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1. Go through the video and give an example of atomic design methodology.

2. List and explain in short different formulae of color theory

### **Example of Atomic Design Methodology:**

**Atomic Design** is a methodology used in UI/UX design to create consistent and scalable design systems. It breaks down interfaces into smaller, reusable components called "atoms," which combine to form larger structures like "molecules," "organisms," "templates," and "pages." Here's an example:

1. **Atoms**: Basic building blocks, like buttons, input fields, labels, or icons. For example, a single button component with properties like color, size, and text.
2. **Molecules**: Combinations of atoms that work together. For example, a search bar molecule might consist of an input field atom and a button atom.
3. **Organisms**: Complex components made up of multiple molecules and/or atoms. For example, a header organism might include a logo molecule, a navigation bar molecule, and a search bar molecule.
4. **Templates**: Page-level structures that define the layout and placement of organisms but without specific content.
5. **Pages**: Final implementations of templates with real content, creating a finished product for users.

This modular approach ensures reusability and consistency across the interface.

### **Different Formulae of Color Theory in UI/UX:**

Color theory is essential in UI/UX design to create visually appealing and effective designs. Here are the key formulae:

1. **Monochromatic**:
   * Uses different shades, tints, and tones of a single hue.
   * **Example**: A design using various shades of blue for a calm and harmonious feel.
2. **Analogous**:
   * Combines colors that are next to each other on the color wheel.
   * **Example**: Yellow, yellow-green, and green for a natural and balanced look.
3. **Complementary**:
   * Pairs colors opposite each other on the color wheel.
   * **Example**: Blue and orange for a vibrant and high-contrast design.
4. **Split Complementary**:
   * Uses a base color and the two colors adjacent to its complementary color.
   * **Example**: Red, blue-green, and yellow-green for a balanced yet contrasting palette.
5. **Triadic**:
   * Utilizes three colors evenly spaced around the color wheel.
   * **Example**: Red, blue, and yellow for a dynamic and playful design.
6. **Tetradic (Double Complementary)**:
   * Combines two complementary pairs.
   * **Example**: Blue and orange with red and green for a rich and diverse palette.
7. **Neutral Colors**:
   * Incorporates black, white, gray, or beige as dominant or supporting tones.
   * **Example**: A minimalist UI using neutral tones with a single accent color.
8. **Warm and Cool Colors**:
   * Warm colors (red, orange, yellow) evoke energy, while cool colors (blue, green, purple) evoke calmness.
   * **Usage**: Warm colors for call-to-action buttons and cool colors for backgrounds.

### **Conclusion:**

The **Atomic Design Methodology** provides a structured and scalable approach to UI/UX design by breaking interfaces into reusable components. This modular system ensures consistency across designs, improves efficiency, and facilitates collaboration among team members.

**Color Theory**, on the other hand, plays a crucial role in creating visually appealing and functional designs. By leveraging various color combinations—such as monochromatic, analogous, complementary, or triadic—designers can evoke emotions, enhance usability, and guide user focus effectively. Together, these methodologies form the foundation of a robust and engaging UI/UX design system, ensuring a seamless and enjoyable user experience.