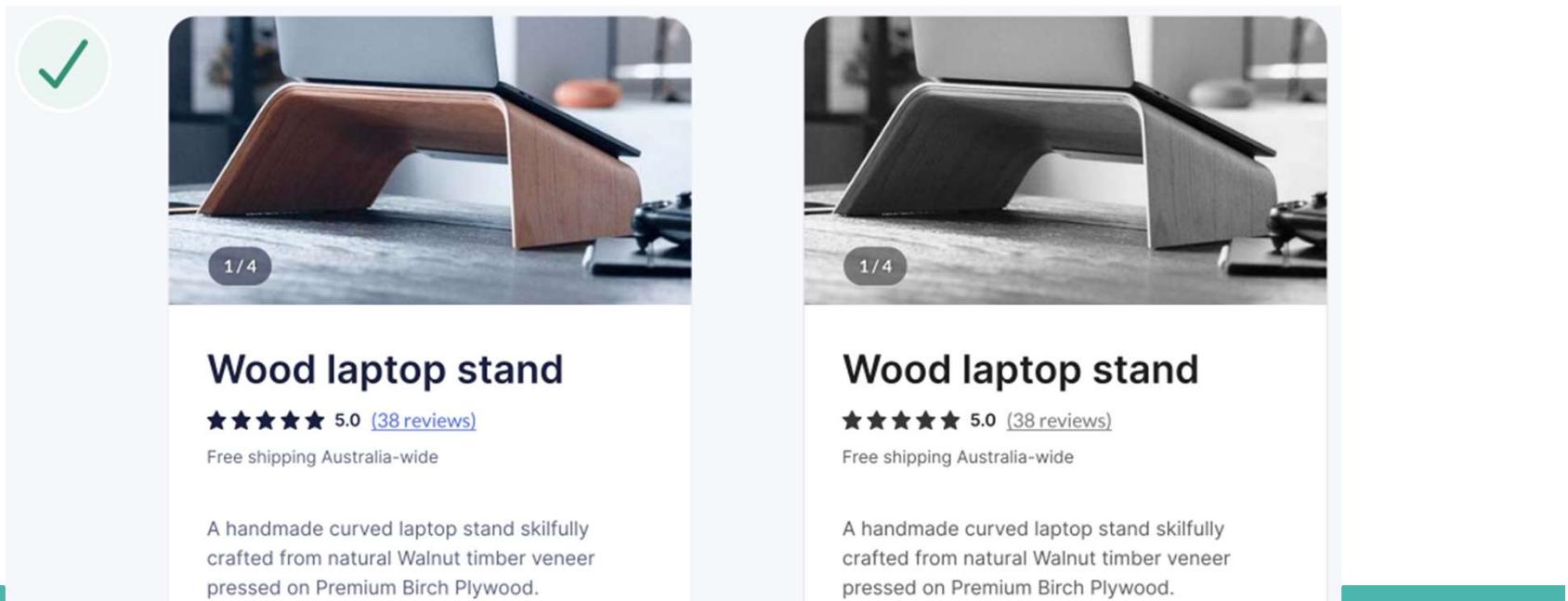
To ensure an interface is accessible to those who are colour blind, you need to use additional visual cues to differentiate interface elements



The image displays two side-by-side screenshots of a product listing for a "Wood laptop stand". Both screenshots show a laptop resting on a curved wooden stand. In the first screenshot (left), a large red 'X' is overlaid in the top-left corner of the image area, indicating a design flaw. In the second screenshot (right), a black 'X' is overlaid in the same position, demonstrating that the same flaw can occur even if the original image is black and white. The product title "Wood laptop stand" is displayed in bold black text at the top of both screenshots. Below the title, there is a star rating of "★★★★★ 5.0 (38 reviews)" and the text "Free shipping Australia-wide". At the bottom of each screenshot, there is a teal horizontal bar.

Don't rely on color alone to convey meaning

To ensure an interface is accessible to those who are colour blind, you need to use additional visual cues to differentiate interface elements



The image displays two side-by-side screenshots of a product listing for a "Wood laptop stand".

Left Screenshot (Color Version):

- A green circular icon with a white checkmark is positioned in the top-left corner.
- The product image shows a wooden laptop stand holding a laptop, with a smartphone resting on it.
- The title "Wood laptop stand" is displayed in bold black text.
- The rating "★★★★★ 5.0 (38 reviews)" is shown below the title.
- The text "Free shipping Australia-wide" is present.
- The description "A handmade curved laptop stand skilfully crafted from natural Walnut timber veneer pressed on Premium Birch Plywood." is included.

Right Screenshot (Grayscale Version):

- The same green circular icon with a white checkmark is present in the top-left corner.
- The product image is in grayscale, showing the same wooden laptop stand and smartphone setup.
- The title "Wood laptop stand" is displayed in bold black text.
- The rating "★★★★★ 5.0 (38 reviews)" is shown below the title.
- The text "Free shipping Australia-wide" is present.
- The description "A handmade curved laptop stand skilfully crafted from natural Walnut timber veneer pressed on Premium Birch Plywood." is included.

Use system colors to indicate status

You'll generally need 3 system colors to indicate errors, warnings, and success states

Traffic light colors (red, amber, and green) are commonly used for system colors, as they already have familiar meanings associated with them



Use system colors to indicate status

Red (error) - used to indicate a negative message such as an error or system failure that needs urgent attention

Amber (warning) - used to warn people to be cautious and that taking an action could be risky

Green (success) - used to indicate a positive message or that an action was completed as expected

Use system colors to indicate status

The image shows a mobile application interface for managing a "Dream team". On the left, there's a vertical color-coded legend:

- A large red circle labeled "Error".
- A large yellow circle labeled "Warning".
- A large green circle labeled "Success".

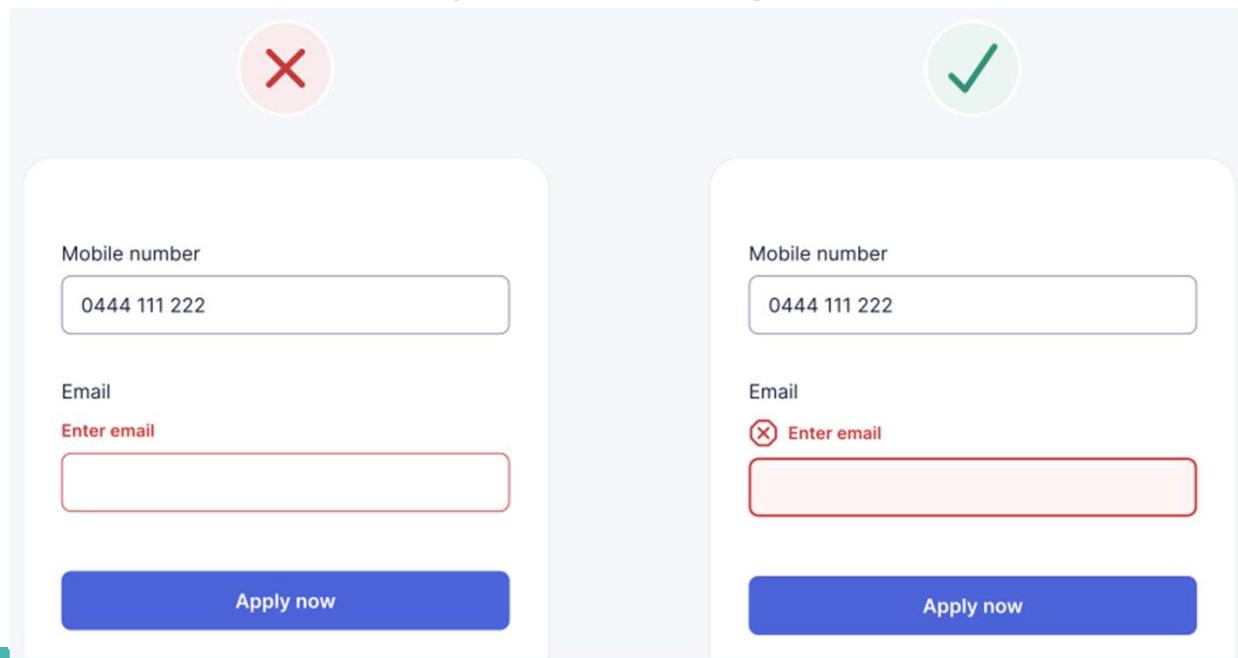
The main screen is titled "Dream team" and shows a list of "Members". There are three members listed:

- Aisha Abboud, UX designer, status: Declined (indicated by a red button with a crossed-out checkmark icon).
- Jon Tony, Developer, status: Pending (indicated by a yellow button with a warning icon).
- Darlene Robs, UI designer, status: Accepted (indicated by a green button with a checkmark icon).

At the bottom of the screen are two buttons: "Invite person" (blue) and "Cancel" (white).

Ensure system colors are accessible

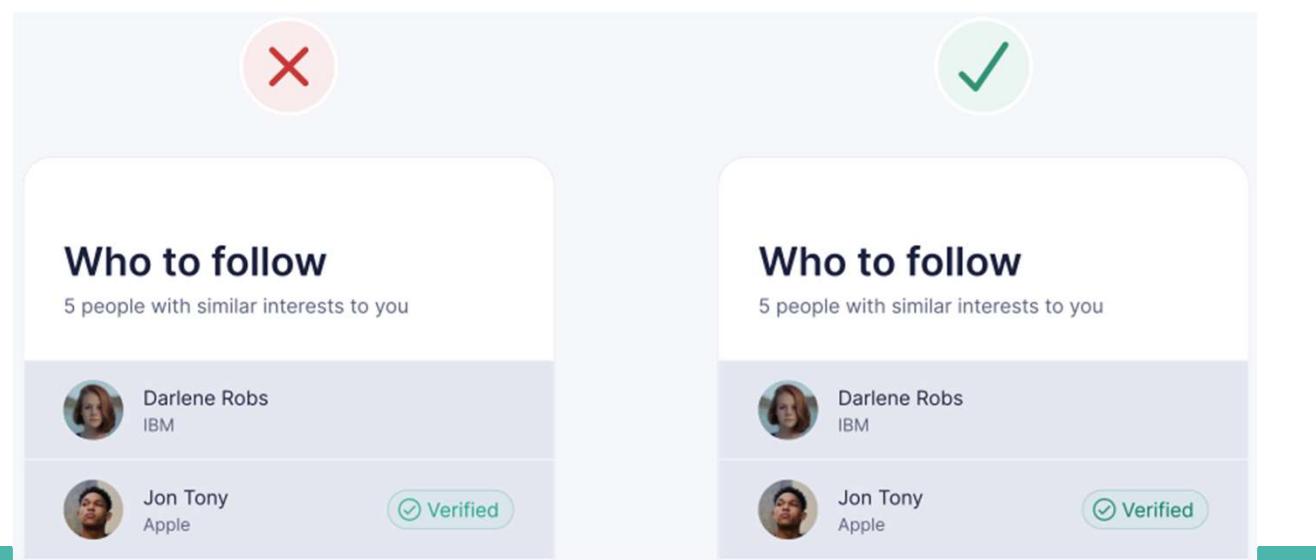
Use additional visual cues such as icons to ensure people who are colour blind can also understand what the system messages mean



Ensure system colors are accessible

If you're using system colors for text, make sure they at least have a 4.5:1 contrast ratio

If you're only using system colors for interface elements and icons, they need a 3:1 contrast ratio



Use color to define a clear visual hierarchy

Aim to present information in order of importance by making more important elements look more prominent

A clear order of importance, or visual hierarchy, helps people scan information quickly and focus on areas of interest



Use color to define a clear visual hierarchy

Use variations in color saturation, hue, and contrast to help define a clear visual hierarchy



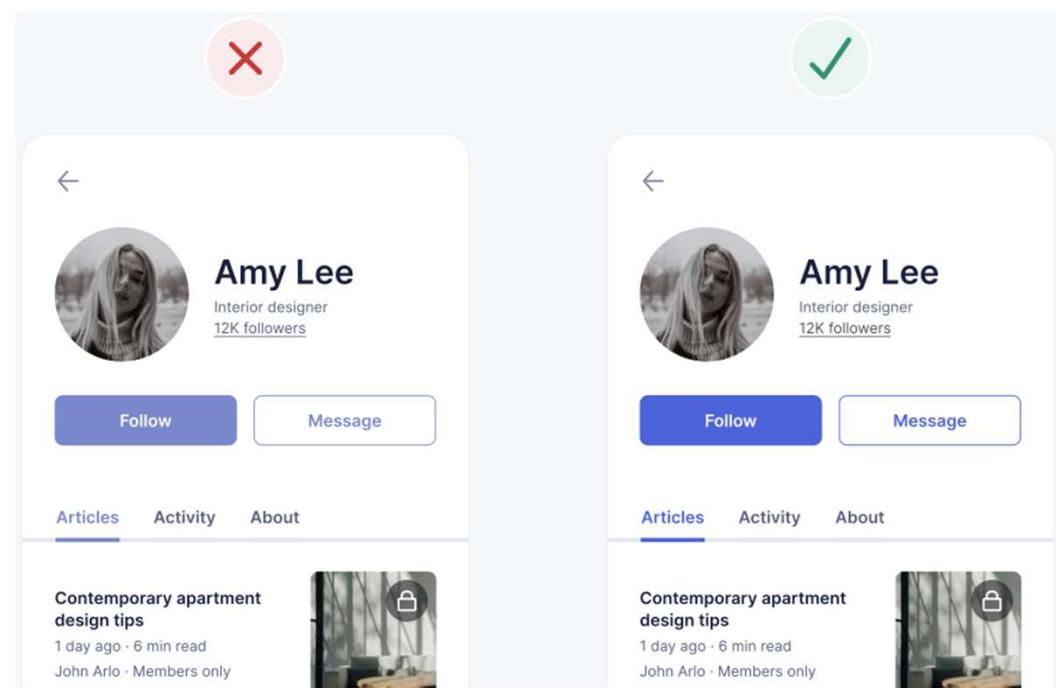
Use color to define a clear visual hierarchy

Saturation

Saturation is the degree of richness or intensity of a color

Use saturated colors for more important elements

For example, use a saturated color for text links and buttons to help them stand out



Use color to define a clear visual hierarchy

Hue

A hue is a number between 0 and 360 degrees that represents the colors of the rainbow

Certain color hues are more prominent than others. For example, red stands out a lot, which is one of the reasons it's used to indicate urgent errors

Email

 Enter email

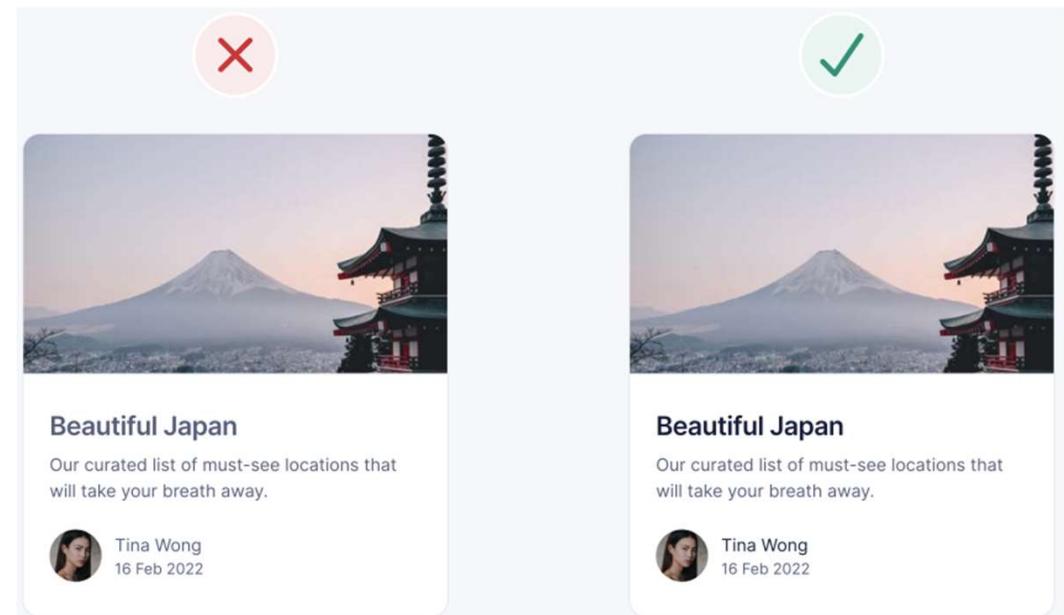
Use color to define a clear visual hierarchy

Contrast

Color contrast is the difference in brightness between 2 colors

Give more important elements higher contrast to make them more prominent

For example, make headings darker than body text to help them stand out



Use black and white for a timeless aesthetic

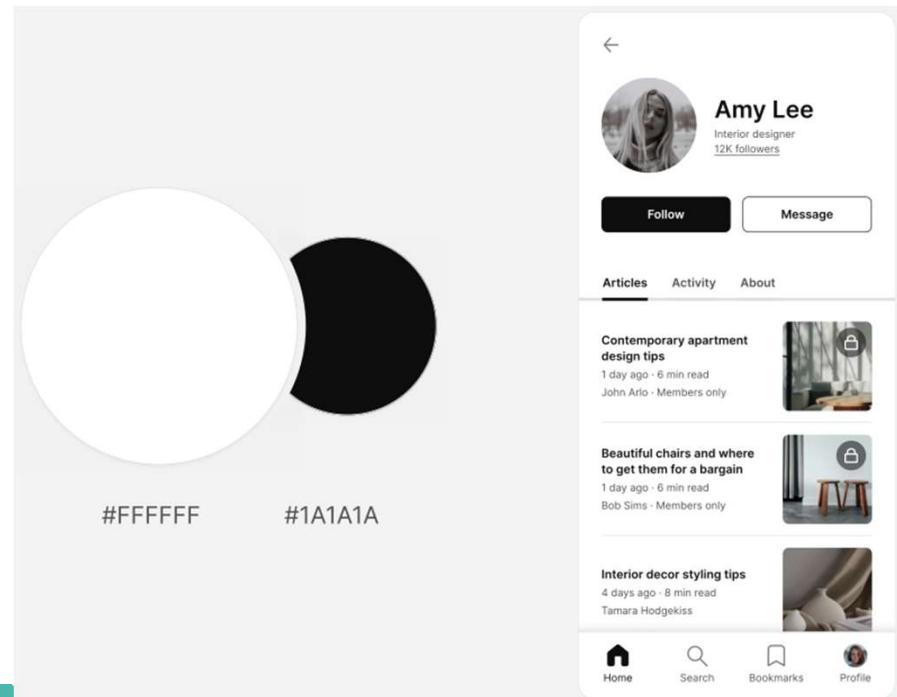
Black and white including shades of gray interfaces are especially good at highlighting content, as there are fewer distractions

It's a good idea to design interfaces without color first, regardless of the brand colors

Designing in black and white first helps you focus on spacing, size, layout, and contrast, without the extra challenge of color

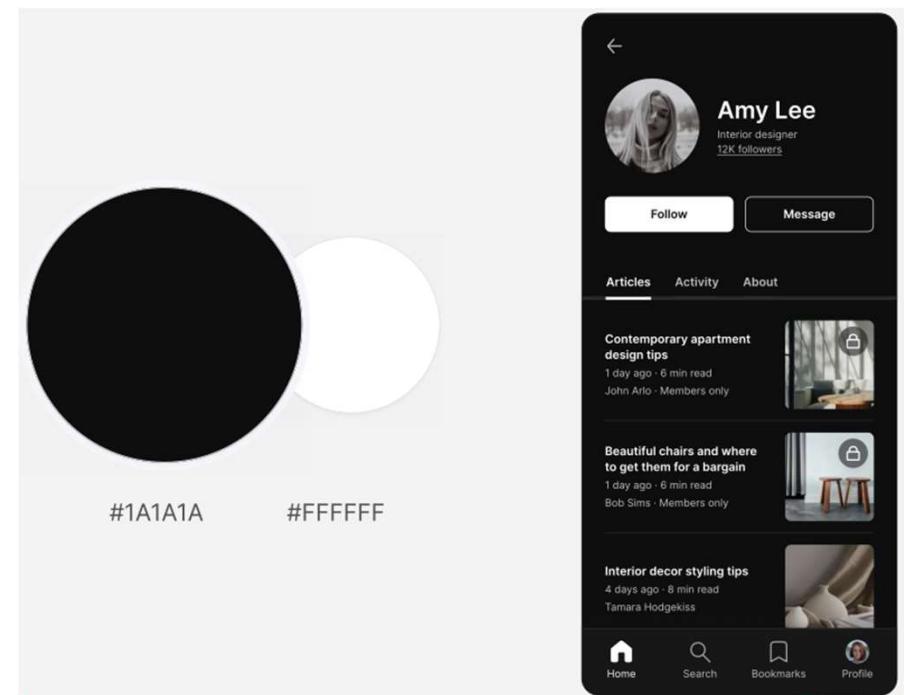
Use black and white for a timeless aesthetic

Use mostly white backgrounds to create a light interface that conveys a simple, classic, or minimal feel



Use black and white for a timeless aesthetic

Use mostly black backgrounds to create a dark interface that conveys a dramatic, powerful, or luxurious feel



#1A1A1A

#FFFFFF

Avoid pure black

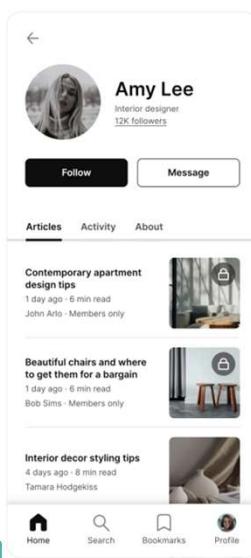
It's generally safest to avoid pure black as it has a high contrast against white. This high contrast can cause eye strain and fatigue, especially when reading long text.

Black has 0% color brightness and white has 100% colour brightness. The large difference in color brightness causes our eyes to work harder. It's safest to avoid pure black against white and opt for a dark grey instead.



Add a tinge of color to black and white

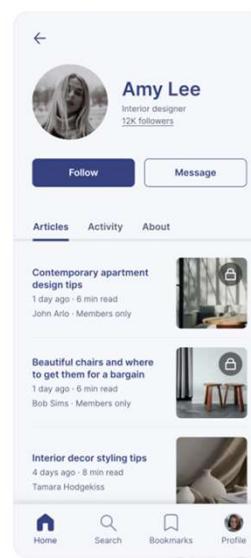
With this approach, you get most of the benefits of a simple black and white interface design, but you're able to adjust the mood with a pinch of color



A user profile card for "Amy Lee" (Interior designer, 12K followers). It features a grayscale profile picture, a "Follow" button (black), a "Message" button (white), and tabs for "Articles", "Activity", and "About". Below the tabs are three article cards:

- Contemporary apartment design tips (1 day ago - 6 min read, John Arlo - Members only)
- Beautiful chairs and where to get them for a bargain (1 day ago - 6 min read, Bob Sims - Members only)
- Interior decor styling tips (4 days ago - 8 min read, Tamara Hodgekiss)

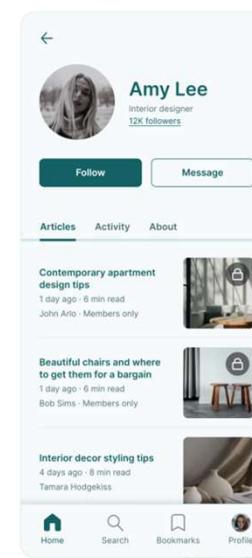
The footer navigation bar includes "Home", "Search", "Bookmarks", and "Profile" buttons.



A user profile card for "Amy Lee" (Interior designer, 12K followers). It features a grayscale profile picture, a "Follow" button (dark blue), a "Message" button (white), and tabs for "Articles", "Activity", and "About". Below the tabs are three article cards:

- Contemporary apartment design tips (1 day ago - 6 min read, John Arlo - Members only)
- Beautiful chairs and where to get them for a bargain (1 day ago - 6 min read, Bob Sims - Members only)
- Interior decor styling tips (4 days ago - 8 min read, Tamara Hodgekiss)

The footer navigation bar includes "Home", "Search", "Bookmarks", and "Profile" buttons.



A user profile card for "Amy Lee" (Interior designer, 12K followers). It features a grayscale profile picture, a "Follow" button (teal), a "Message" button (white), and tabs for "Articles", "Activity", and "About". Below the tabs are three article cards:

- Contemporary apartment design tips (1 day ago - 6 min read, John Arlo - Members only)
- Beautiful chairs and where to get them for a bargain (1 day ago - 6 min read, Bob Sims - Members only)
- Interior decor styling tips (4 days ago - 8 min read, Tamara Hodgekiss)

The footer navigation bar includes "Home", "Search", "Bookmarks", and "Profile" buttons.

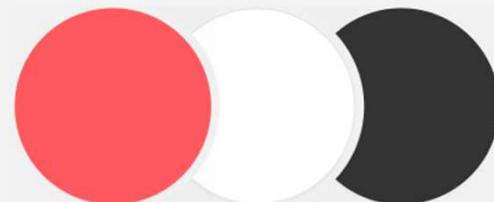
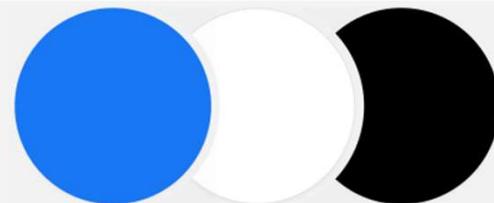
Use 1 brand color

Many of the top brands use a single unique color, alongside black and white, to help convey the brand mood or personality

This works well for interface design, as you can use the brand colour purposefully to indicate interactive elements



Use 1 brand color



Apply the brand color to interactive elements

Use color sparingly and with purpose

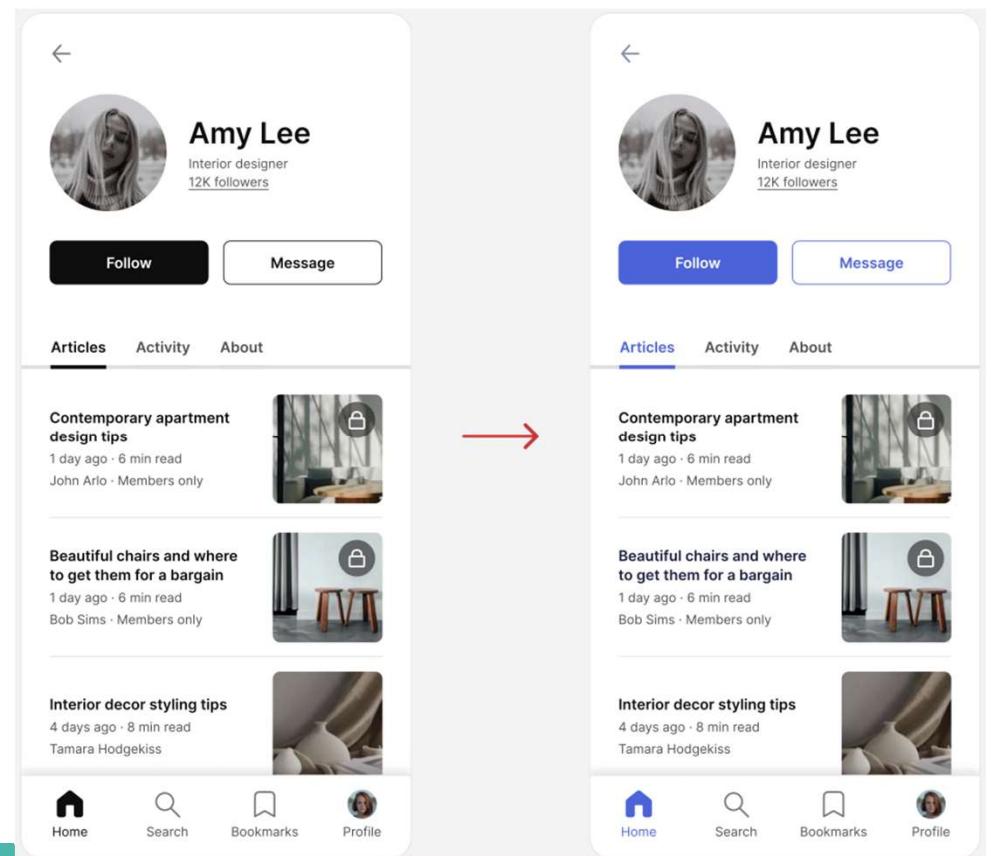
Try to avoid using color purely for decoration, as it can be confusing and distracting

Start with black and white and introduce color where it conveys meaning

You don't need to add color to all interactive elements, as some already have visual cues that indicate they're interactive

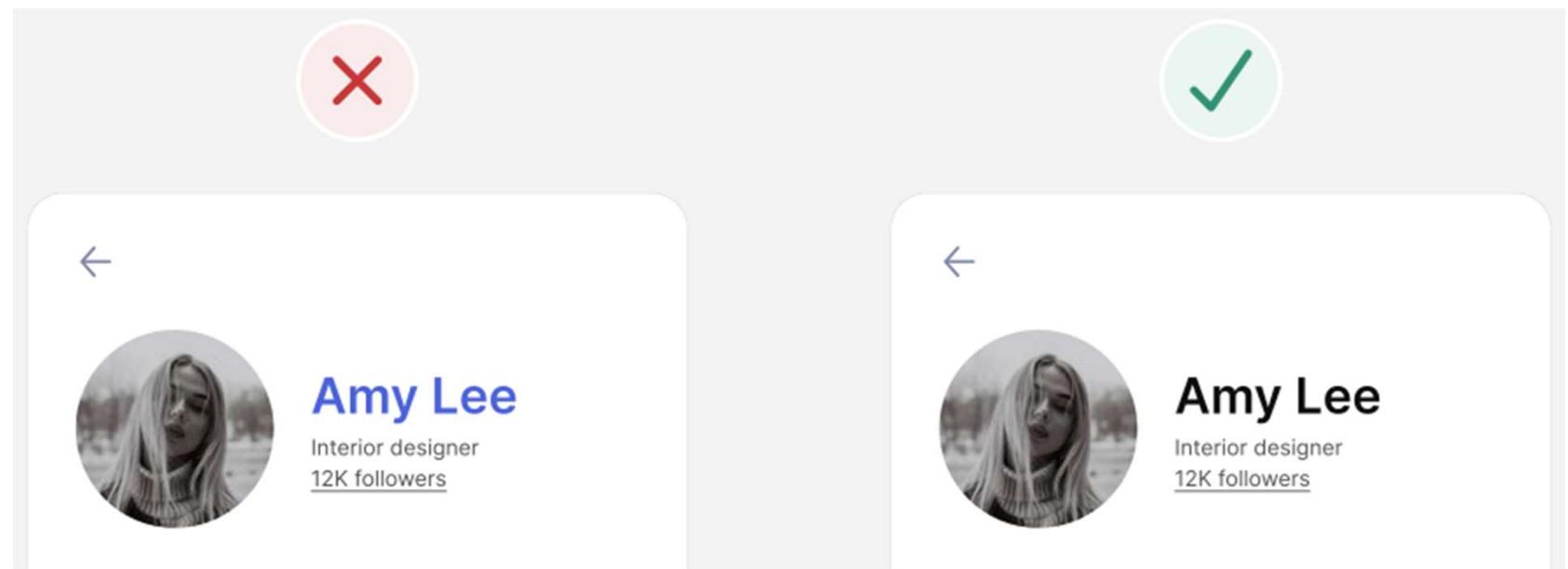
Apply the brand color to interactive elements

The brand color is applied to interactive elements to indicate they're interactive



Apply the brand color to interactive elements

Avoid using color on non-interactive headings, as they could be mistaken for links



Ensure a contrast ratio of 4.5:1

The brand color needs to have a contrast ratio of at least 4.5:1 against the background

The image consists of two parts. On the left is a white card with three colored circles (white, blue, and black) and their corresponding hex codes (#FFFFFF, #4C64D9, #1A1A1A) below them. A red line connects the first two, with the text "4.5:1 contrast ratio" written underneath. On the right is a screenshot of a mobile application. At the top is a user profile for "Amy Lee" (Interior designer, 12K followers), with "Follow" and "Message" buttons. Below the profile are tabs for "Articles", "Activity", and "About", with "Articles" being the active tab. Three article cards are listed: 1. "Contemporary apartment design tips" by John Ario (Members only), posted 1 day ago. 2. "Beautiful chairs and where to get them for a bargain" by Bob Sims (Members only), posted 1 day ago. 3. "Interior decor styling tips" by Tamara Hodgekiss, posted 4 days ago. At the bottom are navigation icons for "Home", "Search", "Bookmarks", and "Profile".

Ensure a contrast ratio of 4.5:1

You should also check the contrast using the APCA method, as the standard method doesn't work well with certain colors

The image is a composite of two screenshots. On the left, a color checker card displays three circles: black (#222625), teal (#73E5CA), and white (#FFFFFF). Below the circles is the text "4.5:1 contrast ratio". On the right, a mobile application interface for "Amy Lee" (Interior designer, 12K followers) is shown. The interface includes a profile picture, follow and message buttons, and tabs for Articles, Activity, and About. Three article cards are listed: "Contemporary apartment design tips" by John Arlo (1 day ago, 6 min read, Members only), "Beautiful chairs and where to get them for a bargain" by Bob Sims (1 day ago, 6 min read, Members only), and "Interior decor styling tips" by Tamara Hodgekiss (4 days ago, 8 min read).

What about low contrast colors?

If the brand color is a light colour like yellow, it won't have enough contrast to be accessible against light background colors like white

Depending on the brand color, you might be able to darken it slightly to get it to an accessible contrast ratio (without losing brand recognition)

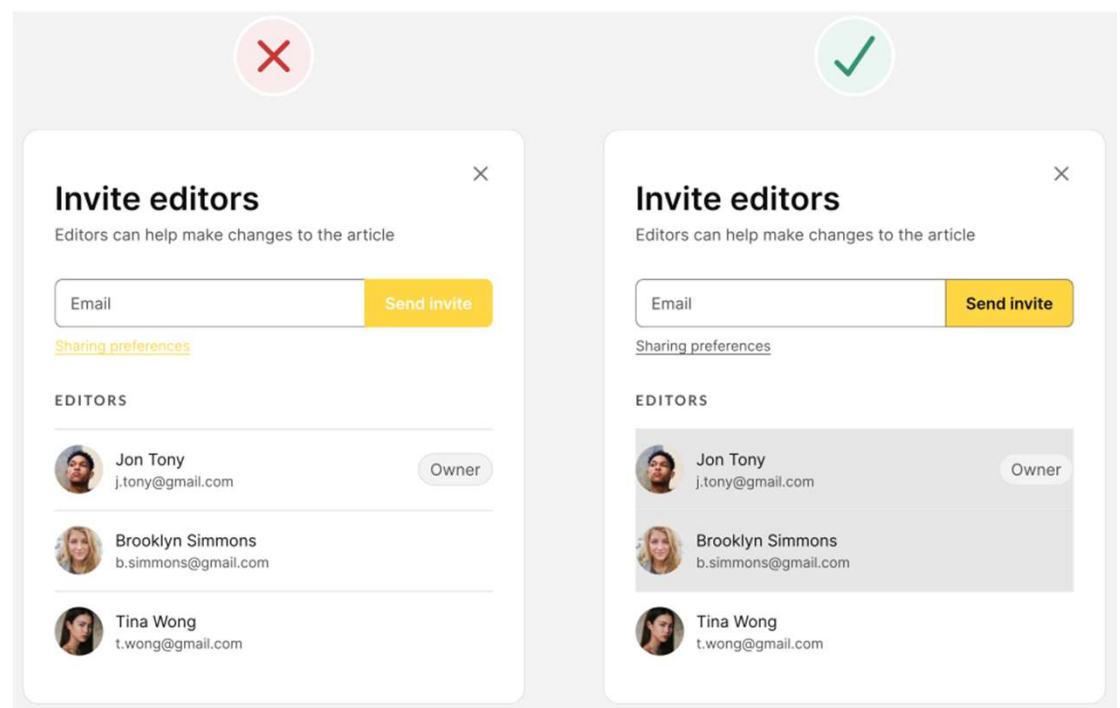
Another trick is to add a text shadow to the white button text



What about low contrast colors?

Use the text color for button text, text links, and other interactive elements to ensure they're accessible and prominent

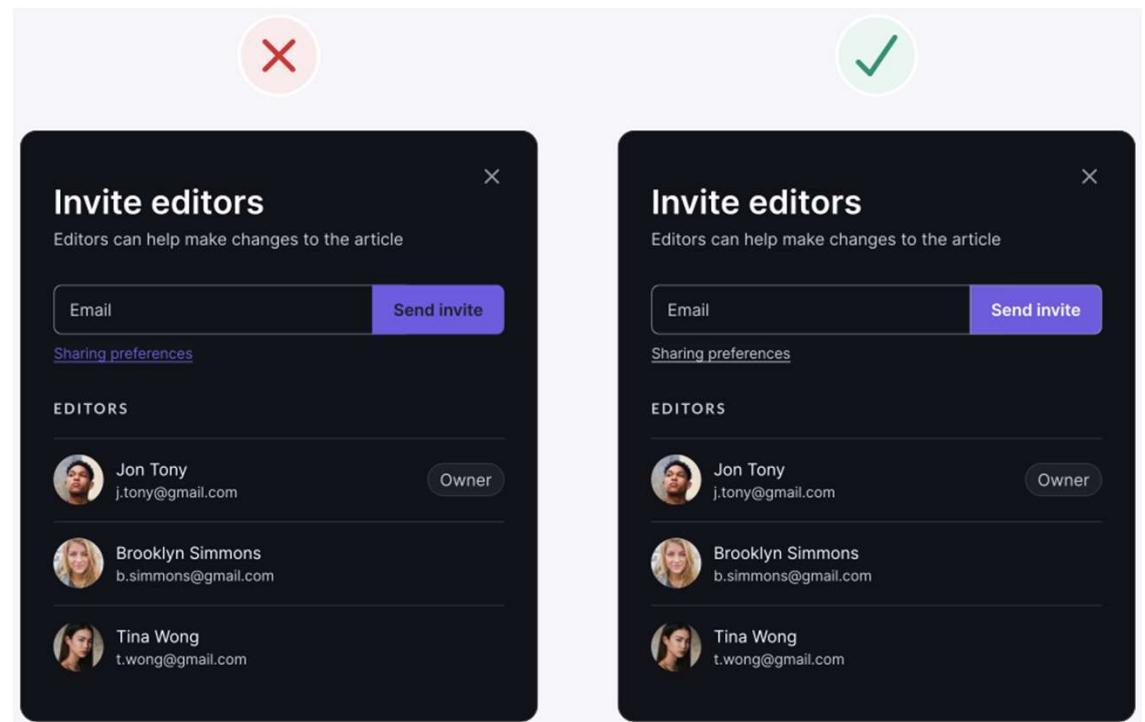
Add a border to buttons to ensure they have at least a 3:1 contrast ratio



What about low contrast colors?

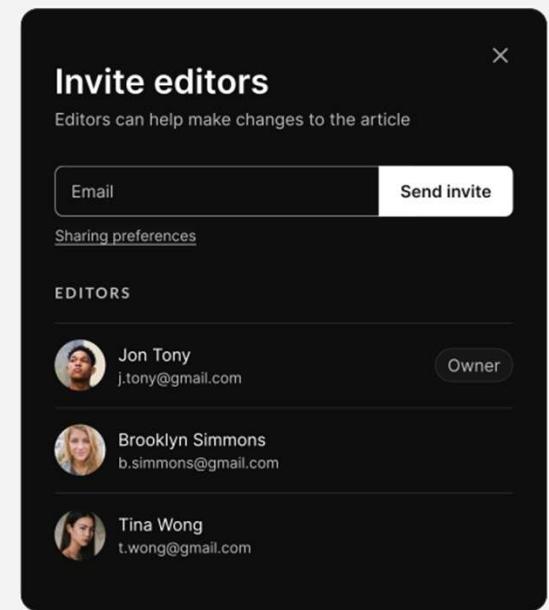
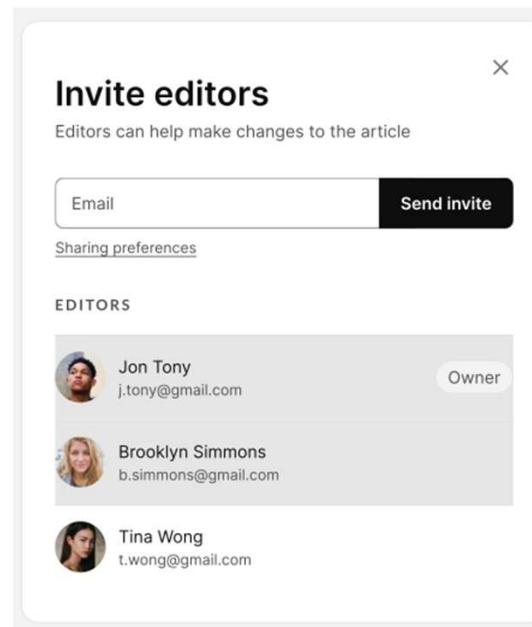
Use the text color for button text, text links, and other interactive elements to ensure they're accessible and prominent

Add a border to buttons to ensure they have at least a 3:1 contrast ratio



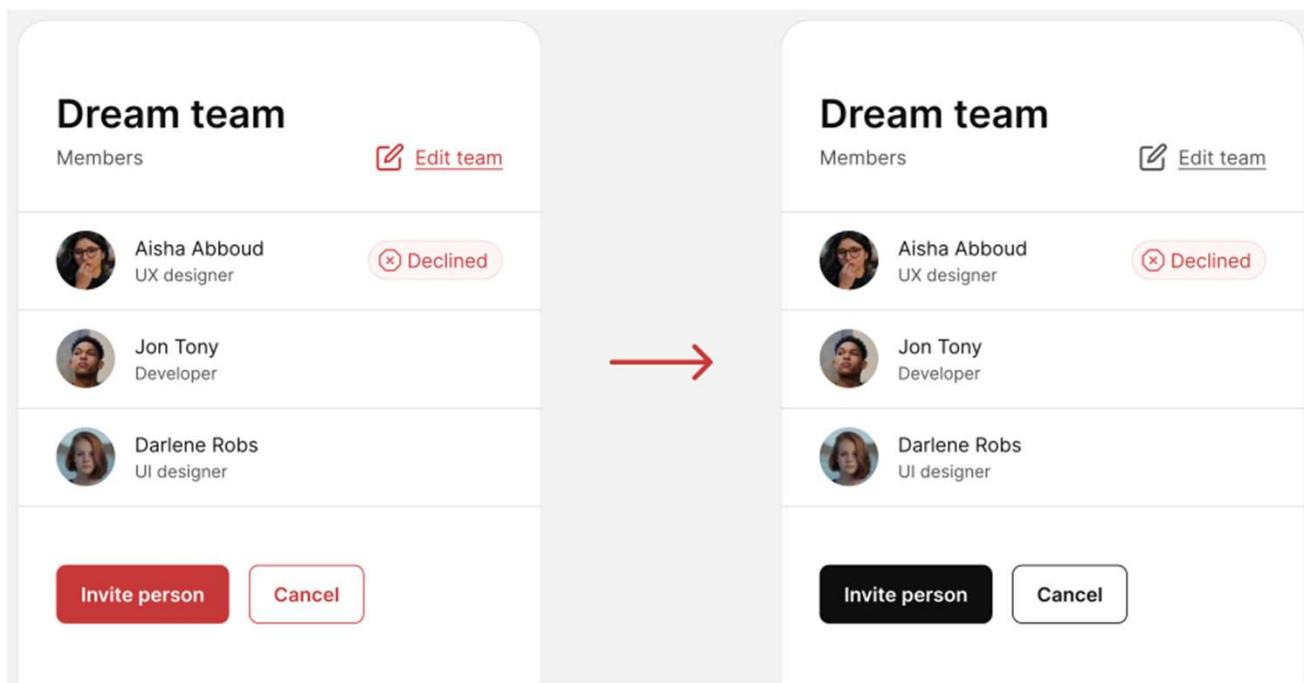
What about low contrast colors?

You could also consider not using your brand color for interactive elements and opt for a simple black and white aesthetic instead



If the brand color has meaning, avoid using it for interactive elements

Using red for interactive elements can cause confusion



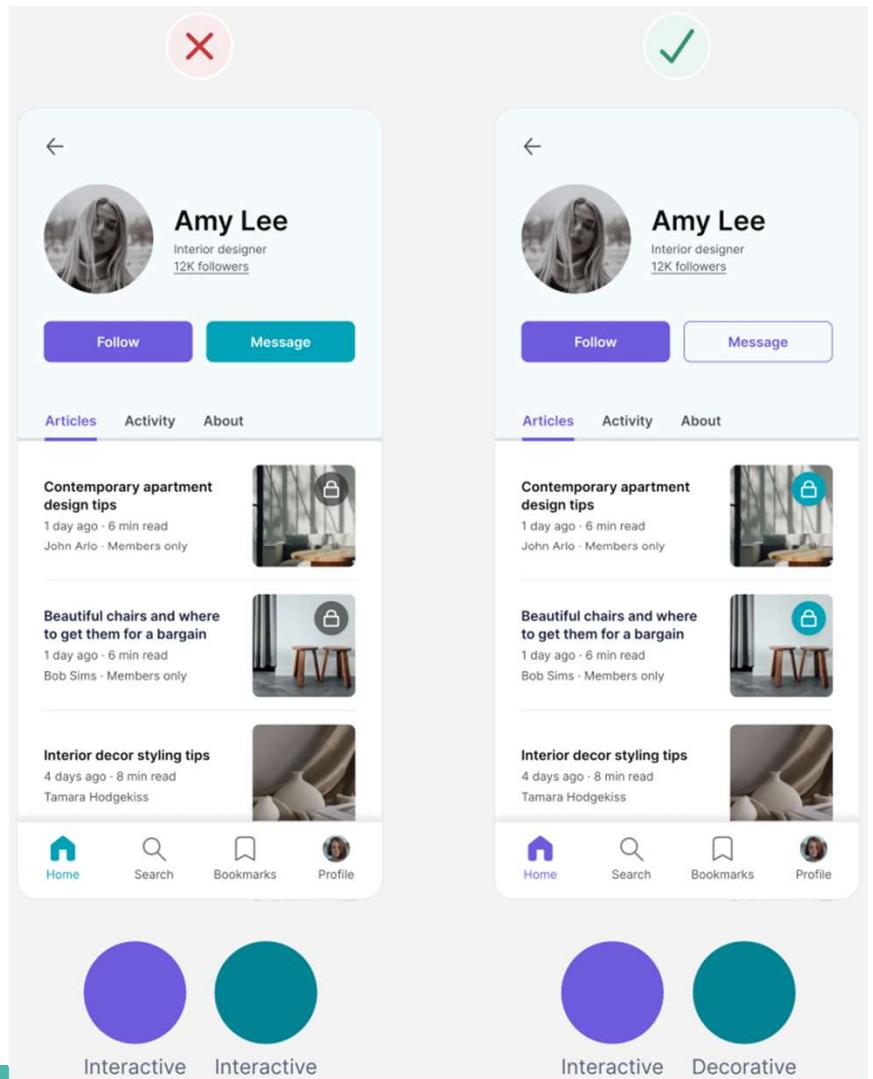
What if there are multiple brand colors?

If there are multiple brand colors, use the highest contrast color for interactive elements and use the others sparingly for decorative elements

Decorative elements might include backgrounds, borders, icons, and illustrations



Don't use more than one color for interactive elements, as it could cause confusion around what colors mean



Use the HSB color system

Using the HSB (Hue, Saturation, Brightness) color system makes it much easier to define your color variations

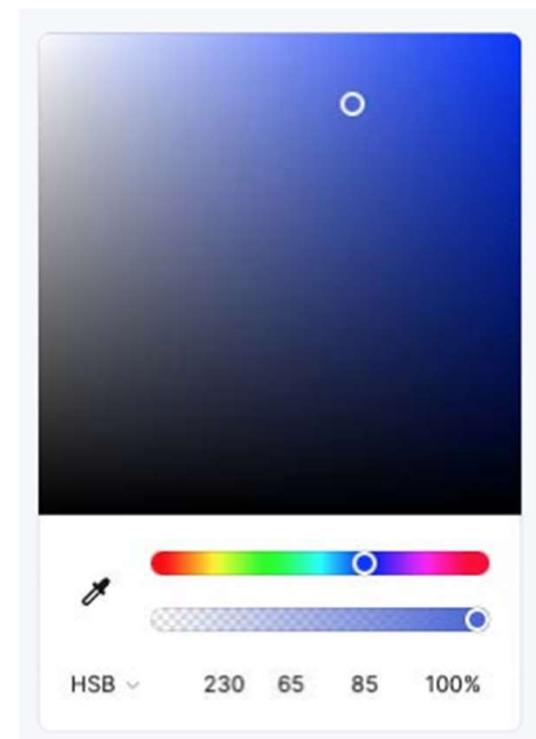


Use the HSB color system

Hue - a number between 0 and 360 degrees that represents the colors of the rainbow

Saturation - a number between 0 and 100 that represents the intensity or richness of a hue

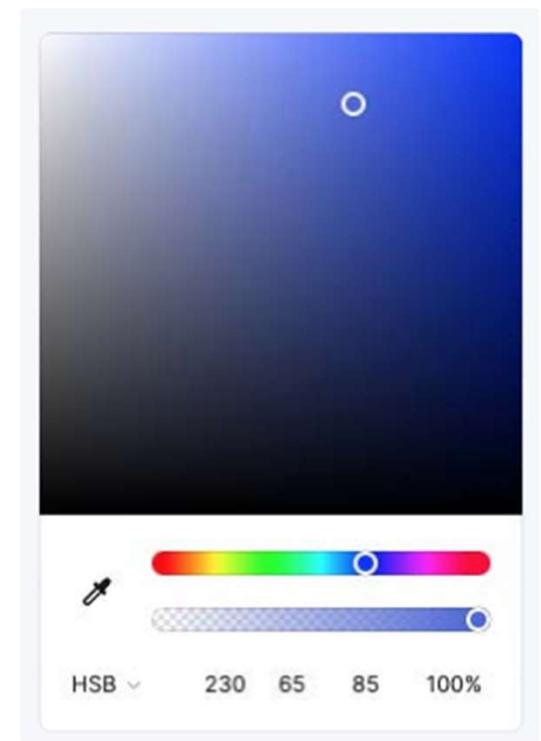
A saturation of 100 is the richest version of the hue and 0 is a grey version of the hue



Use the HSB color system

Brightness- a number between 0 and 100 that represents the lightness/darkness of a hue

A brightness of 100 is the lightest version of the hue and 0 is always black



5 color variations is often all you need

Color palettes can be unnecessarily large and complex, making them difficult to understand and follow

In many cases, all you need is 1 brand color and 5 variations of that color

You can add more variations if needed





Brand
HSB: 230, 65, 85

Contrast with fill variation
must be at least:

4.5 : 1



Text strong
HSB: 230, 57, 24

Contrast with fill variation
must be at least:

4.5 : 1



Text weak
HSB: 230, 27, 48

Contrast with fill variation
must be at least:

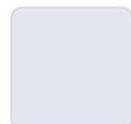
4.5 : 1



Stroke strong
HSB: 230, 23, 65

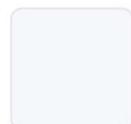
Contrast with fill variation
must be at least:

3 : 1



Stroke weak
HSB: 230, 5, 94

This is a decorative colour, so it
doesn't need to be high contrast.



Fill
HSB: 230, 2, 98

Text and interface elements sitting on
this colour must have sufficient contrast



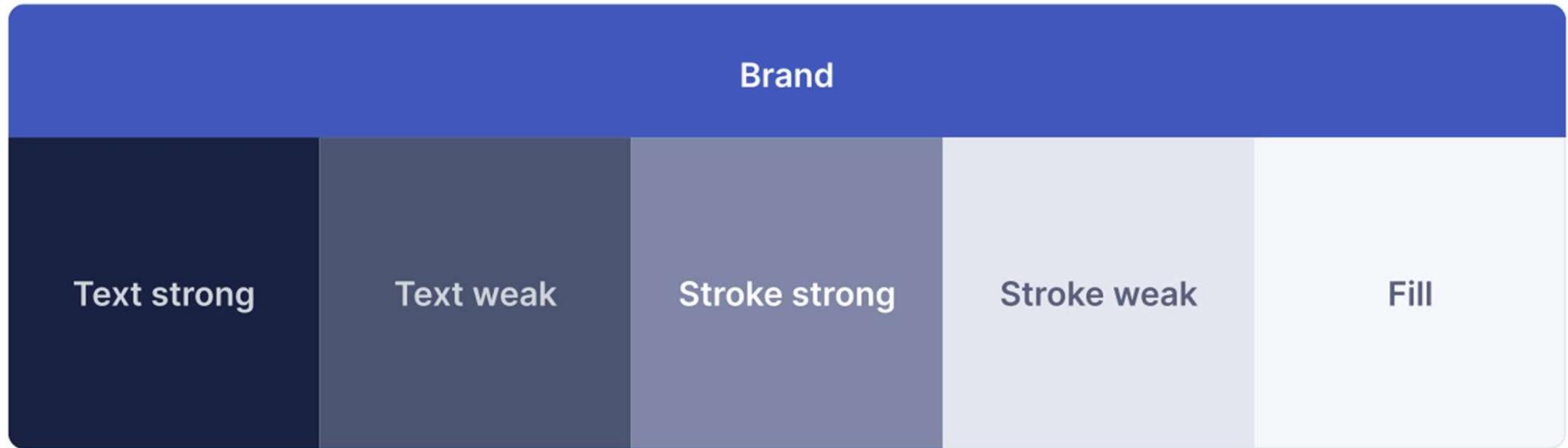
Background
HSB: 0, 0, 100

Text and interface elements sitting on
this colour must have sufficient contrast

Create a color palette with rules that govern its usage

Brand - used to indicate interactive elements like text links and buttons

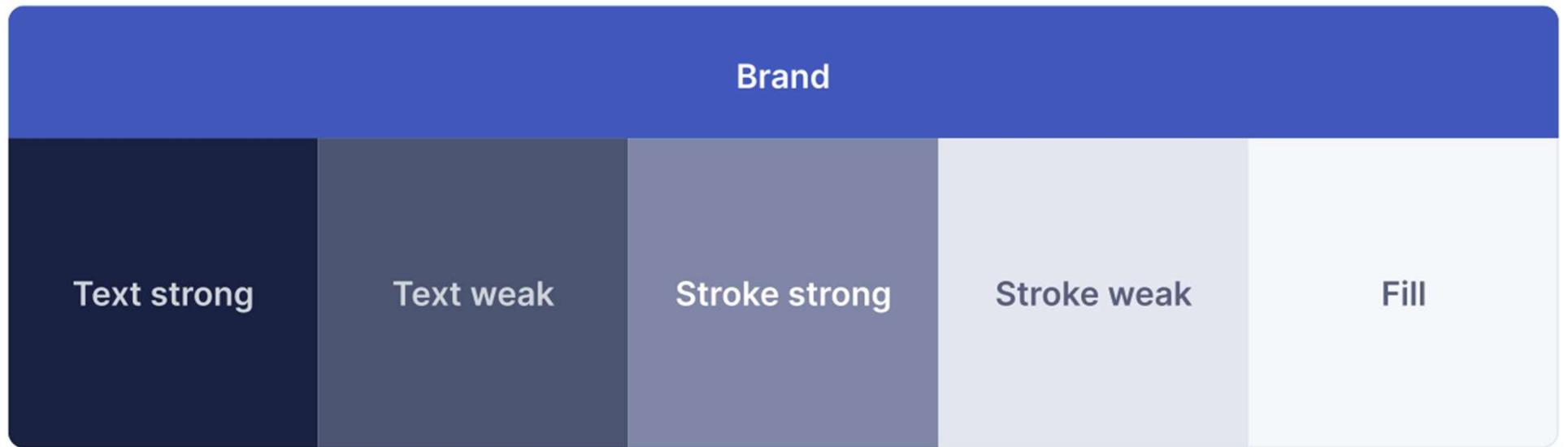
Text strong - used for primary text, like headings, body content, and form labels to ensure they're prominent and legible



Create a color palette with rules that govern its usage

Text weak - used for supporting text to make it less prominent

Stroke strong - used for non-decorative borders on interface elements like form input fields and icons

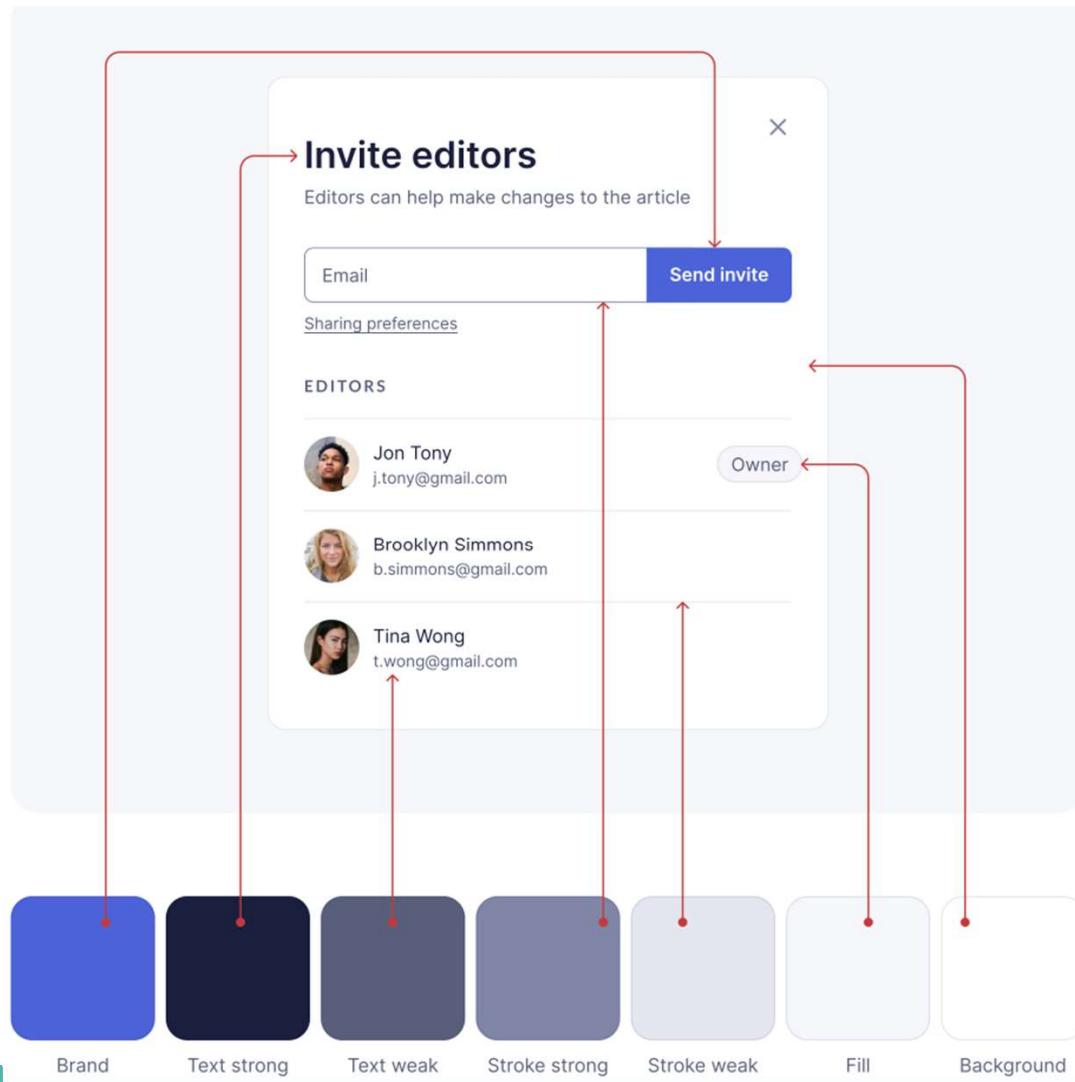


Create a color palette with rules that govern its usage

Stroke weak - used for decorative borders, like dividing lines

Fill - used as a secondary background to help differentiate elements, like tags or badges, that sit on the main white background





Using Colors for interaction states

To indicate interactive states such as hover, press, focus, and disabled consider the following options

Change the opacity

Change the fill color

Change the elevation

Toggle a text underline

Use animation



Change the opacity

Solid colors have an opacity of 100%, which means that you can't see through them

Lowering the opacity of a color makes it more transparent or see-through

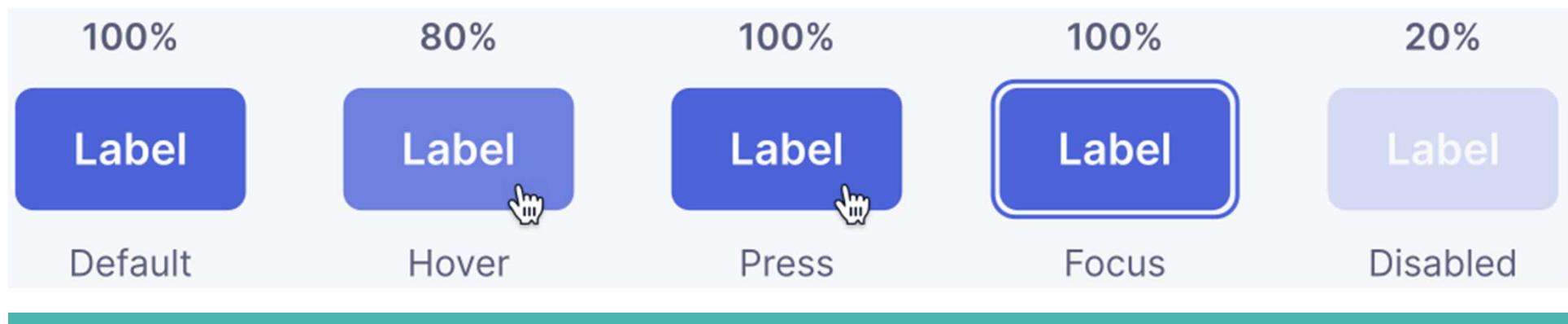


Change the opacity

Use changes in opacity to indicate interaction states

The hover state could have an opacity of 80%, while the disabled state could have an opacity of 20% to help indicate that it's not interactive

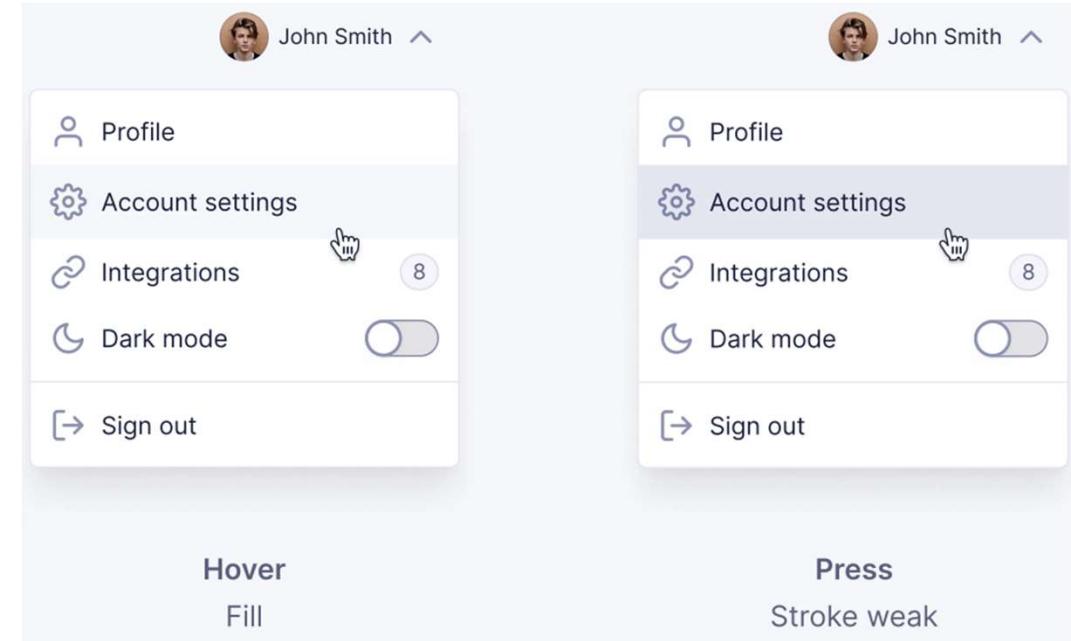
An outline is generally used to indicate the focus state



Change the fill color

For interactive elements with the “Background” color, you can use the “Fill” color variation from the palette for the hover state

For the press state, use the “Stroke weak” color variation



Change the fill color

For interactive elements that use the brand color, like buttons, you could change the fill color to others from the palette

“Text weak” could be used for the hover state, “Text strong” for the press state, and “Stroke weak” for the disabled state

Brand	Text weak	Text strong	Brand	Stroke weak
Default	Hover	Press	Focus	Disabled

Change the elevation

Another quick and simple way of indicating state is to change the elevation of interactive elements

Elements can be elevated using shadows

In the following example, the card component is elevated higher on hover



Marvels of China

Discover fascinating, unusual, and adventurous things to do.



Brooklyn Simmons
14 Feb 2022

Default
Small shadow



Marvels of China

Discover fascinating, unusual, and adventurous things to do.



Brooklyn Simmons
14 Feb 2022



Hover
Larger shadow

Change the elevation

A shadow is used to elevate a button on hover

The press state is often the same as the default state, as it only needs to differ from the hover state



Toggle a text underline

For interactive text that's underlined, like text links, you could simply remove the underline on hover

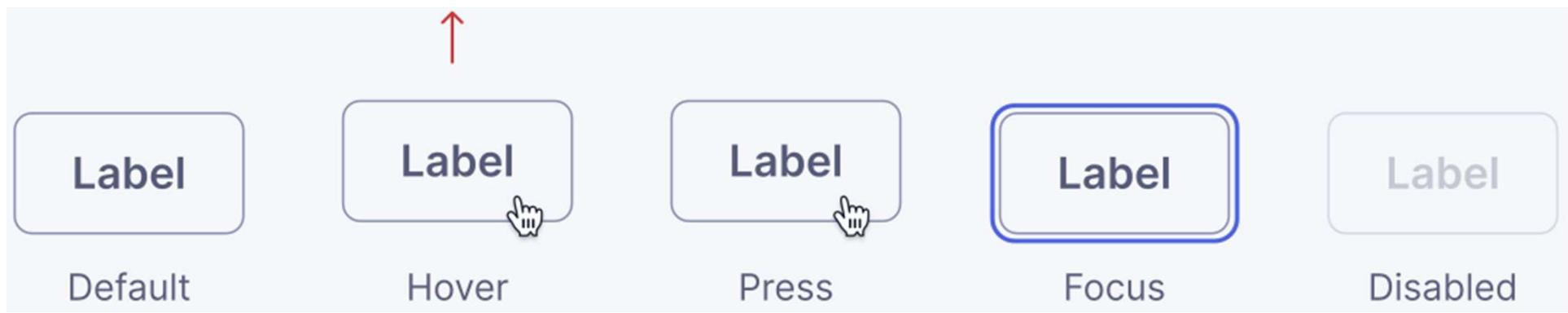
For interactive text that isn't underlined, like text in a navigation menu, consider underlining it on hover



Use animation

You can also use subtle animations to differentiate states

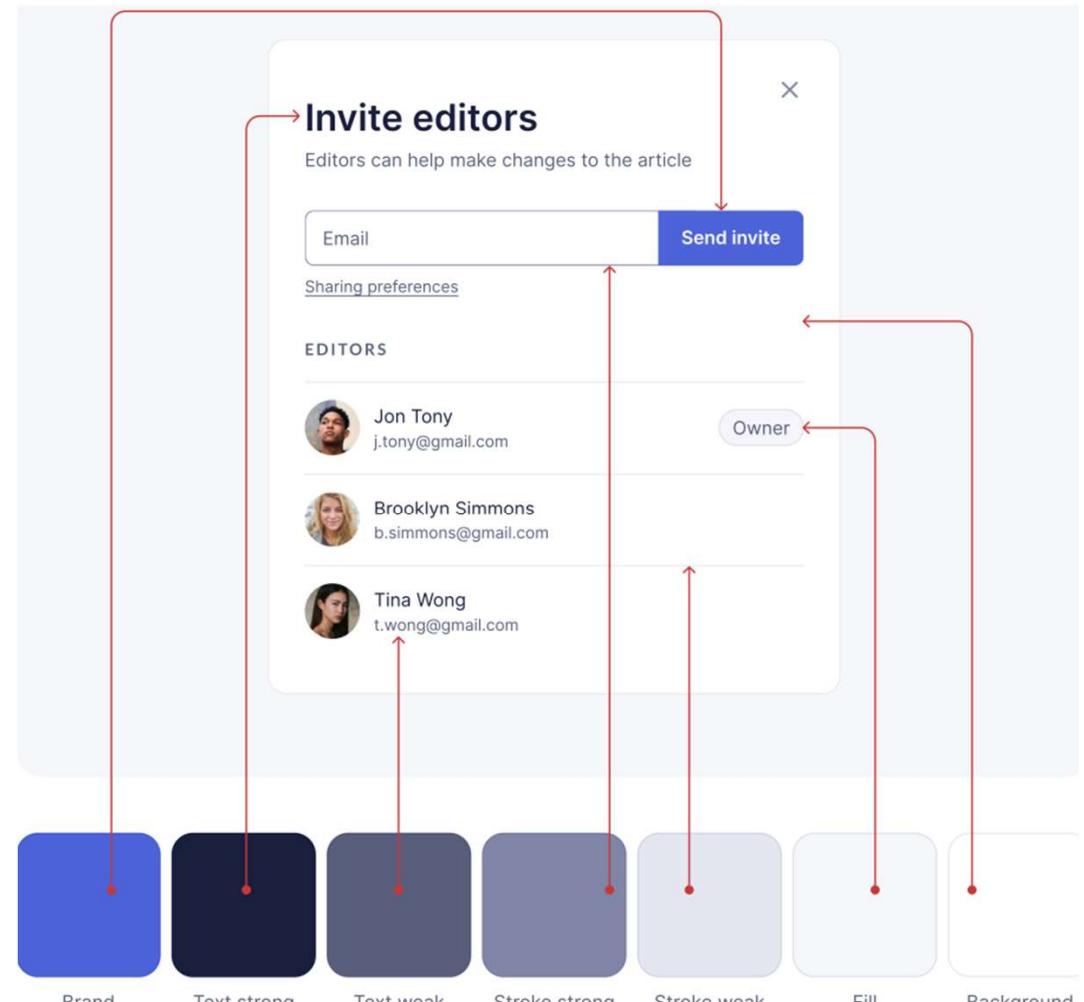
For example, you could move a button slightly upwards on hover, or animate the border, or the background



Test your color palette

Test your color palette using an interface example that contains all color variations

Seeing all of the colors in context is the only way to be sure they'll work well together



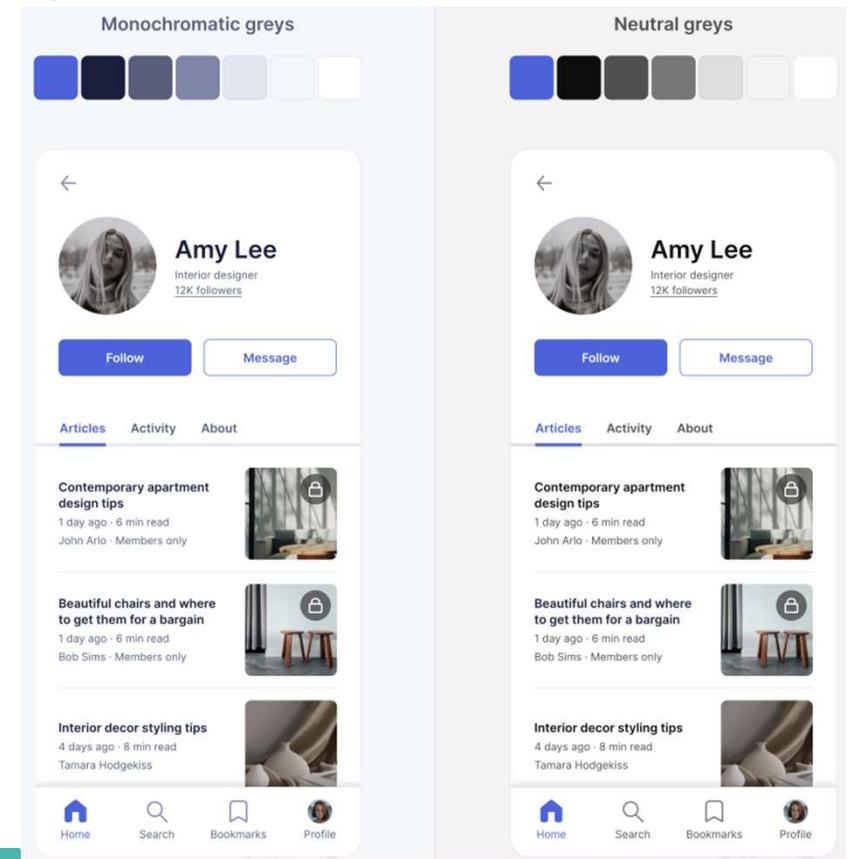
Monochromatic versus neutral greys

Monochromatic grey consists of variations of a single colour hue

Neutral greys don't contain any color hue

They have a saturation of zero

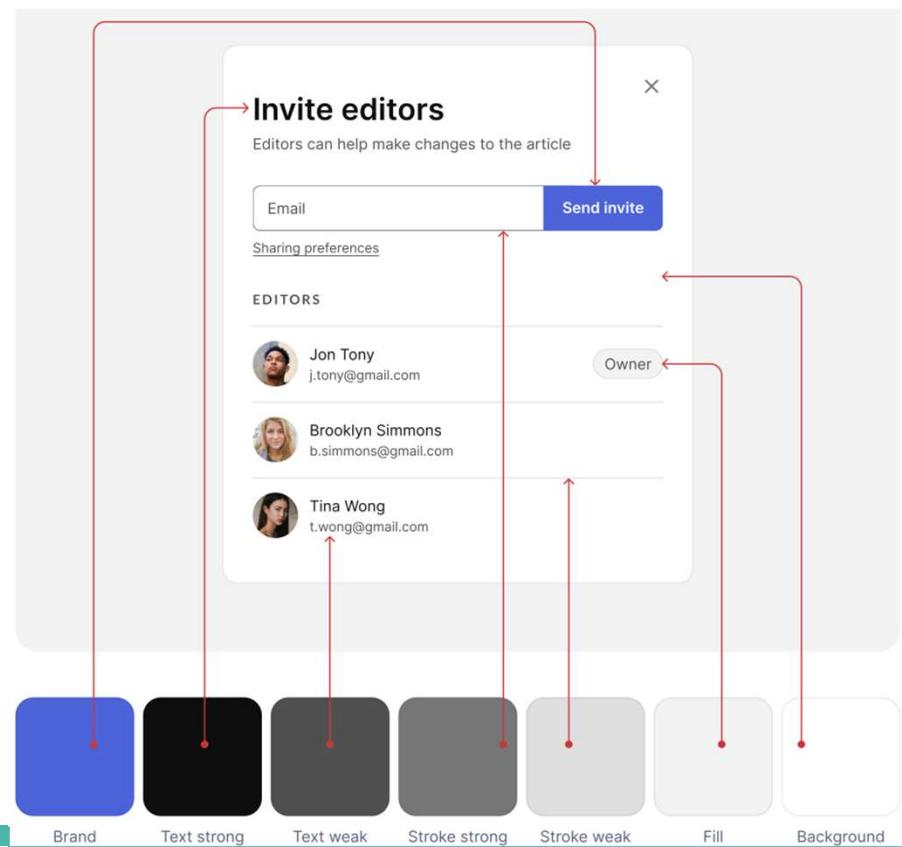
Variations of a single color create a simple and cohesive look



Monochromatic versus neutral greys

If you prefer a neutral color palette like the following example, simply use variations of neutral grey along with your brand color

Set the saturation to zero to create neutral variations of grey



Create a dark color palette

An example of a dark interface

The screenshot shows a dark-themed user interface for managing applications. On the left, there's a sidebar with a logo 'Practical UI', a search bar, and navigation links: Home, Team, Reports (with 8 items), Calendar (with New), and Favourites. At the bottom of the sidebar, there's a profile card for 'John Smith' with the email 'john@gmail.com'. The main area is titled 'Manage applications' and subtitle 'Control who can access your team dashboard and files'. It has tabs for All, Approved, On hold, Pending, and Rejected, with 'All' selected. Below is a table titled 'Applicants' showing five rows of data:

<input type="checkbox"/>	Applicant	Email	Date applied	Status	Actions
<input checked="" type="checkbox"/>	John Smith Designer	jsmith@gmail.com	5 Dec 2023	Approved	...
<input checked="" type="checkbox"/>	Brooklyn Sims UX designer	brooklyns@gmail.com	3 Dec 2023	Approved	...
<input type="checkbox"/>	Tony Jones Copywriter	t.jones@hotmail.com	2 Dec 2023	On hold	...
<input type="checkbox"/>	Tina Wong Developer	tina.wong@gmail.com	24 Nov 2023	Rejected	...
<input type="checkbox"/>	Jane Smith Developer	jane@gmail.com	22 Nov 2023	Pending	...

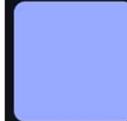
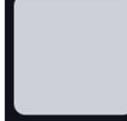
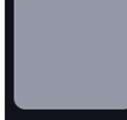
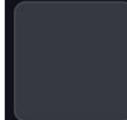
At the bottom, there are navigation buttons for Previous, page 1, page 2 (which is highlighted), page 3, ..., page 10, Next, and a total count of 'Showing 11 - 20 of 128'.

Create a dark color palette

Use the main brand color hue as a base and change the saturation and brightness to create the other variations

Increase the contrast well above the minimum WCAG requirements for dark interfaces, as they can be more difficult to see

Check contrast using the APCA method for more accurate contrast measurements

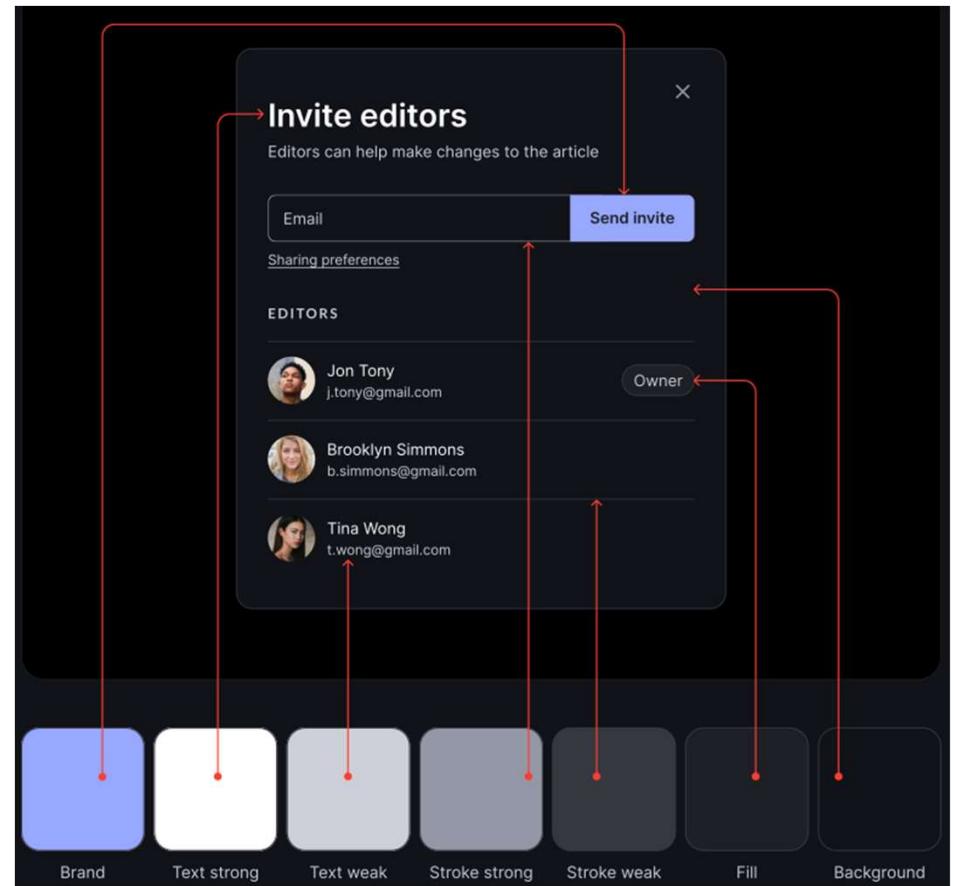
	Brand HSB: 230, 40, 99	Contrast with fill variation must be at least:	4.5 : 1
	Text strong HSB: 230, 0, 100	Contrast with fill variation must be at least:	4.5 : 1
	Text weak HSB: 230, 5, 85	Contrast with fill variation must be at least:	4.5 : 1
	Stroke strong HSB: 230, 10, 65	Contrast with fill variation must be at least:	3 : 1
	Stroke weak HSB: 230, 15, 25	This is a decorative colour, so it doesn't need to be high contrast.	
	Fill HSB: 230, 20, 15	Text and interface elements sitting on this colour must have sufficient contrast	
	Background HSB: 230, 30, 10	Text and interface elements sitting on this colour must have sufficient contrast	

Create a dark color palette

Start with white for the “Text strong” variation, it has a saturation of 0 and a brightness of 100

Gradually increase saturation and decrease brightness to create the other colour variations

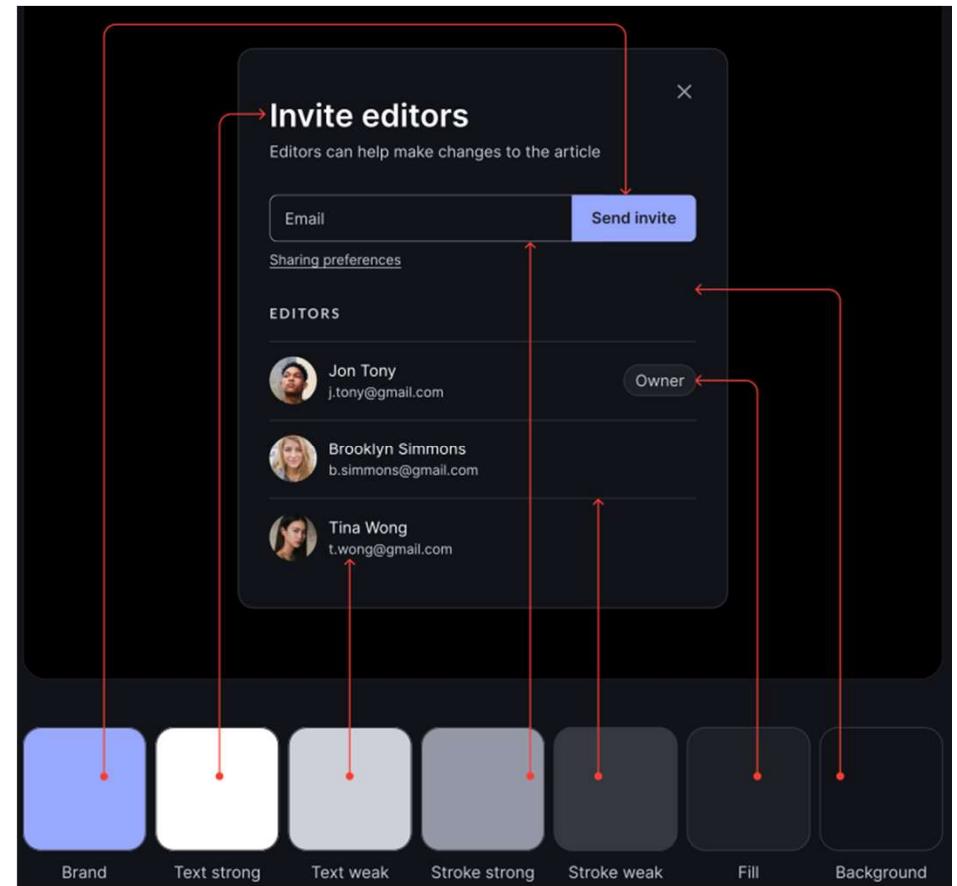
Avoid pure black for the background colour and opt for a dark grey instead



Create a dark color palette

In order to use the brand color on interactive elements like text links and buttons, it needs sufficient contrast

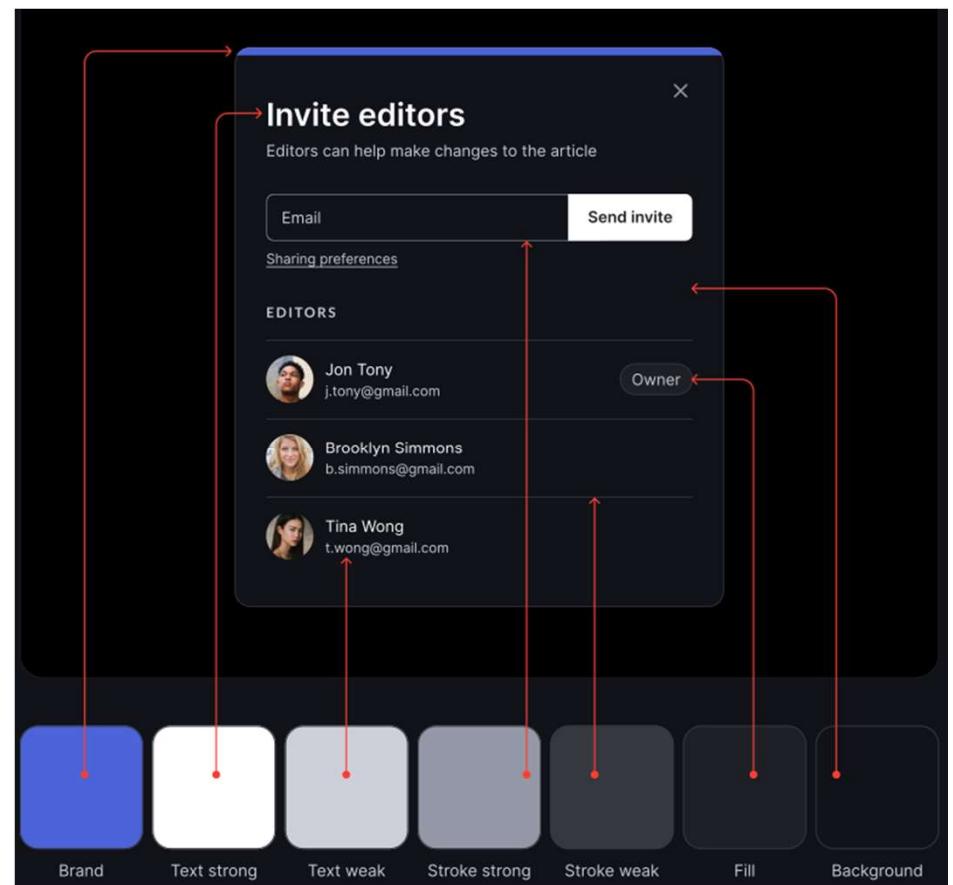
Dark brand colors will generally need to be lightened and desaturated to achieve the required contrast



Create a dark color palette

If the adjusted color no longer reflects the brand closely enough, consider using white for interactive elements instead

You can use the brand color decoratively in other areas to maintain a subtle brand presence



Add depth using color and shadows

To add depth to an interface, use color and shadows to raise or lower interface elements to different levels of elevation

Elements with a higher elevation appear closer to you and are more prominent



Add depth using color and shadows

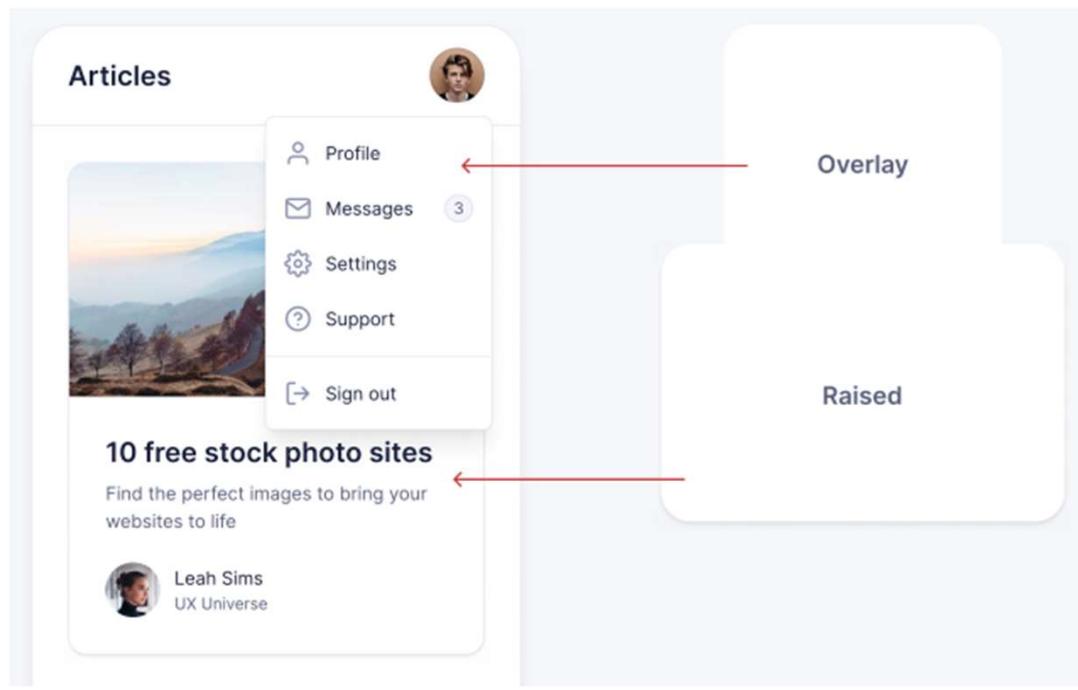
Define 2 shadow options

Raised - a small and sharp shadow used to slightly elevate interactive elements like cards

Overlay - a larger and softer shadow used for elements that float high above the page like dropdown menus and floating dialog boxes

Add depth using color and shadows

Define 2 shadow options



Add depth using color and shadows

Use a small and sharp shadow to slightly raise an interface element off the page

Use a larger and softer shadow to elevate an interface element higher

Make sure the light comes from the top to mimic real world objects

Rather than using black for the shadow color, try using the “Text strong” variation from your predefined color palette

This will help ensure the shadow fits in with the rest of the interface

Adding depth in dark interfaces

Shadows can be difficult to see in dark interfaces, so you mostly need to rely on colour to indicate depth



Adding depth in dark interfaces

Take your background color as your base and define 2 progressively brighter background colors to help indicate elevation above the page

This gives you 3 background colors to use when designing dark interfaces:

Base - darkest colour for the main background

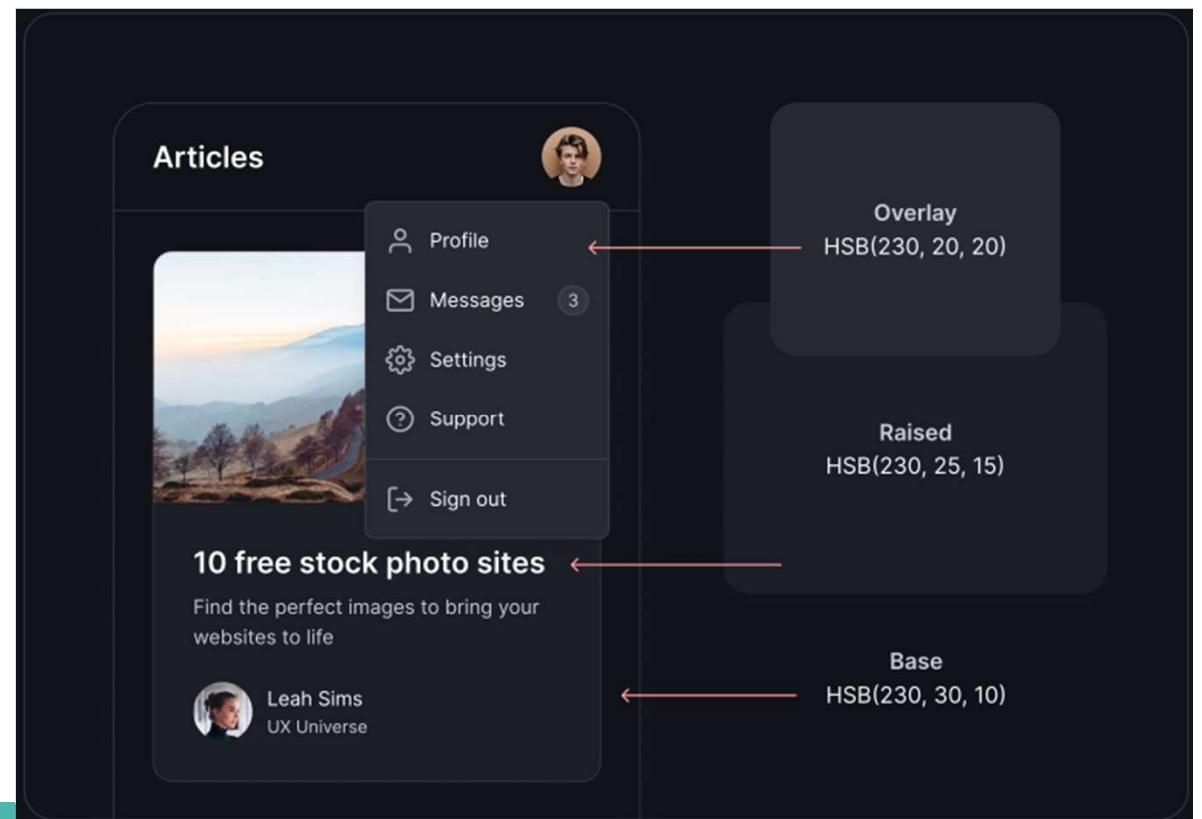
Raised - slightly brighter than the base color

Overlay - slightly brighter than the raised color



Adding depth in dark interfaces

3 levels of elevation in dark interfaces



Adding Depth

If you're designing an interface that supports switching between light and dark mode, make sure each level of elevation looks consistent across modes



Transparent colors

Solid colours have an opacity of 100%, which means that you can't see through them

Lowering the opacity of a colour makes it more transparent or see-through



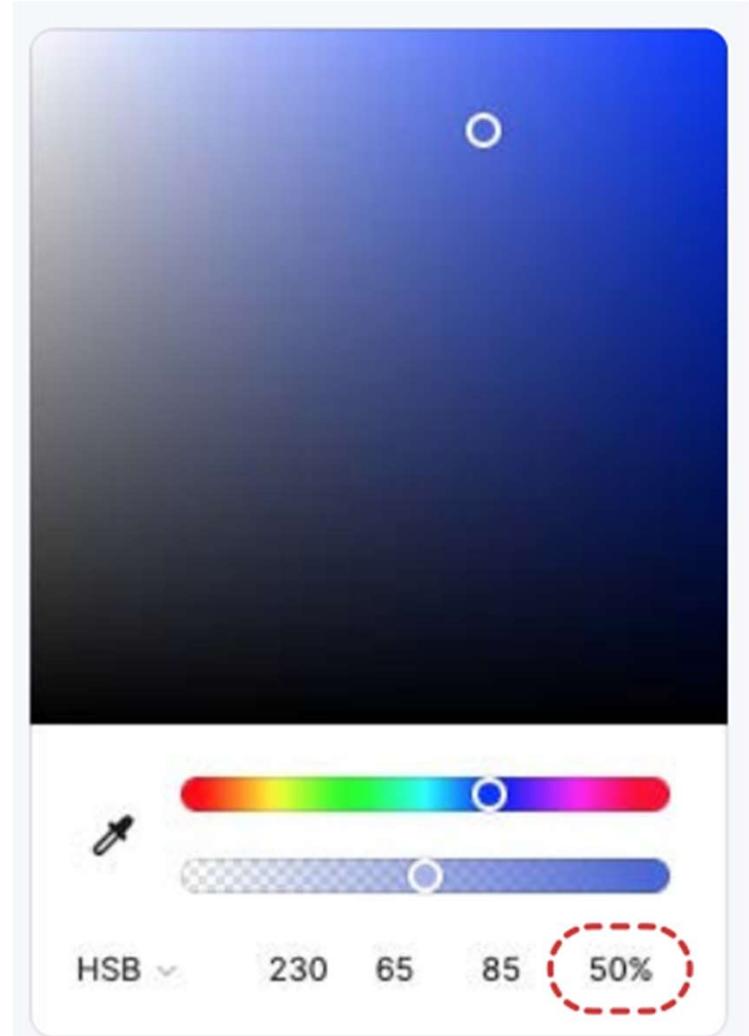
Transparent colors

There's a 4th value in the HSB colour system that controls the opacity of a colour

It's known as the "alpha" value and it's represented by the letter "A"

It can have a value from 0 to 1, with 1 being 100% opacity

HSBA(230, 70, 80, 0.5)



Problem with solid colors

Solid colors remain the same regardless of the background they sit on

In the example shown in the next slide, some tags sit on a white background, while others sit on a grey background

Tags with a solid grey fill look less prominent on the grey background, which affects their visual hierarchy

Ideally, these tags should always look slightly more prominent than the background they sit on to help them stand out

Solid Color

A mobile screen showing a blog post titled "Interviews". The header includes a back arrow, "Home / Blog", and the title "Interviews". Below the title is a horizontal row of three buttons: "Design", "Marketing", and "Business". A dashed red rectangle highlights this row. The main content features a large profile picture of a woman named Mia Swanson. Below the picture is her name "Mia Swanson" and a short bio: "Design director at Smartly, nurturing the design aesthetic and brand." At the bottom is a footer bar with a single "Design" button, also highlighted by a dashed red rectangle.

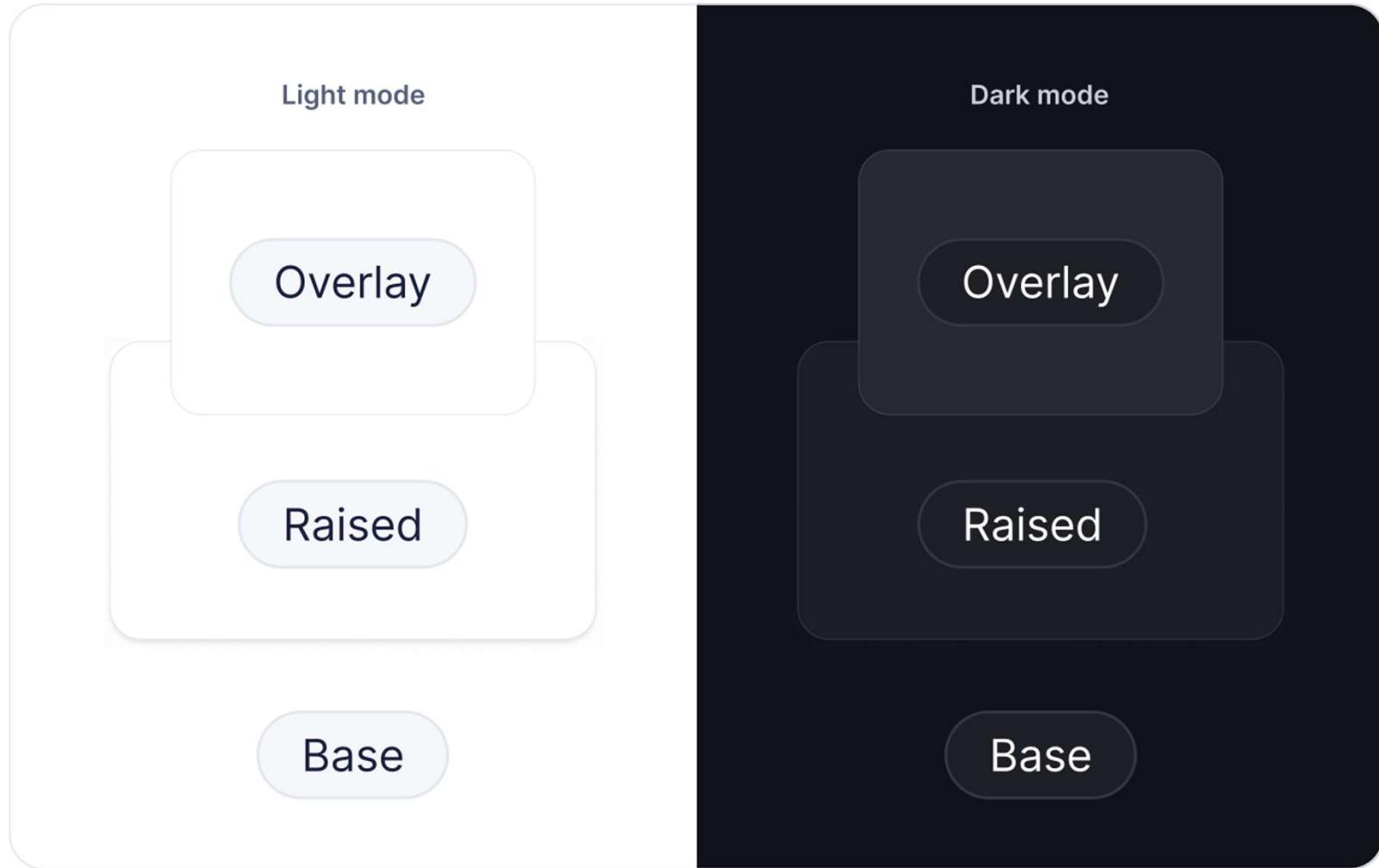
Ideal Design

A mobile screen showing the same blog post as the first one, but with a more refined design. The header, title, and category buttons ("Design", "Marketing", "Business") are all enclosed within a single dashed red rounded rectangle. The rest of the interface, including the profile picture, bio, and footer button, follows the solid color design.

Problem with solid colors

Solid tags have varied prominence on different backgrounds in dark mode as shown in the next slide





Using Transparent Color

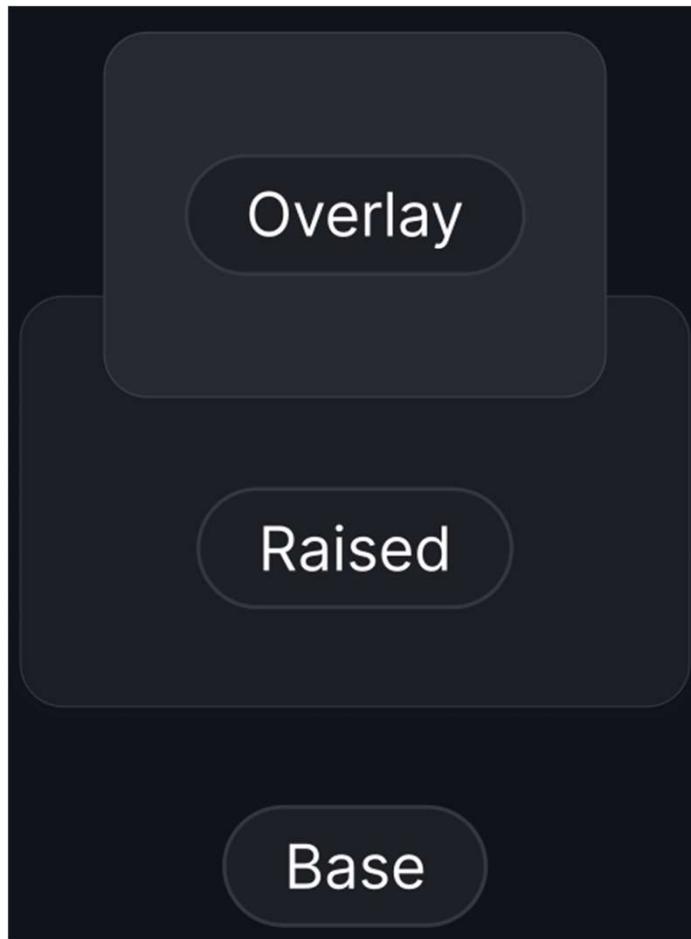
Using varying levels of transparency on foreground elements, allows some of the background color to mix with the foreground color

This layering of color helps us resolve the solid color issue

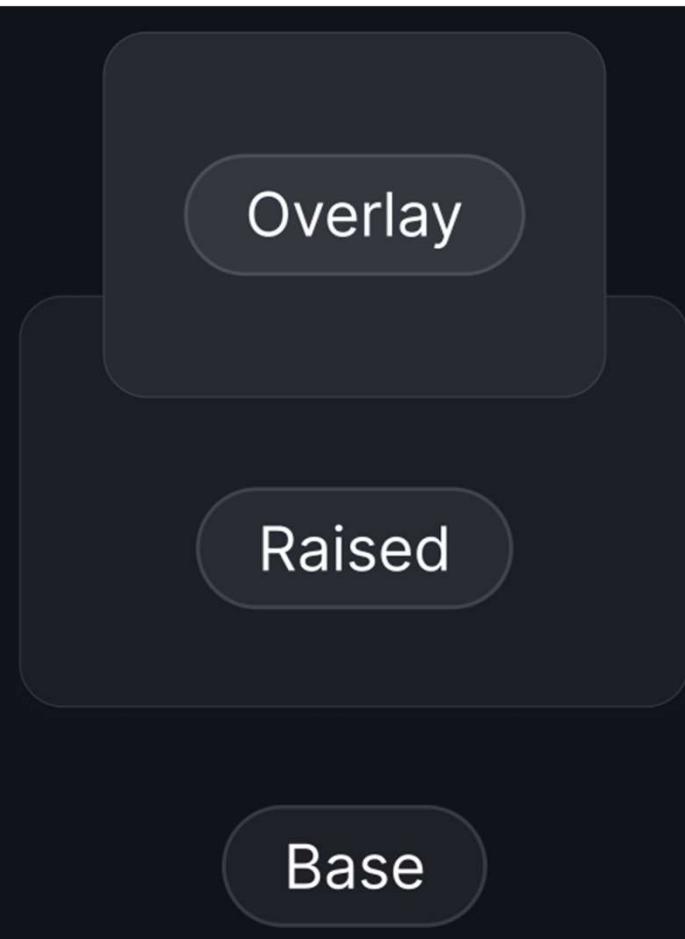
Example design using transparent color is shown in the next slide



Solid Color



Transparent Color



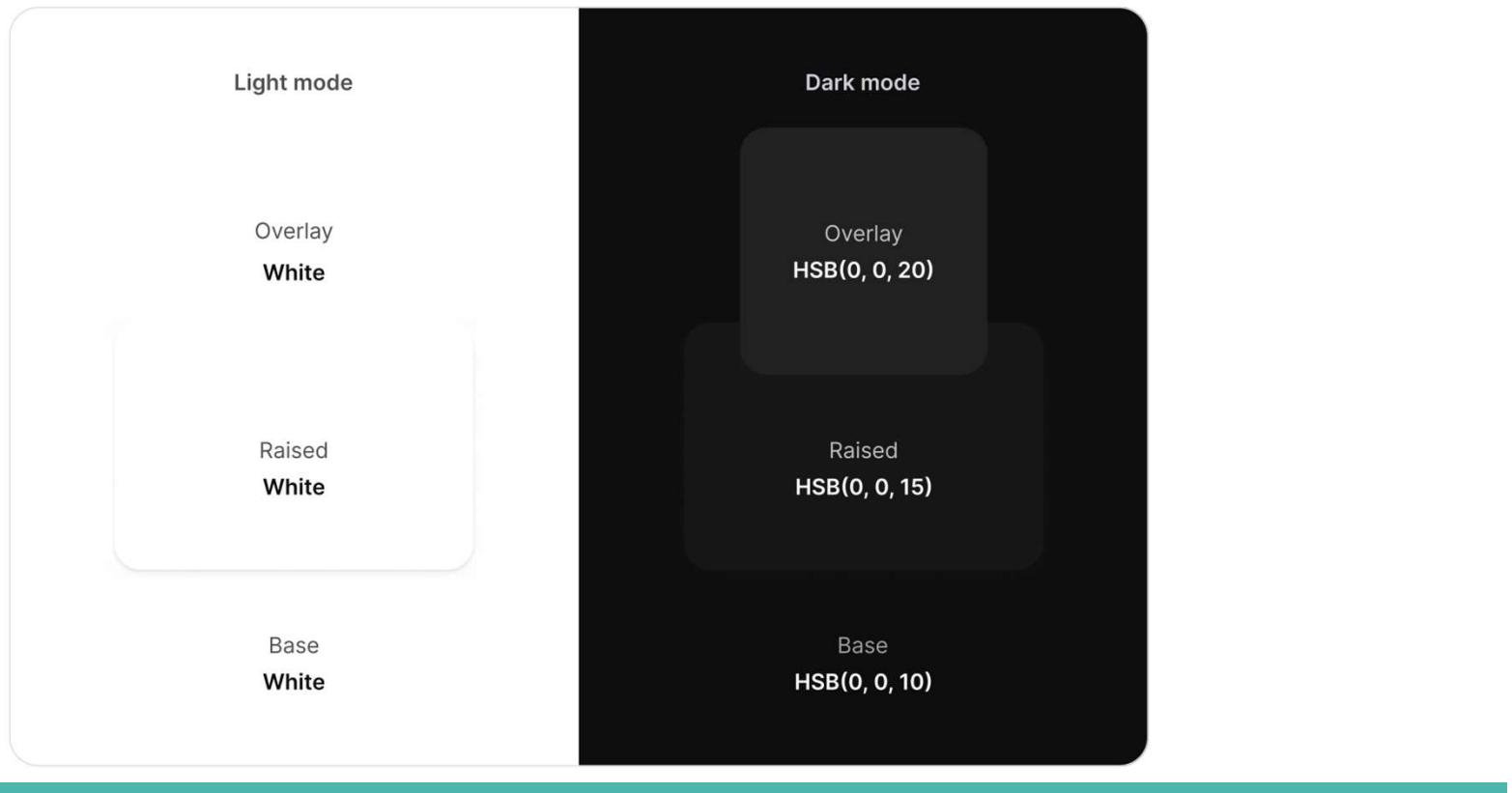
Transparent color palette

Steps to create transparent color palette

1. Define 3 solid background colors
2. Define transparent foreground colors
 - a. Define 5 variations of white for dark mode
 - b. Define 5 variations of black for light mode
3. Define 4 variations of the brand color
4. Define 4 variations of system colors



Define 3 solid background colors

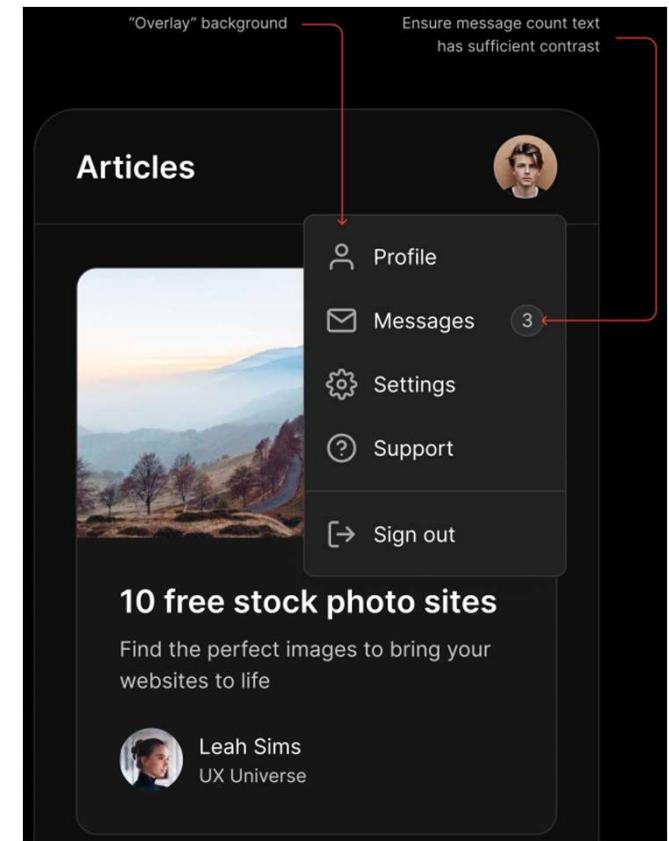


Define 5 variations of white for dark mode

	Text strong 100% opacity	Contrast with fill on overlay background must be at least:	4.5 : 1
	Text weak 78% opacity	Contrast with fill on overlay background must be at least:	4.5 : 1
	Stroke strong 60% opacity	Contrast with fill on overlay background must be at least:	3 : 1
	Stroke weak 12% opacity	This is a decorative colour, so it doesn't need to be high contrast.	
	Fill 6% opacity	Text and interface elements sitting on this colour must have sufficient contrast	

Define 5 variations of white for dark mode

Ensure foreground colours used for text and interface elements have sufficient contrast



Define 5 variations of black for light mode



Text strong
90% opacity

Contrast with fill on
background must be at least:

4.5 : 1



Text weak
60% opacity

Contrast with fill on
background must be at least:

4.5 : 1



Stroke strong
45% opacity

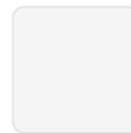
Contrast with fill on
background must be at least:

3 : 1



Stroke weak
10% opacity

This is a decorative colour, so it
doesn't need to be high contrast.

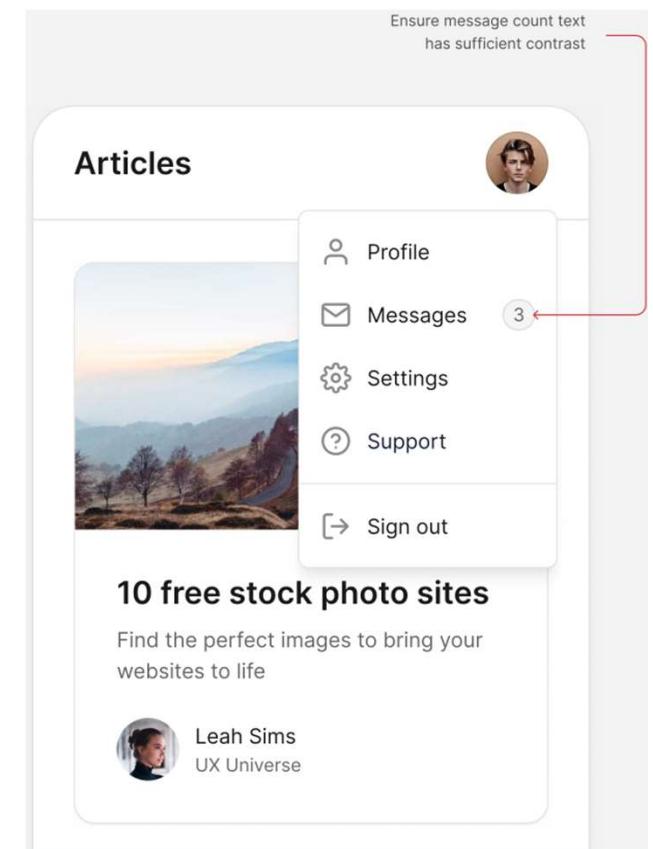


Fill
4% opacity

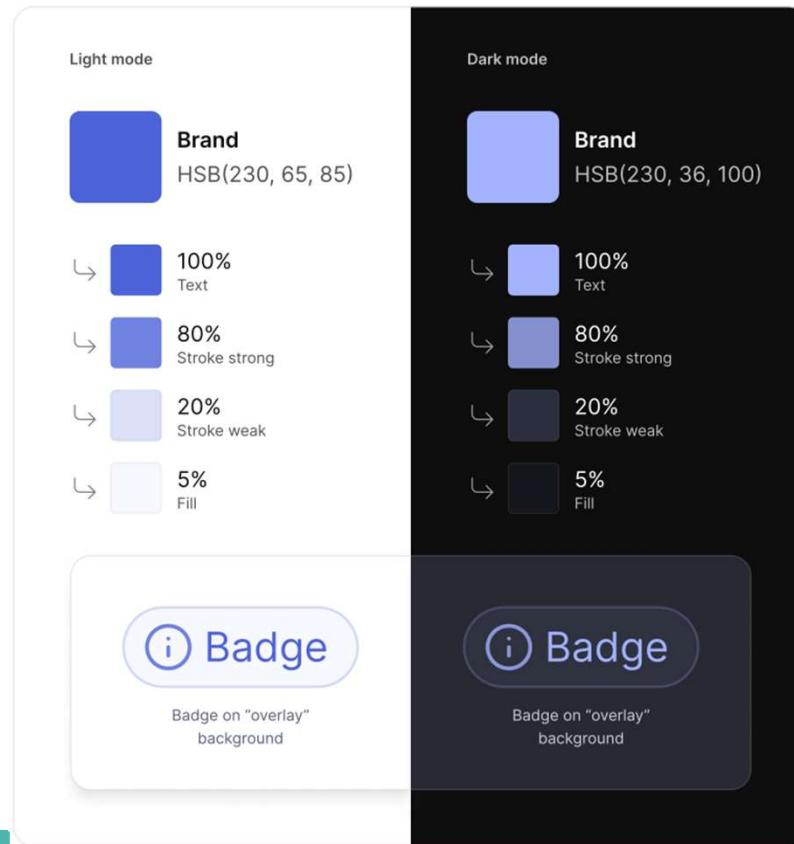
Text and interface elements sitting on
this colour must have sufficient contrast

Define 5 variations of black for light mode

Ensure foreground colours used for text and interface elements have sufficient contrast



Define 4 variations of the brand colour



Define 4 variations of system colours

Each system colour needs 4 variations in both light and dark mode

Light mode



Red

HSB(0, 71, 78)



Amber

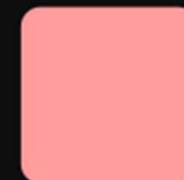
HSB(42, 82, 56)



Green

HSB(162, 95, 48)

Dark mode



Red

HSB(0, 39, 100)



Amber

HSB(42, 50, 88)



Green

HSB(162, 40, 78)

Define 4 variations of system colours

Light mode



Red

HSB(0, 71, 78)



100%
Text



80%
Stroke strong

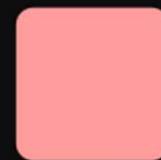


20%
Stroke weak



5%
Fill

Dark mode



Red

HSB(0, 39, 100)



100%
Text



80%
Stroke strong



20%
Stroke weak



5%
Fill

Define 4 variations of system colours

Light mode



Amber

HSB(42, 82, 56)



100%

Text



80%

Stroke strong



20%

Stroke weak



5%

Fill

Dark mode



Amber

HSB(42, 50, 88)



100%

Text



80%

Stroke strong



20%

Stroke weak



5%

Fill

Define 4 variations of system colours

Light mode



Green

HSB(162, 95, 48)



100%
Text



80%
Stroke strong



20%
Stroke weak



5%
Fill

Dark mode



Green

HSB(162, 40, 78)



100%
Text



80%
Stroke strong

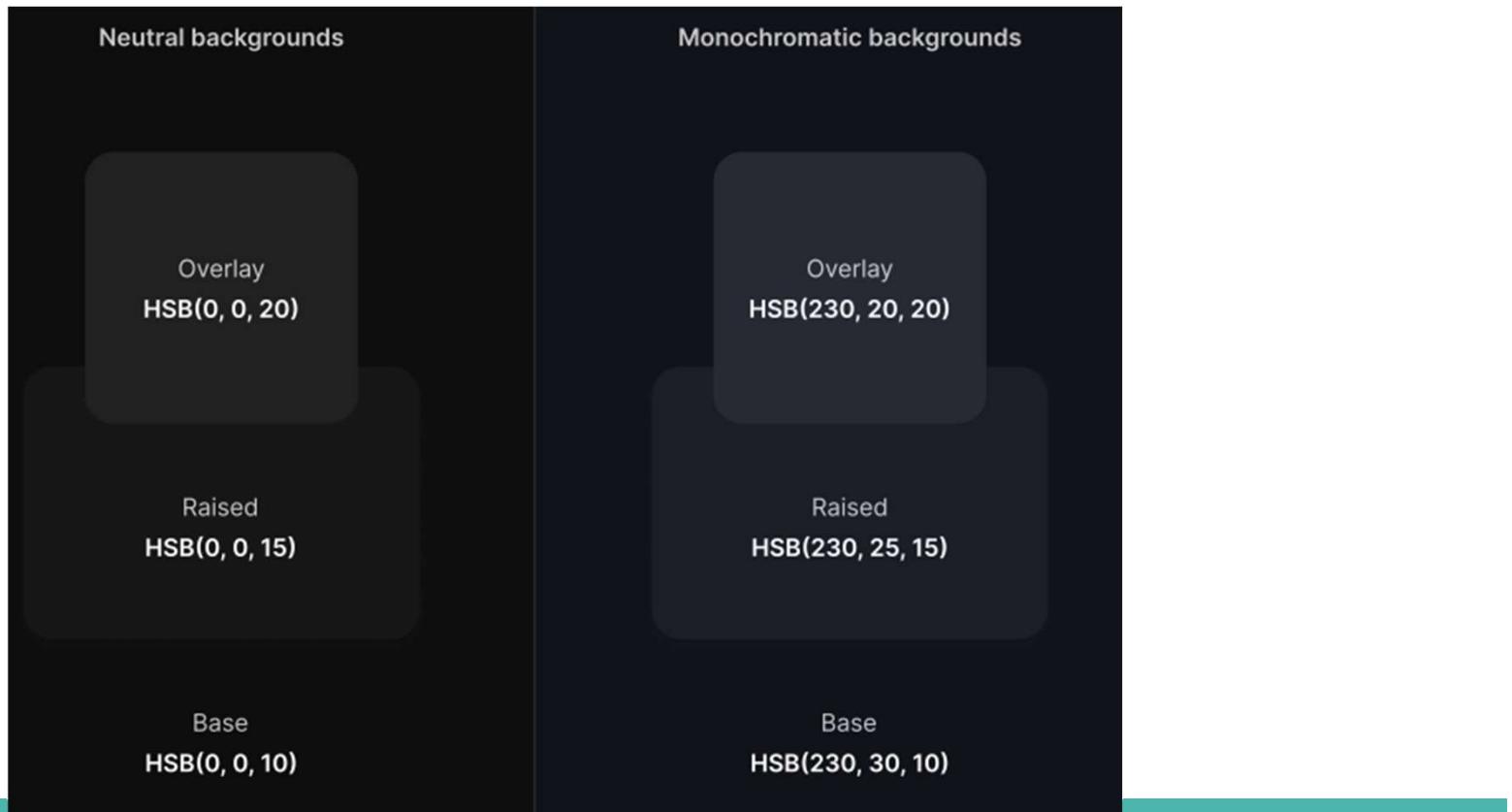


20%
Stroke weak

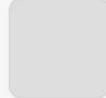
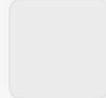


5%
Fill

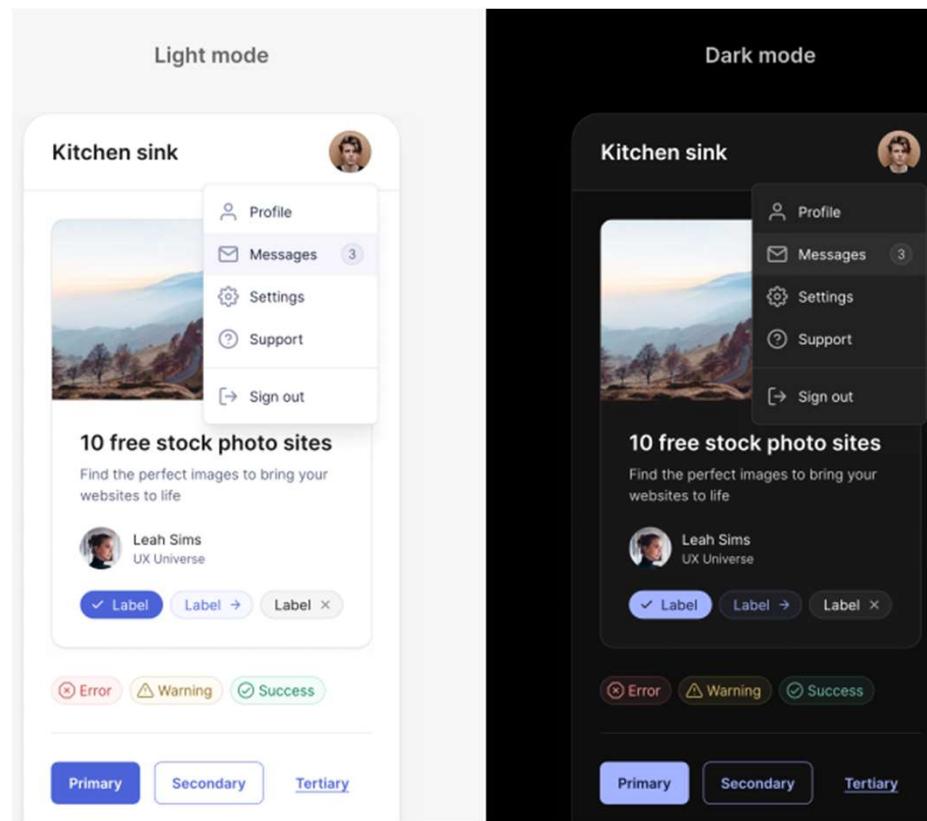
Monochromatic transparent color palette



Monochromatic transparent color palette

Neutral greys	Monochromatic greys
 Text strong HSB(0, 0, 0) 90%	 Text strong HSB(230, 100, 15) 90%
 Text weak HSB(0, 0, 0) 60%	 Text weak HSB(230, 100, 20) 65%
 Stroke strong HSB(0, 0, 0) 45%	 Stroke strong HSB(230, 100, 30) 45%
 Stroke weak HSB(0, 0, 0) 10%	 Stroke weak HSB(230, 100, 40) 10%
 Fill HSB(0, 0, 0) 4%	 Fill HSB(230, 100, 50) 4%

Using the transparent color palette



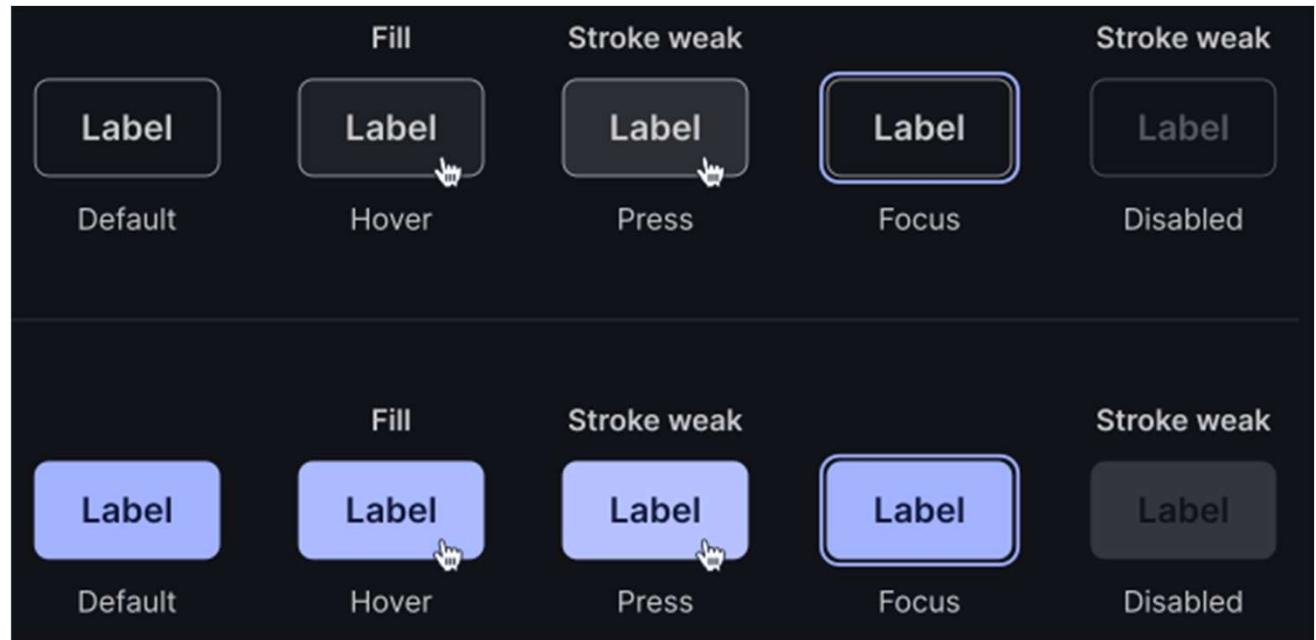
Using the transparent color palette

A transparent overlay is layered on top of interactive elements on hover and press



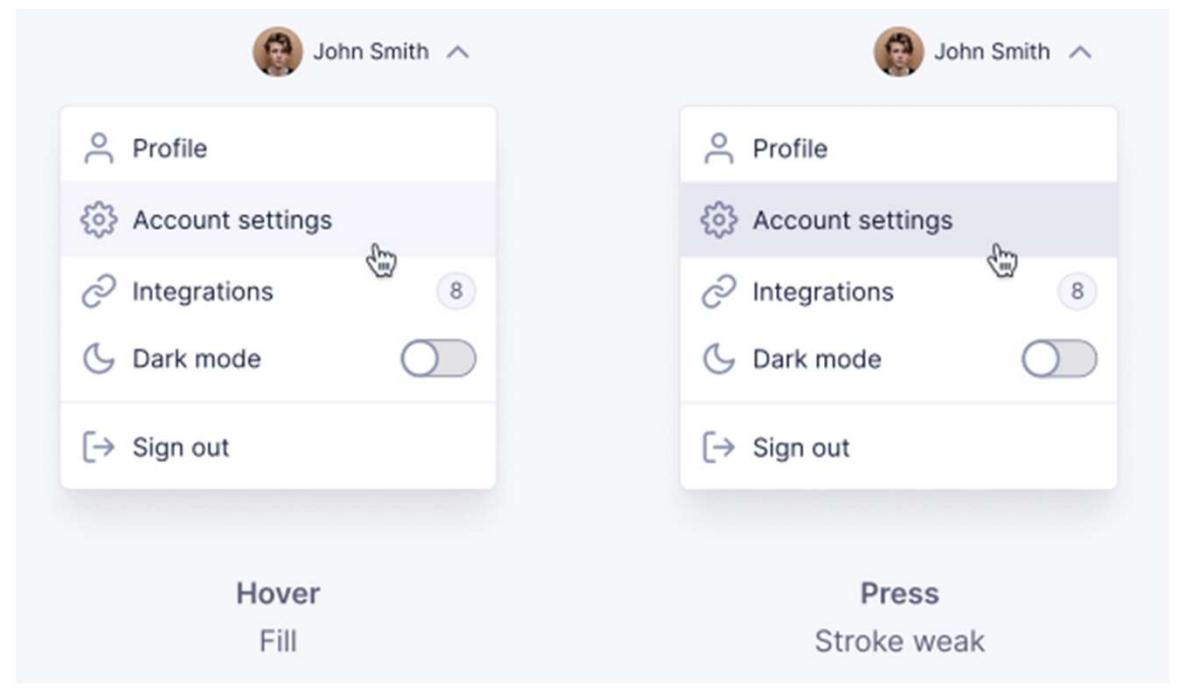
Using the transparent color palette

A transparent overlay is layered on top of interactive elements on hover and press



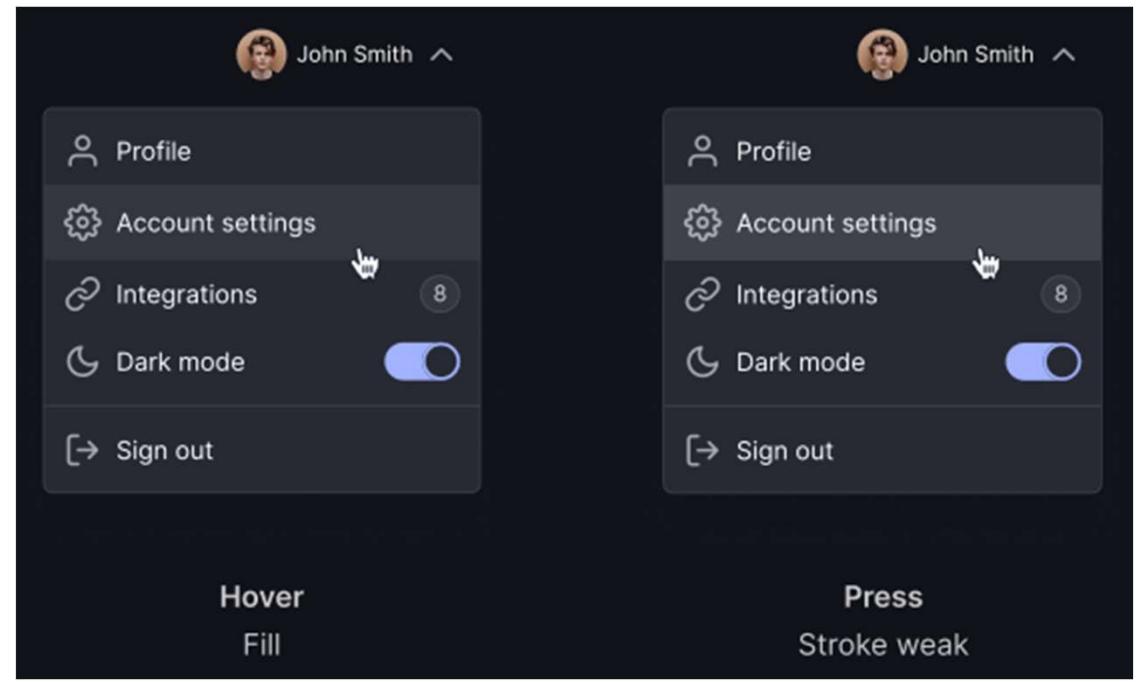
Using the transparent color palette

Transparent overlays applied to a drop down menu



Using the transparent color palette

Transparent overlays applied to a drop down menu



Name colors to keep them organised

Colors are commonly named in 2 ways

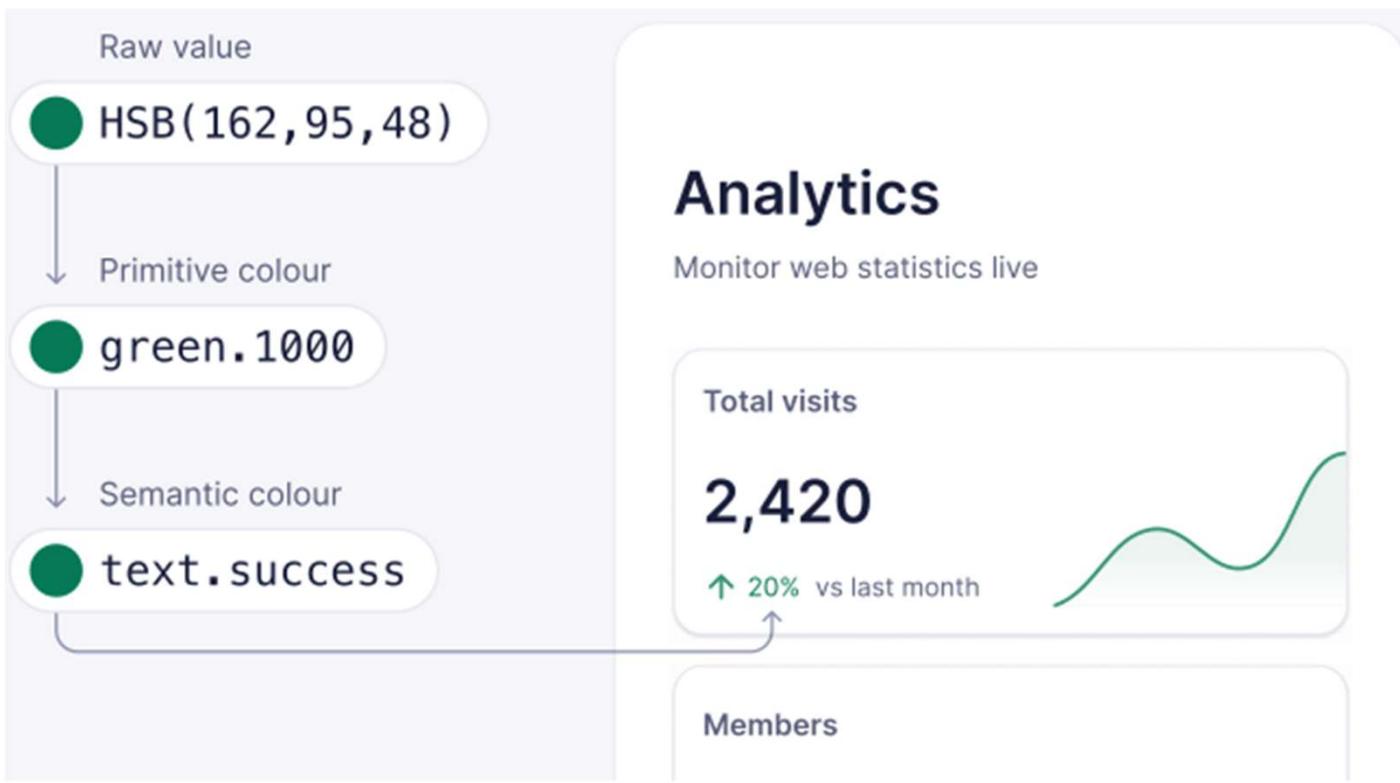
Primitive colors - includes all available colors in the design system

Colors are named based on their appearance and shouldn't be used directly in your designs

Semantic colors - also known as “color tokens”, refers to a way of naming primitive colours based on how they should be used

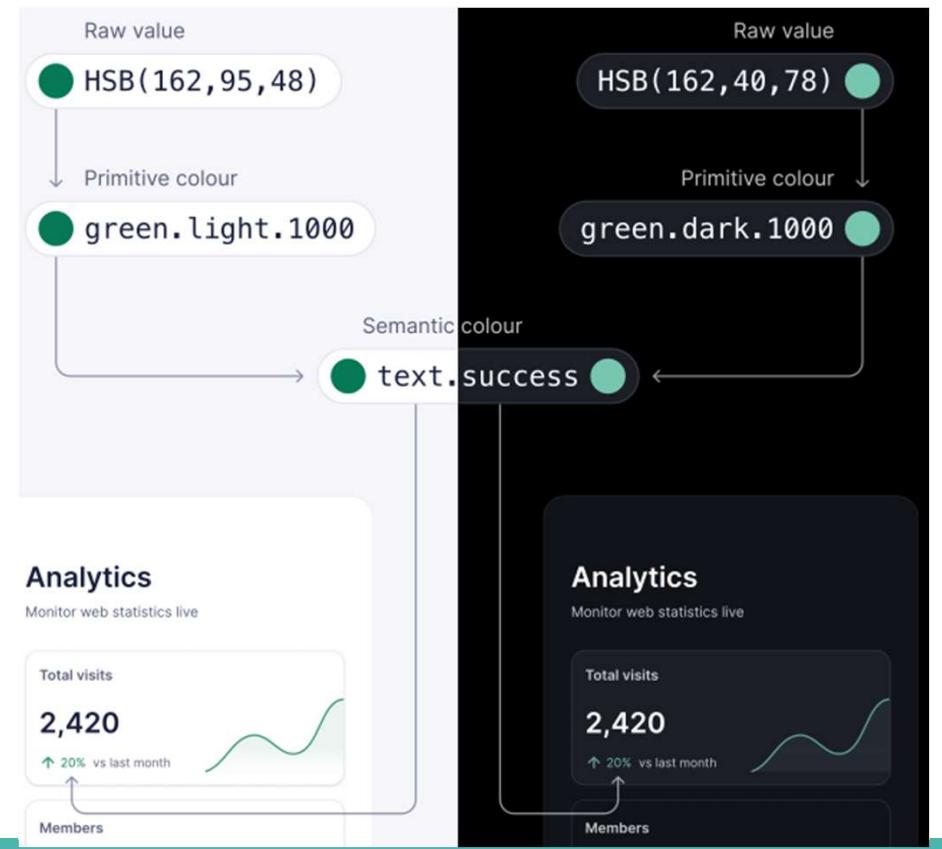
A single primitive color can be used for multiple semantic colors. Use semantic colors directly in your designs

The relationship between primitive and semantic colors



The relationship between primitive and semantic colors

A single semantic color maps to different primitives in light and dark mode



Naming primitive colors

Name primitive colors based on their appearance

Assign each variation of a color hue a number from 0 to 1000

This indicates its level of contrast relative to the other variations

1000 has the highest level of contrast

Primitive color names should have the following format:

[color.number]

Naming primitive colors

Primitive grey colors in light and dark mode

Light mode



grey.light.1000
HSBA(230, 100, 15)
90%



grey.light.700
HSB(230, 100, 20)
65%



grey.light.500
HSB(230, 100, 30)
45%

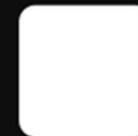


grey.light.100
HSB(230, 100, 40)
10%

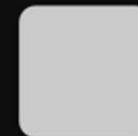


grey.light.50
HSB(230, 100, 50)
5%

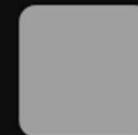
Dark mode



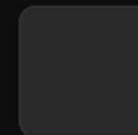
grey.dark.1000
White
100%



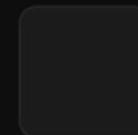
grey.dark.700
White
78%



grey.dark.500
White
60%



grey.dark.100
White
12%



grey.dark.50
White
6%

Naming primitive colors

Primitive green colors in light and dark mode

Light mode



green.light.1000
HSB(162, 95, 48)
100%



green.light.800
HSB(162, 95, 48)
80%



green.light.200
HSB(162, 95, 48)
20%



green.light.50
HSB(162, 95, 48)
5%

Dark mode



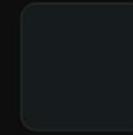
green.dark.1000
HSB(162, 40, 78)
100%



green.dark.800
HSB(162, 40, 78)
80%



green.dark.200
HSB(162, 40, 78)
20%



green.dark.50
HSB(162, 40, 78)
5%

Naming primitive colors

You can add more color variations as you need them



grey.light.25
HSB(230, 100, 50)
2.5%



grey.dark.25
White
3%



Naming semantic colors

You can use the following naming approach

The name of each color consists of up to 4 words that describe how and where to use the color on an interface

[**element.tone.emphasis.state**]

Naming semantic colors

[element.tone.emphasis.state]

element.tone.emphasis.state			
Element	Tone	Emphasis	State
Text	Neutral	Strong	Hover
Stroke	Brand	Weak	Press
Icon	Error		Focus
Fill	Warning		Disabled
Background	Success		

Naming semantic colors

Examples

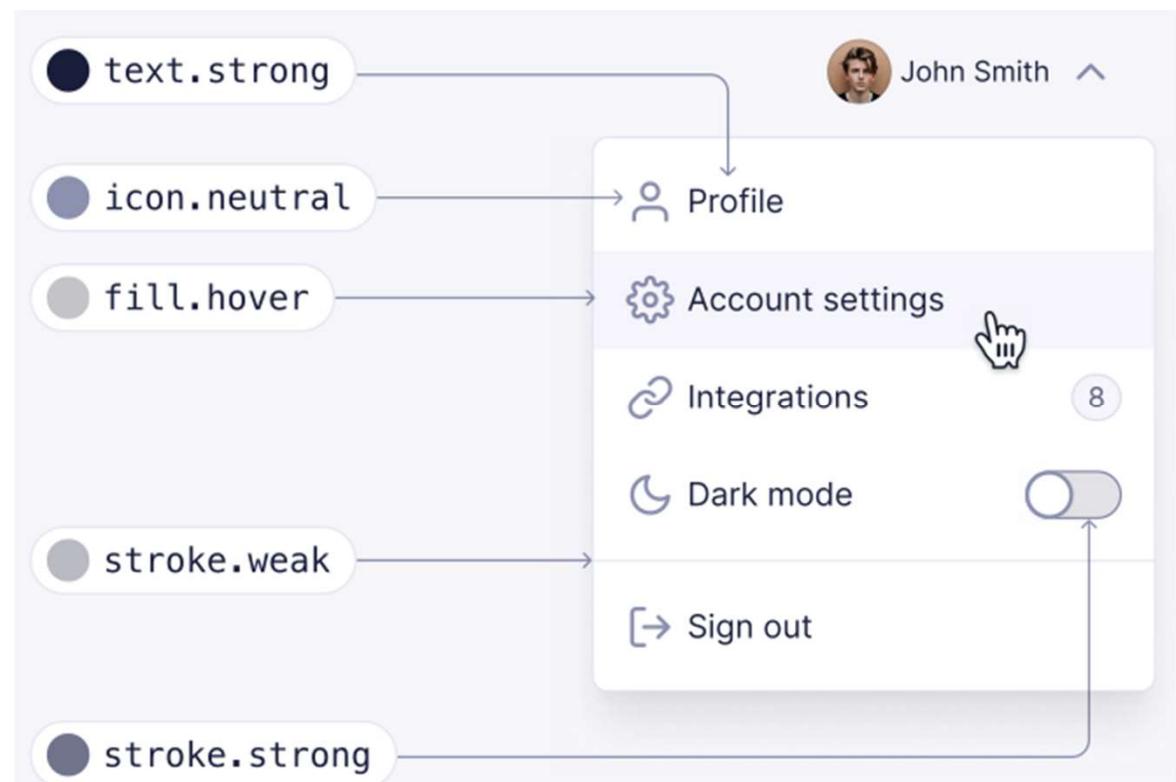
`text.error` - used for error messages on forms

`stroke.strong` - used for form input field borders

`fill.success.weak` - used for the background of success alert messages

Naming semantic colors

Semantic color naming
usage



Match photo color temperature to the color palette

Some photos look warmer or more orange and others look cooler or more blue

If your color palette is based on a cool color like blue, using photos with a cooler color temperature can help create a more cohesive look and feel

The opposite applies to warm colour palette

You can use a photo editing tool to adjust the color temperature of photos

Match photo color temperature to the color palette

In the following diagram the middle photo is the original

The color temperature of the left photo was decreased, while the one on the right was increased



Match photo color temperature to the color palette

The below example demonstrates how a warm photo can conflict with a cool color palette



Warm photo

bloggg Upgrade

50 workspace ideas to inspire creativity

Practical tips to make your workspace ergonomic and stylish

Jon Tony
23 April 2022

Unlock the full potential of your workspace with our curated collection of 50 ideas designed to ignite creativity. Whether you're revamping your home office or seeking to transform a shared

Cool photo

bloggg Upgrade

50 workspace ideas to inspire creativity

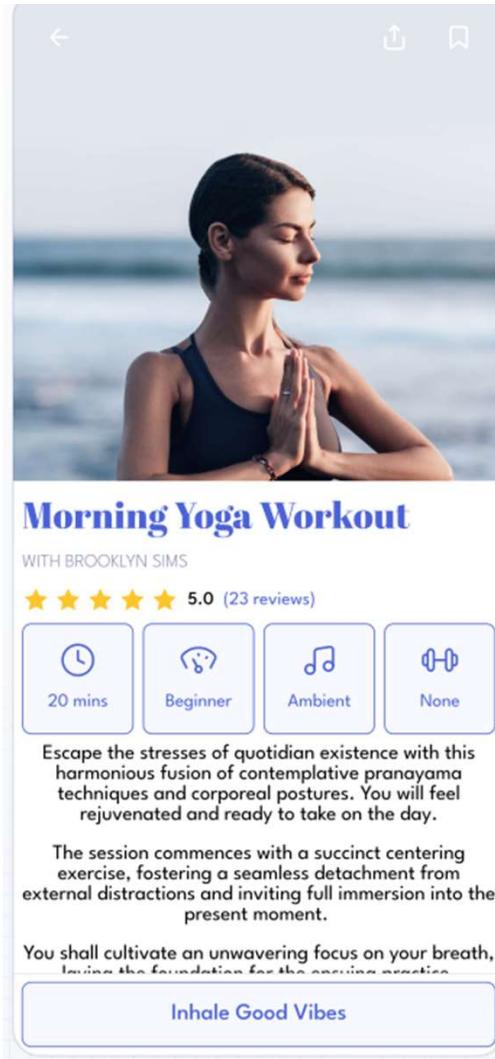
Practical tips to make your workspace ergonomic and stylish

Jon Tony
23 April 2022

Unlock the full potential of your workspace with our curated collection of 50 ideas designed to ignite creativity. Whether you're revamping your home office or seeking to transform a shared

Applying the Color Guideline

Identify any color-related issues in the displayed UI design



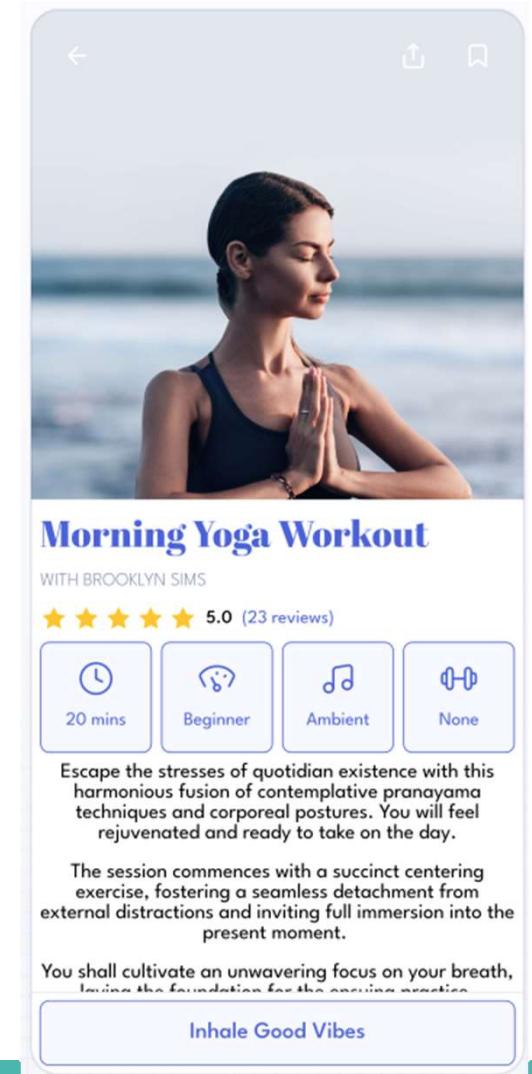
Color palette



Apply brand color to interactive elements

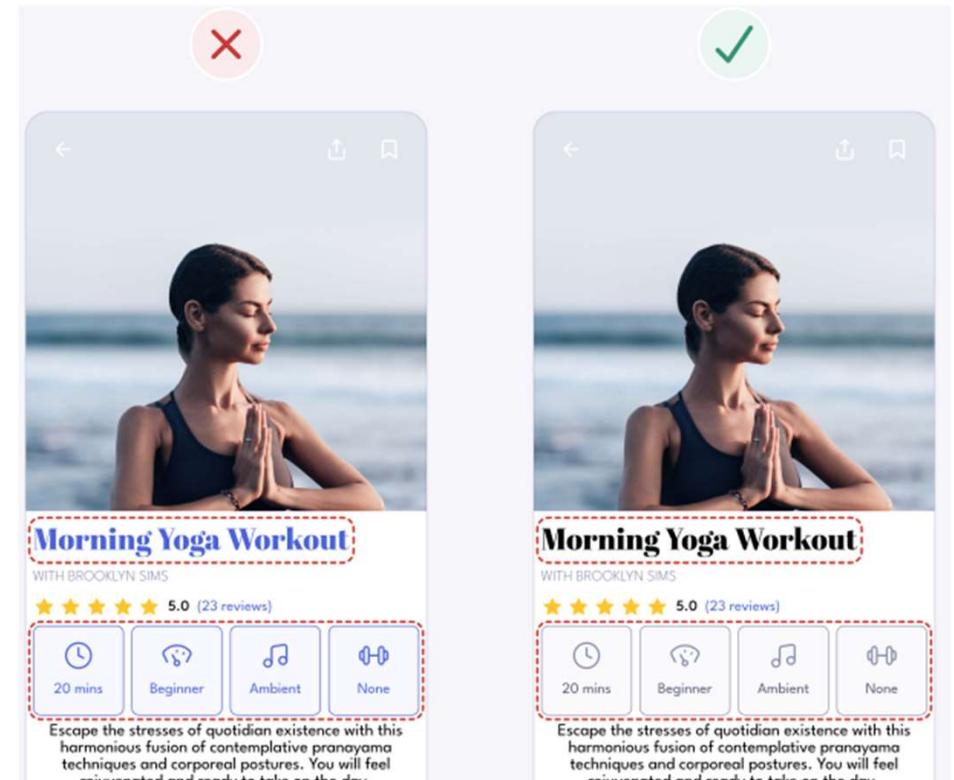
Issues in brand color usage

non-interactive elements like the heading and icons
are using the brand color



Apply brand color to interactive elements

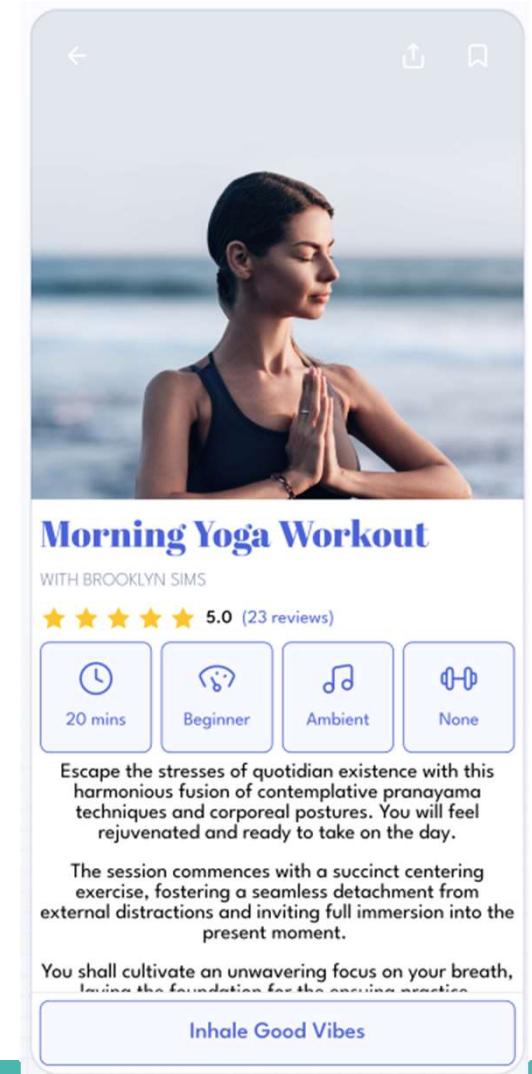
Remove the brand color from the heading and icons, as they're not interactive



Ensure a 3:1 contrast ratio

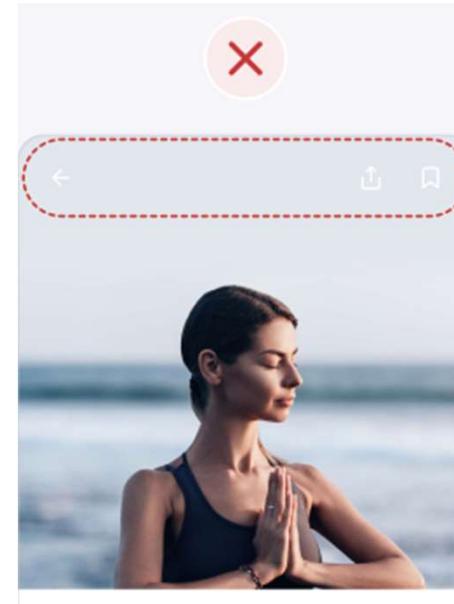
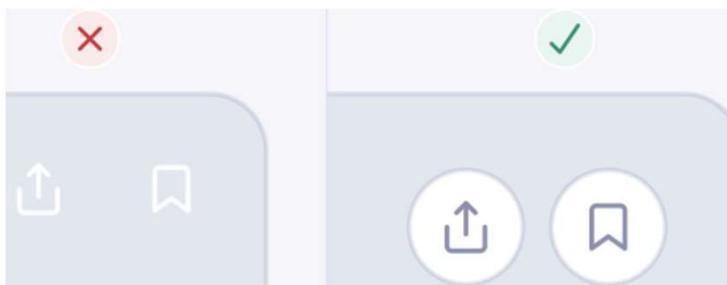
Issue related to interface element color contrast

the contrast of the icons sitting on the photo is too low

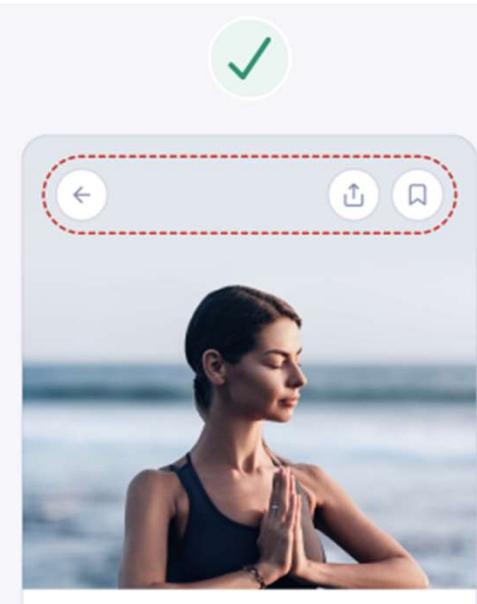


Ensure a 3:1 contrast ratio

Use the “Stroke strong” color from the palette and add a solid white background to the icons to give them sufficient 3:1 contrast



Morning Yoga Workout

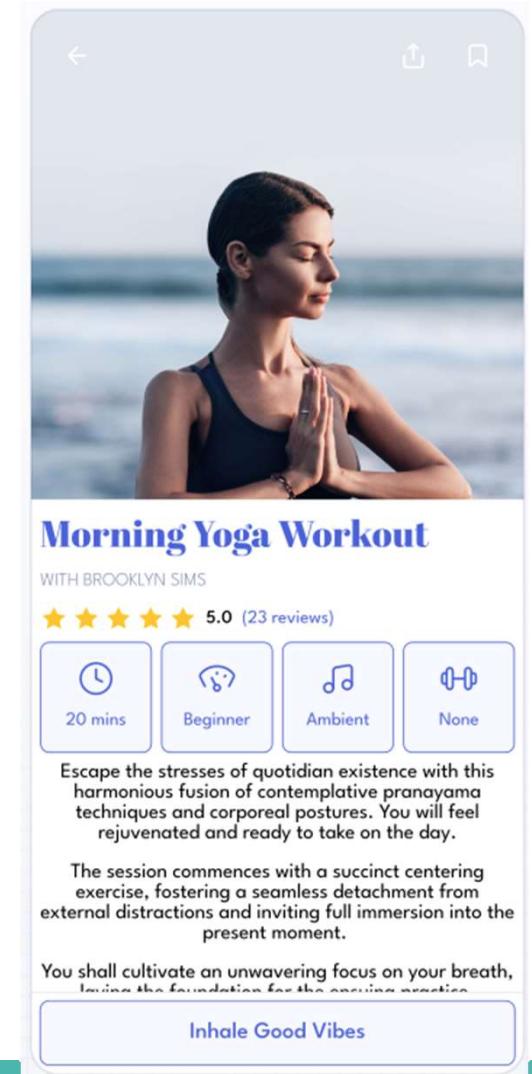


Morning Yoga Workout

Ensure a 3:1 contrast ratio

Issue related to interface element color contrast

the contrast of the star ratings are also less than 3:1



Ensure a 3:1 contrast ratio

Add a darker border to give them sufficient contrast

A comparison of two mobile screen designs for a yoga workout. Both screens feature a woman in a meditative pose against a beach background. The top bar includes a red 'X' icon, a back arrow, a share icon, and a bookmark icon. The bottom bar shows a 5-star rating, the instructor's name, and workout details.

- Left Screen (Incorrect):** Shows a yellow star with a thin red outline around its circular center. The star is set against a white background with a red dashed border around the top bar.
- Right Screen (Correct):** Shows a yellow star with a thicker green outline around its circular center. The star is set against a white background with a red dashed border around the top bar.

Morning Yoga Workout
WITH BROOKLYN SIMS
 5.0 (23 reviews)
20 mins Beginner Ambient None

Escape the stresses of quotidian existence with this harmonious fusion of contemplative pranayama techniques and corporeal postures. You will feel rejuvenated and ready to take on the day.

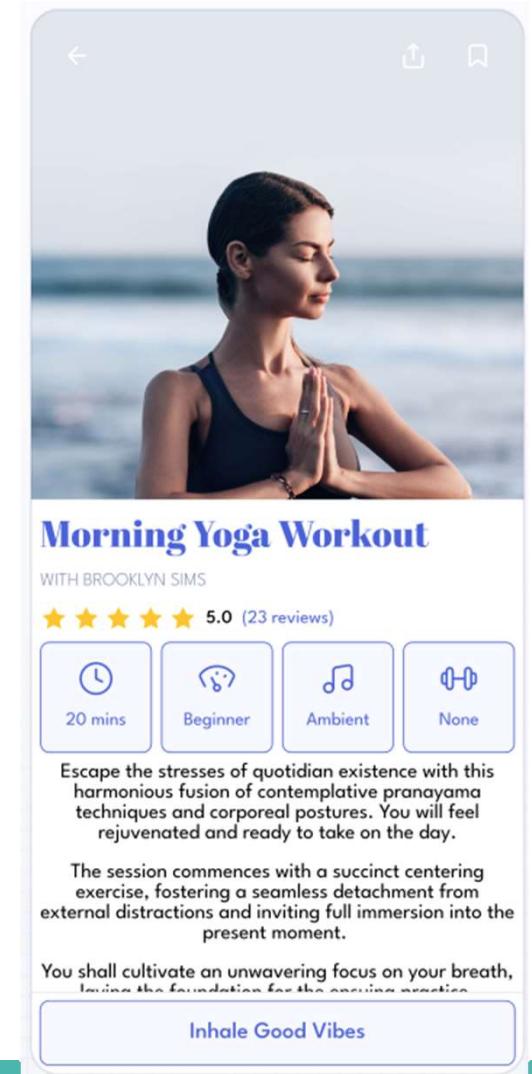
Ensure a 4.5:1 contrast ratio

Issue related to text color contrast

The contrast of the trainer's name is too low

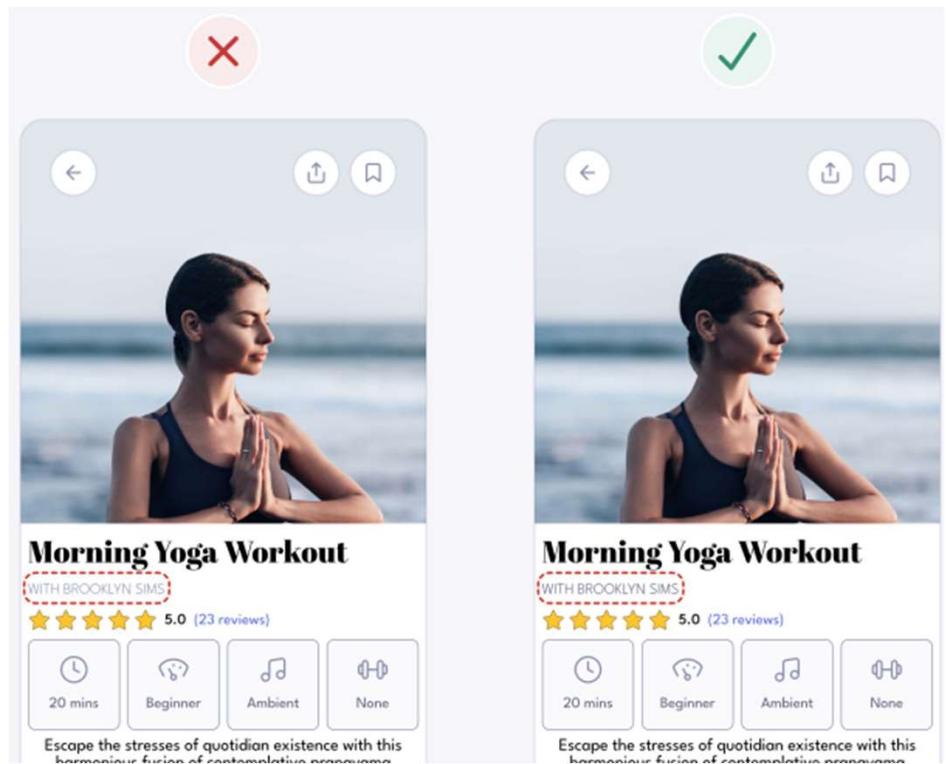
The thin font weight makes it even harder to read

Using the “Text weak” color from the palette helps make the text more legible



Ensure a 4.5:1 contrast ratio

Issue related to text color contrast

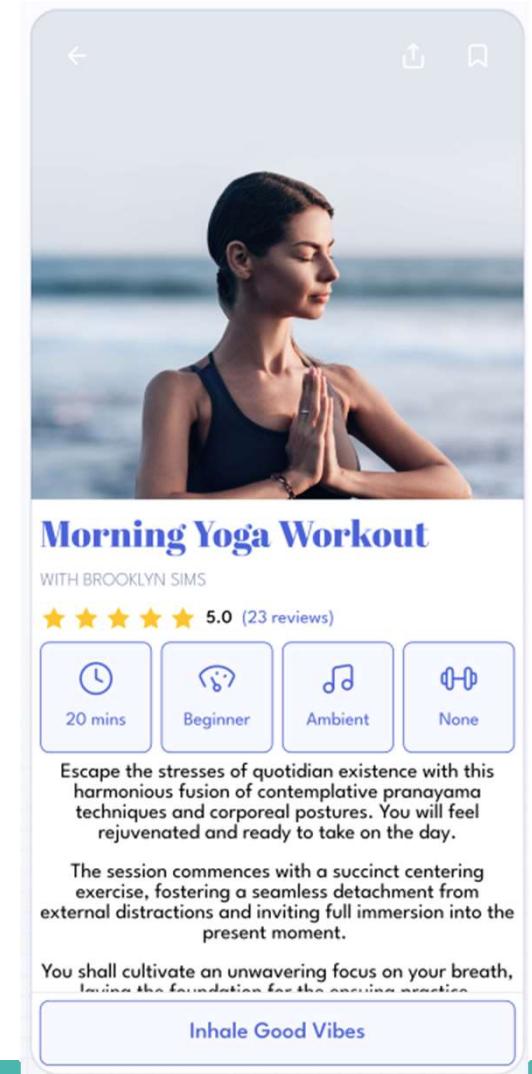


Don't rely on color alone as an indicator

Issue

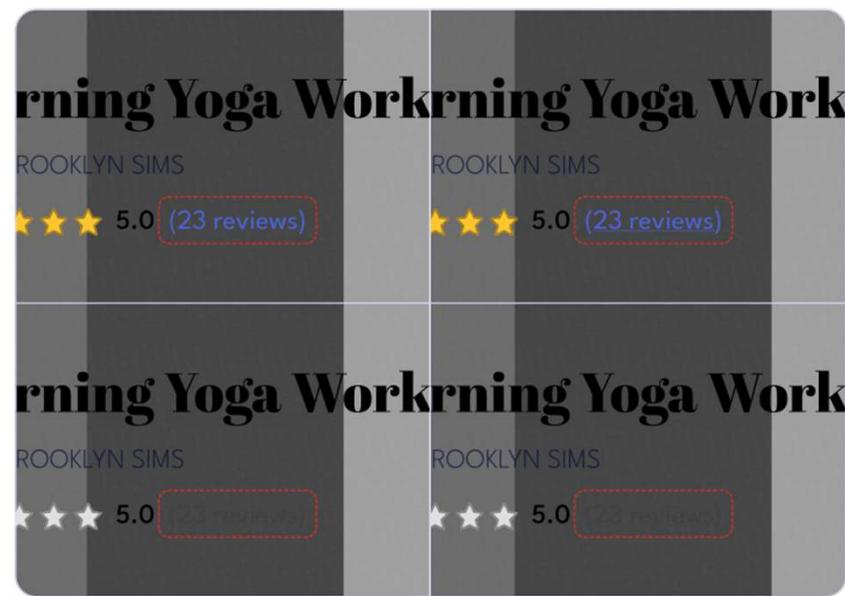
The brand colour is used on the “reviews” text to indicate that it’s a link

If color is removed, the link text looks the same as other text, so people who are color blind won’t be able to tell it’s a link



Don't rely on color alone as an indicator

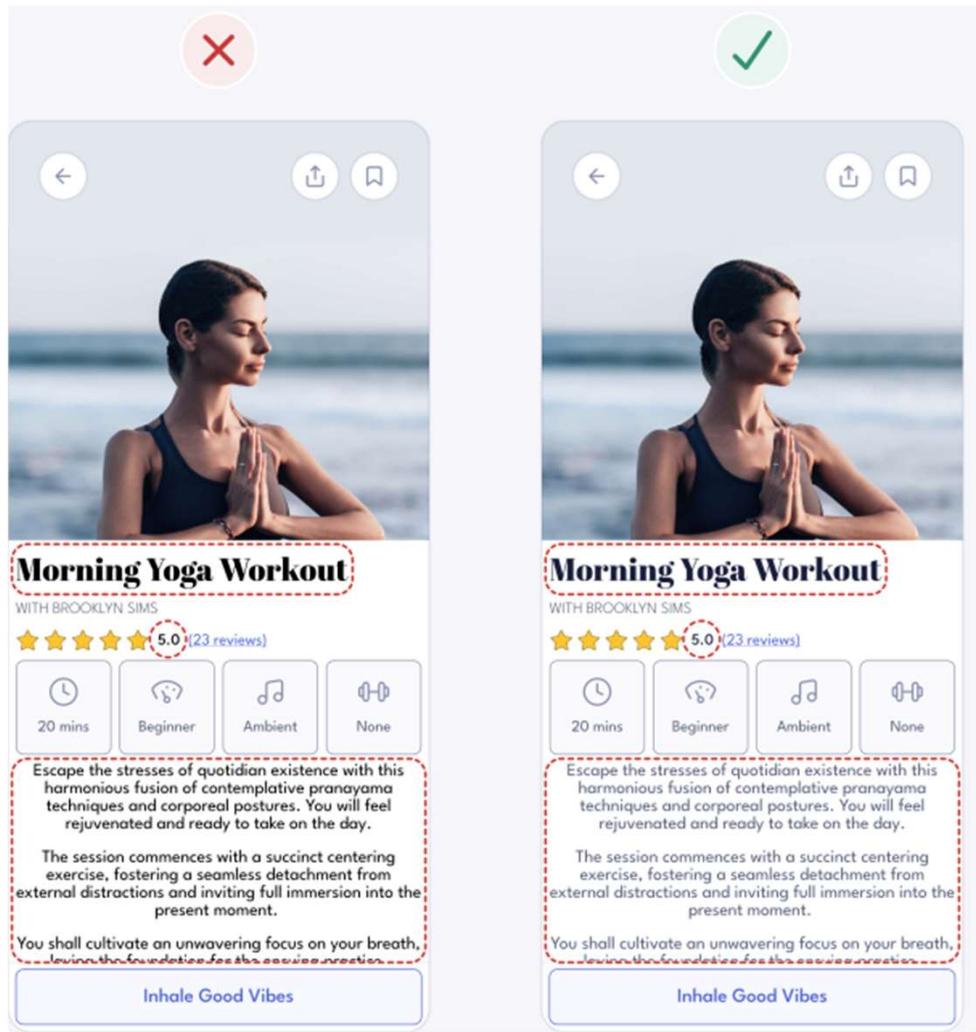
Underline the link text to clearly differentiate it from other text in the absence of color



Avoid pure black

Pure black is used for multiple text elements

Using dark grey instead helps to improve readability



Layout and Spacing Usage Guidelines

Group related elements

Breaking up information into smaller groups of related elements makes it faster and easier for people to understand and remember



Group related elements

Group related elements using the following methods

1. Place related elements in the same container
2. Space related elements close together
3. Make related elements look similar
4. Align related elements in a continuous line



Place related elements in the same container

According to the principle of common region, items within the same boundary or container are perceived as a group and assumed to be related

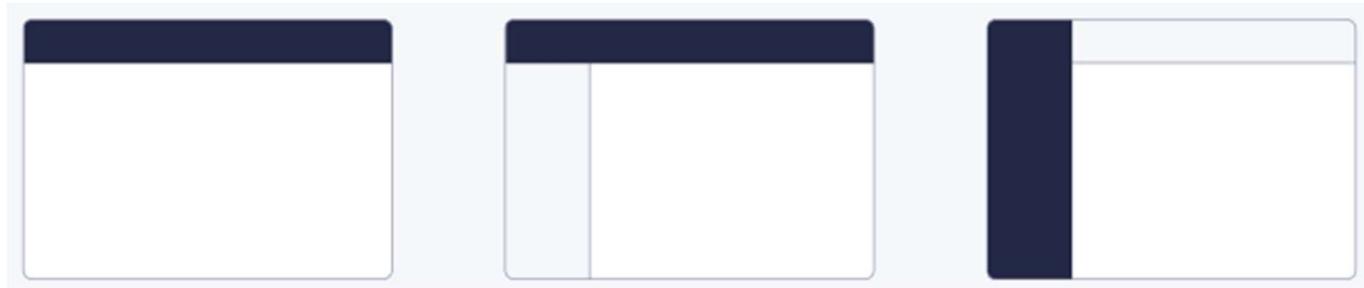
You can create containers using borders, shadows, and background colours

Using containers is the strongest visual cue to group interface elements



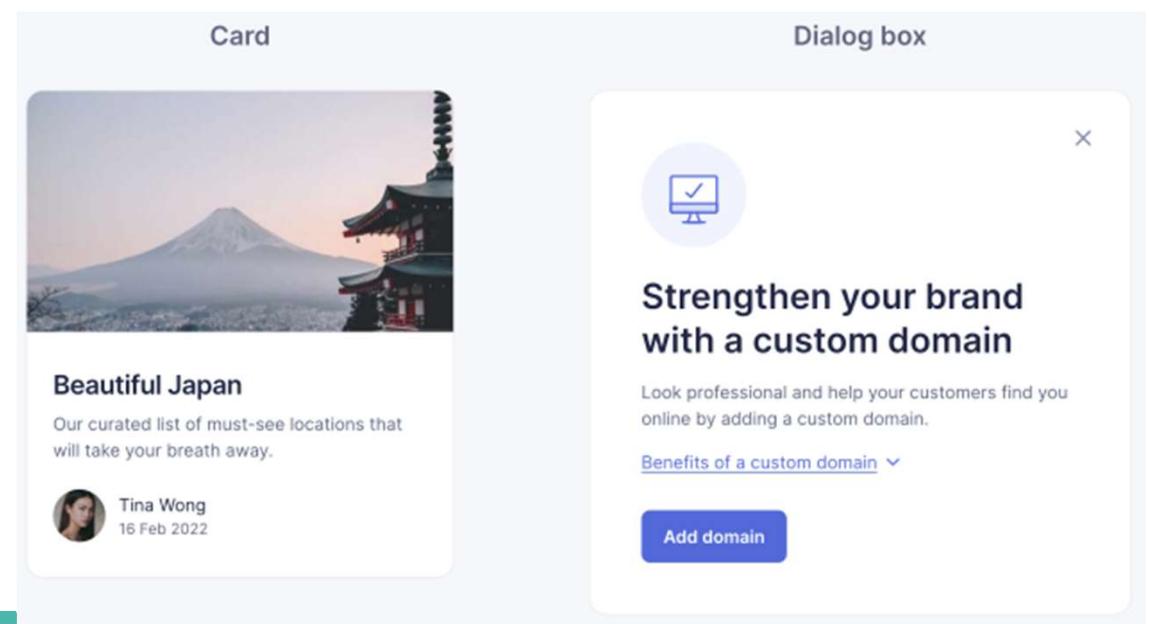
Place related elements in the same container

Containers are often used to create the main structure of an interface



Place related elements in the same container

Cards and dialog boxes are a common type of container used to group smaller pieces of related content



Place related elements in the same container



What is the issue with the UI design displayed?

travelblog

X

Top destinations

18 articles

San Francisco, USA
Discover the jewel of Northern California.

Jon Tony
16 Feb 2022

Fujiyoshida, Japan
Lots to do and beautiful views of Mt. Fuji.

Tina Wong
15 Feb 2022

Beijing, China
Walk the Great Wall, try amazing foods, and much more.

Brooklyn Simmons
14 Feb 2022

Plansee, Austria
This hidden gem will take your breath away.

Tony Robson
6 Jan 2022

Nevada, USA
Take in spectacular sights as you road trip through awe-inspiring mountain ranges.

Aisha Abboud
5 Jan 2022

Positano, Italy
Go on a culinary adventure through the jewel of the Amalfi Coast.

Darlene Robs
19 Dec 2021

What is the issue with the UI design displayed?

It's difficult to tell who wrote each article due to unclear groupings

travelblog

X

Top destinations

18 articles

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5 Jan 2022

Positano, Italy
Go on a culinary adventure through the jewel of the Amalfi Coast.

Darlene Robs
19 Dec 2021

User 1

User 2

Containers are used to clearly associate the author with their article



travelblog

Top destinations Tours About Contact

Top destinations

18 articles



San Francisco, USA
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 Jon Tony
16 Feb 2022



Fujiyoshida, Japan
Lots to do and beautiful views of Mt. Fuji.

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5 Jan 2022



Positano, Italy
Go on a culinary adventure through the jewel of the Amalfi Coast.

 Darlene Robs
19 Dec 2021



Space related elements close together

Elements near each other are perceived as a group and assumed to be related

Place related elements close together to group them

Separate unrelated elements by placing more space between them



Space related elements close together

Using spacing to create groups, rather than containers, can help declutter and simplify an interface

Grouped using containers

TOP DESTINATIONS

San Francisco
USA

Fujiyoshida
Japan

Beiji
China

HIDDEN GEMS

Plansee
Austria

Salta
Argentina

Yazd
Iran

Grouped using spacing

TOP DESTINATIONS

San Francisco
USA

Fujiyoshida
Japan

Beijing
China

HIDDEN GEMS

Plansee
Austria

Salta
Argentina

Yazd
Iran

Space related elements close together

Sometimes spacing is enough to clearly group related elements

Removing containers can help simplify an interface

The next two slides show UI designs with and without containers

[Architecture](#)[Interiors](#)[About](#)[Contact](#)**RECENT PROJECT**

Waterview residence

Inspired by the vast ocean views, our goal was to bring the outside in wherever possible in this full renovation.

[View projects](#)

Architecture

We believe in the power of architecture to enhance our lives and the cities in which we live, now and in the future.

[Architectural projects](#)

Interiors

We specialise in designing beautiful, thoughtful, and functional interiors that stand the test of time.

[Interior design projects](#)

About

Drawing inspiration from the world around us, our practice strives to create elegant and thoughtful designs.

[About us](#)



Architecture Interiors About Contact

RECENT PROJECT

Waterview residence

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[About us](#)

Make related elements look similar

Make related elements look similar by giving them similar visual characteristics, such as size, shape, and color



Examples of related elements being grouped by similarity

The screenshot shows a website header for "homeinvest" with a logo, a navigation bar with links for "About", "Services", and "Contact" (which is highlighted with a red dashed box), and a "Get started" button. Below the header, there are three main service sections, each enclosed in a red dashed box. Each section includes an image, a title, and a brief description.

- About**
Property investment specialists since 2005
- Services**
Tailored services to suit your specific situation
- Contact**
Contact us today to see how we can help you

Make related elements look similar

Within a group of related elements, you can highlight certain ones by making them look slightly different



The middle one stands out

It's larger, has a higher contrast border, a deeper shadow, a filled button, and a "most popular" badge

Pricing options

Join 50,000+ designers growing and optimising their businesses.

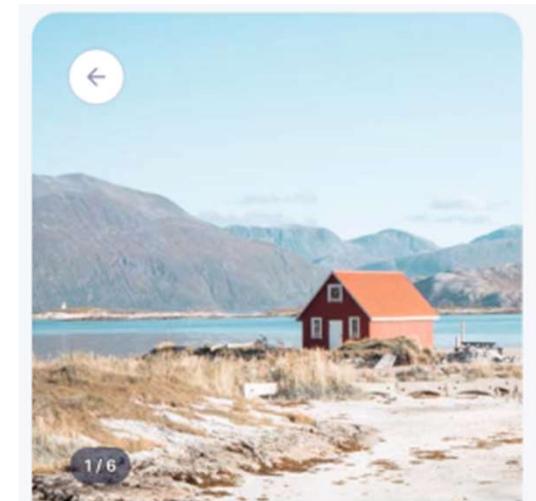
Plan	Price	Billing	Users	Storage	Support
BASIC PLAN	\$10/month	USD billed annually	1 user	10 GB limit	Email and chat support
STANDARD PLAN	\$20/month	USD billed annually	Up to 5 users	25 GB limit	Email and chat support
PROFESSIONAL PLAN	\$30/month	USD billed annually	Up to 10 users	100 GB limit	Email and chat support

Ensure similar looking elements function similarly

If elements look similar, people will expect them to work in a similar way



What is the issue with the UI design displayed in terms of element similarity and functionality?



Lakefront hideaway

Long Lake, NSW, Australia

★★★★★ 5.0 (23 reviews)



Escape the hustle and bustle of the city and embrace the soothing melodies of lapping lake waters at your doorstep. This charming lakefront property boasts open-plan living, dining, and kitchen spaces that harmonize

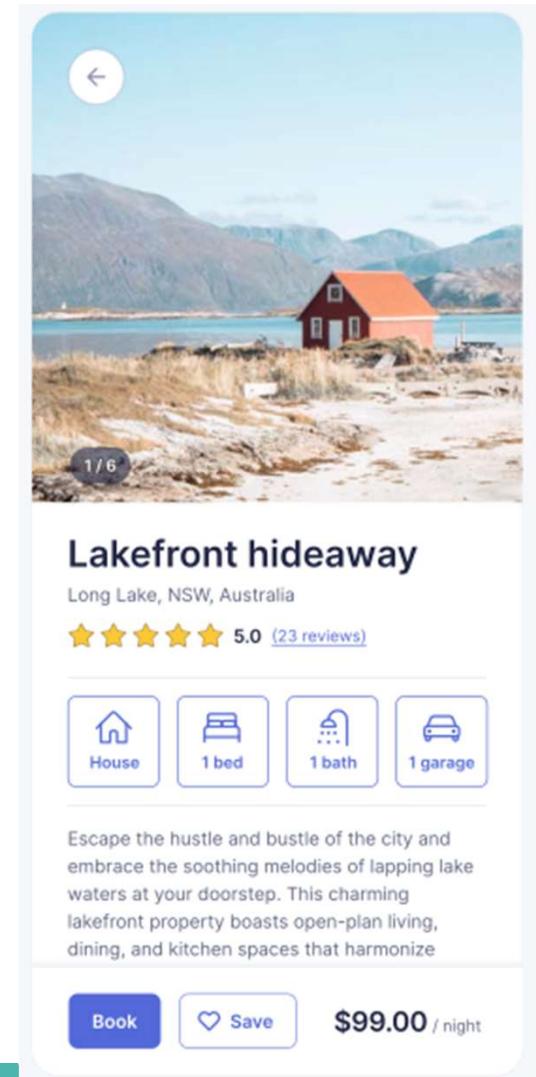
Book

Save

\$99.00 / night

What is the issue with the UI design displayed in terms of element similarity and functionality?

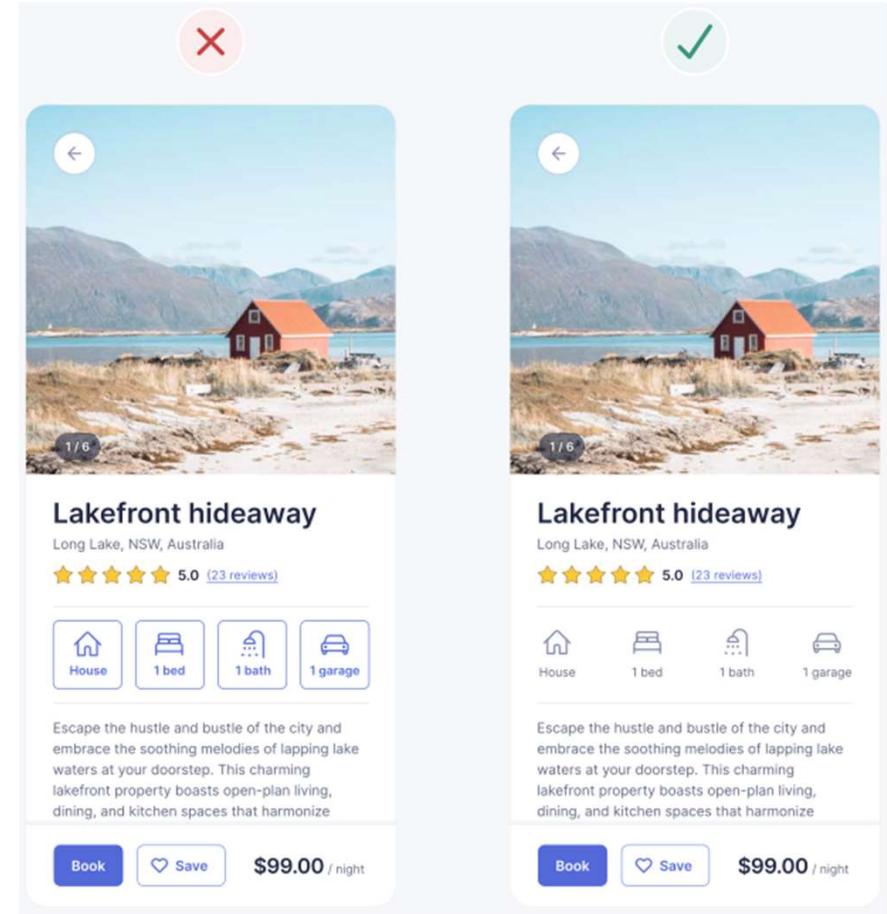
Because the icons look like the secondary button, they seem interactive, even though they're not



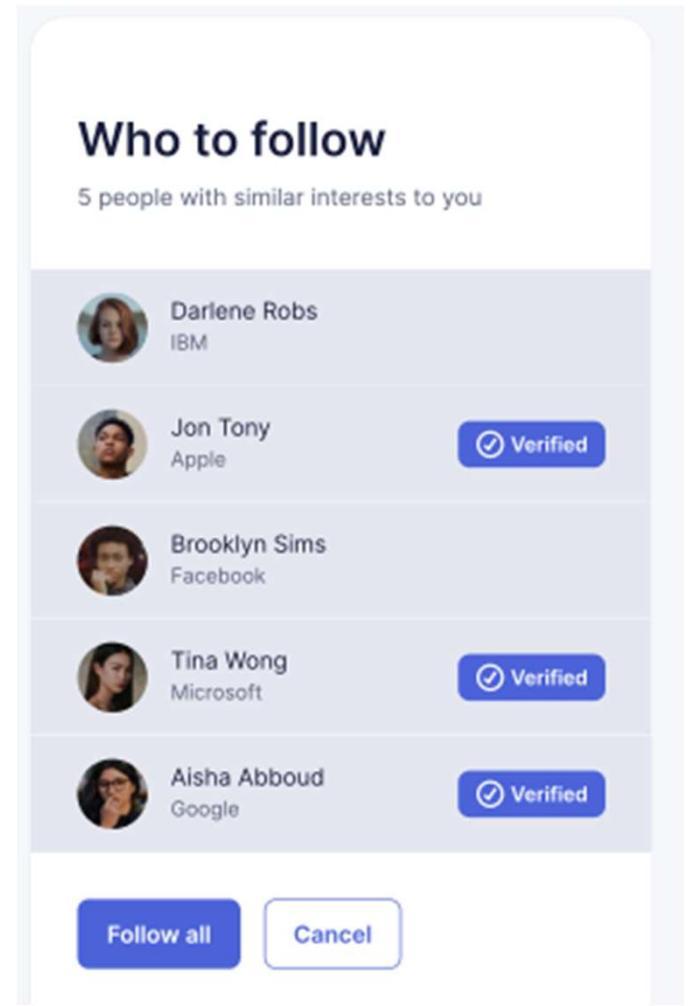
The screenshot shows a real estate listing for a property named "Lakefront hideaway" located in Long Lake, NSW, Australia. The listing features a 5-star rating from 23 reviews. It includes icons for a house (House), a bed (1 bed), a bathroom (1 bath), and a car (1 garage). The listing text describes the property as a charming lakefront property with open-plan living, dining, and kitchen spaces. At the bottom, there are buttons for "Book" and "Save", along with the price "\$99.00 / night".

Removing the blue colour and border helps to differentiate the icons from the secondary button

This makes it clearer that the icons function differently to the secondary button

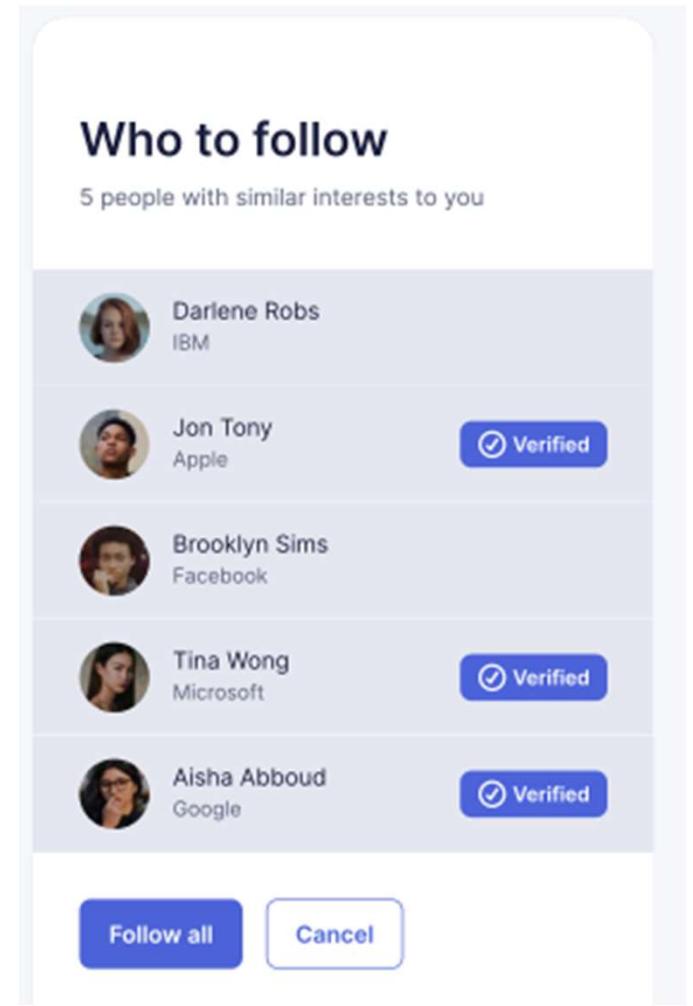


What is the issue with the UI design displayed in terms of element similarity and functionality?

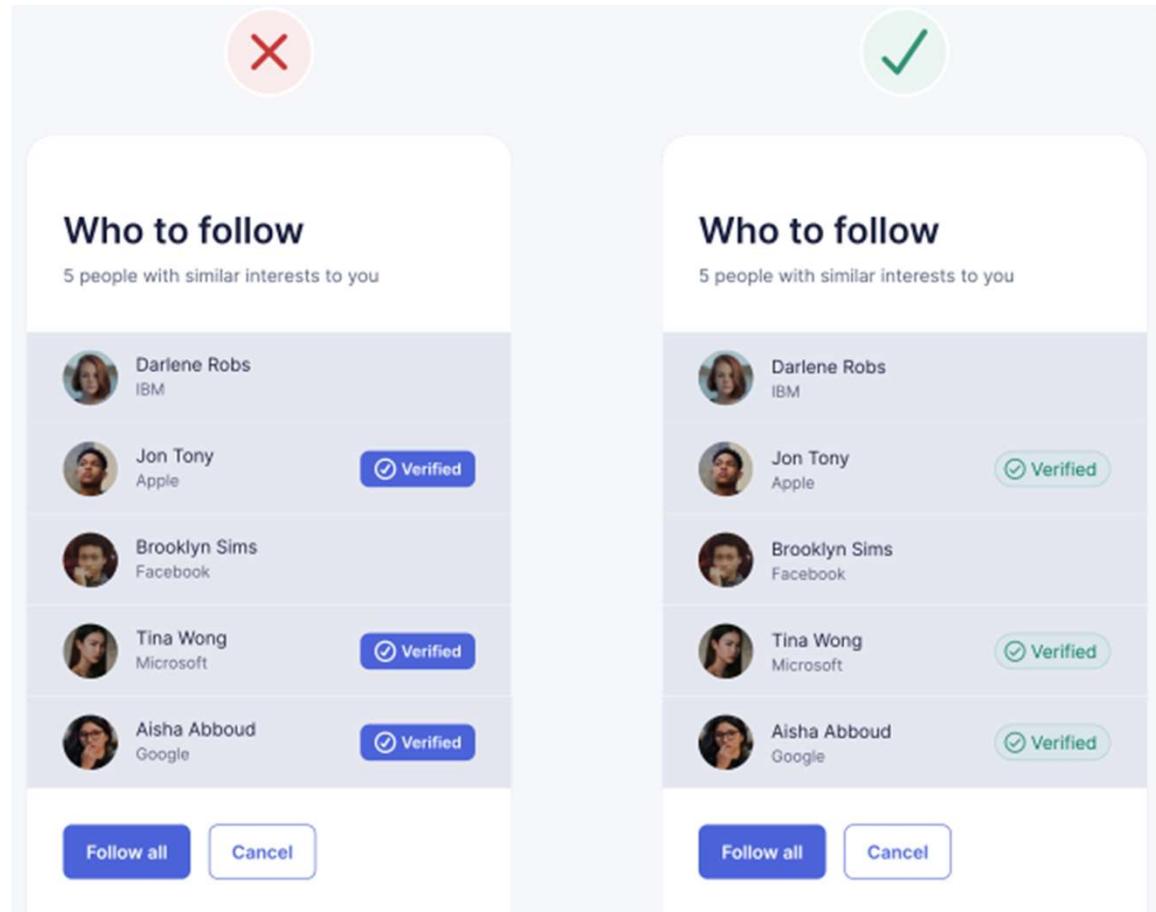


What is the issue with the UI design displayed in terms of element similarity and functionality?

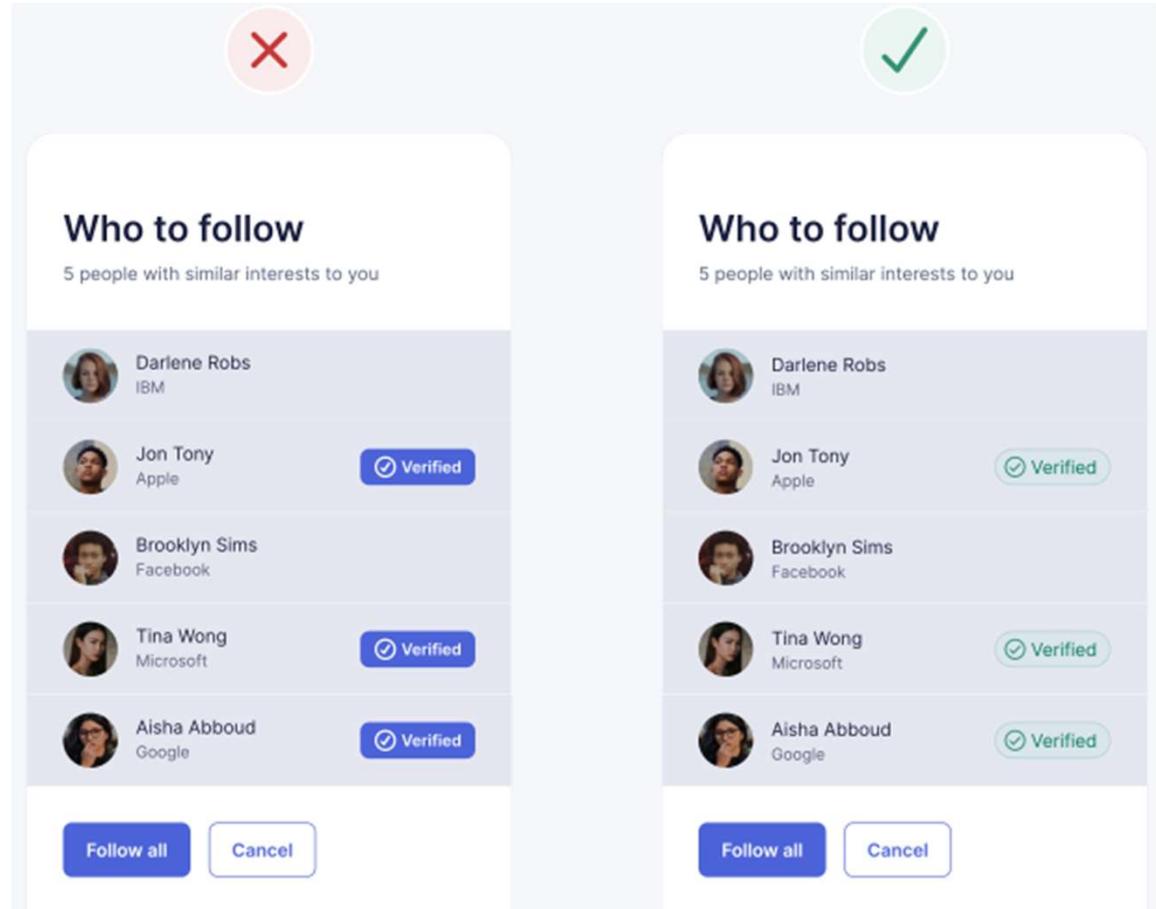
The badges look like the primary button, they seem interactive, even though they're not



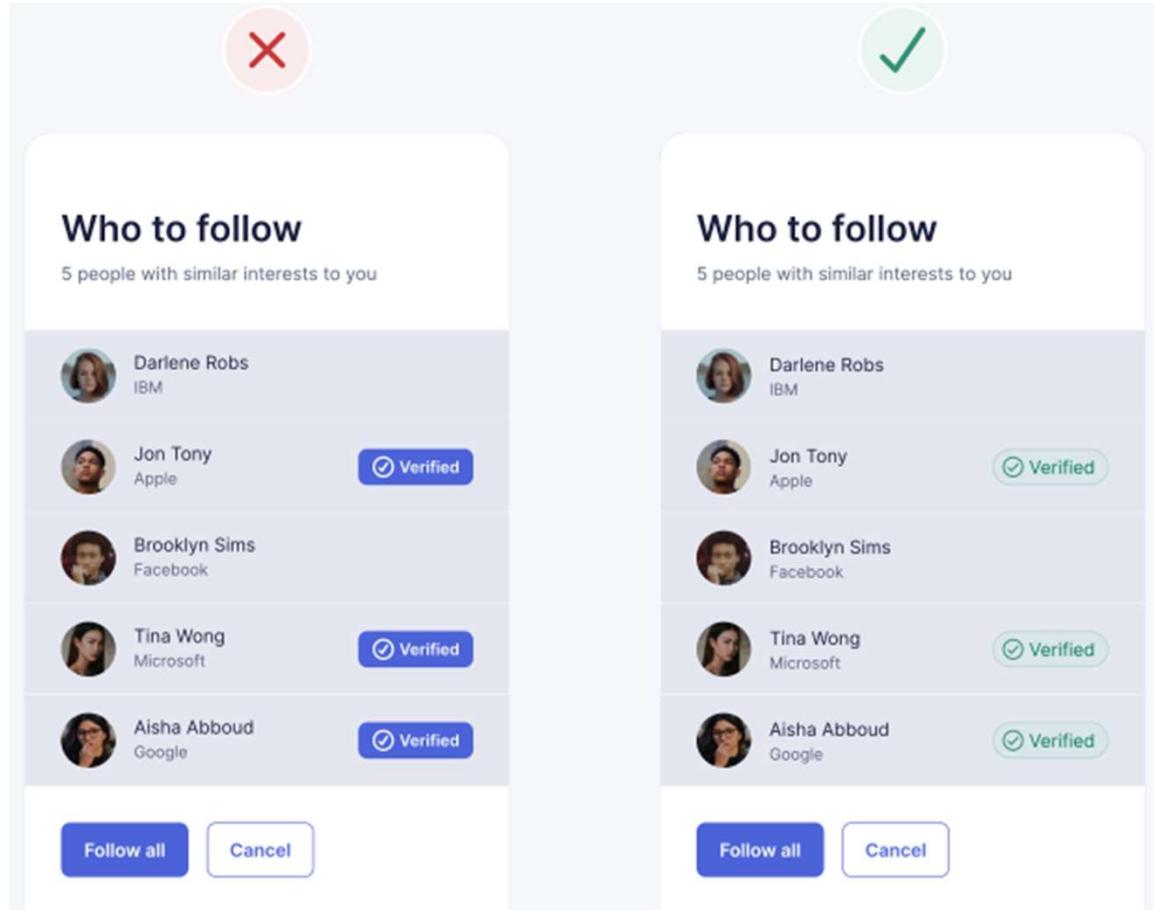
Remove the blue action color as the badges are not interactive, instead use green to indicate success



A more rounded shape is commonly used for badges to help differentiate them from buttons



A lighter background color helps correct the visual hierarchy, so the primary button is the most prominent element



Align related elements in a continuous line

People perceive elements that are arranged in a continuous line to be related

Our eyes naturally tend to follow elements aligned in continuous straight or curved lines



Align related elements in a continuous line

Lists are a common way of using continuity to group related elements in an interface

You can disrupt continuity to indicate the end of a group of related elements or to highlight a particular element

Grouped by continuity

Category	Title	Date	Author
Interiors	Contemporary apartment design tips	1 day ago	6 min read John Smith
Interiors	Beautiful chairs and where to get them for a bargain	1 day ago	6 min read Taylor Samson
Interiors	Interior decor styling tips	4 days ago	8 min read Tamara Hodgekiss
Gardens	Lush linens to warm up your bed room	5 days ago	10 min read Ollie Green
Architecture	Architectural rendering of a modern building	6 days ago	12 min read Architectural Digest

Continuity broken

Category	Title	Date	Author
Interiors	Contemporary apartment design tips	1 day ago	6 min read John Smith
Architecture	Beautiful chairs and where to get them for a bargain	1 day ago	6 min read Taylor Samson
Gardens	Love interior design? Receive beautiful interiors in your inbox weekly	2 days ago	8 min read Interior Design Weekly
Architecture	Interior decor styling tips	4 days ago	8 min read Tamara Hodgekiss
Gardens	Lush linens to warm up your bed room	5 days ago	10 min read Ollie Green
Architecture	Architectural rendering of a modern building	6 days ago	12 min read Architectural Digest

Grouping methods example

Containers are used to create the main structure of the interface

The screenshot displays a mobile application interface for a music service named 'ProMusic'. On the left, a dark sidebar contains a search bar at the top, followed by three navigation items: 'For you' (with a heart icon), 'Browse' (with a musical note icon), and 'Library' (with a book icon). Below these are sections for 'PLAYLISTS' containing 'Old School', 'Slow Jams', '80's Action Movies', 'Summer Chill' (which is highlighted in white), and 'Trance'. The main content area on the right features a large image of a palm tree against a sunset. To the right of the image, the text 'PLAYLIST' is displayed above the title 'Summer Chill'. Below the title, it says '16 songs - 1 hr 10 min'. There are two buttons: a dark blue 'Play' button with a white play icon, and a light blue 'Save' button with a heart icon. A table below lists five songs from the playlist:

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calmig Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Ariane McCou	Calmig Destiny	22 Oct 2024	4:06

At the bottom of the screen, there is a playback control bar showing a portrait of a man, the song title 'Lonely Flow' and artist 'Tony Robson', a progress bar indicating 0:24 of a total duration of 3:54, and three circular control icons (back, forward, repeat).

Grouping methods example

A dark grey background is used to contain the left side navigation

The screenshot shows a mobile application interface for a music service. On the left, a dark grey sidebar contains navigation links: 'Search', 'For you', 'Browse', 'Library', 'Old School', 'Slow Jams', '80's Action Movies', 'Summer Chill' (which is highlighted), and 'Trance'. Below this is a 'PLAYLISTS' section with the same items. The main content area has a light background. At the top right, there are 'Help' and 'Patrick' user profile icons. The central part of the screen displays a playlist titled 'Summer Chill' with a palm tree image. It shows 16 songs - 1 hr 10 min. Below the title are 'Play' and 'Save' buttons. A table lists the first five songs:

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calmig Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Ariane McCou	Calmig Destiny	22 Oct 2024	4:06

At the bottom, a player bar shows the song 'Lonely Flow' by Tony Robson, currently at 0:24 of a 3:54 duration. It includes standard play controls (rewind, play/pause, forward).

Grouping methods example

A light grey background and shadow are used to contain the music player controls along the bottom

The screenshot displays a music application interface with a dark mode theme. On the left, a sidebar contains navigation links: 'Search', 'For you', 'Browse', 'Library', and a 'PLAYLISTS' section with items like 'Old School', 'Slow Jams', '80's Action Movies', 'Summer Chill' (which is highlighted), and 'Trance'. The main content area shows a 'PLAYLIST' titled 'Summer Chill' with a total of 16 songs and a duration of 1 hr 10 min. Below the playlist title are two buttons: 'Play' and 'Save'. A list of five songs is displayed, each with a small thumbnail, title, album name, date added, and duration:

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calmig Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Ariane McCou	Calmig Destiny	22 Oct 2024	4:06

At the bottom of the screen, there is a light grey footer bar containing a portrait photo of a man, the song title 'Lonely Flow' by 'Tony Robson', a playback progress bar showing 0:24 to 3:54, and three circular control icons for previous, next, and repeat.

Grouping methods example

A grey border is used to contain the account menu along the top

The screenshot displays a mobile application interface for a music service. On the left, a dark sidebar contains the app's logo ('ProMusic'), a search bar, and three main navigation items: 'For you', 'Browse', and 'Library'. Below these are sections for 'PLAYLISTS' (listing 'Old School', 'Slow Jams', '80's Action Movies', 'Summer Chill', and 'Trance') and a 'RECOMMENDED' section. The main content area on the right shows a 'PLAYLIST' titled 'Summer Chill' with a total of 16 songs and a duration of 1 hr 10 min. The playlist cover art features a palm tree against a sunset. Below the title, there are 'Play' and 'Save' buttons. The song list table includes columns for 'Title', 'Album', 'Added', and 'Duration'. The first five songs listed are:

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calmig Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Ariane McCou	Calmig Destiny	22 Oct 2024	4:06

At the bottom, a player bar shows the currently playing song, 'Lonely Flow' by Tony Robson, at 0:24 of 3:54. It includes standard playback controls (rewind, play/pause, forward) and a volume slider.

Grouping methods example

The songs in the table are grouped in multiple ways

They have a container

They're in close proximity

They look similar

They're aligned in a continuous line

The image shows a mobile application interface for a music service. On the left is a dark sidebar with the title "ProMUSIC" at the top. Below it are three buttons: "Search" with a magnifying glass icon, "For you" with a heart icon, and "Browse" with a speaker icon. At the bottom of the sidebar is a "Library" button with a folder icon. To the right of the sidebar is a list titled "PLAYLISTS" containing "Old School", "Slow Jams", "80's Action Movies", "Summer Chill" (which is highlighted with a dark background), and "Trance". The main area of the screen displays a "Summer Chill" playlist. At the top of this section is a small image of a palm tree against a sunset. Below the image, the playlist title "Summer Chill" is displayed in bold black text, followed by "16 songs - 1 hr 10 min". There are two buttons: "Play" with a play icon and "Save" with a heart icon. The main content of the screen is a table listing five songs. The columns are labeled "#", "Title", "Album", "Added", and "Duration". The data is as follows:

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calming Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Ariana McCrae	Calming Destiny	22 Oct 2024	4:06

At the bottom of the screen, there is a player bar showing a portrait of a man, the song title "Lonely Flow" by Tony Robson, a progress bar from 0:24 to 3:54, and standard media control icons (back, forward, repeat).

Grouping methods example

Container is used to group songs in the table

#	Title	Album	Added	Duration
1	 Global Rebellion Dianne Russell	Calming	24 May 2022	3:52
2	 Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	 Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	 Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	 Wind Down Crash Arlene McCoy	Calming Destiny	22 Oct 2024	4:06
6	 Lonely Flow Tony Robson	Summer Vibes	2 Dec 2024	3:48

Grouping methods example

Since the songs are grouped using multiple methods, you can remove the outer container, and the songs still appear to be grouped

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calming Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Arlene McCoy	Calming Destiny	22 Oct 2024	4:06
6	Lonely Flow Tony Robson	Summer Vibes	2 Dec 2024	3:48

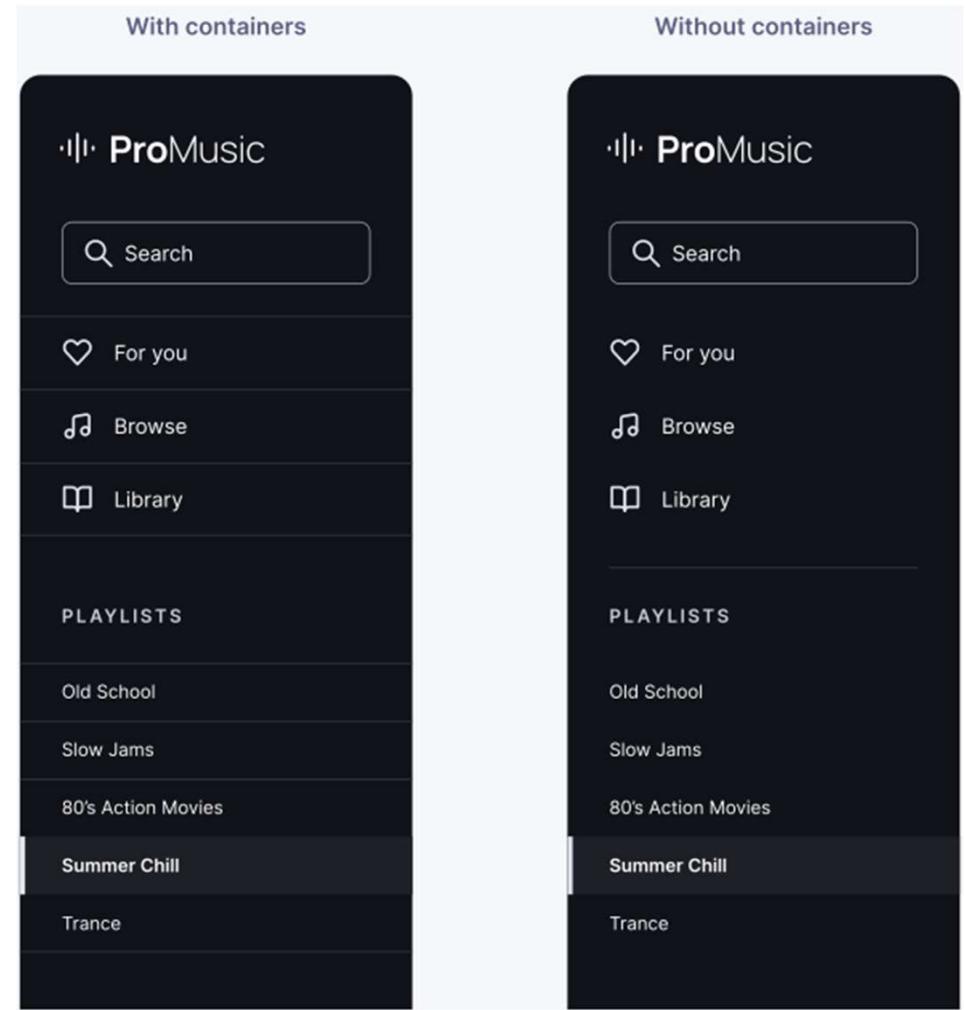
Grouping methods example

Since the songs are grouped using multiple methods, you can remove the outer container, and the songs still appear to be grouped

#	Title	Album	Added	Duration
1	Global Rebellion Dianne Russell	Calming Shine	24 May 2022	3:52
2	Lullaby of Noise Floyd Miles	Impossible	1 Feb 2023	3:55
3	Clear Mission to Paris Eleanor Pena	Lounge Technology	17 Oct 2024	3:42
4	Stubborn Love Symphony Jane Cooper	Unlax Feelings	21 Sep 2022	3:52
5	Wind Down Crash Arlene McCoy	Calming Destiny	22 Oct 2024	4:06
6	Lonely Flow Tony Robson	Summer Vibes	2 Dec 2024	3:48

Grouping methods example

You can simplify the side navigation by removing unnecessary containers



Create a clear visual hierarchy

Aim to present information in order of importance by making more important elements look more prominent

A clear order of importance, or visual hierarchy, helps people scan information quickly and focus on areas of interest

It also improves aesthetics by creating a sense of order

Create a clear visual hierarchy

You can create a visual hierarchy using

Size - make important elements larger

Color - use brighter, richer, warmer, or higher contrast colors for more important elements

Contrast - style important elements differently to help them stand out



Create a clear visual hierarchy

You can create a visual hierarchy using

Spacing - surround important elements with more space

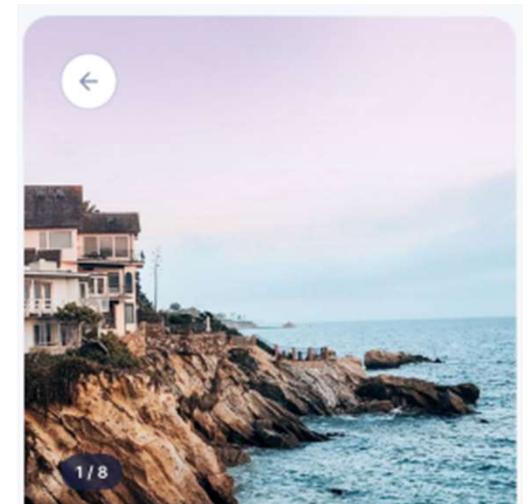
Position - place important elements toward the top of an interface or first in a row of multiple items

Depth - elevate important elements so they appear closer to users



Create a clear visual hierarchy

What is the issue in the UI design displayed in relation to visual hierarchy?



Name: Beach Getaway
Type: House
Price: \$299.00 / night
Location: Blissful Beach, NSW, Australia
Rating: 5.0 stars [\(23 reviews\)](#)
Bedrooms: 2
Bathrooms: 1
Parking: 1 garage
Description: Leave the hustle and bustle of the city behind as you look over the sparkling blue waters of Blissful Beach. Featuring light...

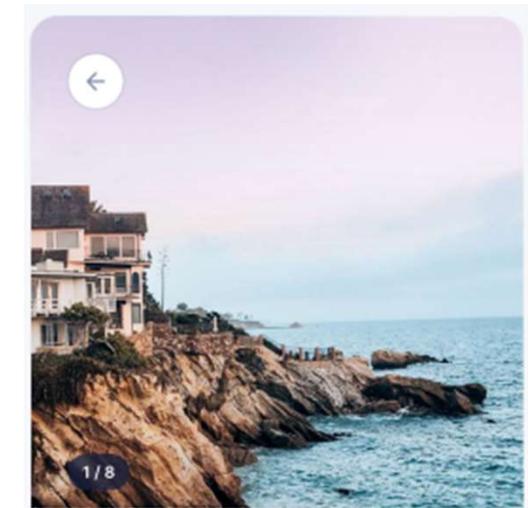
[Book now](#)

Create a clear visual hierarchy

What is the issue in the UI design displayed in relation to visual hierarchy?

The interface do not have a clear visual hierarchy

All elements have similar visual prominence

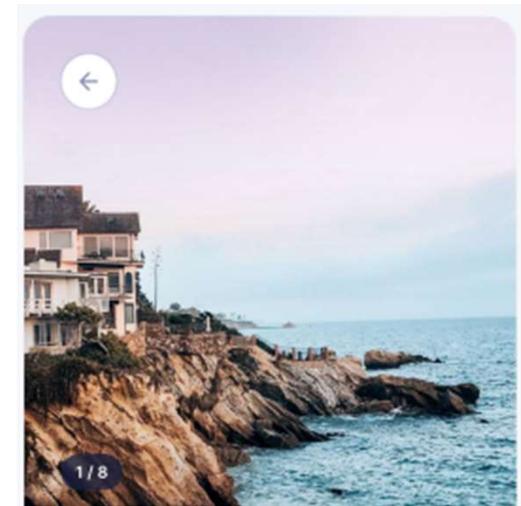


Name:	Beach Getaway
Type:	House
Price:	\$299.00 / night
Location:	Blissful Beach, NSW, Australia
Rating:	5.0 stars (23 reviews)
Bedrooms:	2
Bathrooms:	1
Parking:	1 garage
Description:	Leave the hustle and bustle of the city behind as you look over the sparkling blue waters of Blissful Beach. Featuring light...

[Book now](#)

Create a clear visual hierarchy

How to fix the issue?



Name:	Beach Getaway
Type:	House
Price:	\$299.00 / night
Location:	Blissful Beach, NSW, Australia
Rating:	5.0 stars (23 reviews)
Bedrooms:	2
Bathrooms:	1
Parking:	1 garage
Description:	Leave the hustle and bustle of the city behind as you look over the sparkling blue waters of Blissful Beach. Featuring light...

[Book now](#)

Create a clear visual hierarchy

Group related information into separate sections

Order the information in each section by importance

Place more important sections towards the top of the interface to give them prominence

1 / 8

Name: Beach Getaway

Rating: 5.0 stars [\(23 reviews\)](#)

Location: Blissful Beach, NSW, Australia

Price: \$299.00 / night

[Book now](#)

Type: House

Bedrooms: 2

Bathrooms: 1

Parking: 1 garage

Description: Leave the hustle and bustle of the city behind as you...

Create a clear visual hierarchy

Make the name large, bold, and use the “Text strong” color variation from your colour palette

Since the location is secondary information, make it smaller, regular weight, and use the “Text weak” colour variation

Introduce icons for the star rating (following common pattern) to make it easier to scan

The image shows a mobile application interface for a travel booking platform. At the top, there is a header with the text "Beach Getaway" and a subtitle "Blissful Beach, NSW, Australia". Below the header is a circular badge with a red arrow pointing left and the number "1". Underneath the title, there is a star rating icon consisting of five yellow stars followed by the text "5.0 (23 reviews)". A dashed red box encloses several key details: "Price: \$299.00 / night", a blue "Book now" button, "Type: House", "Bedrooms: 2", "Bathrooms: 1", and "Parking: 1 garage". Another dashed red box contains the "Description: Leave the hustle and bustle of the city behind as you...". Above the main content area, there is a small image of a rocky coastline with the text "1 / 8" in a blue circle.

Create a clear visual hierarchy

To ensure the second section is always visible and within thumb's reach, elevate it using a shadow and stick it to the bottom of the screen

1 / 8

Beach Getaway

Blissful Beach, NSW, Australia

★★★★★ 5.0 (23 reviews)

Type:	House
Bedrooms:	2
Bathrooms:	1
Parking:	1 garage

Description: Leave the hustle and bustle of the city behind as you...

Book now

\$299.00 / night

← 2

Create a clear visual hierarchy

Increase the prominence of the primary call to action by making it a primary button with the brand color

The image shows a mobile application interface for a beach getaway. At the top is a header with a blue gradient background and white text. Below the header is a large, high-quality photograph of a rocky coastline meeting the ocean under a clear sky. A small circular overlay in the top-left corner of the photo contains the text "1 / 8".

The main title "Beach Getaway" is displayed in a large, bold, dark blue font. Below the title is the location "Blissful Beach, NSW, Australia".

A rating section follows, featuring a row of five yellow stars and the text "5.0 (23 reviews)".

Below the rating are several property details listed in a grid format:

Type:	House
Bedrooms:	2
Bathrooms:	1
Parking:	1 garage

A descriptive paragraph begins with "Description: Leave the hustle and bustle of the city behind as you...".

At the bottom of the card is a prominent blue button with the white text "Book now". To the right of the button is the price "\$299.00 / night". In the bottom right corner of the card, there is a red circular icon containing a white arrow pointing left and the number "2".

Create a clear visual hierarchy

Highlight the price by making it bigger and bolder and placing it last on the interface next to the book button

According to The Serial Position Effect, people best remember the first and last items

1 / 8

Beach Getaway

Blissful Beach, NSW, Australia

★★★★★ 5.0 (23 reviews)

Type:	House
Bedrooms:	2
Bathrooms:	1
Parking:	1 garage

Description: Leave the hustle and bustle of the city behind as you...

Book now

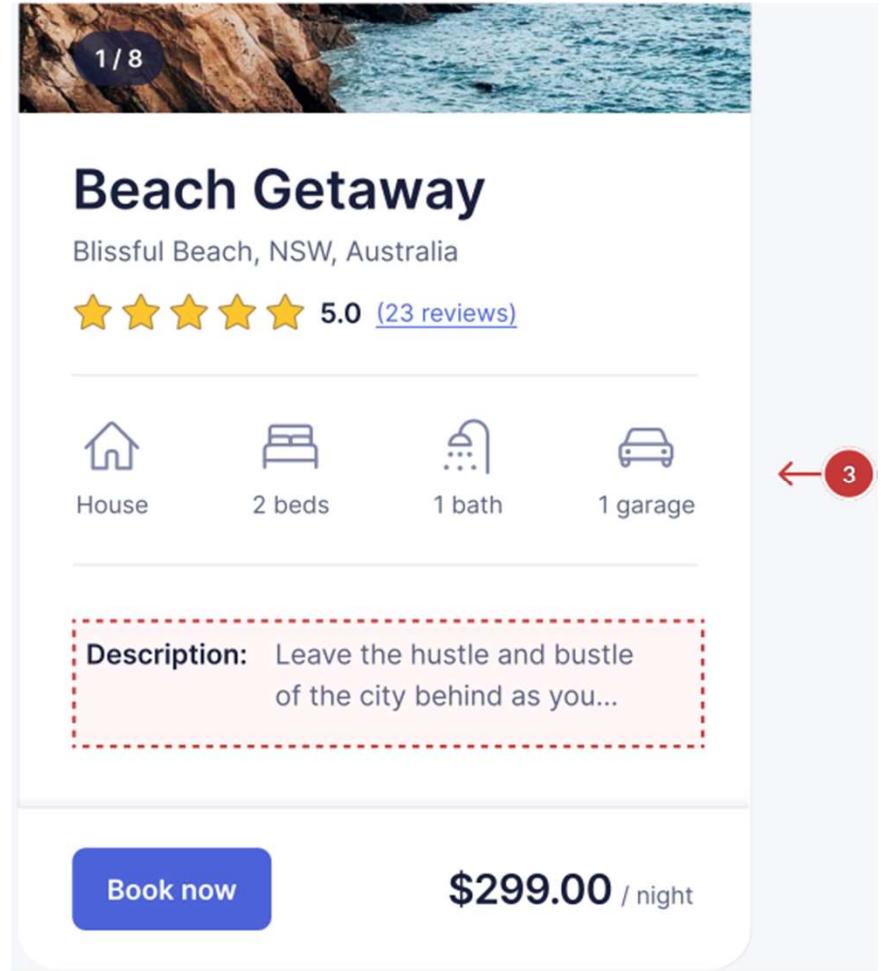
\$299.00 / night

← 2

Create a clear visual hierarchy

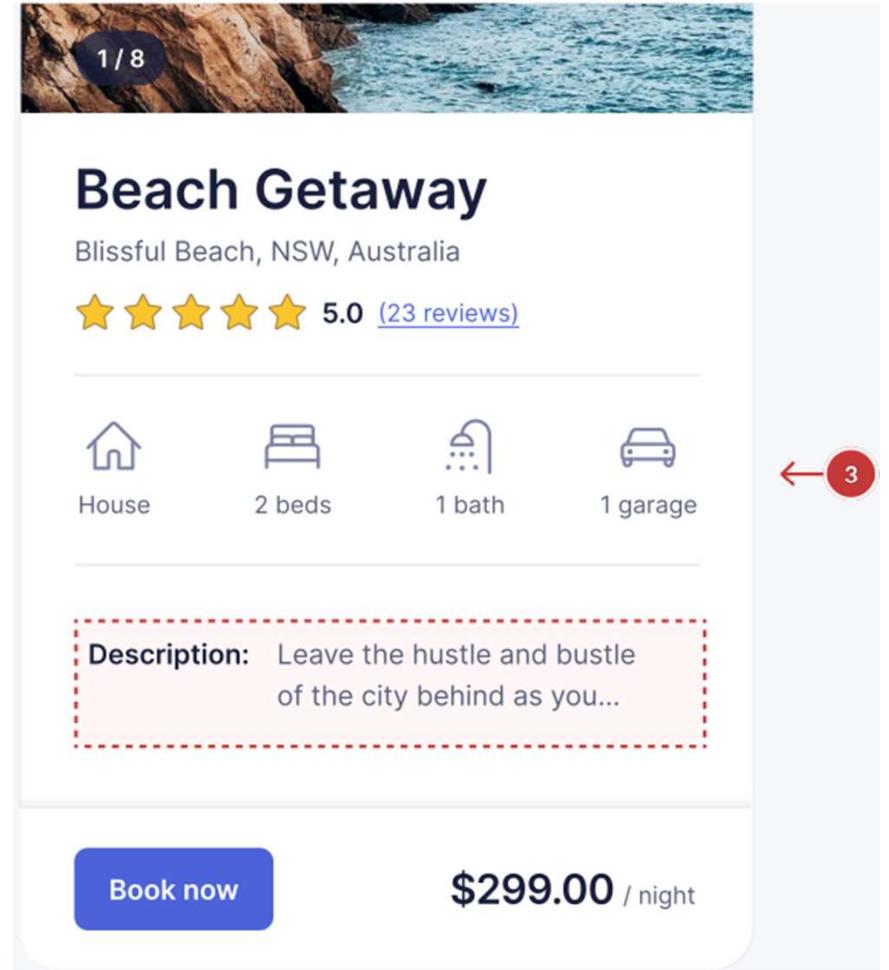
Use icons with text labels to help make the property details easier to scan

The property details now look similar and it helps group them together to show they're related



Create a clear visual hierarchy

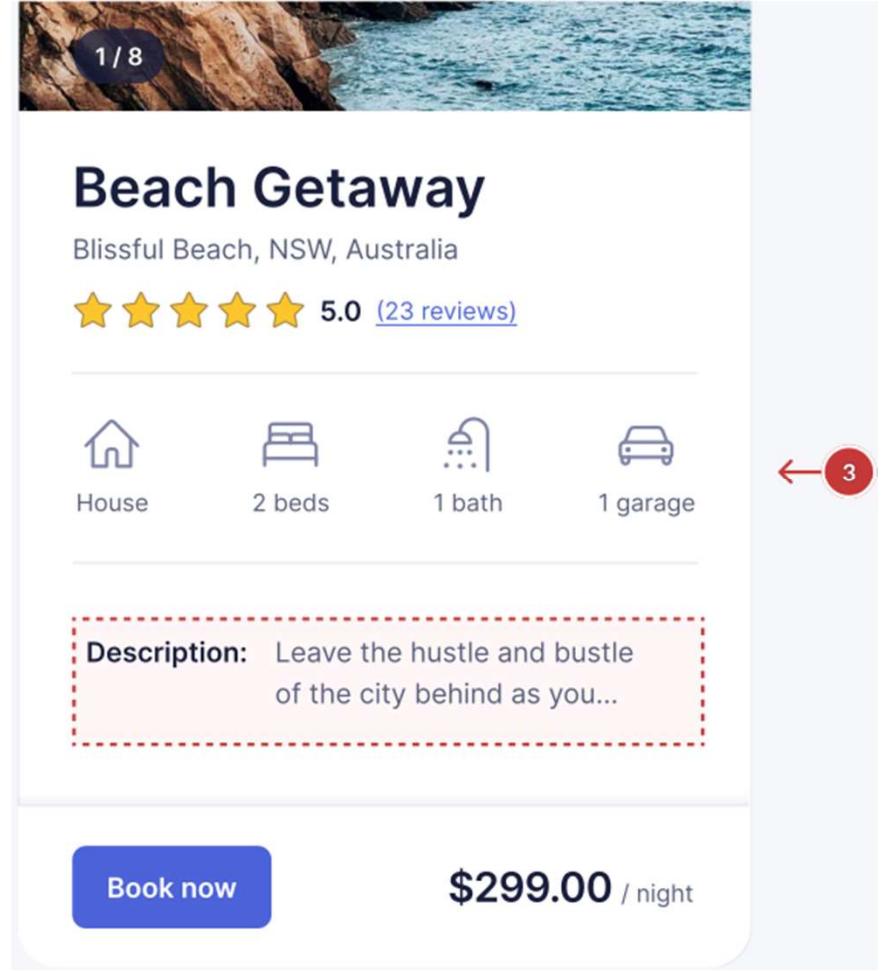
Since icons can be very prominent, use unfilled icons and the “Stroke strong” color variation to decrease their prominence



Create a clear visual hierarchy

Use the “Text weak” color variation for the text labels, rather than the “Text strong” variation

This gives the text labels and icons similar prominence and creates balance



Create a clear visual hierarchy

Remove the “description” label as it’s already obvious what this information is for

Use the “Text weak” colour variation for the text at regular weight so it’s less prominent than the second section

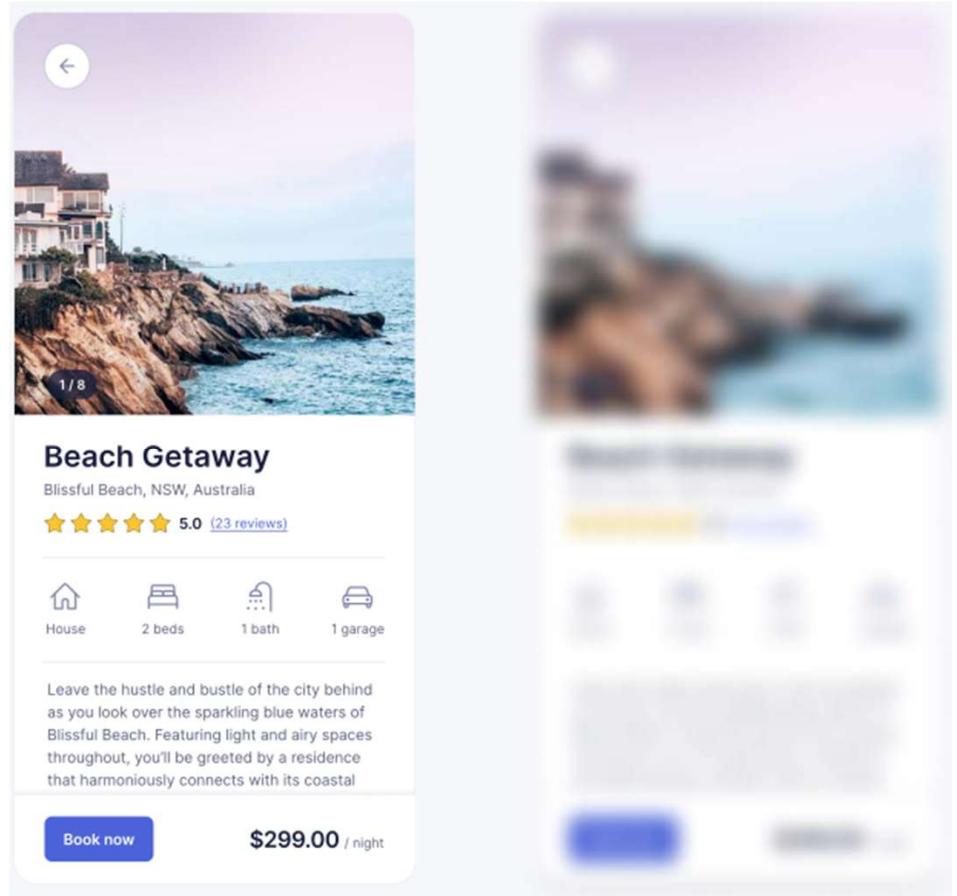
The screenshot shows a travel booking interface. At the top is a photograph of a rocky coastline with the text "1 / 8". Below the photo is the title "Beach Getaway" and the location "Blissful Beach, NSW, Australia". A 5-star rating with "5.0" and "(23 reviews)" is displayed. Below the rating are icons for a house, two beds, one bath, and one garage, each with its respective count. A descriptive paragraph starts with "Leave the hustle and bustle of the city behind". At the bottom, there is a blue button labeled "Book now" and the price "\$299.00 / night". A red circular badge with the number "4" and a left-pointing arrow is located in the bottom right corner.

Test visual hierarchy

Step back from your screen

Zoom out to make your design smaller

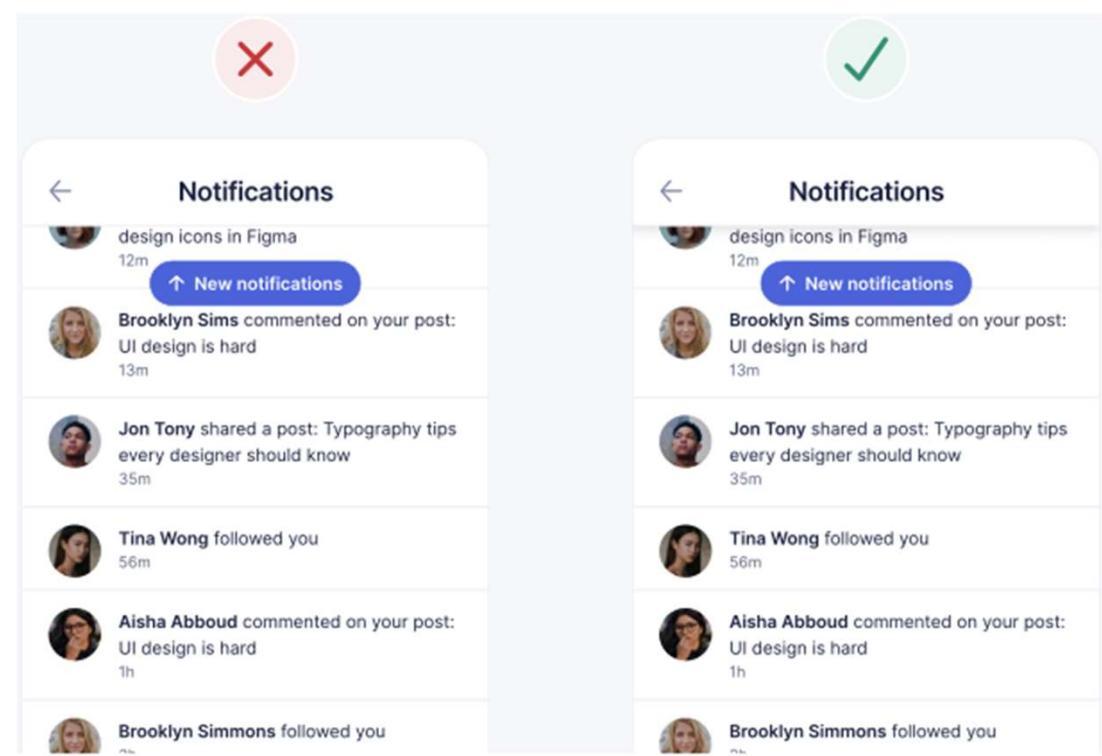
Blur your design



Use depth to create visual hierarchy

Use different levels of elevation to help create a clear order of importance or visual hierarchy

More important things should be elevated higher to make them more prominent



Understand the box model

Interfaces are made up of lots of rectangles within rectangles

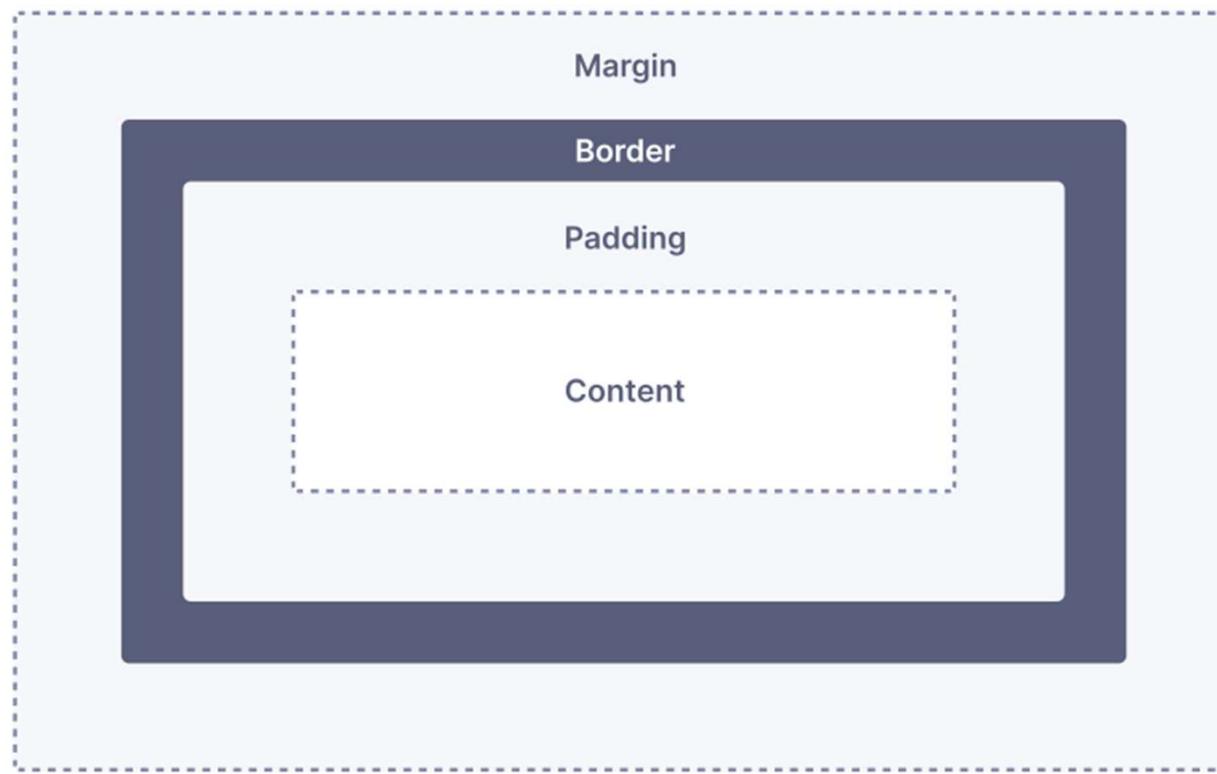
Each rectangle can have an outer margin, inner padding, and a border according to the box model

Margin - the space between the box and neighbouring boxes

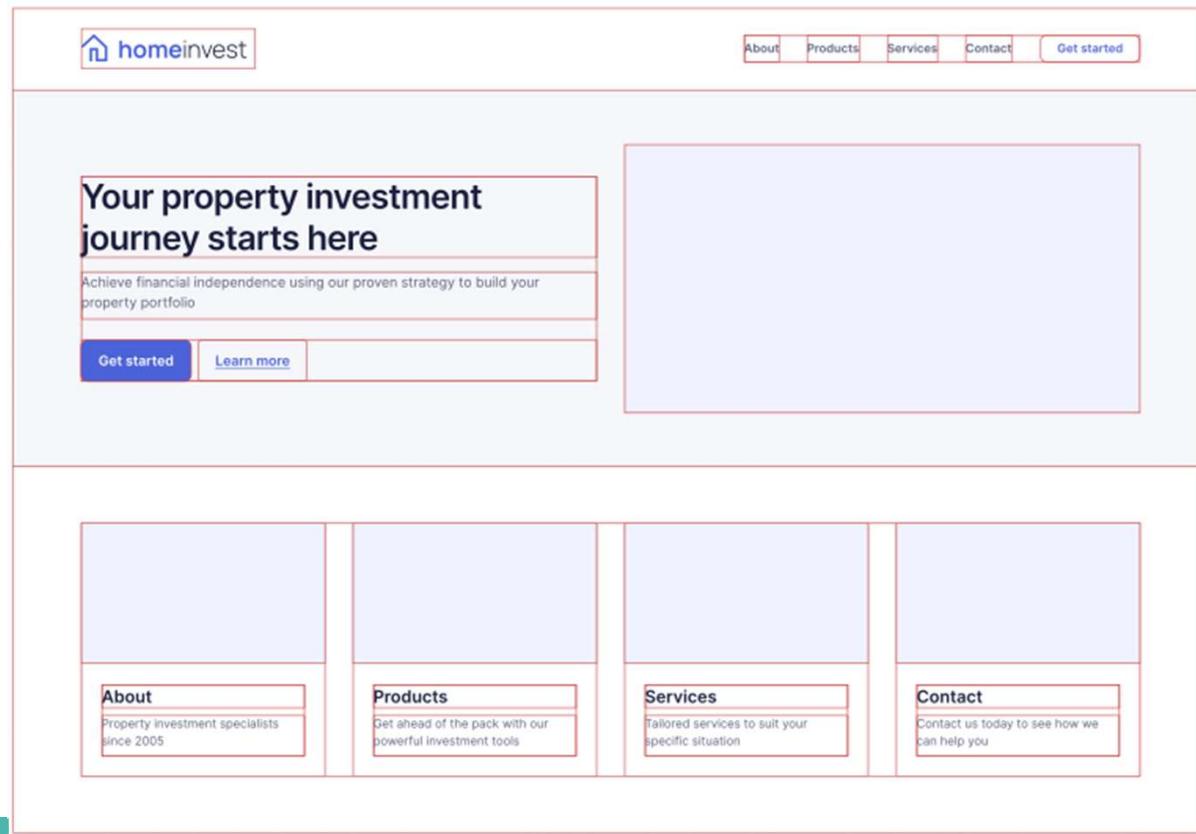
Border - the stroke around the edge of the box

Padding - the space between the border and the contents of the box

Understand the box model



Understand the box model



Create a set of predefined spacing options

An example set of predefined spacing options

This is also known as using an 8 point grid, as all interface elements will end up aligning to a series of vertical and horizontal guidelines separated by 8 points

XS	S	M	L	XL	XXL
8pt	16pt	24pt	32pt	48pt	80pt
::	■	□	□	□	□

Create a set of predefined spacing options

Benefits of using a predefined set of spacing options

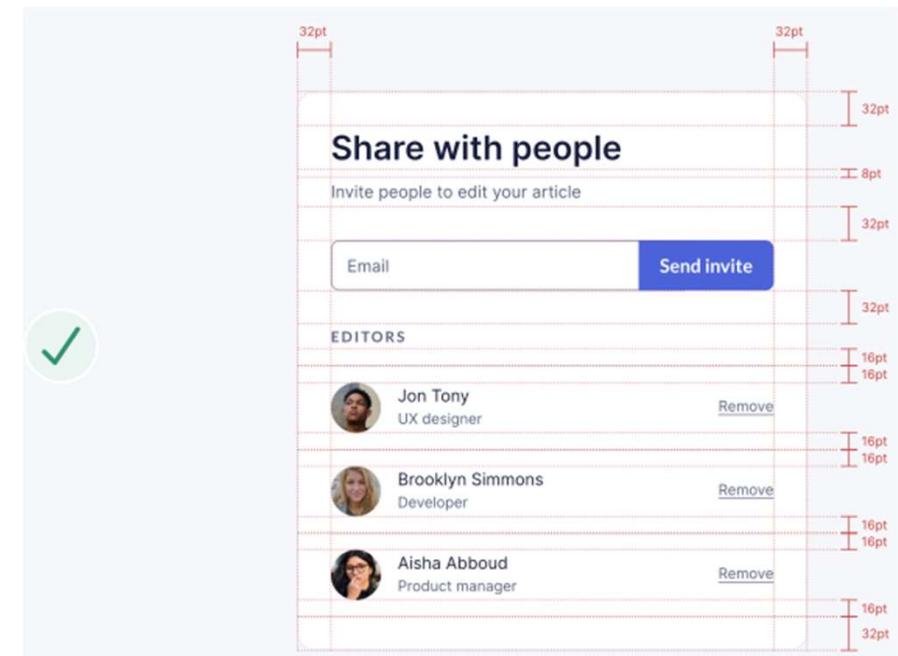
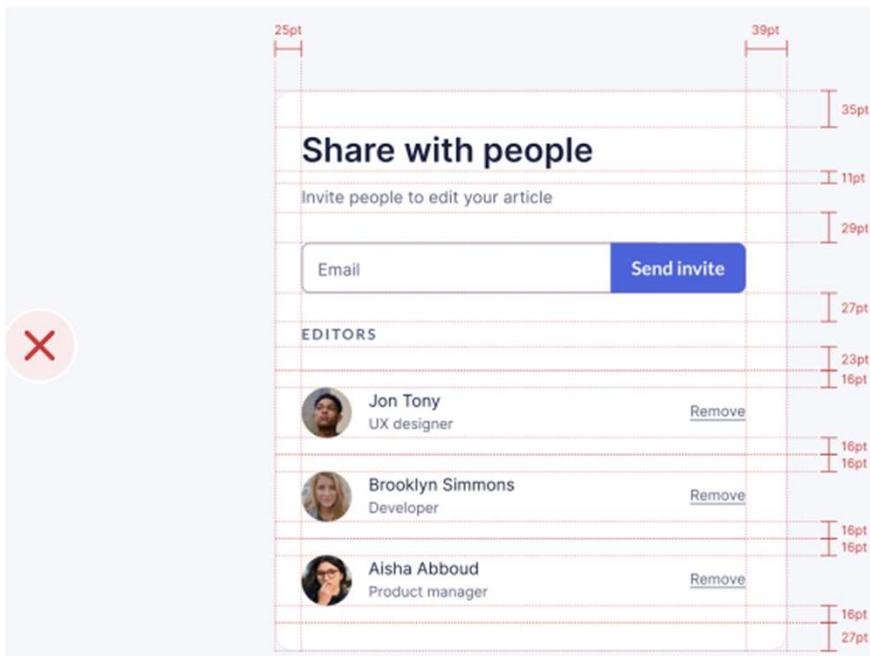
- Simplified designs - as there's less variation between spacing

- Improved consistency - as spacing across interface elements will match

- Design faster - as there are fewer options to choose from



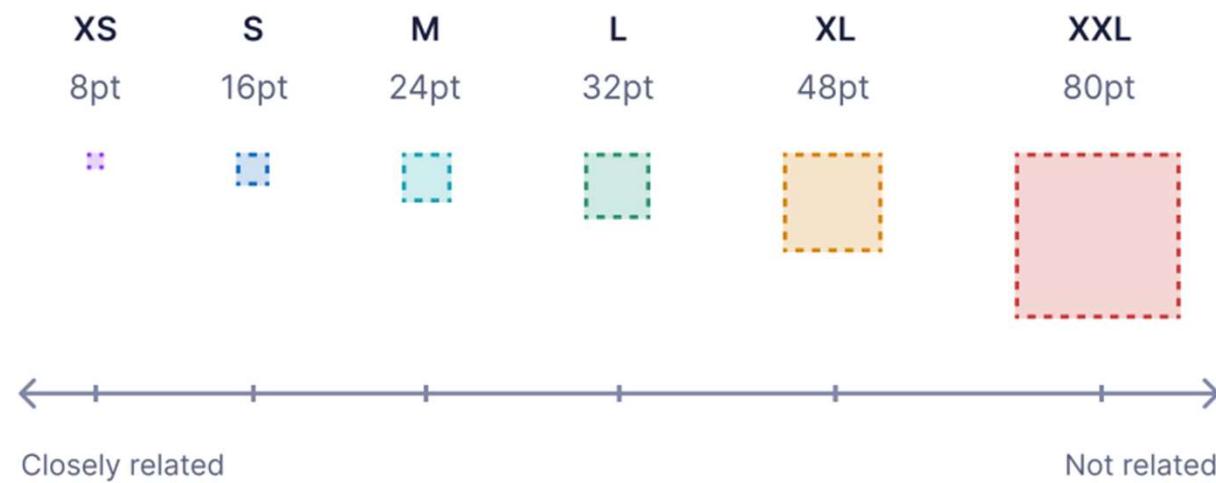
Create a set of predefined spacing options



Space elements based on how closely related they are

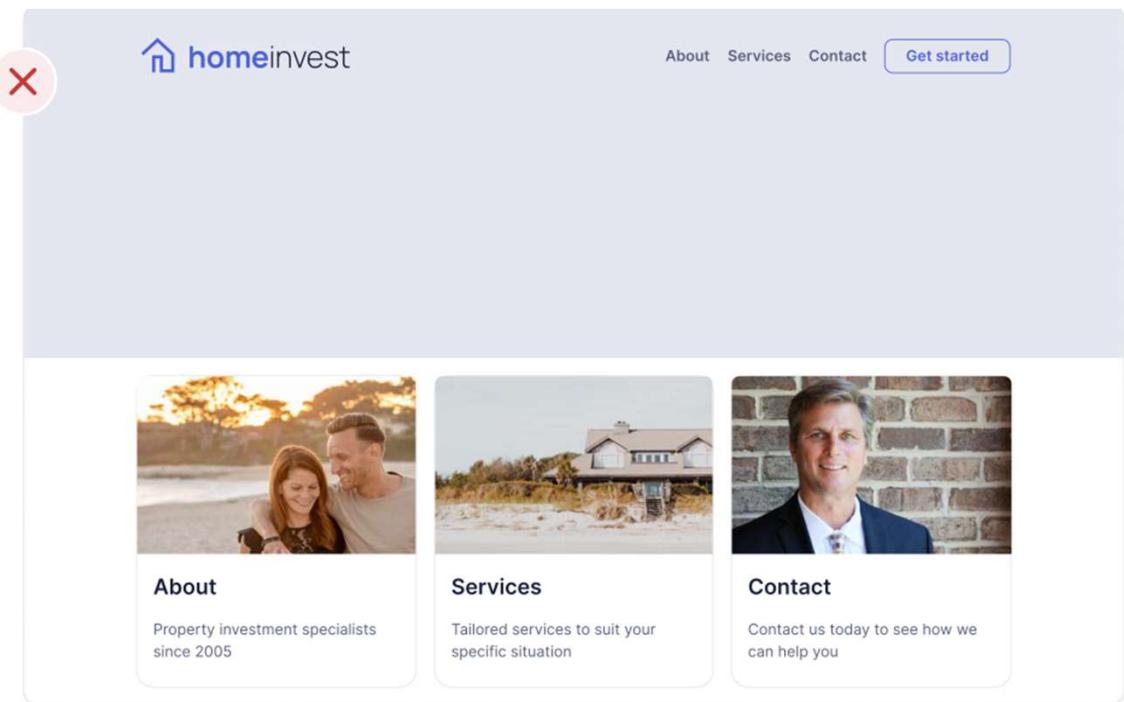
More closely related elements should generally be closer together to show that they're related

Unrelated elements should be separated by placing more space between them



Space elements based on how closely related they are

Landing page example with small spacing option applied everywhere

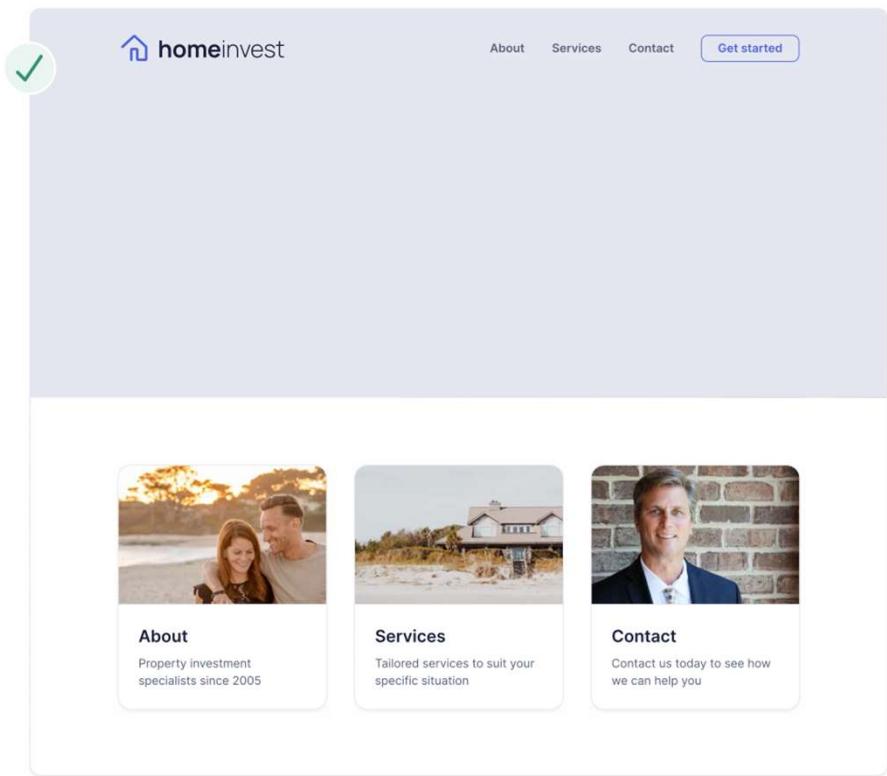


A screenshot of a landing page for 'homeinvest'. At the top right, there is a red circular icon containing a white 'X' symbol. The header includes the logo 'homeinvest' with a house icon, and navigation links for 'About', 'Services', 'Contact', and a blue 'Get started' button. Below the header, there are three rectangular cards with rounded corners, each containing an image and text. The first card on the left shows a couple at sunset and is labeled 'About' with the text 'Property investment specialists since 2005'. The middle card shows a beach house and is labeled 'Services' with the text 'Tailored services to suit your specific situation'. The third card on the right shows a man in a suit and is labeled 'Contact' with the text 'Contact us today to see how we can help you'.

Space elements based on how closely related they are

To fix the spacing issue apply extra small (8pt) spacing to the innermost rectangles and gradually increase the spacing between rectangles as you move outwards

The design is now clearer, neater, and easier to understand



Space elements based on how closely related they are

It's a good idea to create spacing rules to help achieve better consistency and to speed up spacing decisions

Example spacing rule

Use medium (24pt) internal padding for components like card

Use large (32pt) gaps between column

Use extra extra large (80pt) vertical padding for website sections



Spacing Example

Extra small (8pt) spacing is used for the innermost rectangles (the card text)

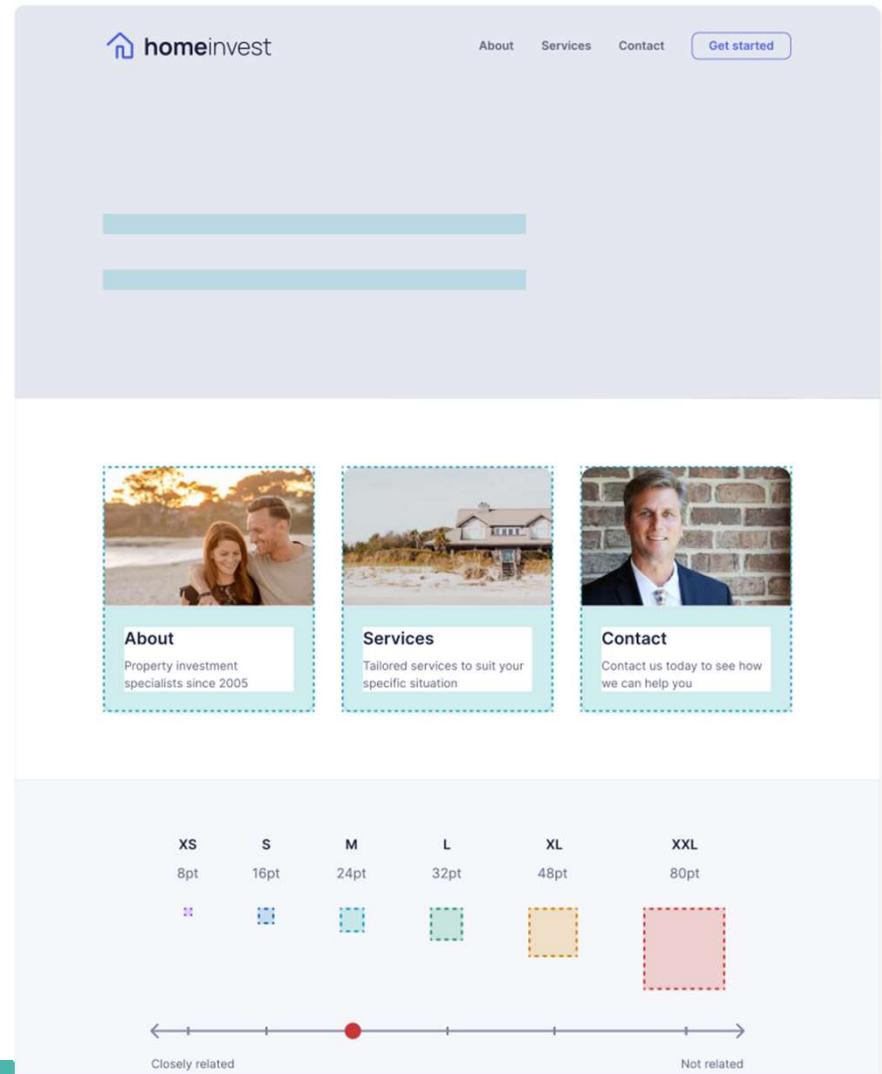
The screenshot shows the homeinvest website's homepage. At the top, there is a navigation bar with the logo, 'About', 'Services', 'Contact', and a 'Get started' button. Below the navigation is a large, light gray header area. Underneath the header, there are three cards, each containing an image and text. The first card is titled 'About' and contains the text 'Property investment specialists since 2005'. The second card is titled 'Services' and contains the text 'Tailored services to suit your specific situation'. The third card is titled 'Contact' and contains the text 'Contact us today to see how we can help you'. Below these cards is a section with a horizontal scale from 'Closely related' to 'Not related'. This section includes a table of spacing values for different screen sizes (XS, S, M, L, XL, XXL) and a color-coded grid.

XS	S	M	L	XL	XXL
8pt	16pt	24pt	32pt	48pt	80pt

Closely related → Not related

Spacing Example

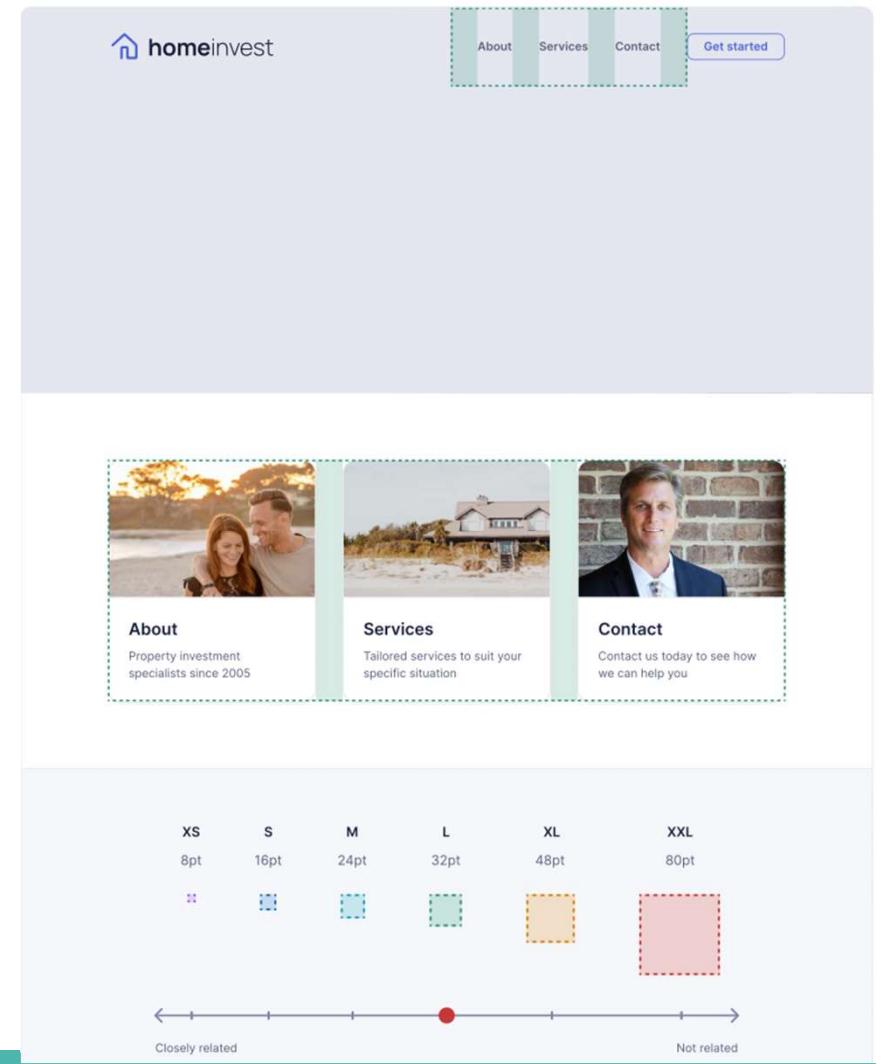
Increase the spacing to the medium (24pt) option for the next level of rectangles (the top section content and card padding)



Spacing Example

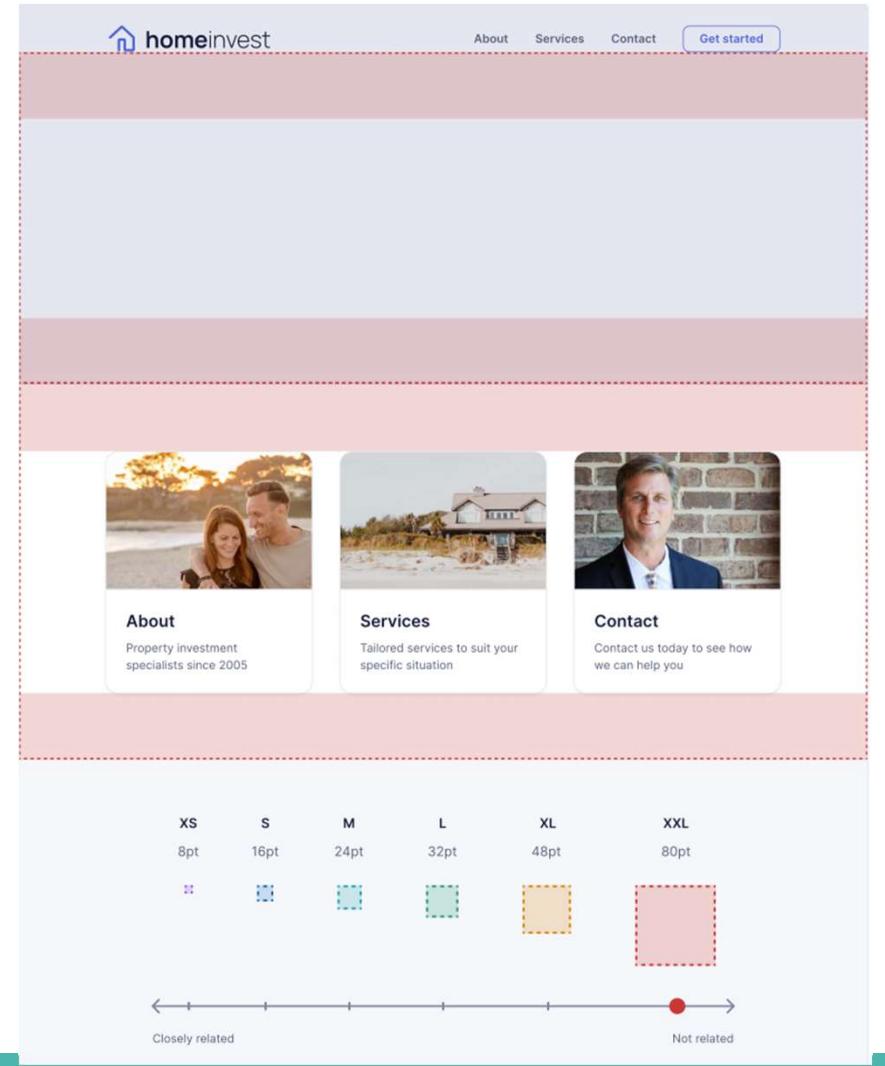
Moving further outwards, apply the large (32pt) spacing option between top navigation links and cards

The cards are actually sitting on a 12 column grid which has gaps of 32pt between columns



Spacing Example

For the outermost boxes of section content, apply the extra extra large (80pt) spacing option to help separate each section of content



Be generous with empty space

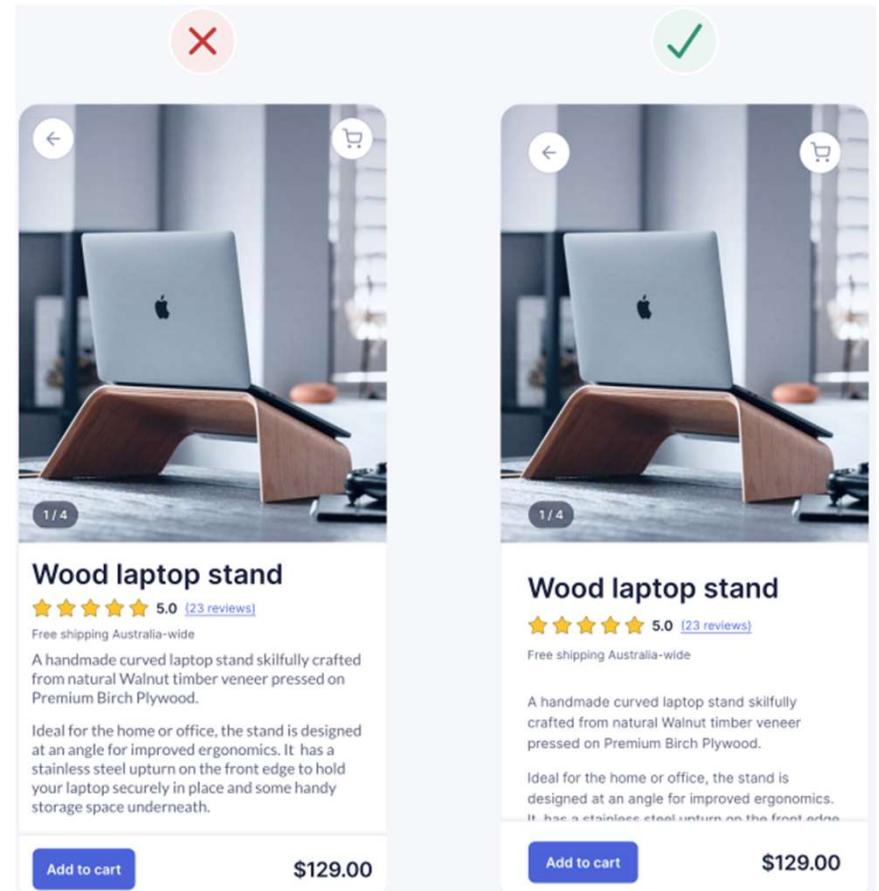
Empty space refers to the empty space between and around design elements

It can be padding, margins, or even the space between lines of text



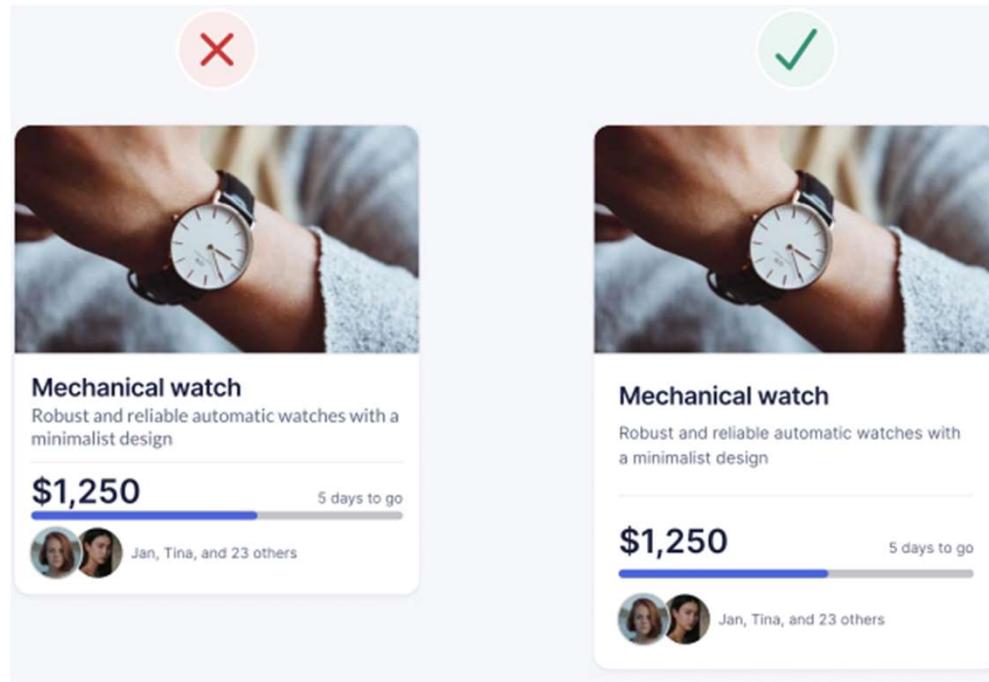
Be generous with empty space

Example of an interface with tight spacing versus one with generous spacing



Be generous with empty space

Example of an interface with tight spacing versus one with generous spacing



Align the main layout to a 12 column grid

The more interface elements you align, the more ordered and structured your interface will appear

This reduces cognitive load and makes it easier for people to understand an interface

A quick and simple way to improve alignment is to use a 12 column grid



12 column grid

A 12 column grid consists of 12 vertical columns separated by empty spaces called gutters

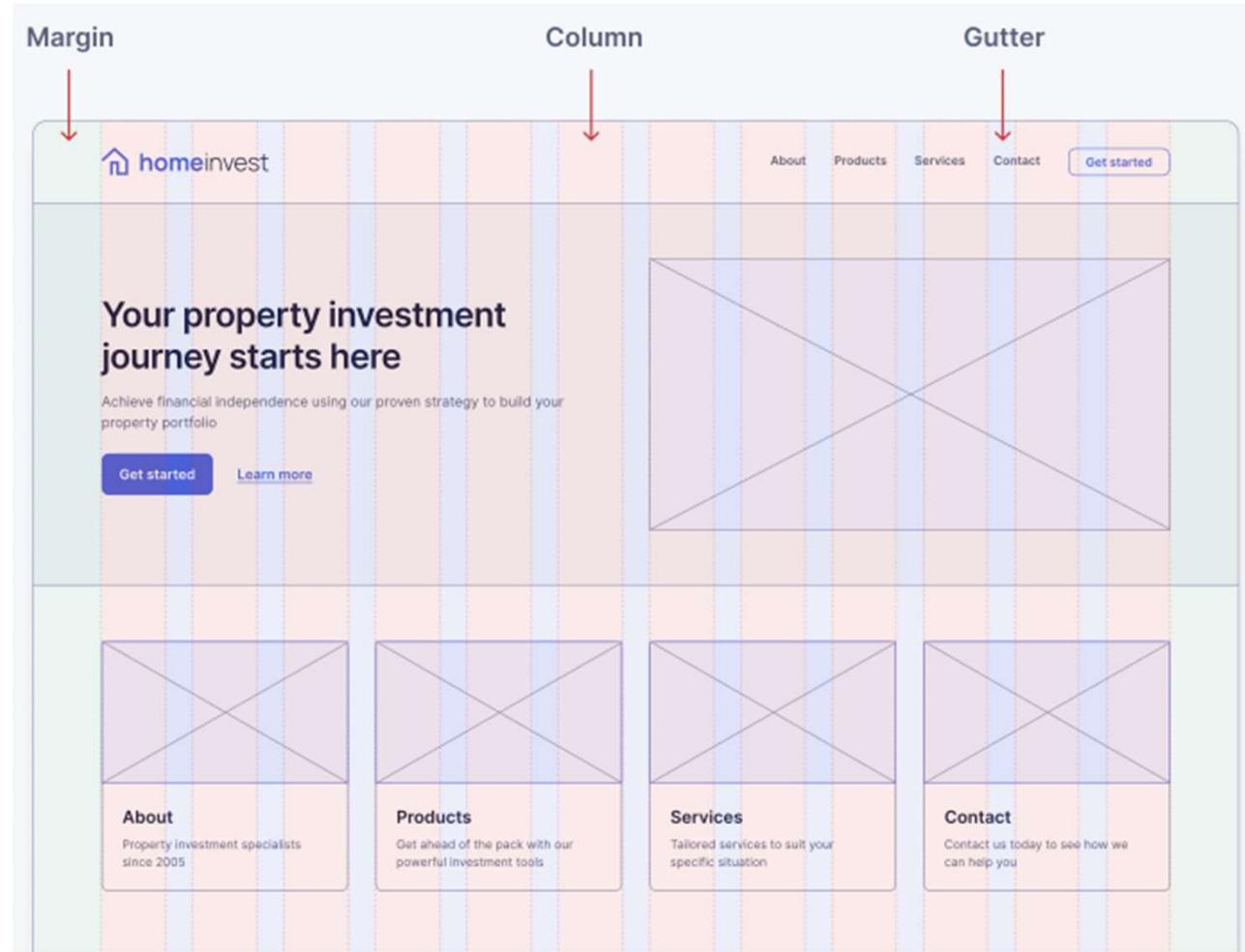
Outer margins prevent the content from hitting the left and right edges of a screen

Columns provide a structure for the layout of the main elements of an interface to align with



12 column grid

12 column grid layout
overlaid on a website



12 column grid: Columns

Create different page layouts by aligning the main containers to one or more columns

Smaller elements inside the main layout containers don't need to align to the 12 columns

Use your predefined spacing options for these smaller elements

12 column grid: Columns

Columns generally have a flexible width, defined with percentages, rather than a fixed width

This allows them to adapt to different screen sizes

Start with 12 columns for large screen sizes, like desktops and laptops

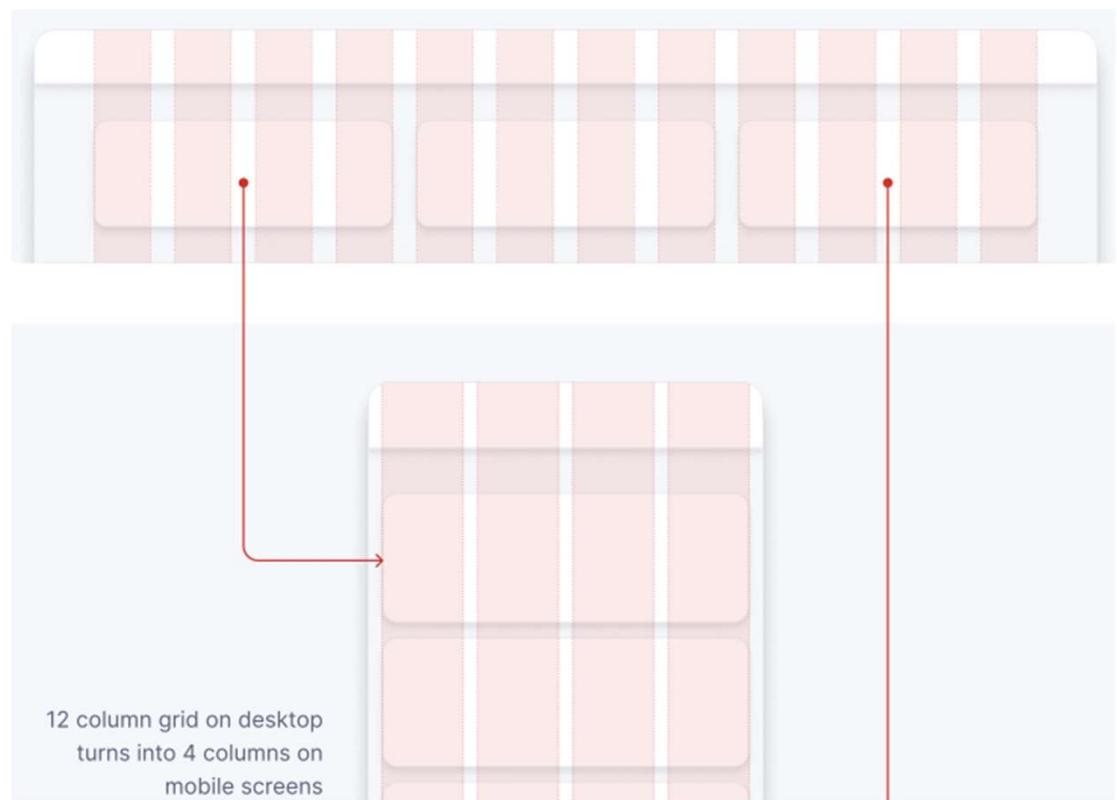
Decrease the number of columns for smaller screens, like tablets and mobiles

12 column grid: Columns

For example, on a large screen, 3 content cards might be aligned in a row across 12 columns

Each card spans 4 columns

On a smaller mobile screen, the cards stack on top of each other across 4 columns



12 column grid: Gutters

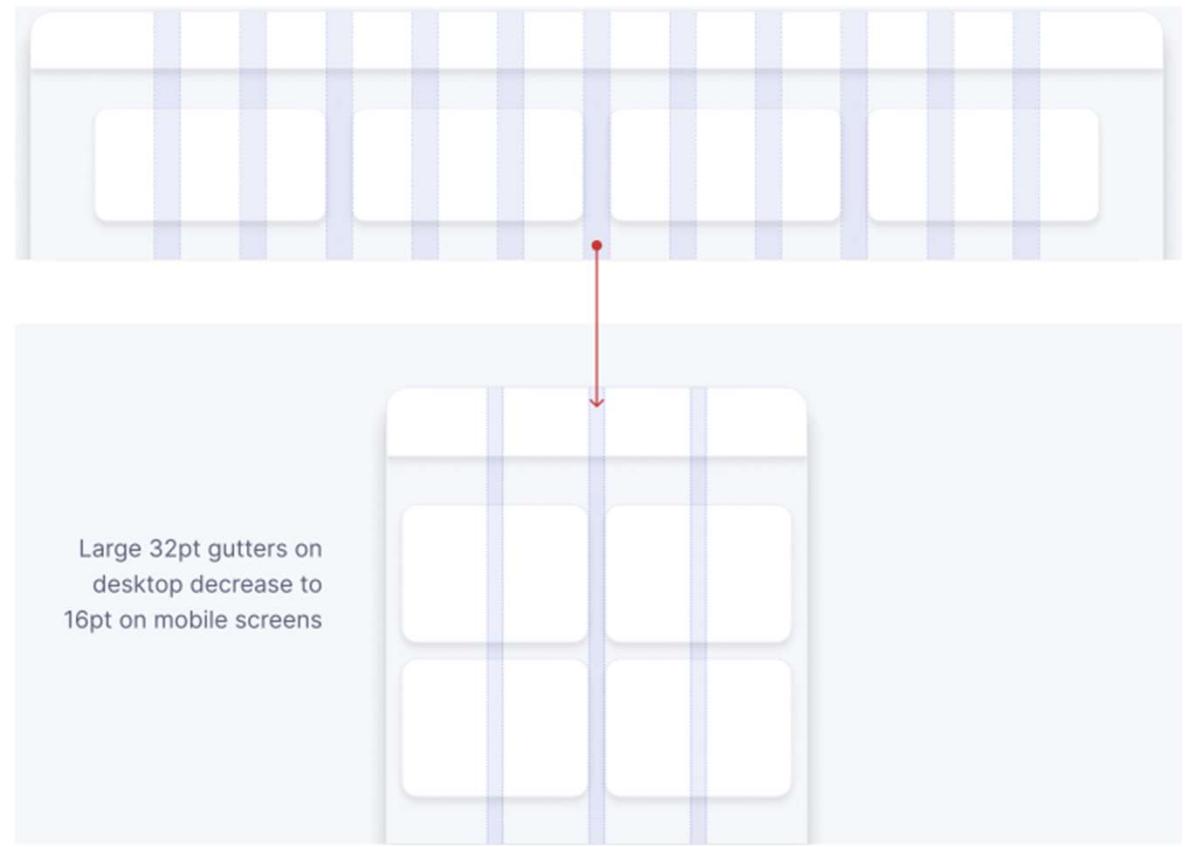
The purpose of gutters is to separate and align columns of content, not to contain content

Gutters should remain empty and should be narrower than columns

Gutters generally have a fixed width and are often wider on larger screens to keep spacing proportional

12 column grid: Gutters

For example, a large (32pt) predefined spacing option might be used for gutters on large screens, while a small (16pt) spacing option is used on smaller mobile screen

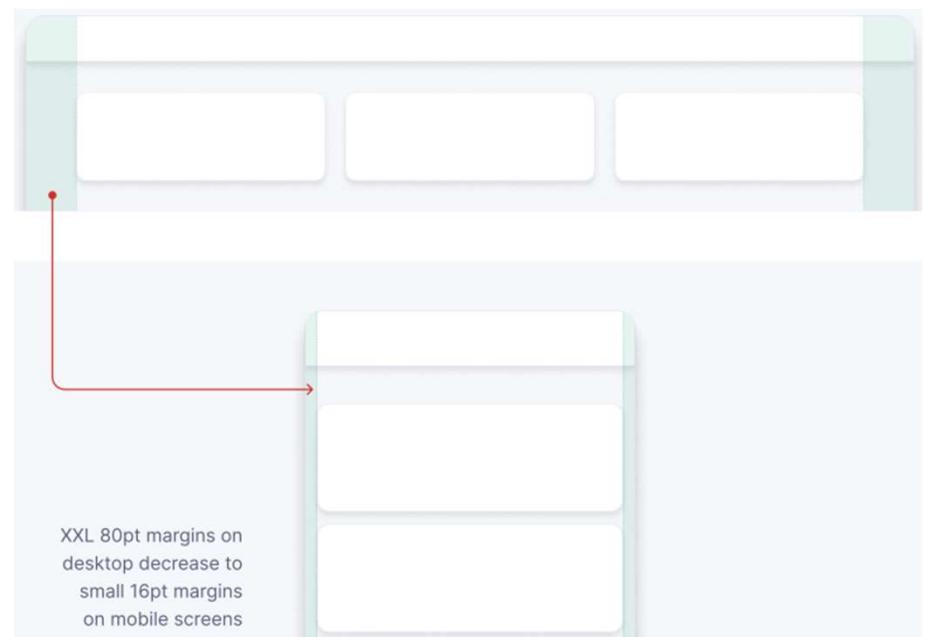


12 column grid: Margins

Margins are the empty space on the left and right of the 12 columns

They prevent the content from hitting the left and right edges of a screen

Margins can have either a fixed or flexible width and are generally wider on larger screens



Align text to improve readability

Left aligned text is easiest to read because each line starts along the same straight left edge

This gives your eyes a consistent anchor to quickly jump back to at the end of each line

Try to maintain a straight left edge when aligning text with other interface elements like icons



Align text to improve readability

In the UI shown, the icon placement breaks the straight left edge

This adds unnecessary cognitive load

The image displays two side-by-side versions of a user interface element. Both versions feature a blue circular icon with a white document symbol on the left. To its right, the text "Website templates" is displayed in a bold, black, sans-serif font. Below this, a paragraph of text reads: "With over 100 beautifully designed templates at your disposal, your site will be up and running in no time." At the bottom, a blue underlined link labeled "Explore templates" is visible. In the first version (on the left), a large red "X" is placed inside a circular button to the left of the icon. In the second version (on the right), a dashed red rectangular box surrounds the entire text block starting from the icon, effectively aligning the text to the left edge.

Align text to improve readability

The following UI alternative, aligns text to a straight left edge, making it more comfortable to read

Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)



Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)

Align text to improve readability

The following another UI alternative, aligns text to a straight left edge, making it more comfortable to read

The image displays two side-by-side UI components. Both components feature a blue circular icon with a white document symbol on the left. To its right, the text 'Website templates' is displayed in bold black font. Below this, a paragraph of text reads: 'With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.' At the bottom of each component is a blue underlined link labeled 'Explore templates'. The first component on the left is enclosed in a light gray rounded rectangle. The second component on the right is enclosed in a red dashed rounded rectangle.

Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)

Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)

Align text to improve readability

While centre aligning long blocks of text makes it harder to read, it can work well in moderation, for short blocks of text



Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)



Website templates

With over 100 beautifully designed templates at your disposal, your site will be up and running in no time.

[Explore templates](#)

Align horizontal text to the baseline

The baseline is an invisible line that text sits on

It creates a relatively straight bottom edge that our eyes can easily follow



Align horizontal text to the baseline

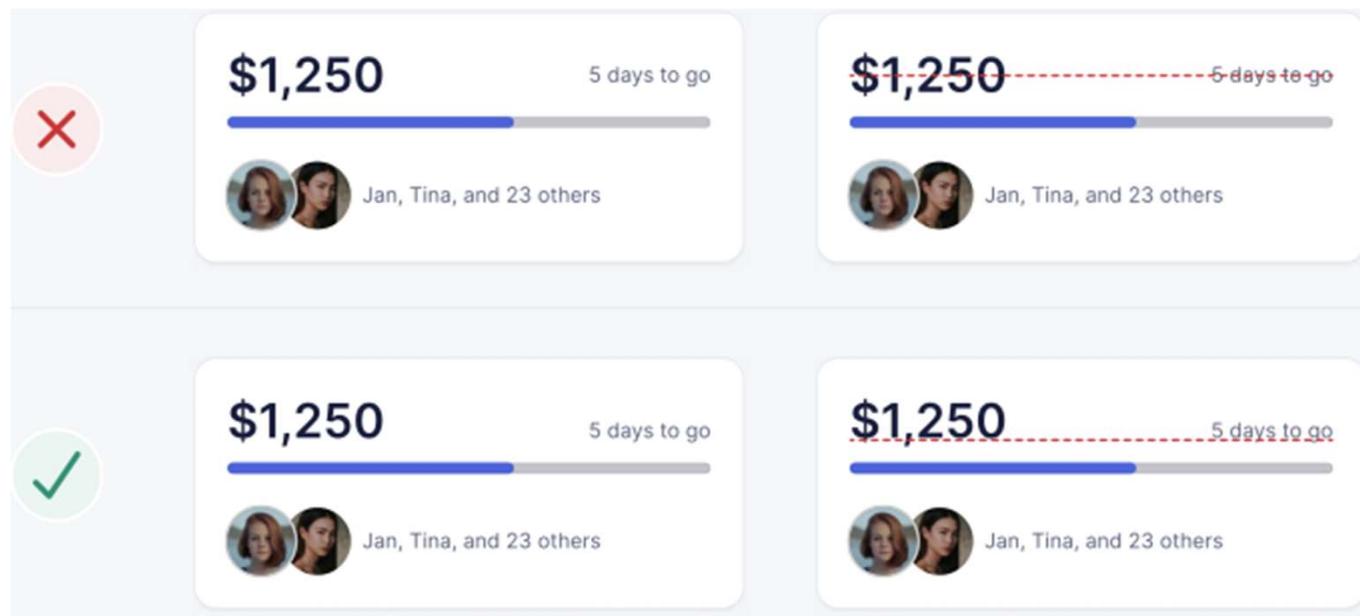
When you have different sized text sitting in a horizontal line, align it to the baseline, rather than the vertical centre

This makes the text easier to read and also results in a neater looking design, as more elements are aligned



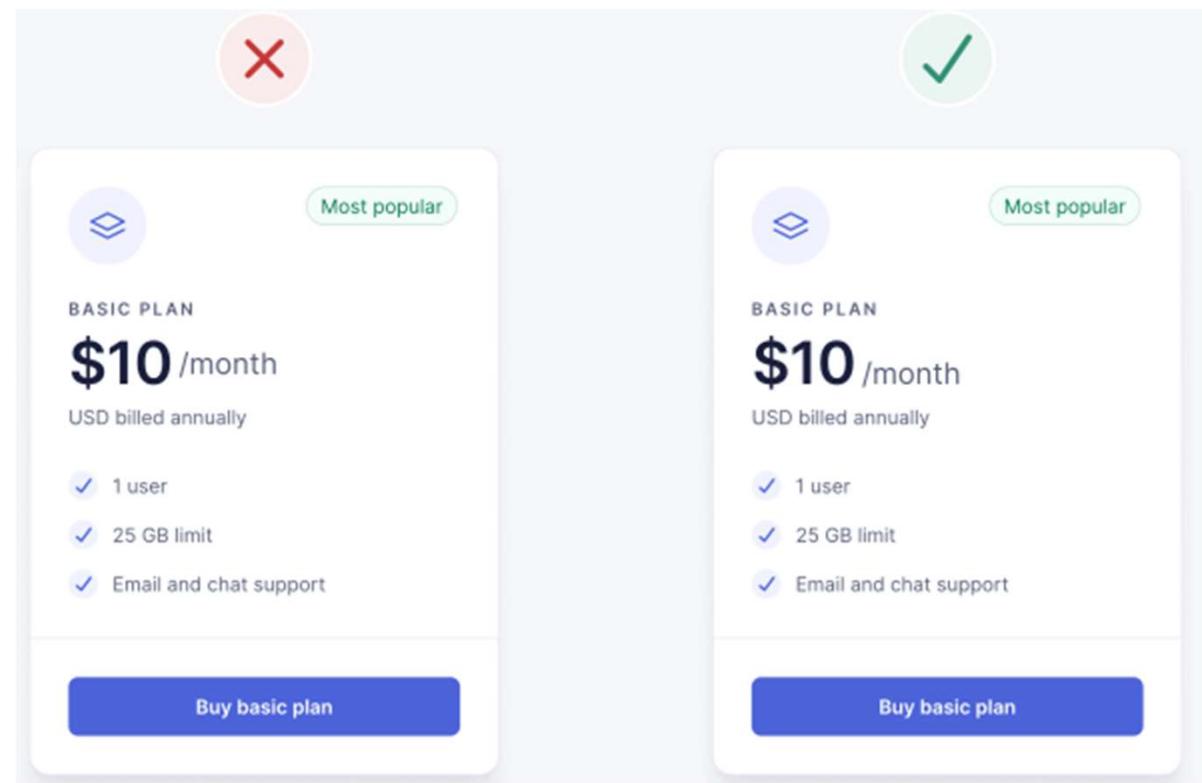
Align horizontal text to the baseline

Text aligned to vertical centre versus text aligned to the baseline



Align horizontal text to the baseline

The “/month” text is aligned to the vertical centre versus the baseline



Try to avoid using multiple alignments

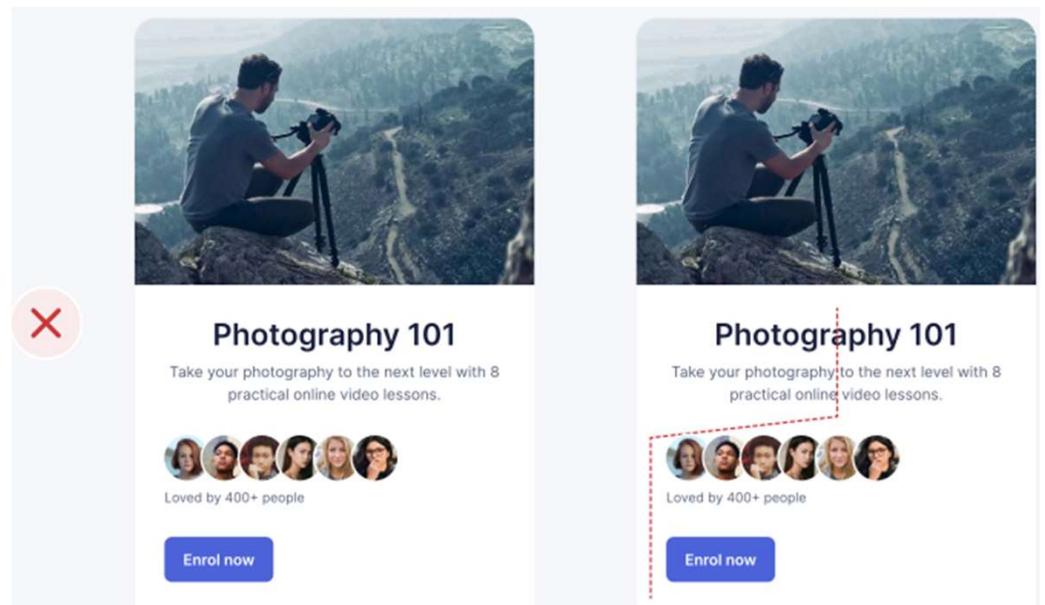
The more different types of alignment you use (left, right, or centre), the more complex and messy an interface can look

Sticking with a single alignment (or as few as possible) helps to simplify an interface, making it look neater and tidier



Try to avoid using multiple alignments

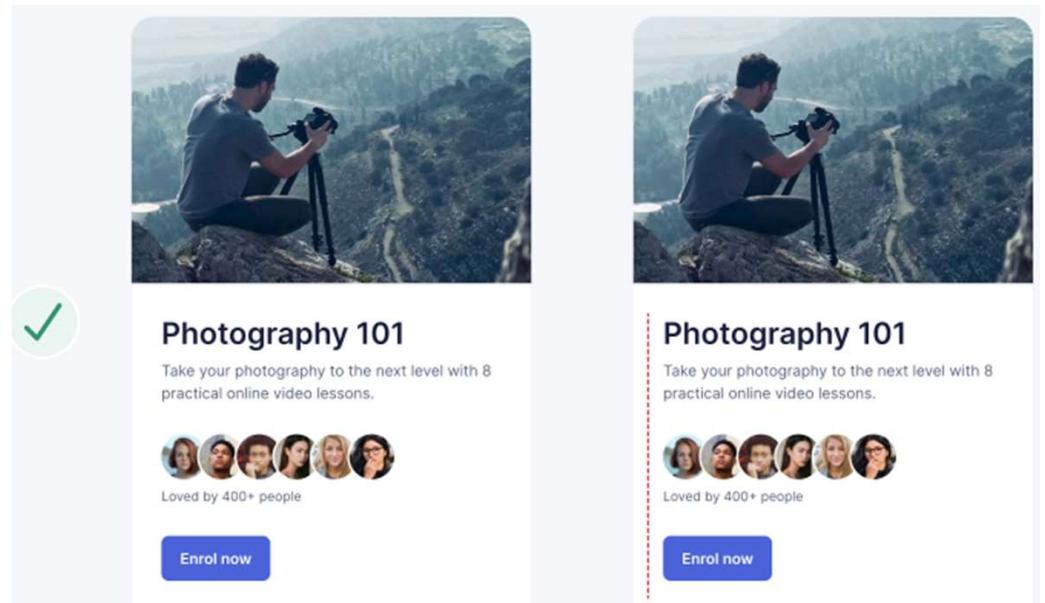
Example of an interface with multiple alignments



Try to avoid using multiple alignments

Left align all interface elements

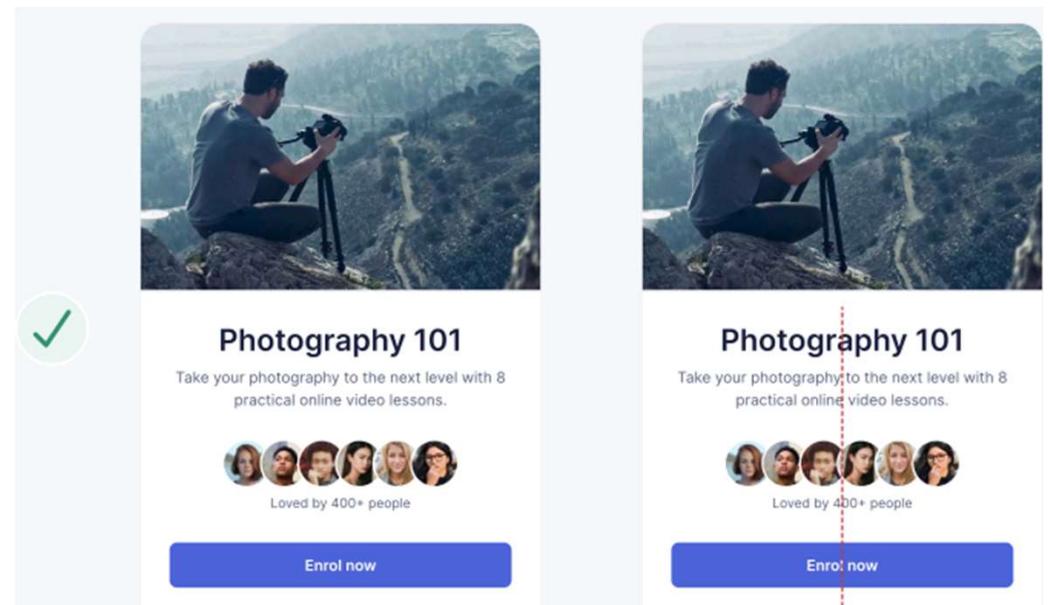
The straight left edge also improves readability



Try to avoid using multiple alignments

Since there's only a small amount of text, you could also centre align all elements

Make the button full-width to help both left and right handed users easily reach it with one hand



Try to avoid using multiple alignments

Aligning the majority of elements to the left is simpler and neater

A user testimonial card with a red 'X' icon in the top-left corner.

Brooklyn Simmons
UX designer



"This is the most practical and concise design course I've ever taken. It's exactly what I needed to take my designs to the next level."



A user testimonial card with a green checkmark icon in the top-left corner.

Brooklyn Simmons
UX designer



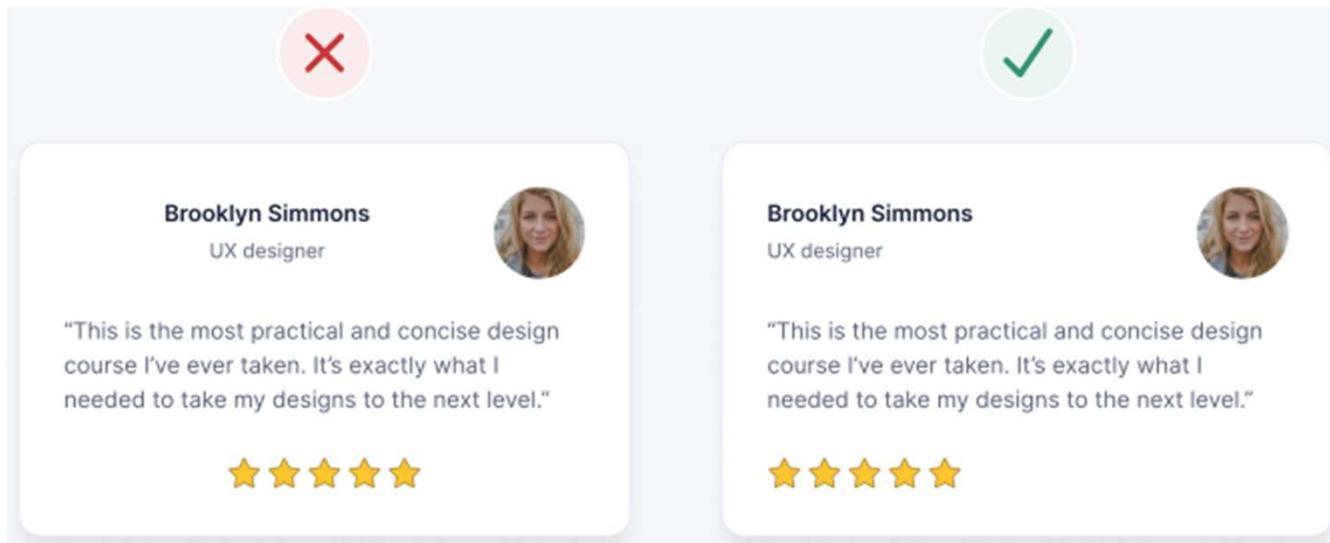
"This is the most practical and concise design course I've ever taken. It's exactly what I needed to take my designs to the next level."



Try to avoid using multiple alignments

You could also improve readability by aligning all text to the left edge

The right aligned photo is ok, as the majority of elements have 1 alignment



Keep related actions close

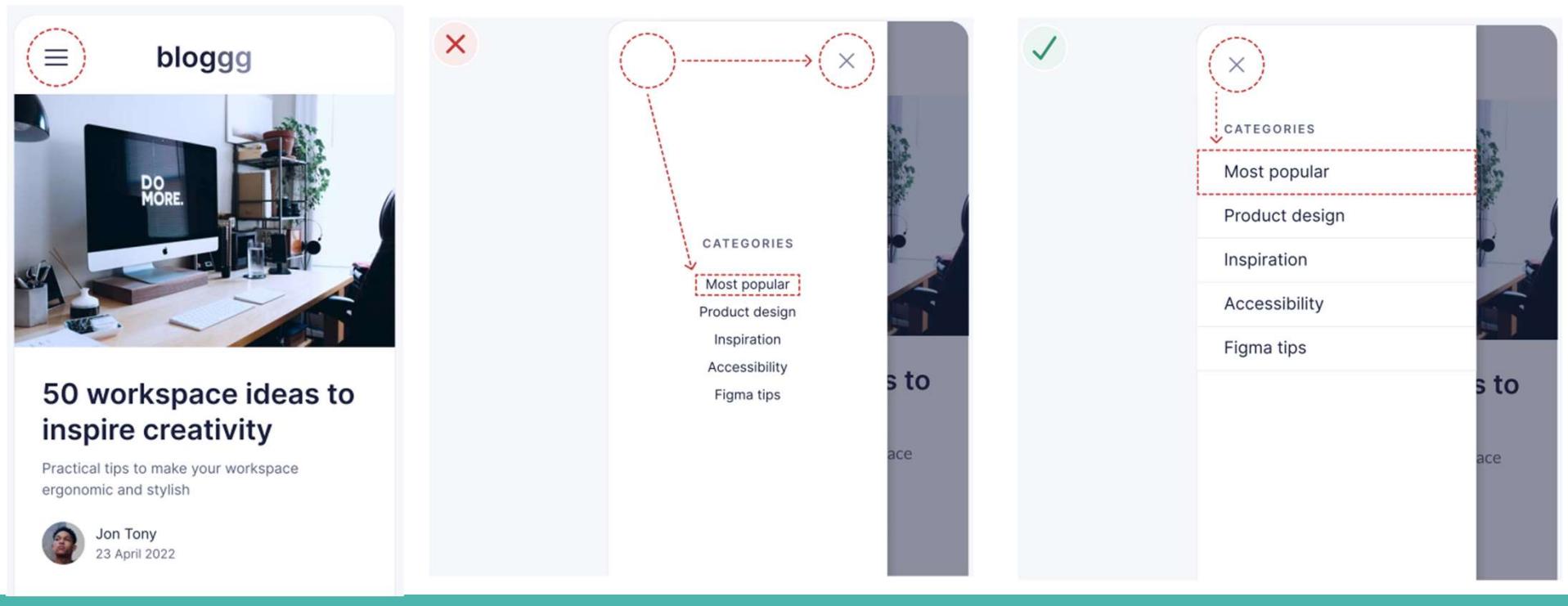
Reduce interaction cost by keeping actions close to the element they relate to

Try to ensure they have a sufficient target area. At least 48pt by 48pt is a safe size



Keep related actions close

Interaction cost comparison to navigate to a category or close the menu



Ensure an interface is unbreakable

Don't just design an interface for small numbers and short text

Make sure it can accommodate long data and edge cases (uncommon cases) too

Try to avoid hiding data that overflows, as you could be hiding essential information

Keep your components flexible to allow for reflow of content, or decrease font sizes to allow for long data

Ensure an interface is unbreakable

If you need to hide data due to space constraints, try to ensure that you're not hiding essential information

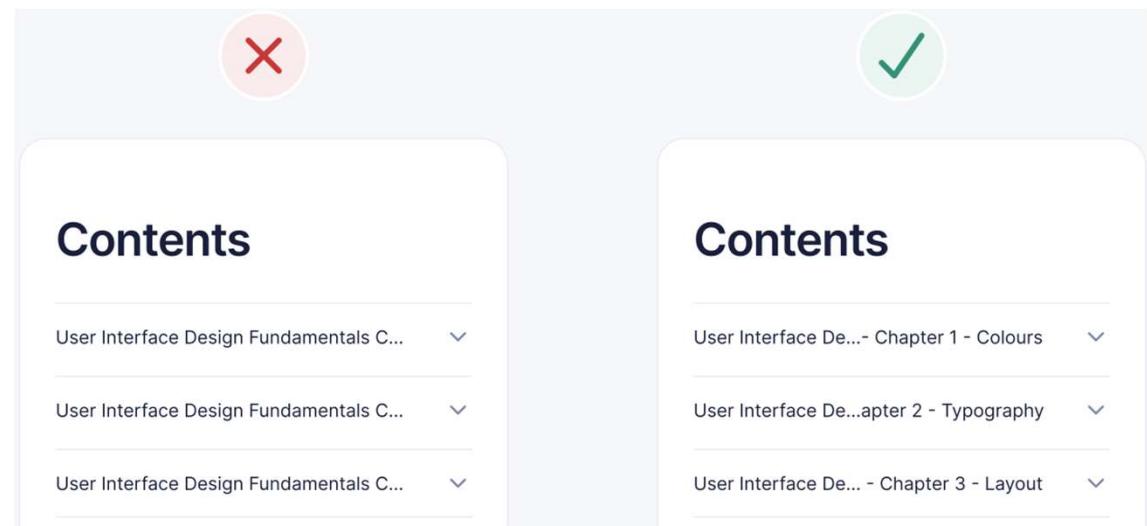
The image displays two mobile interface prototypes side-by-side, illustrating best practices for hiding content.

Left Prototype (Incorrect): This interface is marked with a large red 'X'. It features a 'Contents' section header followed by three collapsed card-like items. Each item has a title starting with 'User Interface Design Fundamentals C...' and a small downward arrow indicating it can be expanded. The interface is minimalist with a light grey background and white cards.

Right Prototype (Correct): This interface is marked with a green checkmark. It follows the same basic structure but with three expanded card items. The expanded content reveals chapter titles: 'Course - Chapter 1 - Colours', 'Course - Chapter 2 - Typography', and 'Course - Chapter 3 - Layout'. The interface uses a light grey background and white cards, with the expanded content area having a slightly darker shade of grey.

Ensure an interface is unbreakable

Consider cropping text in the middle, rather than at the end, so that people can differentiate items



Use the Rule of Thirds for photos

The Rule of Thirds is an effective way to make photos look more balanced, natural, and dynamic



Use the Rule of Thirds for photos

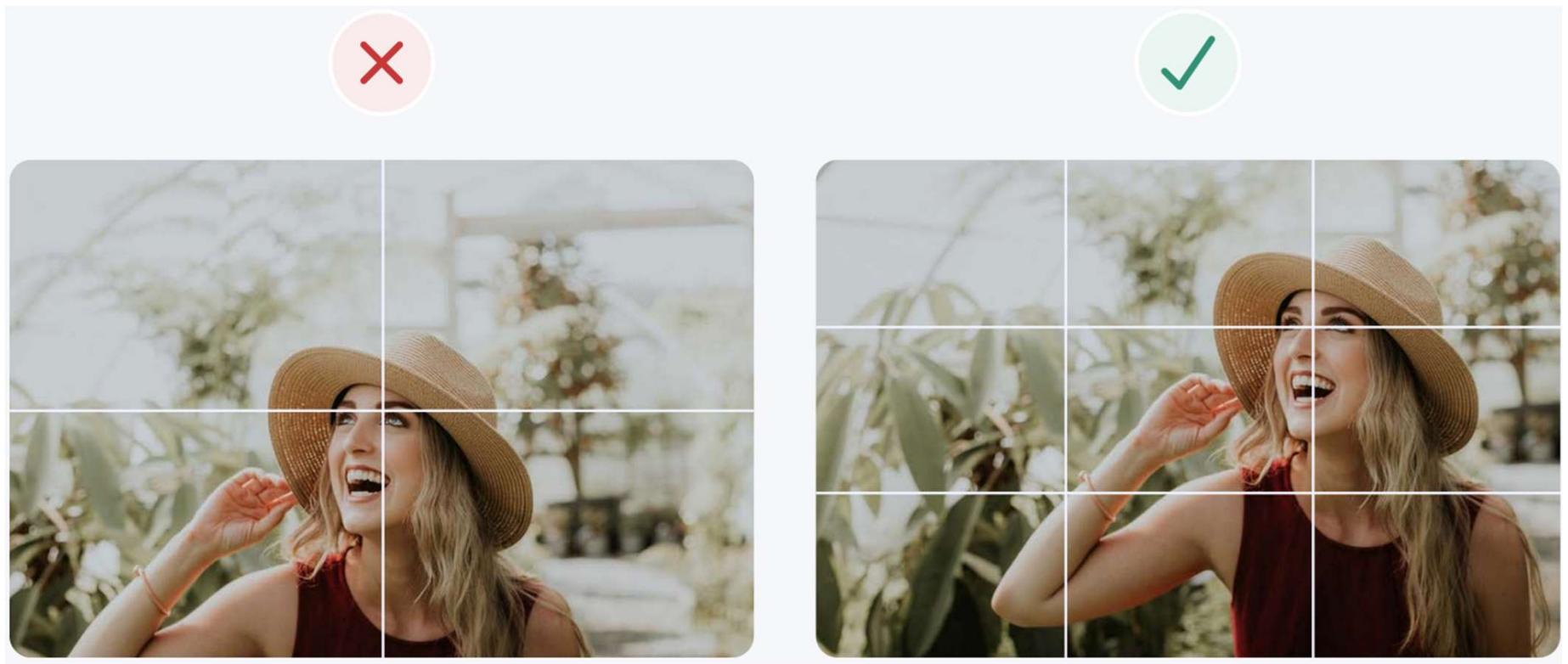
Divide your photo into thirds by creating a grid that's 3 columns wide and 3 rows tall

This creates 4 focal points where the lines intersect

Our eyes naturally gravitate towards these focal points

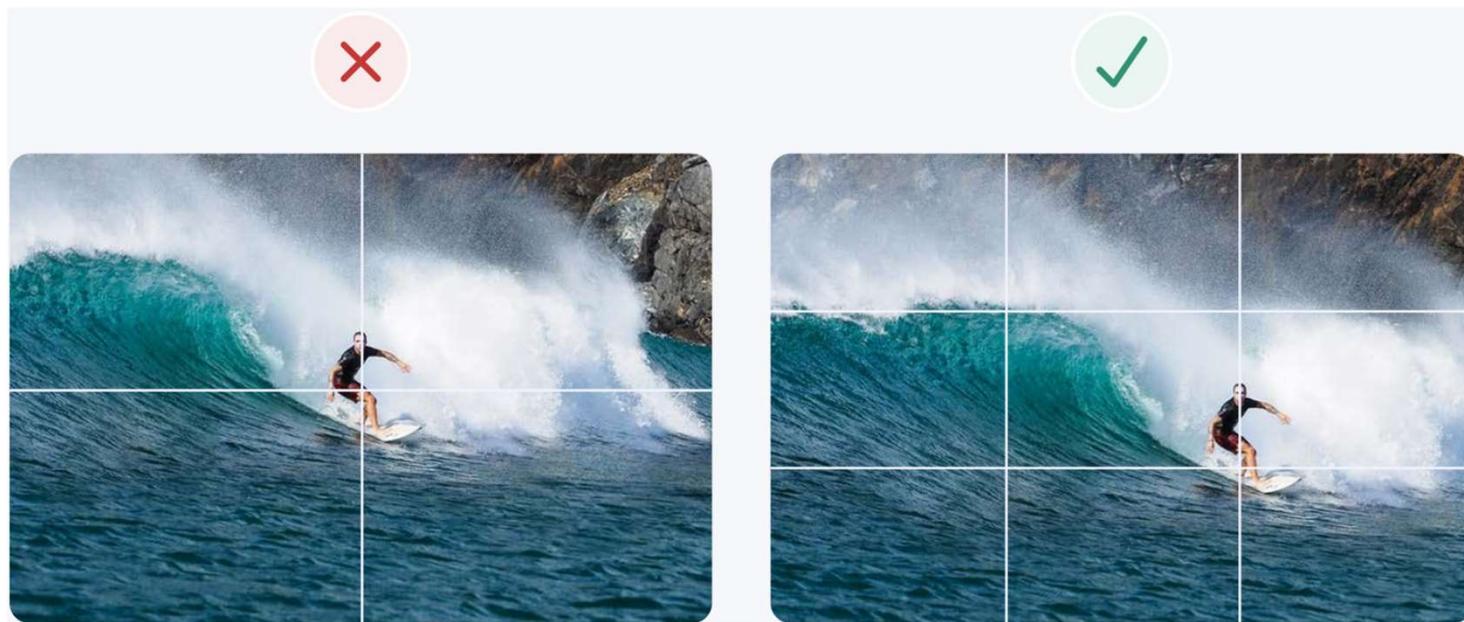
Try to roughly align key elements of your photo to the grid, ensuring that the main subject sits on one of the 4 focal points

Use the Rule of Thirds for photos



Use the Rule of Thirds for photos

The Rule of Thirds is especially effective for action shots, as it increases the sense of motion already present in the photo



Applying Layout and Spacing

Identify layout and spacing issues in the design displayed

The image shows a mobile application interface for a yoga session. At the top, there are three circular icons: a back arrow, a share icon with an upward arrow, and a search icon with a magnifying glass. Below this is a large, high-quality photograph of a woman with dark hair tied back, wearing a black tank top, performing a yoga pose with her hands joined in front of her chest. She is positioned against a blurred background of a beach or ocean.

Morning Yoga Workout

WITH BROOKLYN SIMS

5.0 (23 reviews)

20 mins Beginner Ambient None

Escape the stresses of quotidian existence with this harmonious fusion of contemplative pranayama techniques and corporeal postures. You will feel rejuvenated and ready to take on the day.

The session commences with a succinct centering exercise, fostering a seamless detachment from external distractions and inviting full immersion into the present moment.

You shall cultivate an unwavering focus on your breath, laying the foundation for the ensuing practice.

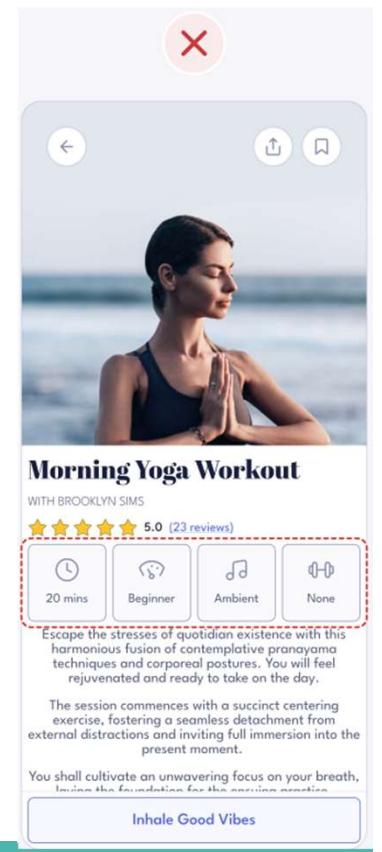
Inhale Good Vibes

Ensure similar looking elements function similarly

Issues

The icon containers have a similar visual style to the button at the bottom

This makes them seem interactive, even though they're not

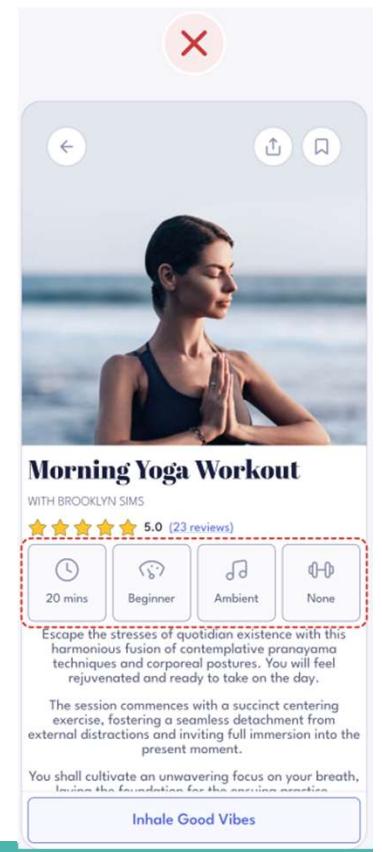


Ensure similar looking elements function similarly

Issues

The icon containers have a similar visual style to the button at the bottom

This makes them seem interactive, even though they're not



Ensure similar looking elements function similarly

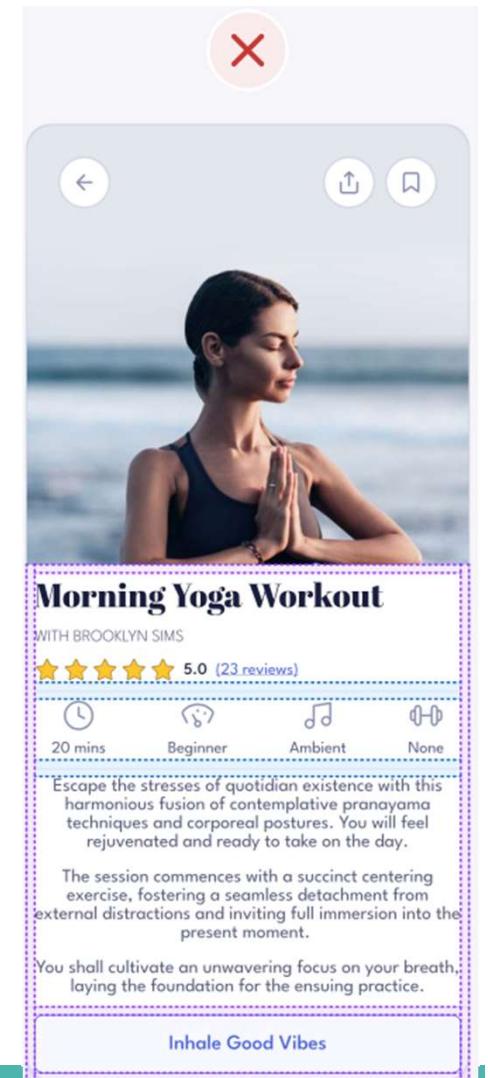
Fixes

Removing the button styling from the icons helps to avoid them being mistaken for interactive elements



Use space to group related elements

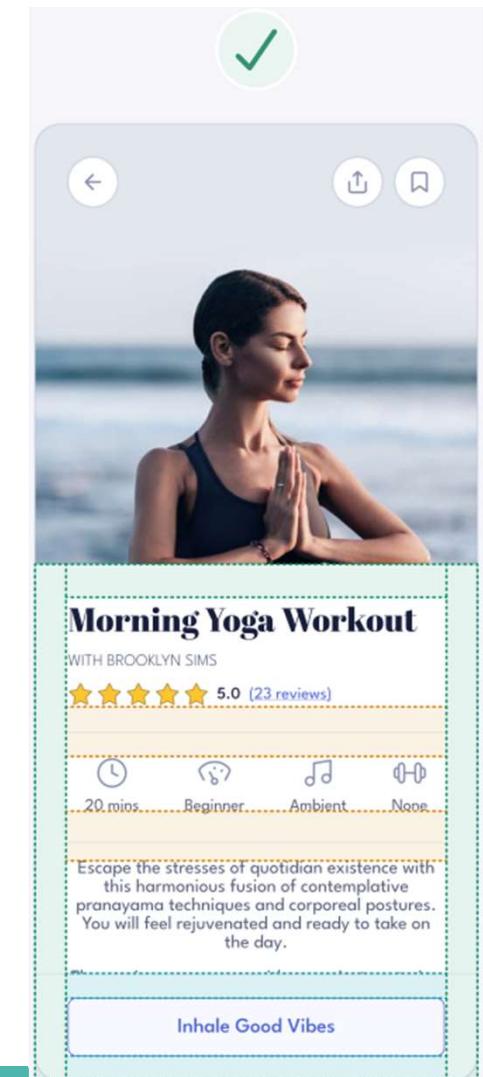
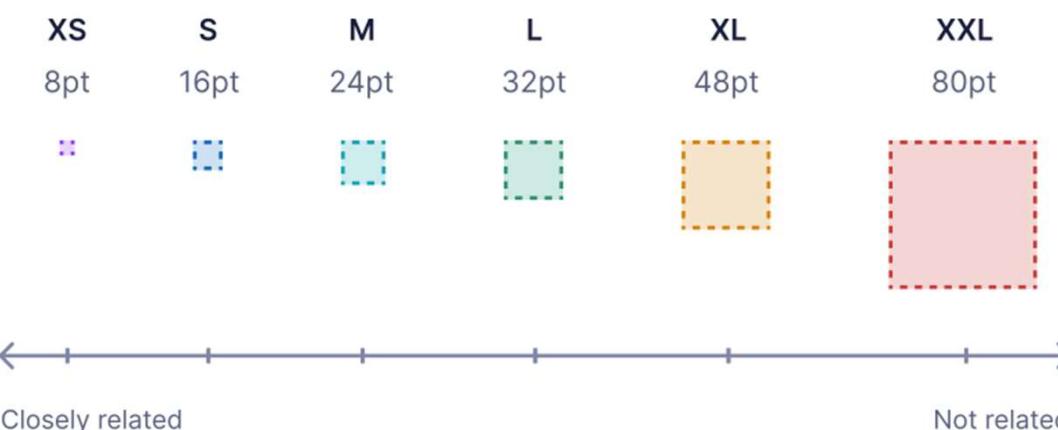
In the UI shown all of the content is spaced very closely together, making the design look cluttered and difficult to understand



Use space to group related elements

More closely related elements should generally be closer together to show that they're related

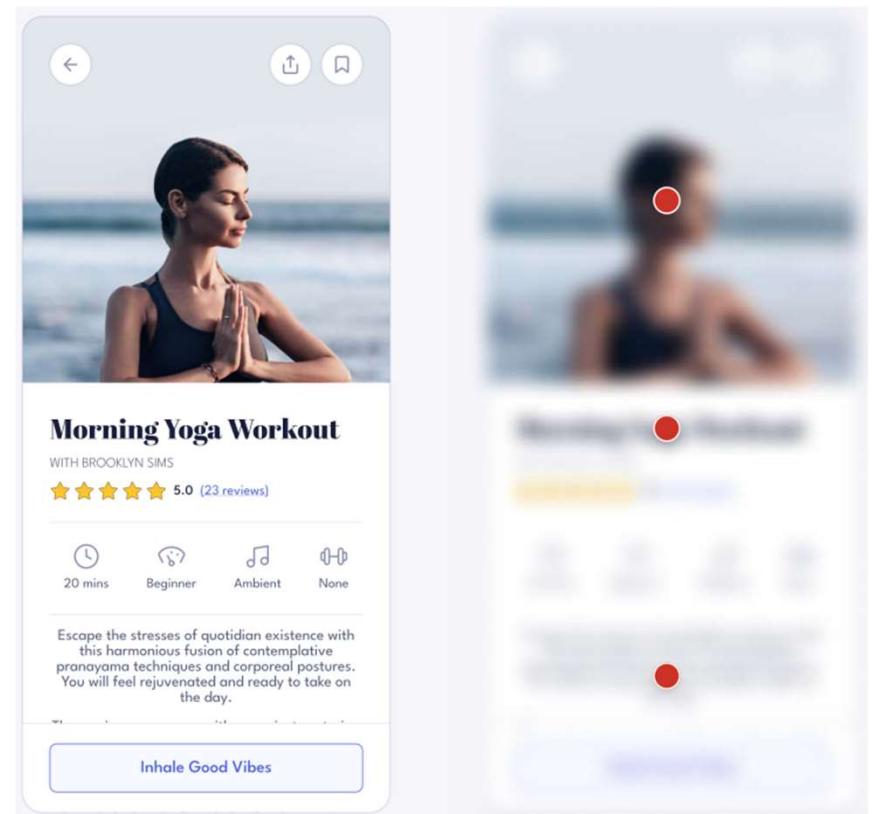
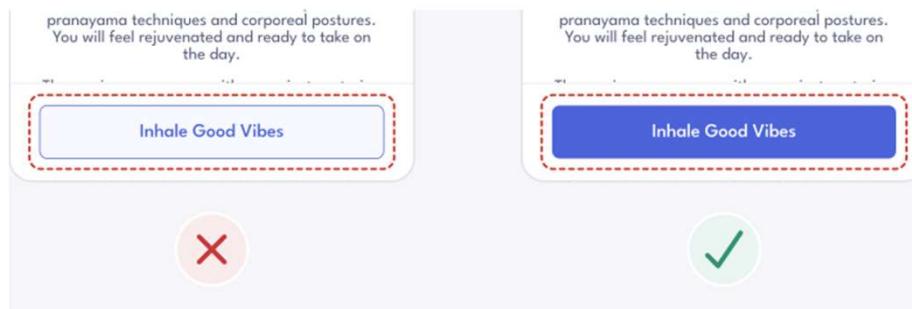
Unrelated elements should be separated by placing more space between them



Create a clear visual hierarchy

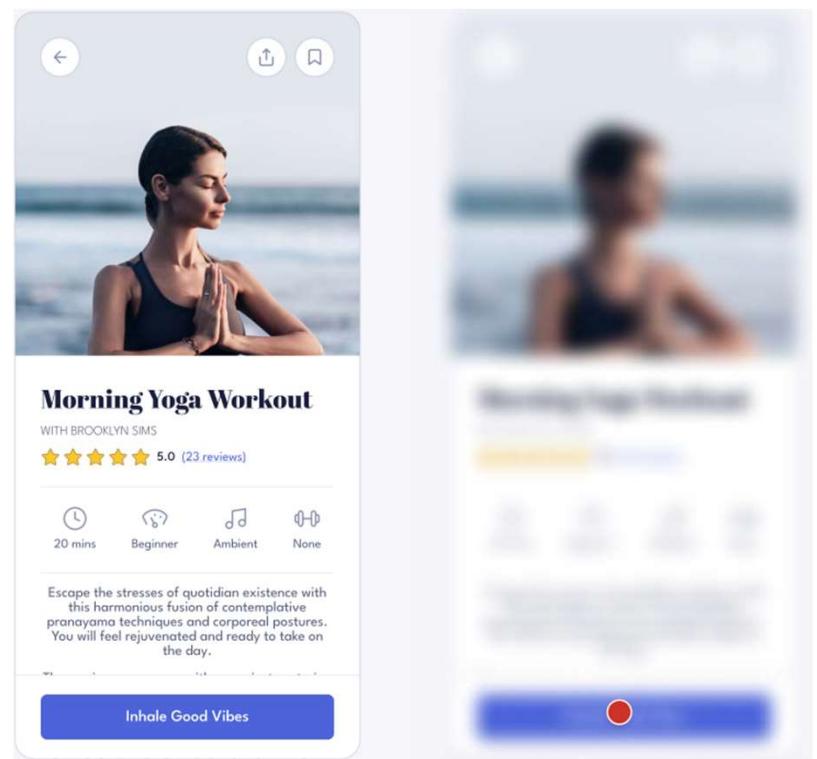
There are multiple elements with similarly strong prominence competing for attention

The primary action at the bottom doesn't stand out much



Create a clear visual hierarchy

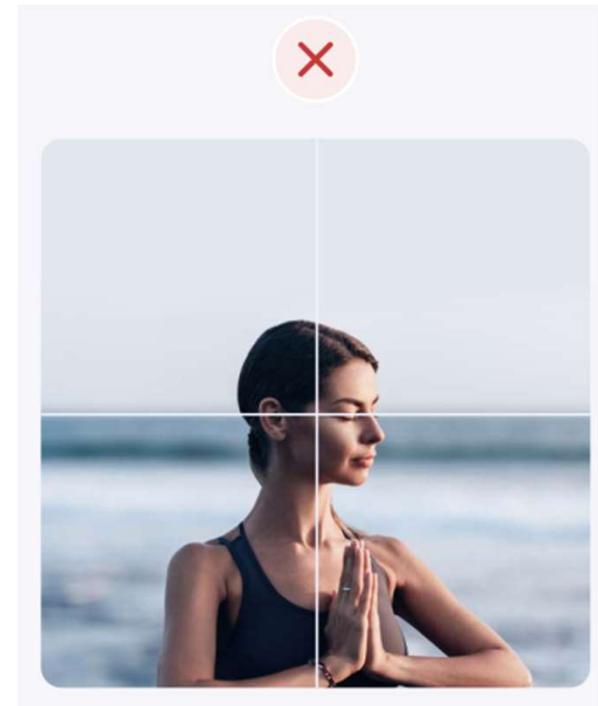
Applying the brand color to the Primary Action button to make it more prominent



Use the Rule of Thirds for photos

In the UI shown, the photo looks a bit rigid and still, as it's very symmetrical

The focal point is the person's face and it's positioned in the centre of the photo

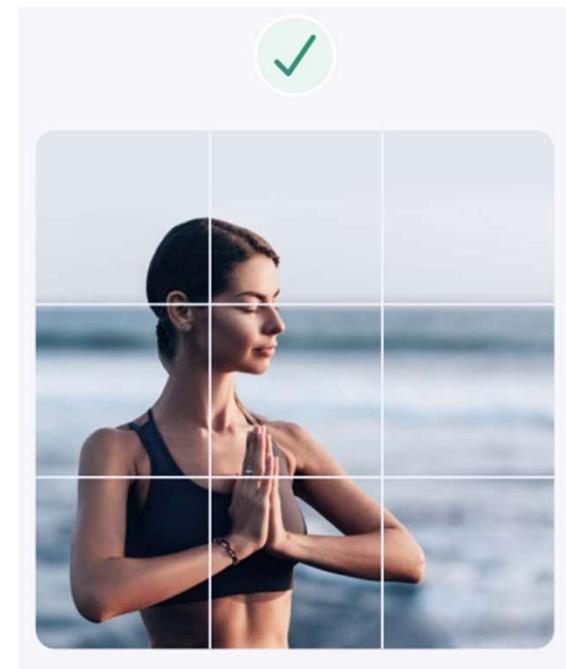


Use the Rule of Thirds for photos

Instead of centre aligning their face, move it to align with one of the 4 points of intersection on the grid

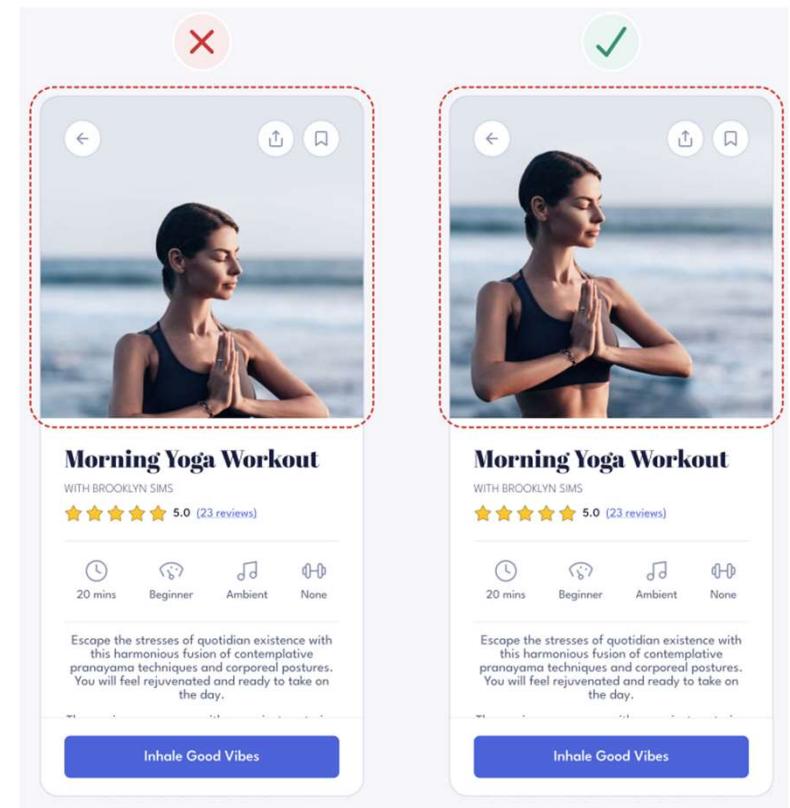
The asymmetry introduces a sense of natural motion and flow

You should also make sure that the horizon aligns with the horizontal grid



Use the Rule of Thirds for photos

The photo is realigned based on the Rule of Thirds



Typography

Guidlines

Typeface

A typeface is a set of related fonts with a similar style or aesthetic

Helvetica is an example of a san serif typeface

Fonts are variations within a typeface, like weights or sizes

For example, Helvetica Bold and Helvetica Regular are 2 different fonts within the Helvetica typeface



Typeface

There are 5 main classifications of typefaces:

serif, sans serif, script, display, and monospaced



Serif typefaces

Serif typefaces include decorative tails or feet at the ends of letters

They often convey a traditional, classic, or formal mood

Some serifs are more legible than others and can be used at small sizes

Others are better suited for use at large sizes



Sans serif typefaces

Sans serif typefaces don't include decorative tails or feet at the ends of letters

They generally look more modern due to their simplicity

Sans serif typefaces are highly legible, making them suitable for use at small and large sizes

Due to their simplicity and lack of character, sans serif typefaces are a safe and neutral option that suits most interface designs

Sans serif

Script typefaces

Script typefaces are based on handwriting

Their low legibility means that they're not suitable for use at small sizes

Script typefaces can be effective at conveying a formal or casual mood at large sizes



The word "Script" is written in a dark blue cursive script font. The letters are fluid and connected, with varying stroke widths. The word is centered on a white background with two thin, horizontal light gray lines extending from left to right, one above and one below the baseline.

Display typefaces

Display typefaces come in a wide range of varied styles

They're decorative typefaces specifically designed to be read at large sizes

Due to their strong character and detail, they can be especially good at conveying a range of different moods

Display typefaces aren't suitable for use at small sizes due to their visual complexity



Monospaced typefaces

In a monospaced typeface, every character takes up the same amount of horizontal space

For this reason, they're often used for displaying code

They're also useful for displaying numbers to make them easier and faster to compare



The word "Monospaced" is written in a dark blue monospaced font. It is positioned on a white background with faint red vertical grid lines, resembling lined paper. The letters are evenly spaced horizontally, demonstrating the characteristic of a monospaced typeface.

Use a single sans serif typeface

It's safest to use a single sans serif typeface for most interface designs

Sans serif typefaces are generally the most legible

Sans serif typefaces generally don't convey a strong mood or personality

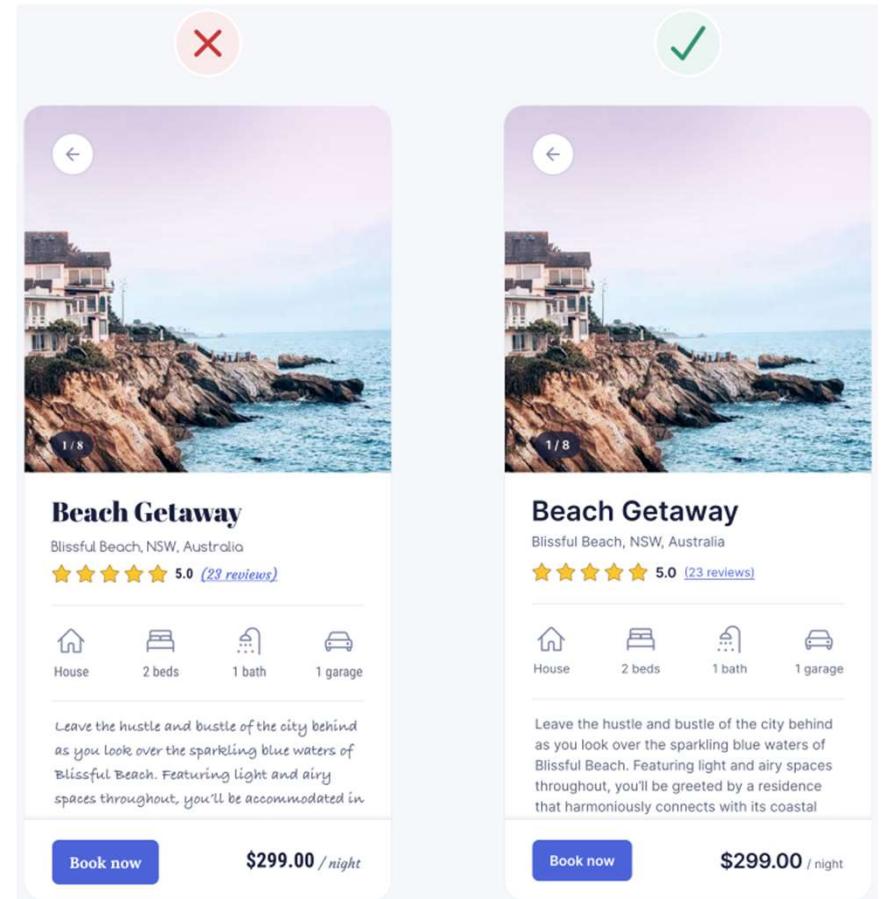
- The typeface will fit with most brand personalities

- The content is the focal point, rather than the typeface

Sans serif typefaces are generally simpler than others as they have less character and detail

Use a single sans serif typeface

Example of an interface with multiple typefaces versus one with a single sans serif typeface



Tips for choosing a sans serif typeface

Choose a popular typeface that's been tried and tested by many

Look for typefaces that come in a variety of weights, as they're generally better quality

Those with light, regular, medium, semibold, and bold weights are a good place to start

Look for typefaces with taller lower case letters and greater letter spacing, as they're generally more legible at small sizes

The height of lowercase letters in a typeface is known as the x-height

Tips for choosing a sans serif typeface

Get inspiration from designers and companies known for good design

If your interface needs to support multiple languages, make sure the typeface does too

Look for typefaces with OpenType features

They support both Mac and Windows computers, usually offer better language support, and often have additional advanced features

When in doubt, just use the default system typeface native to the platform

Evoke emotion using a second typeface for headings

While it's safest to use a single sans serif typeface for most interface designs, you might want to add some personality depending on the brand

Classic

Neutral

Soft

Handmade

Elegant

Luxury

Evoke emotion using a second typeface for headings

Along with colour, shape, and imagery, you can use typefaces to help evoke emotion or convey a mood

While the emotions people feel from different typefaces are largely subjective (based on personal experiences, preferences, and culture), there are still some general guidelines you can follow to choose a typeface that fits the brand personality



Evoke emotion using a second typeface for headings

Different typefaces generally evoke different feelings, for example

Sans serif typefaces generally feel neutral, minimal, or modern

Serif typefaces generally feel traditional, established, or classic

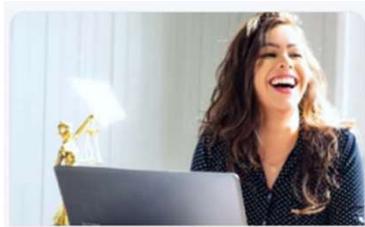
Rounded sans serif typefaces generally feel fun, soft, or playful

Casual script typefaces generally feel personal or handmade

Formal script typefaces generally feel formal, feminine, or elegant

Light sans serif typefaces generally feel chic, modern, or luxurious





TECH

Neutral

Sans serif typefaces generally feel neutral, minimal, or modern.

Add to cart



WATCHES

Classic

Serif typefaces generally feel traditional, established, or classic.

Add to cart



DONUTS

Soft

Rounded sans serif typefaces generally feel fun, soft, or playful.

Add to cart



WOODWORK

Handmade

Casual script typefaces generally feel personal or handmade.

Add to cart



WEDDINGS

Elegant

Formal script typefaces generally feel formal, feminine, or elegant.

Add to cart



SKINCARE

Luxury

Light sans serif typefaces generally feel chic, modern, or luxurious.

Add to cart

Use regular and bold font weights only

Using lots of different font weights can add noise and clutter to your interface

It also makes it more difficult to use each font weight consistently

Keep your design system simple and concise by using regular and bold font weights only

Some typefaces have a semi-bold font option that you can use instead of bold if bold is too heavy

Use regular and bold font weights only

Use bold font weight for headings to emphasise them

Use regular font weight for other smaller text

Reserve very thin or thick font weights for headings and larger text, as they can be difficult to read at smaller sizes

~~Thin~~

~~Light~~

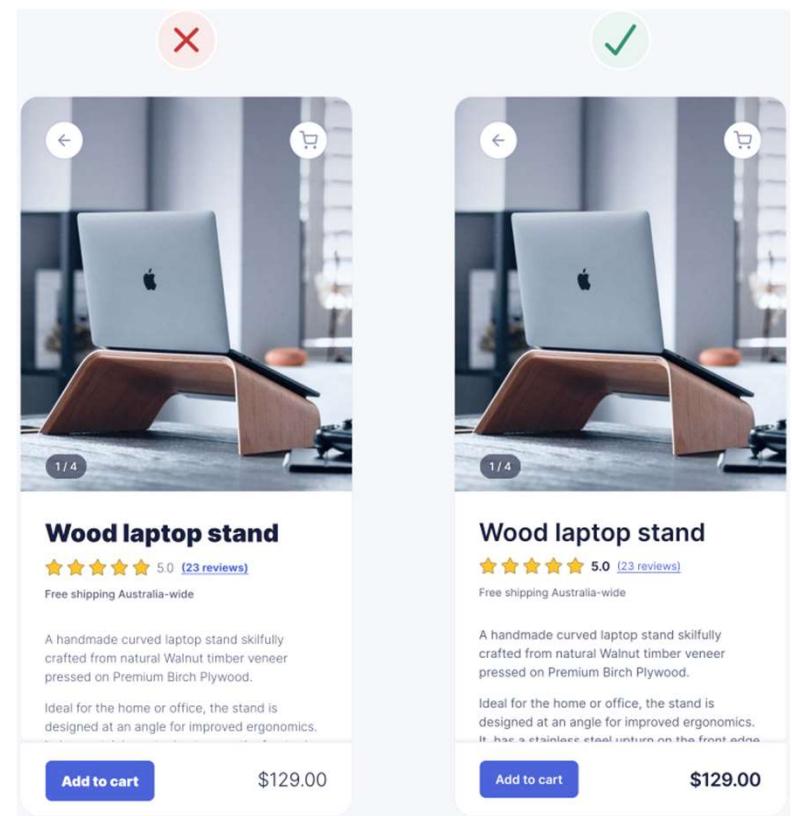
Regular

~~Semi-bold~~

Bold

Use regular and bold font weights only

Example of an interface using multiple font weights versus one using only regular and bold



Use a type scale to set font sizes

To create your set of font sizes, start with a base font size for body text, then keep multiplying it by a certain scale to create larger font sizes



Use a type scale to set font sizes

Here are some popular type scales, ordered from smallest to largest

1.067 – Minor Second

1.125 – Major Second

1.200 – Minor Third

1.250 – Major Third

1.333 – Perfect Fourth

1.414 – Augmented Fourth

1.500 – Perfect Fifth

1.618 – Golden Ratio



Use a type scale to set font sizes

For example

Start with a base font size of 16px and use a “1.200 - Minor Third” scale

Multiply 16px by 1.2 to get the next font size of 19.2px

Round it to 20px for simplicity. Then take 20px and multiply it by 1.2 to get the next font size, and so on

Use a type scale to set font sizes

An example set of font sizes using a slightly modified Minor Third type scale

TYPE SCALE (1.200)	SIZE	LINE HEIGHT
Heading 1	40px	48px
Heading 2	32px	40px
Heading 3	24px	32px
Heading 4	20px	28px
Small	16px	24px
Tiny	14px	20px

Use a type scale to set font sizes

Small type scales

Using a small type scale, like “Major Second”, will result in less of a difference between font sizes than using a large type scale

Small type scales are generally more suitable for complex website applications, tools, and dashboards where more detail is needed



Use a type scale to set font sizes

Small type scales

Using a small type scale, like “Major Second”, will result in less of a difference between font sizes than using a large type scale

Small type scales are generally more suitable for complex website applications, tools, and dashboards where more detail is needed



Use a type scale to set font sizes

Large type scales

Using a large type scale, like “Perfect Fifth”, will result in a larger difference between font sizes

Large type scales are generally more suitable for less complex interfaces, like marketing websites



Use a type scale to set font sizes

Responsive type scales

While large type scales can work well on large screens, they can cause text to wrap onto the next line on smaller mobile screens

To fix this issue, you could consider switching to a smaller type scale on mobile

Make long body text bigger

Most people will be reading text from around an arm's length away, whether it's on a phone, tablet or desktop

Make sure your body text is legible from that distance

For most typefaces, make long body text at least 18px to help improve readability

Make long body text bigger

In the UI shown, the body text is too small at 14px

Increasing it to 18px makes it much easier to read

The image displays two side-by-side user interface prototypes for a typography section. Both prototypes feature a light gray header bar with a circular icon containing a red 'X' on the left and a green checkmark on the right. Below the header, the text '14px body text' is displayed next to the 'X' icon, and '18px body text' is displayed next to the checkmark icon. Each prototype includes a 'TYPOGRAPHY' heading and a bold title ('Too small' on the left, 'Bigger is better' on the right). Below the titles are two paragraphs of placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus maximus est, a interdum leo metus id magna. Vivamus ut odio vitae orci.' and 'Pellentesque semper urna eu massa id imperet facilisis. Cras mauris sed tortor, feugiat tellus at, tincidunt efficit nulla.' The 'Bigger is better' prototype's text is significantly larger than that in the 'Too small' prototype.

14px body text

18px body text

TYPOGRAPHY

Too small

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus maximus est, a interdum leo metus id magna. Vivamus ut odio vitae orci.
Pellentesque semper urna eu massa id imperet facilisis. Cras mauris sed tortor, feugiat tellus at, tincidunt efficit nulla.

TYPOGRAPHY

Bigger is better

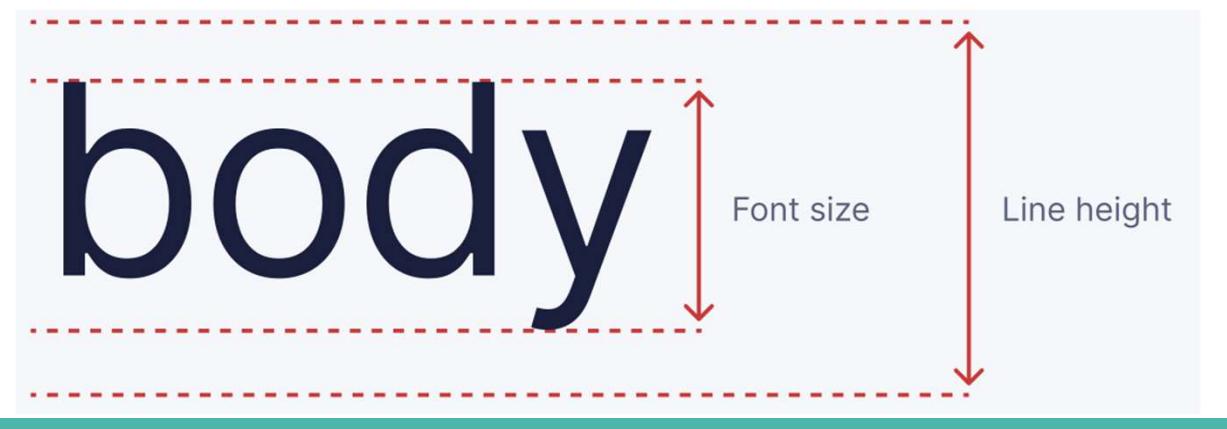
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus maximus est, a interdum leo metus id magna. Vivamus ut odio vitae orci.
Pellentesque semper urna eu massa id imperet facilisis. Cras mauris sed tortor, feugiat tellus at, tincidunt efficit nulla.

Use at least 1.5 line height for long body text

Line height is the vertical distance between two lines of text

For accessibility and readability, especially for long body text, ensure that line height is at least 1.5 (150%)

Keeping line height between 1.5 and 2 generally works well



Use at least 1.5 line height for long body text

Tips to set a suitable line height

Longer lines of text require a taller line height to help separate them

Darker and heavier typefaces require a taller line height to help lighten and separate lines of text

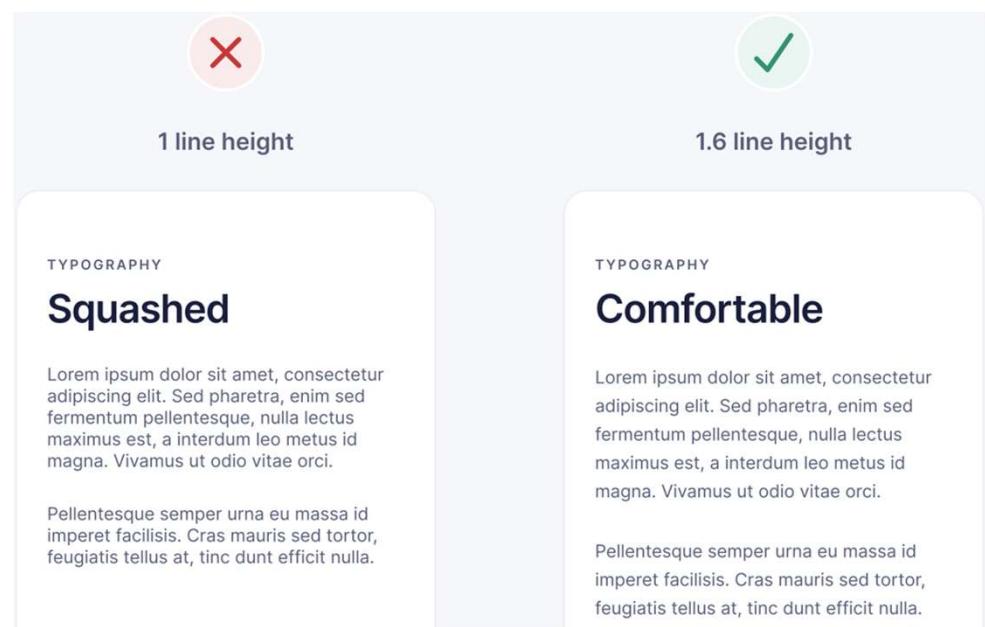
Some typefaces look larger than others, even though they're the same font size

Typefaces that look larger require a taller line height

Use at least 1.5 line height for long body text

In the UI shown, a line height of 1 (100%) is difficult to read because the lines of text aren't clearly separated

Increasing the line height to 1.6 (160%) clearly separates each line



Decrease line height as font size increases

The purpose of the spacing between lines is to help people read from one line to the next, comfortably

While a line height of at least 1.5 (150%) works well for body text, it's unnecessary on larger sized text such as headings

The larger the font size, the smaller the line height should be, to maintain comfortable spacing

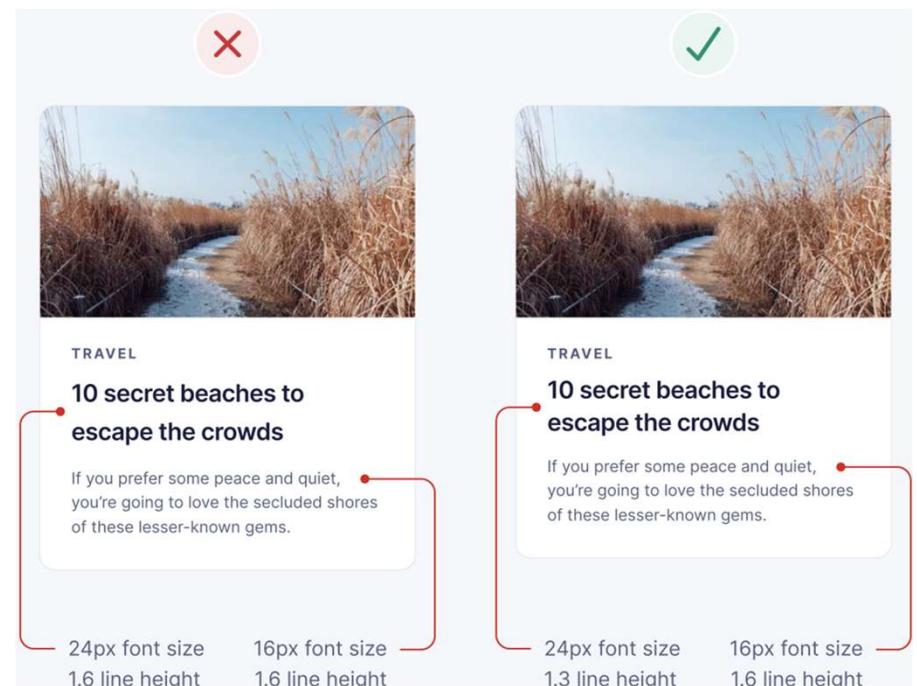


Decrease line height as font size increases

In the following UI, the line height of both the heading and paragraph text is 1.6 (160%)

Because line height is relative to font size, the actual space between lines of heading text is much larger than the space between lines of paragraph text

Decrease the line height for larger text to create a consistent gap between lines



Ensure ideal line length

Ensure text is 40 - 80 characters per line (including spaces) to improve readability

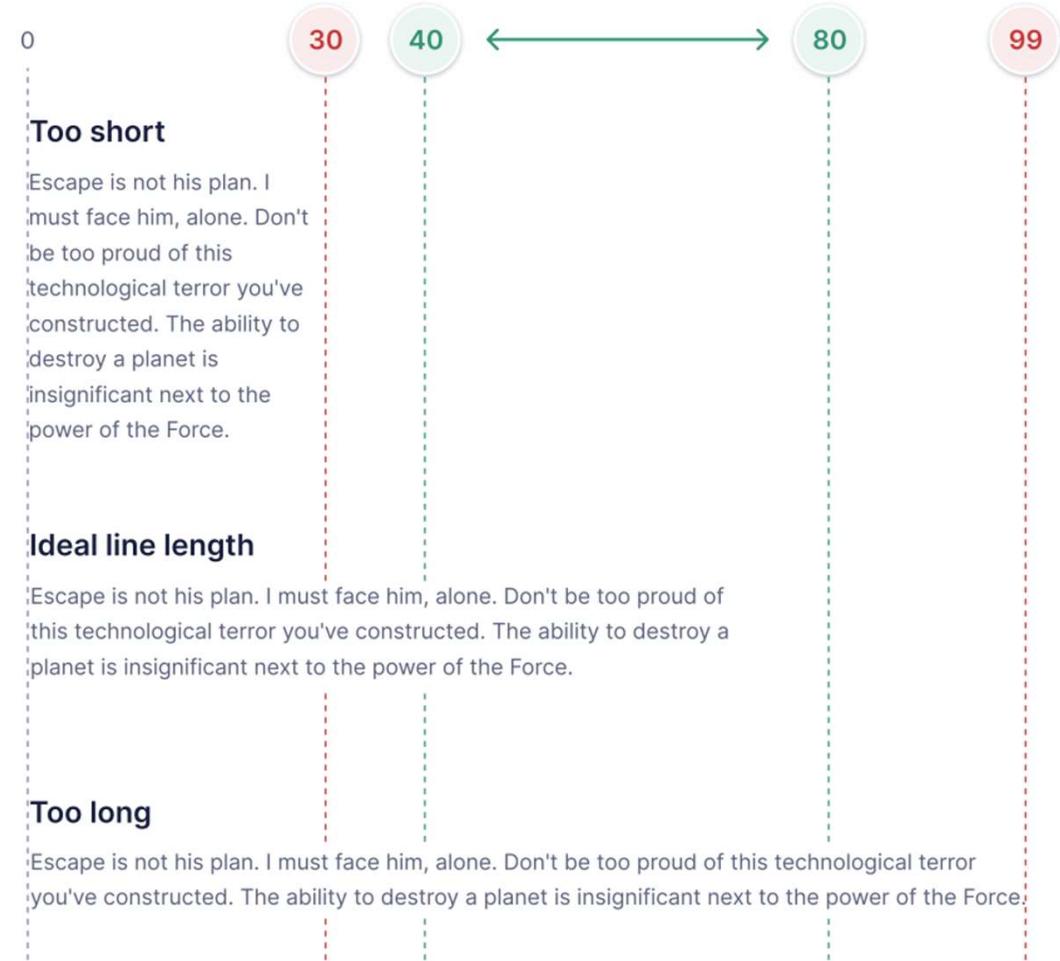
If lines are too long, it makes it harder for people to gauge where the line starts and ends

If lines are too short, your eyes get stressed from having to travel back too often. A comfortable line length is especially important for long body text



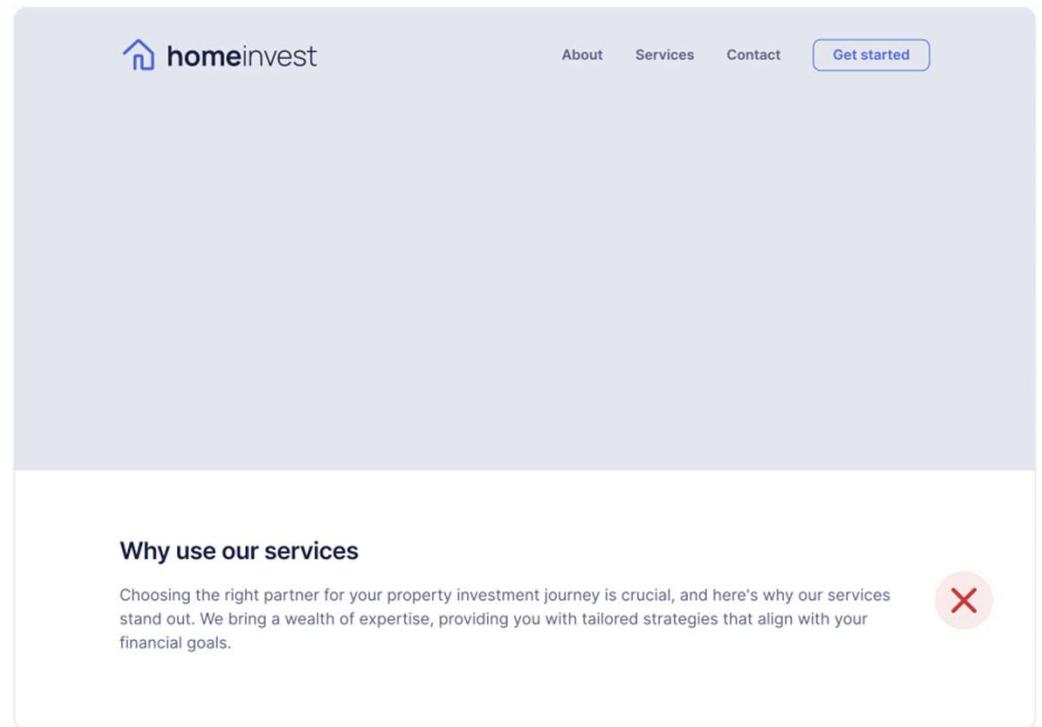
Ensure ideal line length

Ensure text is 40 - 80 characters per line (including spaces) to improve readability



Ensure ideal line length

Example of an uncomfortably long line length



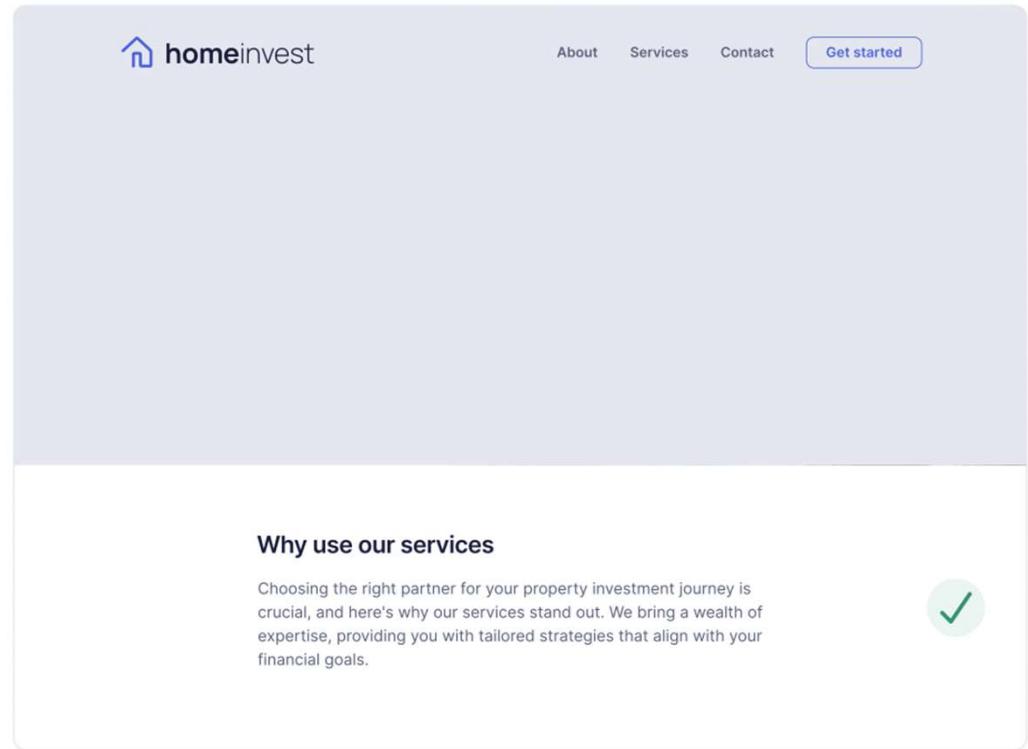
Ensure ideal line length

After keeping line length between the recommended character range and align block of text to the left or centre of the page

The screenshot shows a website header with the logo 'homeinvest' and navigation links for 'About', 'Services', 'Contact', and 'Register'. Below the header, there is a large, empty light-grey rectangular area. At the bottom of this area, there is a white rectangular box containing the heading 'Why use our services' in bold black text. To the right of this heading is a small green circular icon with a white checkmark. Below the heading, there is a paragraph of text: 'Choosing the right partner for your property investment journey is crucial, and here's why our services stand out. We bring a wealth of expertise, providing you with tailored strategies that align with your financial goals.'

Ensure ideal line length

After keeping line length between the recommended character range and align block of text to the left or centre of the page



The screenshot shows a website header for "homeinvest" with a house icon, followed by navigation links for "About", "Services", "Contact", and a blue "Get started" button. Below the header is a large, light gray rectangular area. At the bottom of this area, there is a white box containing the heading "Why use our services" in bold black text. To the right of this heading is a small circular icon with a green checkmark. Below the heading, there is a paragraph of text: "Choosing the right partner for your property investment journey is crucial, and here's why our services stand out. We bring a wealth of expertise, providing you with tailored strategies that align with your financial goals."

Left align text

English is read from left to right, downwards in an F-shaped pattern

It's best to keep text left aligned for optimal readability

For long body text, it's safest to avoid centre aligned or justified text

It's more difficult to read, especially for those with cognitive disabilities

Avoid combinations of different text alignments

It's harder for eyes to follow and can look messy



Don't centre align long body text

Centre alignment can work for headings and short text, as it can be quickly read

However, centre alignment makes longer body text harder to read, because the starting point of each line changes

Your eyes need to work harder to find the starting point of each line



Don't centre align long body text

Example of centre aligned versus left aligned text

The image shows two cards side-by-side. The left card has a red 'X' icon at the top right and is labeled 'TYPOGRAPHY' at the bottom right. It contains the title 'Don't centre align' in bold. The right card has a green checkmark icon at the top right and is also labeled 'TYPOGRAPHY' at the bottom right. It contains the title 'Left align text' in bold. Both cards feature two columns of placeholder text.



TYPGRAPHY

Don't centre align

—
Lorem ipsum dolor sit amet, consectetur
adipiscing elit. Sed pharetra, enim sed
fermentum pellentesque, nulla lectus
maximus est, a interdum leo metus id
magna. Vivamus ut odio vitae orci.

—
Pellentesque semper urna eu massa id
imperet facilisis. Cras mauris sed tortor,
feugiat tellus at, tincidunt efficit nulla.



TYPGRAPHY

Left align text

—
Lorem ipsum dolor sit amet, consectetur
adipiscing elit. Sed pharetra, enim sed
fermentum pellentesque, nulla lectus
maximus est, a interdum leo metus id
magna. Vivamus ut odio vitae orci.

—
Pellentesque semper urna eu massa id
imperet facilisis. Cras mauris sed tortor,
feugiat tellus at, tincidunt efficit nulla.

Don't justify long body text

The variations in letter and word spacing make it harder for your eyes to distinguish text and follow lines (especially for those with cognitive impairments like dyslexia)

The variations in spacing also create distracting “rivers” of white space, highlighted in the example shown in the next slide



Don't justify long body text

Example of justified versus left aligned text

The image shows two side-by-side examples of text layout. On the left, under the heading 'Don't justify', there is a large amount of justified text. A red 'X' icon in a circle is positioned above the first few lines of text. The text is justified between vertical red lines, creating a wavy, uneven appearance. Below this, a second block of text is also justified, with a similar wavy effect. On the right, under the heading 'Left align text', there is a large amount of text that is left-aligned. A green checkmark icon in a circle is positioned above the first few lines of text. The text is aligned to the left edge of the container, with straight vertical lines on either side. Below this, a second block of text is also left-aligned.

TYPOGRAPHY

Don't justify

Ipsum dolor sit amet, consectetur adipiscing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus maximus est, a interdum leo metus id magnatur vivamus ut odio vitae orci.

Pellentesque semper urna eu massa id imperet facilisis. Cras mauris sed tortor, feugiat tellus at, tincidunt efficit nulla.

TYPOGRAPHY

Left align text

Ipsum dolor sit amet, consectetur adipiscing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus maximus est, a interdum leo metus id magna. Vivamus ut odio vitae orci.

Pellentesque semper urna eu massa id imperet facilisis. Cras mauris sed tortor, feugiat tellus at, tincidunt efficit nulla.

Decrease letter spacing for large text

Example of a heading with regular letter spacing versus one with decreased letter spacing



about

I'm a product designer based in sunny Sydney, Australia.

Since 2005, I've enjoyed turning complex problems into simple, beautiful and intuitive designs. When I'm not pushing pixels, you'll find me cooking, gardening or working out in the park.



about

I'm a product designer based in sunny Sydney, Australia.

Since 2005, I've enjoyed turning complex problems into simple, beautiful and intuitive designs. When I'm not pushing pixels, you'll find me cooking, gardening or working out in the park.

Ensure text on photos is legible

Ensure the contrast ratio of text placed on photos meets WCAG 2.1 level AA accessibility requirements

Small text (18px and under) should have a contrast ratio of at least 4.5:1

Large text (above 18px with bold weight or above 24px with regular weight) should have a contrast ratio of at least 3:1



Ensure text on photos is legible

Example of illegible white text placed directly on a photo



Ensure text on photos is legible

Tips to ensure your text is always accessible on photo

Add a linear gradient overlay

In the UI shown, a linear gradient overlay is placed behind text to achieve sufficient contrast



Ensure text on photos is legible

Tips to ensure your text is always accessible on photo

Add a semi-transparent overlay

In the UI shown, a dark grey overlay with 50% opacity is placed on top of the photo to achieve sufficient contrast

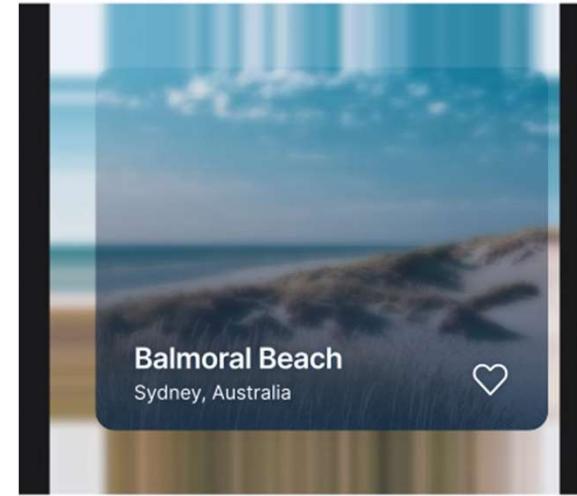


Ensure text on photos is legible

Tips to ensure your text is always accessible on photo

Add a blurred semi-transparent overlay

In the UI shown, a blurred semi-transparent overlay placed on top of a photo to improve text legibility



Ensure text on photos is legible

Tips to ensure your text is always accessible on photo

Apply a solid text background

In the UI shown, a solid background applied behind text to improve legibility on photos



Avoid light grey text

Always aim for text to have at least a 4.5:1 contrast ratio to meet WCAG 2.1 level AA accessibility requirements

The UI shown, compares inaccessible light grey text versus accessible dark grey text



Avoid very light grey text

Placeholder text: Lorem ipsum dolor sit amet, consec tetur adip scing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus.



Use accessible grey text

Placeholder text: Lorem ipsum dolor sit amet, consec tetur adip scing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus.

Avoid pure black text

Avoid contrast that's too high, as it can cause eye strain and fatigue

Black has 0% color brightness and white has 100% color brightness

The large difference in colour brightness causes our eyes to work harder



Avoid pure black text

Lorem ipsum dolor sit amet, consec tetur adip scing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus.

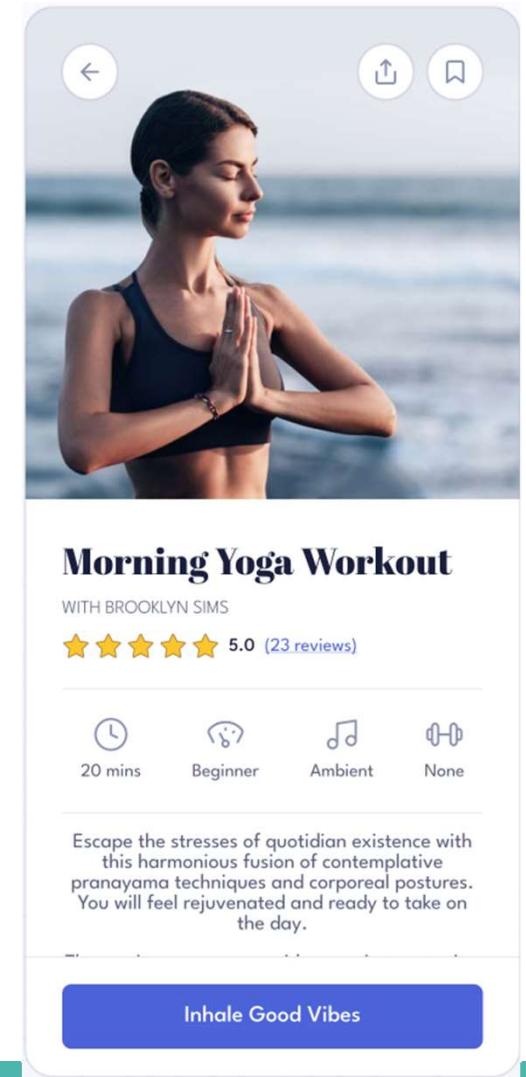


Use accessible grey text

Lorem ipsum dolor sit amet, consec tetur adip scing elit. Sed pharetra, enim sed fermentum pellentesque, nulla lectus.

Apply Typeface Guidelines

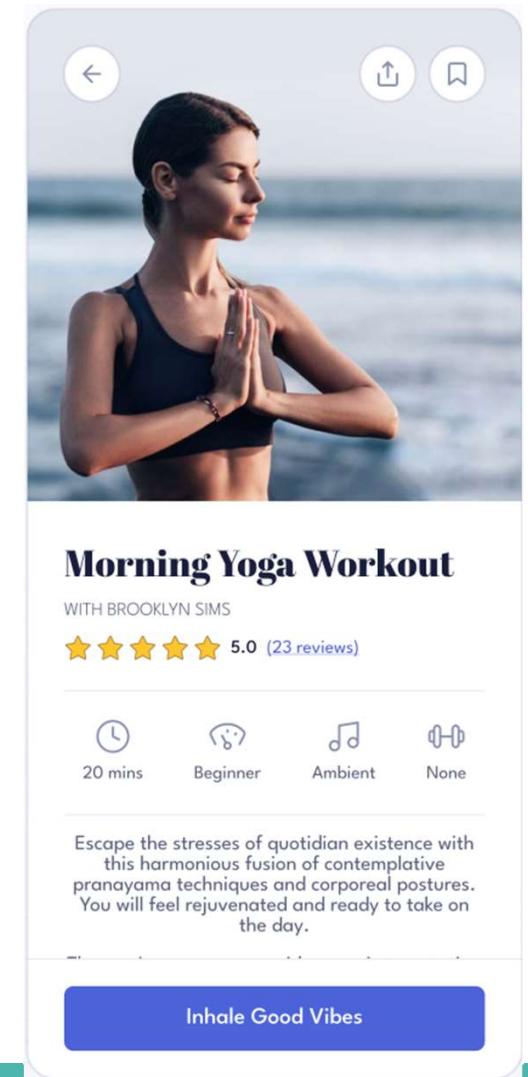
Identify typeface related issues on the UI shown



Use a single sans serif typeface

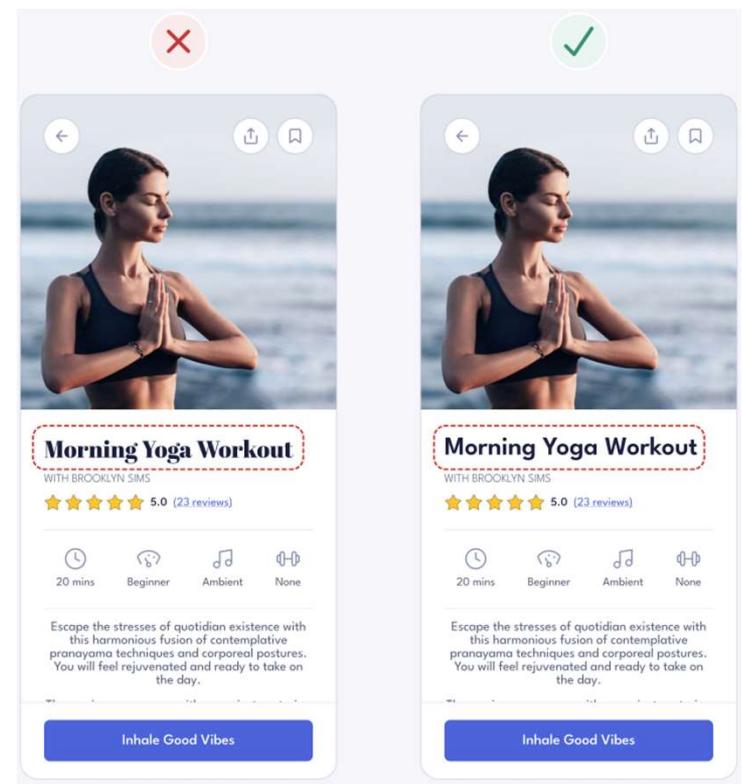
The heading uses a detailed serif typeface that's a bit difficult to read and could be distracting for some

It also has a personality that might not match some content in the app



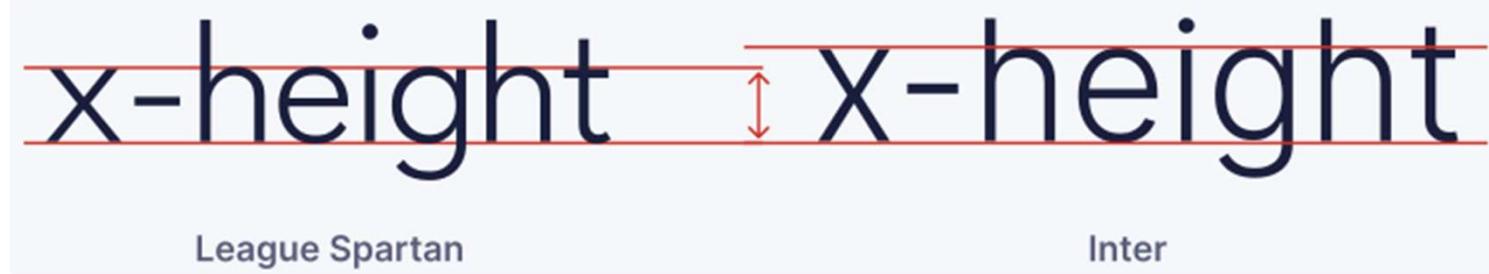
Use a single sans serif typeface

Simplify the heading to a sans serif typeface



Use a typeface with taller lower case letters

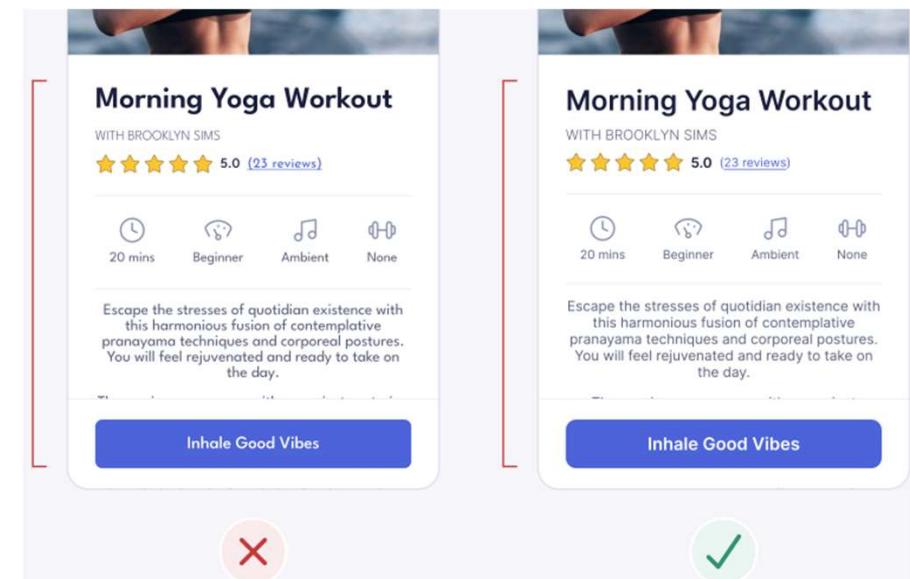
Look for typefaces with taller lower case letters and greater letter spacing, as they're generally more legible at small sizes



Use a typeface with taller lower case letters

The UI shown earlier uses the League Spartan typeface, which has a relatively low x-height

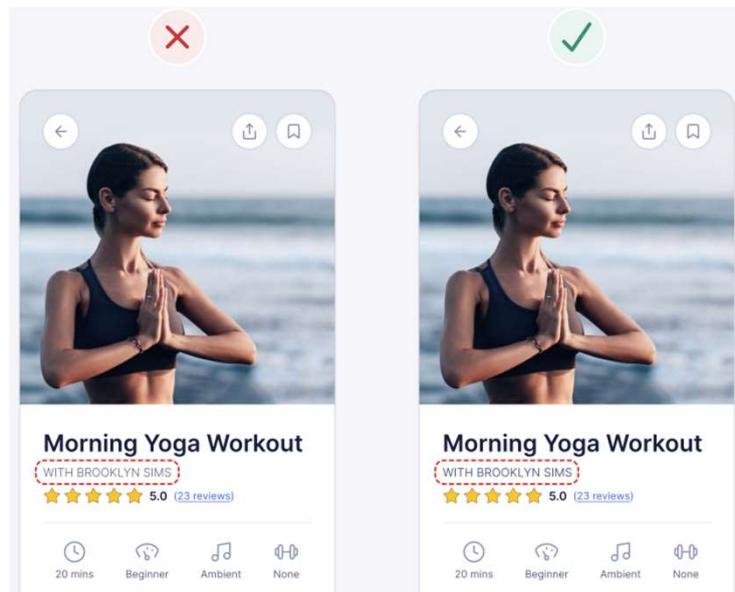
Changing the typeface to one with a larger x-height, like Inter, helps to improve readability



Use regular and bold font weights only

On the UI shown, the text for the instructor's name uses a light font weight

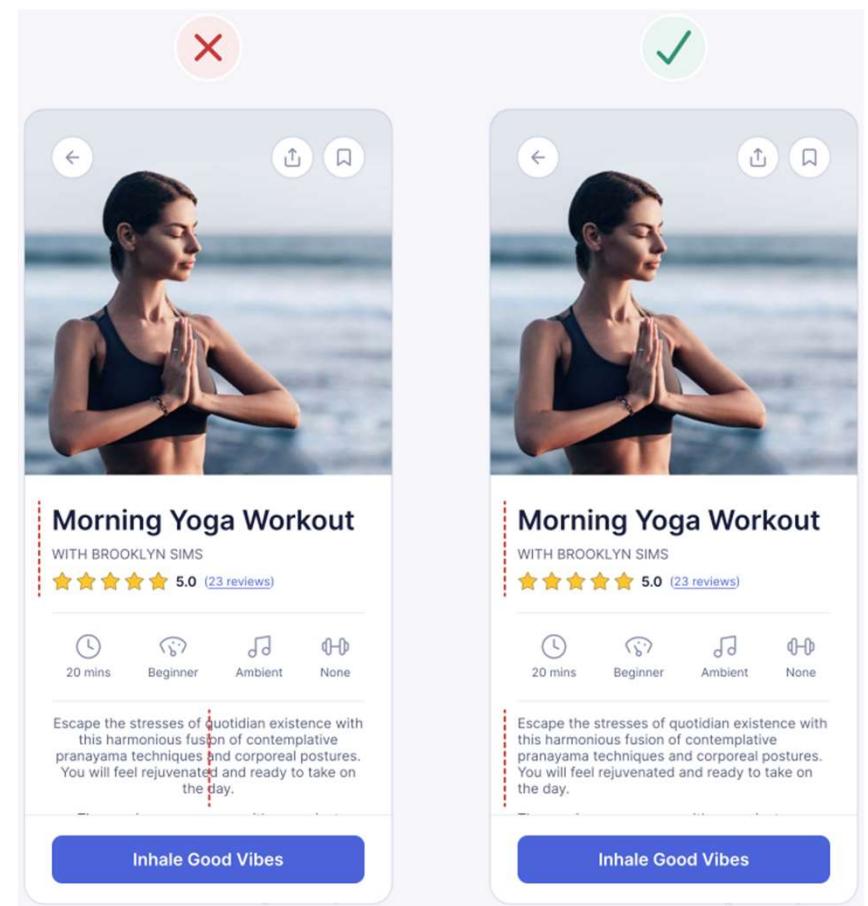
Increasing the font weight to regular helps improve readability and simplifies the design



Left align text

In the UI shown, the block of body text is centre aligned

Left aligning the text improves readability and is also consistent with the left aligned text that sits above it



Use at least 1.5 line height for body text

In the UI shown, the line height of the block of body text is only 1 (100%)

Increasing it to 1.5 (150%) helps to improve readability

