DIFFERENCE BETWEEN RGB, HSL AND HEX

In digital design and web development, colors are usually represented in three main formats: RGB, HSL, and HEX. While they all describe the same colors, each model defines them in a unique way.

RGB (Red, Green, Blue): This model is mainly used for screens, since that is how a wide range of digital displays show colors. It mixes red, green, and blue light to create colors. RGB works with numbers between 0 and 255 for each color.

HSL (Hue, Saturation, Lightness): HSL describes colors in a way that feels natural to people, and designers often like HSL because it is easier to adjust colors in a natural way.

- **Hue** describes the type of color, and it is measured in degrees, on a color wheel from 0–360

- **Saturation** describes the intensity and is measured in percentage, where 0% is gray and 100% is full color.

- **Lightness** controls brightness and is also measured in percentage, where 0% is black, 50% is normal color, and 100% is white.

HEX (Hexadecimal): HEX or Hexadecimal is a shorter way to write RGB using numbers and letters. For example, the HEX code for red is **#FF0000**. It's very common in web design because it is quick, compact, easy to copy, and widely supported in web styling (CSS).

Understanding these color models helps designers and developers choose the right format for their workflow and ensures consistent color representation across digital platforms.

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