Colors on the Web

Web colors

Think about 'red'.

How many variations of red do you know?

Web colors

Here are some example shades of red:

CSS supports 140 'named' colors:
https://www.w3schools.com/colors/colors_n
These are also known as 'web colors'

It is however possible to create
4,294,967,296 colors using CSS!

Color	Color Name
	maroon
	dark red
	brown
	firebrick
	crimson
	red
	tomato
	coral
	indian red
	light coral
	dark salmon
	salmon
	light salmon
	orange red

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Hex colors

Colors are usually can be written in the hexadecimal RGB format:
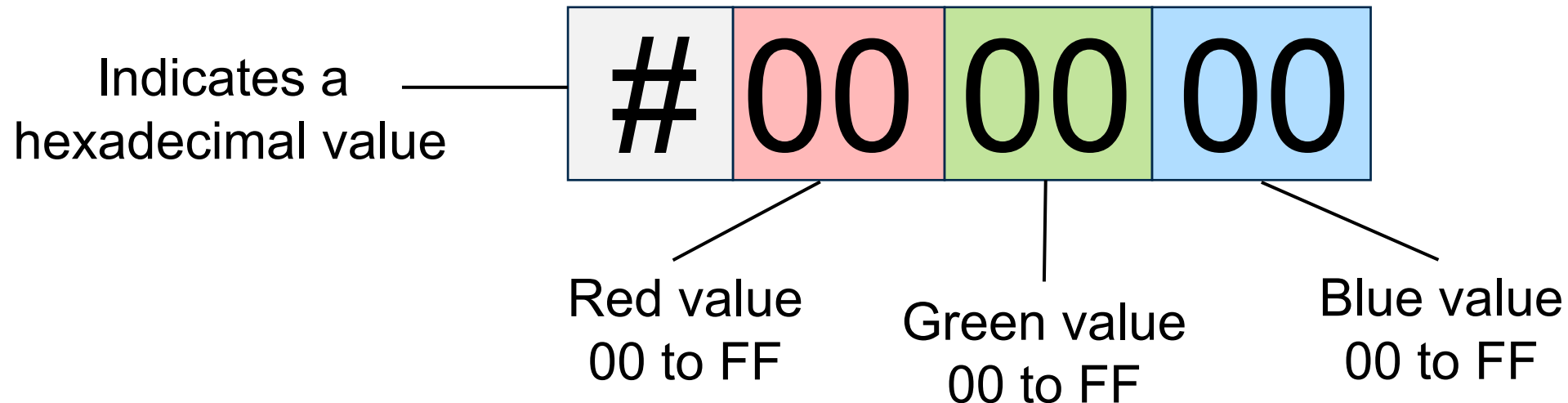
Do you know which colors these values represent?

#FF0000
#00FF00
#0000FF

Hex colors

Colors are usually written in the hexadecimal RGB format to store colors efficiently as 32-bit values:

Indicates a hexadecimal value

 # 00 00 00

Red value
00 to FF

Green value
00 to FF

Blue value
00 to FF

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Hexadecimal number system

The decimal system counts from 0 to 9, with 10 possible numbers

The hexadecimal system counts from 0 to F, representing a value of 15, with 16 possible numbers.

Because we don't have individual numbers for 10, 11, 12, 13, 14 and 15 these are written as A, B, C, D, E and F

For example: FF in hexadecimal = 16*16 = 256 in decimal. This gives us 256*256*256 possible color combinations.

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However...

CSS also allows us to specify colors as decimal RGB values

```
h1 {
    color: rgb(255, 0, 255);
}
```

And even as **CMYK** (Cyan, Magenta, Yellow, BlacK) and **HSL** (Hue, Saturation, Lightness) values:

```
h1 {
    color: cmyk(100%, 0%, 0%, 0%);
    background-color: hsl(0, 100%, 50%)
}
```

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Transparency

Finally, it is possible to use transparency in css, using the **alpha** value.

```
background-color:rgba(255, 99, 71, 0.2);
```

Alpha is a number between 0.0 (fully transparent) and 1.0 (fully opaque)

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