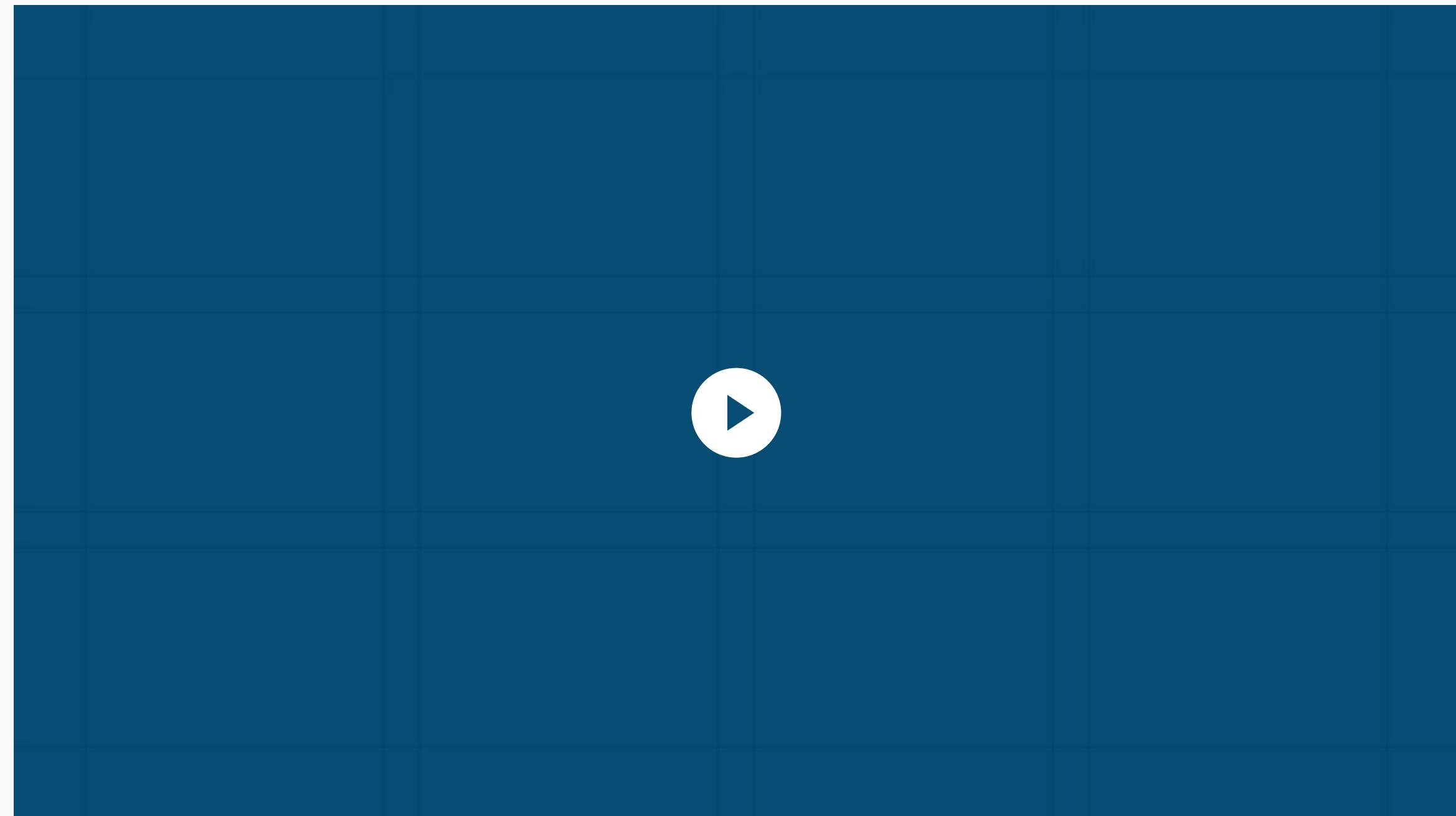




# Color

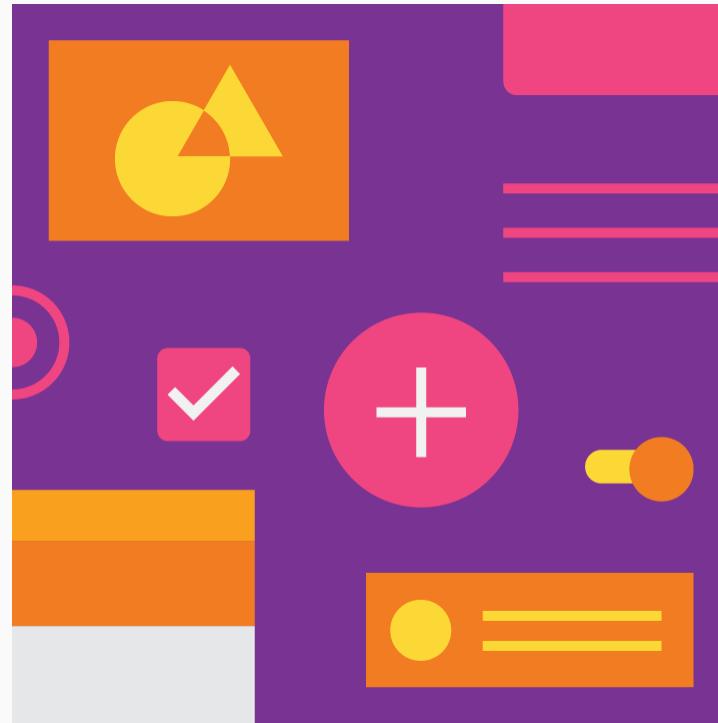
Color in Material Design is inspired by bold hues juxtaposed with muted environments, deep shadows, and bright highlights.





## Color Tool

The [Color Tool](#) helps you create, share, and apply color palettes to your UI, as well as measure the accessibility level of any color combination.



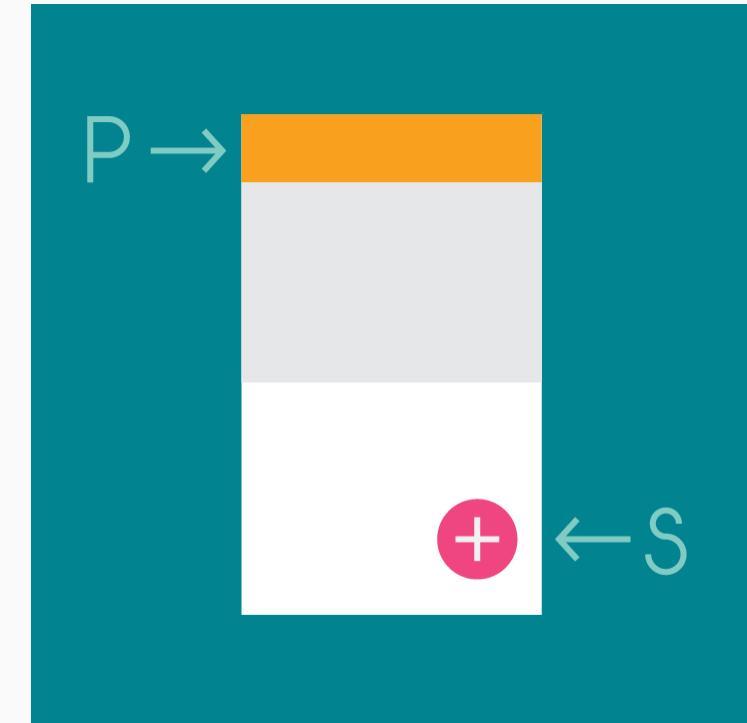
### Create color schemes

Create color schemes that include darker and lighter variations of your primary and secondary colors.



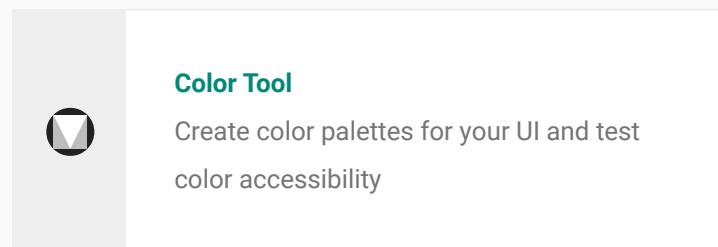
### Test accessibility

Check if text is accessible on different-colored backgrounds, as measured using the [Web Content Accessibility Guidelines](#) legibility standards.



### Preview your UI in color

Preview the look of your color scheme across a range of Material Design components, with editable HTML, CSS, or JavaScript in Codepen.





## Color palette

### The color palette

This color palette comprises primary and accent colors that can be used for illustration or to develop your brand colors. They've been designed to work harmoniously with each other. The color palette starts with primary colors and fills in the spectrum to create a complete and usable palette for Android, Web, and iOS. Google suggests using the 500 colors as the primary colors in your app and the other colors as accents colors.

Themes enable consistent app styling through surface shades, shadow depth, and ink opacity.



[Download color swatches](#)

0.02 MB (.zip)



## Red

500	#F44336
50	#FFEBEE
100	#FFCDD2
200	#EF9A9A
300	#E57373
400	#EF5350
500	#F44336
600	#E53935
700	#D32F2F
800	#C62828
900	#B71C1C
A100	#FF8A80
A200	#FF5252
A400	#FF1744
A700	#D50000

## Pink

500	#E91E63
50	#FCE4EC
100	#F8BBDO
200	#F48FB1
300	#F06292
400	#EC407A
500	#E91E63
600	#D81B60
700	#C2185B
800	#AD1457
900	#880E4F
A100	#FF80AB
A200	#FF4081
A400	#F50057
A700	#C51162

## Purple

500	#9C27B0
50	#F3E5F5
100	#E1BEE7
200	#CE93D8
300	#BA68C8
400	#AB47BC
500	#9C27B0
600	#8E24AA
700	#7B1FA2
800	#6A1B9A
900	#4A148C
A100	#EA80FC
A200	#E040FB
A400	#D500F9
A700	#AA00FF



## Deep Purple

500 #673AB7

50 #EDE7F6

100 #D1C4E9

200 #B39DDB

300 #9575CD

400 #7E57C2

500 #673AB7

600 #5E35B1

700 #512DA8

800 #4527A0

900 #311B92

A100 #B388FF

A200 #7C4dff

A400 #651FFF

A700 #6200EA

## Indigo

500 #3F51B5

50 #E8EAF6

100 #C5CAE9

200 #9FA8DA

300 #7986CB

400 #5C6BC0

500 #3F51B5

600 #3949AB

700 #303F9F

800 #283593

900 #1A237E

A100 #8C9EFF

A200 #536DFE

A400 #3D5AFE

A700 #304FFE

## Blue

500 #2196F3

50 #E3F2FD

100 #BBDEFB

200 #90CAF9

300 #64B5F6

400 #42A5F5

500 #2196F3

600 #1E88E5

700 #1976D2

800 #1565C0

900 #0D47A1

A100 #82B1FF

A200 #448AFF

A400 #2979FF

A700 #2962FF



Light Blue	
500	#03A9F4
50	#E1F5FE
100	#B3E5FC
200	#81D4FA
300	#4FC3F7
400	#29B6F6
500	#03A9F4
600	#039BE5
700	#0288D1
800	#0277BD
900	#01579B
A100	#80D8FF
A200	#40C4FF
A400	#00B0FF
A700	#0091EA

Cyan	
500	#00BCD4
50	#E0F7FA
100	#B2EBF2
200	#80DEEA
300	#4DD0E1
400	#26C6DA
500	#00BCD4
600	#00ACC1
700	#0097A7
800	#00838F
900	#006064
A100	#84FFFF
A200	#18FFFF
A400	#00E5FF
A700	#00B8D4

Teal	
500	#009688
50	#EOF2F1
100	#B2DFDB
200	#80CBC4
300	#4DB6AC
400	#26A69A
500	#009688
600	#00897B
700	#00796B
800	#00695C
900	#004D40
A100	#A7FFEB
A200	#64FFDA
A400	#1DE9B6
A700	#00BFA5



	Green	Light Green	Lime
500	#4CAF50	500	#8BC34A
50	#E8F5E9	50	#F1F8E9
100	#C8E6C9	100	#DCEDC8
200	#A5D6A7	200	#C5E1A5
300	#81C784	300	#AED581
400	#66BB6A	400	#9CCC65
500	#4CAF50	500	#8BC34A
600	#43A047	600	#7CB342
700	#388E3C	700	#689F38
800	#2E7D32	800	#558B2F
900	#1B5E20	900	#33691E
A100	#B9F6CA	A100	#CCFF90
A200	#69F0AE	A200	#B2FF59
A400	#00E676	A400	#76FF03
A700	#00C853	A700	#64DD17



	Yellow	Amber	Orange
500	#FFEB3B	500	#FFC107
50	#FFFDE7	50	#FFF8E1
100	#FFF9C4	100	#FFECB3
200	#FFF59D	200	#FFE082
300	#FFF176	300	#FFD54F
400	#FFEE58	400	#FFCA28
500	#FFEB3B	500	#FFC107
600	#FDD835	600	#FFB300
700	#FBC02D	700	#FFA000
800	#F9A825	800	#FF8F00
900	#F57F17	900	#FF6F00
A100	#FFFF8D	A100	#FFE57F
A200	#FFFF00	A200	#FFD740
A400	#FFEA00	A400	#FFC400
A700	#FFD600	A700	#FFAB00



Deep Orange		Brown		Grey	
500	#FF5722	500	#795548	500	#9E9E9E
50	#FBEBE7	50	#EFEBE9	50	#FAFAFA
100	#FFCCBC	100	#D7CCC8	100	#F5F5F5
200	#FFAB91	200	#BCAAA4	200	#EEEEEE
300	#FF8A65	300	#A1887F	300	#E0E0E0
400	#FF7043	400	#8D6E63	400	#BDBDBD
500	#FF5722	500	#795548	500	#9E9E9E
600	#F4511E	600	#6D4C41	600	#757575
700	#E64A19	700	#5D4037	700	#616161
800	#D84315	800	#4E342E	800	#424242
900	#BF360C	900	#3E2723	900	#212121
A100	#FF9E80				
A200	#FF6E40				
A400	#FF3D00				
A700	#DD2C00				



Blue Grey		Black	#000000
500	#607D8B	White	#FFFFFF
50	#ECEFF1		
100	#CFD8DC		
200	#B0BEC5		
300	#90A4AE		
400	#78909C		
500	#607D8B		
600	#546E7A		
700	#455A64		
800	#37474F		
900	#263238		

## Color system

### Choosing a color scheme

You can customize your app's color scheme to match your brand colors. Alternatively, you can create an entirely new color scheme using the material design color palette.

When creating a color scheme:

- Use the [Color Tool](#) to create and apply palettes to your app
- Ensure your app's color usage meets accessibility standards, with sufficient contrast between elements



A step-by-step guide to staying on-brand with Material Design

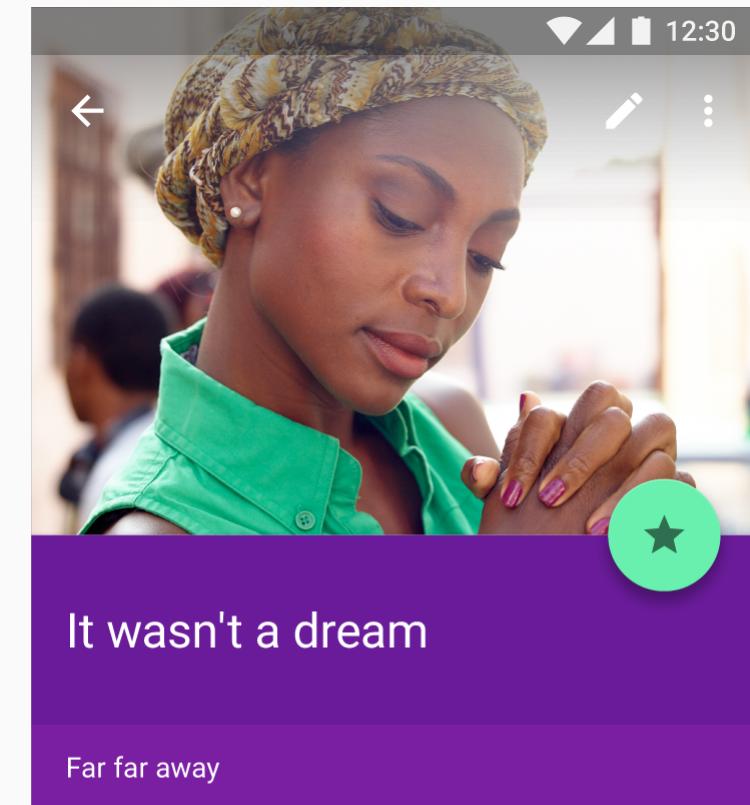
## Material Design's color system

In Material Design, a **primary color** refers to a color that appears most frequently in your app. A **secondary color** refers to a color used to accent key parts of your UI.

Using colors from the Material Design palette is optional.

Primary – Purple	
500	#9B26AF
700	#7A1EA1
800	#691A99
Secondary – Green	
A200	#68EFAD

This color scheme has a primary color, lighter and darker versions of that color, and a secondary color.



### Notes

A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth. Even the all-powerful Pointing has no control about the blind texts it is an



Beneath the region using the primary color, related information is colored with a lighter version of the primary color. The floating action button uses the secondary color to accent it.



## Primary – Pesto Green

#00AA8D

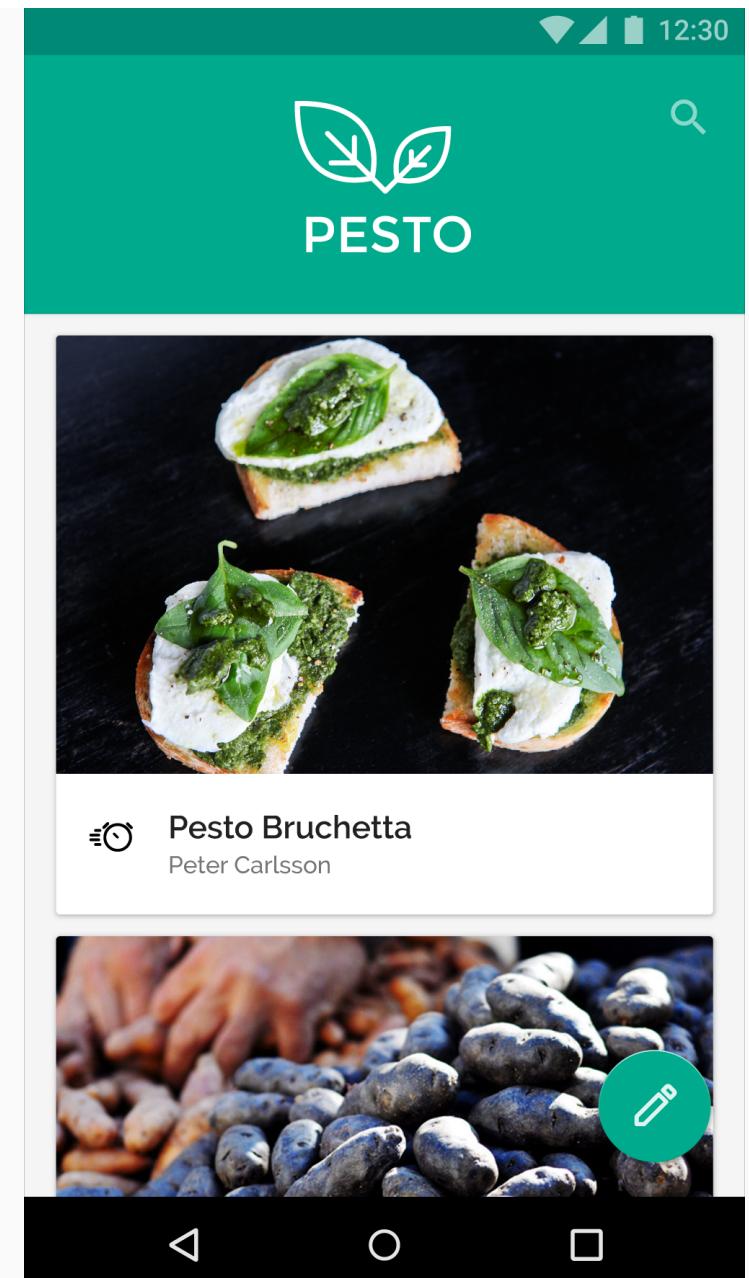
Lighter

#00BF9A

Darker

#008975

This color scheme contains a primary color, plus darker and lighter versions of that color.



This primary color is applied to the toolbar and status bar, while also being used to accent the floating action button.

Primary color



A primary color is the color displayed most frequently across your app's screens and components. It can also be used to accent elements, if you don't have a secondary color.

To create contrast between elements, you can use lighter or darker tones of your primary color. The contrast between lighter and darker tones helps show division between surfaces, such as between the status bar and a toolbar.

## Secondary Color

A secondary color is used to accent select parts of your UI. It can be complementary or analogous to your primary color, but it should not simply be a light or dark variation of your primary color. It should contrast with elements that surround it and be applied sparingly as an accent.

Secondary colors are best used for:

- Buttons, floating action buttons, and button text
- Text fields, cursors, and text selection
- Progress bars
- Selection controls, buttons, and sliders
- Links
- Headlines

Using a secondary color is optional. It's not necessary if you use variations of your primary color to accent elements.

### Primary – Indigo

500	#3F51B5
100	#C5CAE9
500	#3F51B5
700	#303F9F

This color scheme contains different tones of the primary color, for when lighter or darker contrast is needed.

### Secondary – Pink

A200	#FF4081
Fallback	

A100	#FF80AB
A400	#F50057

A secondary color scheme with varied tones.

### Secondary – Blue Grey

700	#455A64
Fallback	

300	#90A4AE
900	#263238

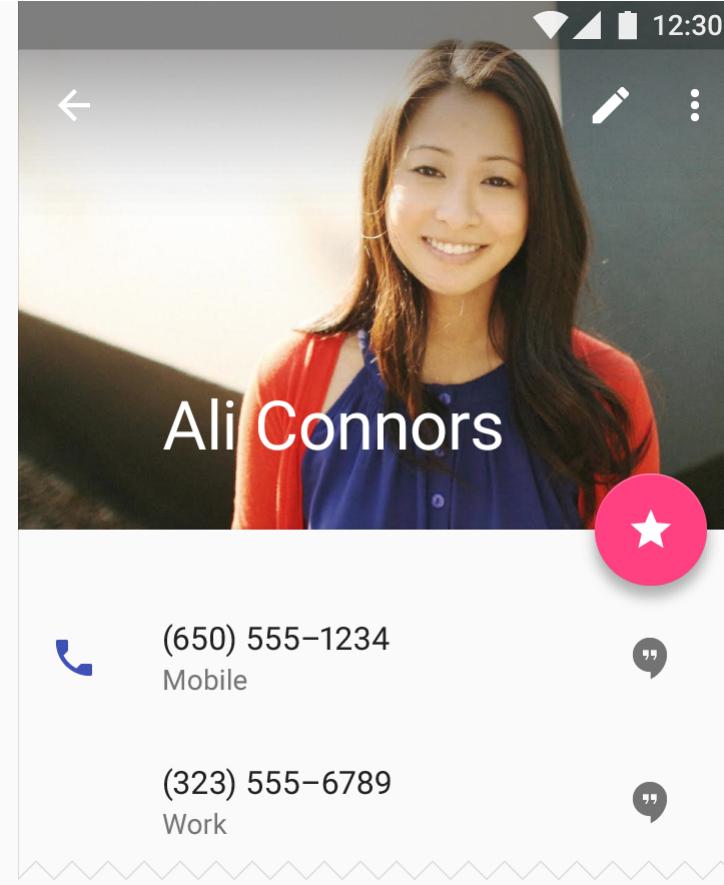
Secondary color schemes do not have to be colorful. They only need to contrast with surrounding elements and be used sparingly throughout your UI.



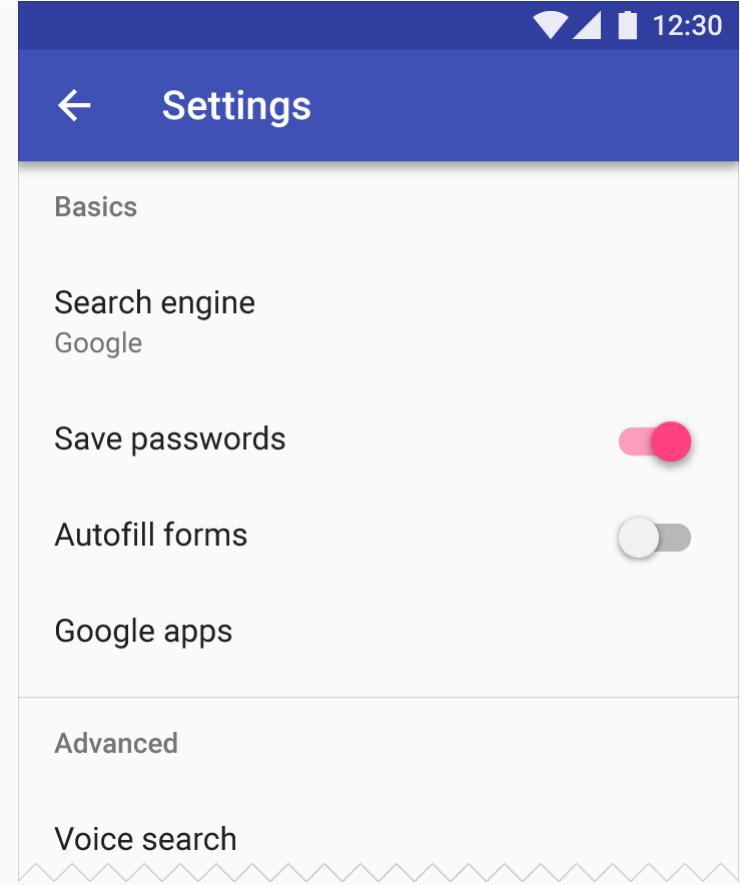
## Using color in your app

Large UI areas and elements should be colored with your primary color. A secondary color can be used to accent smaller areas. If you don't have a secondary color, you can use your primary color instead for these areas.

Color - Style - Material Design



The floating action button is accented using the secondary color, while the phone icon uses the primary color.

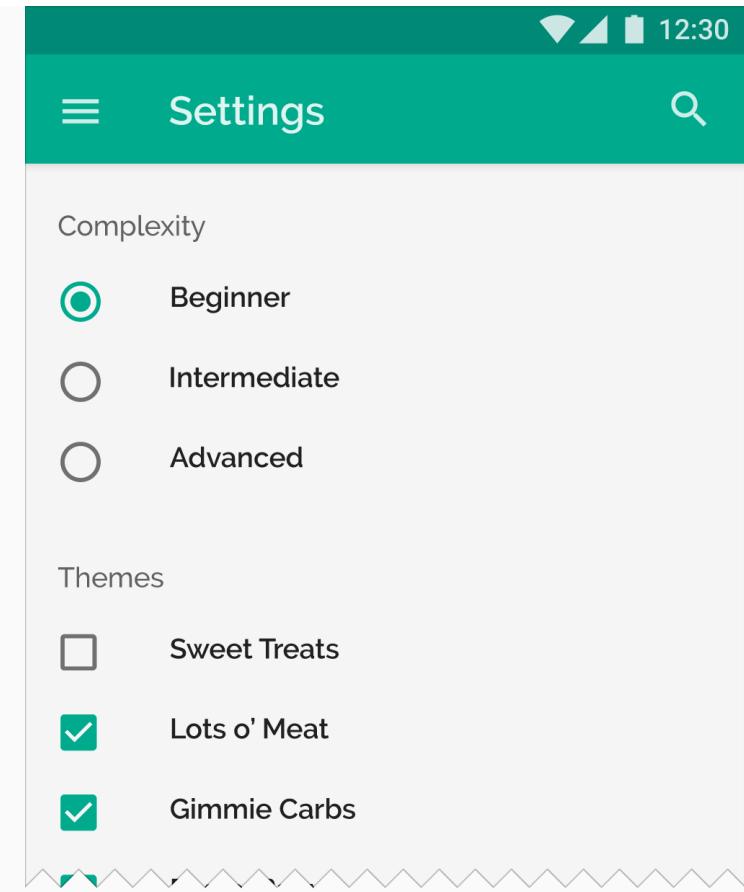


The switch uses the secondary color as an accent. The system bar uses the primary color, while the toolbar uses a darker variation of the primary color.

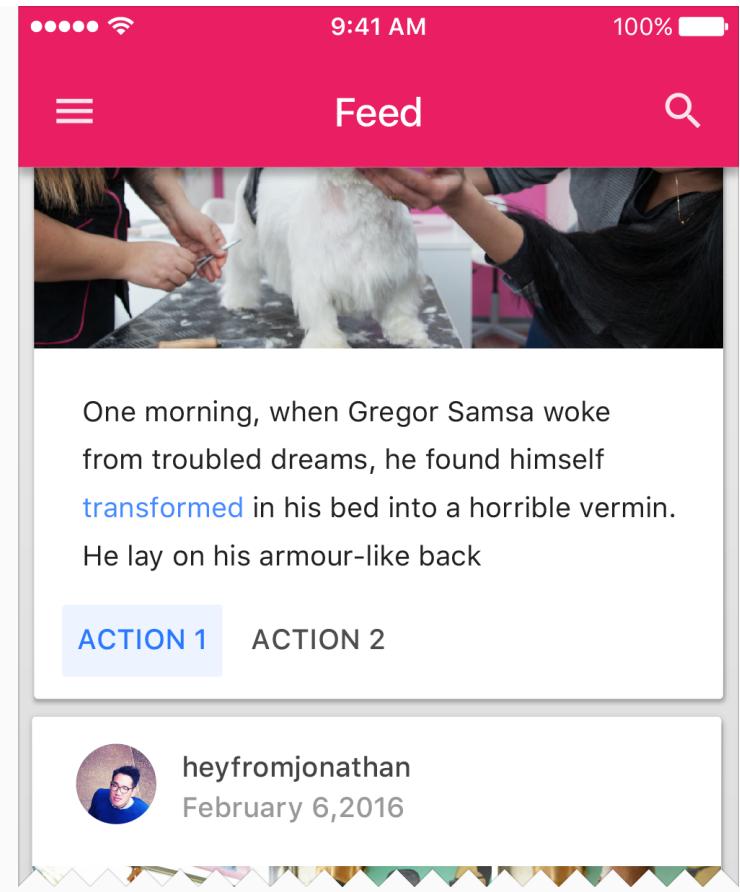


Use the primary color to accent elements, such as buttons or checkboxes.

Elements that appear rarely, such as alerts, should be distinct from other elements and not use your primary color.



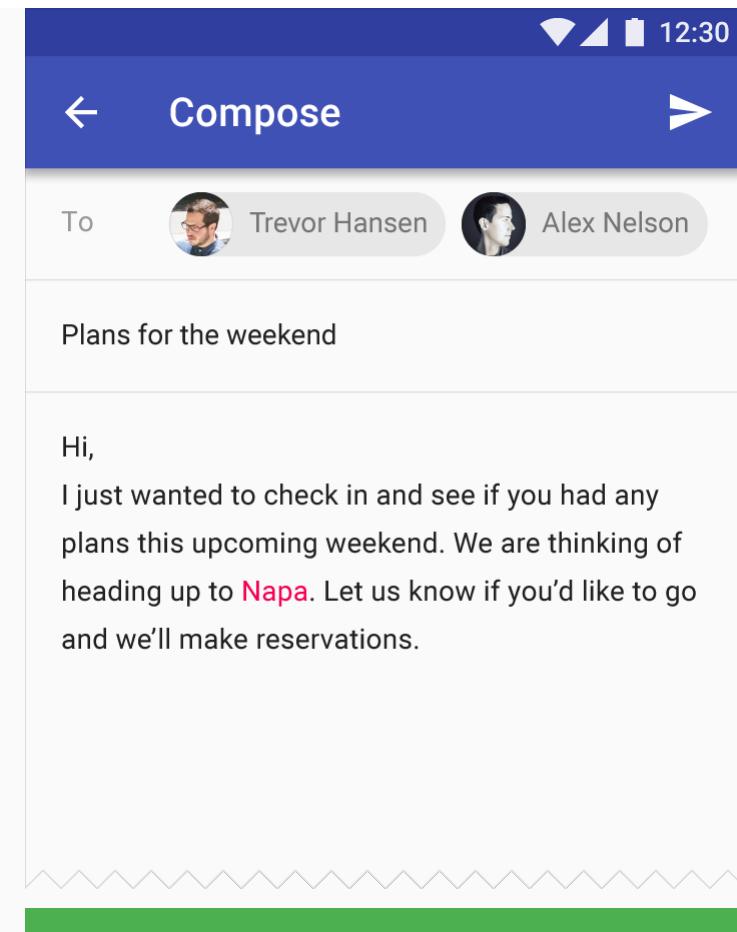
To indicate that buttons and checkboxes are selected, use the primary color as an accent.



Your secondary color can be used on typical elements, such as buttons and links.

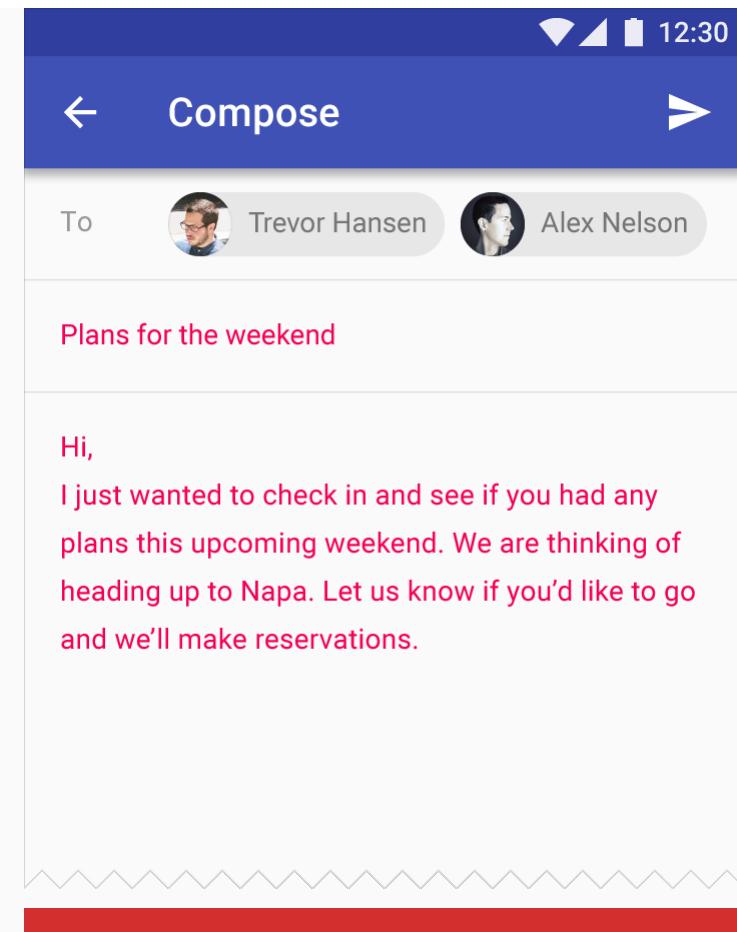


Secondary colors, and anything used to accent parts of the UI, should be used sparingly.



#### Do.

Use a secondary color for certain text, such as linked text.

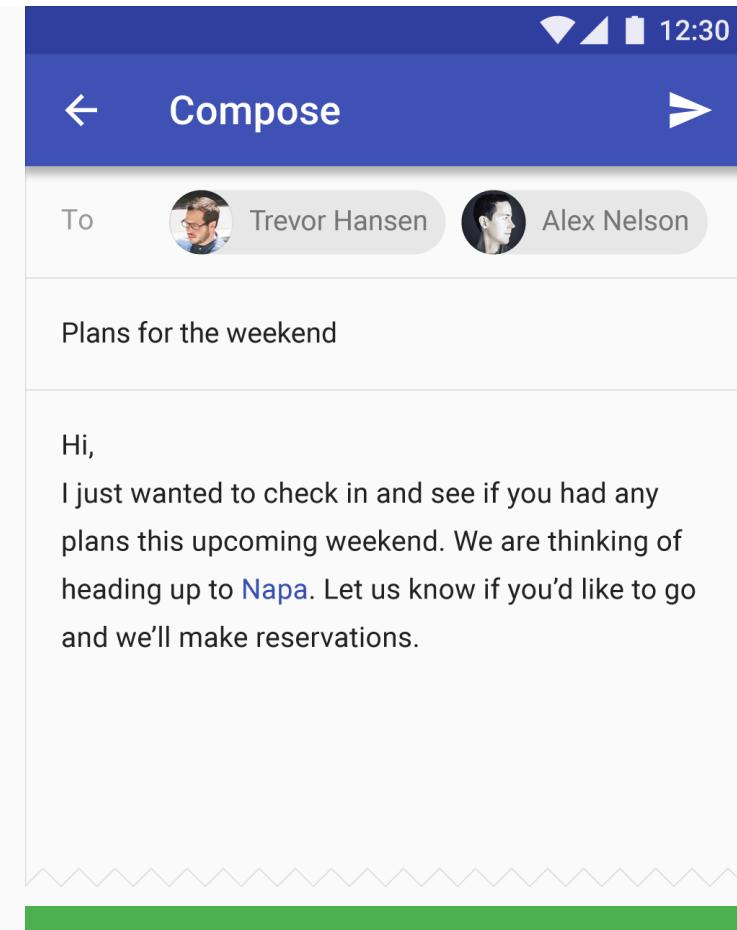


#### Don't.

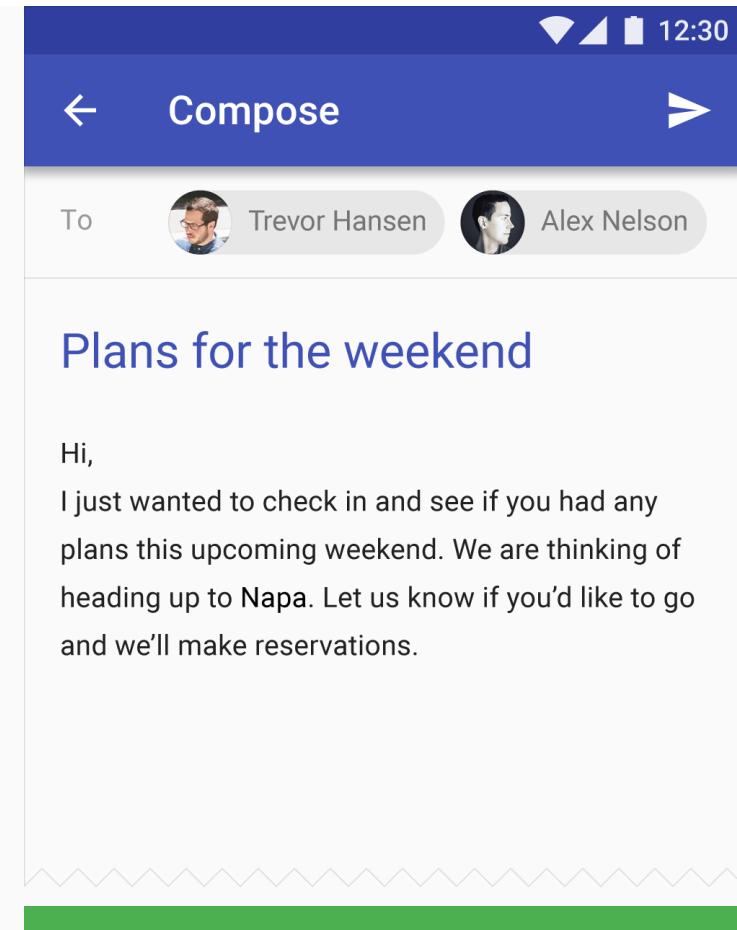
Don't use bright colors for body text, even if your primary or secondary colors are bright.



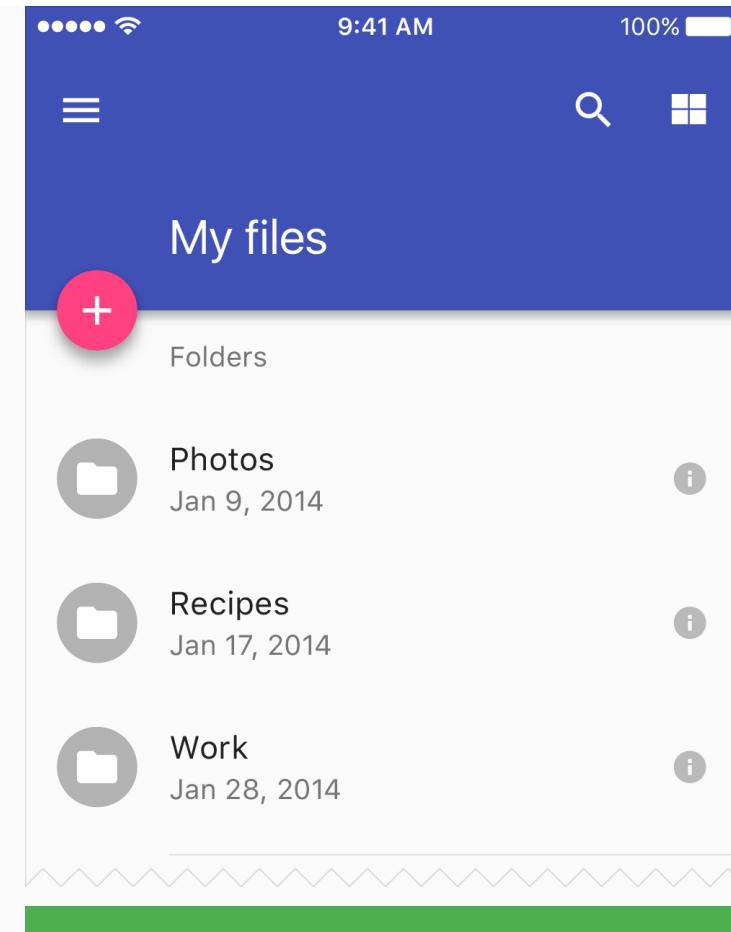
See the [Color Tool](#) for more guidance about typographic legibility on color.

**Do.**

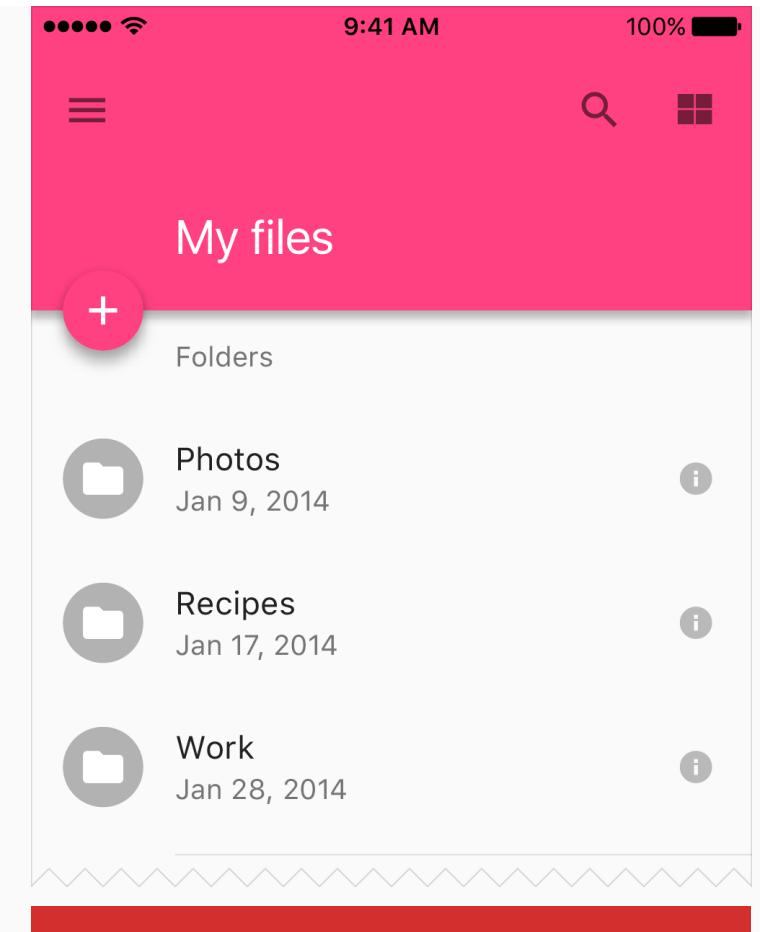
You can use your primary color as a link accent.

**Do.**

Use your primary or secondary color to emphasize select shorter text, such as headlines.

**Do.**

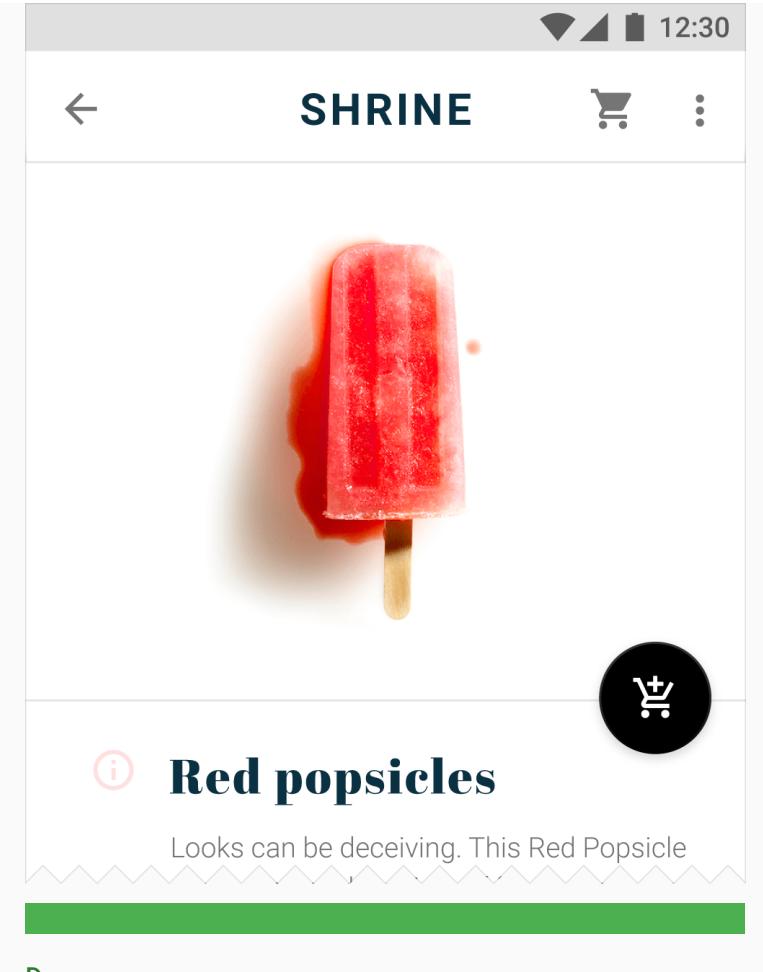
Use your secondary color for your primary action button.

**Don't.**

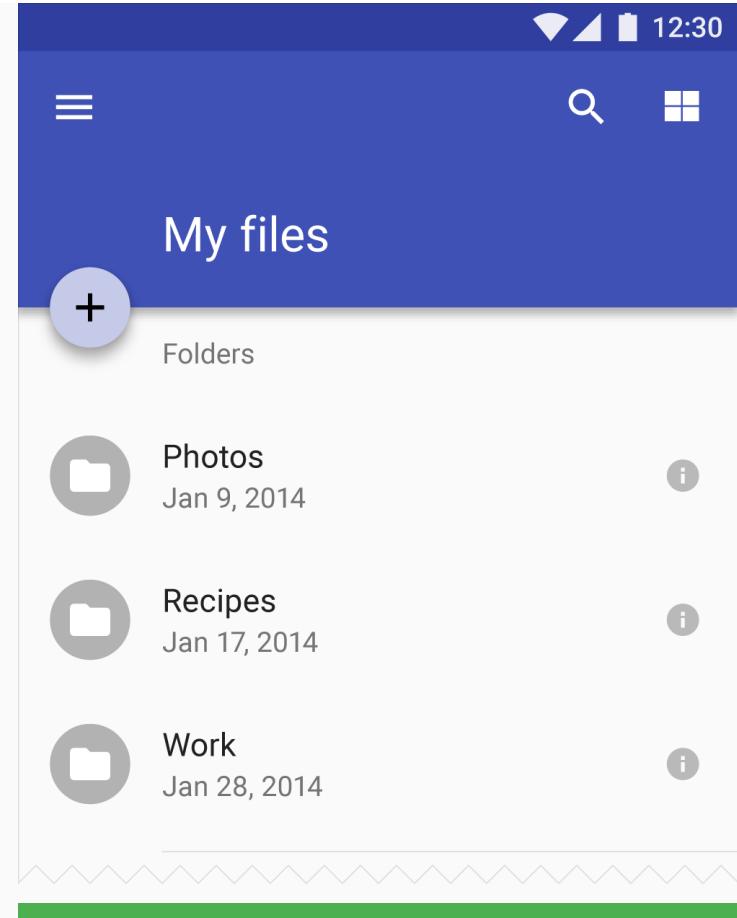
Don't use the secondary color for app bars, larger areas of color, or the floating action button if it rests on a background of that color.



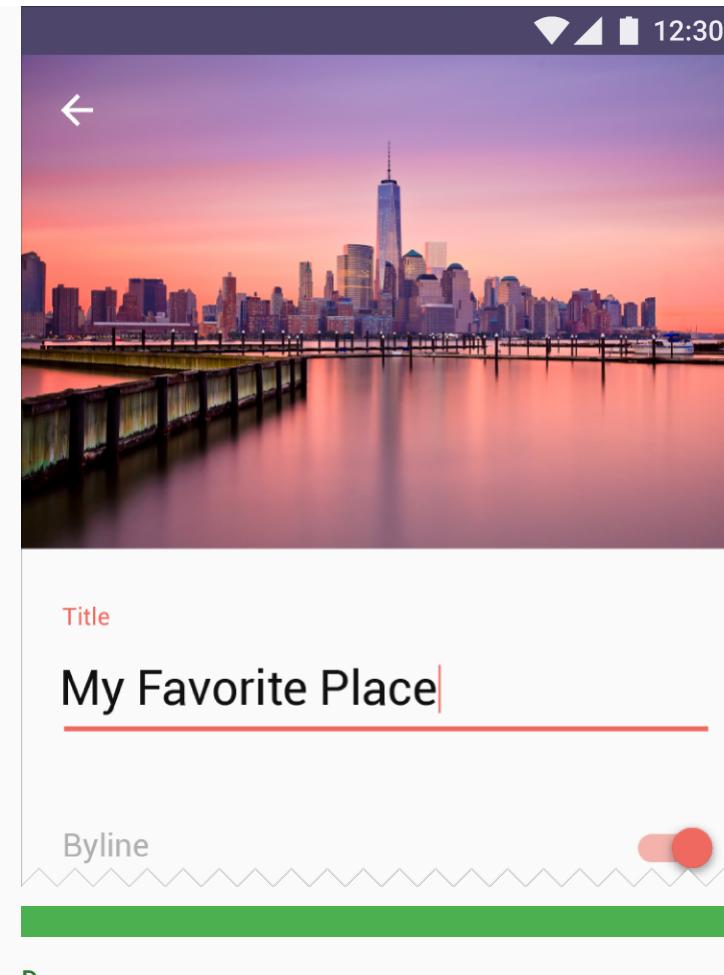
MATERIAL DESIGN

**Do.**

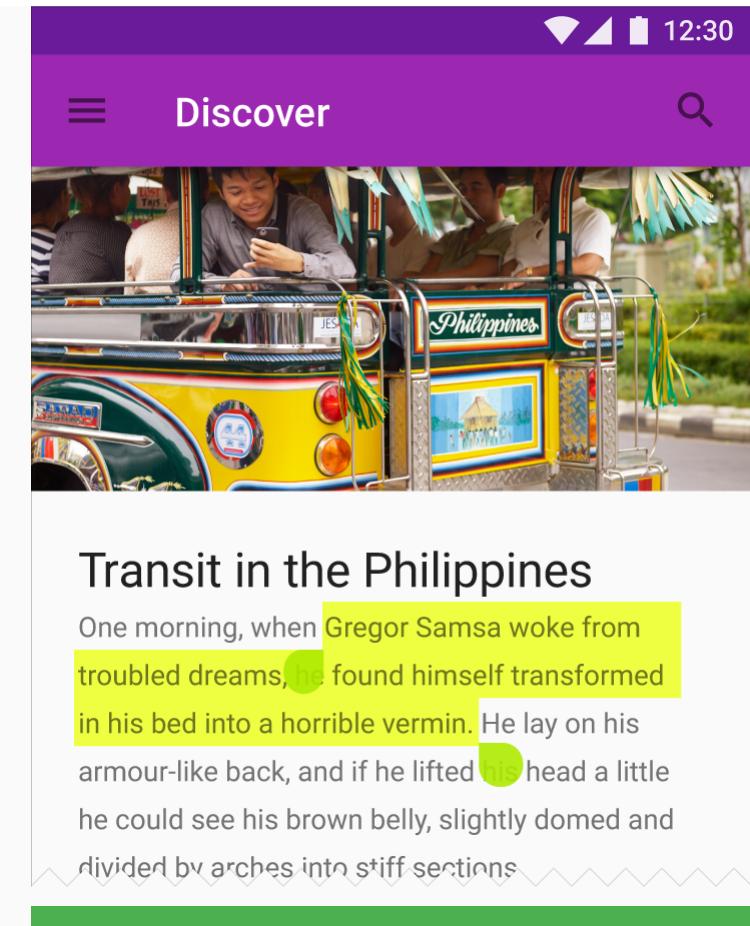
Use a monochromatic color as an accent to let imagery and other colorful elements take prominence.

**Do.**

You can use your primary color in a different tone on elements that rest on top of a primary color region (like this floating action button).

**Do.**

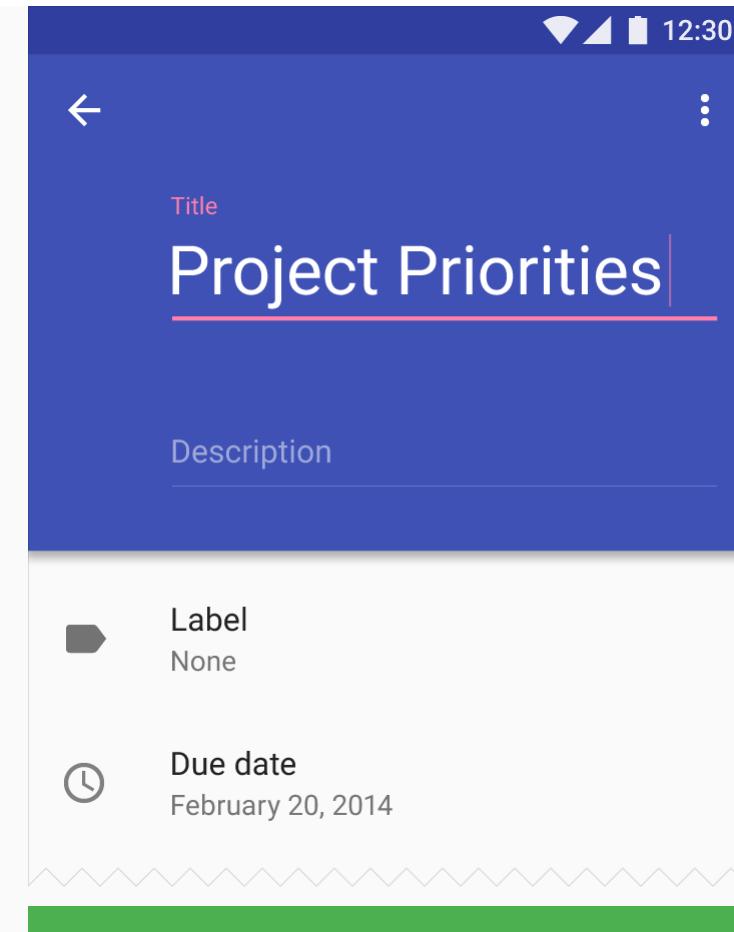
Text fields and switches can use your secondary color as an accent.

**Do.**

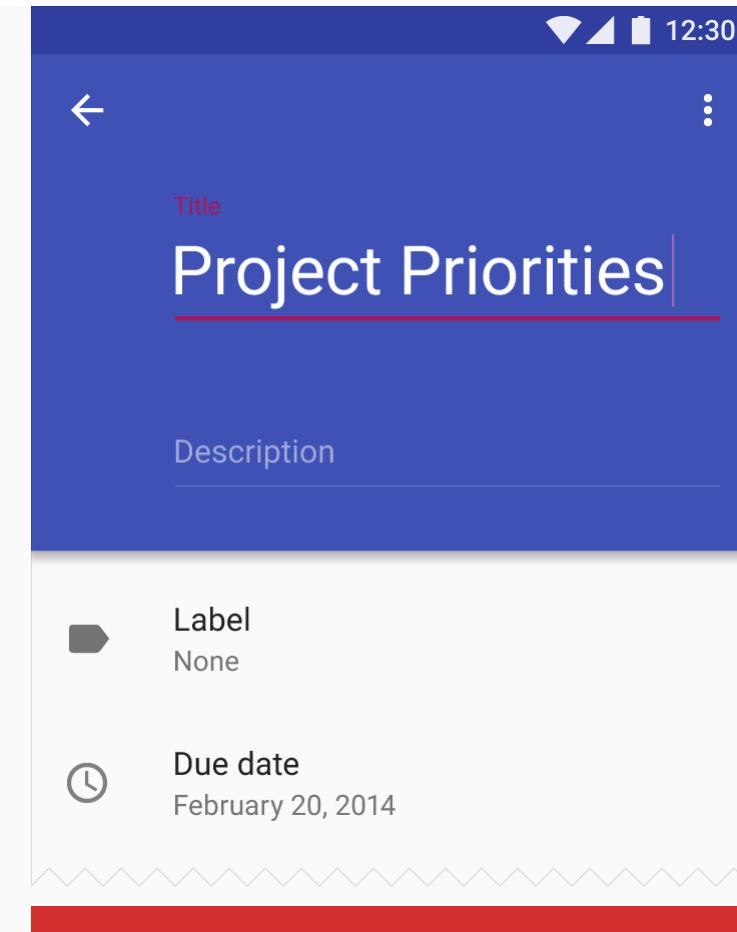
Text selection can use your secondary color as an accent.

**Alternative secondary colors**

If your secondary color is too light or dark to sufficiently contrast with the background color, use a lighter or darker shade of the secondary color instead.

**Do.**

Use a different tone of your secondary color against backgrounds that are very light or very dark.

**Don't.**

Don't use a secondary color on top of a background if there is not enough contrast between the two colors.

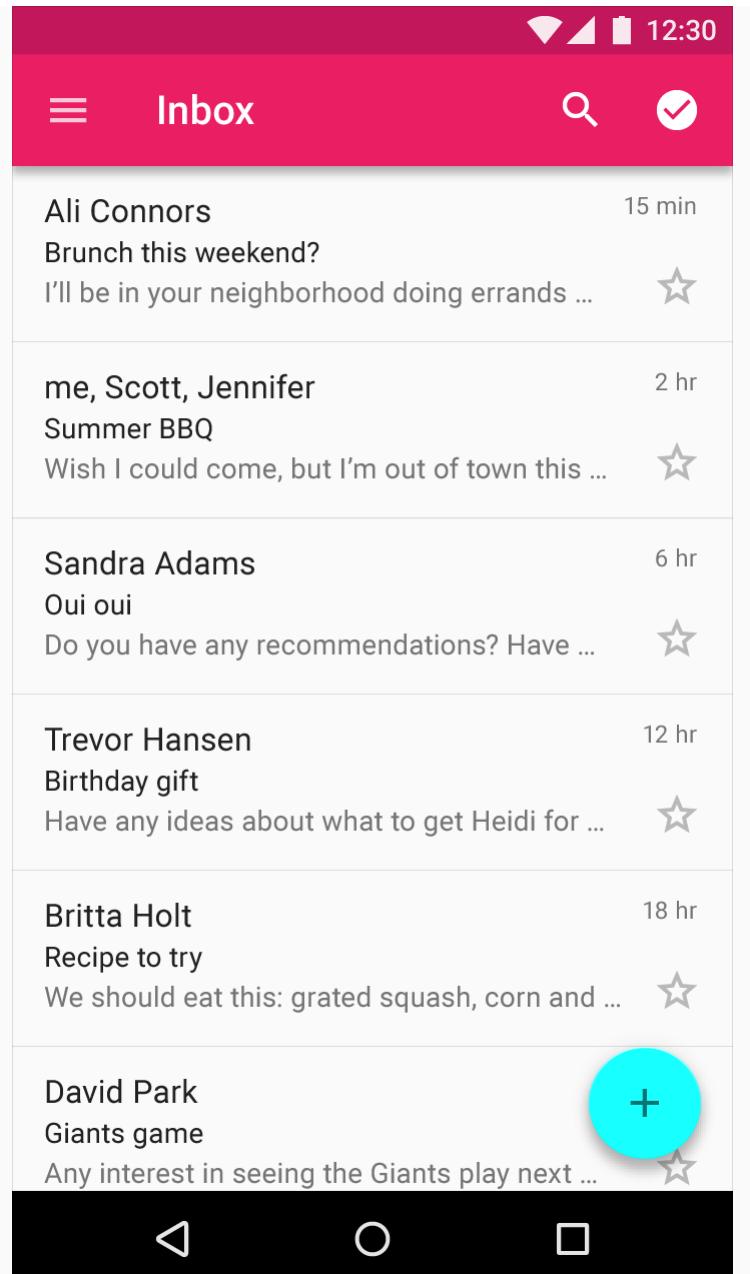
## Usability



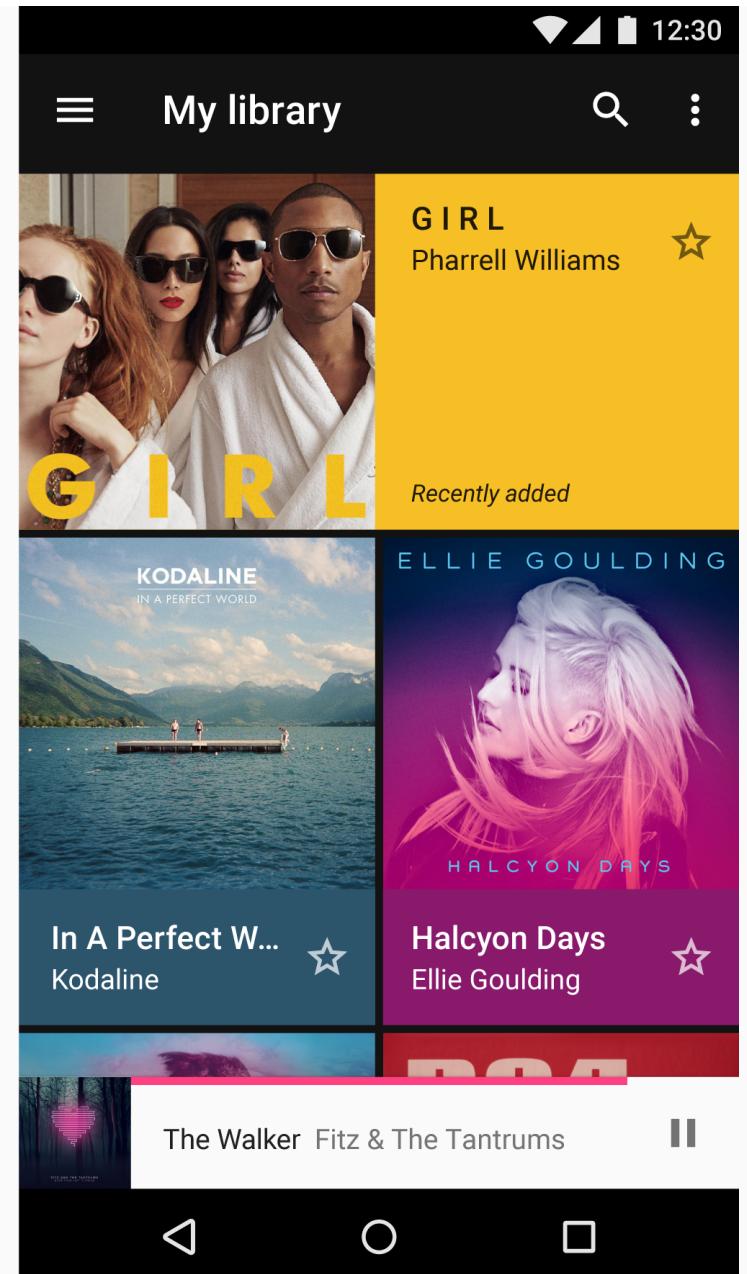
## Hierarchy

Hierarchy refers to organizing content according to different levels of importance. Color can convey how important some content is relative to other content.

For example, a brightly colored button on a colorless background makes that button stand out. Alternatively, colorless bars and buttons allow bright content to take prominence in a UI.



Bold color emphasizes the floating action button and the toolbar, giving prominence to message creation and navigation.

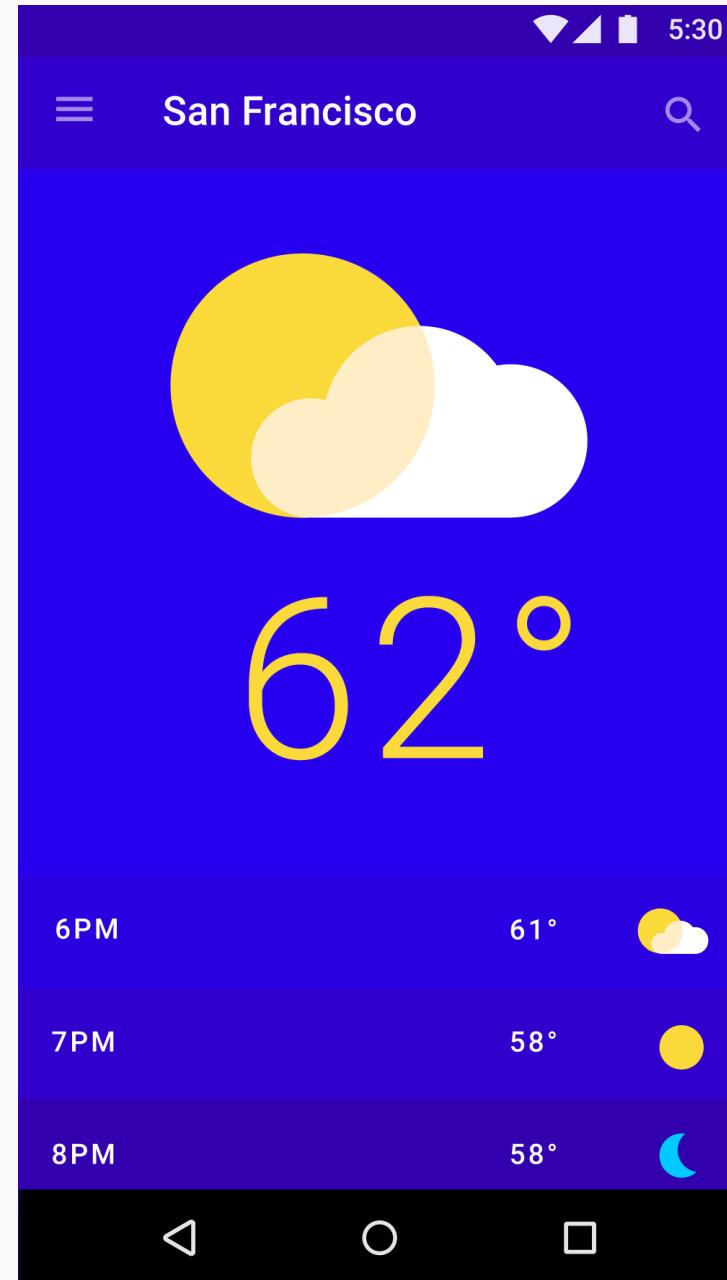


Colorless bars and buttons allow colorful content to take precedence, deemphasizing the status and navigation bars.

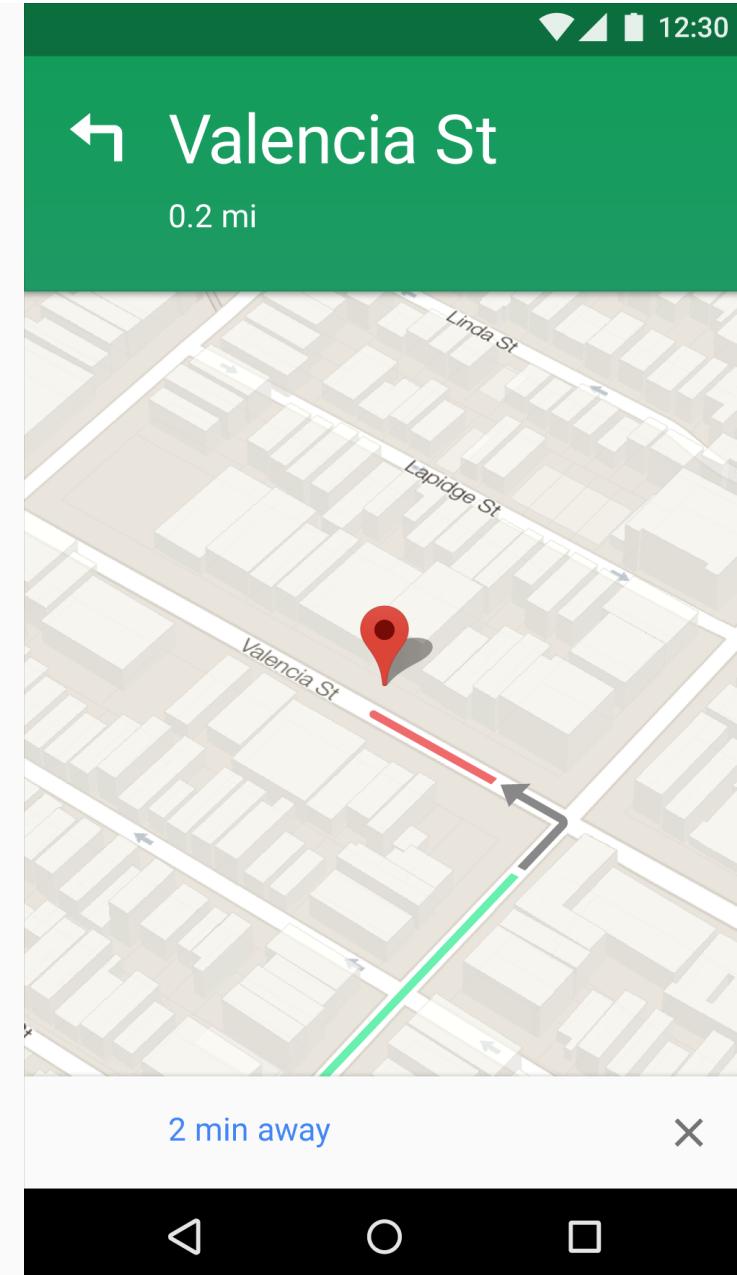


## Meaning

Color may be used to communicate the meaning of various elements on a screen. A weather app may display colors that indicate current weather conditions, and a maps app may use color to show traffic conditions, with roads colored red or green.



A weather app uses color to signal the time of day.



A maps app uses color to signal traffic conditions.

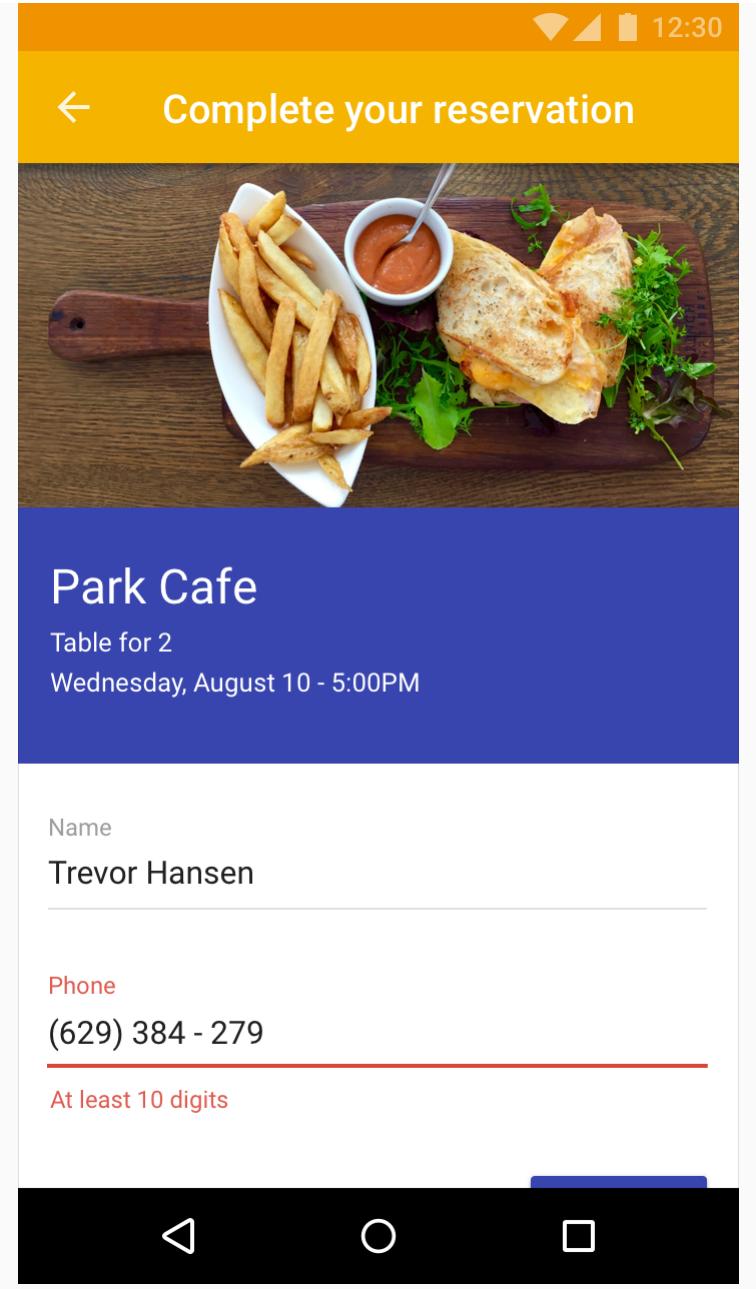


## State

Color can provide information about:

- An element's current state, such as if a button is enabled or disabled
- An app or element's change of state

Color that indicates a change of state should be noticeable, as subtle differences in color may be missed. It's best to indicate a change of state in more than one way, such as displaying an icon or moving the location of an element.



Phone

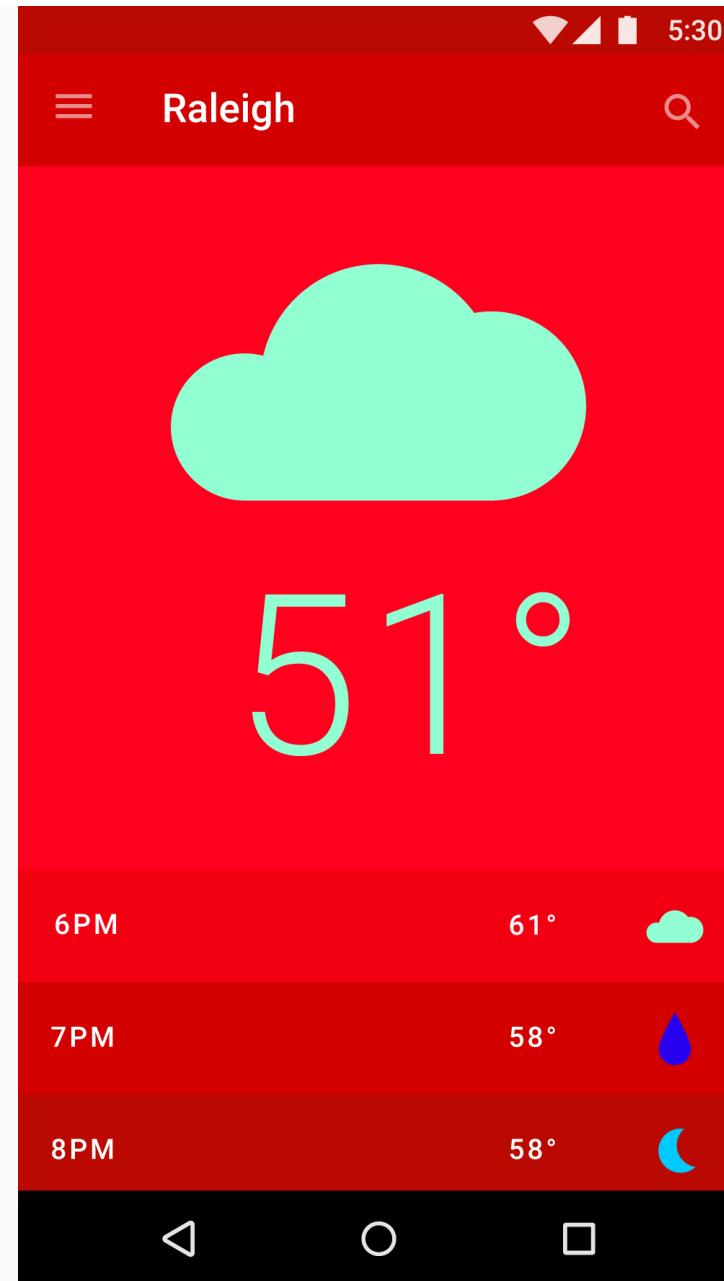
The color changes from blue to red to indicate different states.



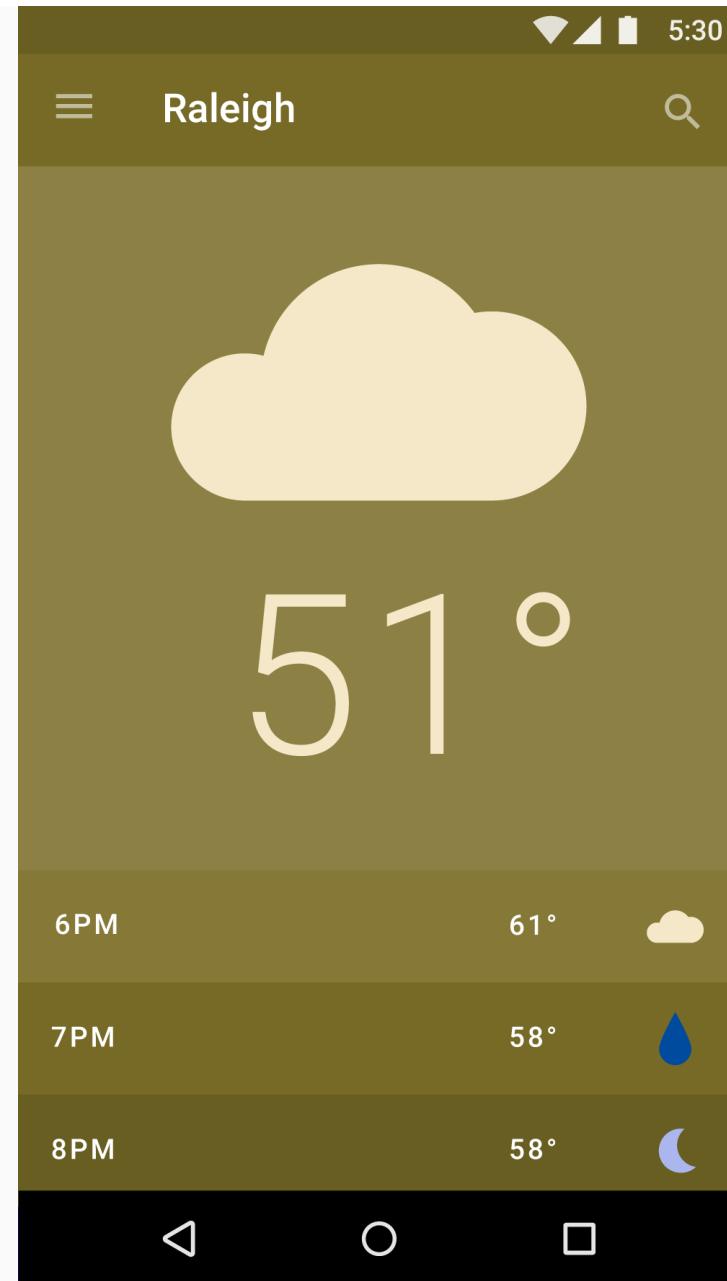
## Contrast

Your app's primary and secondary colors should ensure sufficient color contrast between elements so that all users can see and use your app.

To learn more about color, contrast, and accessibility design, read [Material Design Accessibility](#).

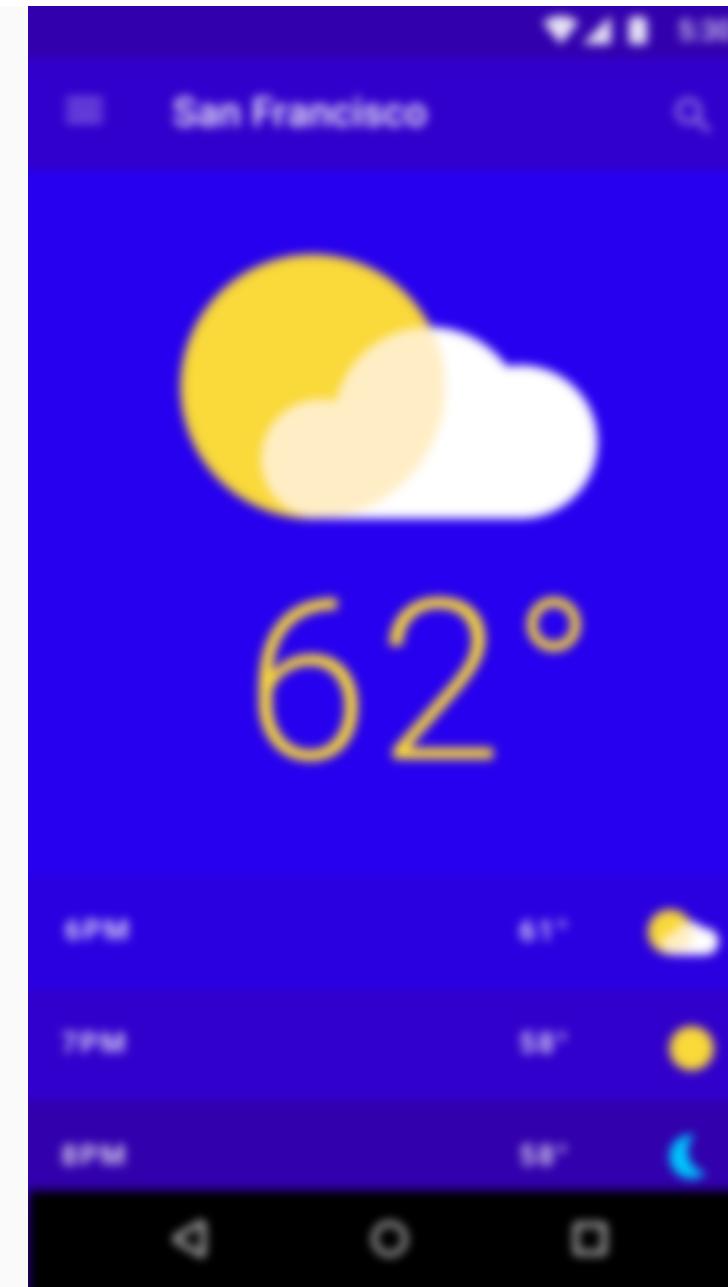


In this UI, red signifies the time of day and green represents the foggy weather.



This is how users with deutanopia (red/green color blindness) might see the UI shown to the left. They might not be able to see differences between text and other elements.

Additional affordances, beyond color, should be used to convey information.



Smaller text may be difficult to read for individuals with cataracts, for whom your UI may appear blurry. Elements without sufficient contrast get lost in the background.

To accommodate all users, offer enlarged text settings.



## Text on backgrounds

Text should be legible on the background on which it appears.

It is recommended that:

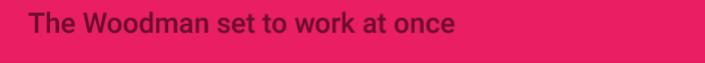
- Dark gray text is used on light backgrounds
- Light gray text is used on dark backgrounds

If your app has both light and dark themes, the text should be available in a contrasting color against each theme.

### Legibility

Text that appears on colored backgrounds should be legible and meet accessibility standards. Both backgrounds and text must use colors and opacities that, when used together, meet these standards. [The Web Content Accessibility Guidelines \(WCAG 2.0\)](#) level AA requires a contrast ratio of 4.5:1 for normal text and a 3:1 ratio for large text.

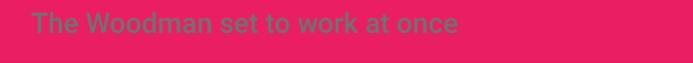
#### The Woodman set to work at once

 The Woodman set to work at once

#### Do.

Using opacity instead of shifting colors often creates better contrast and relative luminance. For example, gray text (#727272) becomes hard to read if the background color changes to magenta.

#### The Woodman set to work at once

 The Woodman set to work at once

#### Don't.

Shifting to gray instead of decreasing contrast on black often lowers the relative luminance, making typography unreadable.

### Dark text on light backgrounds

The level of opacity used for text depends on whether your background is dark or light. For dark text on light backgrounds, apply the following opacity levels:

- The **most important text** has an opacity of 87%
- **Secondary text**, which is lower in the visual hierarchy, has an opacity of 54%
- **Text hints** (such as text fields and labels) and **disabled text** have even lower visual prominence with an opacity of 38%

	Primary text	#000000	87%
Secondary text	#000000	54%	
Disabled / Hint text	#000000	38%	

	Primary color	#3E50B4	100%
Accent color	#FF3F80	100%	

Dark text (#000000)	Opacity
---------------------	---------

Primary text	87%
--------------	-----

Secondary text	54%
----------------	-----

Disabled text, hint text	38%
--------------------------	-----

Dividers	12%
----------	-----



### White text on dark backgrounds

White text appearing on colored backgrounds should do so at an opacity of 100%.

Primary text	#FFFFFF	100%
Secondary text	#FFFFFF	70%
Disabled / Hint text	#FFFFFF	50%
Primary color	#3E50B4	100%
Accent color	#FF3F80	100%

The table relays relative levels of importance for white text on dark backgrounds.

Light text (#FFFFFF)	Opacity
Primary text	100%
Secondary text	70%
Disabled text, hint text	50%
Dividers	12%

### Icons and other elements

Elements like icons benefit from having a hex value of black or white at 38% opacity so that they work on backgrounds of any color.

Dark icons (#000000)	Opacity
Active Icon	54%
Inactive Icon	38%

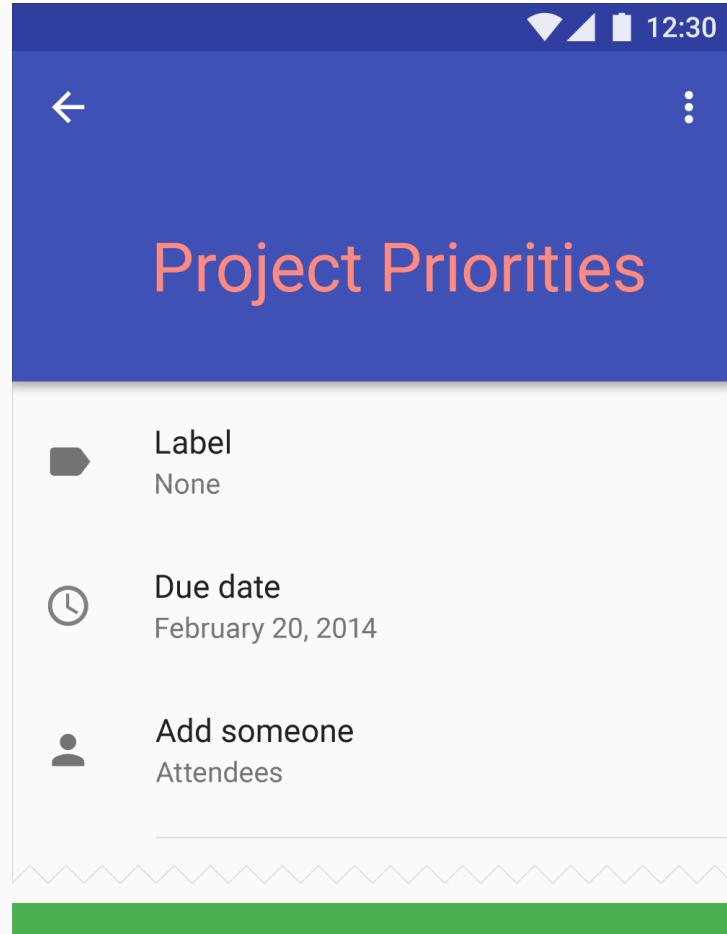
Light icons (#FFFFFF)	Opacity
Active Icon	100%
Inactive Icon	50%



## Colored text and backgrounds

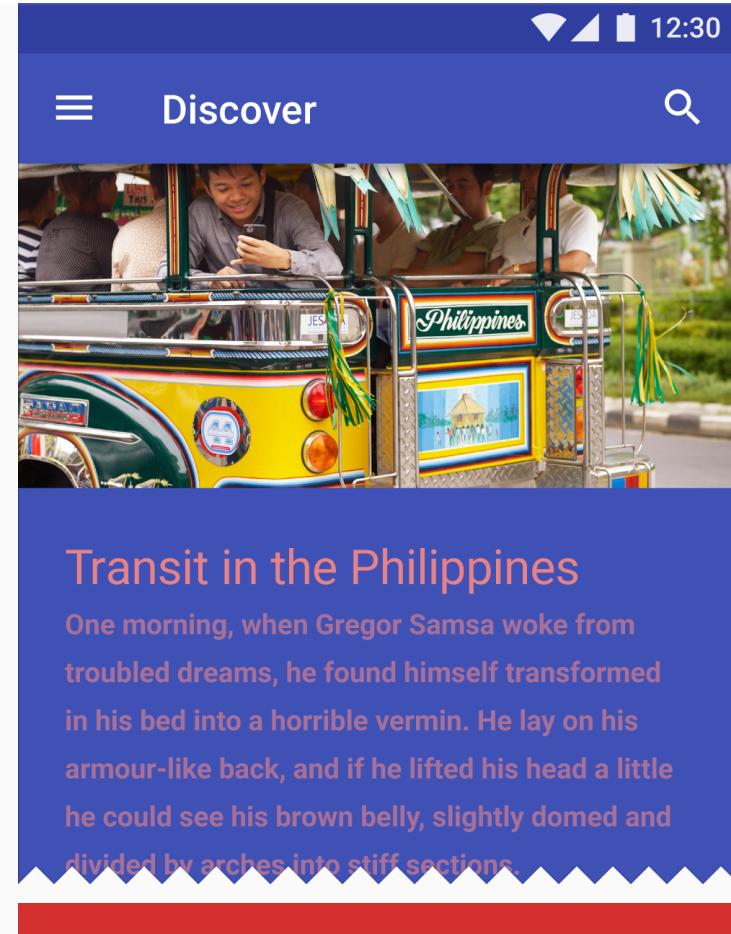
Use colored text on colored backgrounds sparingly, limiting usage to important text elements. Colored text should be used to indicate importance and selective emphasis.

See the [Color Tool](#) to determine if certain foreground colors used for typography meet accessibility standards against different background colors.



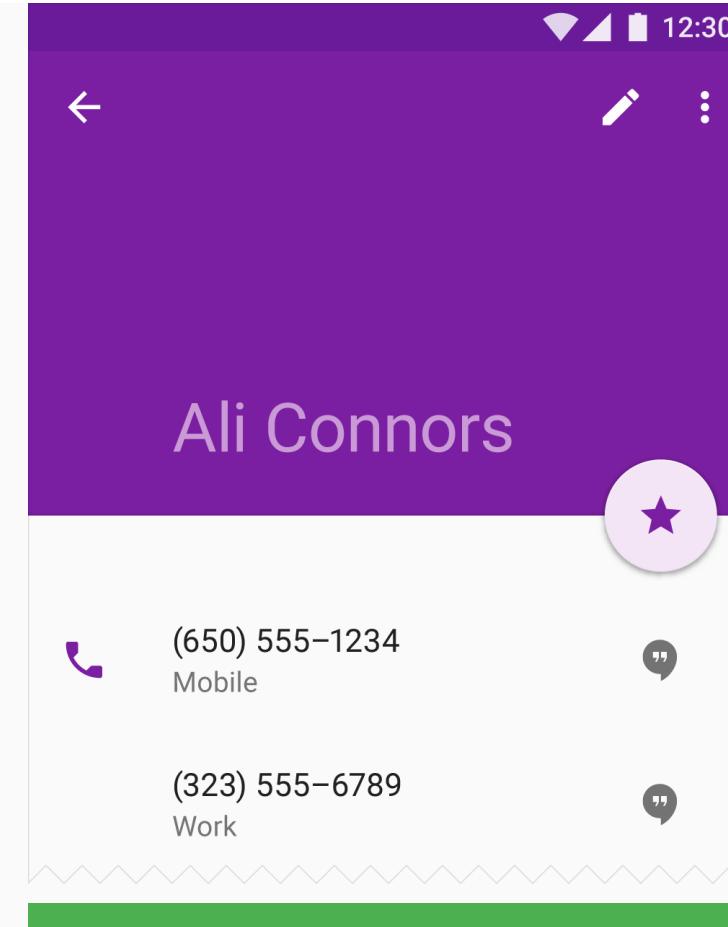
### Do.

Use a contrasting color (such as your secondary color) on important text to contrast it against the background.

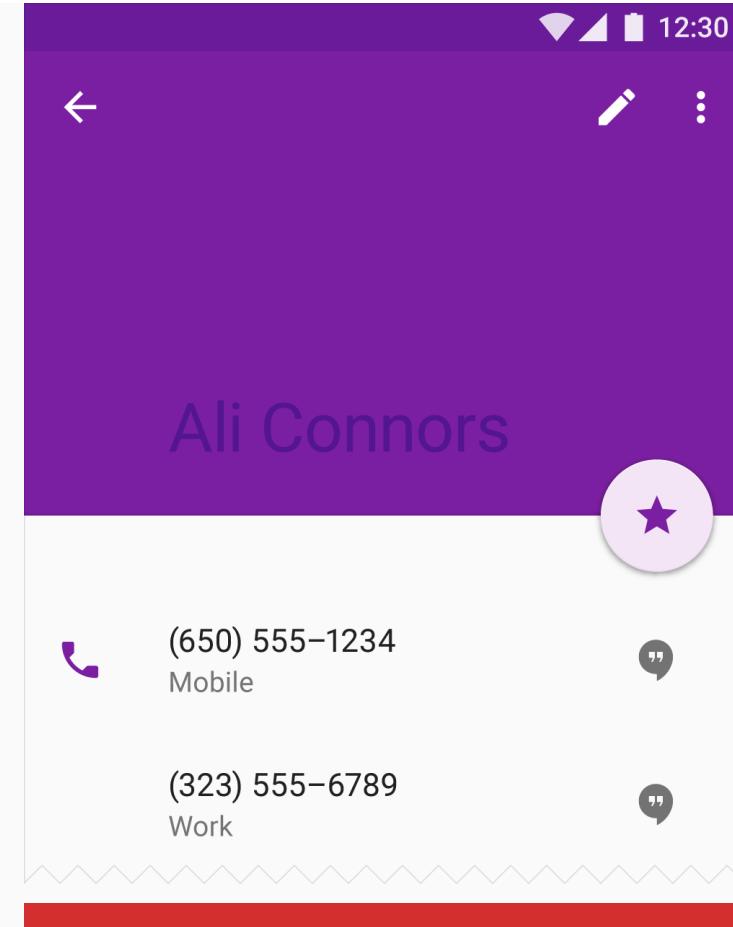


### Don't.

Avoid placing a large amount of colored text on colored backgrounds.

**Do.**

You can use a darker or lighter tone of color to create a monochrome, yet accentuated, look.

**Don't.**

Don't place low-contrast tones of the same color against each other. It's difficult to read text with a low contrast against its background.

## Themes

Themes let you apply a consistent tone to an app. The theme specifies the darkness of the surfaces, level of shadow, and appropriate opacity of ink elements. To promote greater consistency between apps, light and dark themes are available to choose from.

 [Download themes](#)

1.23 MB (.ai)



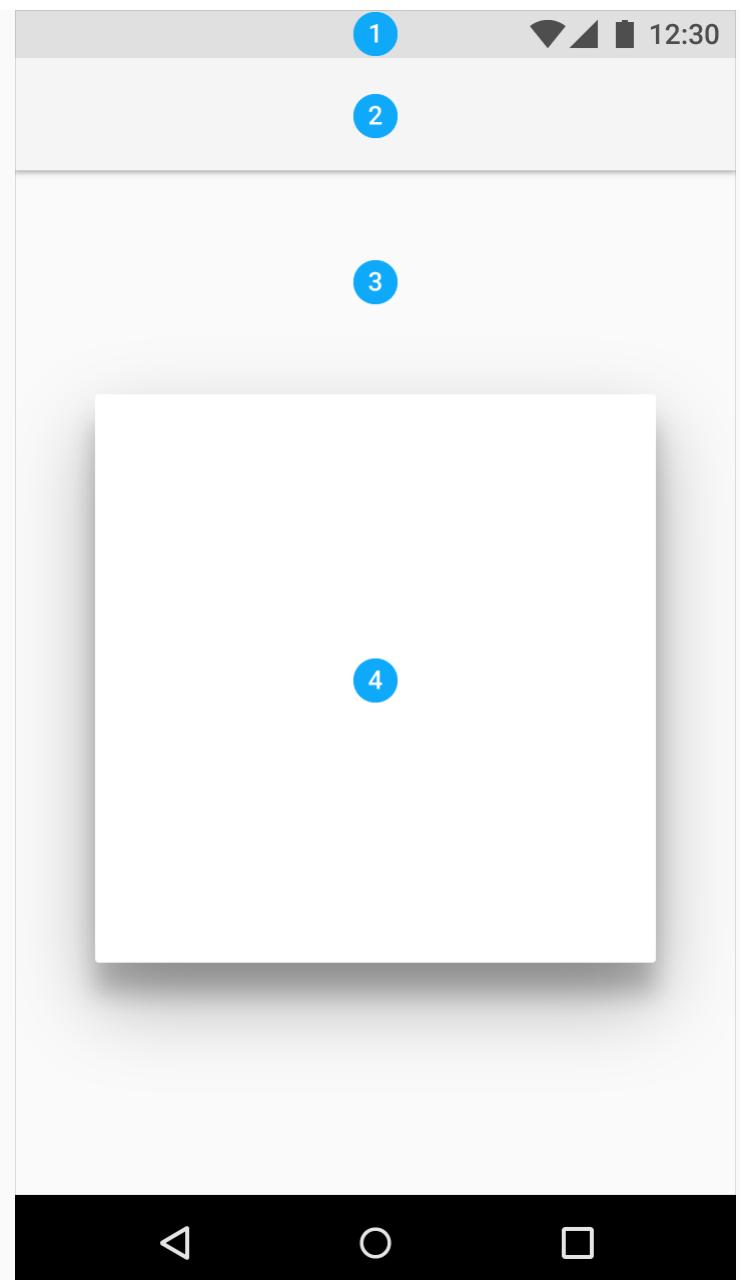
## Light theme

1. Status bar
2. App bar
3. Background
4. Cards/Dialogs

Color - Style - Material Design

Grey	
300	#E0E0E0
Grey	
100	#F5F5F5
Grey	
50	#FAFAFA
White	
	#FFFFFF

Light theme palette

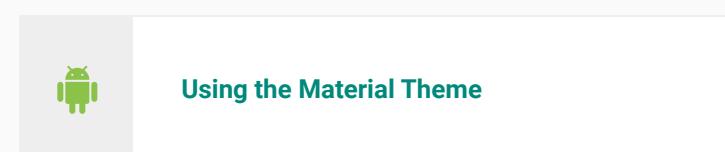
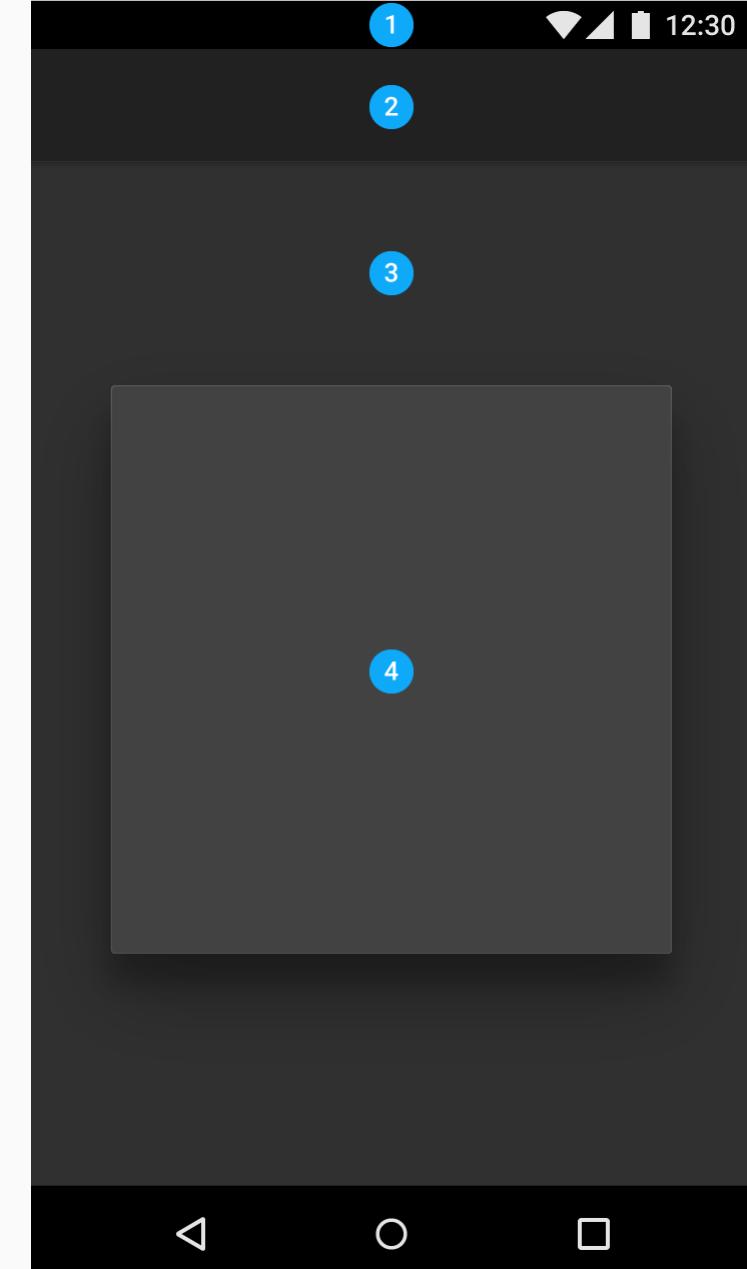
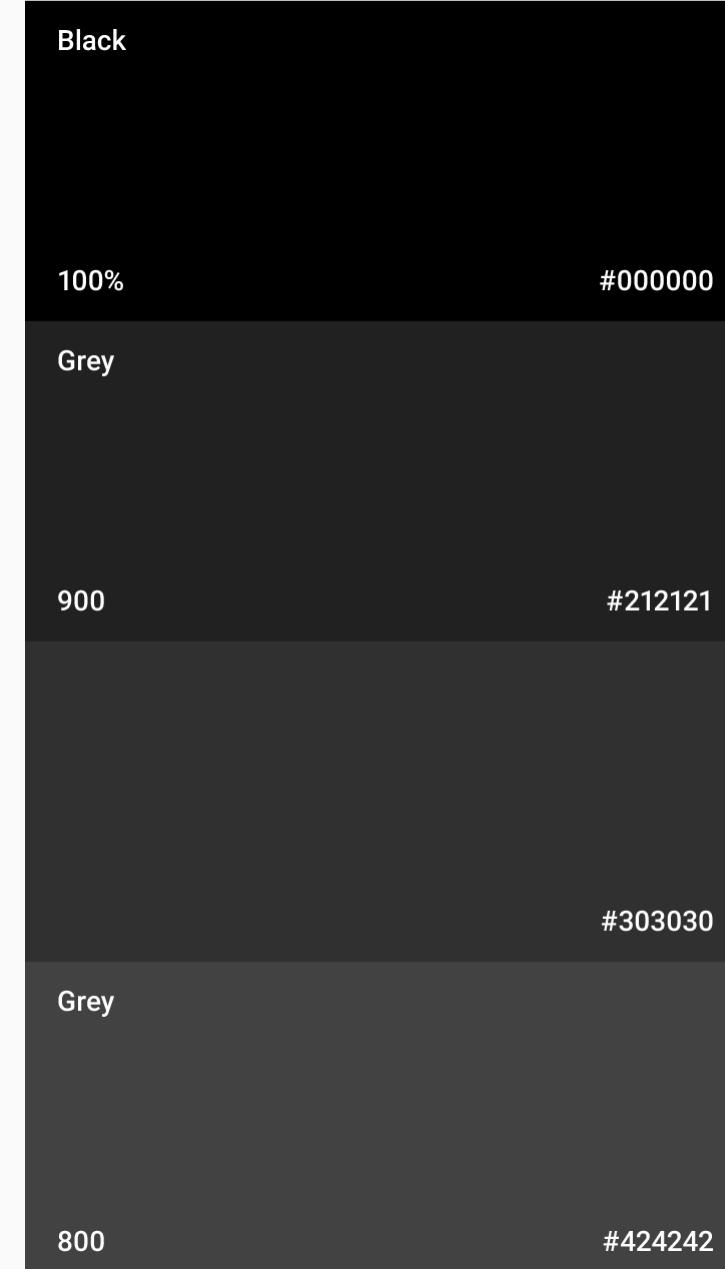


UI application



## Dark theme

1. Status bar
2. App bar
3. Background
4. Cards/Dialogs



Customize the design to your brand identity.