**CSS (25th July 2019)**

Based on place where it will be written, CSS is categorised in 3 parts:

1. Inline CSS
2. Internal CSS
3. External CSS

**Inline CSS:**  Here we write code in opening tag and it affects on that line.

Style is a attribute and we separate attribute and value with = sign. Color, background-color etc are properties and their values we separate by “:” sign.

Example: <h3 style="color: red; background-color: blue "> Example of Inline CSS</h3>

**Internal CSS:**  If we write code inside <head> tag then it is known as Internal CSS. Suppose this Inline CSS we wrote for a line which is header H4 and we want it to reflect it on all H4 present on the page, then we write code CSS code in Head Tag. To do this we use below 3 type of Selector:

1. **Element Selector**

Example:

<head>

<title>CSSDemo</title>

<style>

/\* Element Selector\*/

h4

{

/\* CSS Code for all H4 Tags\*/

color: #cccc00;

background-color: #0099ff;

}

</style>

</head>

Similarly we can choose other contents through tag i.e. <p> , <table> tags etc and we can write for them as well and it will be applicable on all corresponding content present on webpage.

body

{

background-image: url("C:/Users/Lenovo/Pictures/haren.jpg");

background-repeat: no-repeat;

background-size: 50% 50%;

background-position: center;

background-attachment: fixed;

// if It is fixed then only content will be scrolled but not image, while if we keep it as scroll then image can also be scrolled.

}

1. **Class Selector:**

Suppose we have many h6 tags on page and we want only 2 to reflect some design then we use class Selector. For this we use class=”myclass” using dot operator.

Example:

<head>

<title>CSSDemo</title>

<style>

/\* CSS Code\*/

/\* Class Selector \*/

.myclass

{

/\* CSS Code for selected h6 tags which has class as myclass\*/

color: #ffffff;

background-color: #0033ff;

}

</style>

</head>

<body>

<h6 class="myclass"> This is h6 Header</h6>

<h6> This is h6 Header</h6>

<p class="myclass"> This is a paragraph </p>

</body>

Here 1st h6 and <p> tag lines will reflect class selector designs as we have assigned them same class name.

1. **Id Selector:**

<style>

/\* Id Selector \*/

#myid

{

/\* CSS Code for selected h3 tags which has id as myid\*/

color: #33ffff;

background-color: #006666;

}

</style>

<body>

<!--2c Example for Id Selector Internal CSS-->

<h3 id="myid"> This is h3 Header</h3>

<h3> This is h3 Header</h3>

<h3 id="myid"> This is h3 Header</h3>

</body>

1. **External CSS**

In this we use same Selector as Inline CSS, it’s just that we write the code in different page which is saved with .css extension

After writing CSS page we link it where we want to use in HTML page using Link tag and relate (rel) attribute and href attribute. (We do this in the head tag.

**Step 1.** Write CSS file

/\* Element Selector\*/

h2

{

/\* CSS Code for all H2 Tags\*/

color: #ff0066;

background-color: #66cc66;

}

**Step 2**: Link it where you want to use it

<link rel="stylesheet" href="myCSS.css" type= "text/css">

**Step 3:** See the result wrt used types

<!--3 Example for External CSS-->

<h2> This is h2 Header</h2>

<h2> This is h2 Header</h2>

Properties:

body

{

background-image: url("C:/Users/Lenovo/Pictures/haren.jpg");

background-repeat: no-repeat;

background-size: 50% 50%;

background-position: center;

background-attachment: fixed;

/\* Border Properties \*/

border-style: groove;

border-color: red;

border-width: 5px;

}

p

{

border-bottom-style: solid;

border-top-style: dashed;

border-left-style: dashed;

border-right-style: dotted;

border-bottom-color: red;

border-top-color: blue;

border-left-color: green;

border-right-color: orange;

}

/\* Above h3 header we can also do as below: \*/

h5

{

border-bottom: red 5px dotted;

border-top: red 5px dashed;

border-left: red 5px dotted;

border-right: red 5px dashed;

/\*To get curved edges\*/

border-radius: 100px;

/\*To get curved edges for specific sides\*/

border-top-right-radius: 100px;

border-bottom-left-radius: 100px;

}

**Div Tag:** Inside div, whichever tags are available on all of them we’ll see the changes written for div tag.

div

{ border: 10px double red;}

<div>

<b> This is h3 in div tag</b>

<p>This is paragraph in div Tag</p>

</div>

Ques: Draw a square using div and css

<!doctype html>

<html lang="en">

<head>

<title>Draw Square Using Div Tag</title>

<style>

#square

{

height: 50px;

width: 50px;

border: 3px red dotted;

}

</style>

</head>

<body>

<div id= "square">

</div>

</body>

</html>

Position:

1. Static
2. Absolute: It starts from browser beginning
3. Relative: Relative to the Tag position.
4. Sticky: Combo of absolute and fixed.
5. Fixed: To make it visible all the time.

#pos

{

border: 2px solid;

width: 200px;

position: relative;

top: 55px;

left: 30px;

}

**Box Model:**

p

{

border: 2px solid;

padding: 20px;

margin: 15px;

}

h1

{

border: 1px solid;

padding-left: 10px;

margin-top: 5px;

}

Here we can see that we can also apply only one side for padding and margin.

e.g.

padding-left:10px; or padding-right :10px; or padding-top :10px; etc

margin-top: 5px; or margin-right: 5px; etc

padding: 20 px; //It will set all 4 side same values.

padding: 15px 20px; // It will set top & Bottom 15px and 20px to left and right.

Padding: 15px 20px 25px; // It will give 15px to top, 20px to left and right, 25px to bottom.

Padding: 15px 20px 25px 30px; // Top> Right>Bottom> Left

Similarly for Margin Property.

***To design responsive WebPages, we make use of these Box- Model properties.***

**Transform Property:**

We use this to rotate the element.

<style>

div

{

height: 100px;

width: 100px;

margin: 150px;

border: 2px solid red;

background-color: yellow;

/\*transform: skew(55deg);\*/ Either use this

transform: rotate(30deg); or use this

}

</style>

Transform: We can use either skew or rotate; both have same functionality.

**Combinatory Selectors**:

If we want to apply CSS on multiple tag e.g. p tag which is present inside div tag. For this case we use below selectors.

It will select all p tags direct and indirect.

1. **Descendent Selector** (div<space>p)

e.g. <style>

div p

{

color: red;

}

</style>

<div>

<p> This is paragraph present inside the div tag</p>

<p> This is another paragraph present inside the div tag</p>

<div> <p> This is internal div tag </p></div> // It should also be affected.

</div>

<p>This is paragraph present OUTSIDE the div tag, here that CSS should not be applied.</p>

Here the above CSS will be applicable only on <p> present in <div> tag.

1. Child Selector: It affects only direct children, internal div tags won’t be affected.

Symbol: “>”

<style>

#externalDiv>p

{

color: green;

}

</style>

<!--Child Selector--It will not affect indirect p tag-->

<div id="externalDiv">

<p> This is paragraph present inside the div tag</p>

<p> This is another paragraph present inside the div tag</p>

<div> <p> This is internal div tag </p></div> // It should not be affected.

</div>

<p>This is a paragraph present OUTSIDE the div tag, here that CSS should not be applied.</p>

1. Adjacent Sibling Selector: Symbol “+” , It will search for the id or class and then will apply changes on its adjacent tag which Is used in style definition.

<style>

#externalDiv+p

{

color: green;

}

</style>

<!--Adjacent Selector--It will affect only Sibling selector-->

<div id="externalDiv">

<p> This is paragraph p1</p>

<p> This is another paragraph p2</p>

<div> <p> This is internal div tag </p></div>

<p> This is another paragraph p3</p>

</div>

<p>This is a paragraph which is Sibling Paragraph.</p>

1. General Sibling Selector: Symbol “~”

It affects all the p, present after given tag used with ¬

<title>General Sibling </title>

<style>

#externalDiv~p

{

color: green;

}

</style>

<!--Adjacent Selector--It will affect all selector-->

<div id="externalDiv">

<p> This is paragraph p1</p>

<p> This is another paragraph p2</p>

<div> <p> This is internal div tag </p></div>

<p> This is another paragraph p3</p>

</div>

<p>This is paragraph is Sibling Paragraph.</p>

<p>This is paragraph is not a Sibling Paragraph, here changes should reflect.</p>

**Pseudo Classes:**

1. **Hover**

<style>

h1

{

color: green;

}

h1:hover

{

color: red;

cursor: pointer;

}

</style>

<body><h1>This is paragraph p1</h1></body>

1. **Active:** It will reflect while we press.

<style>

h1

{

color: green;

}

h1:active

{

color: red;

cursor: pointer;

}

</style>

<body><h1>This is paragraph p1</h1></body>

1. Link

**Animation:**

Example: 1

<style>

div

{

height:250px;

width: 250px;

background-image: linear-gradient(to top, red, blue, yellow);

//We can use top, bottom, left, right to change the order of the color.

}

</style>

<body>

<div>

</div>

</body>

Example: To change the portion use percentage.

div

{

height:250px;

width: 250px;

background-image: repeating-linear-gradient(to bottom, red 25%, blue 35%, yellow 30%);

}

#div2

{

height: 250px;

width: 250px;

background-image: radial-gradient(green, red, blue);

}

#div2

{

height: 250px;

width: 250px;

background-image: repeating-radial-gradient(green 5%, red 15%, blue 25%);

}

#div3

{

height: 250px;

width: 250px;

background-color: red;

animation-name: anima1;

animation-duration: 5s;

animation-iteration-count: infinite;

}

@keyframes anima1

{

from

{

background-color: red;

}

to

{

background-color: green;

}

}