

# Formatting, Fonts, Colors

## Hypertext Markup Language 5 (HTML5)



# Table of Content

- Formatting
- Fonts
- Colours



# Formatting

(Hypertext Markup Language 5)

# Formatting Elements

- Many times we want to display text differently such as **bold**, *italic* or 2<sup>5</sup>
- Text formatting tags can be used to appear text differently in web pages
- HTML also defines special elements, called formatting elements, for defining text with a special meaning

# Formatting Elements

Element	Comment
<b>	To define <b>bold</b> text
<i>	To define <i>Italic</i> text
<strong>	Strong text rendered <b>bold</b> and is <b>important</b>
<em>	Emphasized text is rendered <i>italic</i> and is <b>important</b>
<small>	To define text smaller than default text size
<big>	To define text bigger than default text size

# Formatting Elements

Element	Comment
<mark>	To define <b>highlighted</b> text
<ins>	To define <u>inserted</u> Text
<del>	To define <del>deleted</del> text
<u>	To define stylistically different text from normal text
<sub>	To define Subscript ( <sub>Subscript</sub> )Text
<sup>	To define Superscript ( <sup>Superscript</sup> ) Text
<pre>	To define pre-formatted text

# Formatting Elements

- **Bold Element**

- Is designed to display text as **bold**
- Example : Indira Gandhi was a `<b>bold</b>` politician

- **Italic Element**

- Is designed to display the *italic* text
- Example : The `<i>italic</i>` word!

# Formatting Elements

- **Strong Element**

- Is designed to display text as **bold**
- Semantically such text is important
- Example : Indira Gandhi was a `<strong>first</strong>` female prime minister of India.

- **Emphasize Element**

- Is designed to display the *italic* text
- Semantically such text is important
- Example : `<em>Water</em>` and `<em>oxygen</em>` are important for life!



# Formatting - `<b>` vs `<strong>`

- The `<strong>` tag is "logical" tag
- The text marked as strong is rendered **bold** with semantic **"strong" importance** by the browser

# Formatting - `<i>` vs `<em>`

- The `<em>` tag is "logical" tag
- The text marked as emphasized is rendered *italic* with semantic **extra importance** by the browser

# Formatting Elements

- **Mark element**

- This element is designed to highlight the text
- Example : A `<mark>highlighted</mark>` text

- **Strike element**

- This element is designed to strike-through text (a single horizontal line running through it)
- Example : The `<strike>wrogn</strike>` wrong is correct!

# Formatting Elements

- **Super Script Element**

- Is designed to place the text slightly above the current line
- Example :  $a^{2} + b^{2} = c^{2}$

- **Sub Script Element**

- Is designed to place the text slightly below the current line
- Example :  $H_{2}SO_{4}$

# Formatting Elements

- **Small Element**

- Is designed to display text smaller than default text size
- Example : Mouse is `<small>tiny</small>` animal.

- **Big Element**

- Is designed to display text smaller than default text size
- Example : Elephant is `<big>giant</big>` animal.

# Formatting Elements

- **Insert Element**

- Is designed to display text with underline to indicate added text
- Example : The rose is `<ins>red</ins>`.

- **Del Element**

- Is designed to indicate deleted text
- Example : The `<del>Wrong</del>` Wrogn is a brand name.

# Formatting Elements

- **Underline Element**

- Is designed to display stylistically different from normal text
- Example : The `<u>Wrogn</u>` is a brand name.

- **Pre Element**

- Is designed to preserve pre-formatted text
- Example : `<pre>Hello    Web    World!    !!</pre>`

# HTML Formatting – Class work

- Write a web page to display following text

Do you see a **bold** word here?

**Strong** is important

A greater *emphasis* on program efficiency

All *italic* words are not important

Small word but large impact!

Word **important** is highlighted here

Chemical formula of water is H<sub>2</sub>O

Mass and energy conservation formula  $E = MC^2$

This text is inserted text in the document

~~This text is striked through text~~

~~This is deleted text from the document~~





# Fonts

(Hypertext Markup Language 5)

# Font Properties

- The **font-family** property defines the font to be used for an HTML element
- The **font-size** property defines the text size for an HTML element
- The **text-align** property defines the horizontal text alignment for an HTML element

# Font family

- The font-family property to tell browser which font family to be used while displaying text
- If a font family has more than one word then specify within double quote
- You can list down more than one font-families by separating them with comma

# Font family

```
<h2>Font family example</h2>
```

```
<p>This is default font (depends on browser) </p>
```

```
<p style="font-family:arial;">This is Arial family font</p>
```

```
<p style="font-family:helvetica;">This is Helvetica family font</p>
```

# Web Safe Fonts

- All browsers might not support all font-families
- Font-family should hold several font names as a "fallback" system
- If the browser does not support the first font, it tries the next font, and so on

## Syntax:

font-family: 'Primary Font', 'Alternate Font', generic-family-name;

<p style="font-family: 'Custom Family', 'Arial Black', sans-serif;">

This is Arial Black font</p>

# Font Size Units

- “ems” (em)
  - The “em” is a scalable unit that is used in web document media
  - “em” unit refers to the font size of the parent element
  - An em is equal to current (parent) font-size (2em means 2 times the size of the current element font)

# Font Size Units

- Pixels (px)
  - Pixels are fixed-size units that are used in screen media
  - One pixel is equal to one dot on the computer screen
  - Example font-size : 12px

# Font Size Units

- Points (pt)
  - Points are used in print media
  - One point is equal to  $1/72$  of an inch
  - Points are much like pixels, in that they are fixed-size units and cannot scale in size
  - Example font-size : 12pt



# Font Size Units

- Percent (%)
  - The percent unit is much like the “em” unit
  - Example font-size : 100%
- Other units include pc (picas), cm (centimetre), mm (millimeters) and in (inches)

# Font Size Units

## (Notes)

- The em size unit is recommended by the W3C
- 1em is equal to the current/default font size
- The default text size in browsers is 16px
- So, the default size of 1em is 16px
- Use a Combination of Percent and Em
- The solution that works in all browsers, is to set a default font-size in percent for the <body> and set “em” for other elements

# Text Alignment

- The text-align is used to specify the text alignment
  - center
  - left
  - Right
- Default alignment of text is left

```
<h2>Default Aligned Heading</h2>
```

```
<p style="text-align:right;">Right paragraph.</p>
```

```
<p style="text-align:center;">Center aligned paragraph.</p>
```

# HTML Colors

(Hypertext Markup Language 5)

# HTML Colors

- HTML colors are specified using predefined
  - Color names
  - Hexadecimal value
  - RGB value
  - RGBA value
  - HSL value
  - HSLA value

# HTML Colors

## (Color names)

- HTML supports 140 standard color names
- Names are defined as red, green, blue, black, yellow, cyan, magenta, white etc

```
<h2 style="color:green;">Green Tree</h2>
```

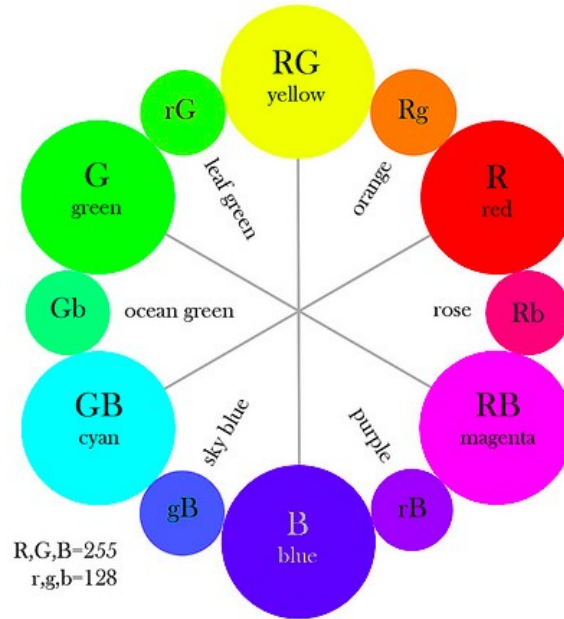
```
<p style="color:red;">This paragraph is colored red</p>
```

```
<p>I like <span style="color:magenta;">magenta</span> roses.</p>
```

# HTML Colors

## (RGB model)

Color wheel according to the sRGB standard



Mixing opposite colors produces neutral gray

# HTML Colors

## (Hexadecimal codes)

- Hex codes are defined as #rrggbb or #RRGGBB
- Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff
- Example :
  - #ff0000 is red
  - #FFFF00 is yellow



# HTML Colors

## (RGB codes)

- RGB codes are defined as RGB (red, green, blue)
- Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255
- Example :
  - RGB (255, 0, 0) is red
  - RGB (255, 255, 0) is yellow

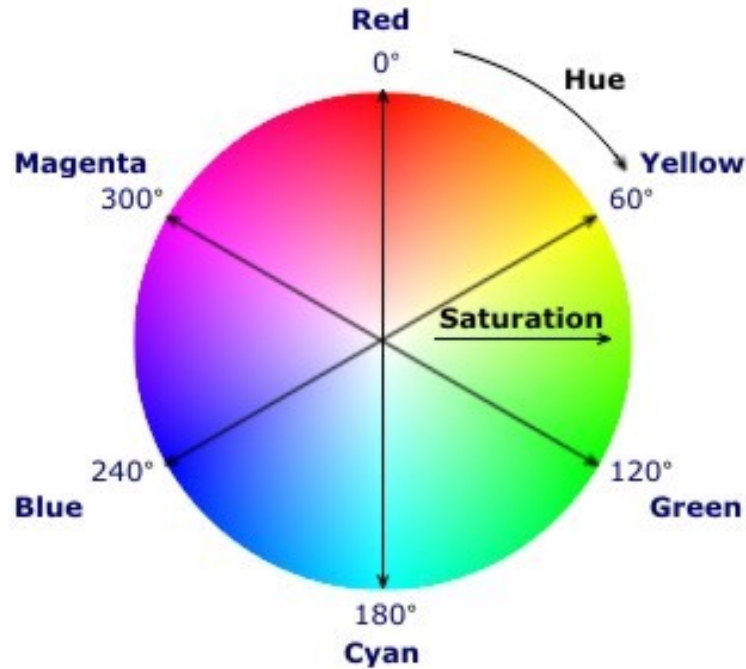
# HTML Colors

## (HSL codes)

- HSL values are defines as `hsl(hue, saturation%, lightness%)`
- Hue is a degree on the color wheel from 0 to 360 (0 is red, 120 is green, and 240 is blue)
- Saturation is a percentage value, 0% means a shade of gray, and 100% is the full color
- Lightness is also a percentage, 0% is black, 50% is neither light nor dark, 100% is white

# HTML Colors

(HSL model)



# HTML Colors

## (HSL codes - Saturation)

- Saturation can be described as the intensity of a color
  - 100% is pure color, no shades of gray
  - 50% is 50% gray, but you can still see the color
  - 0% is completely gray, you can no longer see the color
- Shades of gray are often defined by setting the hue and saturation to 0, and adjust the lightness from 0% to 100% to get darker/lighter shades

# HTML Colors

## (HSL codes - Lightness)

- The lightness of a color can be described as how much light you want to give the color where
  - 0% means no light (black)
  - 50% means 50% light (neither dark nor light)
  - 100% means full lightness (white)

# HTML Color Table

Name	Hex code	RGB code	HSL code
red	#FF0000	(255, 0, 0)	(0, 100%, 50%)
green	#008000	(0, 128, 0)	(120, 100%, 25%)
blue	#0000FF	(0, 0, 255)	(240, 100%, 50%)
yellow	#FFFF00	(255, 255, 0)	(60, 100%, 50%)
cyan	#00FFFF	(0, 255, 255)	(180, 100%, 50%)
magenta	#FF00FF	(255, 0, 255)	(300, 100%, 50%)
black	#000000	(0, 0, 0)	(0, 0%, 0%)
white	#FFFFFF	(255, 255, 255)	(0, 0%, 100%)

\*Table given above is not exhaustive list of colors

\*\*[https://www.w3schools.com/colors/colors\\_names.asp](https://www.w3schools.com/colors/colors_names.asp)

# HTML Colors

## (Example - Hex)

```
<h2 style="color:#FF0000;">Red carpet</h2>
```

```
<h2 style="color:#FFFF00;">Yellow Flower</h2>
```

# HTML Colors

## (Example - RGB)

```
<h2 style="color:rgb(255, 0, 0);">Red carpet</h2>  
<h2 style="color:rgb(255, 255, 0);">Yellow Flower</h2>
```



# HTML Colors

## (Example - HSL)

```
<h2 style="color:hsl(0, 100%, 50%);">Red Carpet</h2>
```

```
<h2 style="color:hsl(120, 100%, 25%);">Green Mango</h2>
```

```
<h2 style="color:hsl(240, 100%, 50%);">Blue Flower</h2>
```

# HTML Colors

## (Example – RGBA and HSLA)

- Same as RGB and HSL but with Alpha channel
- Alpha specifies the opacity for a color
- The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all)

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*Thank  
you*

# CSS4 colors

- HWB and CMYK are suggested standards of CSS4
- These standards are not supported by HTML
- HWB (Hue, Whiteness%, Blackness%)
- CMYK (cyan%, magenta%, yellow%, black%)