

University of M'sila

Faculty of Mathematics and Computer Science

Department of Computer Science

Department of Computer Science

Color Impact on User Psychology (UX Design)

Academic Year 2025-2026

Prepared and presented by SAOUDI Lalia

Color Theory Basics

- Color theory is a set of principles used to understand how colors interact, mix, and create visual impact. It's essential in art, design, branding, fashion, and even interior decorating.

The Color Wheel

- The modern color wheel was developed from ideas introduced by Isaac Newton in the 17th century.
- It organizes colors in a circular format to show relationships between them.



The Color Wheel

- The color wheel is made up of:
 - **Three primary colors**
 - red, yellow, and blue
 - **three secondary colors** (obtained by mixing the primary colors:
 - green, orange, and purple
 - **six tertiary colors** (which obtained by mixing the primary and complementary colors:
 - Red-Orange
 - Yellow-Orange
 - Yellow-Green
 - Blue-Green
 - Blue-Purple



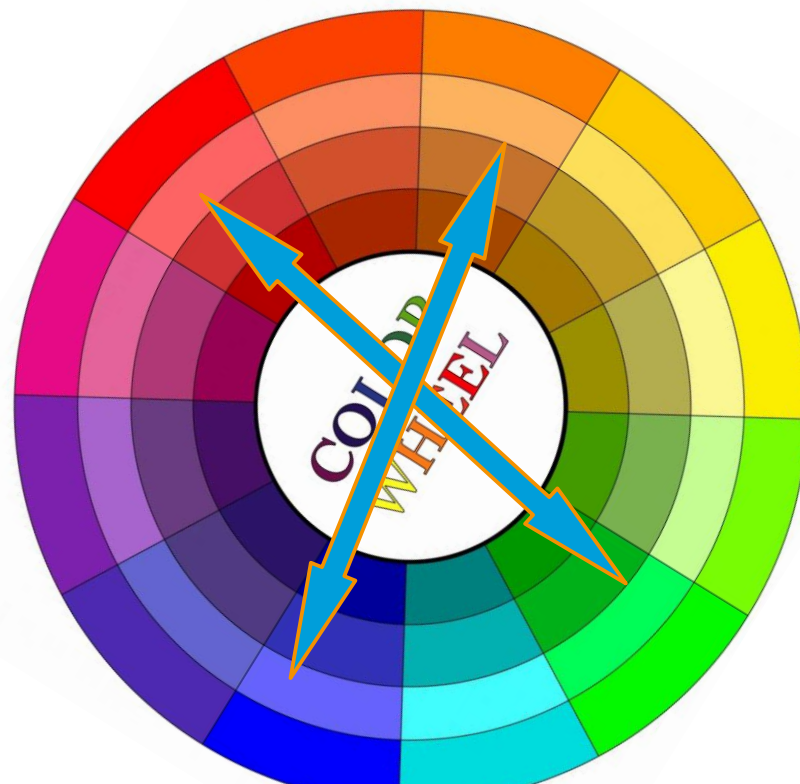
Color Relationships (Color Schemes)

- Draw an horizontal line in the center of the circle to separate **warm colors** (red, orange, yellow) from **cool colors** (blue, green, purple).
- **Warm colors** are associated with energy, brightness and action, while **cool colors** are often associated with calm, peace and serenity.
- Understanding that colors have "temperatures" will help you understand how much they can influence your message.



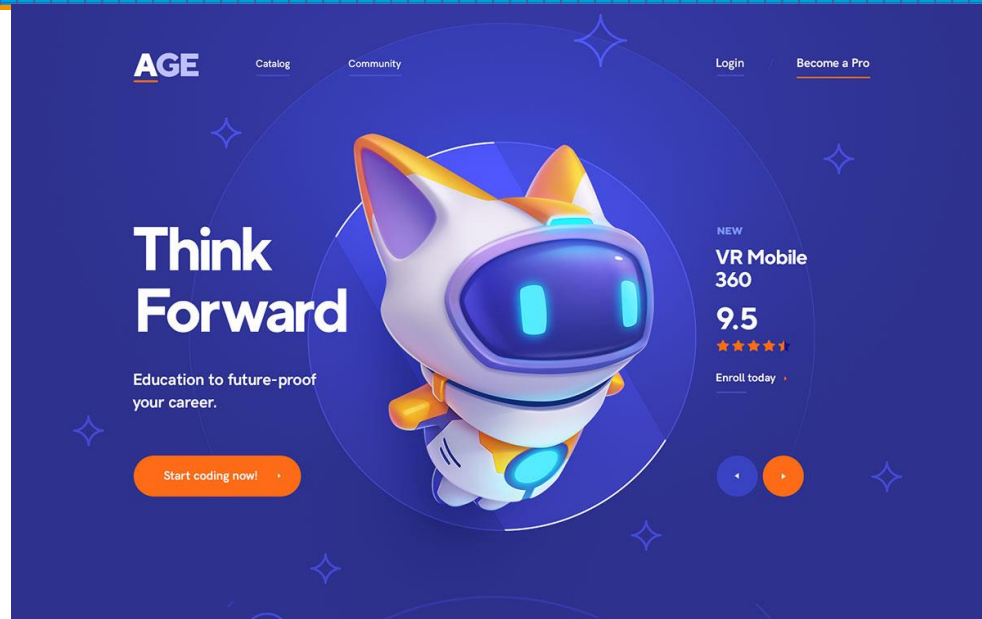
Color Relationships (Color Schemes)

- **Complementary Color Scheme**
 - Two colors directly opposite each other on the color wheel.
- **Examples:**
 - Blue & Orange
 - Red & Green
 - Yellow & Purple
- **Why it works:**
 - Opposites create strong contrast and visual energy.
- **Best used for:**
 - Call-to-action buttons
 - Sports branding
 - Attention-grabbing designs
- **Pro Tip:**
 - Use one color as the dominant color and the other as an accent to avoid visual overload.



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Color Relationships (Color Schemes)

- **Analogous Color Scheme**

- Three colors that sit next to each other on the color wheel.

- **Examples:**

- Blue, Blue-Green, Green
- Red, Red-Orange, Orange

- **Why it works:**

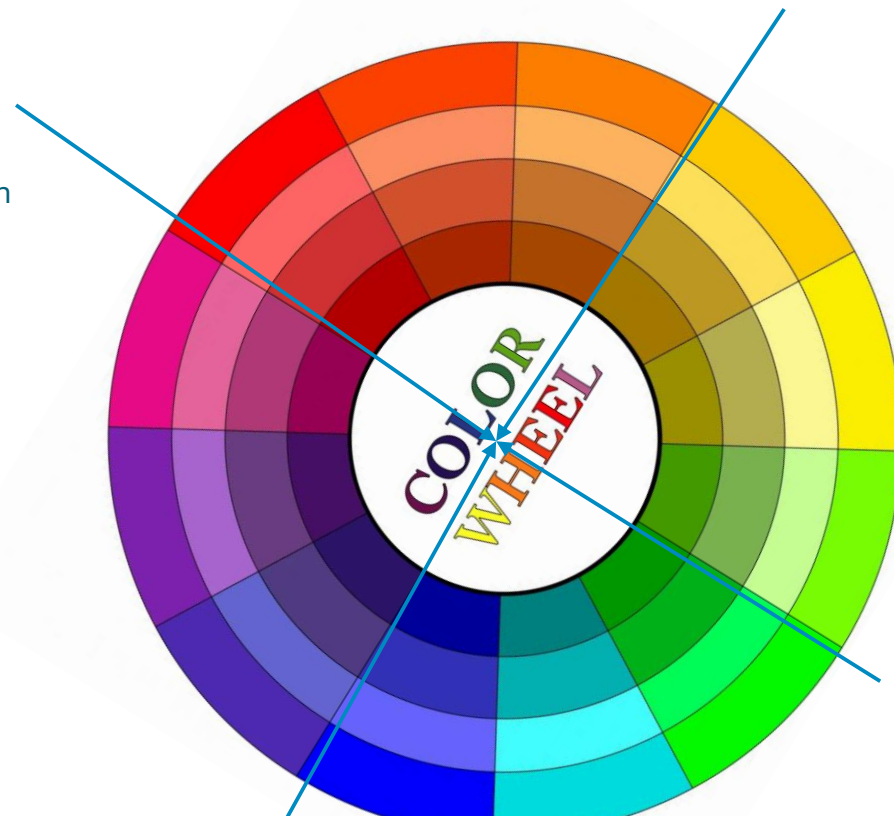
- Colors naturally blend because they share a common base tone.

- **Best used for:**

- Nature-inspired designs
- Calm, harmonious layouts
- Background gradients

- **Pro Tip:**

- Choose one main color, one supporting color, and one highlight color.



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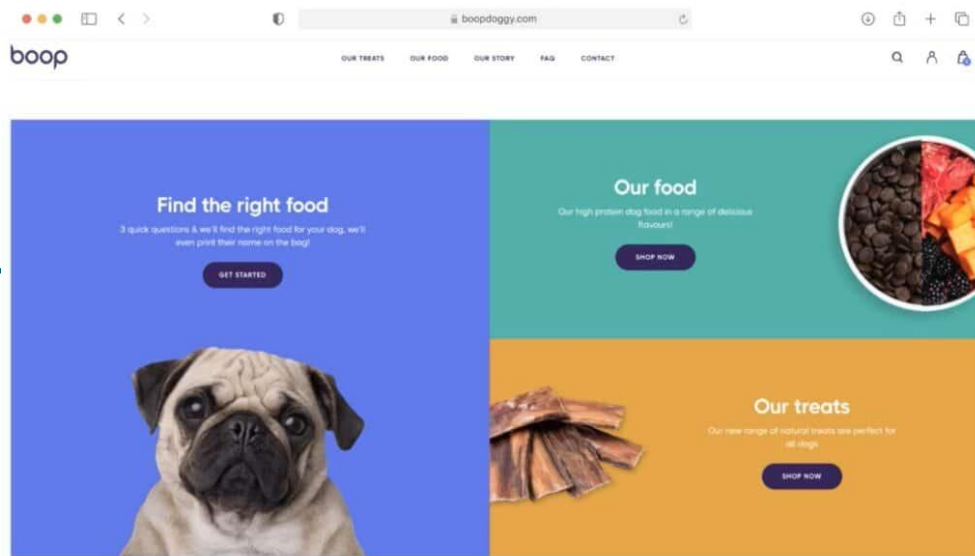
- **Pro Tip:**

- Choose one main color, one supporting color, and one highlight color.



Color Relationships (Color Schemes)

- **Triadic Color Scheme**
 - Three colors evenly spaced around the color wheel.
- **Example:**
 - Red, Yellow, Blue
 - Orange, Green, Purple
- **Why it works:**
 - Creates balance while maintaining vibrancy.
- **Best used for:**
 - Children's brands
 - Creative projects
- **Pro Tip:**
 - Keep one color dominant and mute the others slightly for balance.



Color Relationships (Color Schemes)

Split-Complementary

- One base color + the two colors next to its complement.
- **Example:**
 - If blue is the base, instead of using orange (its complement), use red-orange and yellow-orange.
- **Why it works:**
 - High contrast but less tension than full complementary.
- **Best used for:**
 - Branding
 - Website design
 - Marketing visuals



Color Relationships (Color Schemes)

Monochromatic

- One color in different shades, tints, and tones.

Example:

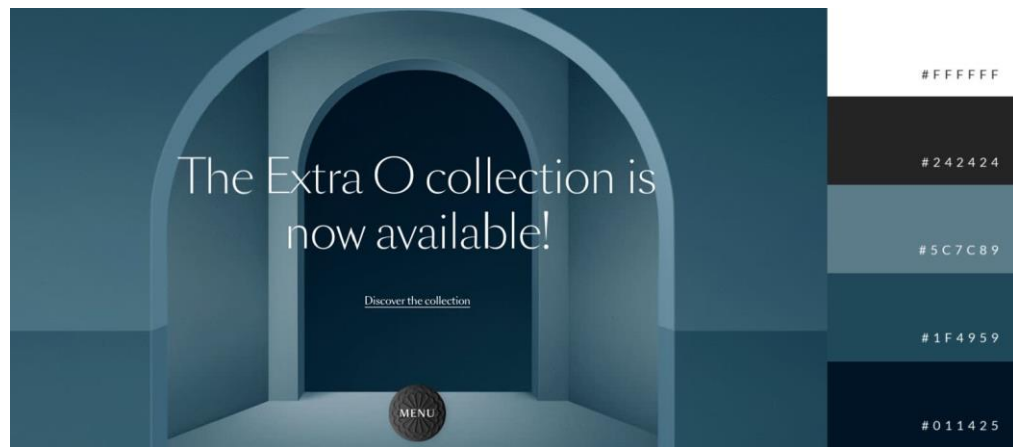
- Light blue, medium blue, dark navy.

Why it works:

- Clean, modern, cohesive.

Best used for:

- Minimalist design



Color Relationships (Color Schemes)

Tetradic (Double Complementary)

- Two complementary pairs.

Example:

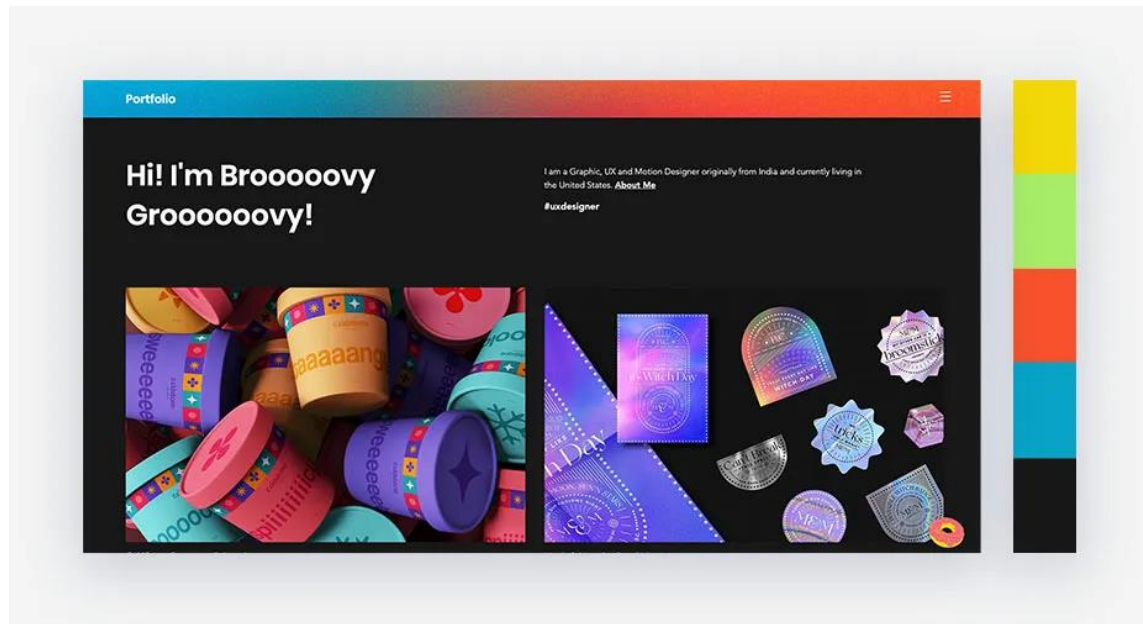
- Blue & Orange + Red & Green

Why it works:

- Rich and colorful, but harder to balance.

Best used for:

- Complex compositions
- Artwork



Color Relationships (Color Schemes)

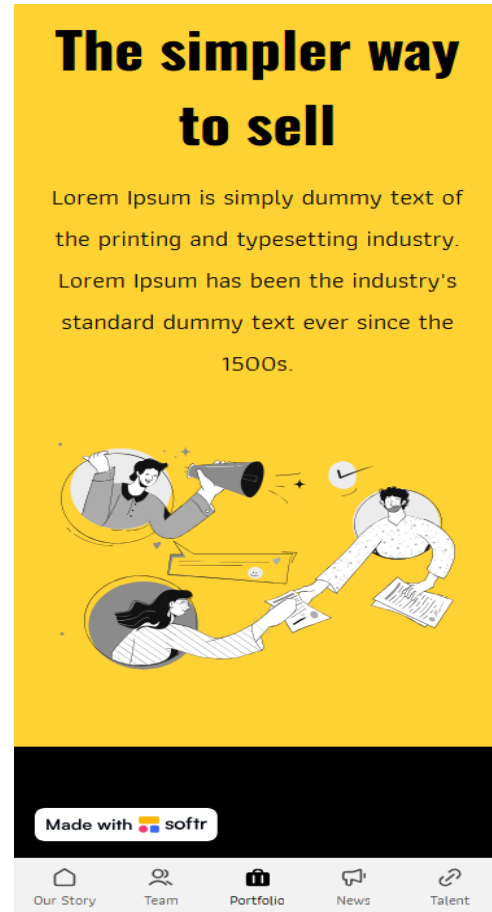
- **How to Choose the Right Scheme?**
- Ask yourself:
 - Do I want energy or calm?
 - Do I need contrast or harmony?
 - Is this for a brand, art piece, website, or interior space?
 - Who is the audience?

Color Mood Psychology

- Color mood psychology explores how colors influence human **emotions**, **behavior**, and **perception**.
- While reactions can vary by culture and personal experience, certain emotional patterns are widely recognized.

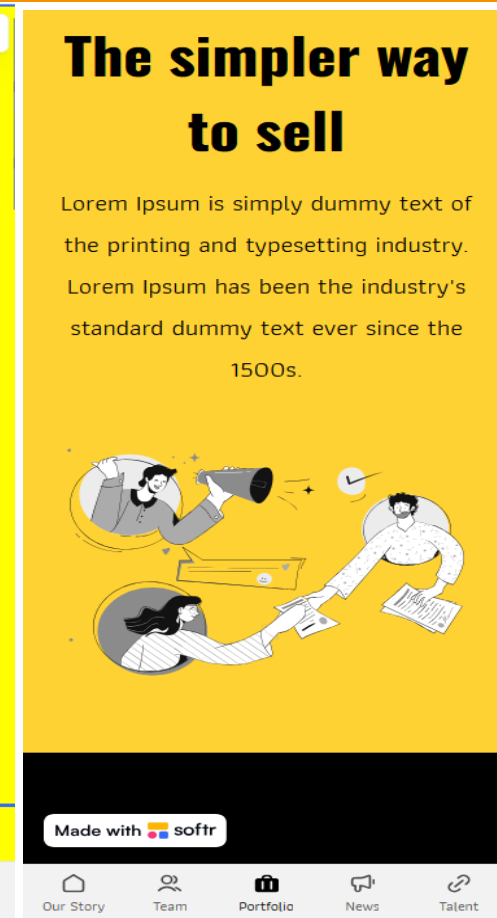
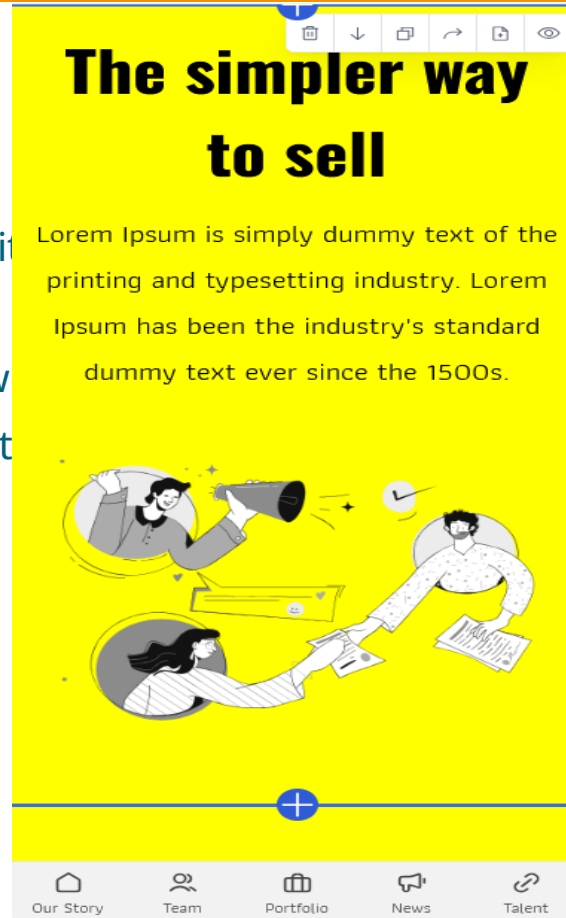
Color Mood Psychology : Yellow

- **Yellow in Color Mood Psychology**
- Yellow is the color most associated with **sunlight, energy, and optimism**. It is psychologically stimulating and highly attention-grabbing.



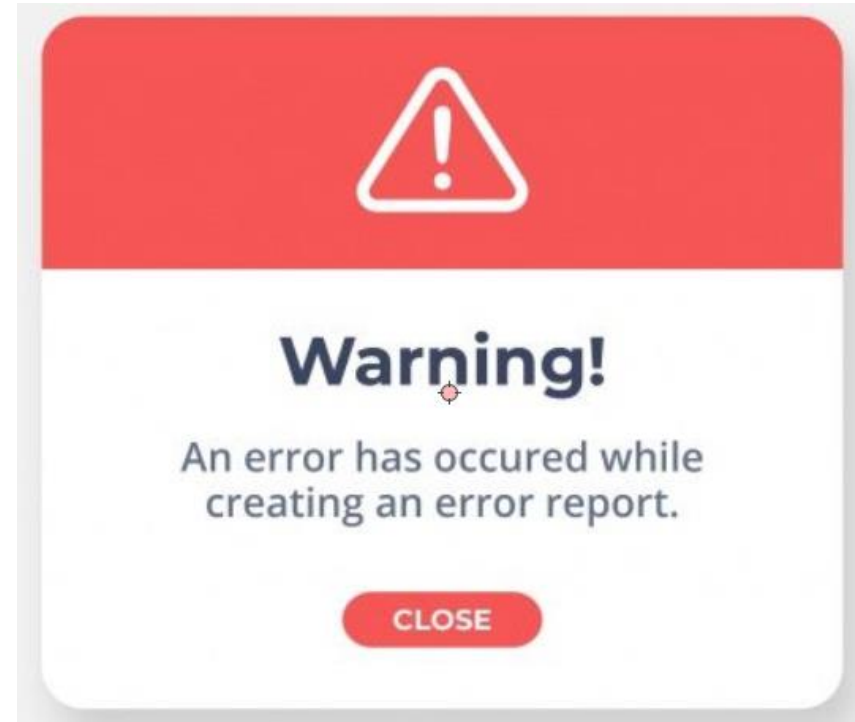
Color Mood Psychology : Yellow

- **Yellow in Color Mood Psychology**
- On the flip side, very intense or saturated yellow can be overwhelming and cause visual fatigue. It can also be associated with caution or warning, potentially creating a sense of unease.
- In design, avoid using bright yellow for backgrounds as it can cause severe eyestrain and hurt readability.
- Use it sparingly and only to attract attention to important elements.



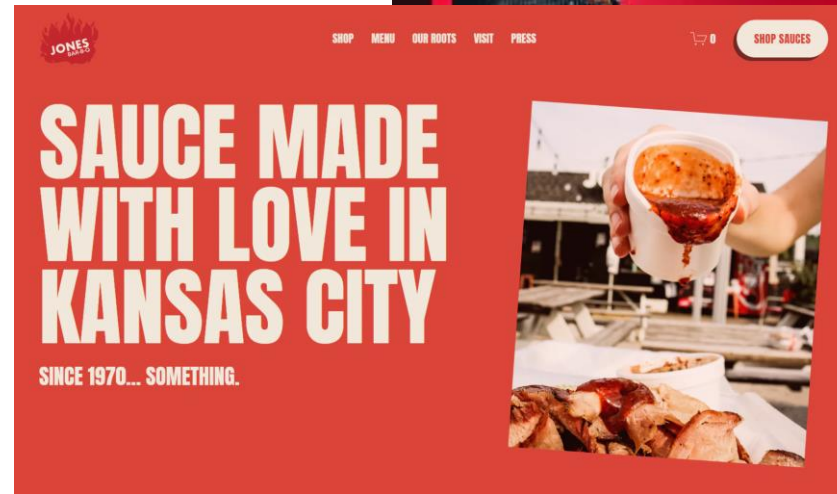
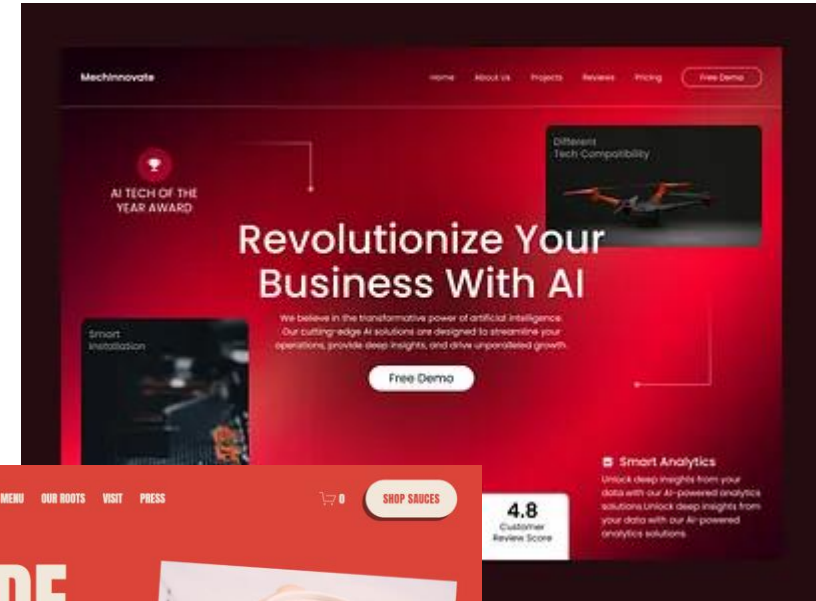
Color Mood Psychology : Red

- **Red in Color Mood Psychology**
- Red is one of the most powerful and emotionally intense colors in psychology. It is associated with strong feelings, action, and survival instincts.
- Red commonly represents:
 - Passion, Desire, Energy, Power ,Courage, Anger ,Danger



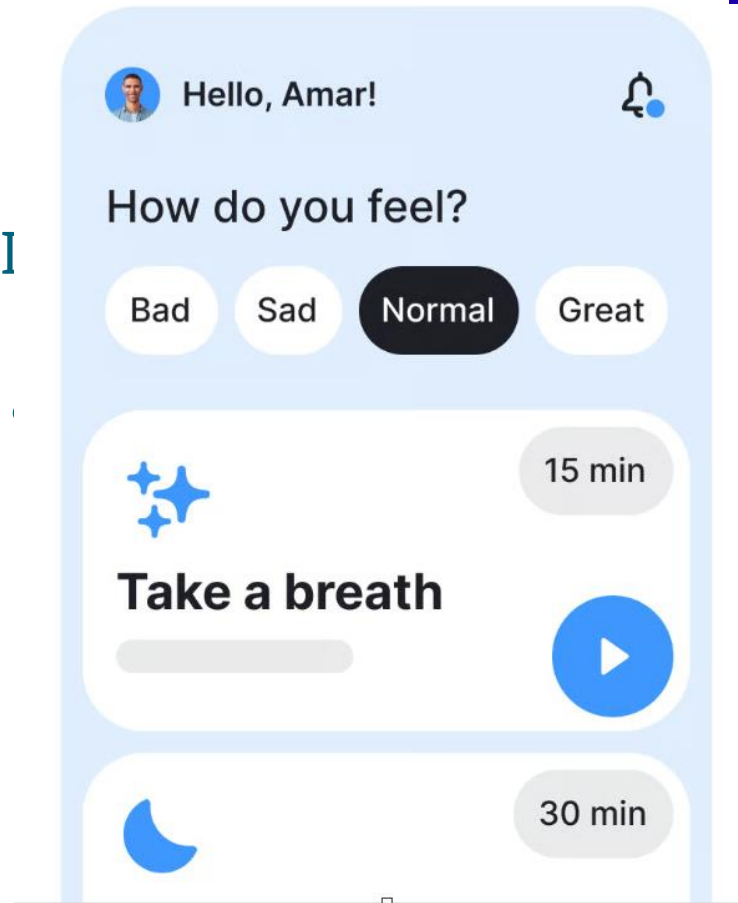
Color Mood Psychology : Red

- **Red in Color Mood Psychology**
- **Red in Branding & Design**
 - Red is commonly used to:
 - Encourage action (Buy Now buttons)
 - Create excitement
 - Represent strength and leadership
 - Increase appetite (restaurants and food brands)
 - Clearance sales



Color Mood Psychology : Red

- **Blue in Color Mood Psychology**
- Blue is one of the most universally liked colors. It is strongly associated with **calmness, trust, and stability**, making it a dominant color in corporate and professional settings.



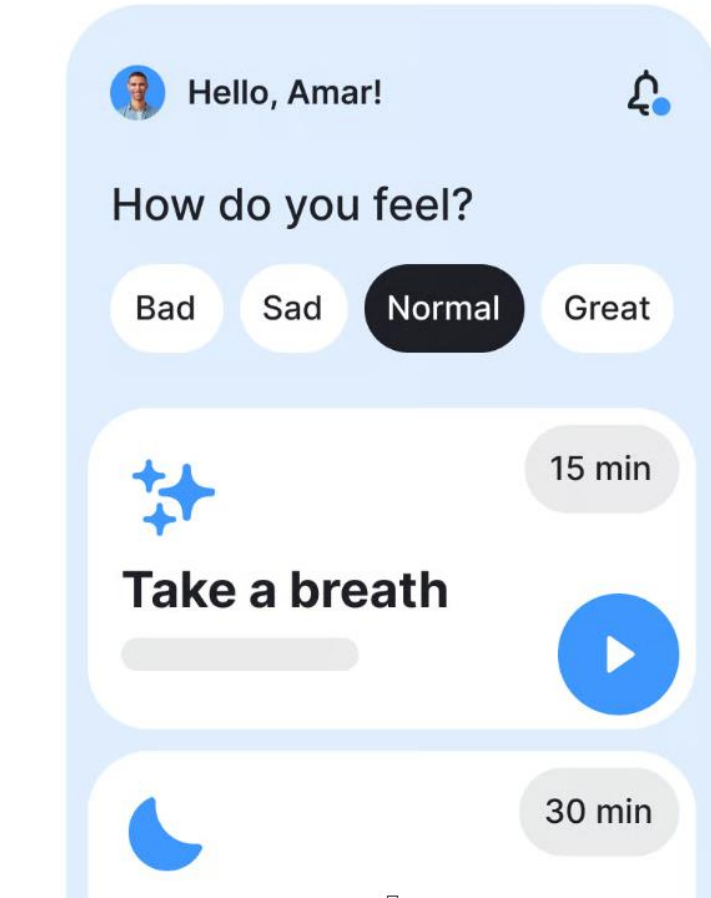
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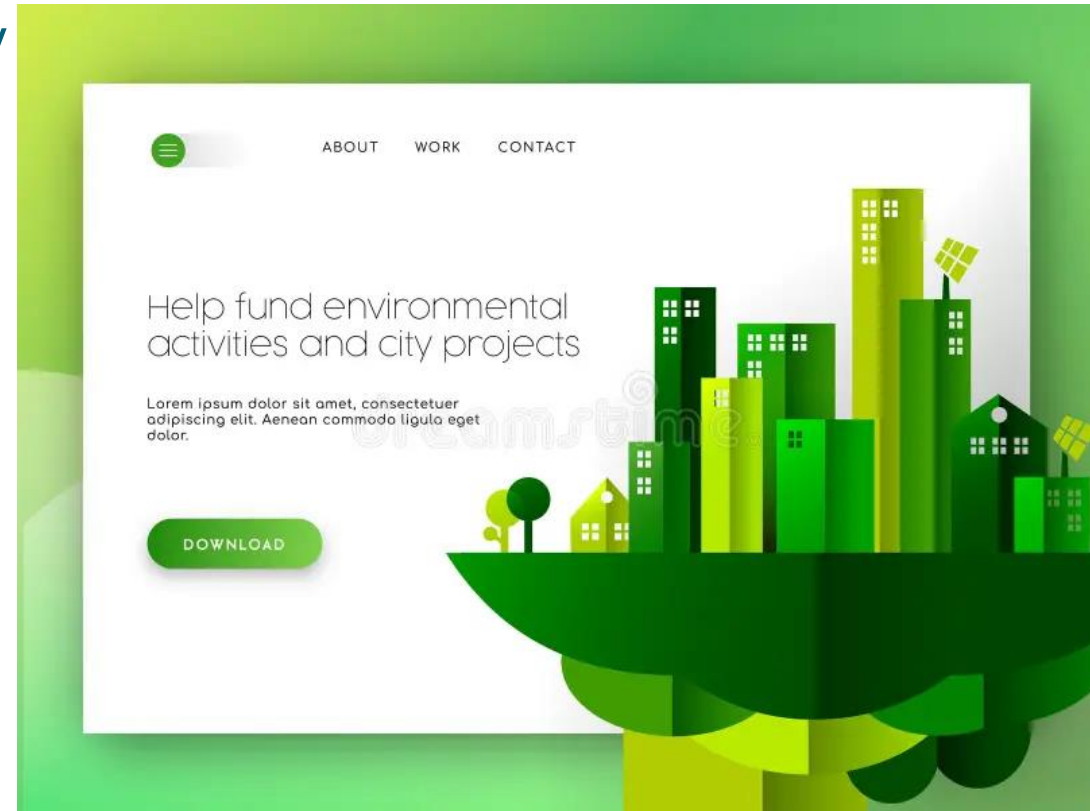
Color Mood Psychology : Blue

- **Blue in Color Mood Psychology**
- Psychological Effects
 - Lower heart rate
 - Reduce stress
 - Create a sense of safety
 - Improve focus and productivity
- Blue in Branding & Design
 - Build trust with customers
 - Communicate professionalism
 - Suggest security and reliability
 - Appeal to a broad audience
 - SaaS dashboards
 - It's especially popular in: Banking, Technology, Healthcare, Corporate branding



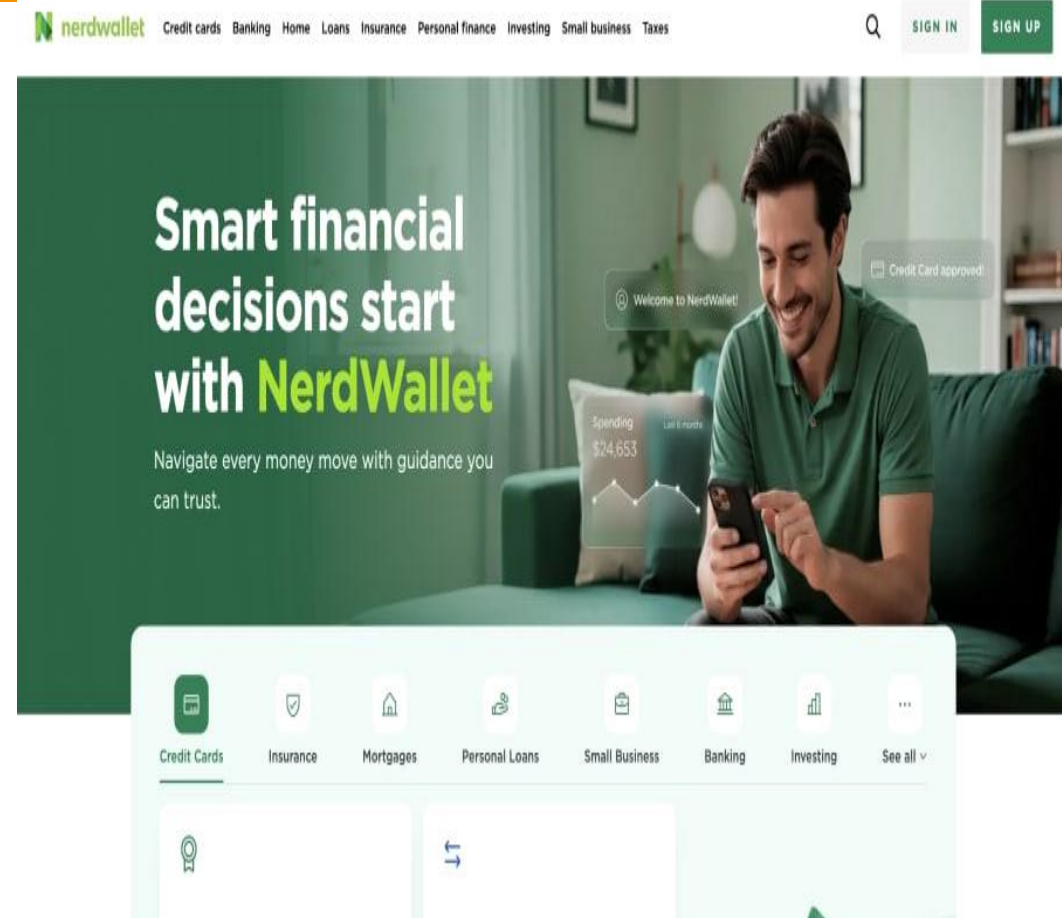
Color Mood Psychology : Green

- **Green** in Color Mood Psychology
- 🌿 **Core Emotional Associations**
 - Growth
 - Health
 - Harmony
 - Freshness
 - Stability
 - Wealth-money
 - Renewal



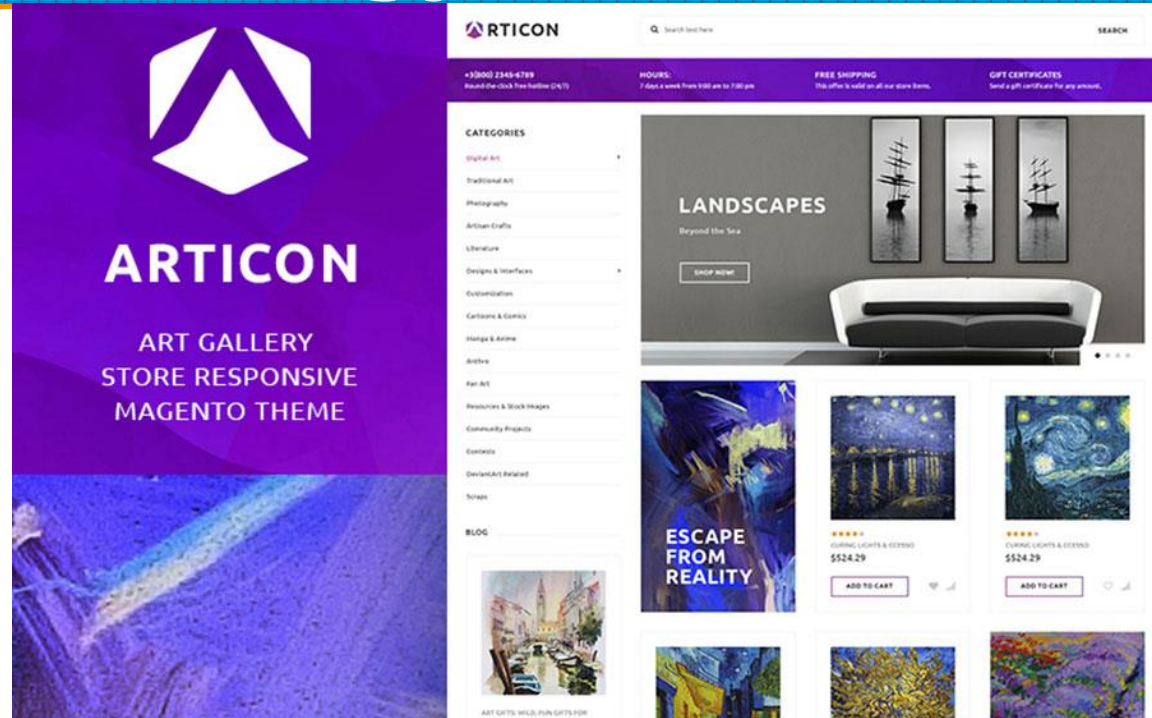
Color Mood Psychology : Green

- **Green in Branding & Design**
 - Green is often used to:
 - Represent eco-friendliness
 - Signal health and wellness
 - Suggest financial growth
 - Communicate balance and sustainability
- **Common industries:**
 - Organic food
 - Environmental organizations
 - Wellness brands
 - Financial services



Color Mood Psychology : Red

- **Purple in Color Mood Psychology**
- Purple commonly represents:
 - Royalty
 - Wealth
 - Elegance
 - Imagination
 - Creativity
 - Spirituality
 - Mystery
- Historically, purple dye was rare and expensive, which is why it became linked to power and status.



Color Mood Psychology : Red

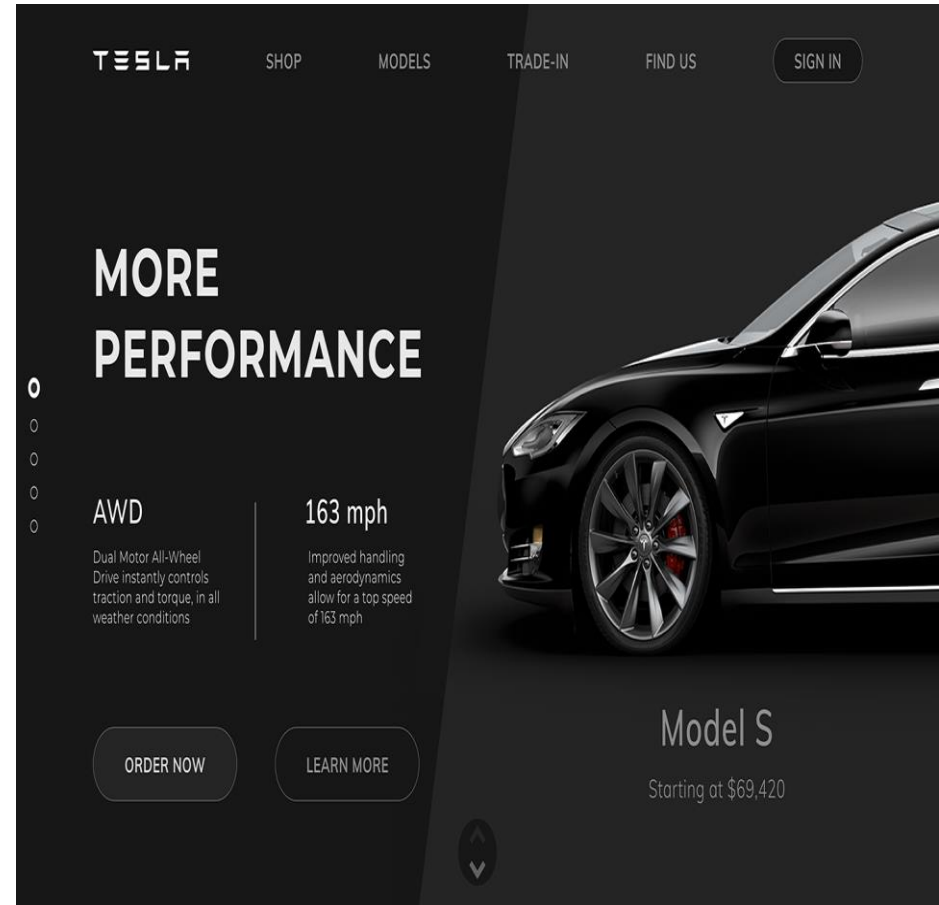
- **Purple in Branding & Design**

- Purple is often used to:
 - Signal luxury or premium quality
 - Appeal to creativity and imagination
 - Stand out from traditional corporate colors
 - Convey beauty and elegance
- Common industries:
 - Beauty and cosmetics
 - Luxury goods
 - Creative businesses
 - Spiritual or wellness brands



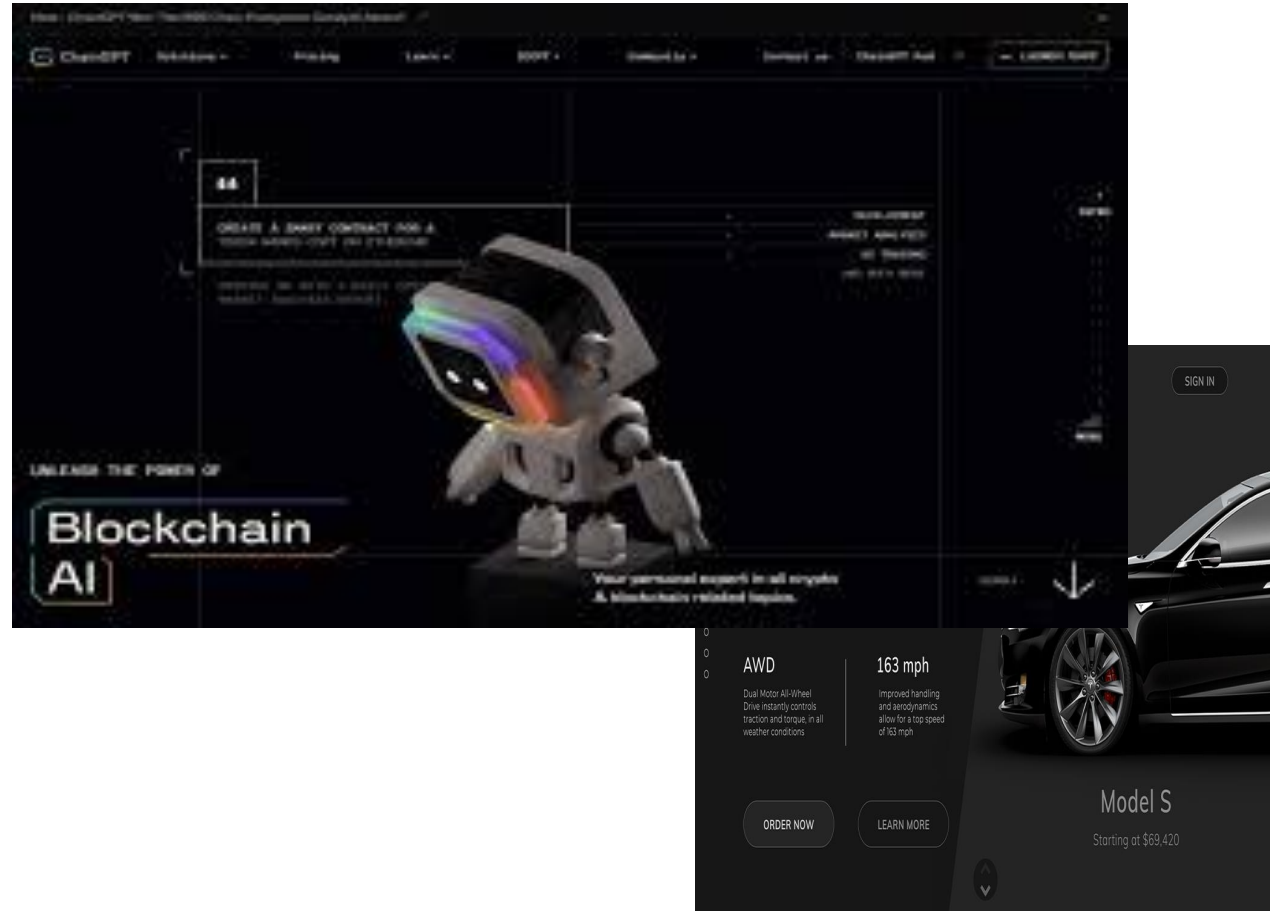
Color Mood Psychology : Black

- **black in Color Mood Psychology**
- Black commonly represents:
 - Power
 - Elegance
 - Sophistication
 - Authority
 - Luxury
 - Mystery
 - Strength
 - Formality



Color Mood Psychology : Black

- **Black in Branding & Design**
- Black is often used to:
 - Signal luxury and exclusivity
 - Create a sleek, modern look
 - Communicate authority and professionalism
 - Make other colors stand out
- **Common industries:**
 - Fashion
 - Luxury goods
 - Technology
 - High-end automotive brands



Color Mood Psychology : White

- White is associated with **simplicity**, **clarity**, and **purity**.
- It represents openness and space, making it one of the most psychologically calming colors when used correctly.

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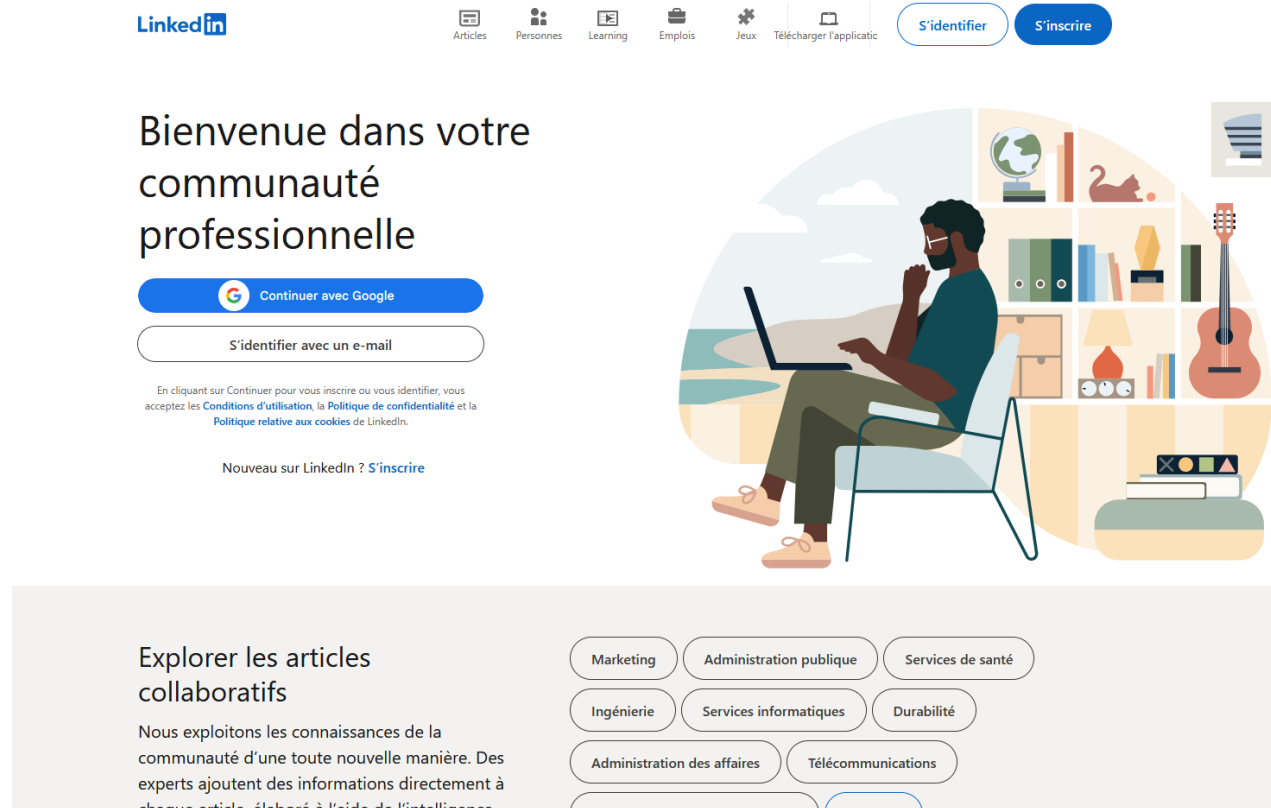
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Color Mood Psychology : White

- **Core Emotional Associations**
- White commonly represents:
 - Purity
 - Cleanliness
 - Innocence
 - Simplicity
 - Peace
 - Neutrality
 - Freshness
 - It feels light, open, and uncluttered.



Color Mood Psychology : White

White in Branding & Design

White is often used to:

- Communicate simplicity and professionalism
- Highlight other colors
- Create minimal, modern aesthetics
- Improve readability and clarity

It's common in:

- Healthcare
- Technology
- Luxury brands
- Minimalist design

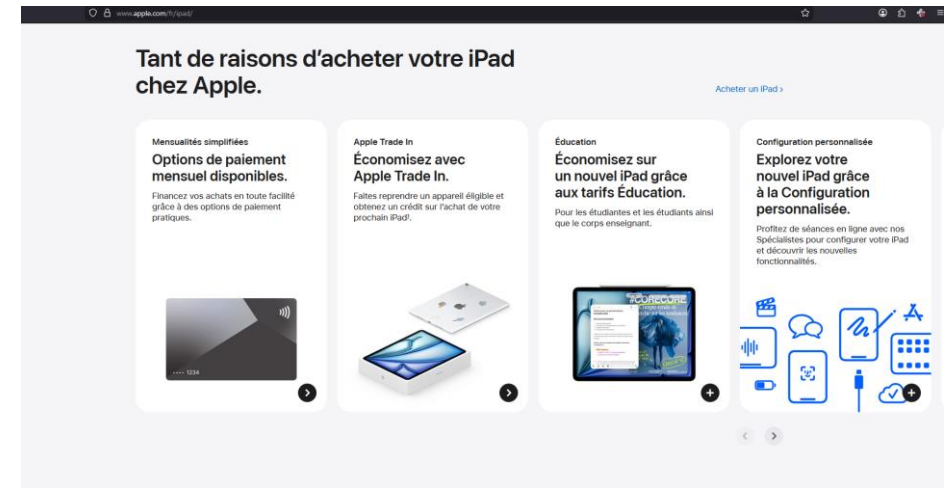
The screenshot shows the Amazon.fr 'Ventes Flash de Printemps' page for March 10-16. The page features a grid of product listings with white backgrounds and orange accents. The products include:

- Amazon Fire TV Stick 4K + Mission Cables (44.99€)
- Amazon Kindle Colorsoft 16 GB + étui noir en tissu + a... (232.98€)
- DREAME A1 Pro Robot Tondeuse sans Fil Périph... (899.00€)
- DREAME H15 Pro Heat Aspirateur Laveur, Nettoy... (469.00€)
- roborock Saros 10R Robot Aspirateur, Brosse et Serpi... (849.99€)
- dreame L10s Ultra Gen 3 Kit Robot Aspirateur Laveur, 2... (429.00€)
- MOVA LIDAX Ultra 800 (849.00€)
- Tineco Floor One Stretch S6 (229.00€)
- Tineco Floor One S9 Artist (469.00€)
- Galaxy S24 Ultra (1.469.00€)
- DREAME X50 Ultra (799.00€)
- dreame H12 Pro Ultra (179.00€)

The page also includes filters for category, brand, and price, and a 'Ventes Flash de Printemps' banner at the top.

Color Mood Psychology : Gray

- **Gray Color in Color Mood Psychology & Design**
- Gray is a **neutral, balanced** color that sits between black and white.
- It communicates **stability, professionalism, and sophistication**, but its emotional impact depends on tone, context, and contrast.



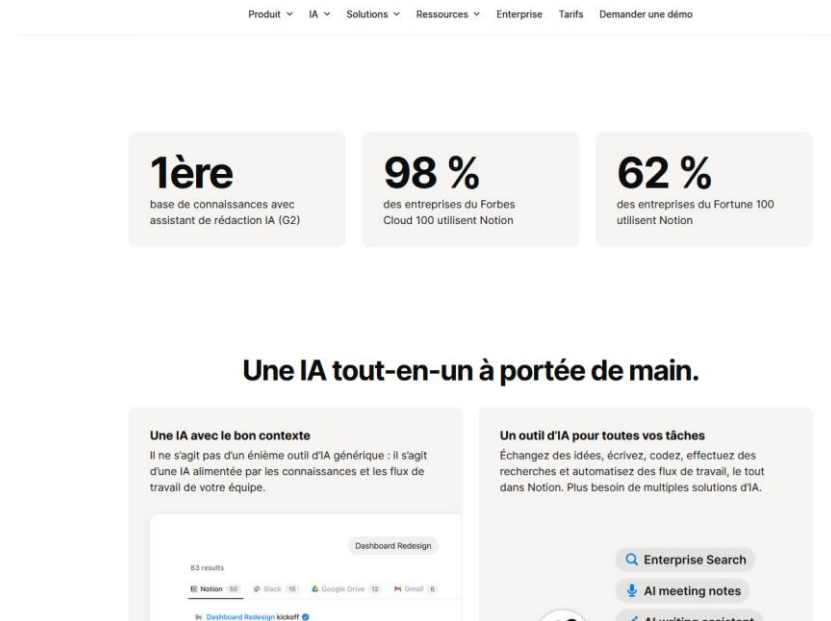
Color Mood Psychology : Gray

- **As Backgrounds**

- Use light gray for panels, cards, sidebars, or sections.
- Helps differentiate content areas without harsh lines or color distractions.
- Example: Form fields, dashboard widgets, or secondary content areas.

- **For Borders, Dividers, and UI Elements**

- Use subtle gray lines to separate content sections, cards, or menu items.
- Creates organization without harsh contrast.
- Example: Light gray horizontal dividers in a feed or table.



Example Scenarios

-  Meditation App
- Desired emotions:
 - Calm
 - Safety
 - Focus
- Color strategy:
 - Soft blues
 - Muted greens
 - Neutral backgrounds

Example Scenarios

-  Fitness App
- Desired emotions:
 - Energy
 - Motivation
 - Power
- Color strategy:
 - Bold red or orange accents
 - Dark background
 - High contrast CTA

Example Scenarios

- Banking App
- Desired emotions:
 - Trust
 - Stability
 - Security
- Color strategy:
 - Blue primary
 - White background
 - Minimal bright accents

