Using Colors on the Web

Any digital display (including computer monitor) consists of thousands tiny dots – called**pixels** (picture elements). Each of these pixels can display one color at a time, but since they are very close together, we don't really see them as separate dots, but rather our eyes mix them up to form one homogenous color.
All the colors used in electronic technology are represented by three colors: RED, GREEN, and BLUE (**RGB** color mode). Any color on the web can be represented by a specific combination of these three colors.

Specifying colors

There are three ways of indicating the colors you want to use on your Web site: using color names, Hexadecimal values, and using RGB values.

To set a foreground color (font color), use CSS property **color.**

Specifying colors using color names

All of the modern browsers recognize 16 predefined color names: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow. You can specify color of your text using the following CSS definition:

p {color:blue} - embedded or extneral CSS
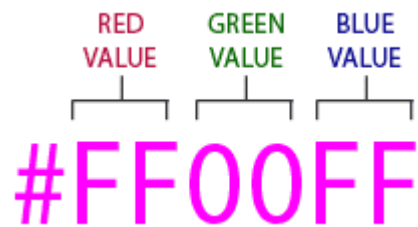**<p style="color:blue">** - inline style

However, this color palette is very limited. The best way to specify colors is using**HEXADECIMAL** notation according to W3C recommendations.

Specifying colors using Hexadecimal colors

Hexadecimal code is the base-16 notation system: the digits in the hexadecimal system are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E and F. The last six digits (from A to F) represent decimal numbers from 11 to 15.

Each decimal number from 0 to 255 is represented by only two digit hexadecimal number from 00 to FF), which corresponds to one byte (8 bits) of color information. Thus, hexadecimal value 00 represents 0 or absence of any color, and the value FF represents full intensity of a given color.

Hexadecimal colors can produce any color in the visible spectrum when combined in various proportions. Each color can be represented by a hexadecimal triplet with Red, Green, and Blue values in each part of the number (two digits for red, two digits for green, and two digits for blue).

Example

Color specified as #FF0000 is a pure red color:
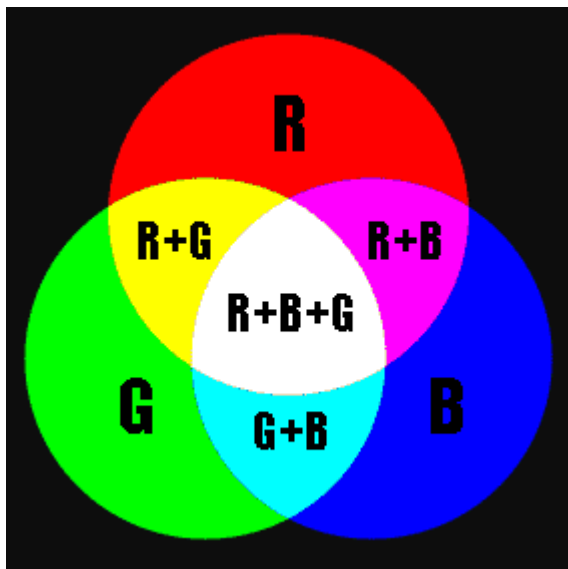FF – red (maximum value), 00 – no green color, 00 – no blue color.

Color specified as #00FF00 is a pure green color:
00 – no red color, FF – full intensity of green, 00 – no blue color.

Color specified as #000000 produce black color: all the colors are turned off.

Color specified as #FFFFFF produce white color, because mixed together in full intensity, red, green, and blue colors give white color

Color #CCCCCC produce silver gray color - a color between #000000 (black) and #FFFFFF (white)

Basic Hexadecimal Colors Combination:

#FFFF00 - yellow (combinatin of red and green)

#FF00FF - magenta (combination of red and blue

#00FFFF - aqua (combination of green and blue)

#FFFFFF - white color (combination of red, green and blue)

Combined in different intensities, this color format is capable of displaying 16,777, 216 colors.

Although the complete hexadecimal number is six digits long, it is possible to use a shorter notation for hexadecimal numbers, which uses only three digits, one from each pair (such as #369 instead of #336699).

p {color:#F00} or **p{color:#FF0000}**

**<em style="color:#060"> Text **

Remember to include the pound sign (#) before the number or color will not be displayed.

Specifying colors using RGB values
RGB color format is based on decimal (10-based) notation. Each of three colors can be represented by numbers from 0 to 255.

Example for code on an external style sheet:

body {color: rgb(255, 0, 0)}

Example for code as inline styles:

<body style="color:rgb(255, 255, 102)">