

Intro To Styling

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What is CSS?

- CSS stands for Cascading Style Sheets. It is the language for describing the presentation of Web pages, including colours, layout, and fonts, thus making our web pages presentable to the users
- CSS is designed to make style sheets for the web. It is independent of HTML and can be used with any XML-based markup language. Now let's try to break the acronym
- Cascading: Falling of Styles
- Style: Adding designs/Styling our HTML tags
- Sheets: Writing our style in different documents

CSS History

- 1994: First Proposed by Hakon Wium Lie on 10th October
- 1996: CSS was published on 17th November with influencer Bert Bos
- Later he became co-author of CSS
- 1996: CSS became official with CSS was published in December
- 1997: Created CSS level 2 on 4th November
- 1998: Published on 12th May

CSS Syntax

```
Selector {  
    Property 1 : value;  
    Property 2 : value;  
    Property 3 : value;  
}
```

For example:

```
h1  
{  
    Color: red;  
    Text-align: center;  
  
}
```

```
#unique  
{  
    color: green;  
}
```

CSS Syntax

- Selector: selects the element you want to target
- Always remains the same whether we apply internal or external styling
- There are few basic selectors like tags, id's, and classes
- All forms this key-value pair
- Keys: properties(attributes) like color, font-size, background, width, height,etc
- Value: values associated with these properties

CSS Comment

- Comments don't render on the browser
- Helps to understand our code better and makes it readable
- Helps to debug our code
- Two ways to comment :
- Single Line : `/*<h6> This represents the most/ least important line of the doc. </h6>*/`
- Multiple Lines :

```
/*  
    h1  
    {  
    color: red;  
    text-align: center;  
    }  
*/
```

Different ways of attaching CSS

You can attach CSS with HTML documents in 3 simple ways

- Inline : inline CSS used to apply a style to one HTML element at a time with the help of style attribute
- Internal : if we want to style the same element (e.g. all <p> tags) in the single HTML document, then we can use internal CSS. An internal CSS is defined in the <Head> section within <Style> tags
- External: The external style sheets are commonly used when you want to do style modifications on different pages. An external style sheet (.css file) contains several style rules. You can attach a .css document to one or more HTML documents with the help of <link> tag inside the head section.

Inline CSS

- Before CSS this was the only way to apply styles
- Not an efficient way to write as it has a lot of redundancy
- Self-contained
- Uniquely applied on each element
- The idea of separation of concerns was lost
- Example:

```
<h3 style=" color:red"> Have a great day </h3>  
<p style =" color: green"> I did this , I did that </p>
```


Internal CSS

- With the help of style tag, we can apply styles within the HTML file
- Redundancy is removed
- But the idea of separation of concerns still lost
- Uniquely applied on a single document
- Example:

```
< style>
    h1{
        color:red;
    }
</style>
<h3> Have a great day </h3>
```

External CSS

- With the help of <link> tag in the head tag, we can apply styles
- Reference is added
- File saved with .css extension
- Redundancy is removed
- The idea of separation of concerns is maintained
- Uniquely applied to each document

```
<head>
  <link rel="stylesheet" type="text/css" href="name of the Css file">
</head>
  h1{
    color:red;    //.css file
  }
```

CSS Selectors

- The selector is used to target elements and apply CSS
- Three simple selectors
 - Element Selector
 - Id Selector
 - Class Selector
- Priority of Selectors :
 - Id > Class>Element

Element Selector

- Used to select HTML elements by its name
- Ex:

```
h1  
{  
  Color: red;  
}
```

- We selected the heading tag and then changed the color property i.e text color to red. Now whatever is written in this tag (content) will have the text color as red

ID Selector

- The id attribute is used to select HTML element
- Used to target specific or unique element
- Ex:

```
#unique
{
  Color: red;
}
<h1 id="unique"> Hi </p>
```

- We selected the id and then changed the color property i.e text color to red. Now whatever is written in this tag (content) will have the text color as red

Class Selector

- The class attribute is used to select HTML element
- Used to target a specific class of the element

- Ex:

```
group
{
  Color: red;
}
<h1 class="group"> Hi </p>
```

- We selected the class and then changed the color property i.e text color to red. Now whatever is written in this tag (content) will have the text color as red

Implementation of all the three selectors in CSS

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="first.css">
<style>

#center1 {
  text-align: center;
  color: pink;
}

.center2 {
  text-align: center;
  color: red;
}

h1
{
  text-align: center;
  color: green;
}
</style>
</head>
<body>

<h1>This heading will be green and center-aligned </h1>
<p class = "center2">This paragraph will be red and center-aligned </p>
<p id ="center1">This paragraph will be pink and center-aligned</p>

</body>
</html>
```

CSS Colors

- There are different colouring schemes in CSS
- Three widely used techniques are as follows
- RGB
- This starts with RGB and takes 3 parameter
- 3 parameter basically corresponds to red, green and blue
- The value of each parameter may vary from 0 to 255
- Eg: RGB(255,0,0); means color red

CSS Colors

- HEX:
- Hex code starts with # and comprises of 6 numbers which are further divided into 3 sets
- Sets basically correspond to Red, Green, and Blue
- Single set value can vary from 00 to 09 and AA to FF
- Eg: #ff0000 ; means color red
- RGBA :
- This starts with RGB and takes 4 parameter
- 4 parameter basically corresponds to red, green, blue and alpha
- Value of the first three parameters may vary from 0 to 255 and the last parameter ranges from 0 to 1 that is from 0.1, 0.2,.....0.9
- Eg: RGB(255,0,0,0); means color red

Implementation of different types of colours in CSS:

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="first.css">
  <style>
    #center{ color:#ff0099;}
    h1{ color:rgba(255,0,0,0.5);}
  </style>
</head>
<body>
  <h1>This heading will be green</h1>
  <p style="color:rgb(255,0,0)">This paragraph will be red</p>
  <p id="center">This paragraph will be pink and center-aligned</p>

</body>
</html>
```

This is the output of the above program showing different shades of red.

CSS Background

- There are different ways by which CSS can have an effect on HTML elements
- Few of them are as follows:
- Color – used to set the color of the background
- Repeat – used to determine if the image has to repeat or not and if it is repeating then how it should do that
- Image – used to set an image as the background
- Position – used to determine the position of the image
- Attachment – It basically helps in controlling the mechanism of scrolling

CSS Background

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="first.css">
<style>

html{
  background: #ff9900;
}

p{
  background: url("https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRT8t-o6oUJ-
E9YRhimOvTU2TSH7vIBnRWBn554_rX30dZah466&usqp=CAU");

  background-position:center;
  background-repeat:no-repeat;

  width: 100%;
  height: 600px;
}
</style>
</head>
<body>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
provident, sunt in culpa qui officia deserunt mollit anim id est laborum.
</p>
</body>
</html>
```

CSS Border

- Helps in setting up the border for HTML elements
- There are 4 properties that can help in setting up of border:
- Width – sets the width of the border
- Style – sets the style of border; Eg: solid, dashed etc
- Color – sets the color of the border
- Radius – determines the roundness of the border
- You can set the border for specifically top, right, bottom and left
- We can also club top and bottom together and same goes for left and right
- Eg: border-width: 2px 5px; sets top and bottom 2px; left and right 5px
- Border can also be set in a single line
- Eg: border : 2px solid blue;

Implementation of Border Property in CSS:

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="first.css">
<style>

p{
  border-style: solid;
  border-color: blue;
  border-width: 2px 5px;
  border-radius: 10%;
}

</style>
</head>
<body>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
```

```
</p>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
```

```
</p>
```

```
</body>
```

```
</html>
```

CSS BoxModel

- Every element in CSS can be represented using the BOX model
- It allows us to add a border and define space between the content
- It helps the developer to develop and manipulate the elements
- It consists of 4 edges
- Content edge – It comprises of the actual content
- Padding edge – It lies in between content and border edge
- Border edge – Padding is followed by the border edge
- Margin edge – It is an outside border and controls the margin of the element
-

Implementation of BoxModel in CSS:

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="first.css">
<style>

p{
  border: 2px solid blue;
  margin: 5px;
  padding: 20px;
  content: 50px;
}

</style>
</head>
<body>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
</p>
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
</p>
</body>
</html>
```




Thank You
Keep Bashing the Walls

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