HTML

Html stands for Hyper Text Markup Language. Html mainly use for design a client side web pages, this is a static page it means you can only view Html page not give request and not get response from server. Using Html pages browser get user information through form (This is an Html element). Html provides so many elements (like <p>, <img>, <h1>) to design a web page.

Hypertext: is text which contains links to other texts. The hypertext pages are interconnected by hyperlinks, when mouse click on these link which brings you to a new webpage

Markup language: Any tag based language known as markup language, for example gml, sgml, html, xml etc.

Berners Lee

Tim Berners-Lee is known as father of Html. The first publicly available description of HTML was a document called "HTML Tags", first described, on the Internet by Berners-Lee in late 1991.

Features for Html

- Html is a static page.
- Html is not a case sensitive.
- Html is a error free language.
- Html is simple and easy language.
- It provides facilities to add audio, video, image on web pages.
- Html is platform independent language, it can be run on any platform like window, linux, Mac.
- Each and every elements of html should be enclosed within the angular brackets (<>).
- Html programs are executed by the interpreter of the browser software.
- Html program save with **.htm** or **.html** extension.

- The current version of Html is **Html 5.0**

  Note: HTML is case insensitive language so you can write Html Tags in lowercase or uppercase letters. Some Html tags are given below;

Difference Between Html and Html5

Html5 is more power full and easier than Html4, It have lot of new tags like <header>, <footer>, <nav>, <audio>, <video>, <main> etc. It also support graphics.

In below table we describe all basic term related to html and html5; I hope this is simple easy to learn for you.

Html	Html5
Doctype declaration in Html is too longer <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">	DOCTYPE declaration in Html5 is very simple "<!DOCTYPE html>
character encoding in Html is also longer <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">	character encoding (charset) declaration is also very simple <meta charset="UTF-8">
Audio and Video are not part of HTML4	Audio and Videos are integral part of HTML5 e.g. <audio> and <video> tags.
Vector Graphics is possible with the help of technologies such as VML, Silverlight, Flash etc	Vector graphics is integral part of HTML5 e.g. SVG and canvas
It is almost impossible to get true GeoLocation of user browsing any website especially if it comes to mobile devices.	JS GeoLocation API in HTML5 helps identify

	location of user browsing any website (provided user allows it)
Html5 use cookies.	It provides local storage in place of cookies.
Not possible to draw shapes like circle, rectangle, triangle.	Using Html5 you can draw shapes like circle, rectangle, triangle.
Does not allow JavaScript to run in browser. JS runs in same thread as browser interface.	Allows JavaScript to run in background. This is possible due to JS Web worker API in HTML5
Works with all old browsers	Supported by all new browser.

Html Tags

Html Tag HTML tags contain three main parts: opening tag, content and closing tag. But some HTML tags are unclosed tags.

syntax

<tag> content </tag>

Paired/Closed Html Tags

Some Html tags are closed, for example<html></html>,<head></head>, <body></body> etc.

Unpaired/Unclosed Html Tags

Some Html tags are not closed, for example
, <hr/>, <img/> etc.

**
 Tag:** br stands for break line, it breaks the line of the code.

<hr> Tag: hr stands for Horizontal Rule. This tag is used to put a line across the webpage.

<img> Tag: img tag are use for display image on web page.

Structure of HTML

```
<!doctype html>

<html>

        <head>

                    <meta/>

                    <link/>

                    <title>My First WebPage</title>

                    <style>CSS Properties</style>

                    <script>Javascript code</script>

                    <link/>

        </head>

        <body>

        </body>

</html>
```

Head Tag

<head> tag are used for provide a title for the document, define JavaScript and CSS required for the page and meta data of the page.

Title tag

<title> tag are used for provide the title of you web page. Title are show top of the web page. Title tag are most useful in case of seo. Using page title search engine easily find you page on web. Each page should have a unique title.

Meta tag

<meta> tag provides all information related to web page like author name, keyword for search engine, description about what things page contain. By using meta tag (<meta>) you can also refresh your web page within regular interval of time.

Link tag

The HTML <link> tag is used for defining a link to an external document.And is used to insert fav It is placed in the <head> section of the document.

Html Style Tag

<style> tag are used for define CSS styles required for the page. It must be inside the <head> tag.

Script tag

<script> tag are used for define JavaScript functions required for the page. It may be inside the <head> tag or you can use this tag any where on html page.

Body tag

The <Body> tag are used to specify the actual content to display on the web page. It means display all data on web which is written within <body> and </body> tag.

Attributes

HTML attributes used inside the opening tag to provide extra effect/ additional information about an element such as title, dimensions, style information etc.

HTML Deprecated Tags

The deprecated tags or attributes are those attributes which are replaced by some other attributes or completely removed from HTML5.0. The tag or attributes depreciated when the same attributes is achieved by some other way.

Attributes of Body Tag

SL.NO	Attribute Name	Parameters/Values	Description
1	Background	Image Path/Image Name	Was used to set the background color and image for the document. Deprecated. Use CSS instead.
2	Bgcolor	Any Color Name/Code	Was used to set the background color on a document. Deprecated. Use CSS instead.
3	Text	Any Color Name/Code	Was used to style the text inside the body of the document. Deprecated. Use CSS.

Example

<!doctype html>

<html>

<head>

<title>Body Tag</title>

</head>

<body bgcolor="blue" text="yellow">

welcome to web class

```
</body>

</html>
```

Output


```
<!doctype html>

<html>

<head>

<title>Body Tag</title>

</head>

<body background="kj.jpg" text="yellow">

welcome to web class

</body>

</html>
```
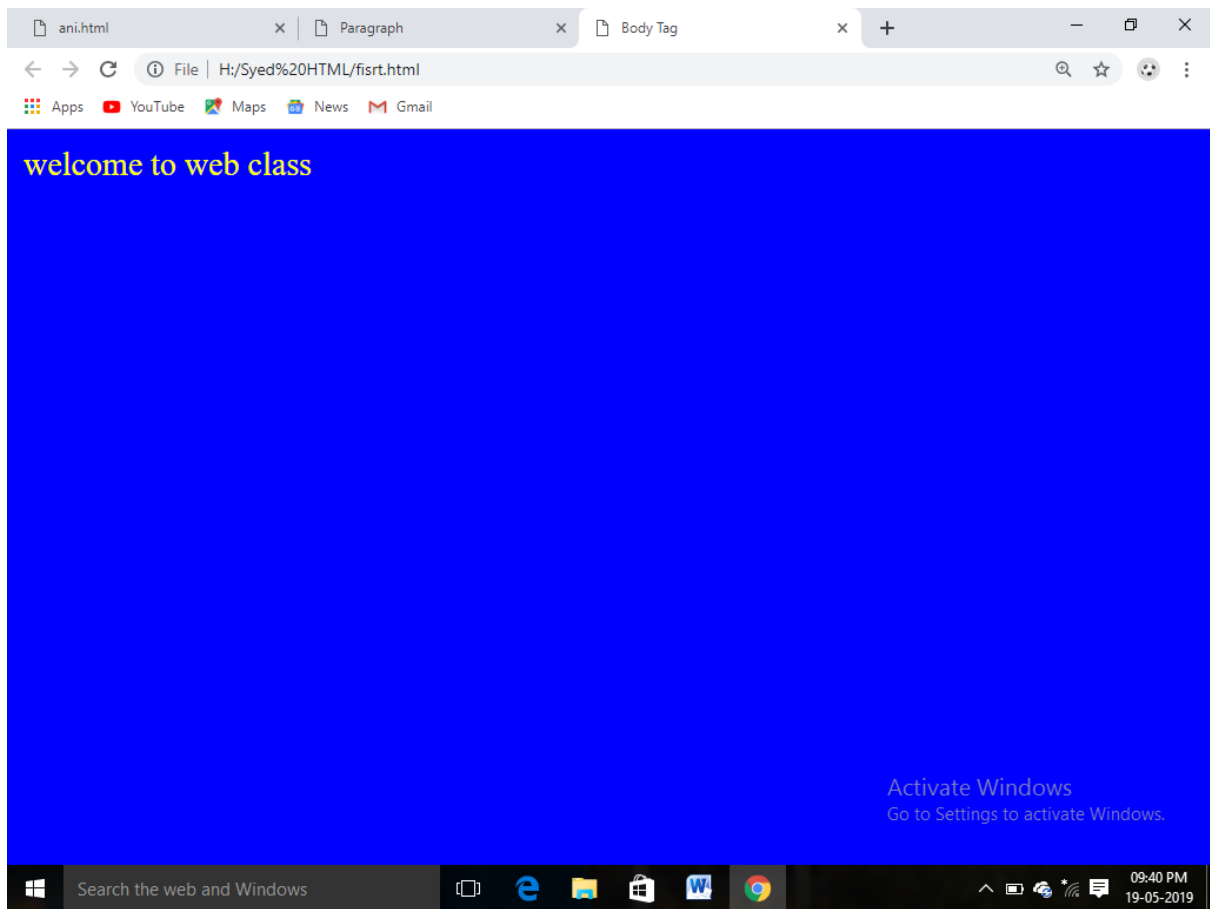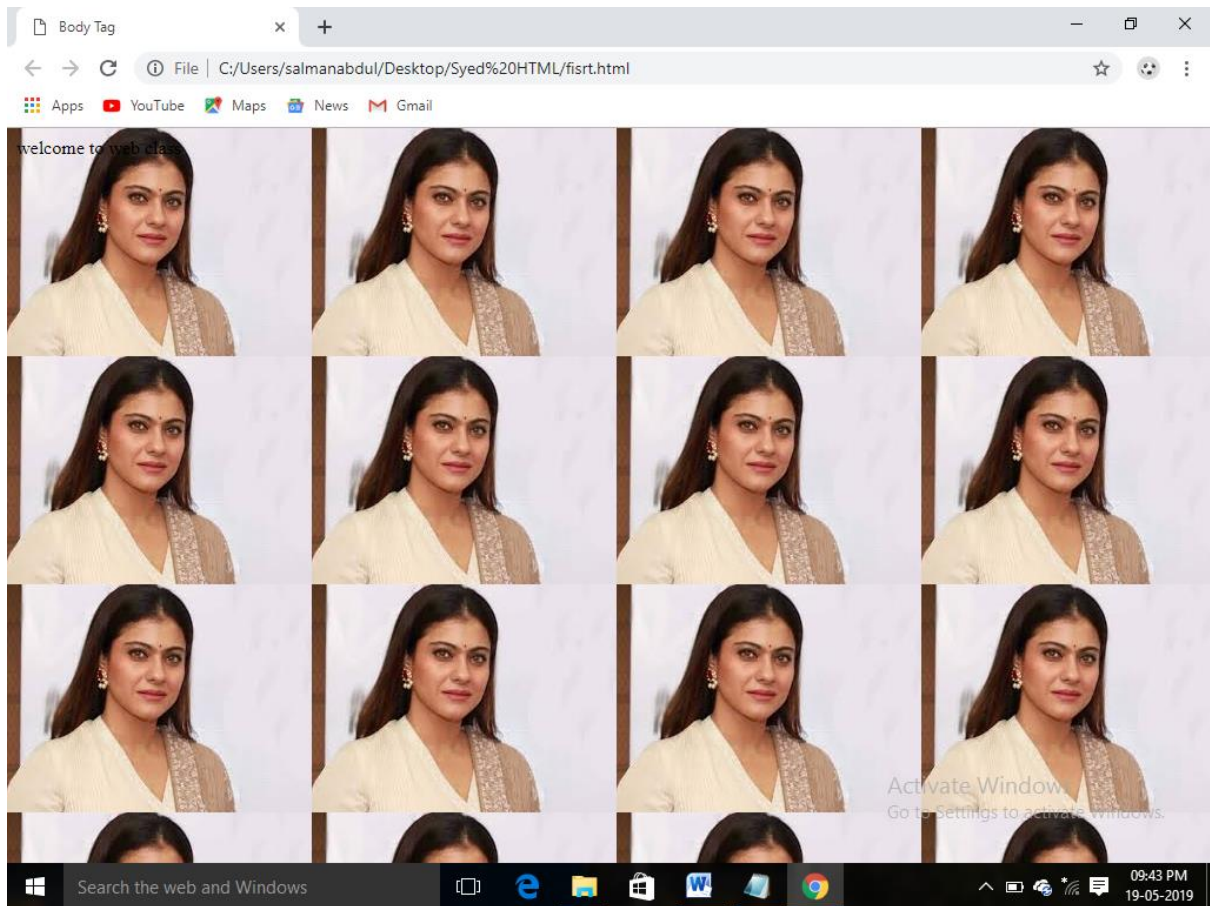
Html Paragraph

- Html paragraph is same like normal paragraph written on books. In Html you can define paragraph by using <p> tag.
- It is a **block-level element.**

Attributes of Paragraph Tag

SL.NO	Attribute Name	Parameters/Values	Description
1	Align	Left(Default),Right,Center	To align the content

Example:

<!doctype html>

<html>

<head>

<title>Paragraph</title>

```
</head>

<body>

<p align="left">Dinga</p>

<p align="right">Dingi</p>

<p align="center">Ranga</p>

<p align="Justify">Welcome to the world of WEB Welcome to the world of WEB

Welcome to the world of WEB Welcome to the world of WEB

Welcome to the world of WEB Welcome to the world of WEB

Welcome to the world of WEB Welcome to the world of WEB

Welcome to the world of WEB Welcome to the world of WEB</p>

</body>

</html>
```
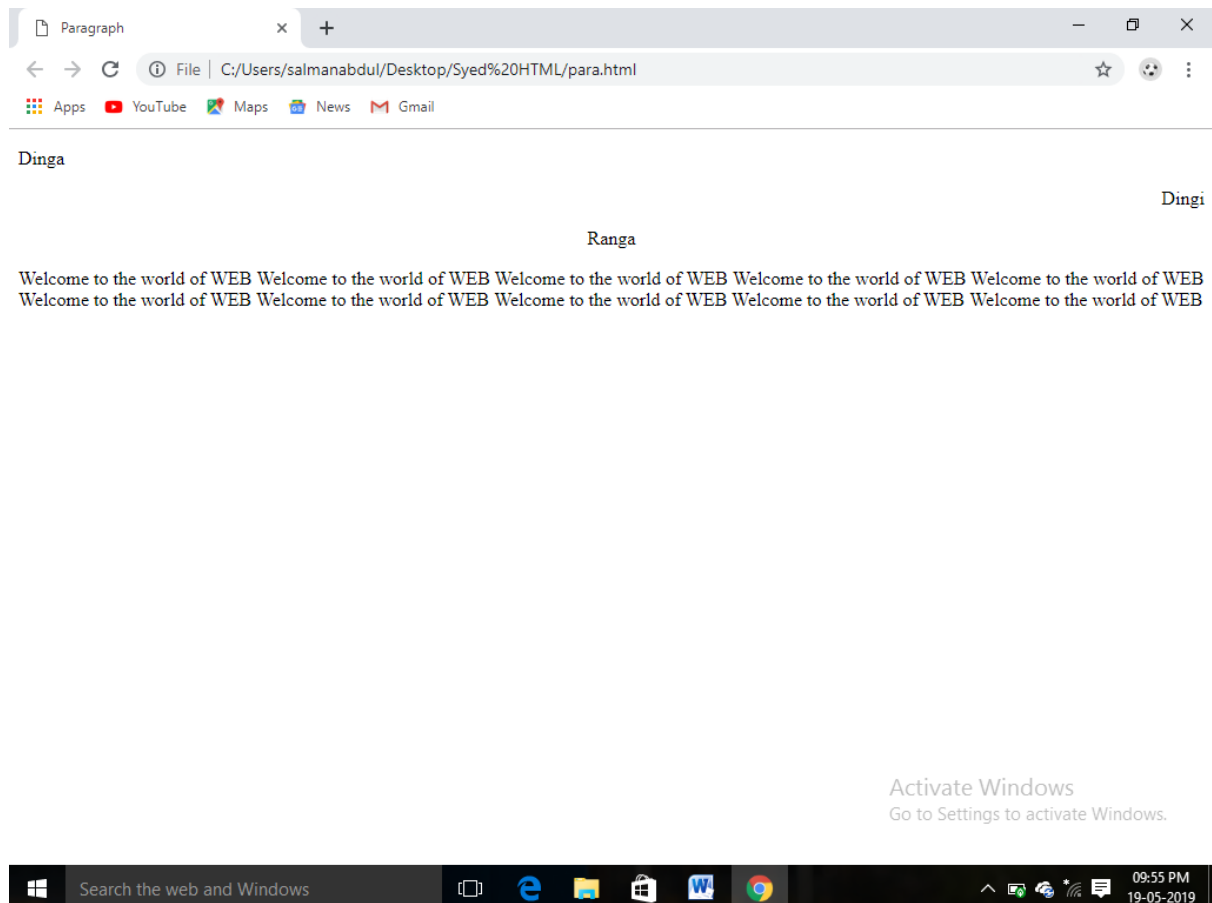
Output:

Break Tag

**
** stands for break line, it breaks the line of the code.

<u>Example:</u>

<!doctype html>

<html>

<head>

<title>Paragraph</title>

</head>

<body>

welcome to web class

dinga married dingi

welcome to web class
dinga married dingi

welcome to web class

dinga married dingi

</body>

</html>

Presentational Tags

Following are the presentational tags

<u>Example:</u>

<!doctype html>

<html>

<head>

</head>

```html
<body>

Jspiders<br/>

<big>Jspiders</big><br/>

<small>Jspiders</small><br/>

<u>Jspiders</u><br/>

<s>Jspiders</s><br/>

<strike>Jspiders</strike><br/>

<del>Jspiders</del><br/>

<i>Jspiders</i><br/>

<em>Jspiders</em><br/>

X<sup>Jspiders</sup><br/>

log<sub>10</sub><br/>

<q>Jspiders</q><br/>

<blockquote>Jspiders</blockquote><br/>

</body>

</html>
```
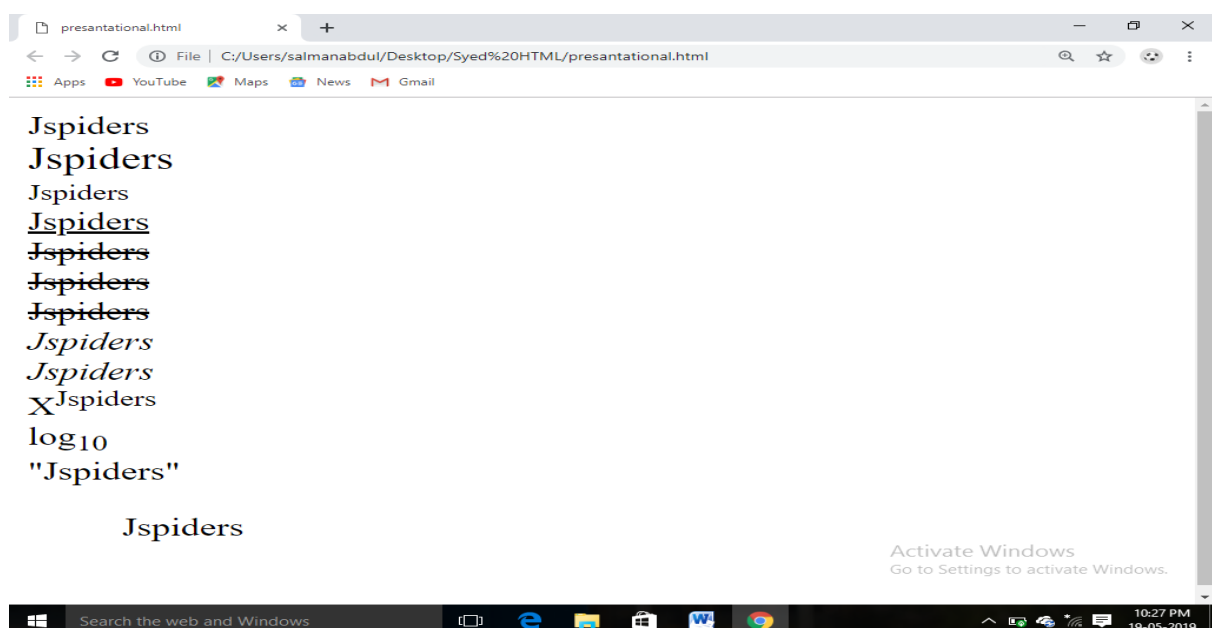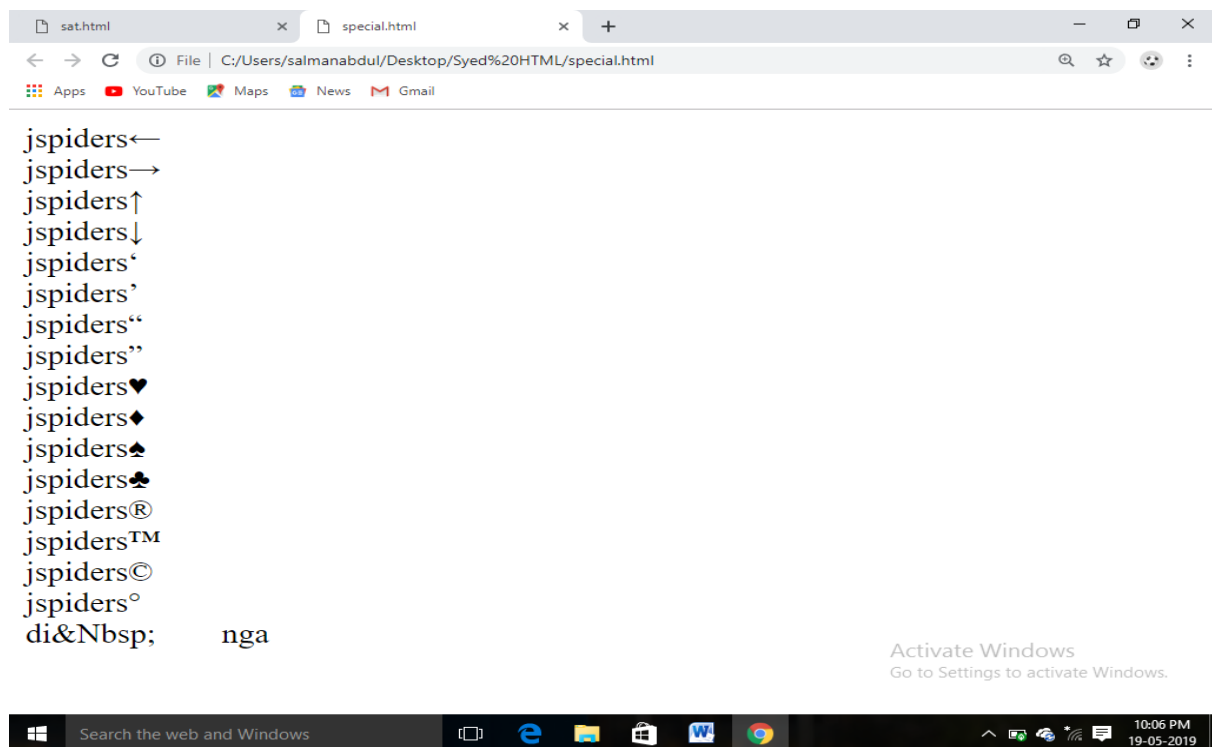
Output:

Special Characters

Special characters always starts from & (ampersand) and ends with ; (semicolon).And it is Case-sensitive

Example:

<!doctype html>

<html>

<head>

</head>

<body>

jspiders←

jspiders→

jspiders↑

jspiders↓

jspiders‘

jspiders’

jspiders“

jspiders”

jspiders♥

jspiders♦

jspiders♠

jspiders♣

jspiders®

jspiders™

jspiders©

jspiders°

di&Nbsp;   nga

</body>

</html>

Output:

Html Headings

In Html heading is same like our book heading which is important and written in bold letter, Here also we define heading using <h1> to <h6>. Heading <h1> defined the most important heading and <h6> define most least heading.

<H1> text is big in size and <h2> text is smaller than <H1> text and <H3> text is smaller than <H2> text and so on..

Attributes of Heading Tags

SL.NO	Attribute Name	Parameters/Values	Description
1	Align	Left(Default),Right,Center	To align the content

Example:

<!doctype html>

<html>

```
<head>

<title>Paragraph</title>

</head>

<body>

<h1>Dinga</h1>

<h2>Dingi</h2>

<h3>Sheela</h3>

<h4>Leela</h4>

<h5>Laila</h5>

<h6>Kamala</h6>

</body>

</html>
```
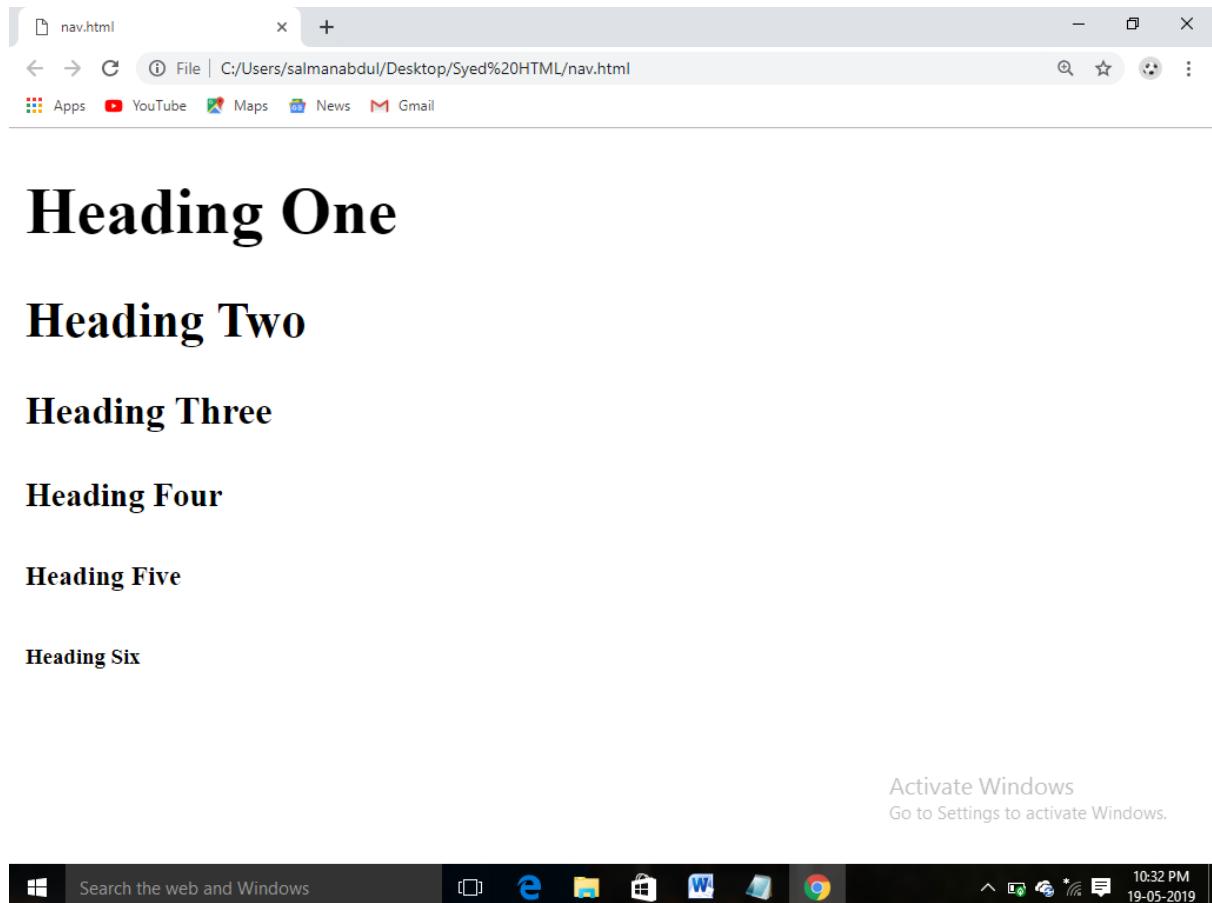
Output:

Html Image

Html provide <img> tag to display image on web page or browser. Html <img> tag is an empty tag that contains attributes only, closing tags are not used with <img> tag.

Attributes of Image Tag

SL.NO	Attribute Name	Parameters/Values	Description
1	Src	Image Path/Image Name	are used for specify the source file from where you want to display image.
2	Alt	Any Name	attribute are used for specify alternate text to display in the place of image when browser is unable to display image. This name is helpful for search engine to find the image on web.
3	Tittle	Any Name	attribute are used for specify a title for the image that will be displayed when mouse is placed over the image for few seconds.
4	Height	px,pt,em,%	are used for specify height of image.
5	Width	px,pt,em,%	are used for specify width of image.

Example:

<!doctype html>

<html>

<head>

</head>

<body>

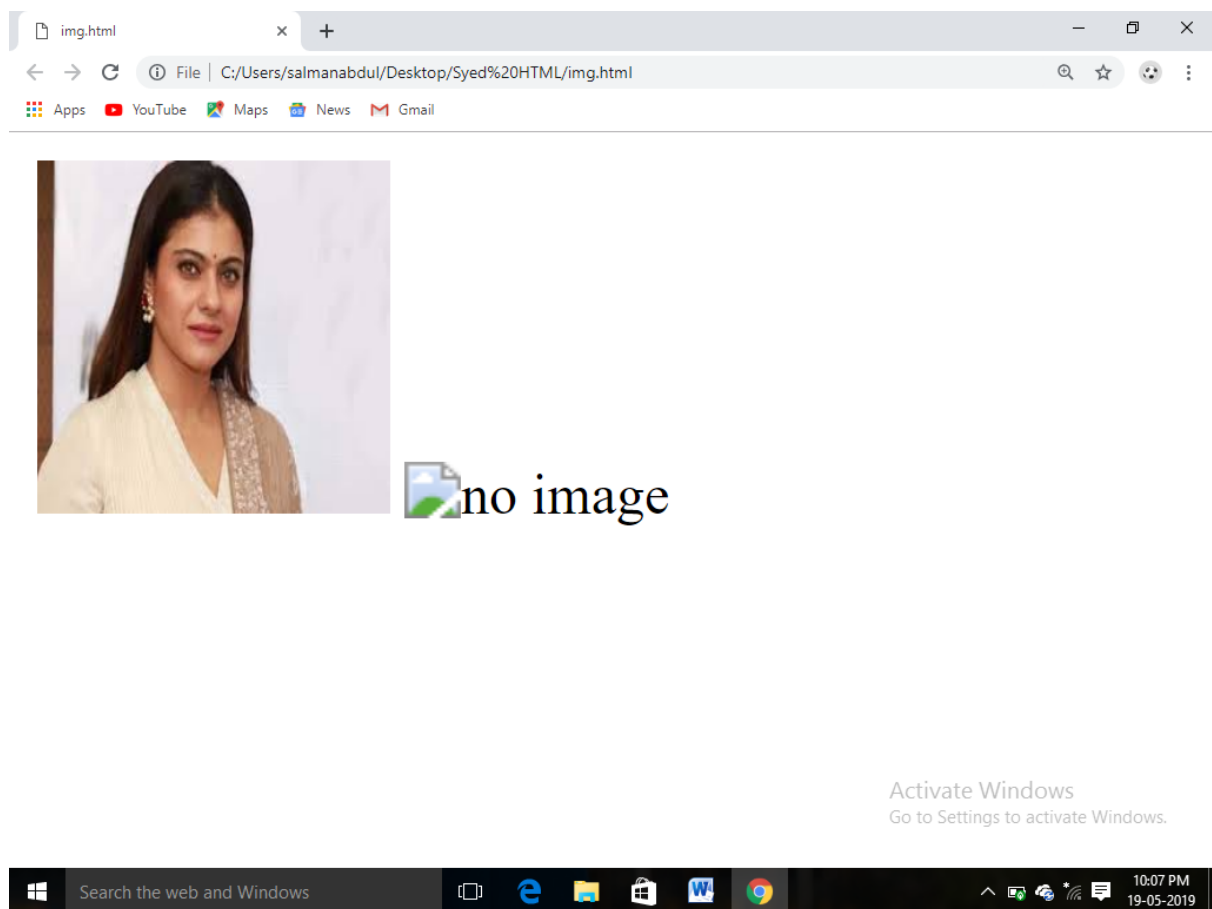

</body>

</html>

Output:

Html list

Html list are used for arrange text in list format. Html provide three types of list.

- Ordered List or Numbered List (ol)
- Unordered List or Bulleted List (ul)

Ordered List

Used for display data in order format like from 1 to 10 or from a to z.

Attributes of Ordered List

SL.NO	Attribute Name	Parameters/Values	Description
1	Type	1(Default),a,A,I,i	Specifies the type of list marker that should be used on each item of an ordered list.
2	Start	Any Number	Defines the starting number in an ordered list.

Unordered List

This type of list display data in the form of list but just dot (.) display before line.

Attributes of Un-ordered List

SL.NO	Attribute Name	Parameters/Values	Description
1	type	Disc(Default),square ,Circle	Was used to set list types.

Example:

<!doctype html>

<html>

<head>

</head>

<body>

```html
<p>Programming Languages</p>

<ol>

    <li>Java</li>

    <li>Python</li>

    <li>C</li>

    <li>C++</li>

</ol>

<p>Programming Languages</p>

<ul type="square">

    <li>Java</li>

    <li>Python</li>

    <li>C</li>

    <li>C++</li>

</ul>

</body>

</html>
```
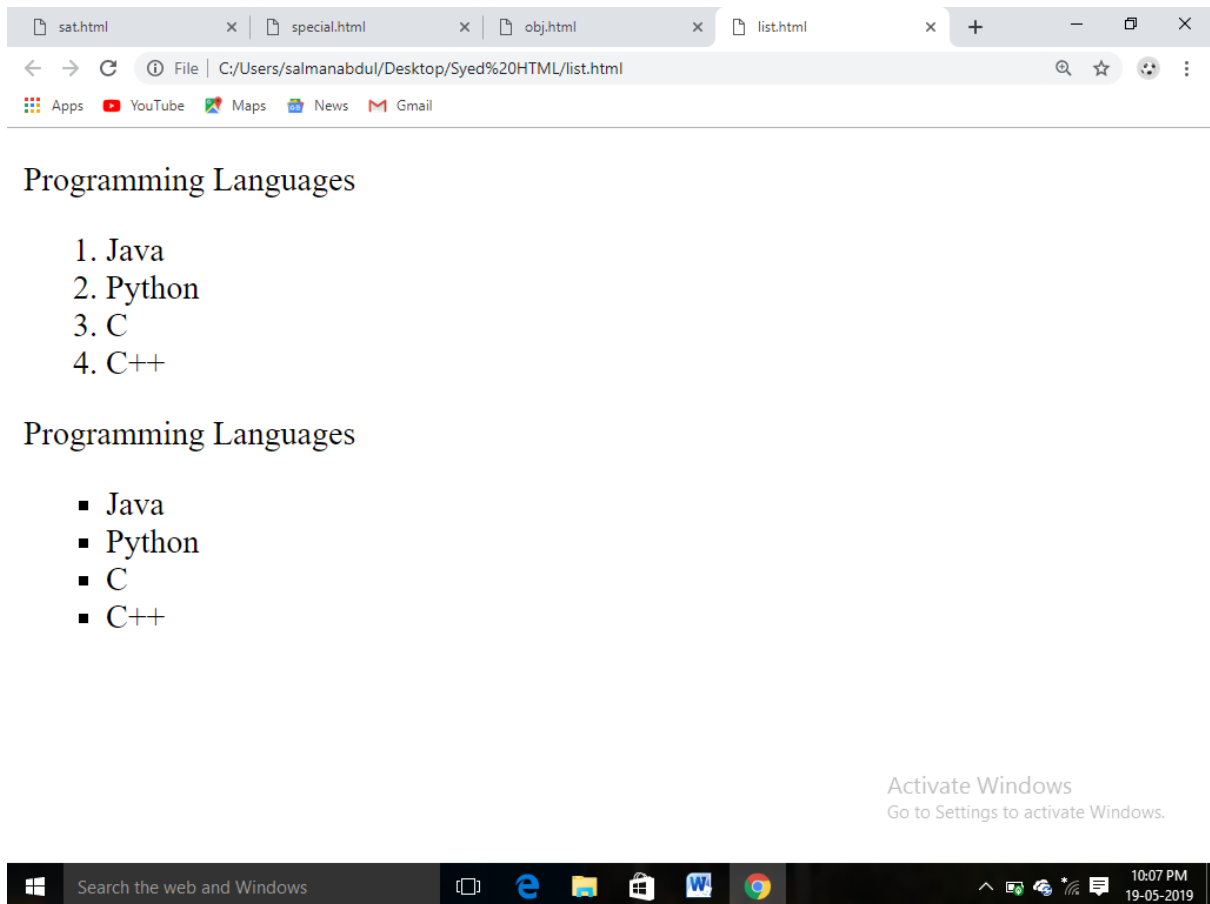
Output:

Marquee Tag

Marquee tag are used for display the moving content on the web browser. Marquee tag contain the following attribute.

Attributes of Marquee tag

Atrributes	Parameters
1.Behavior	Scroll(Default),Slide,Alternate
2.Direction	Left(Default),Right,Up,Down
3.Bgcolor	Color name/Color Code
4.Scrollamount	Any Number (To increase the Speed)

5.Loop	Any Number (For Repeatation)
6.Height	Px,pt,%
7.Width	Px,pt,%

- **Direction:** To specify direction of moving content like left, right, up, down.
- **Scroll amount:** To specify the speed of the content.
- **Loop:** To specify how many time that text has to move on the browser window.
- **Behavior:** To specify the style to the moving content. It have attribute scroll, alternate, slide.

Example

<!doctype html>

<html>

<head>

</head>

<body>

<marquee bgcolor="yellow" direction="up" height="100px" width="600px" behavior="scroll" loop="5">Jspiders</marquee>

<marquee bgcolor="yellow" height="100px" width="600px" behavior="slide" loop="5">Jspiders</marquee>

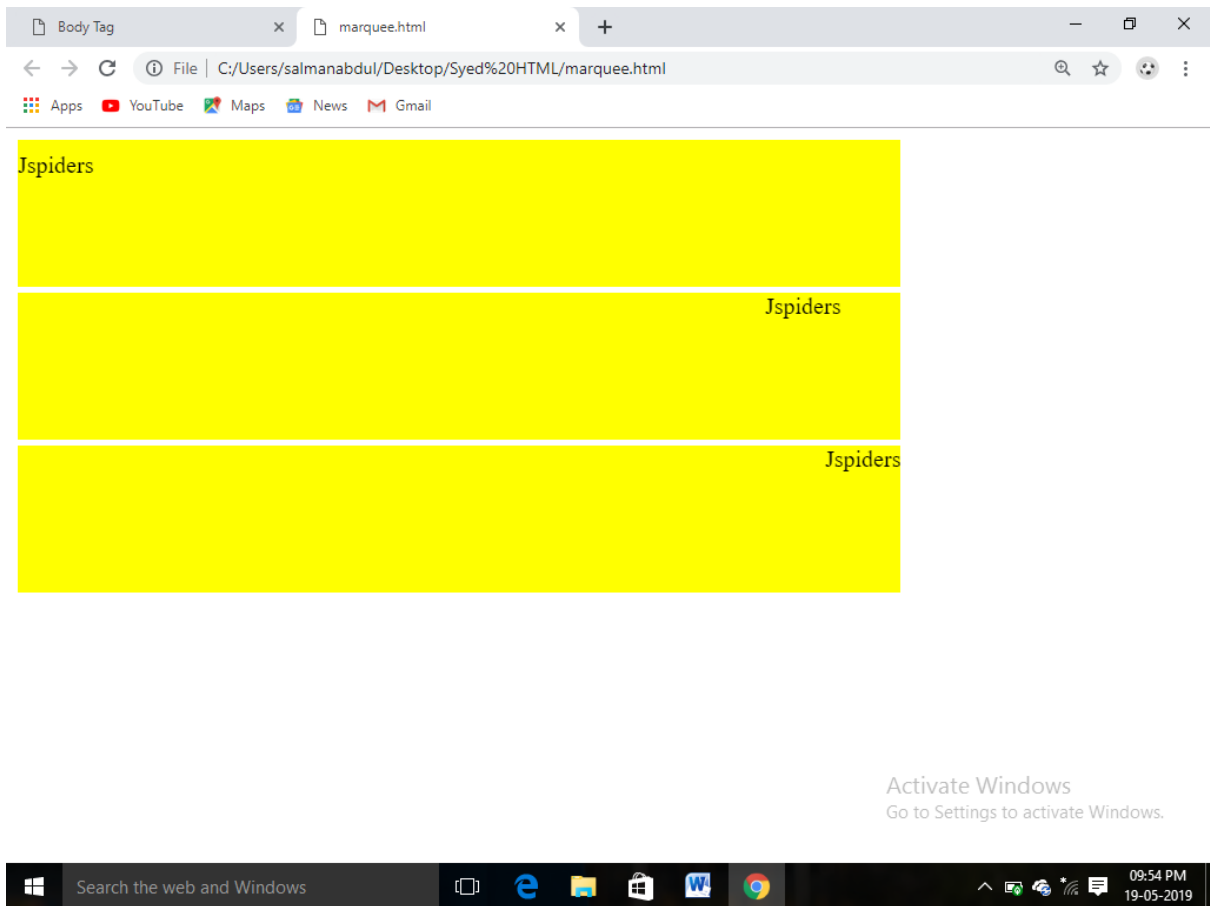<marquee bgcolor="yellow" height="100px" width="600px" behavior="alternate" scrollamount="230">Jspiders</marquee>

</body>

</html>

Output:

Table Tag

Attributes of Table tag

Atrributes	Parameters
1.Border	Px,pt,%
2.Bordercolor	Color name/Color Code
3.Bgcolor	Color name/Color Code
4.Height	Px,pt,%
5.Width	Px,pt,%
6.Cellspacing	Px,pt,%

7.Cellpadding	Px,pt,%
8.Align	Left(Default),Right,Justify
9.Rules	Rows,Cols,All

Table is a collection of cells in HTML

If you want to represent your table in the form of rows and columns then you should use **Rules** Attribute.

Attributes of <tr> tag

Atrributes	Parameters
1.Align	Left(Default),Right,Justify
2.bgcolor	Color name/Color code

Attributes of <td/th> tag

Atrributes	Parameters
1.Align	Left(Default),Right,Justify
2.Valign	Middle(Default)Top,Bottom
3.Bgcolor	Color name/Color code
4.Colspan	Any Number
5.Rowspan	Any Number

Using **table** we arrange data in the form of row and column. To create a table in html use **<table>**tag.

Complete table are design by using below tags.

- Table are divided into **table row** using **\<tr\>** tag.
- Table row are again dived into **table data** using **\<td\>** tag.
- Table row also divede into **table heading** using **\<th\>** tag.

Note: A table not contain only text but it contain image, video and another table inside table.

- **border :** This attribute used for give border around table and border for all cell.
- **colspan :** This attribute defines the number of columns. It is used inside \<td\> tag.
- **rowspan :** This attribute defines the number of row. It is used inside \<td\> tag.

1	\<table\>	It define table
2	\<tr\>	It define a table row in table
3	\<td\>	It define table data in table row
4	\<th\>	It defined table heading in table row
5	\<caption\>	It defined table caption

Example

\<!doctype html\>

```html
<html>

<head>

</head>

<body>

<table border>

        <tr>

                <th>Name</th>

                <th>USN</th>

                <th>Marks</th>

                <th>Dept</th>

                <th>Gender</th>

        </tr>

        <tr>

                <td colspan="2">Sheela</td>


                <td>95</td>

                <td>mech</td>

                <td>Others</td>

        </tr>

        <tr>

                <td>Kiran</td>

                <td>420</td>

                <td>98</td>

                <td>Cs</td>

                <td>Male</td>
```

```
                    </tr>

                    <tr>

                            <td>Prem</td>

                            <td>520</td>

                            <td>60</td>

                            <td>EC</td>

                            <td>Male</td>

                    </tr>

                    <tr>

                            <td>Rakshitha</td>

                            <td>5678</td>

                            <td>35</td>

                            <td>Cv</td>

                            <td>Female</td>

                    </tr>

</table>

</body>

</html>
```
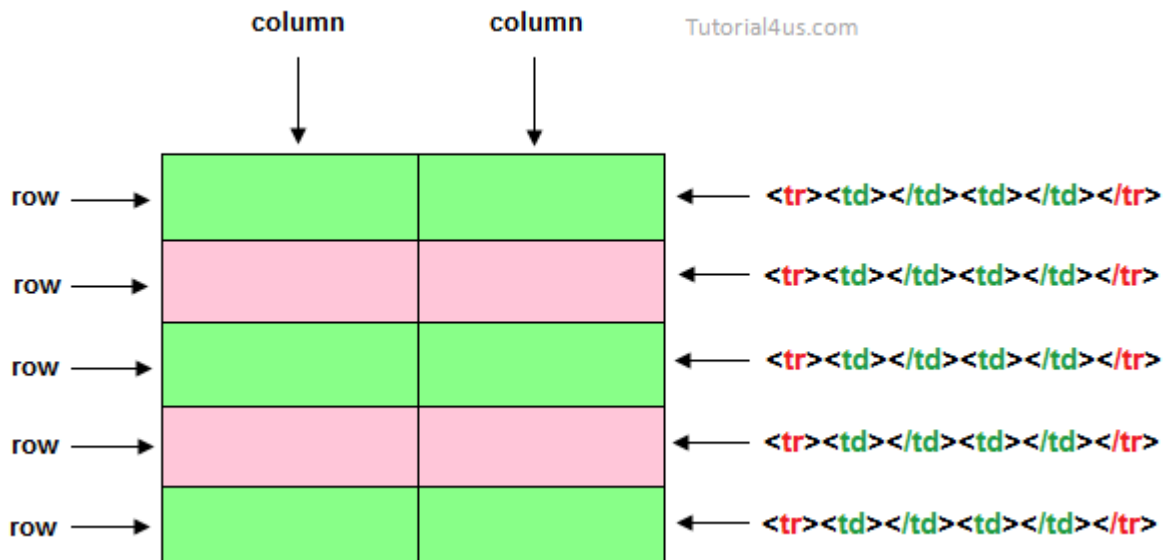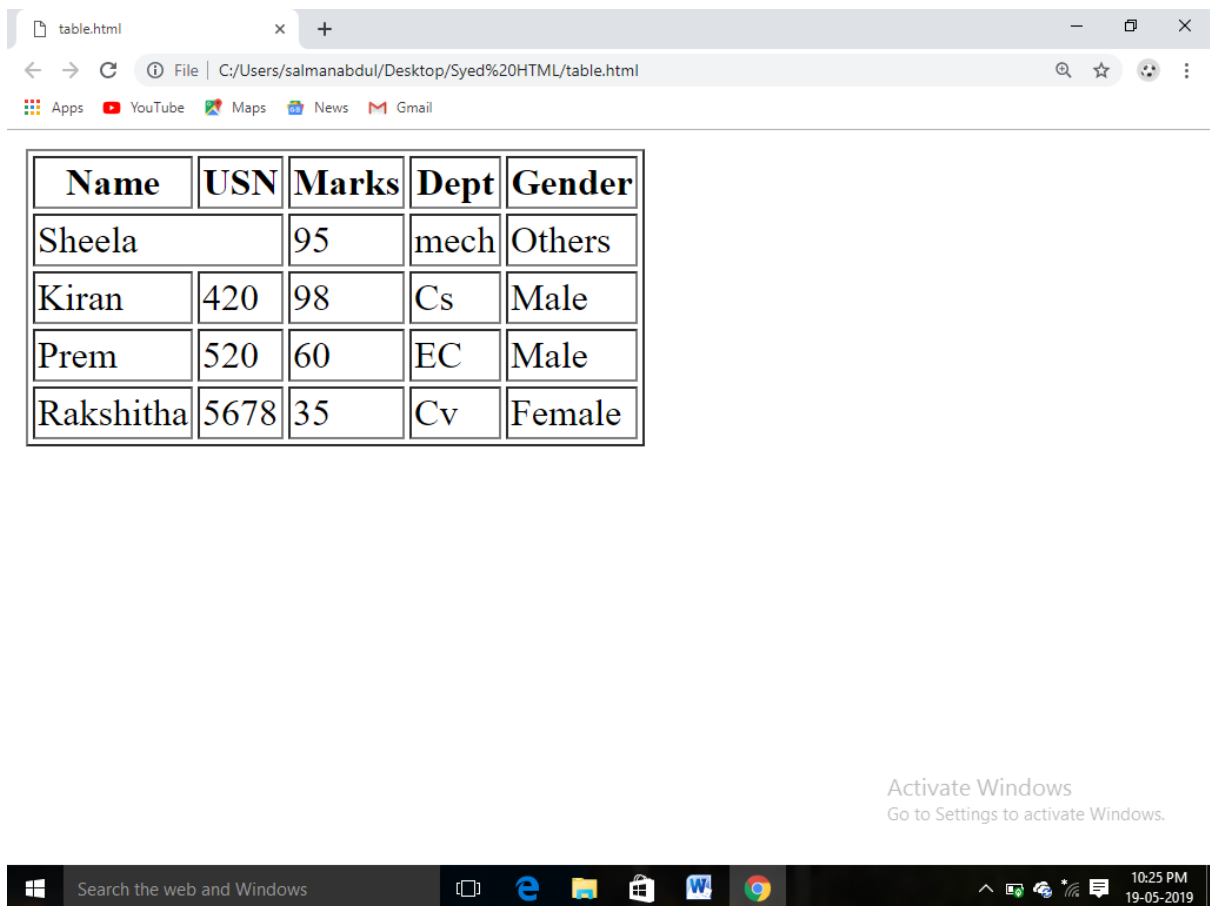
Output:

Name	USN	Marks	Dept	Gender
Sheela		95	mech	Others
Kiran	420	98	Cs	Male
Prem	520	60	EC	Male
Rakshitha	5678	35	Cv	Female

Anchor Tag

Hyperlinks are used to create links that allow the users to navigate from one page to another. To create hyperlinks use <a> tag. <a> tag have following attributes;

Attributes of Anchor tag

Atrributes	Parameters
1.Href	Url/File Name
2.Title	Any name
3.Download	`Any Name
4.Target	_Parent(Default),_Blank

- **href:** href attribute specifies the destination address like

- **target:** target attribute specifies where to open the linked document like open in new window, open in same window.

Example:

<!doctype html>

<html>

<head>

</head>

<body>

Dinga

Dingi

</body>

</html>

Output:

Horizontal tag

Horizontal tag is used to create Horizontal lines on webpage. To create Horizontal lines use <hr/> tag. <hr/> tag have following attributes;

Attributes of Hr tag

Atrributes	Parameters
1.Size	Px,Pt,%
2.Width	Px,Pt,% (Default 100%)
3.color	Color Name/Color Code
4.Align	Left,Right,Center (Default)
5.Noshade	(Works only when Color Attribute is not present)

Example:

<!doctype html>

<html>

<head>

</head>

<body>

Jspiders

<hr size="5px" color="red" align="left" width="50%"/>
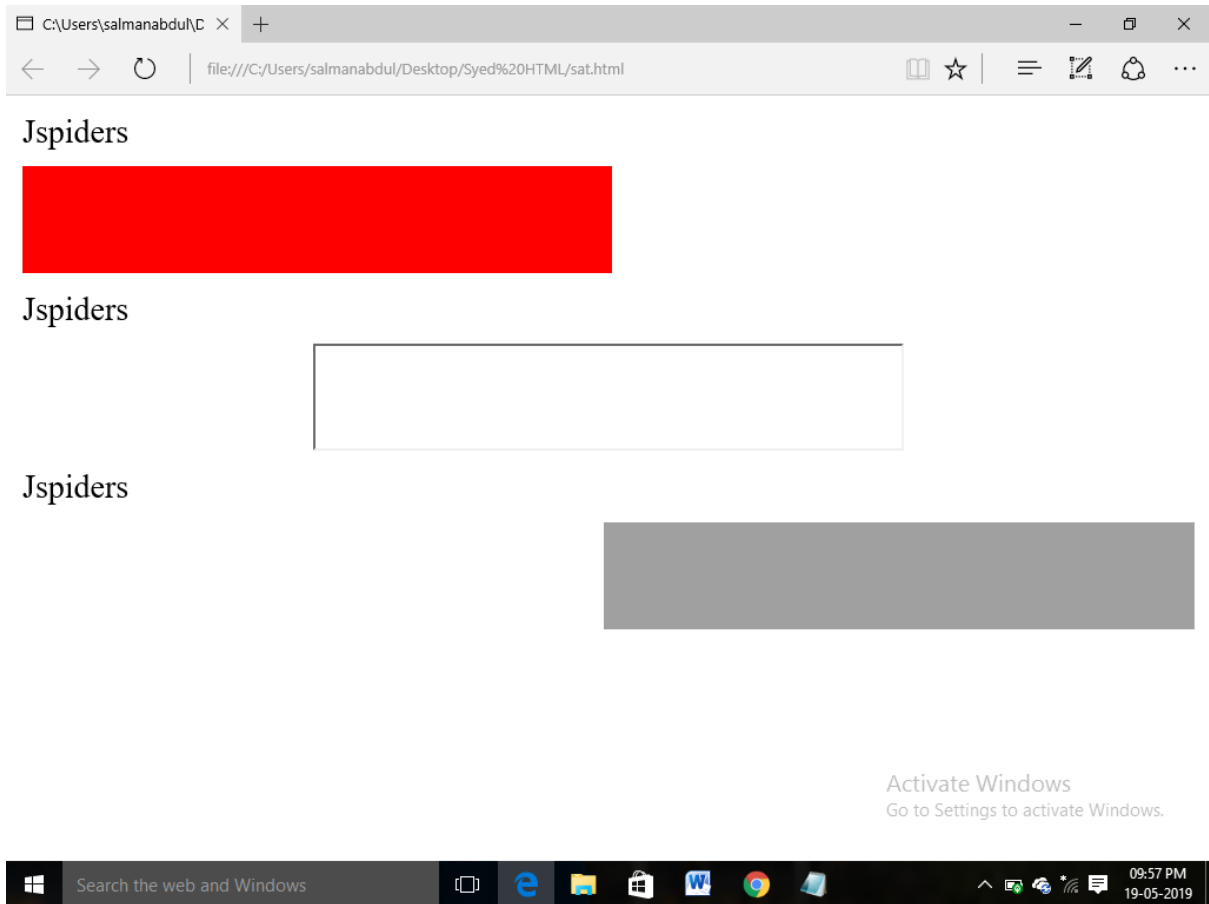
<hr size="5px" align="left" width="50%" noshade />

</body>

</html>

Output:

Audio tag

Html **<audio>** tag defines sound, such as music or other audio streams.

Now, there are three supported audio file formats for the <audio> tag; those are given below;

- MP3
- Wav
- Ogg

Video tag

<video>tag are used to add video on web page. Html5 added new tag for add video files on web page, befor html5 it is achieve by using <embed> tag

- mp4
- webM

Attributes of <audio> tag and Video Tag

SL.NO	Attribute Name	Parameters/Values	Description
1	Controls		Toggles the display of audio playback controls.
6	Src	url	Specifies the source file for an audio element.
8	Height	Px,pt,%	The width of the video's display area,
9	Width	Px,pt,%	The height of the video's display area,

Example:

<!doctype html>

<html>

<head>

</head>

<body>

    <audio controls>

        <source src="a1.mp3">

    </audio>

    <video controls height="200px" width="200px">

        <source src="a2.mp4">
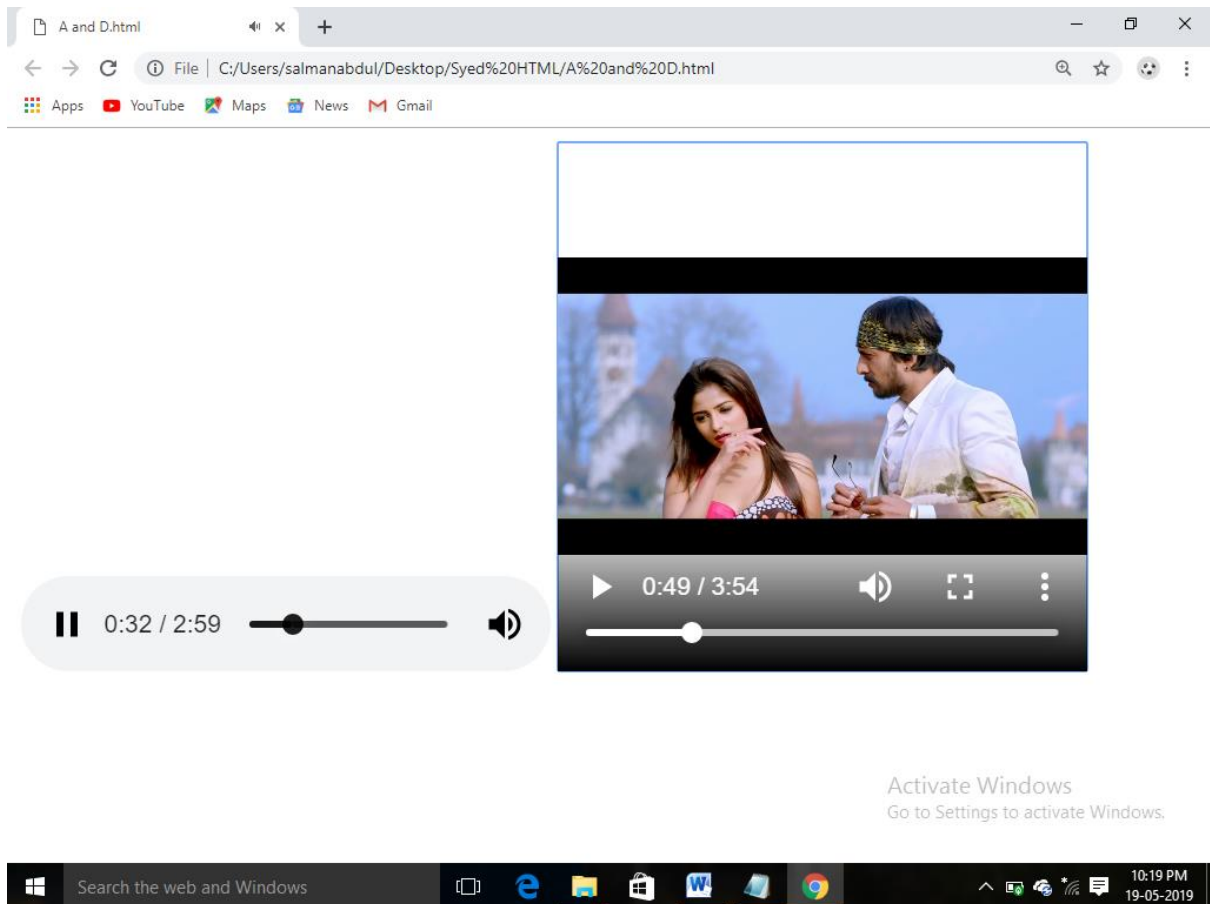
    </video>

</body>

</html>

Output:

Iframe Tag

An **IFrame** (Inline Frame) is an **HTML** document embedded inside another **HTML** document on a website. The **IFrame HTML element** is often used to insert content from another source, such as an advertisement, into a Web page.

Attributes of Table tag

Atrributes	Parameters
1.Src	URL/File Name
2.Height	Px,Pt,%
3.Width	Px,Pt,%

Example;

```
<!DOCTYPE html>

<html>

<head>

<title>Iframe</title>

<style>

</style>

</head>

<body>

<iframe src="border.html" height="200px" width="200px"/>

<iframe src="form.html" height="200px" width="200px"/>

</body>

</html>
```
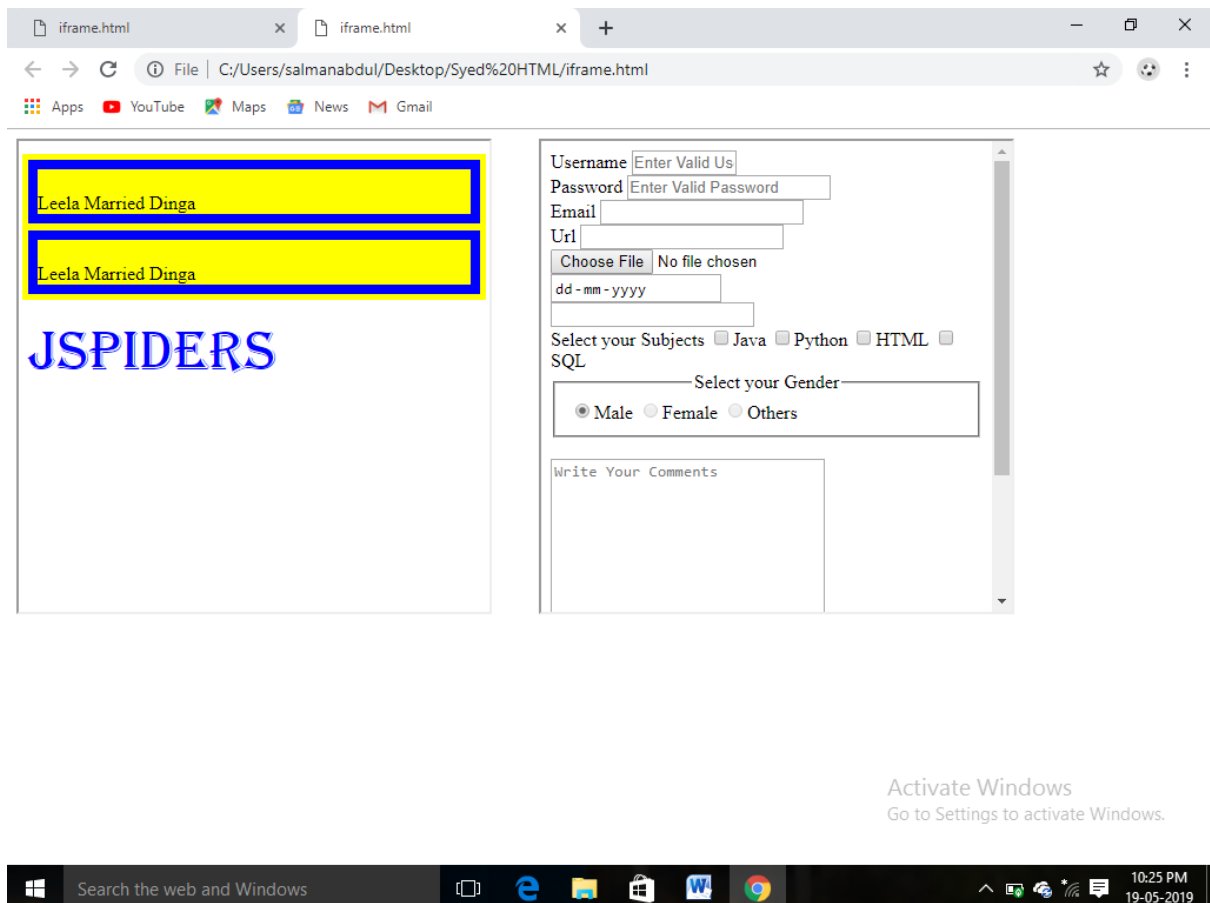
Output:

Form tag

This element is used to create a form on html page. which is a logical grouping of controls available on the page. Form contains controls such as text fields, email field, password fields, checkboxes, button, radio buttons, submit button, menus etc.

Attributes of Form tag

Atrributes	Parameters
1.Action	URL/File Name
2.Name	Any Name
3.Target	_Parent(Default),_Blank
4.Method	Get(Default),Post

- **name:** are used for provide a name to the form
- **action:** are used for specify the page to which the data of current page has to be submitted.
- **method:** are used for specify which method to use for submitting this page to server (get or post).

Why use form tag ?

Form tag are used for get the information from user, for example when you fill the registration form lot of information given by use and these information server get from web page using form element.

Tag	Description
<form>	It defines an HTML form to enter inputs by the used side.
<input>	It defines an input control.
<textarea>	It defines a multi-line input control.
<label>	It defines a label for an input element.

<fieldset>	It groups the related element in a form.
<legend>	It defines a caption for a <fieldset> element.
<select>	It defines a drop-down list.
<optgroup>	It defines a group of related options in a drop-down list.
<option>	It defines an option in a drop-down list.
<button>	It defines a clickable button.

Attributes of <input> tag

Attributes	Parameters
1.Input	Text, Password, Submit, Reset, URL, Email, Radio Button, Checkbox ,Date, Time, File,Number,Range
2.Value	Any Name
3.Placeholder	Any Name
4.Name	Any Name
5.Size	Any Number
6.Maxlength	Any Number
7.Required	
8.Checked	
9.Disabled	

10.Id	Any Name

Attributes of \<Textarea\> tag

Atrributes	Parameters
1.Rows	Any Number
2.Cols	Any Number

Attributes of \<Select\> tag

Atrributes	Parameters
1.Multiple	

Example:

\<!doctype html\>

\<html\>

\<head\>

\</head\>

\<body\>

\<form action="marquee.html" name="f" method="post" target="_blank"\>

    \<label\>Username\</label\>

    \<input type="text" required name="un" size="8" maxlength="8" placeholder="Enter Valid Username"/\>\</br\>

    \<label\>Password\</label\>

    \<input type="password" name="pw"/\>\<br/\>

```html
<label>Email</label>

<input type="email" name="e"/><br/>

<label>Url</label>

<input type="url" name="u"/><br/>

<input type="file" name="f"/><br/>

<input type="date" name="d"/><br/>

<input type="number" name="n"/><br/>

<label>Select your Subjects</label>

<input type="checkbox" name="c1">Java

<input type="checkbox" name="c2">Python

<input type="checkbox" name="c3">HTML

<input type="checkbox" name="c4">SQL

<br/>

<fieldset>

<legend align="center">Select your Gender</legend>

<input type="radio" name="r1" checked />Male

<input type="radio" name="r1" disabled />Female

<input type="radio" name="r1" disabled />Others

</fieldset>

<br/>

<textarea rows="10" cols="30" placeholder="Write Your Comments" ></textarea><br/>

<select multiple>

<optgroup label="Select Your state">

        <option>Karnataka</option>

        <option>Goa</option>
```

```html
                    <option>Maharashtra</option>

                    <option>Bihar</option>

            </optgroup>

            <optgroup label="Select Your Color">

                    <option>Red</option>

                    <option>GREEN</option>

                    <option>Blue</option>

                    <option>PINK</option>

            </optgroup>

            </select><br/>

            <input type="submit" name="s" value="login"/>

            <input type="reset" name="r"/>

            <input type="button" name="b" value="signup"/>

            <button>Click</button>

</form>

</body>

</html>
```

Output: