- **For learn Web-designing we have to learn several these types of coding as: -**
- **Hyper Text Markup Language (HTML)**
- **Cascading Style Sheet (CSS)**
- **JavaScript (JS)**
- **JQUERY.**

COMPUTER WORLD श्री MUSHARI BLOCK

Now we start HTML:- With kumod sir

HTML (HYPER TEXT MARKUP LANGUAGE)

HTML is a markup language that means <start with> </end with>.

HTML not a programming language.it is mainly used for create web pages.

HTML result shows on web browsers. Such as Google chrome, Firefox, internet explorer. HTML code write on any text editor software such as notepad, notepad++, edit++, and save it .html extension such as (abc.html) and run it on browser.

HTML developed by Tim Berners Lee. They are also founder of www. (W3C)

First of all we define here some basic Topic:-

What is Website?

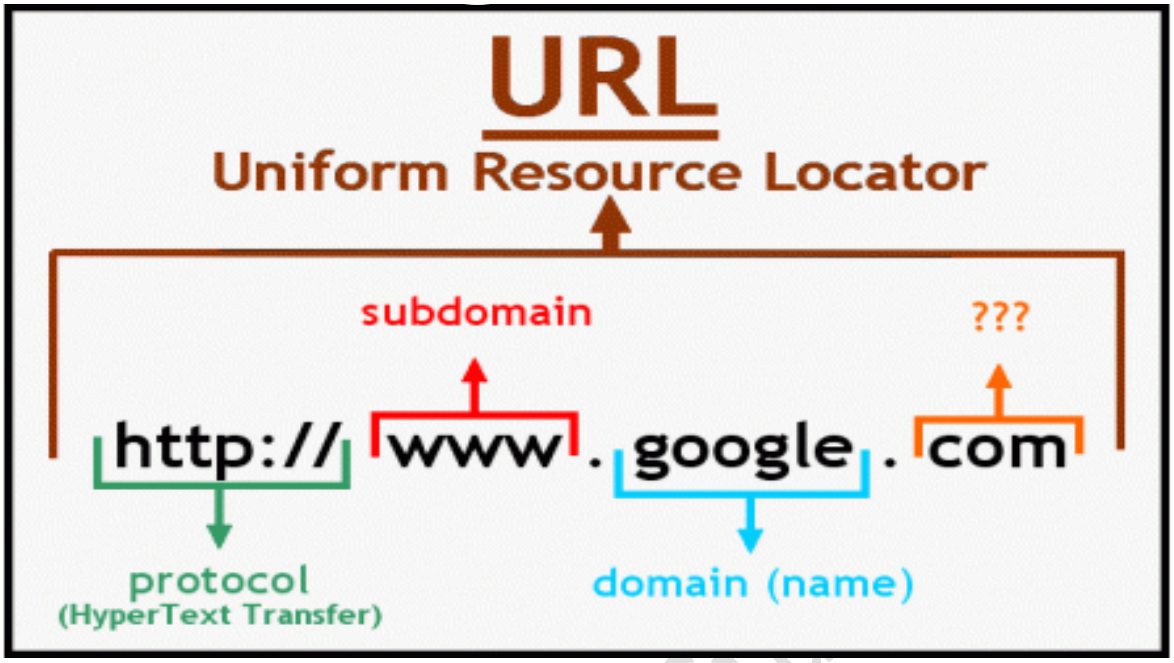
Website is collection of web-pages. Web-pages: Includes Index, Home, about, gallery and many more.

What is domain?

www.computerworldmushahari.com

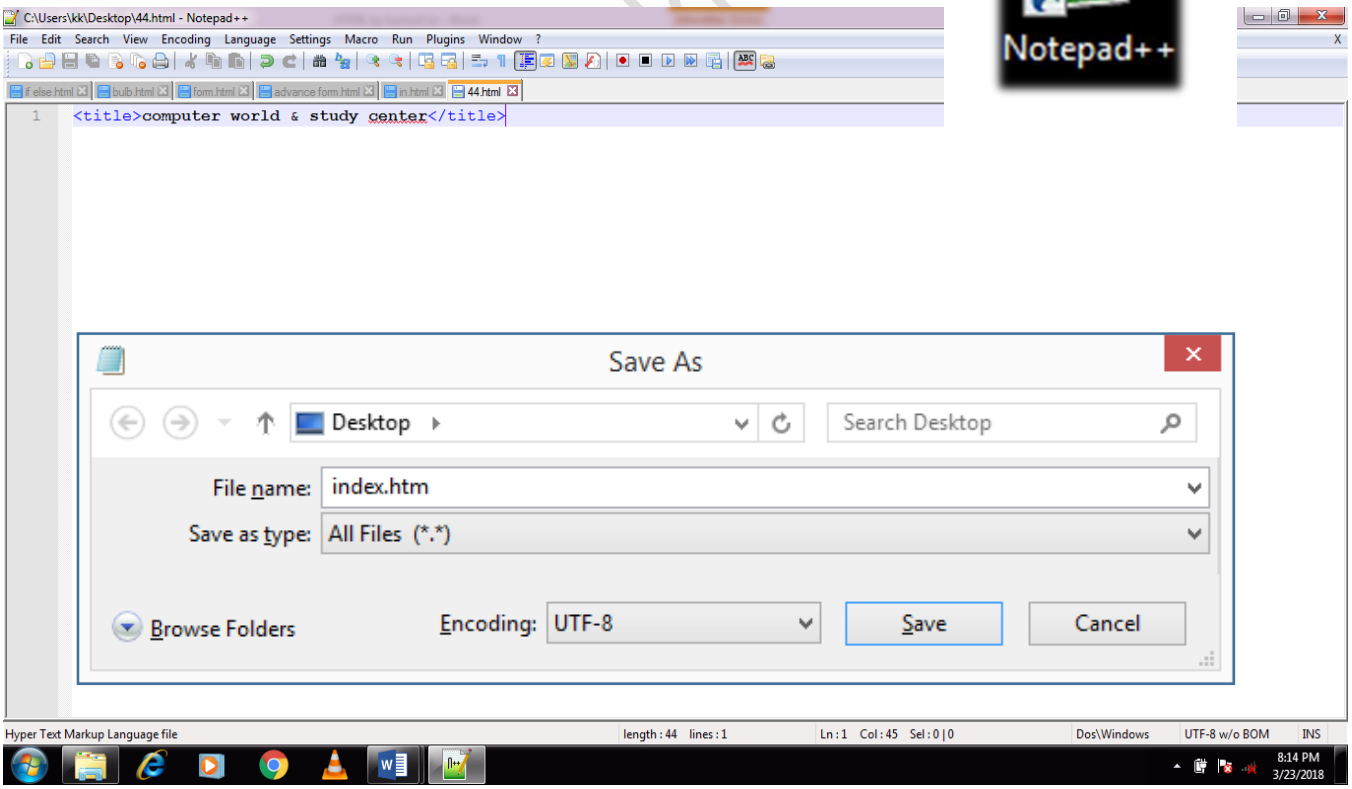
Domain

What is URL?



Open any text editor application:-

I am using notepad++. you can use any application

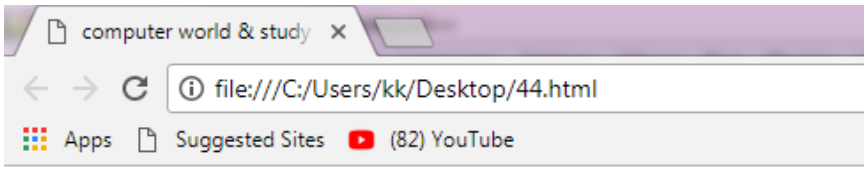


Click on Run menu choose option with launch.

<Title> computer world</title>

TAG | Text (that is display in browser) | Close tag

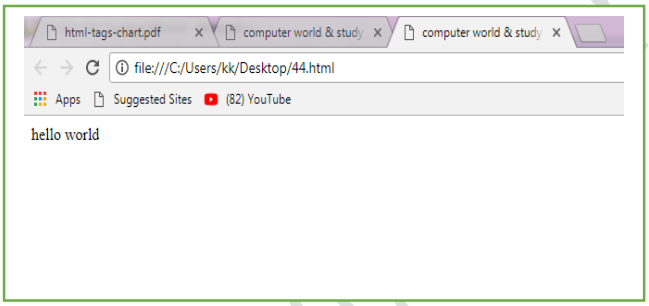
Result



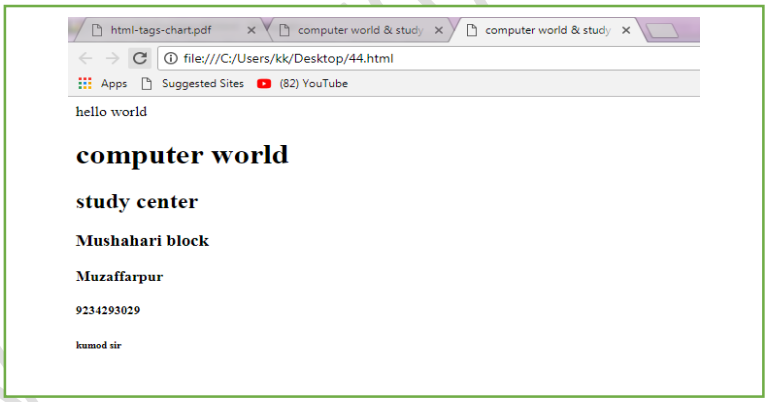
Heading tag.

<head> this tag is open tag.

<head>hello world</head>



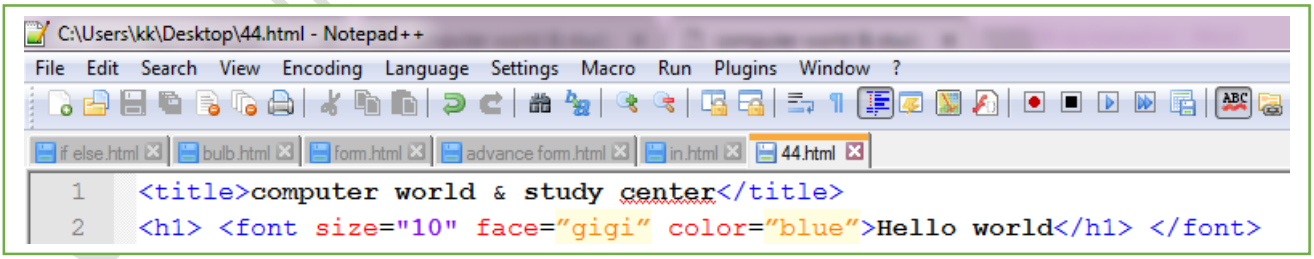
H1.. <h1> computer world</h1>
H2.. <h2>study center</h2>
H3.. <h3>Mushahari block</h3>
H4 ..<h4>Muzaffarpur</h4>
H5.. <h5>9234293029</h5>
H6 ..<h6>kumod sir</h6>



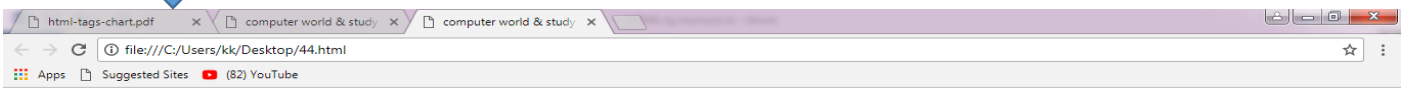
<Font tag>

You can change font color, font face (style), font size.

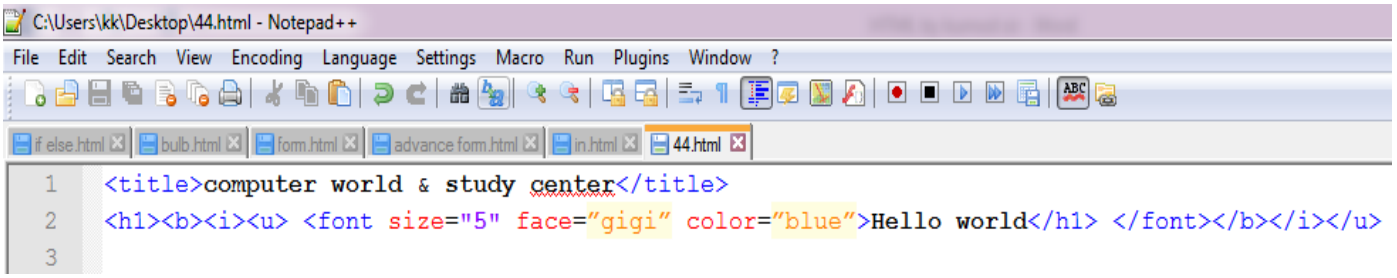
**<h1> Hello world</h1> **



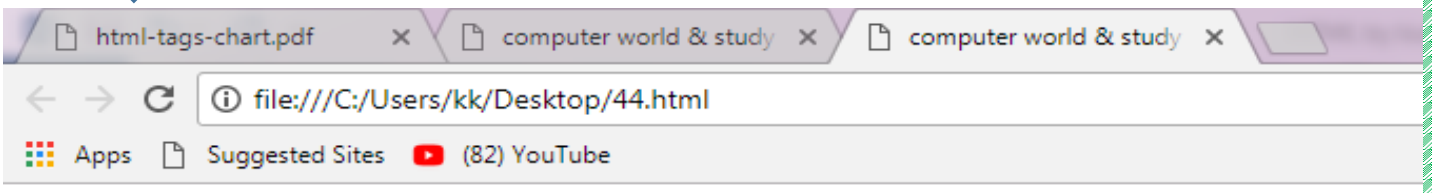
Result



Bold tag<b>, underline tag <u>, italic tag<i>

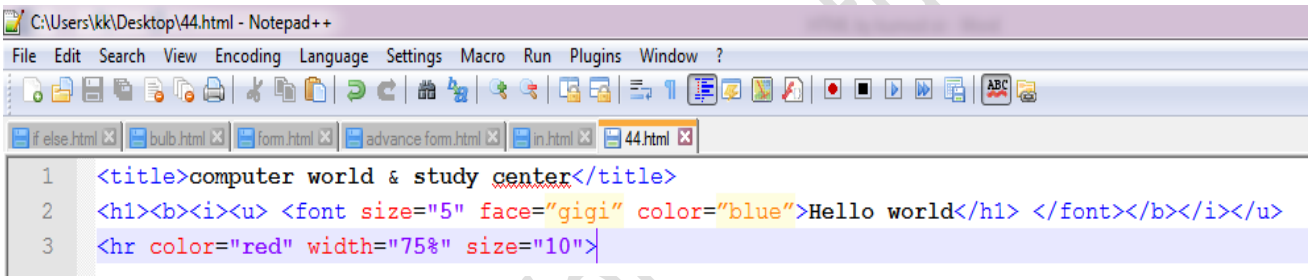


RESULT



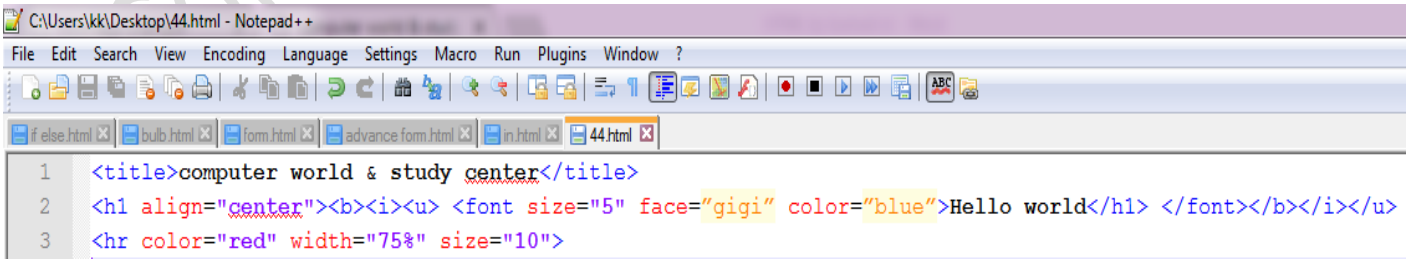
Hr tag horizontal rule. Draw line on page

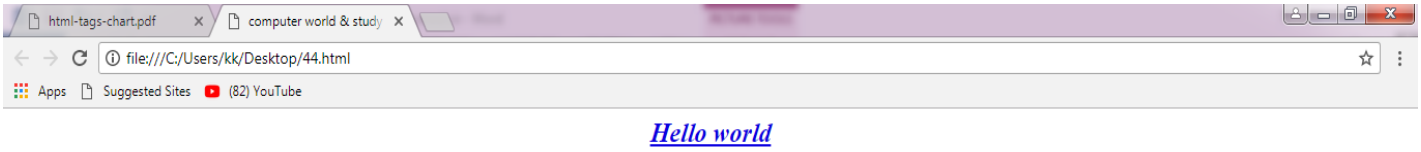
<hr color="red" width="75%" size="10">



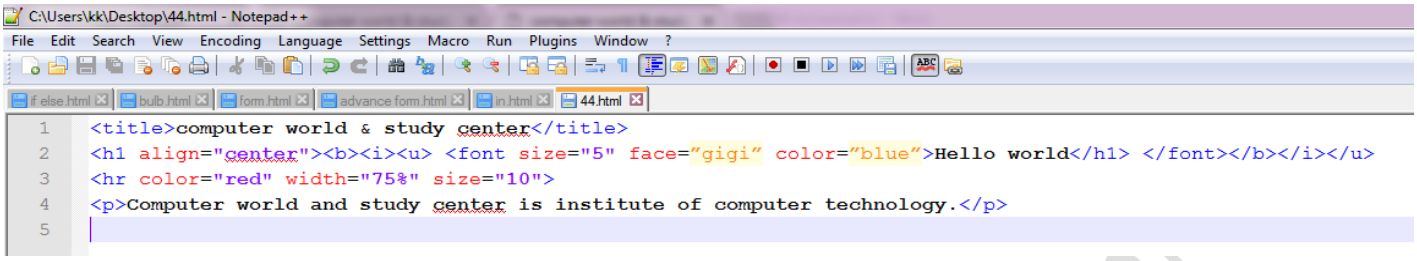
Align tag (left, center, right) set text position on page

<h1 align=”center”> computer world</h1>

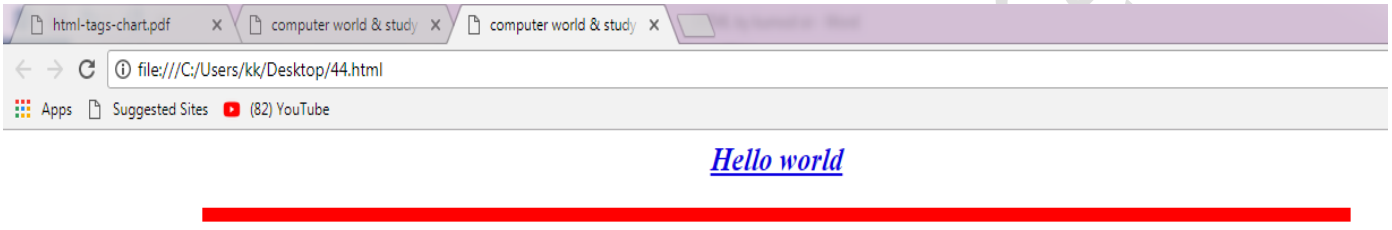




<p> p tag is a paragraph tag.



RESULT

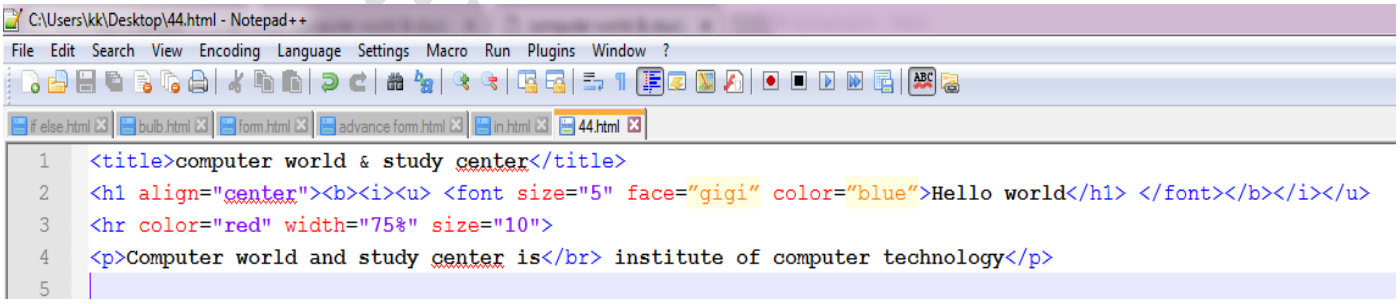


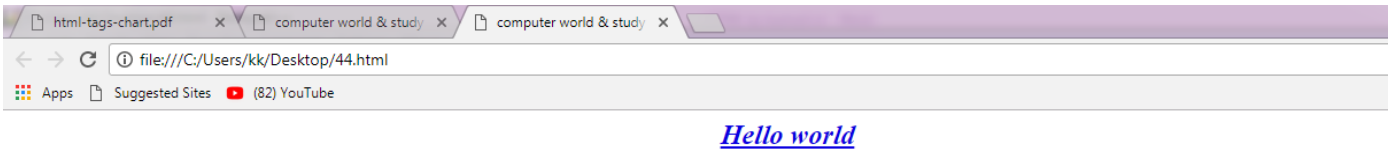
You can also set position means set align (left, center, right) in <p> tag

<p align="center">

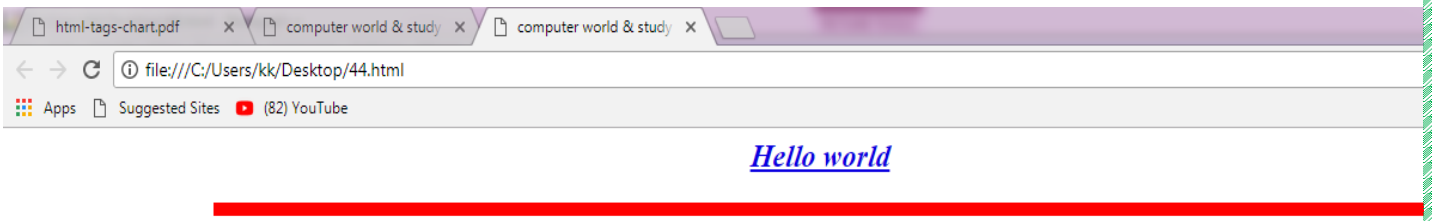
And you can also do code of font tag.

 tag – br tag is line break tag. One </br> for single line break. For double line break
</br>





Double line break



<Marquee> tag marquee. <marquee direction=”left”>

<marquee direction=”right”>

```
<marquee behavior="alternate">virus </marquee>
```

Scrollamount is speed of marquee.

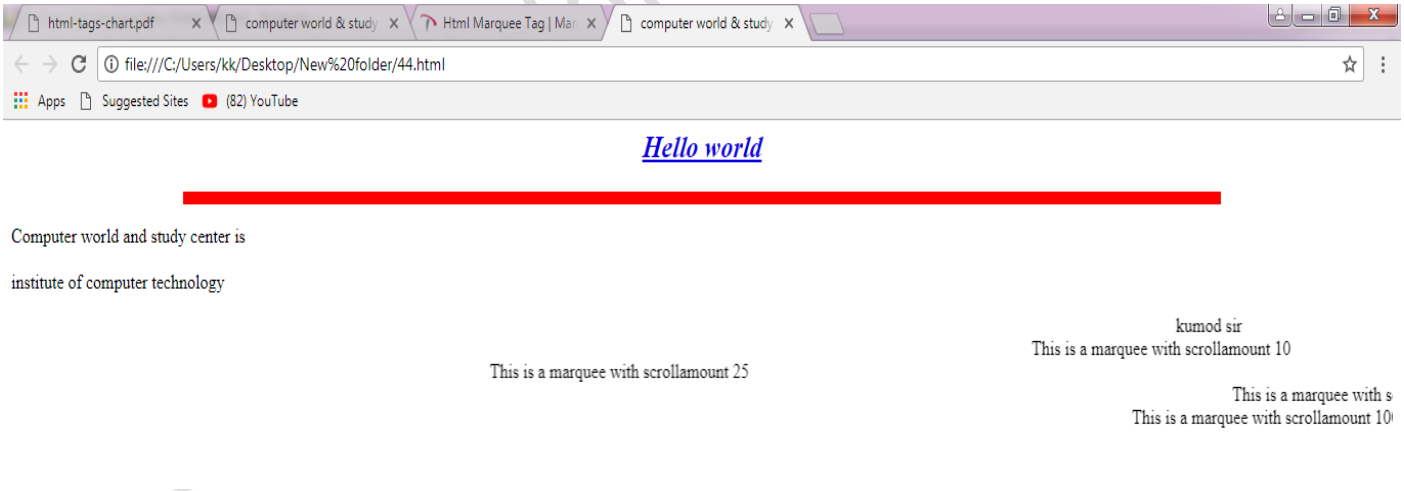
Code define

<marquee scrollamount="10"> This is a marquee with scrollamount 10 </marquee>

<marquee scrollamount="25"> This is a marquee with scrollamount 25 </marquee>

<marquee scrollamount="50"> This is a marquee with scrollamount 50 </marquee>

<marquee scrollamount="100"> This is a marquee with scrollamount 100 </marquee>



<marquee scrolldelay="10">This is a marquee with scrolldelay 10</marquee>

<marquee scrolldelay="25">This is a marquee with scrolldelay 25</marquee>

<marquee scrolldelay="50">This is a marquee with scrolldelay 50</marquee>

<marquee scrolldelay="100">This is a marquee with scrolldelay 100</marquee>

<marquee scrolldelay="200">This is a marquee with scrolldelay 200</marquee>

<marquee scrolldelay="300">This is a marquee with scrolldelay 300</marquee>

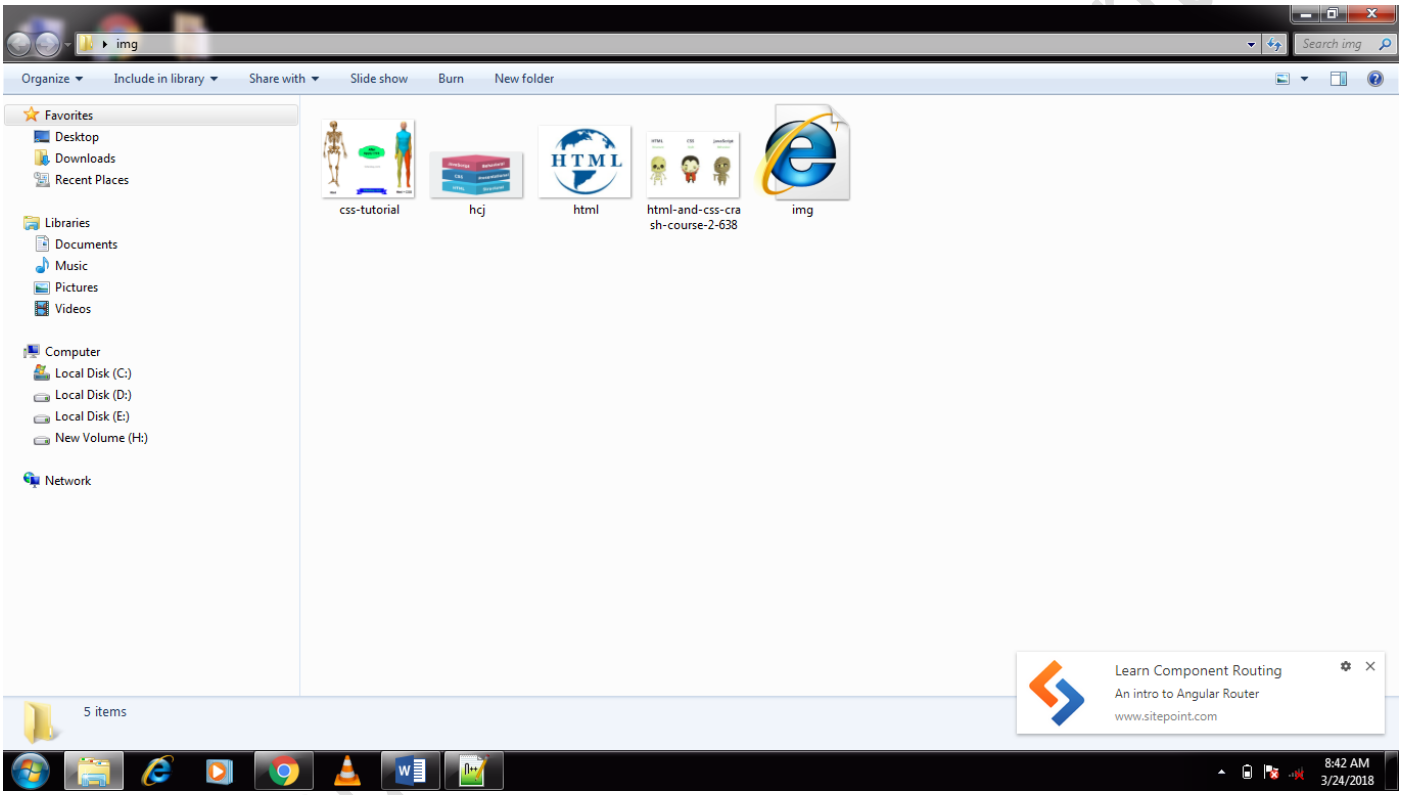
<marquee scrolldelay="500">This is a marquee with scrolldelay 500</marquee>

<marquee scrolldelay="1000">This is a marquee with scrolldelay 1000</marquee>

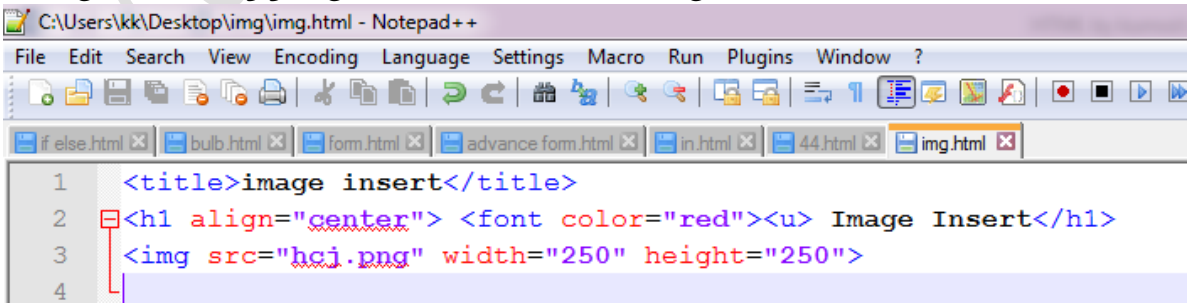
```
<marquee onmouseover="this.stop()" onmouseout="this.start()">This marquee will stop on mouseover.</marquee>

<marquee onclick="this.stop()" ondblclick="this.start()">This marquee will stop on mouseclick and start on double click. </marquee>
```

<img> tag this tag is used to insert image on web page.

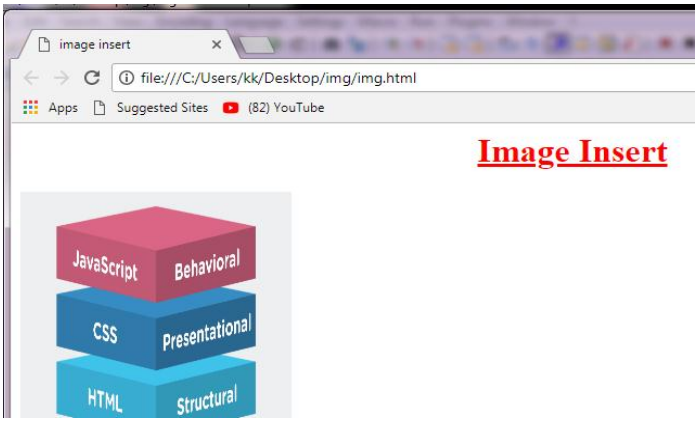
First of all. You have to create a folder or collect image and HTML file in this folder.




```
<title>image insert</title>
<h1 align="center"> <font color="red"><u> Image Insert</h1>
<img src="hcj.png" width=”250” height=”250”>
```



Result



Listing on html

There are two type of list tag

* ordered list (number & Alphabet listing)*

* unordered list(bullets listing)*

……

Numbered

<ol>

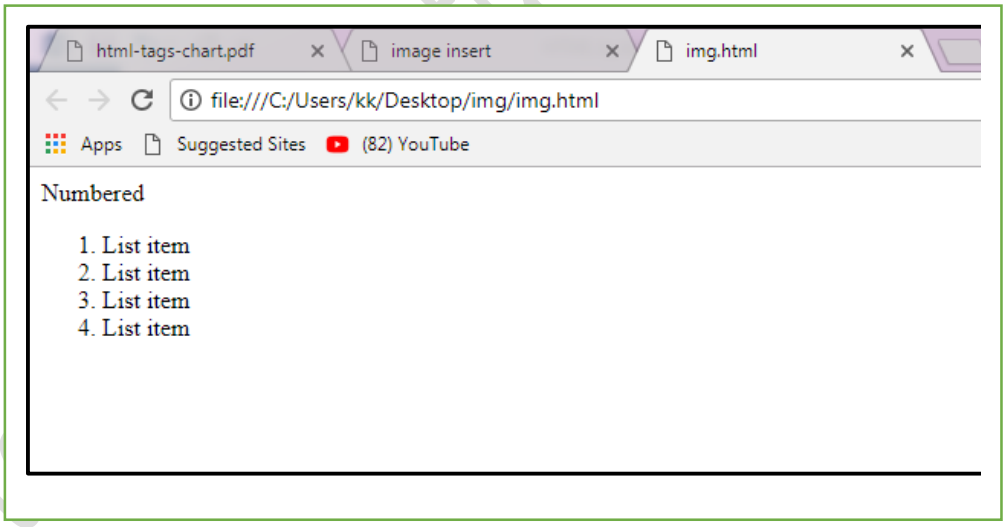
*
List item *

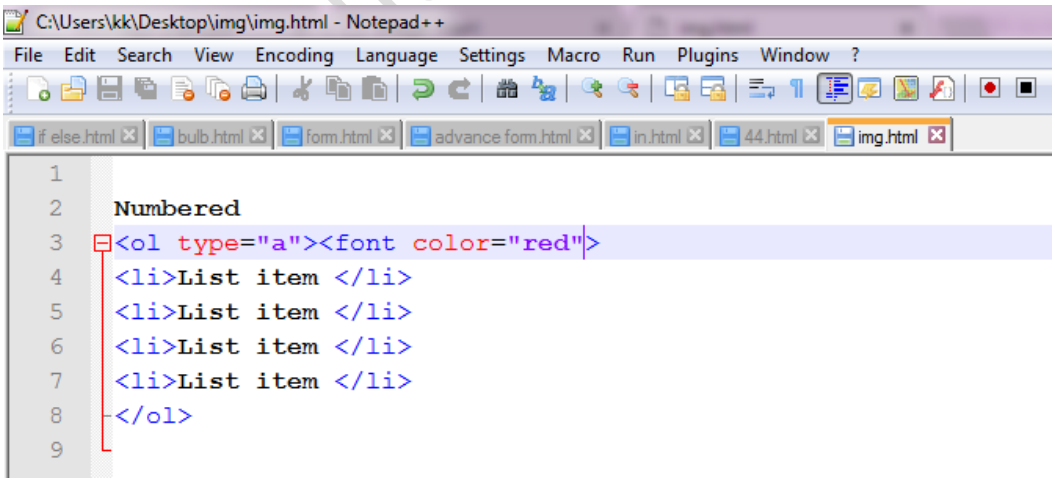
*
List item *

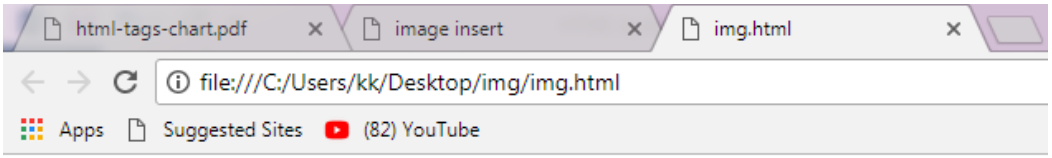
*
List item *

*
List item *

*
*







Numbered

a. List item
b. List item
c. List item
d. List item

tag		coding	*Browser view(result)*
	ordered list	**Numbered** ** ** - List item 1 - List item 2 - List item 3 - List item 4 ** ** **Numbered Special Start** **<ol start="5">** - List item 1 - List item 2 - List item 3 - List item 4 ** ** **Lowercase Letters** **<ol type="a">** - List item 1 - List item 2 - List item 3 - List item 4 ** ** **Capital Letters** **<ol type="A">** - List item 1 - List item 2 - List item 3 - List item 4 ** ** **Capital Letters Special Start** **<ol type="A" start="3">** - List item 1 - List item 2 - List item 3 - List item 4 ** ** **Lowercase Roman Numerals** **<ol type="i">** - List item 1 - List item 2 - List item 3 - List item 4 ** **	**Numbered** 1. List item 1 2. List item 2 3. List item 3 4. List item 4 **Numbered Special Start** 5. List item 1 6. List item 2 7. List item 3 8. List item 4 **Lowercase Letters** a. List item 1 b. List item 2 c. List item 3 d. List item 4 **Capital Letters** A. List item 1 B. List item 2 C. List item 3 D. List item 4 **Capital Letters Special Start** C. List item 1 D. List item 2 E. List item 3 F. List item 4 **Lowercase Roman Numerals** i. List item 1 ii. List item 2 iii. List item 3 iv. List item 4 **Capital Roman Numerals** I. List item 1 II. List item 2 III. List item 3 IV. List item 4

<ul type=”square”>

C:\Users\kk\Desktop\img\img.html - Notepad++

File Edit Search View Encoding Language Settings Macro Ru

if else.html | bulb.html | form.html | advance form.html

```
1
2   Numbered
3   <ul type="square">
4   <li>List item </li>
5   <li>List item </li>
6   <li>List item </li>
7   <li>List item </li>
8   </ul>
```

html-tags-chart.pdf

file:///C:/Users

Apps Suggested Sites

Numbered

- List item
- List item
- List item
- List item

RESULT

ul type="disc">

*
List item 1
*

*
List item 2
*

<ul type="circle">

*
List item 3
*

*
List item 4
*

*
*

*
*

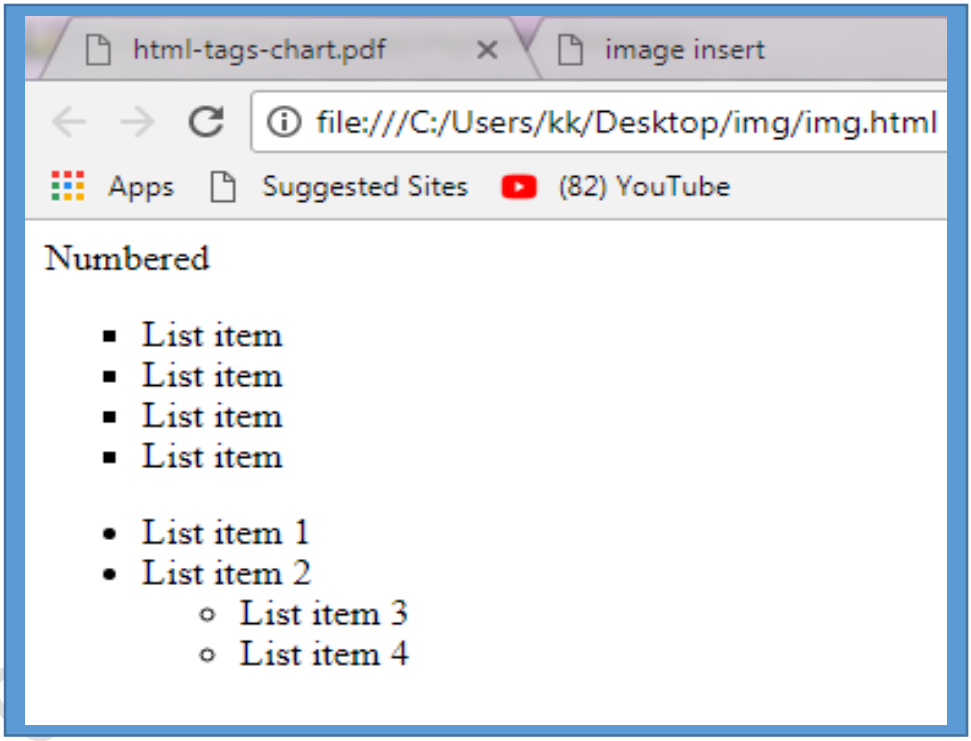


Table tag- this tag is used to draw table on web page.
There are three type of table coding
<table border=”1”> define the table border width in pixels.

<td> table data (make column)

<th> table heading(make heading)

<tr> table row(make row)

C:\Users\kk\Desktop\img\table.html - Notepad++

File Edit Search View Encoding Language Se

if else.html | bulb.html | form.html | advan

```
1   <h1> table coding</h1>
2   <table border="1">
3   <td>TEXT</td>
4   <td>TEXT</td>
5   <td>TEXT</td>
6   <td>TEXT</td>
7
```

RESULT

<h1> table coding</h1>

<table border="1">

<td>TEXT</td>

<td>TEXT</td>

<td>TEXT</td>

<td>TEXT</td>

<TR>

<TD>text</Td>

<TD>text</Td>

<TD>text</Td>

<TD>text</Td>

</tr>

<th> example

C:\Users\kk\Desktop\img\table.html - Notepad++

File Edit Search View Encoding Language Se

if else.html | bulb.html | form.html | adva

```
1  <h1> table coding</h1>
2  <table border="1">
3   <td>TEXT</td>
4   <td>TEXT</td>
5   <td>TEXT</td>
6   <td>TEXT</td>
7  <TR>
8   <TD>text</Td>
9   <TD>text</Td>
10  <TD>text</Td>
11  <TD>text</Td>
12 </tr>
13
```

Result

html-tags-chart.pdf × image insert

file:///C:/Users/kk/Desktop/img/tabl

Apps Suggested Sites (82) YouTube

table coding

TEXT	TEXT	TEXT	TEXT
text	text	text	text

C:\Users\kk\Desktop\img\table.html - Notepad++

File Edit Search View Encoding Language Settings

if else.html | bulb.html | form.html | advance for

```
1   <h1> table coding</h1>
2  <table border="1">
3  <tr>
4   <th>Column 1</th>
5   <th>Column 2</th>
6   <th>Column 3</th>
7  </tr>
8  <tr>
9   <td>Row 2</td>
10  <td>Row 2</td>
11  <td>Row 2</td>
12 </tr>
13 <tr>
14  <td>Row 3</td>
15  <td>Row 3</td>
16  <td>Row 3</td>
```

Result

html-tags-chart.pdf × image insert

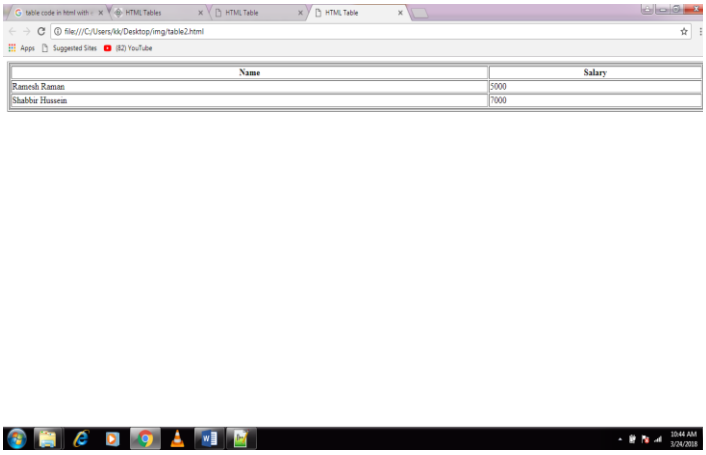
file:///C:/Users/kk/Desktop/img/table

Apps Suggested Sites (82) YouTube

table coding

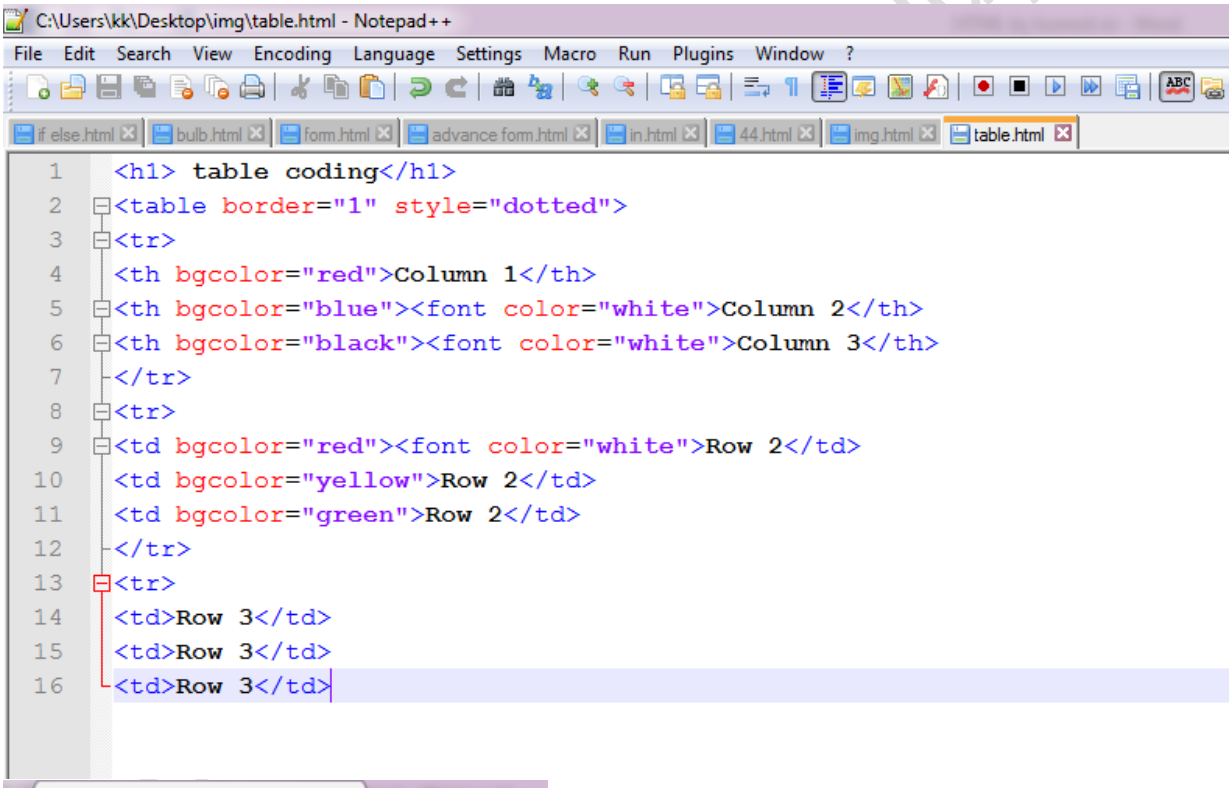
Column 1	Column 2	Column 3
Row 2	Row 2	Row 2
Row 3	Row 3	Row 3

```
<html>

  <head>
    <title>HTML Table</title>
  </head>

  <body>
    <table border = "1" width = "100%">

       <tr>
         <td>
  <table border = "1" width = "100%">
              <tr>
                <th>Name</th>
                <th>Salary</th>
              </tr>
              <tr>
                <td>Ramesh Raman</td>
                <td>5000</td>
              </tr>
              <tr>
                <td>Shabbir Hussein</td>
                <td>7000</td>
              </tr>
            </table>
         </td>
       </tr>

    </table>
  </body>

</html>
```



Color full table.

```
<h1> table coding</h1>
<table border="1" style="dotted">
<tr>
<th bgcolor="red">Column 1</th>
<th bgcolor="blue"><font color="white">Column 2</th>
<th bgcolor="black"><font color="white">Column 3</th>
</tr>
<tr>
<td bgcolor="red"><font color="white">Row 2</td>
<td bgcolor="yellow">Row 2</td>
<td bgcolor="green">Row 2</td>
</tr>
<tr>
<td>Row 3</td>
<td>Row 3</td>
<td>Row 3</td>
```



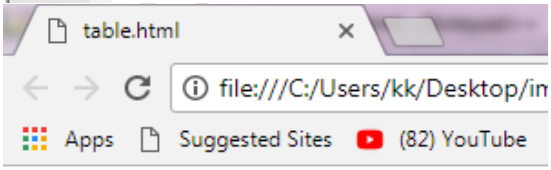
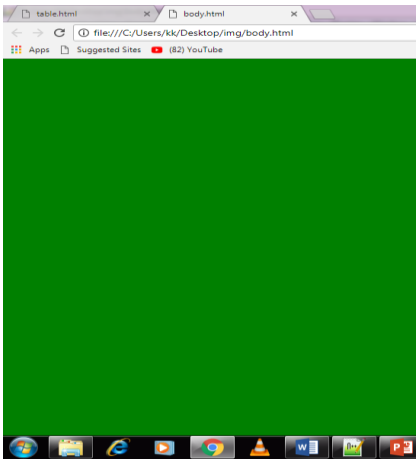


table coding

Column 1	Column 2	Column 3
Row 2	Row 2	Row 2
Row 3	Row 3	Row 3

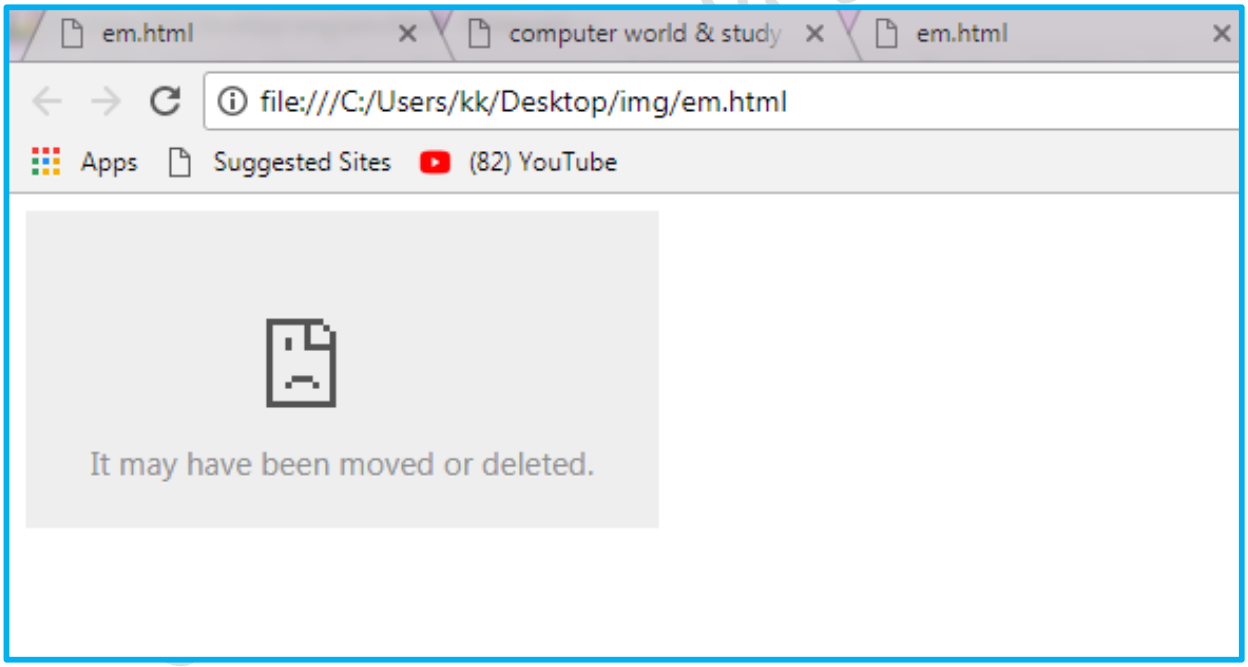
Body tag.
That means whole page of browser.
<body bgcolor=”green”>



You can also insert image on page.
<body background="hcj.png">
.png is format of image. And hcj name of image
Image will be inserted on bg depended on image size.

<embed>

<embed src="body.html" autostart="true"
hidden="false" loop="false">



Input type:- This tag is used to create form on web pages.

1.<input type=”text”>

2.<input type=”password”>

3.<input type=”checkbox”>

4.<input type=”radio”>

5.<input type=”submit”>

6.<input type=”number”>

7.<input type=”Name”>

8.<input type=”button”>

9.<input type=”color”>

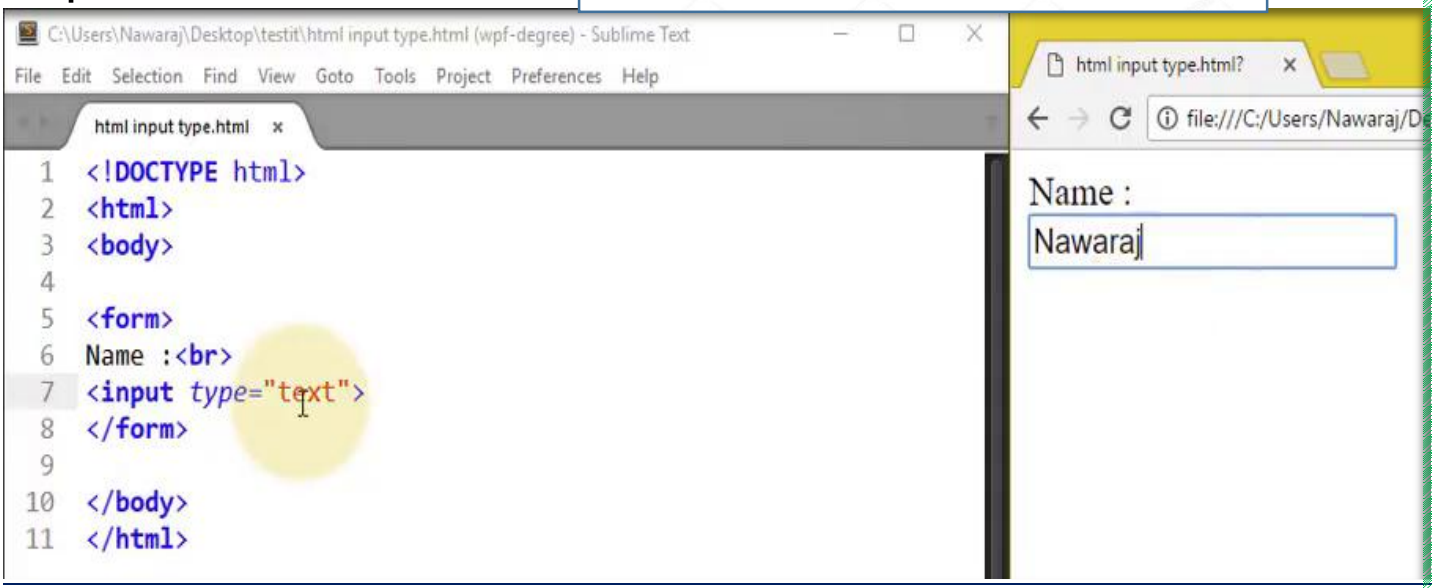
10.<input type=”date”>

11.<input type=”datetime-local”>

12.<input type=”range”>

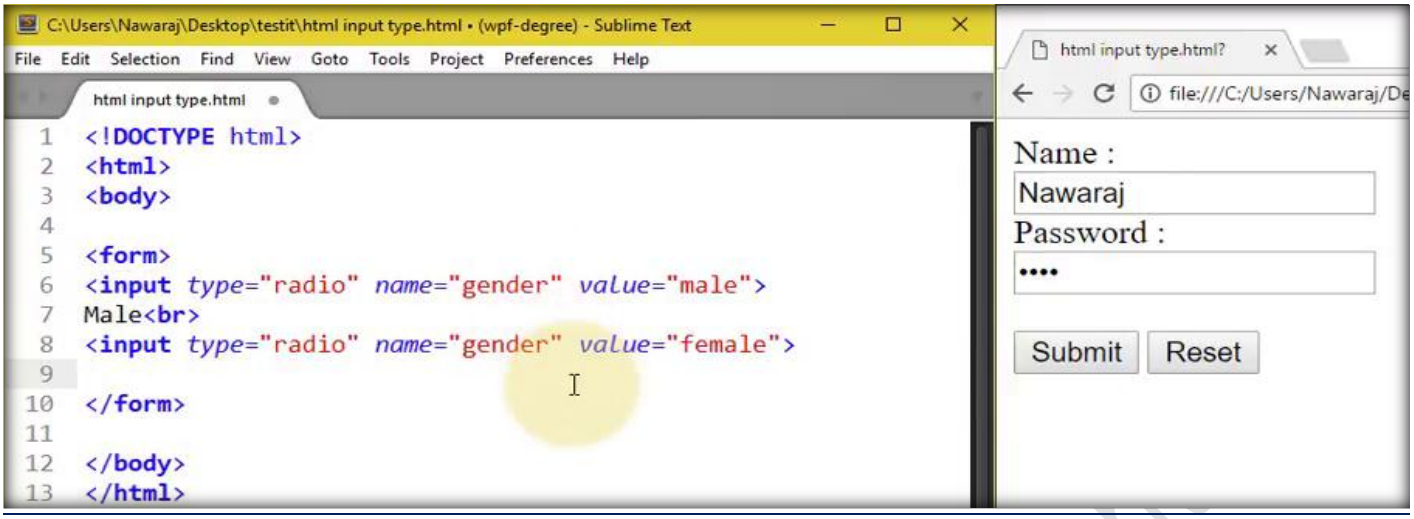
13.<input type=”time”>

Explain:-

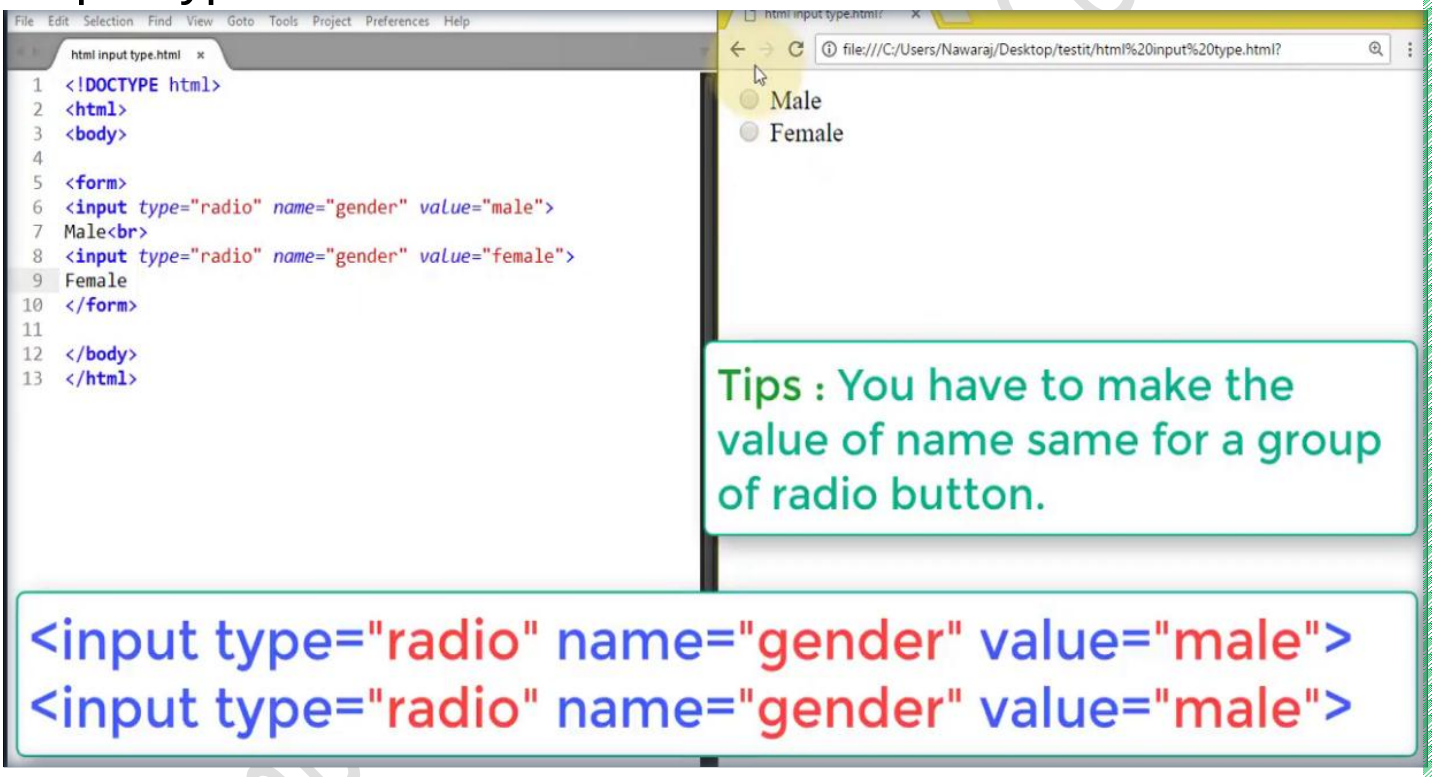


<input type=”text”>

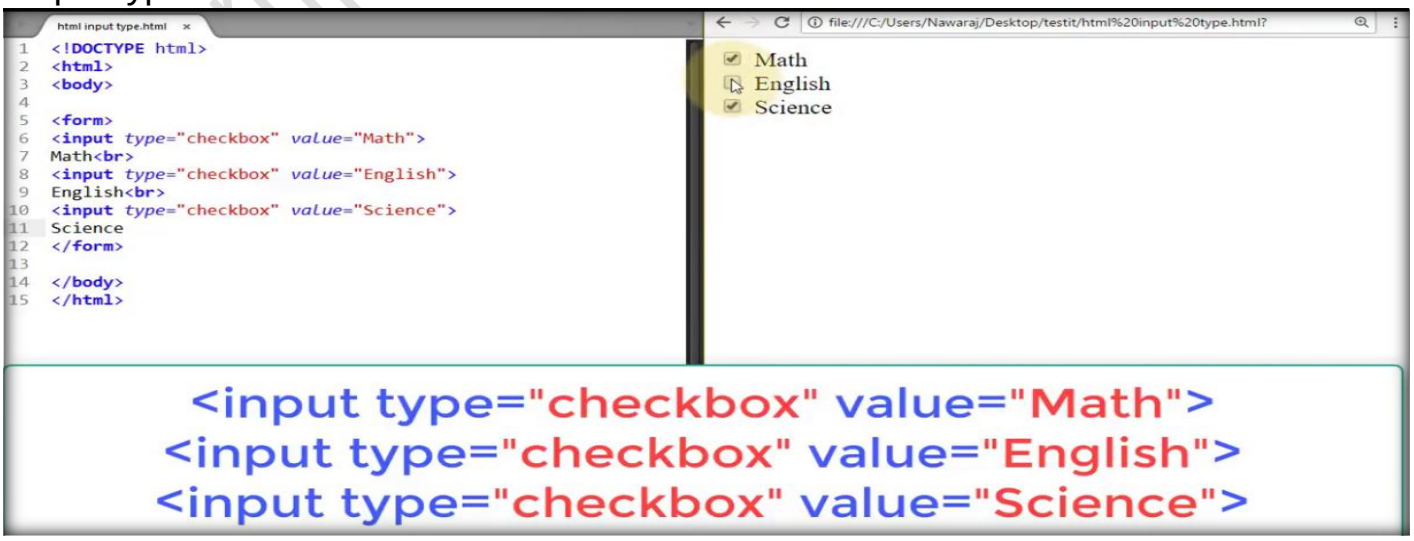
<input type=”password”>



<input type=”radio”>

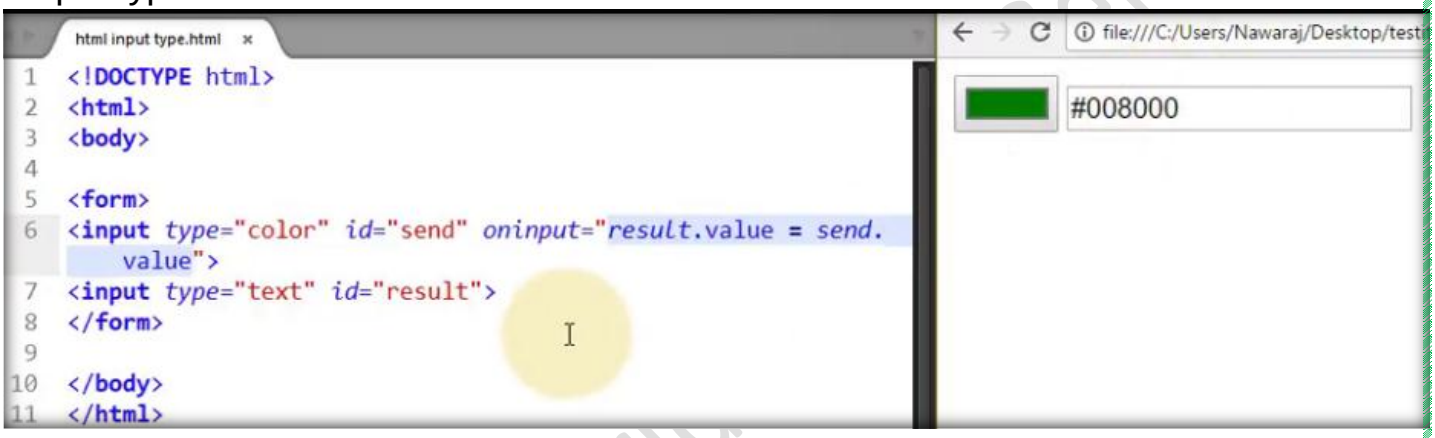


<input type=”checkbox”>



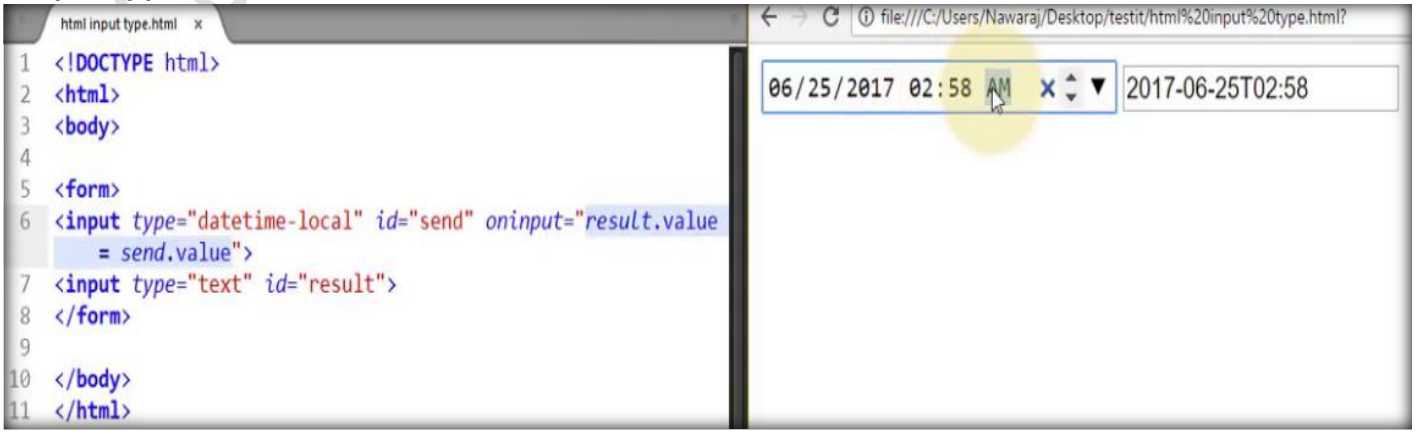
<input type=”button”>

<Input type=”color”>

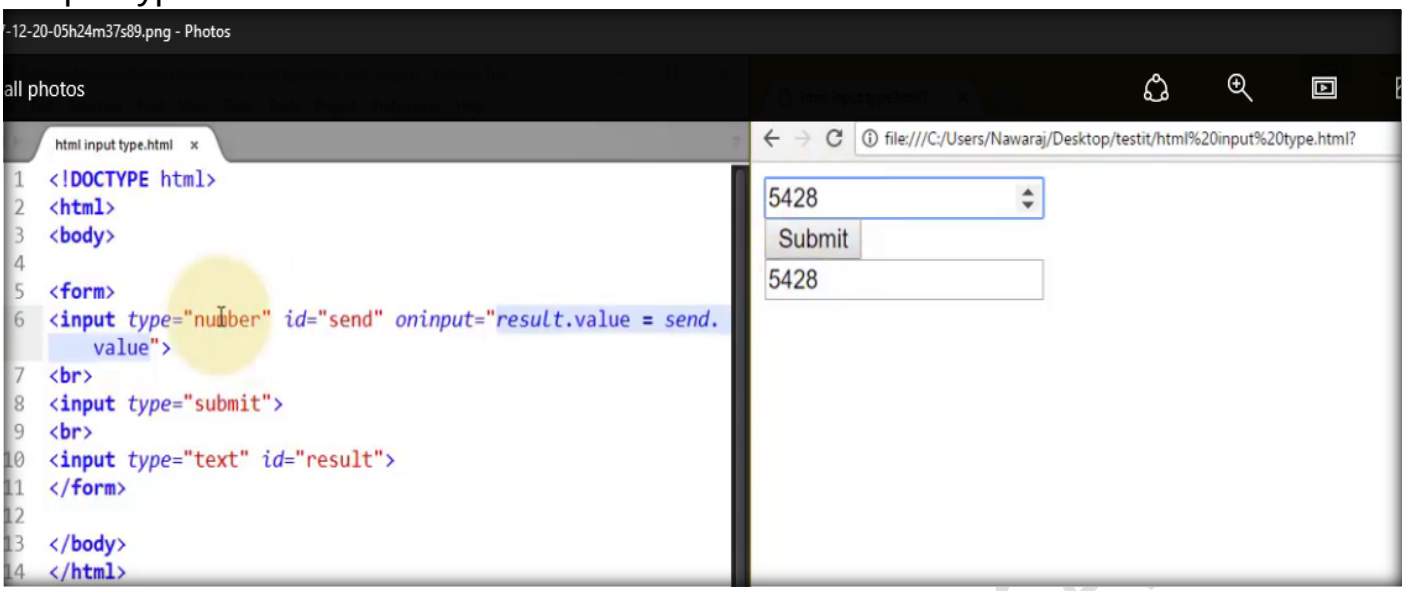


<input type=”date”>

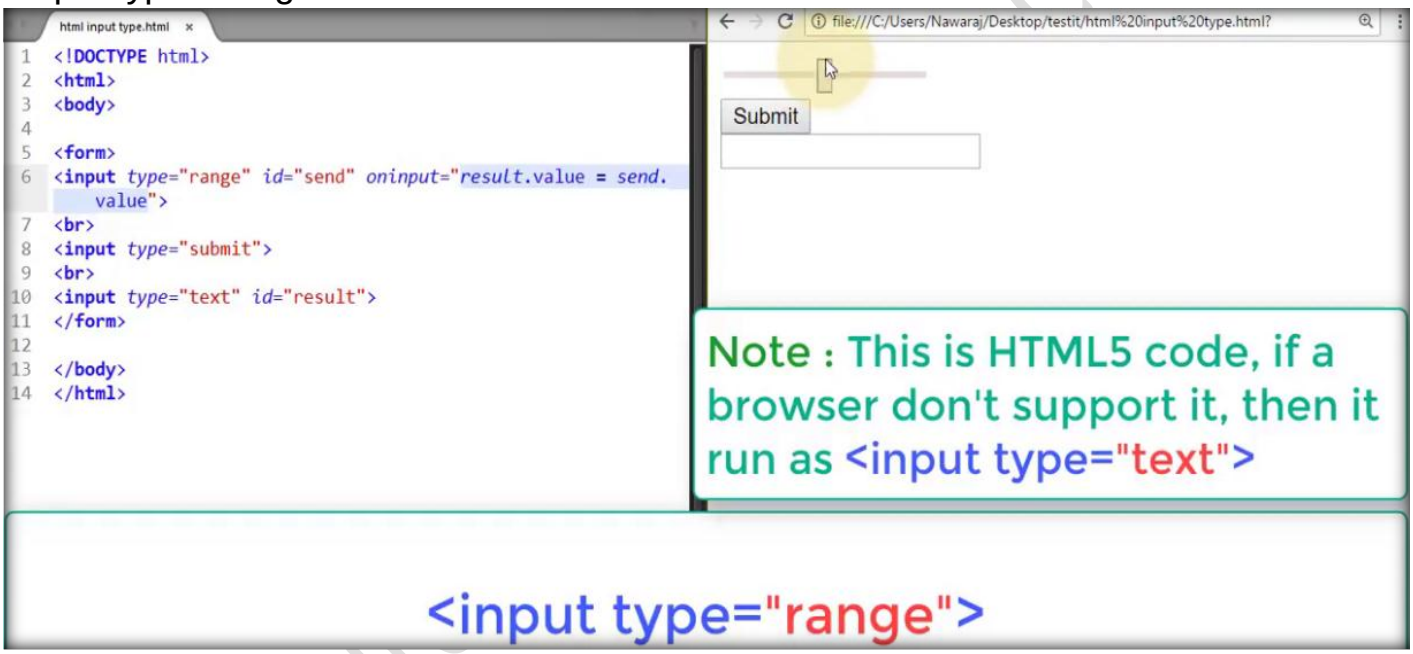
<input type=”datetime”>



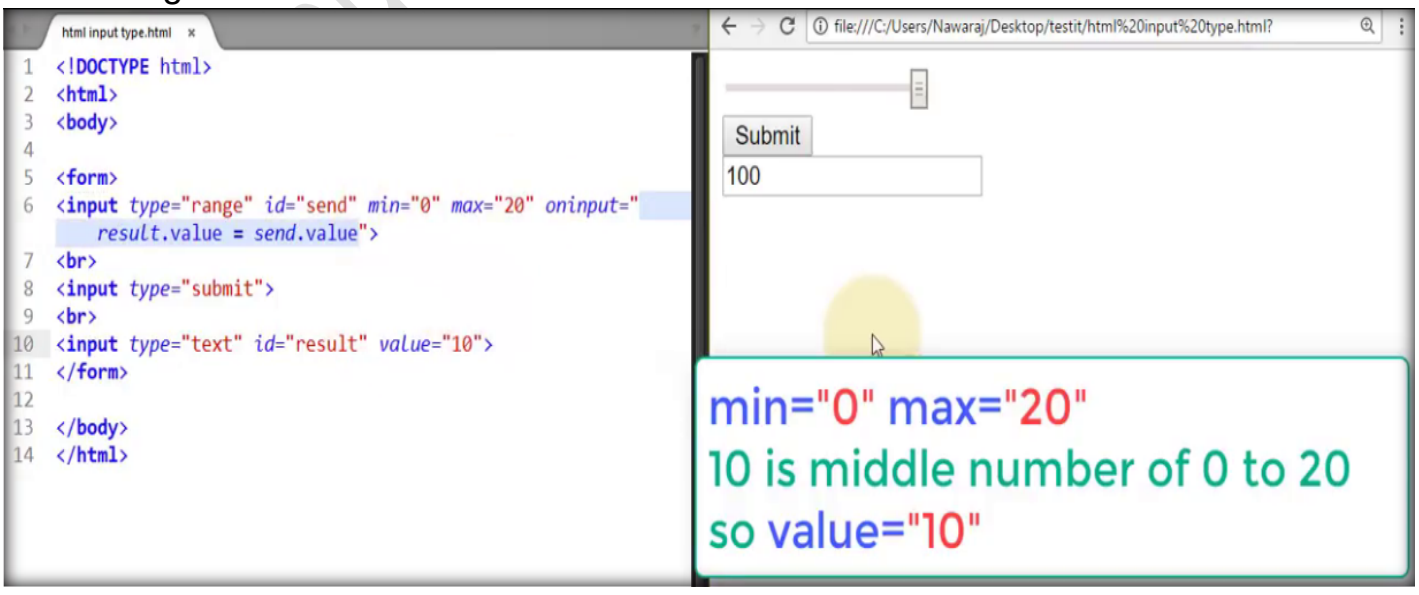
<input type=”number”>

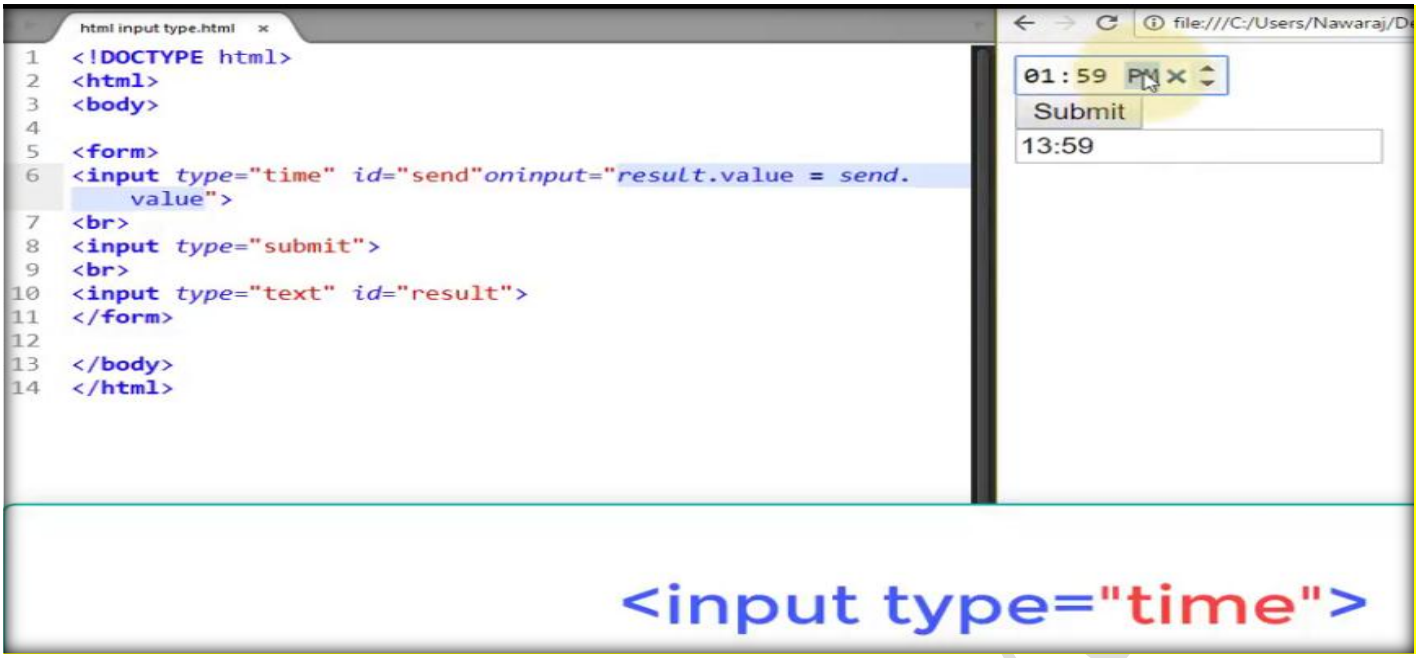


<input type=”range”>



Value range 0-20



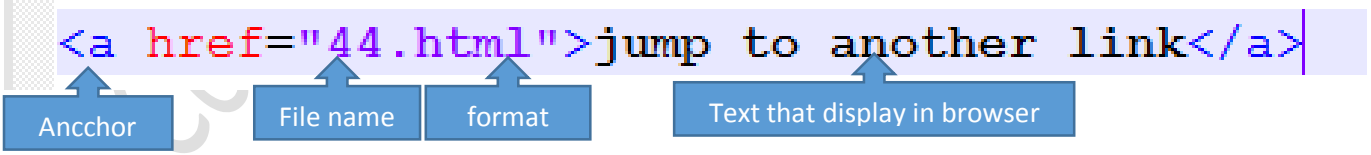


<Select> this tag is used to create option value.
Select an option:
<select>
<option>option 1</option>
<option selected>option 2</option>
<option>option 3</option>
<option>option 4</option>
<option>option 5</option>
<option>option 6</option>
</select>

</form>

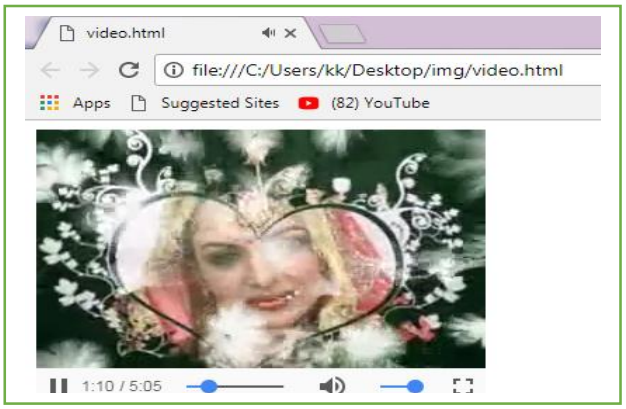
Select an option: option 2

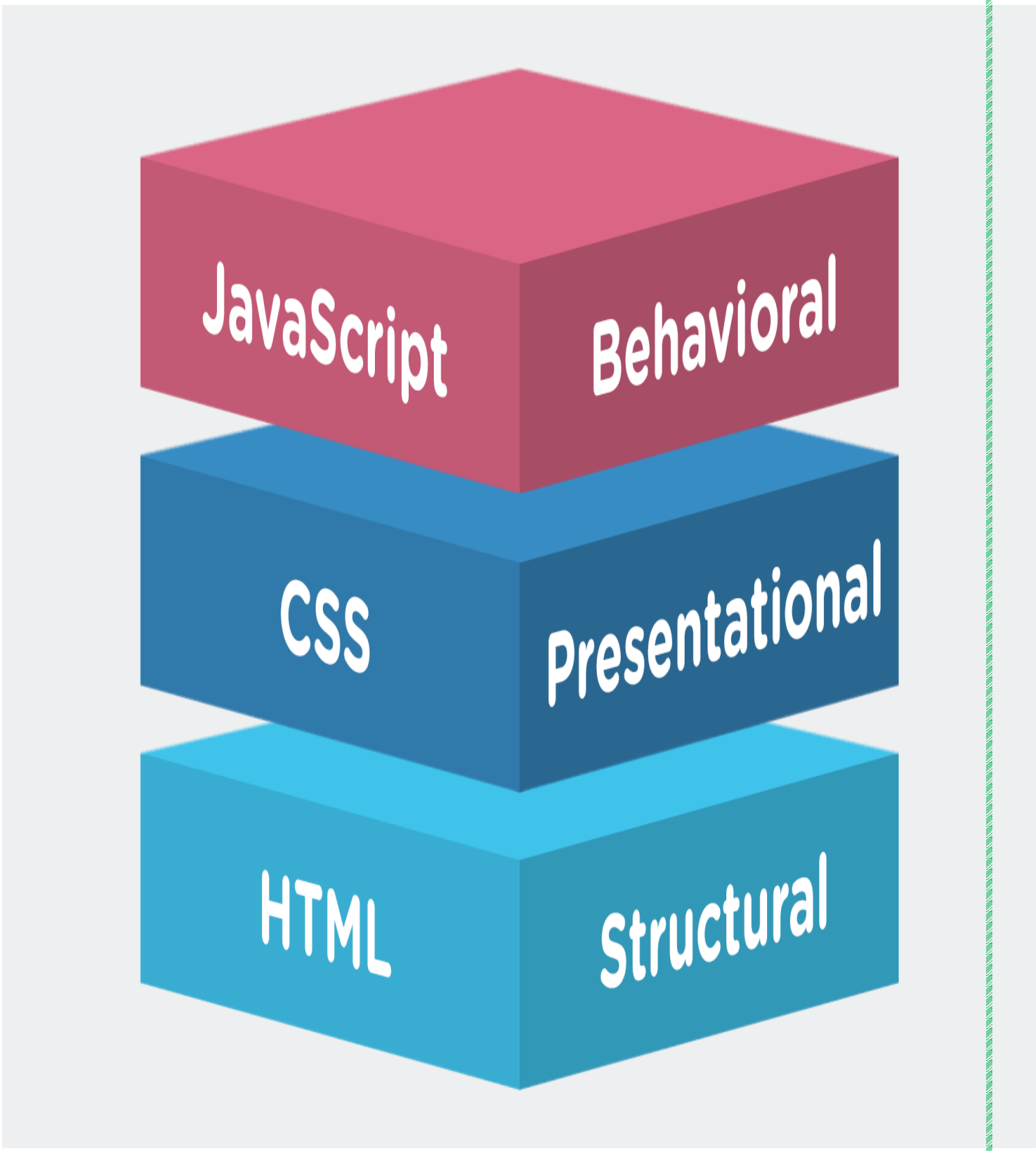
<a> anchor tag
jump to another link

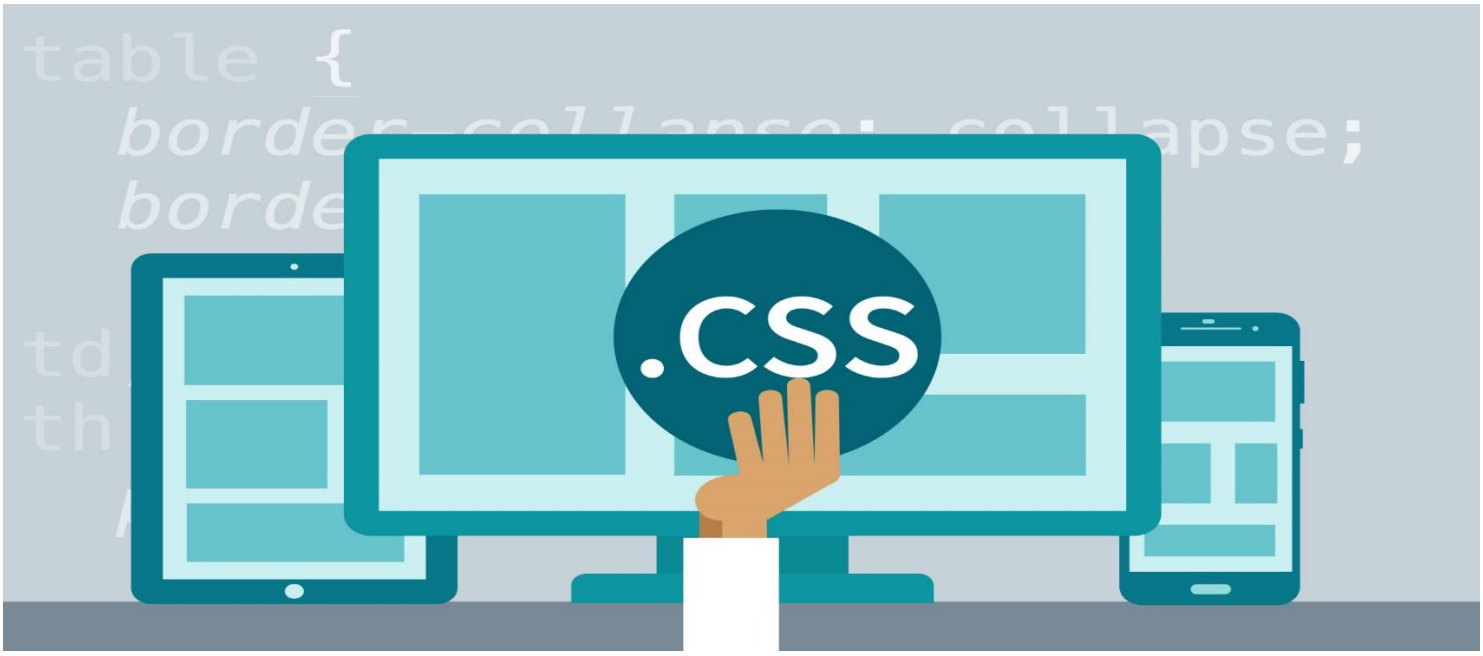


<Video>tag

```
<video width="320" height="240" controls>
  <source src="sato.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
</video>
```




JavaScript
Behavioral
CSS
Presentational
HTML
Structural

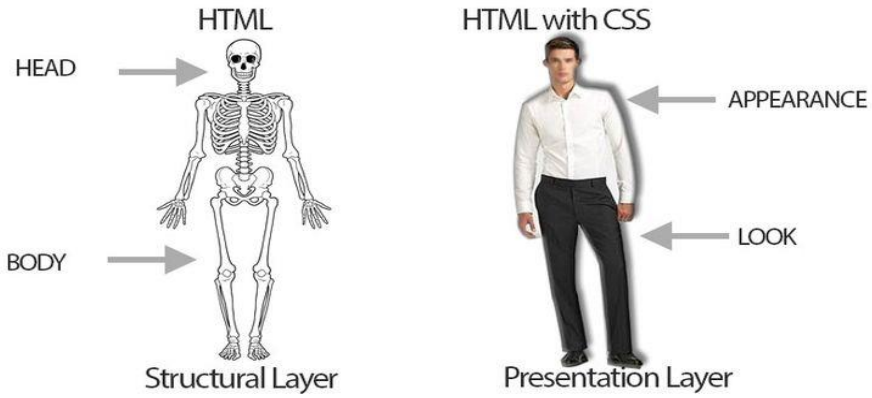


Css: - Cascading Style Sheets

CSS was first proposed by Hakon Wium Lie on October 10, 1994. At the time, Lie was working with Tim Berners-Lee at CERN.

What is CSS?

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files.



{ ..... CSS: - start with

} CSS: - close with

There are three types of css

Inline CSS

```
<p style="color: blue;">This is a paragraph.</p>
```

Internal CSS

```
<head>
  <style type = text/css>
    body {background-color: blue;}
    p { color: yellow;}
  </style>
</head>
```

External CSS

```
<head>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
```

CSS selectors are used *to select the content you want to style*. Selectors are the part of CSS rule set. CSS selectors select HTML elements according to its id, class, type, attribute etc.

There are several different types of selectors in CSS.

1. CSS Element Selector
2. CSS Id Selector
3. CSS Class Selector
4. CSS Universal Selector
5. CSS Group Selector

1) CSS Element Selector

The element selector selects the HTML element by name.

```
<!DOCTYPE html>
<html>
<head>
<style>
p{
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<p>This style will be applied on every paragraph.</p>
<p id="para1">Me too!</p>
```

Output:

This style will be applied on every paragraph.

Me too!

And me!

2) CSS Id Selector

The id selector selects the id attribute of an HTML element to select a specific element. An id is always unique within the page so it is chosen to select a single, unique element.

It is written with the hash character (#), followed by the id of the element.

```
<!DOCTYPE html>
<html>
<head>
<style>
#para1 {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<p id="para1">Hello Javatpoint.com</p>
<p>This paragraph will not be affected.</p>
</body>
</html>
```

Output:

Hello Javatpoint.com

This paragraph will not be affected.

3) CSS Class Selector (The class selector selects HTML elements with a specific class attribute. It is used with a period character . (full stop symbol) followed by the class name.)

```
<!DOCTYPE html>
<html>
<head>
<style>
.center {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<h1 class="center">This heading is blue and center-aligned.</h1>
<p class="center">This paragraph is blue and center-aligned.</p>
</body>
</html>
```

Output:

This heading is blue and center-aligned.

This paragraph is blue and center-aligned.

CSS Class Selector for specific element

```
<!DOCTYPE html>
<html>
<head>
<style>
p.center {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<h1 class="center">This heading is not affected</h1>
<p class="center">This paragraph is blue and center-aligned.</p>
</body>
</html>
```

Output:

This heading is not affected

This paragraph is blue and center-aligned.

4) CSS Universal Selector.

The universal selector is used as a wildcard character. It selects all the elements on the pages.

```
<!DOCTYPE html>
<html>
<head>
<style>
* {
  color: green;
  font-size: 20px;
}
</style>
</head>
<body>
<h2>This is heading</h2>
<p>This style will be applied on every paragraph.</p>
<p id="para1">Me too!</p>
<p>And me!</p>
</body>
</html>
```

Output:

This is heading

This style will be applied on every paragraph.

Me too!

And me!

5) CSS Group Selector

The grouping selector is used to select all the elements with the same style definitions.

Grouping selector is used to minimize the code. Commas are used to separate each selector in grouping.

```
h1 {
  text-align: center;
  color: blue;
}
h2 {
  text-align: center;
  color: blue;
}
p {
```

```
    text-align: center;
    color: blue;
```

As you can see, you need to define CSS properties for all the elements. It can be grouped in following ways:

```
h1,h2,p {
    text-align: center;
    color: blue;
}
```

Let's see the full example of CSS group selector.

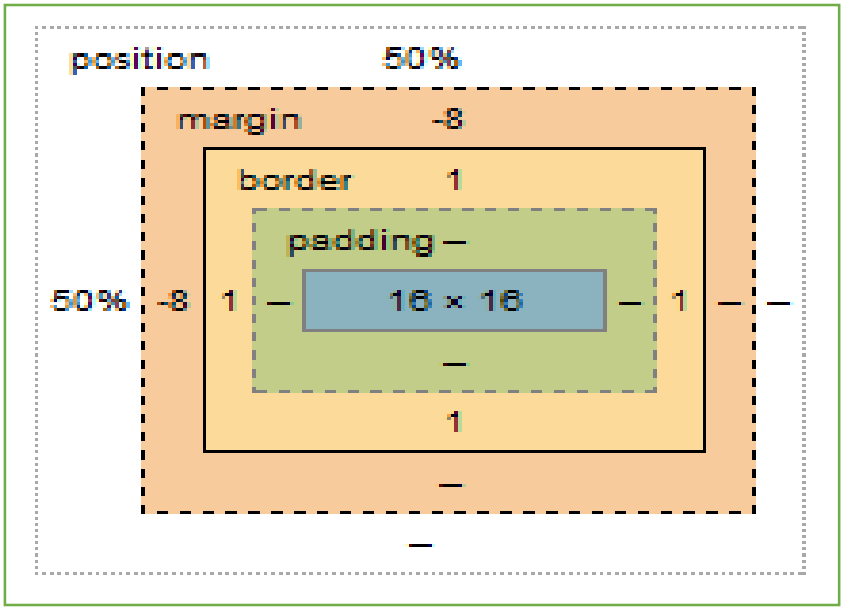
```
<!DOCTYPE html>
<html>
<head>
<style>
h1, h2, p {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<h1>Hello Javatpoint.com</h1>
<h2>Hello Javatpoint.com (In smaller font)</h2>
<p>This is a paragraph.</p>
</body>
</html>
```

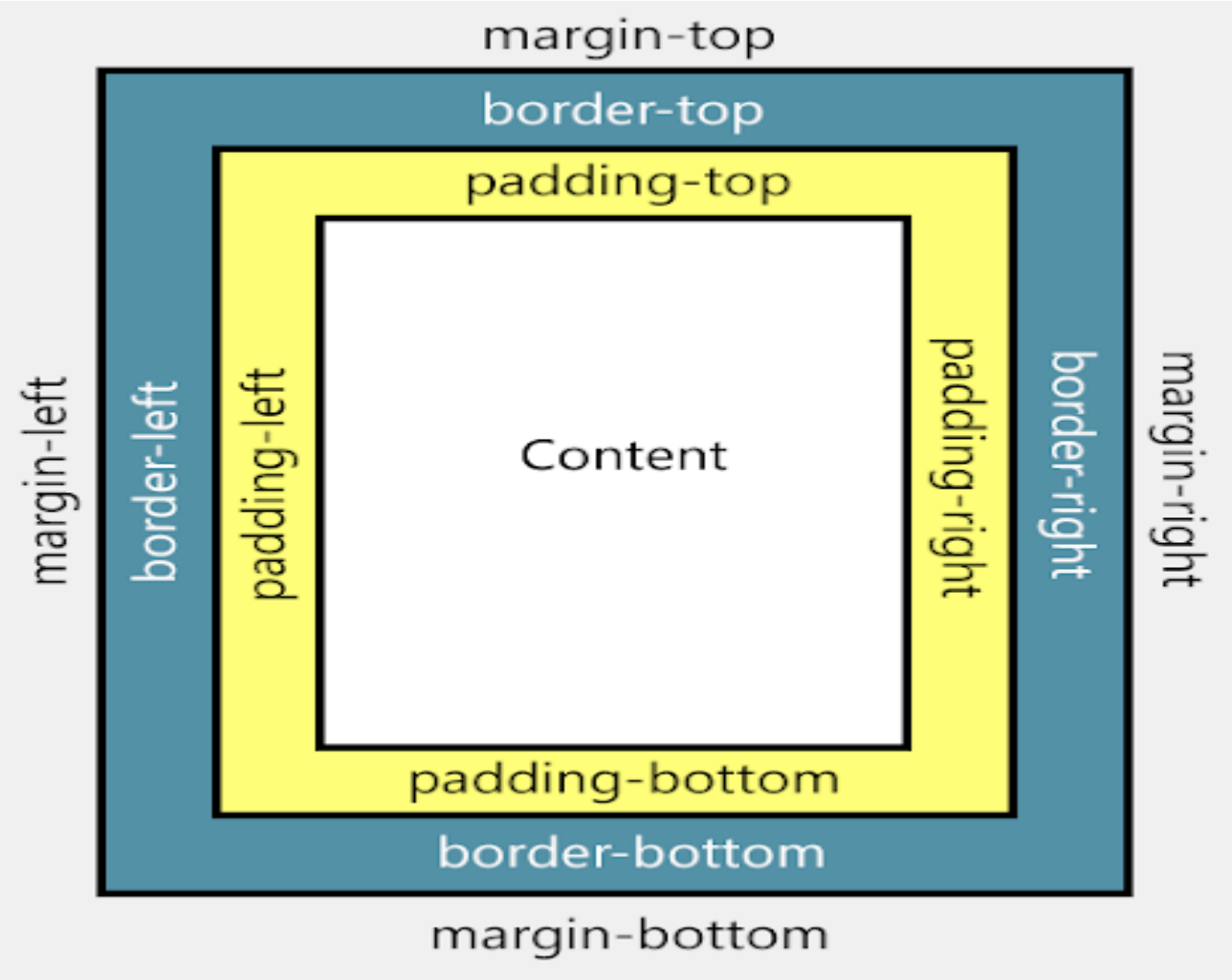
Output:

Hello Javatpoint.com

Hello Javatpoint.com (In smaller font)

This is a paragraph





Inline CSS

We can apply CSS in a single element by inline CSS technique.

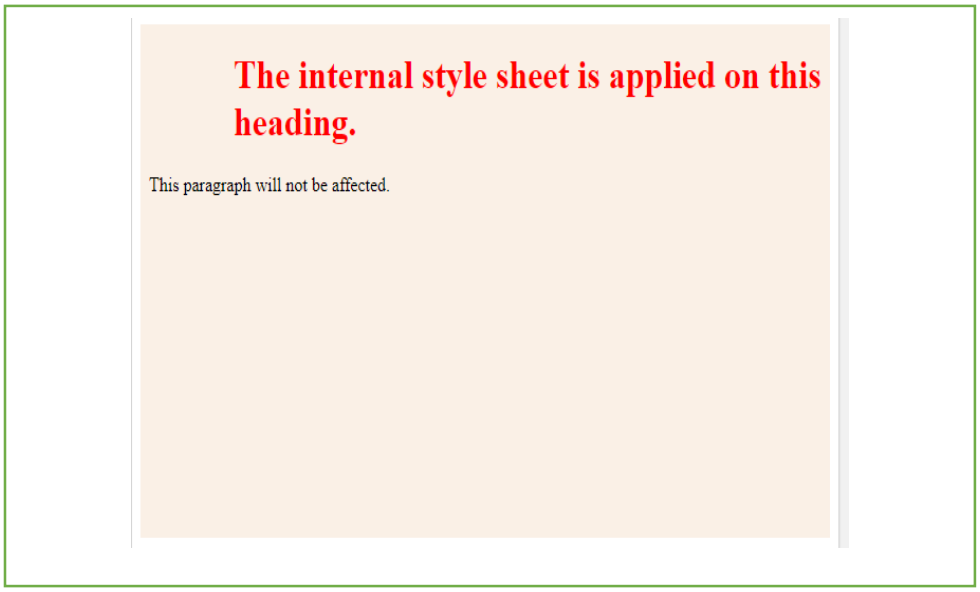
1. `<h2 style="color:red;margin left:40px;">Inline CSS is applied on this heading.</h2>`
2. `<p>This paragraph is not affected.</p>`

3. Output:

4. Inline CSS is applied on this heading.

5. This paragraph is not affected.

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: linen;
}
h1 {
    color: red;
    margin-left: 80px;
}
</style>
</head>
<body>
<h1>The internal style sheet is applied on this heading.</h1>
<p>This paragraph will not be affected.</p>
</body>
</html>
```



External CSS

Step 1.

```
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
```

The external style sheet may be written in any text editor but must be saved with a .css extension. This file should not contain HTML elements.

File: mystyle.css

Step 2.

```
body {
    background-color: lightblue;
}
h1 {
    color: navy;
    margin-left: 20px;
}
```

CSS Comments

Comments are single or multiple lines statement and written within /*.....*/ .

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
    color: blue;
    /* This is a single-line comment */
    text-align: center;
}
/* This is
a multi-line
comment */
</style>
</head>
<body>
<p>Hello Javatpoint.com</p>
<p>This statement is styled with CSS.</p>
<p>CSS comments are ignored by the browsers and not shown in the output.</p>
</body>
</html>
```

CSS Background

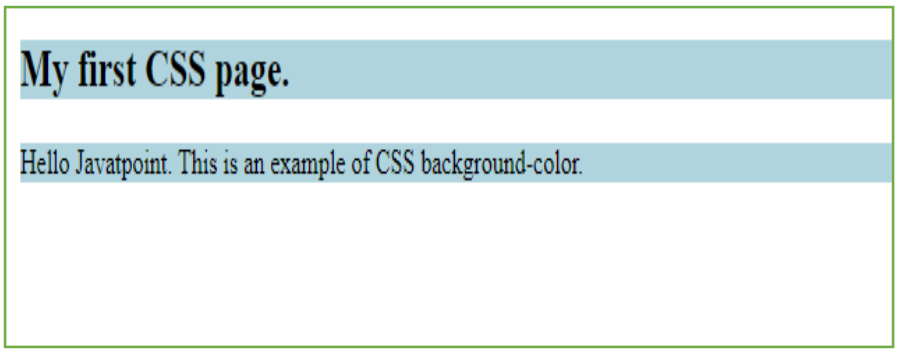
CSS background property is used to define the background effects on element. There are 5 CSS background properties that affects the HTML elements:

1. background-color
2. background-image
3. background-repeat
4. background-attachment
5. background-position

1) CSS background-color

The background-color property is used to specify the background color of the element.

```
<!DOCTYPE html>
<html>
<head>
<style>
h2,p{
    background-color: #b0d4de;
}
</style>
</head>
<body>
<h2>My first CSS page.</h2>
<p>Hello Javatpoint. This is an example of CSS background-color.</p>
</body>
</html>
```

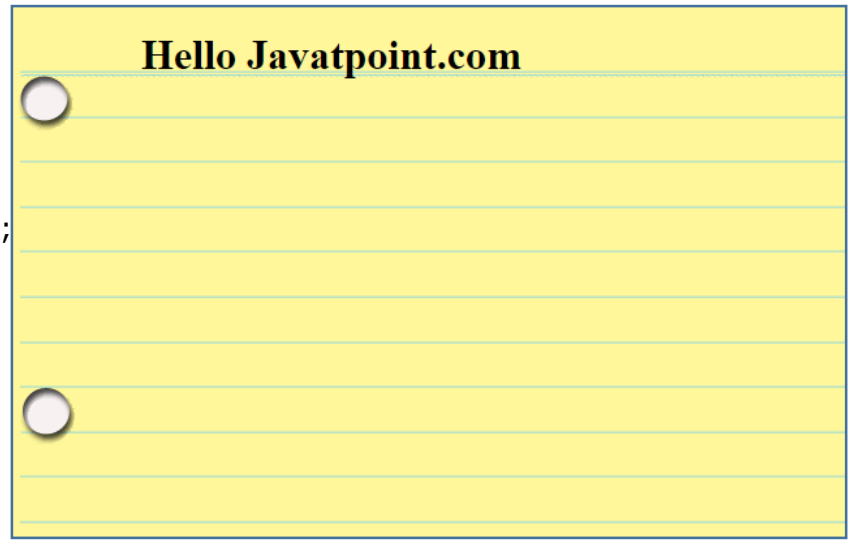


2) CSS background-image

The background-image property is used to set an image as a background of an element.

By default the image covers the

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
background-image: url("paper1.gif");
margin-left:100px;
}
</style>
</head>
<body>
<h1>Hello Javatpoint.com</h1>
</body>
</html>
```



3) CSS background-repeat

By default, the background-image property repeats the background image horizontally and vertically. Some images are repeated only horizontally or vertically.

The background looks better if the image repeated horizontally only.

background-repeat: repeat-x;

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-image: url("gradient_bg.png");
    background-repeat: repeat-x;
}
</style>
</head>
<body>
<h1>Hello Javatpoint.com</h1>
</body>
</html>
```

background-repeat: repeat-y;

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-image: url("gradient_bg.png");
    background-repeat: repeat-y;
}
</style>
</head>
<body>
<h1>Hello Javatpoint.com</h1>
</body>
</html>
```

4) CSS background-attachment

The background-attachment property is used to specify if the background image is fixed or scroll with the rest of the page in browser window. If you set fixed the background image then the image will not move during scrolling in the browser. Let?s take an example with fixed background image.

1. background: white url('bbb.gif');
2. background-repeat: no-repeat;
3. background-attachment: fixed;

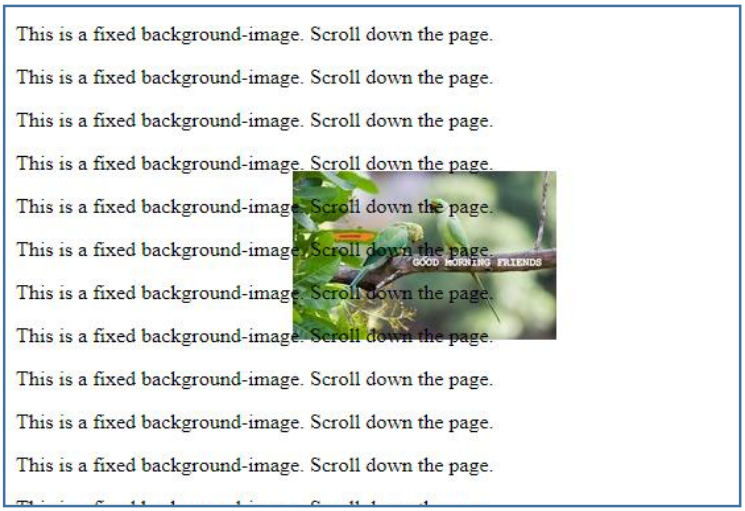
If you do not see any scrollbars, Resize the browser window.

5) CSS background-position

The background-position property is used to define the initial position of the background image. By default, the background image is placed on the top-left of the webpage.

You can set the following positions:

1. center
2. top
3. bottom
4. left
5. right



1. background: white url('good-morning.jpg');
2. background-repeat: no-repeat;
3. background-attachment: fixed;
4. background-position: center;

CSS Border

The CSS border is a shorthand property used to set the border on an element.

The CSS border properties are use to specify the style, color and size of the border of an element. The CSS border properties are given below

- border-style
- border-color
- border-width
- border-radius

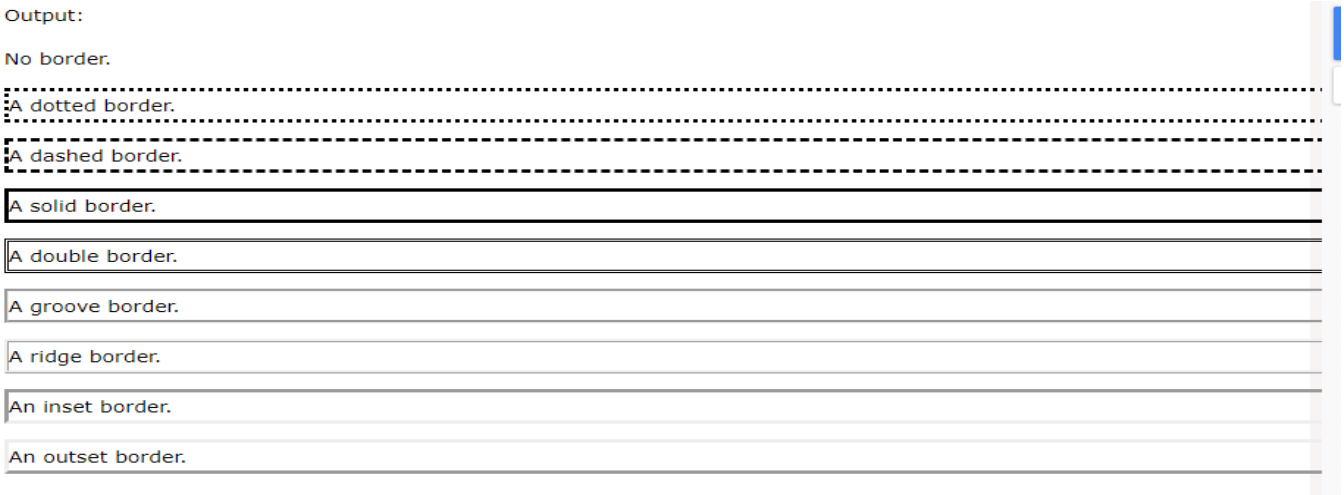
1) CSS border-style. The Border style property is used to specify the border type which you want to display on the web page.

There are some border style values which are used with border-style property to define a border.

Value	Description
none	It doesn't define any border.
dotted	It is used to define a dotted border.
dashed	It is used to define a dashed border.
solid	It is used to define a solid border.
double	It defines two borders wIth the same border-width value.
groove	It defines a 3d grooved border. effect is generated according to border-color value.
ridge	It defines a 3d ridged border. effect is generated according to border-color value.
inset	It defines a 3d inset border. effect is generated according to border-color value.
outset	It defines a 3d outset border. effect is generated according to border-color value.

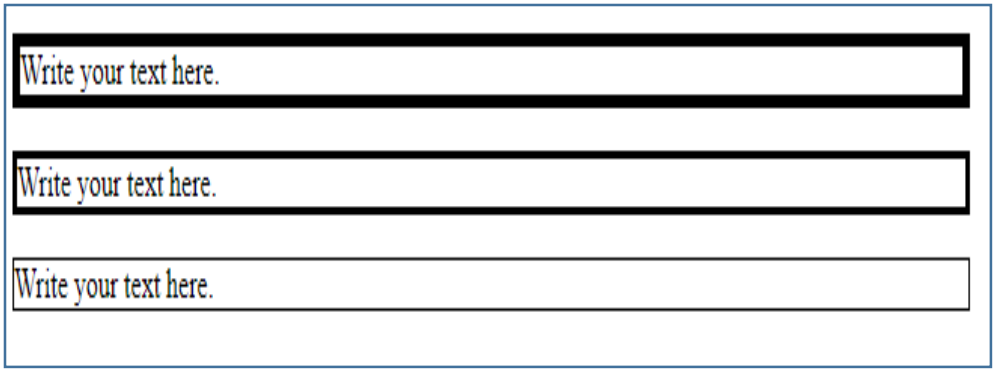
```
<!DOCTYPE html>
<html>
<head>
<style>
p.none {border-style: none;}
p.dotted {border-style: dotted;}
p.dashed {border-style: dashed;}
p.solid {border-style: solid;}
p.double {border-style: double;}
p.groove {border-style: groove;}
p.ridge {border-style: ridge;}
p.inset {border-style: inset;}
p.outset {border-style: outset;}
p.hidden {border-style: hidden;}
</style>
</head>
<body>
<p class="none">No border.</p>
<p class="dotted">A dotted border.</p>
<p class="dashed">A dashed border.</p>
<p class="solid">A solid border.</p>
<p class="double">A double border.</p>
<p class="groove">A groove border.</p>
<p class="ridge">A ridge border.</p>
<p class="inset">An inset border.</p>
<p class="outset">An outset border.</p>
<p class="hidden">A hidden border.</p>
</body>
</html>
```

Output:



2) CSS border-width

```
1. <!DOCTYPE html>
2. <html>
3. <head>
4. <style>
5. p.one {
6.     border-style: solid;
7.     border-width: 5px;
8. }
9. p.two {
10.    border-style: solid;
11.    border-width: medium;
12.}
13.p.three {
14.    border-style: solid;
15.    border-width: 1px;
16.}
17.</style>
18.</head>
19.<body>
20.<p class="one">Write your text here.</p>
21.<p class="two">Write your text here.</p>
22.<p class="three">Write your text here.</p>
23.</body>
24.</html>
```



```
<!DOCTYPE html>
<html>
<head>
<style>
p.one {
    border-style: solid;
    border-color: red;
}
p.two {
    border-style: solid;
    border-color: #98bf21;
}
</style>
</head>
<body>
<p class="one">This is a solid red border</p>
<p class="two">This is a solid green border</p>
</body>
</html>
```

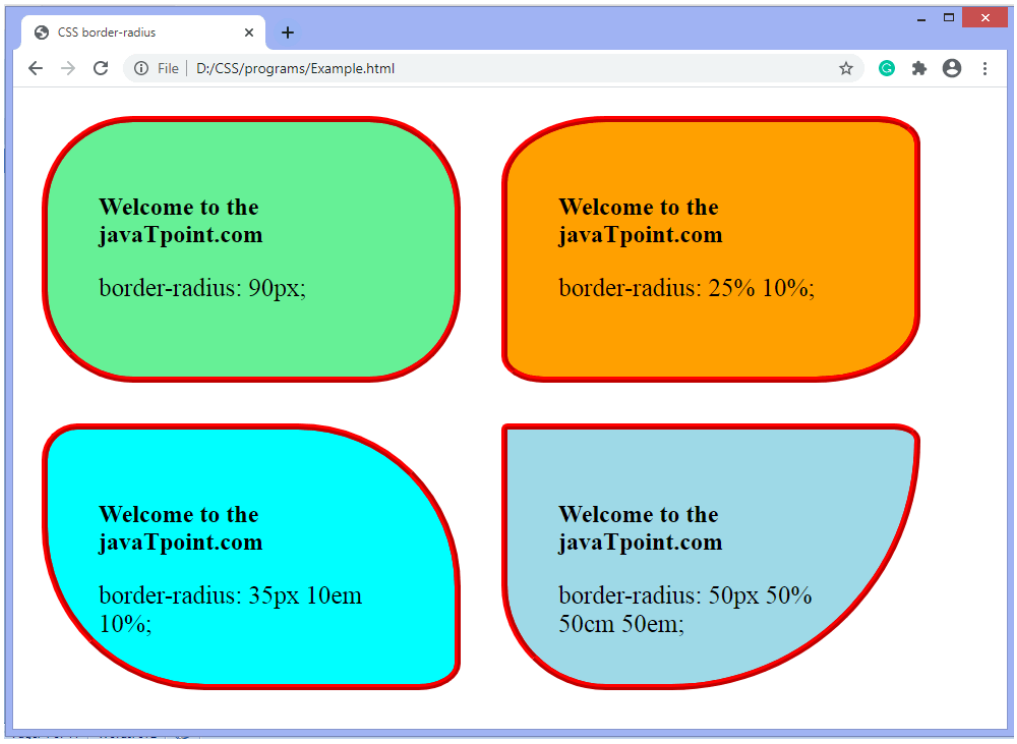
Property	Description
border-top-left-radius	It is used to set the border-radius for the top-left corner
border-top-right-radius	It is used to set the border-radius for the top-right corner
border-bottom-right-radius	It is used to set the border-radius for the bottom-right corner
border-bottom-left-radius	It is used to set the border-radius for the bottom-left corner

Example

```
<!DOCTYPE html>
<html>

<head>
<title> CSS border-radius </title>
<style>
div {
padding: 50px;
margin: 20px;
border: 6px ridge red;
width: 300px;
float: left;
height: 150px;
}
p{
font-size: 25px;
}
#one {
border-radius: 90px;
background: lightgreen;
}
#two {
border-radius: 25% 10%;
background: orange;
}
#three {
border-radius: 35px 10em 10%;
background: cyan;
}
#four {
border-radius: 50px 50% 50cm 50em;
background: lightblue;
}

</style>
</head>
```

```
37.
38. <body>
39. <div id = "one">
40. <h2> Welcome to the javaTpoint.com </h2>
41. <p> border-radius: 90px; </p>
42. </div>
43. <div id = "two">
44. <h2> Welcome to the javaTpoint.com </h2>
45. <p> border-radius: 25% 10%; </p>
46. </div>
47. <div id = "three">
48. <h2> Welcome to the javaTpoint.com </h2>
49. <p> border-radius: 35px 10em 10%; </p>
50. </div>
51. <div id = "four">
52. <h2>Welcome to the javaTpoint.com</h2>
53. <p>border-radius: 50px 50% 50cm 50em;</p>
54. </div>
55. </body>
56. </html>
```

Output



Example- border-top-left-radius

It sets the border radius for the top-left corner.

```
1. <!DOCTYPE html>
2. <html>
3.
4. <head>
5. <title> CSS border-radius </title>
6. <style>
7. #left {
8. border-top-left-radius: 250px;
9. background: lightgreen;
10. padding: 50px;
11. border: 6px ridge red;
12. width: 300px;
13. height: 200px;
14. font-size: 25px;
15. }
16. </style>
17. </head>
18.
19. <body>
20. <center>
21. <div id = "left">
22. <h2>Welcome to the javaTpoint.com</h2>
23. <p>border-top-left-radius: 250px;</p>
24. </div>
25. </center>
26. </body>
27. </html>
```

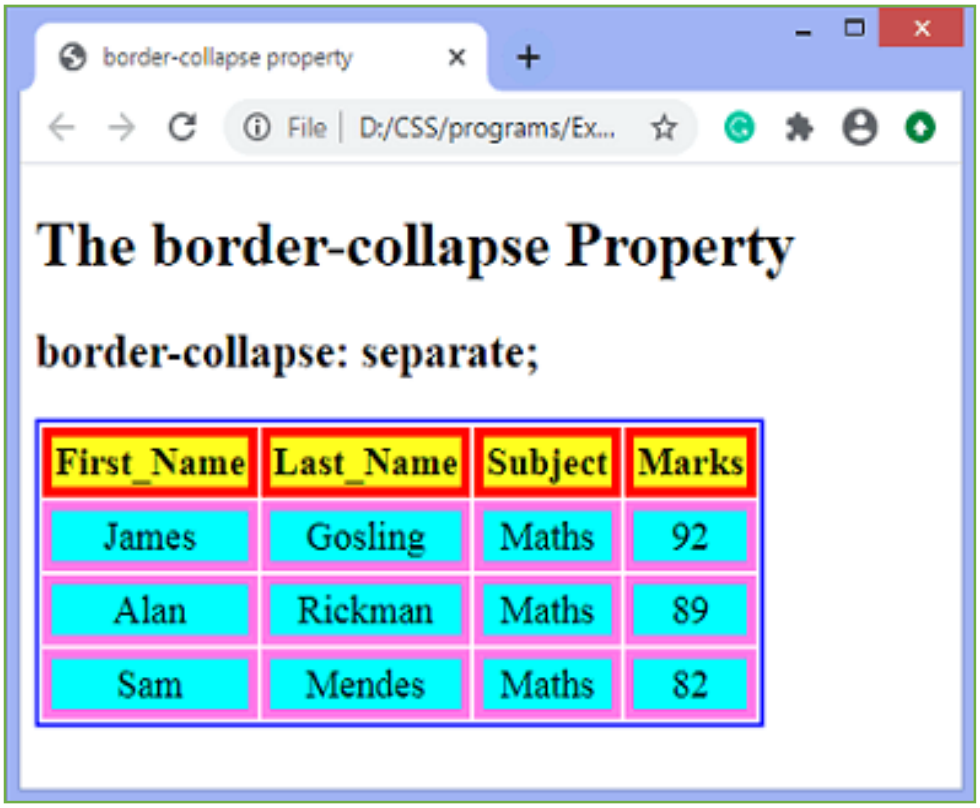
CSS border-collapse property

Example - Using separate value

With this value, we can use the **border-spacing** property to set the distance between the adjacent table cells.

```
<!DOCTYPE html>
<html>

<head>
<title> border-collapse property </title>
<style>
table{
border: 2px solid blue;
text-align: center;
font-size: 20px;
width: 80%;
height: 50%;
}
th{
border: 5px solid red;
background-color: yellow;
}
td{
border: 5px solid violet;
background-color: cyan;
}
#t1 {
border-collapse: separate;
}
</style>
</head>

<body>

<h1> The border-collapse Property </h1>
<h2> border-collapse: separate; </h2>
```

```
<table id = "t1">
<tr>
<th> First_Name </th>
<th> Last_Name </th>
<th> Subject </th>
<th> Marks </th>
</tr>
<tr>
<td> James </td>
<td> Gosling </td>
<td> Maths </td>
<td> 92 </td>
</tr>
<tr>
<td> Alan </td>
<td> Rickman </td>
<td> Maths </td>
<td> 89 </td>
</tr>
<tr>
<td> Sam </td>
<td> Mendes </td>
<td> Maths </td>
<td> 82 </td>
</tr>
</table>
</body>

</html>
```



CSS Cursor

It is used to define the type of mouse cursor when the mouse pointer is on the element. It allows us to specify the cursor type, which will be displayed to the user. When a user hovers on the link, then by default, the cursor transforms into the hand from a pointer.

Let's understand the property values of the cursor.

Values	Usage
alias	It is used to display the indication of the cursor of something that is to be created.
auto	It is the default property in which the browser sets the cursor.
all-scroll	It indicates the scrolling.
col-resize	Using it, the cursor will represent that the column can be horizontally resized.
cell	The cursor will represent that a cell or the collection of cells is selected.
context-menu	It indicates the availability of the context menu.
default	It indicates an arrow, which is the default cursor.
copy	It is used to indicate that something is copied.
crosshair	In it, the cursor changes to the crosshair or the plus sign.
e-resize	It represents the east direction and indicates that the edge of the box is to be shifted towards right.
ew-resize	It represents the east/west direction and indicates a bidirectional resize cursor.

n-resize	It represents the north direction that indicates that the edge of the box is to be shifted to up.
ne-resize	It represents the north/east direction and indicates that the edge of the box is to be shifted towards up and right.
move	It indicates that something is to be shifted.
help	It is in the form of a question mark or ballon, which represents that help is available.
None	It is used to indicate that no cursor is rendered for the element.
No-drop	It is used to represent that the dragged item cannot be dropped here.
s-resize	It indicates an edge box is to be moved down. It indicates the south direction.
Row-resize	It is used to indicate that the row can be vertically resized.
Se-resize	It represents the south/east direction, which indicates that an edge box is to be moved down and right.
Sw-resize	It represents south/west direction and indicates that an edge of the box is to be shifted towards down and left.
Wait	It represents an hourglass.
<url>	It indicates the source of the cursor image file.
w-resize	It indicates the west direction and represents that the edge of the box is to be shifted left.
Zoom-in	It is used to indicate that something can be zoomed in.

Zoom-out	It is used to indicate that something can be zoomed out.

The illustration of using the above values of cursor property is given below:

Example

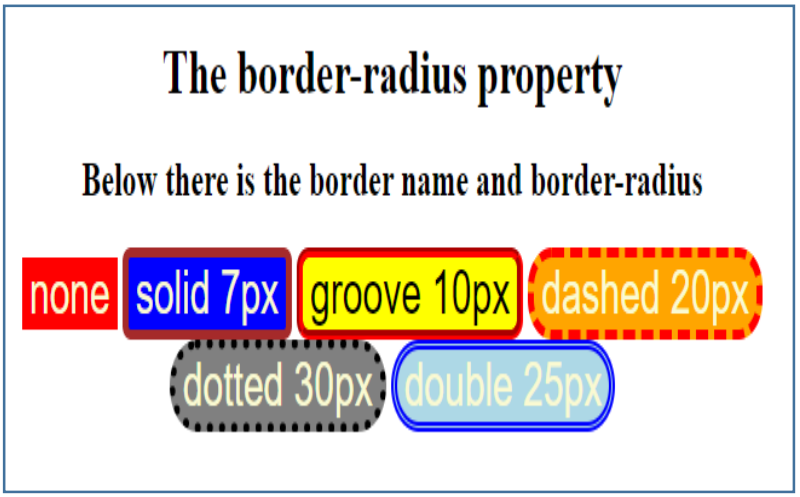
```
<html>
  <head>
  </head>
  <style>
    body{
      background-color: lightblue;
      color:green;
      text-align: center;
      font-size: 20px;
    }
  </style>
  <body>
    <p>Move your mouse over the below words for the cursor change.</p>
    <div style = "cursor:alias">alias Value</div>
    <div style = "cursor:auto">auto Value</div>
    <div style = "cursor:all-scroll">all-scroll value</div>
    <div style = "cursor:col-resize">col-resize value</div>
    <div style = "cursor:crosshair">Crosshair</div>
    <div style = "cursor:default">Default value</div>
    <div style = "cursor:copy">copy value</div>
    <div style = "cursor:pointer">Pointer</div>
    <div style = "cursor:move">Move</div>
    <div style = "cursor:e-resize">e-resize</div>
    <div style = "cursor:ew-resize">ew-resize</div>
    <div style = "cursor:ne-resize">ne-resize</div>
    <div style = "cursor:nw-resize">nw-resize</div>
    <div style = "cursor:n-resize">n-resize</div>
    <div style = "cursor:se-resize">se-resize</div>
    <div style = "cursor:sw-resize">sw-resize</div>
    <div style = "cursor:s-resize">s-resize</div>
    <div style = "cursor:w-resize">w-resize</div>
```

```
    <div style = "cursor:text">text</div>
    <div style = "cursor:wait">wait</div>
    <div style = "cursor:help">help</div>
    <div style = "cursor:progress">Progress</div>
    <div style = "cursor:no-drop">no-drop</div>
    <div style = "cursor:not-allowed">not-allowed</div>
    <div style = "cursor:vertical-text">vertical-text</div>
    <div style = "cursor:zoom-in">Zoom-in</div>
    <div style = "cursor:zoom-out">Zoom-out</div>
  </body>
</html>
```

Css buttons:-

```
<!DOCTYPE html>
<html>

<head>
    <title>
        button background Color
    </title>

    <style>
    body{
      text-align: center;
    }
        button {
           color:lightgoldenrodyellow;
            font-size: 30px;
        }
        .b1 {
            background-color: red;
            border:none;
        }
        .b2 {
            background-color: blue;
            border:5px brown solid;
            border-radius: 7px;
```

```
        }
        .b3 {
            background-color: yellow;
            color:black;
            border:5px red groove;
            border-radius: 10px;
        }
        .b4{
            background-color:orange;
            border: 5px red dashed;
            border-radius: 20px;
        }
        .b5{
            background-color: gray;
            border: 5px black dotted;
            border-radius: 30px;
        }
        .b6{
            background-color: lightblue;
            border:5px blue double;
            border-radius: 25px;
        }
    </style>
</head>

<body>
    <h1>The border-radius property</h1>
    <h2>Below there is the border name and border-radius</h2>
     <button class="b1">none</button>
     <button class="b2">solid 7px</button>
     <button class="b3">groove 10px</button>
     <button class="b4">dashed 20px</button>
     <button class="b5">dotted 30px</button>
     <button class="b6">double 25px</button>

</body>
</html>
```

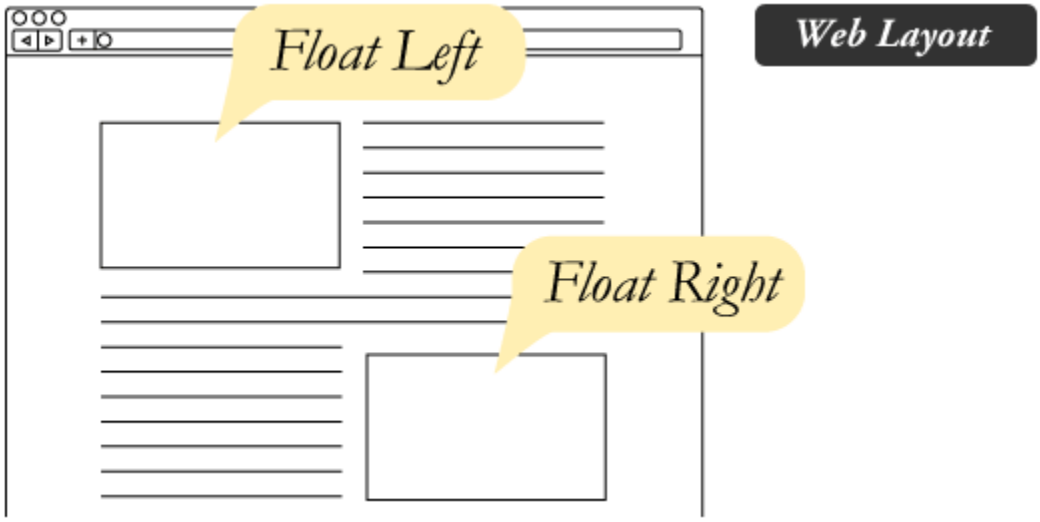


CSS Float

The **CSS float property** is *a positioning property*. It is used *to push an element to the left or right*, allowing other element to wrap around it. It is generally used with images and layouts.

To understand its purpose and origin, let's take a look to its print display. In the print display, image is set into the page such that text wraps around it as needed.

Property	Description	Values
clear	The clear property is used to avoid elements after the floating elements which flow around it.	left, right, both, none, inherit
float	It specifies whether the box should float or not.	left, right, none, inherit



CSS Float Properties

Property	Description	Values
clear	The clear property is used to avoid elements after the floating elements which flow around it.	left, right, both, none, inherit

float	It specifies whether the box should float or not.	left, right, none, inherit

CSS Float Property Values

Value	Description
none	It specifies that the element is not floated, and will be displayed just where it occurs in the text. this is a default value.
left	It is used to float the element to the left.
right	It is used to float the element to the right.
initial	It sets the property to its initial value.
inherit	It is used to inherit this property from its parent element.

```
<!DOCTYPE html>
<html>
<head>
<style>
img {
    float: right;
}
</style>
</head>
<body>
<p>The following paragraph contains an image with style
<b>float:right</b>. The result is that the image will float to the right in the paragraph.
</p>
<img src="good-morning.jpg" alt="Good Morning Friends"/>
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
```

```
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
This is some text. This is some text. This is some text.
</p>
</body>
</html>
```

The following paragraph contains an image with style **float:right**. The result is that the image will float to the right in the paragraph.

This is some text. This is some text.

CSS hover

The :***hover*** selector is for selecting the elements when we move the mouse on them. It is not only limited to the links. We can use it on almost every HTML element. To style the link to unvisited pages, we can use the :***link*** selector. To style the link for visited pages, we can use the :***visited*** selector and to style the active links we can use the :**active** selector.

The hover feature includes the following effects:

- Change the color of the background and font.
- Modify the opacity of the image.
- Text embedding.
- Create image rollover effects.
- Swapping of images.

```
<html>
<head>

  <style>
    body{
      text-align:center;
    }
    a
    {
       color: red;
    }
    a:hover
    {
      color: green;
    }
    a:active
    {
    color: cyan;
    }
  </style>
 </head>
 <body>
   <h1>Move your mouse on the below link to see the hover effect.</h1>
   <a class = "link" href = https://www.javatpoint.com/css-grid>CSS Grid</a>
 </body>
</html>
```

Example 2: Apply hover on paragraph, heading and link

```
<html>
<head>
<style>
  body{
    text-align:center;
  }
p:hover, h1:hover, a:hover{
```

```
8. background-color: yellow;
9. }
10. </style>
11. </head>
12. <body>
13. <h1>Hello World</h1>
14. <p>Welcome to the javaTpoint.</p>
15. <a href='https://www.javatpoint.com/css-grid'>CSS Grid</a>
16. </body>
17. </html>
```

Example 3- Text overlay on image hover

This CSS code displays the text on the image during mouse hover. Let's see the image overlay effect during mouse hover.

```
1. <!DOCTYPE html>
2. <html>
3. <head>
4. <meta name="viewport" content="width=device-width, initial-scale=1">
5. <style>
6.    body{
7.       text-align:center;
8.    }
9. * {box-sizing: border-box;}
10.
11..container {
12.  position: relative;
13.  width: 50%;
14.  max-width: 300px;
15.}
16.
17..image {
18.  display: block;
19.  width: 100%;
20.  height: auto;
21.}
22.
```

```
23..overlay {
24.  position: absolute;
25.  bottom: 0;
26.  background: rgba(0, 0, 0, 0.2);
27.  width: 100%;
28.  opacity:0;
29.  transition: .9s ease;
30.  font-size: 25px;
31.  padding: 20px;
32.}
33.
34..container:hover .overlay {
35.  opacity: 1.5;
36.}
37.</style>
38.</head>
39.<body>
40.
41.<h1>Image Overlay Title Effect</h1>
42.<h2>Move your mouse over the image to see the effect.</h2>
43.
44.<center>
45.<div class="container">
46.     <img src="jtp.png" class="image">
47.     <div class="overlay">Welcome to javaTpoint.com</div>
48.</div> </center>
49.
50.
51.</body>
52.</html>
```

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
   body{
      text-align: center;
   }
h1 {
 border-color: red !important;
 border: 5px green solid;
 border-color: black;
}
h2{
  color: green !important;
  color: red;
  border-color:violet !important;
  border: 5px green solid;
}
</style>
</head>
<body>

<h1>Hello World :) :)</h1>
<h2>Welcome to the javaTpoint.com</h2>

</body>
</html>
```

CSS Layout

CSS layout is easy to design. We can use CSS layout to design our web page such as home page, contact us, about us etc.

There are 3 ways to design layout of a web page:

1. **HTML Div with CSS**: fast and widely used now.
2. **HTML Table**: slow and less preferred.

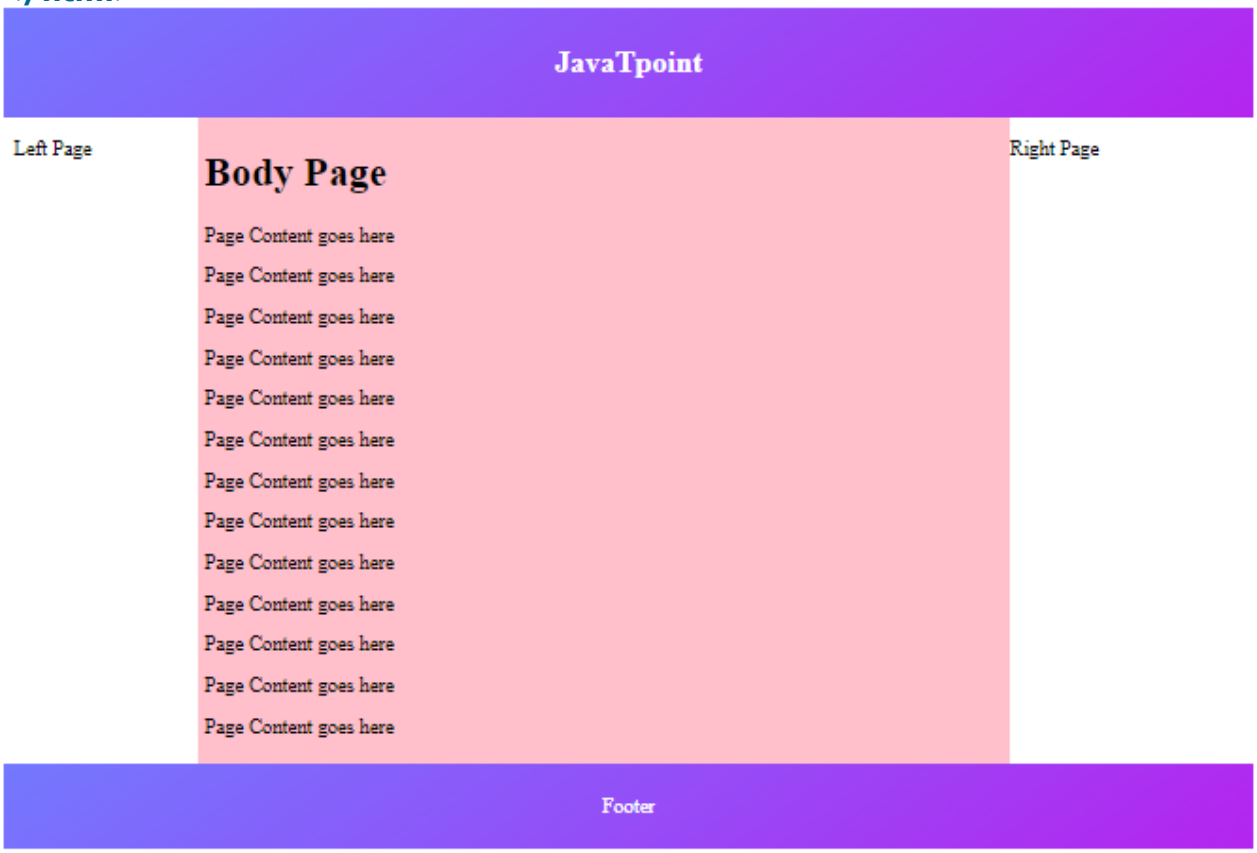
3. **HTML Frameset**: deprecated now.

A CSS layout can have header, footer, left pane, right pane and body part. Let's see a simple example of CSS layout.

CSS layout example

```
<!DOCTYPE html>
<html>
<head>
<style>
.header{margin:-8px -8px 0px;background-image:linear-gradient(145deg,#7379ff,#b524ef);color:white;text-align:center;padding:10px;}
.container{width:100%}
.left{width:15%;float:left;}
.body{width:65%;float:left;background-color:pink;padding:5px;}
.right{width:15%;float:left;}
.footer{margin:-8px;clear:both;background-image:linear-gradient(145deg,#7379ff,#b524ef);color:white;text-align:center;padding:10px;}
</style>
</head>
<body>
<div class="header"><h2>JavaTpoint</h2></div>

<div class="container">
<div class="left">
<p>Left Page</p>
</div>
<div class="body">
<h1>Body Page</h1>
<p>Page Content goes here</p><p>Page Content goes here</p><p>Page Content goes here</p>
<p>Page Content goes here</p><p>Page Content goes here</p><p>Page Content goes here</p>
<p>Page Content goes here</p><p>Page Content goes here</p><p>Page Content goes here</p>
<p>Page Content goes here</p><p>Page Content goes here</p><p>Page Content goes here</p>
```

```
<p>Page Content goes here</p>
</div>
<div class="right">
<p>Right Page</p>
</div>
</div>

<div class="footer">
<p>Footer</p>
</div>

</body>
</html>
```

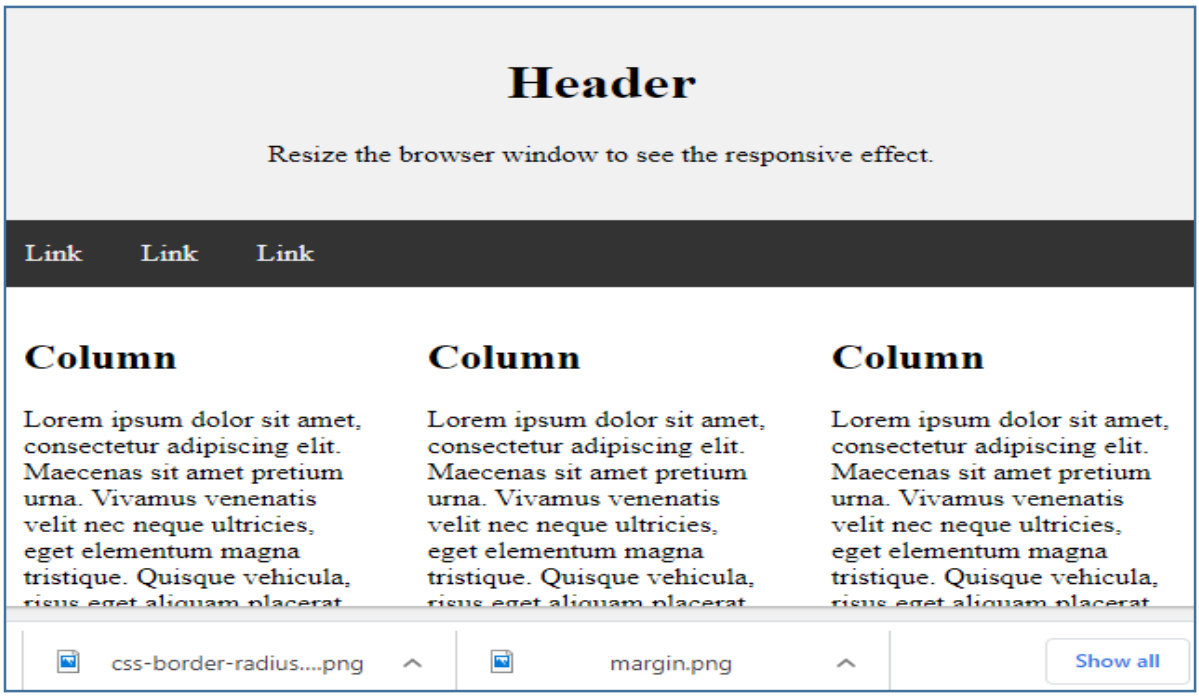


```
<!DOCTYPE html>
<html lang="en">
<head>
<title>CSS Website Layout</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
* {
  box-sizing: border-box;
}

body {
  margin: 0;
}

/* Style the header */
.header {
  background-color: #f1f1f1;
  padding: 20px;
  text-align: center;
}

/* Style the top navigation bar */
.topnav {
  overflow: hidden;
  background-color: #333;
}
```

```
/* Style the topnav links */
.topnav a {
  float: left;
  display: block;
  color: #f2f2f2;
  text-align: center;
  padding: 14px 16px;
  text-decoration: none;
}

/* Change color on hover */
.topnav a:hover {
  background-color: #ddd;
  color: black;
}

/* Create three equal columns that floats next to each other */
.column {
  float: left;
  width: 33.33%;
  padding: 15px;
}

/* Clear floats after the columns */
.row:after {
  content: "";
  display: table;
  clear: both;
```

```
}

/* Responsive layout - makes the three columns stack on top of each other instead of next to each other */
@media screen and (max-width:600px) {
  .column {
    width: 100%;
  }
}
</style>
</head>
<body>

<div class="header">
  <h1>Header</h1>
  <p>Resize the browser window to see the responsive effect.</p>
</div>

<div class="topnav">
  <a href="#">Link</a>
  <a href="#">Link</a>
  <a href="#">Link</a>
</div>

<div class="row">
  <div class="column">
    <h2>Column</h2>
```

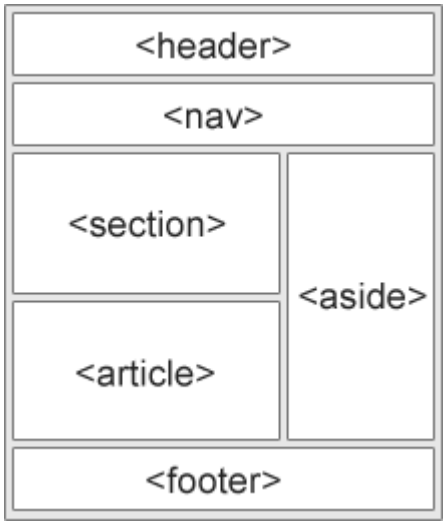
```
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas sit amet pretium urna. Vivamus venenatis velit nec neque ultricies, eget elementum magna tristique. Quisque vehicula, risus eget aliquam placerat, purus leo tincidunt eros, eget luctus quam orci in velit. Praesent scelerisque tortor sed accumsan convallis.</p>
  </div>

  <div class="column">
    <h2>Column</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas sit amet pretium urna. Vivamus venenatis velit nec neque ultricies, eget elementum magna tristique. Quisque vehicula, risus eget aliquam placerat, purus leo tincidunt eros, eget luctus quam orci in velit. Praesent scelerisque tortor sed accumsan convallis.</p>
  </div>

  <div class="column">
    <h2>Column</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas sit amet pretium urna. Vivamus venenatis velit nec neque ultricies, eget elementum magna tristique. Quisque vehicula, risus eget aliquam placerat, purus leo tincidunt eros, eget luctus quam orci in velit. Praesent scelerisque tortor sed accumsan convallis.</p>
  </div>
</div>

</body>
</html>
```



```
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Layouts using DIV, SPAN</title>
   </head>

   <body>
      <div style = "width:100%">

         <div style = "background-color:#b5dcb3; width:100%">
            <h1>This is Web Page Main title</h1>
         </div>

         <div style = "background-color:#aaa; height:200px;
width:100px; float:left;">
            <div><b>Main Menu</b></div>
            HTML<br />
            PHP<br />
            PERL...
         </div>

         <div style = "background-color:#eee; height:200px;
width:350px; float:left;" >
            <p>Technical and Managerial Tutorials</p>
         </div>

         <div style = "background-color:#aaa; height:200px;
width:100px; float:right;">
            <div><b>Right Menu</b></div>
            HTML<br />
            PHP<br />
            PERL...
         </div>

         <div style = "background-color:#b5dcb3; clear:both">
            <center>
               Copyright © 2007 Tutorialspoint.com
            </center>
         </div>

      </div>
   </body>

</html>
```

HTML Layout Elements

HTML has several semantic elements that define the different parts of a web page:



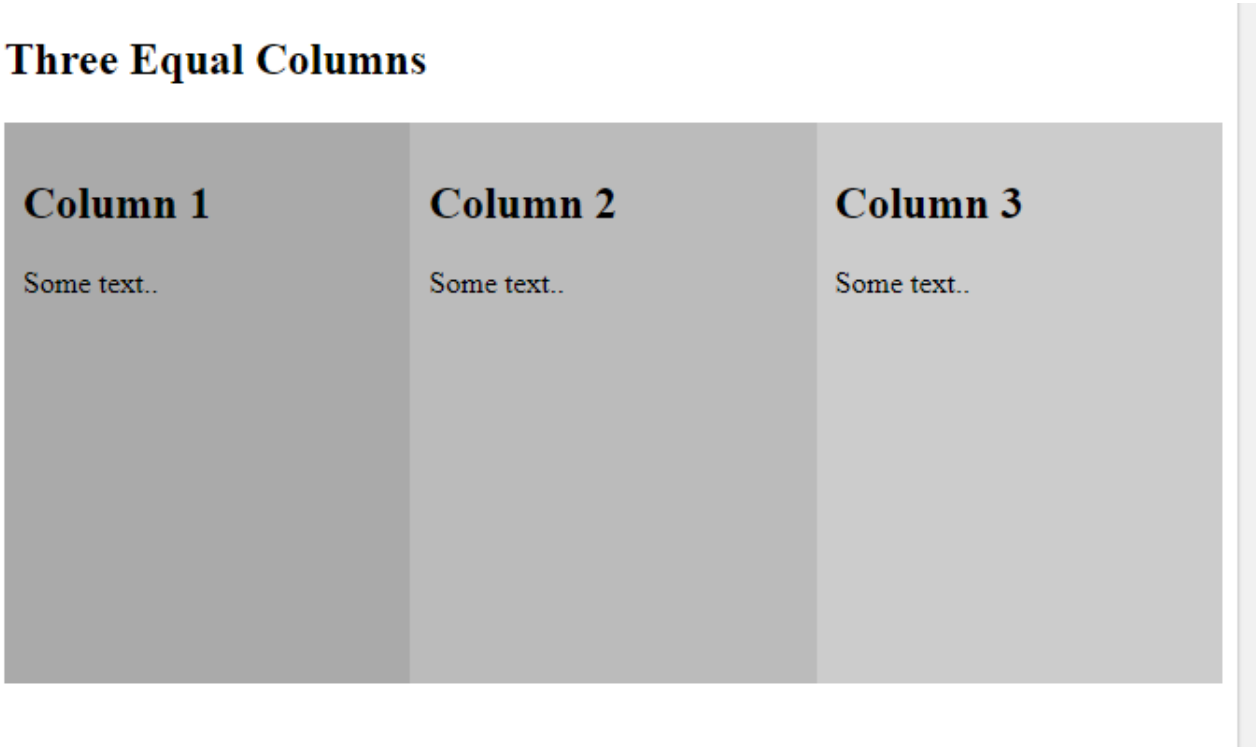
- `<header>` - Defines a header for a document or a section
- `<nav>` - Defines a set of navigation links
- `<section>` - Defines a section in a document
- `<article>` - Defines an independent, self-contained content
- `<aside>` - Defines content aside from the content (like a sidebar)
- `<footer>` - Defines a footer for a document or a section
- `<details>` - Defines additional details that the user can open and close on demand
- `<summary>` - Defines a heading for the `<details>` element

You can read more about semantic elements in our HTML Semantics chapter.

```
<!DOCTYPE html>

<html>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1">

<style>

* {

  box-sizing: border-box;

}
```

```
/* Create three equal columns that floats next to each other */
.column {
  float: left;
  width: 33.33%;
  padding: 10px;
  height: 300px; /* Should be removed. Only for demonstration */
}

/* Clear floats after the columns */
.row:after {
  content: "";
  display: table;
  clear: both;
}
</style>
</head>
<body>

<h2>Three Equal Columns</h2>

<div class="row">
  <div class="column" style="background-color:#aaa;">
    <h2>Column 1</h2>
    <p>Some text..</p>
  </div>
  <div class="column" style="background-color:#bbb;">
    <h2>Column 2</h2>
    <p>Some text..</p>
```

```
  </div>
  <div class="column" style="background-color:#ccc;">
    <h2>Column 3</h2>
    <p>Some text..</p>
  </div>
</div>


</body>
</html>
```




```
<!DOCTYPE html>
<html>
    <head>
        <title>
            Website Layout
        </title>
        <style>
            * {
                box-sizing: border-box;
            }

            /* CSS property for header section */
            .header {
                background-color: green;
                padding: 15px;
                text-align: center;
```

```
            }

            /* CSS property for nevigation menu */
            .nav_menu {
                overflow: hidden;
                background-color: #333;
            }
            .nav_menu a {
                float: left;
                display: block;
                color: white;
                text-align: center;
                padding: 14px 16px;
                text-decoration: none;
            }
            .nav_menu a:hover {
                background-color: white;
                color: green;
            }

            /* CSS property for content section */
            .columnA, .columnB, .columnC {
                float: left;
                width: 31%;
                padding: 15px;
                text-align:justify;
            }
            h2 {
                color:green;
                text-align:center;
            }

            /* Media query to set website layout
            according to screen size */
            @media screen and (max-width:600px) {
                .columnA, .columnB, .columnC {
                    width: 50%;
                }
            }
            @media screen and (max-width:400px) {
                .columnA, .columnB, .columnC {
                    width: 100%;
                }
            }
        </style>
    </head>

    <body>

        <!-- header of website layout -->
        <div class = "header">
            <h2 style = "color:white;font-size:200%">
                GeeksforGeeks
            </h2>
        </div>

        <!-- nevigation menu of website layout -->
        <div class = "nav_menu">
            <a href = "#">Algo</a>
```

```
            <a href = "#">DS</a>
            <a href = "#">Language</a>
        </div>

        <!-- Content section of website layout -->
        <div class = "row">

            <div class = "columnA">
                <h2>Column A</h2>
                <p>Prepare for the Recruitment drive of product
                based companies like Microsoft, Amazon, Adobe
                etc with a free online placement preparation
                course. The course focuses on various MCQ's
                & Coding question likely to be asked in the
                interviews & make your upcoming placement
                season efficient and successful.</p>
            </div>

            <div class = "columnB">
                <h2>Column B</h2>
                <p>Prepare for the Recruitment drive of product
                based companies like Microsoft, Amazon, Adobe
                etc with a free online placement preparation
                course. The course focuses on various MCQ's
                & Coding question likely to be asked in the
                interviews & make your upcoming placement
                season efficient and successful.</p>
            </div>

            <div class = "columnC">
                <h2>Column C</h2>
                <p>Prepare for the Recruitment drive of product
                based companies like Microsoft, Amazon, Adobe
                etc with a free online placement preparation
                course. The course focuses on various MCQ's
                & Coding question likely to be asked in the
                interviews & make your upcoming placement
                season efficient and successful.</p>
            </div>
        </div>
    </body>
</html>
```