

# Typography & Colors

## 1. Typography

Typography in CSS refers to how text is styled and displayed on a webpage. Good typography improves readability, accessibility, and overall design aesthetics.

Fonts are set using the font-family property. Since not all fonts are installed on every device, designers usually provide a list of fonts. For example:

```
body {  
  font-family: "Arial", Helvetica, sans-serif;  
}
```

Here, the browser will try **Arial** first, then **Helvetica**, and finally fall back to a generic **sans-serif** font if the others are not available.

Font size can be defined in different units such as px (absolute size), %, em, rem, or even relative units like vw (viewport width). For flexibility, em and rem are often preferred because they scale better on different screens.

Other useful text properties include:

- font-weight: controls thickness (normal, bold, or numeric values from 100 to 900).
- line-height: adjusts vertical spacing between lines of text, with a typical value between 1.4 and 1.6 for readability.
- letter-spacing and word-spacing: control spacing between characters and words.
- text-transform: changes case (uppercase, lowercase, capitalize).
- text-decoration: adds effects like underline, overline, or line-through.

Text alignment also plays a role in presentation. Using text-align: center; can center titles, while justify makes text blocks align evenly along both left and right edges. To add visual emphasis, designers may use text-shadow, which applies subtle shadows to text for depth.

## 2. Colors

Colors in CSS are applied to text, backgrounds, borders, and other elements. They can be defined in several formats:

- **Named colors:** simple keywords like red, blue, or green.
- **HEX codes:** such as #ff0000 for pure red.
- **RGB values:** rgb(255, 0, 0) where each number represents red, green, and blue intensity.
- **RGBA values:** similar to RGB but with an alpha channel for transparency (e.g., rgba(255, 0, 0, 0.5)).
- **HSL values:** hsl(0, 100%, 50%) representing hue, saturation, and lightness. Ex:

```
h1 {  
  color: hsl(200, 100%, 40%);  
  background-color: rgba(0, 0, 0, 0.1);  
}
```

When designing with colors, contrast is essential. Light text on a dark background or dark text on a light background ensures readability. Accessibility guidelines (WCAG) recommend specific contrast ratios so that content can be easily read by users with visual impairments. Designers often stick to a **consistent color palette**: a primary color (used most often), secondary colors (for accents), and neutral shades for backgrounds or text. CSS variables can help manage this consistency:

```
:root {  
  --primary: #007bff;  
  --accent: #ff5722;  
}  
  
button {  
  background-color: var(--primary);  
  color: white;  
}
```