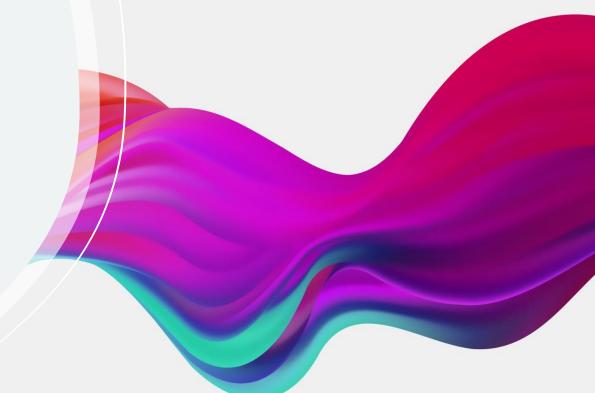
## Colors in UI/UX



prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid



### Colors impact in UI/UX

- A well-thought-out out color palette can elevate a design from "good" to "great"
- mediocre or bad color palette can detract from a user's overall experience and even interfere with their ability to use a site or app.

Color has the power to improve conversions by grabbing customers' attention and triggering the right emotions for sales.

Products And
The Urge To
Purchase

Every time you see a color, there's a chain of reactions taking place within the hypothalamus in you brain. Hormones are released to your thyroid, thus triggering emotions that affect your behavior.



62 % to 90 % of purchasing decisions are based on colors!



#### **Colors and Gender**

- Women prefer soft colors
- Men prefer brighter colors.



#### **Colors and Gender**

- Cool Colors: 56% of men and 76% of women preferred cool colors
  - Bright colors: 51% men and 45% women chose bright colors.
- In a similar study, Plater (1967) found men had a tendency to prefer stronger chromas than women.

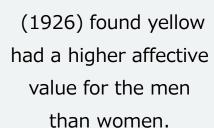
# Color preference based on gender

(1897) found men preferred **blue** to red and women **red** to blue.

(1938) maintained that blue for men stands out far more than for women.



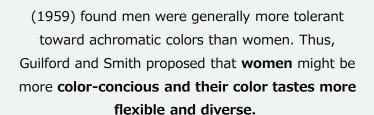




### Color preference based on gender

(1952) men preferred orange to yellow; while women placed orange at the bottom of the list.

(1964) found that **blue green** was more favored **among women** than men, and women preferred tints more than shades.





#### Colors and mood

Different mood colors can make you feel sad or happy, relaxed, or can even stimulate your appetite. Many of these colors associated with emotions are deeply rooted in **culture**, **psychological** experiences, and **biological** conditioning.



#### Color Classification warm/ cold

It is because of the feelings they evoke and the <u>emotions with which</u> we identify when looking at a particular color.



#### **Red Color Feelings**

- have an actual physical effect on people, for example, red can raise blood pressure and respiratory rate.
- The color red can also be associated with concepts like importance, for example, rolling out the red carpet is only done for certain people.
- Red can also imply danger, which is usually used as a warning label, or in things like red traffic lights.

#### Red Color impact on Academia impact

In academia, the color red is usually associated with error markings. Researchers at the <u>University of Rochester</u> put this to test through four different experiments. They found that the use of the color red, such as wearing a red t-shirt, actually affects academic performance negatively.

#### Red Color impact on Academia

Andrew J. Elliot, lead author and professor of psychology at the University of Rochester, and his co-authors found that when people see even a flash of red before being tested, they associate the color with mistakes and failures. In turn, they do poorly on the test. Red, of course, is traditionally associated with marking errors on school papers.



# The Psychology of Color

### Cultural Differences in Color

white is associated with things like purity, innocence, and hope. But in parts of Asia, white is associated with death, mourning, and bad luck.



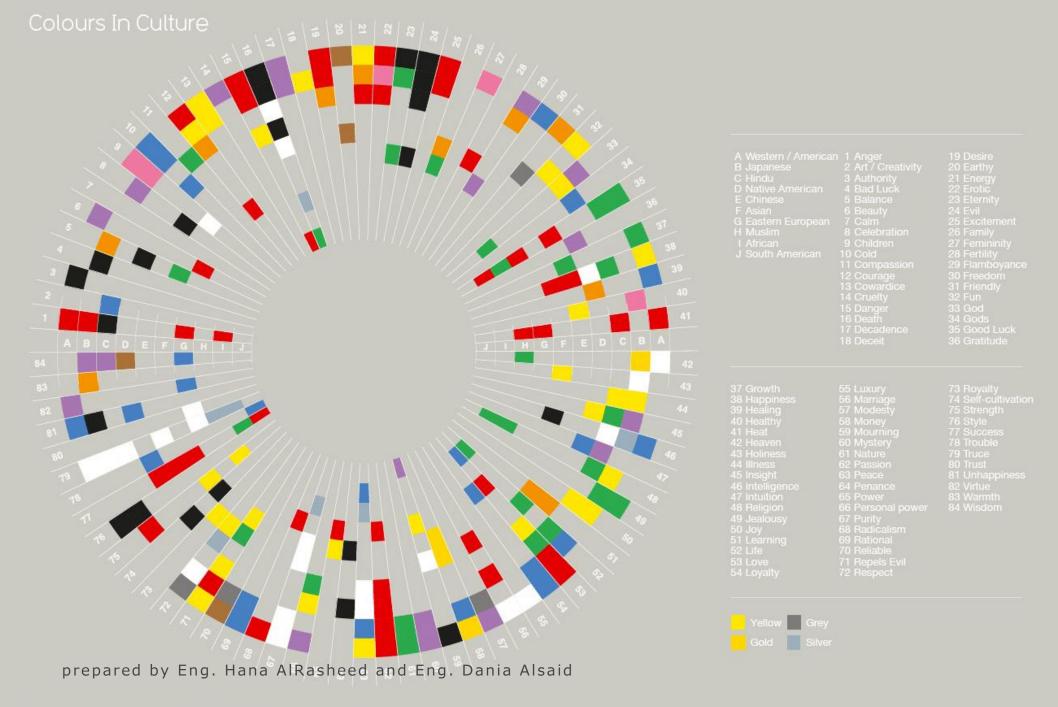
### Cultural Differences in Color

For example, the color **Chinese red** is associated with **happiness**, **prosperity**, **and even good luck**.

In many eastern cultures, red is the color worn by the bride on her wedding day.

Recently, in **Africa**, red has been associated with AIDS awareness because of the widespread "RED" campaign.





The first step to creating a brand color palette that supports the brand's values is to understand the meaning of the various colors, and how making them lighter/brighter/darker/duller/etc. can affect them.

- Warmer reds, like brick or maroon, and strong and comforting - good for sites that want to suggest the lasting qualities of a brick wall.
- ➤ Brighter reds, like true red or tomato, are great for youthful websites that want to suggest energy and eagerness to leap before they look.

#### Yellow

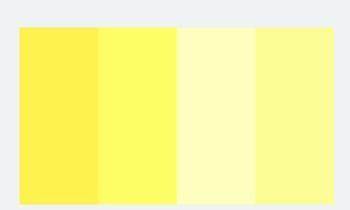
From the earliest ages, people learn to associate yellow with the sun, so it becomes associated with warmth and happiness. That makes bright yellow perfect for sites designed for children, as it grabs their attention.

More subtle shades of yellow have more complex associations.

Darker shades can suggest antiquity, suggesting yellowed parchment. Because of that, it can also be associated with wisdom and curiosity.

It, therefore, is great for sites that want to demonstrate a sense of authority and intelligence.

prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

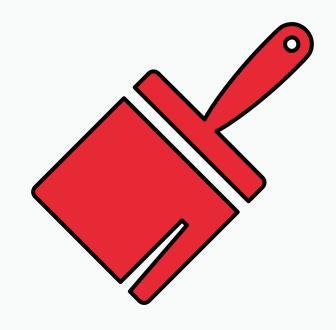


#### Green

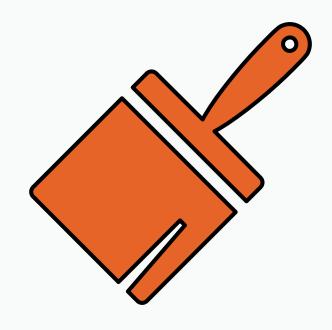
Darker shades are more linked to money, so sites that want to suggest affluence, growth, and stability often use those shades.

Lighter shades are more associated with spring and growth, so websites that want to reflect relaxation, freshness, and honesty often use lighter shades.

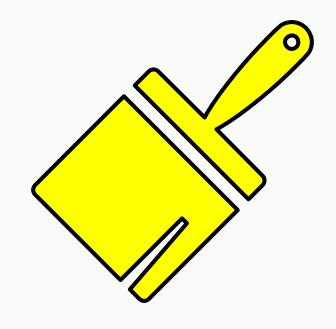
- Red is the color of danger and passion, as well as excitement.
- The color may even affect metabolism.
- It's a very strong color and can elicit strong reactions in people.
- Lightening it to pink makes it more feminine and romantic while darkening the hue to maroon makes it more subdued and traditional.



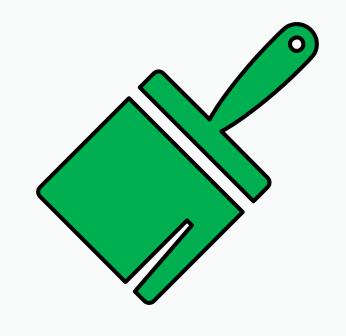
- Orange is a very creative color that's also associated with adventure and youth.
- It's very energetic, too.
- Because of orange's strong ties to 70s style, it can also evoke a retro feeling.



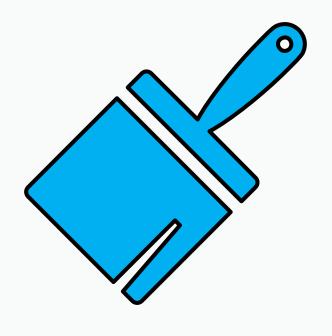
- Yellow is happy, optimistic, and cheerful.
- It's popular in designs for children and adults alike.
- More pastel hues are often used as a gender-neutral baby color, while brighter yellows are popular in creative designs.
- Darker shades of yellow become gold, which is associated with wealth and success.



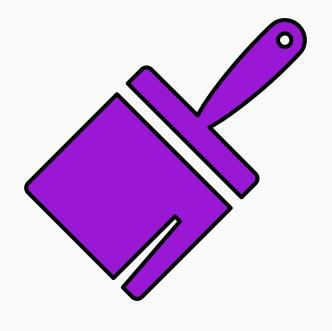
- Green has varied associations. On one hand, it provokes feelings of wealth and tradition (particularly darker hues), while on the other it's strongly associated with environmentalism and nature.
- Lime greens are often associated with renewal and growth.



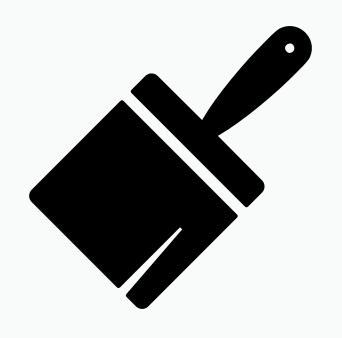
- Blue is most often associated with loyalty and trust.
- Brighter blues can be affiliated with communication, while duller and darker blues can be associated with sadness and depression.
- Blue is the most universally liked color in the world, which may explain why so many companies opt for blue shades for their branding.



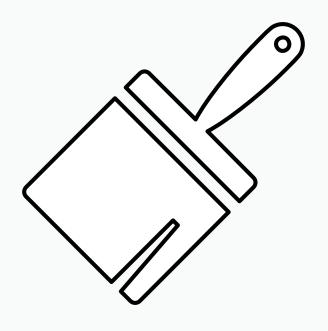
- Purple is another hue with varied meanings. It's long been associated with royalty and wealth (since purple dye was rare in many ancient civilizations, it was reserved for royalty).
- it's also associated with mystery and spirituality
- Purple can also evoke creativity.



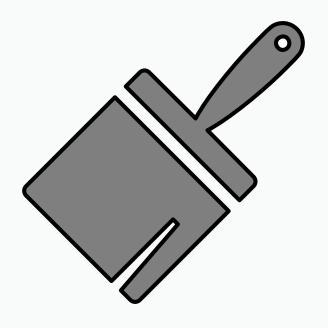
- •Black implies sophistication and luxury.
- •It can also be tied to sorrow and negativity, however.
- Depending on the other UX colors being used alongside black, it can feel modern or traditional, formal or casual.



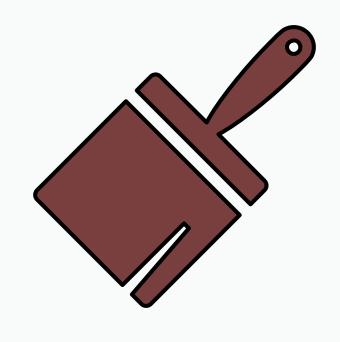
- •White is tied to purity, innocence, and positivity.
- White is also very popular in minimalist designs, due to its neutrality and simplicity.



- •Gray has varied meanings, depending on context.
- •It can be conservative and sophisticated or dingy and dull.
- •It can be emotionless or moody.
- •It can also be associated with sorrow and sadness.

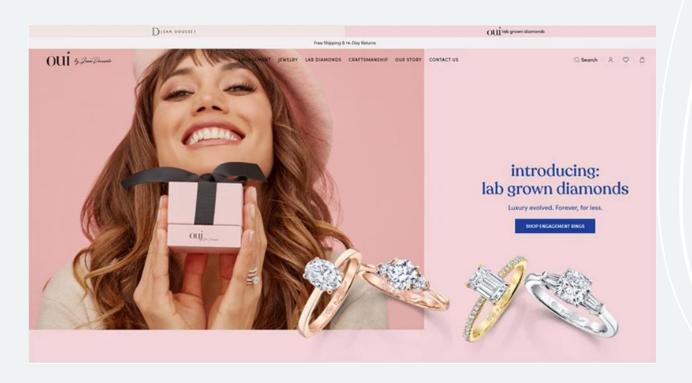


- •Brown (which is actually a dark shade of orange) is associated with being down to earth and grounded.
- •It's also associated with nature and even coziness. And, of course, it can be affiliated with being dirty or dingy.



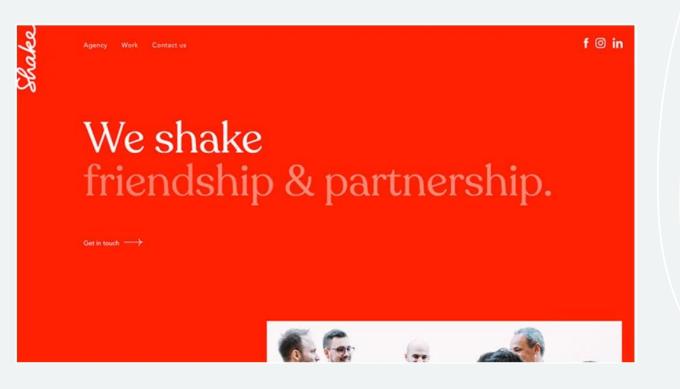
## Colors in websites





#### Pink

If your target market is made up mainly of women, then pink is a good color for you. The color is known to raise emotions of fun and romance. Pink is associated very strongly with youthful femininity. It is playful and brings to mind bubble gum and innocence. It is ideal for websites that hearken back to the olden days or that target a particularly feminine audience.



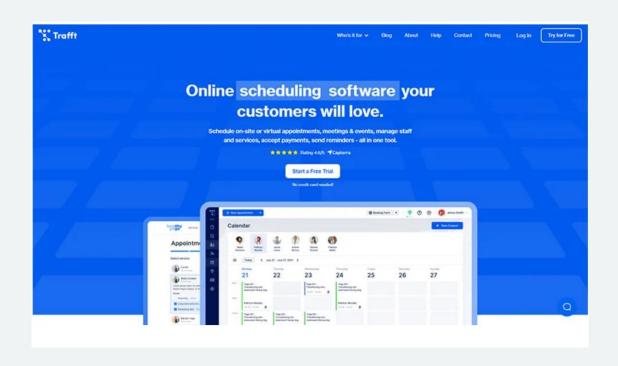
#### Red

Nothing holds people's attention like red. It's considered the most effective color for a call to action.

If you're designing that "act now" button, red is your color. Red is a stimulating, exciting color.

It's associated with passion, power, and sometimes anger.

It can be used for warnings or to show danger, but it can also suggest strength, determination, and boldness.



#### Blue

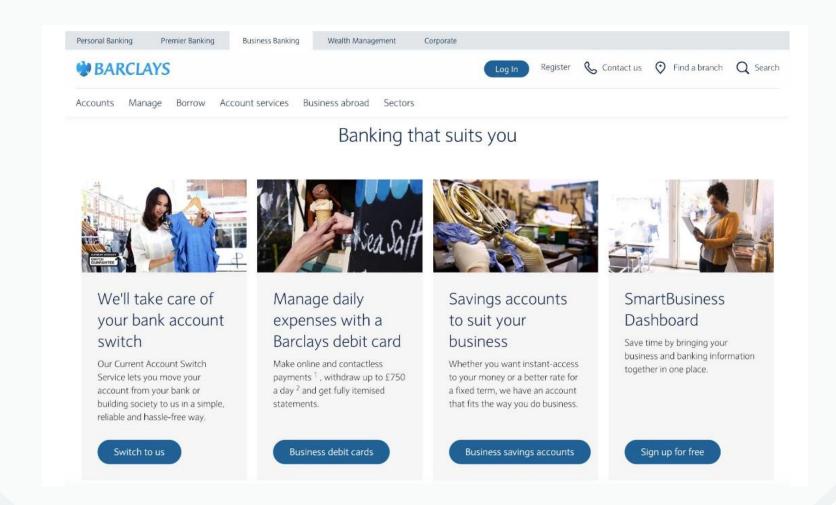
Blue signifies trustworthiness and provides an air of coolness. Any website that caters to online prescriptions, monetary transactions, or any other niche that demands reliability would be best served by this color.

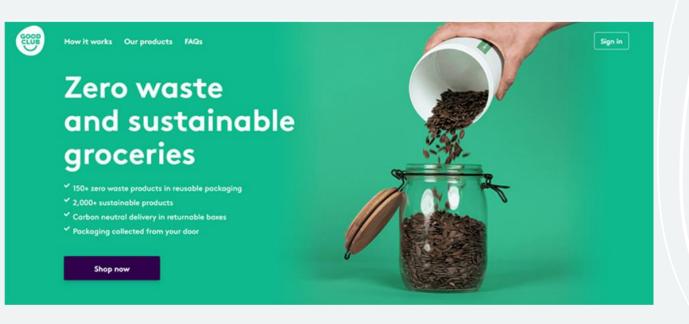
grey/white/blue color palette

Very effective for financial sites because blue is most often associated with loyalty and trust in color psychology.

prépamoke] . Hana { Alighteblue d} Eng. Dancadet gray } { platinum }

{ cool gra





### Green

Green is the color of peace, tranquility, and nature.

It can give users feelings of calm, rejuvenation, affluence, and optimism.

So if your website is about a great environmental cause or selling organic products, green should be the predominant background.

### Yellow



In the marketing world, yellow is said to describe a healthy mind without worries or depressing thoughts.

It's best suited for online stores that sell products like kids' apparel and toys. This color is also associated with caution.

Yellow is often considered the most energizing color.



## **Purple**

Purple oozes elegance and sophistication. This color is ideal for a website that features niche, luxury products.

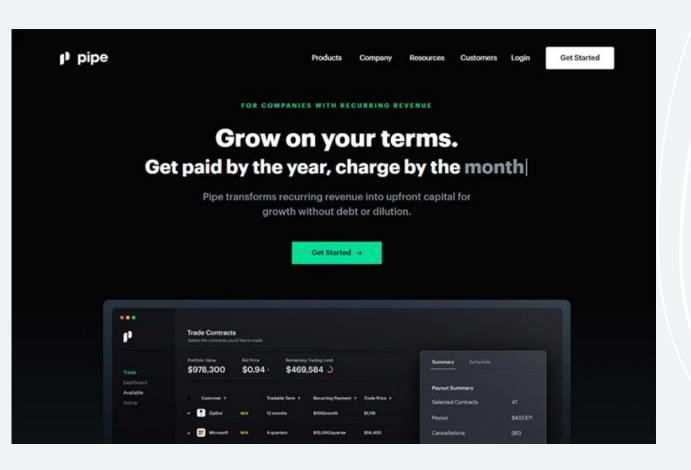


### **Orange**

Orange can also signify sophistication, but at the same time be attention-grabbing. Orange is a more balanced and less overwhelming color than red. Vibrant, energetic, friendly and inviting, it is ideal for designs that need movement and energy.

Websites that want to showcase their creativity often choose orange because it is unique and exciting, but it still has the comfort of a warm color.

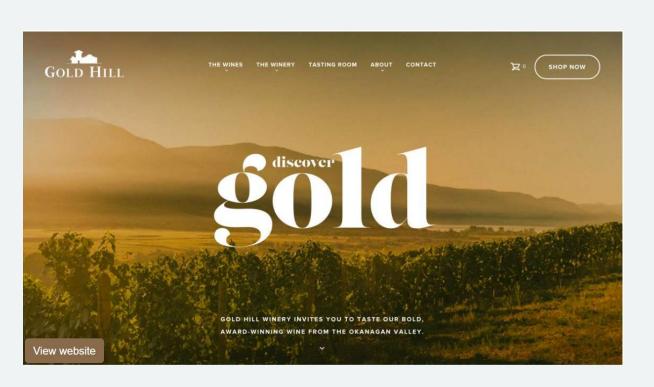
This color is suitable as a background for tech companies or websites that deal with gadgets.



### Black

**Black**: Black is versatile and goes well with any other color.

It's best used to bring about a contrast with the rest of the colors used in the website.



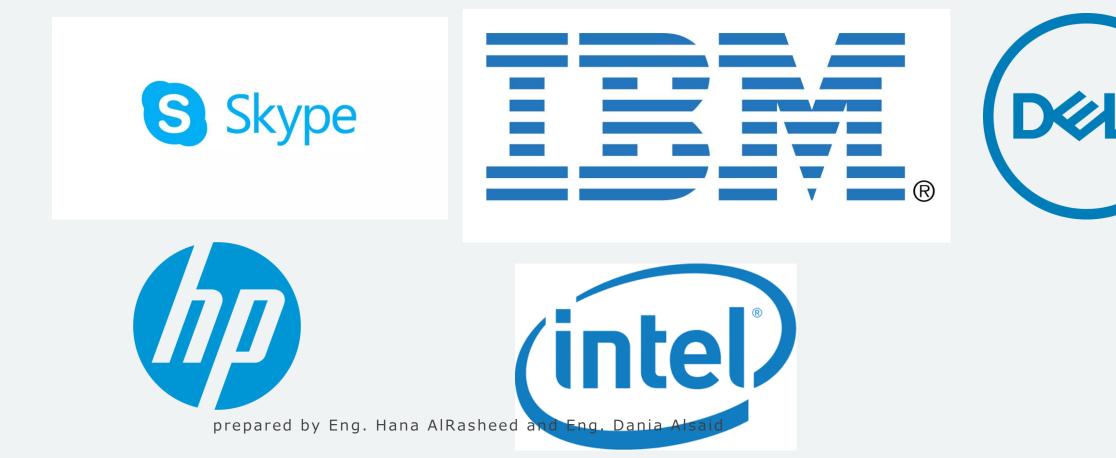
### Gold

As a metallic color, gold signifies power and prestige. It works well with other colors that signify elegance, such as green and purple.

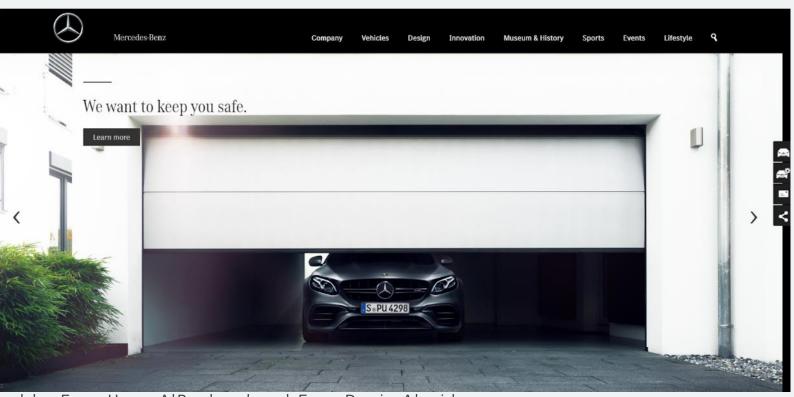
# **Colors and Logos**

prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

Blue is used to help to increase trust towards the company.



That's such brands as Mercedes the target audience of which is mainly **man**, create a website in a combination of black, grey, and white colors.



prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

The combination of red and blue was the most preferred color by adults.





The famous brand that uses red as main company color to call for comfort and warm emotions is for sure well-know Coca-Cola.

Fanta uses Orange as background color that attracts attention to the name.



Yellow often symbolizes joy, happiness, and sunlight. That is very appropriate when speaking about social media networks, that's why Snapchat uses this color in logo



prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

Green brings calm feelings of renewal. These emotions fit well with such brand as Tropicana that uses green as main logo color.

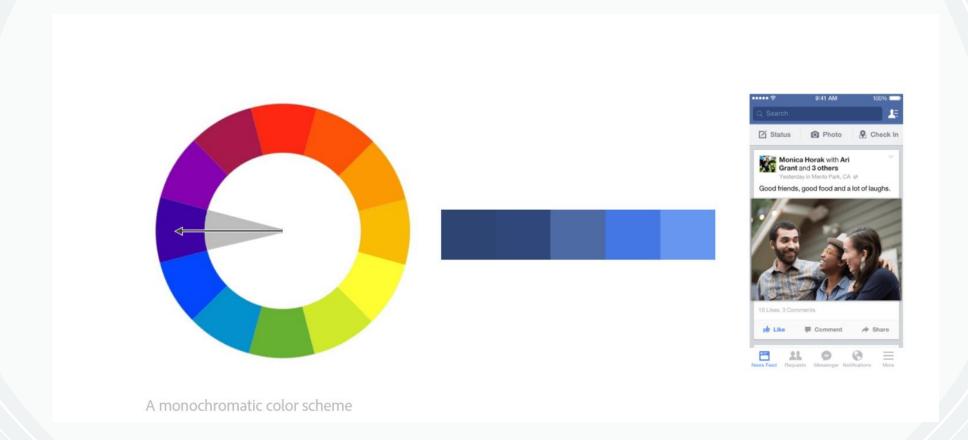


# color scheme standards MEDIUM BULLETS Margesta Eg prepared by Eng. Hana AlRasheed and Eng. Dania Alsai

### Monochromatic

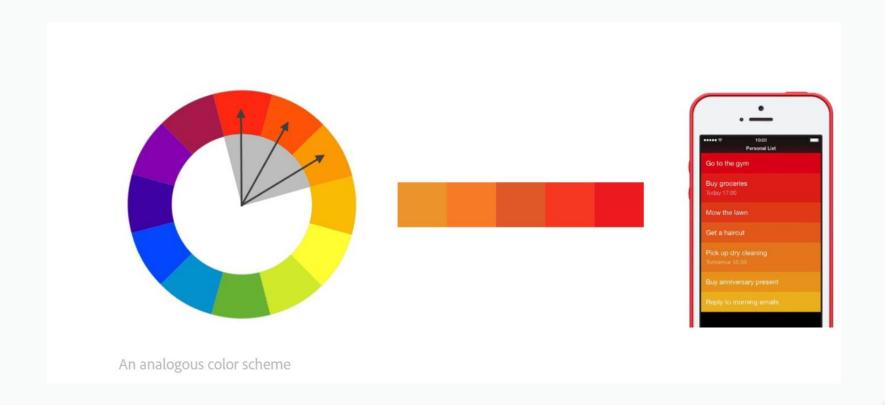
Monochromatic color scheme is the simplest to create because it's created from different shades of a single hue.

Colors in this scheme go well together, producing a soothing effect. But despite its simplicity, it's easy to create a boring UI using monochromatic scheme so be careful!



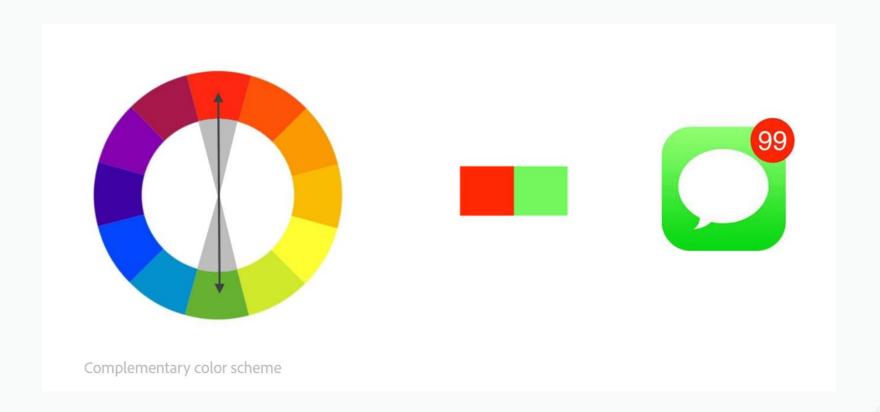
### **Analogous**

Analogous colors are groups of three colors that are next to each other on the color wheel. As the name suggests, analogous color palettes are created using analogous colors. Usually, one color is used as a dominant color while others are used to enrich the scheme.



### Complementary

Complementary colors are opposite of each other on the color wheel. The high contrast of complementary colors creates a vibrant look. In their most basic form, complementary color schemes consist of only two colors that contrast strongly. This scheme is used to attract the viewer's attention.



#### 1. Always start with greyscale

if you're only at the beginning of the design process, it's better to start with black & whites or grayscale. Why? Because it will help you maintain focus. Your attention will be on creating great visual hierarchy for your layout, and not on selecting the color for call-to-action buttons.

#### 2. Keep it simple

- Using too many colors is a common design mistake.
- It's a common pitfall for non-experienced designers because they often select colors randomly and end-up creating a rainbow effect (when products have so many colors, so they become extremely distracting).
- Generally, it's recommended to stick to a maximum of 3 primary colors in your color scheme.

#### 3. 60-30-10 rule

- Now we know that our color scheme should have a maximum of three colors, it's time to know how to choose those three colors. A well-known decorating rule can help us to do it. 60-30-10 is a rule of interior design. It says that to create a visually stable composition.
- you need to use 60% for your dominant hue, 30% for your secondary color and 10% for an accent color.
- The key idea of this rule is that the secondary color supports the primary color, but is different enough to set them apart. And accent color is used to create focal points.
- In UI design, accent colors are used to highlight the key message or functional element (such as a call to action button).

10% - And then a third color is used as an accent for the 60%- generally something remaining 10% of the design. fairly neutral (either literally or (Adding a pop of some psychologically)—makes up unexpected hue can elevate a 60% of the palette. design that otherwise fits within what is expected of a particular company. ) 30% - Another complementary color makes up 30% of the palette. prepared by Eng. Hana AlRasheed and Eng. Dania Alsa

### The 60-30-10 Rule

<u>Clarity Stress Management</u>'s website showcases the 60-30-10 rule nicely, with 60% purple, 30% white, and 10% magenta in the header and footer.

#### 3. 60-30-10 rule

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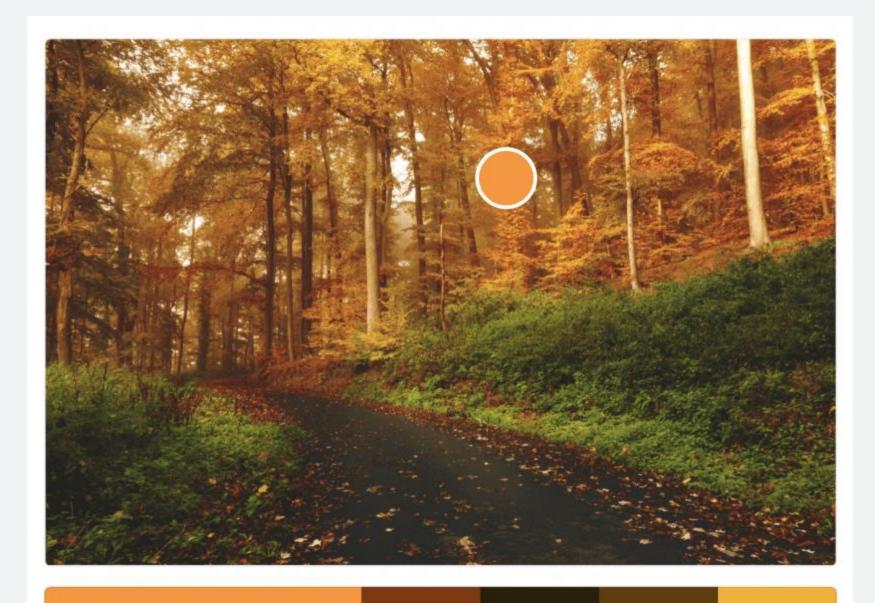
prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

4. Consider the emotional impact of colors.

It's a well-known fact that colors can provoke emotions. The emotions that colors evoke determine how users perceive your product. That's why when you're choosing a color palette for your product, it's vital not only to think about how things look but also think about how they feel too.

#### 5. Find inspiration

- Creating a color scheme can be hard, especially if you're trying to do it from scratch. To make things simple, search for inspiration. Try to browse imagery to find the one that you like:
- Photographs of nature. It's a well-known fact that nature is the best inspiration. So you can
  take your favorite shot and get color scheme out of it using one of this tool.
- Videos. Music videos and movies are excellent sources of inspiration for visual designers.
- https://coolors.co/
- you can visit <u>Dribbble Colors</u> where you can filter designer's work by color.



#F69937

#### 6. Use ready-made color palettes

What to do when you know what colors you need to have in your color scheme but not sure how to select those colors? You can search for ready-made color palettes.

- Adobe Color is an excellent tool for both creating and finding color schemes.
- You can also visit <u>Material Design guidelines</u>.

Red		Pink		Purple	
500	#F44336	500	#E91E63	500	#9C27B0
50	#FFEBEE	50	#FCE4EC	50	#F3E5F5
100	#FFCDD2	100	#F8BBD0	100	#E1BEE7
200	#EF9A9A	200	#F48FB1	200	#CE93D8
300	#E57373	300	#F06292	300	#BA68C8
400	#EF5350	400	#EC407A	400	#AB47BC
500	#F44336	500	#E91E63	500	#9C27B0
600	#E53935	600	#D81B60	600	#8E24AA
700	#D32F2F	700	#C2185B	700	#7B1FA2
800	#C62828	800	#AD1457	800	#6A1B9A
900	#B71C1C	900	#880E4F	900	#4A148C

prepared by Eng. Hana AlRasheed and Eng. Dania Alsaid

#### 6. Consider accessibility

Approximately 8% of men and 0.5% of women are affected by some form of color blindness. That's 1 in 12 men and 1 in 200 women. While there are multiple forms of the condition, red/green color blindness is the most common. A person suffering from this form of color blindness will generally have trouble seeing variations of both red and green.



To prevent accessibility issues in design, it's recommended to experience color blindness yourself while designing. NoCoffee Vision Simulator for Chrome can be used to simulate color-vision deficiencies and low-vision conditions. For example, using the "Color Deficiency" setting "Deuteranopia," you can view web pages in grayscale. This will help you make your design accessible for users with visual impairments.