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LECTURE NOTES

ON

WEB TECHNOLOGIES

III B.TECH-II SEM

UNIT I
INTRODUCTION TO HTML

INTRODUCTION:

HTML stands for Hypertext Markup Language. It is a Language used to createWeb Pages or Hypertext document. A Markup Language is a set of instructions often called TAGS which can be addedto text files. HTML is only a formatting language are not a programming language. The idea behind hypertext is that instead of reading text in a right linear structure we can easily jump from one point to another point.HTML is all about specifying the structure and format of our webpage i.e, it is mainly used for describing the structure document.

HTML is platform independent i.e, for example if we can access internet, we can access WORLD WIDE WEB (WWW) irrespective of client OS and OS of the webserver are accessing. So, we can view one download HTML files on www throughbrowser.

Elements of a web document are labelled through the usage of HTML tags. It is the tags that describe the document. Anything that is not a tag will bedisplayed in the document itself. HTML does not describe any page layout i.e, for example, word for windows havedifferent styles for headings, font size etc. But HTML doesn’t have all these. Based on the Platforms, appearance of any element will change. The formatted textwill appear differently on different machines / Platforms. By separating the Structure of the document and appearance, a Program that reads and Understands HTML can make formatting decision based on capabilities of individual Platform. Web Browsers are best examples of HTML formatters.

Advantages of HTML:-

- A HTML document is small and hence easy to send over the net. It is smallbecause it doesn’t include format information.
- HTML documents are cross platform compatible and device independent.We need a HTML readable browser to view them.

Basic HTML tags:-

(1) **<!doctype> :**

This tag formally starts an HTML document and it also indicates theversion of HTML used.

<!doctype HTML PUBLIC “//w3c//DTDHTML Q.o//EN”>

(2) **<HTML>:**

Every HTML document starts with a <html> tag and it is always the firsttag in a html page and indicates that the document is a HTML document.The end tag <html> is </html>.

Example:

<html>……..</html>

(3) **<head>:**

It contains the head of an html document, which holds about the document such as title. Each property defined html page should have a head which we create with <head> tag. It has header information and it isdisplayed at the top of the browser. Each tag for <head> is </head>.

<head>…….</head>

(4) **<title>:**

It contains the title of the html document which includes the content thatwill actually appear in the web browser. The entire content of the web page is placed in the pages <body> tag. The end tag <body> is </body>

<title>…….</title>

(5) **<body>:**

It contains the body of the HTML Document , which includes the contentthat will actuall appear in the web browser. The entire content of the webpage will be placed in the pages <body> tag. The end tag of the

<body> tag will be </body>.

<body>………</body>

STRUCTURE OF THE HTML PROGRAM:-

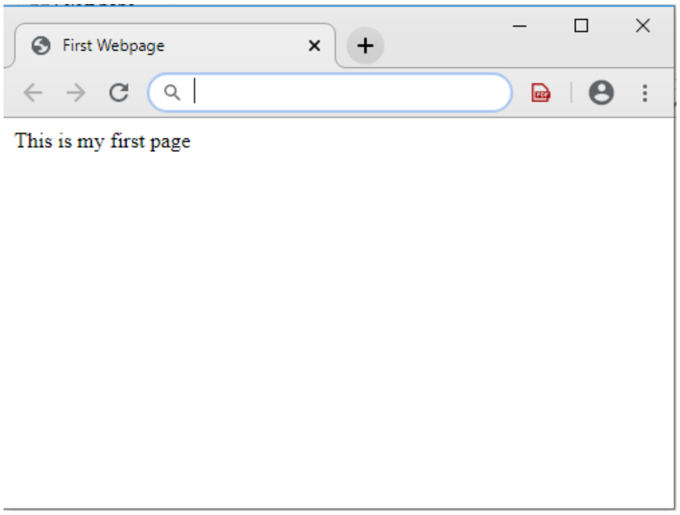
The HTML Program is generally divided into two sections i.e head and body. Weuse <head> and <body> tags to indicate these two sections. <head> section holds the header information of a webpage document indicated by a title that is provided by using <title> tag in the <head>. The title helps us to referto the webpage. <body> section contains the content which we want to display which the webpage.Anything that is not a tag will be displayed within the webpage.

Example:

```
<html>
        <head>
                <title>First Webpage</title>

        </head>
        <body>
                This is my first page
        </body>
</html>
```

Output:



This is my first page

Attribute:

An Attribute is a Keyword we use in an opening tag to give more information tothe web browser. HTML tags tell the web browsers how to format and organizeour webpages. But we can customize tags using attributes. The Format of an attribute is:

<tagname Attribute=value>

Attributes of the <body> tag:

(1) Background:

The URL or a graphic file to be used in the filling the browser’sBackground.

(2) Bgcolor:

The color of the browser’s background.

(3) Bgproperties:

It Indicates if the background should scroll when text does. If we set it to“FIXED”, the background will not scroll when the text does.

(4) Bottommargin:

Specifies the bottom margin ,the empty space at the bottom of the documentin pixels.

(5) Id:

It is a unique alphanumeric identifier for the tag which we can use to refer toit.

(6) Language:

Scripting language used for the tag.

(7) Leftmargin:

Specifies the left margin, the empty space at the left of the document.

(8) Marginheight:

Gives the height of the margin at the top and bottom of the page in pixels.

(9) MarginWidth:

Gives the width of the left and right margins of the page in pixels.

(10) Rightmargin:

It specifies the right margin, the empty space to the right margin of thedocument in pixels.

(11) Scroll:

It specifies whether a vertical scrollbar appears to the right of the documentcan be yes (or) no.

(12) Style:

Inline style indicating how to render the element.

(13) Text:

Color of the in the document.

(14) Topmargin:

It specifies the top margin the space at the top of the document in pixels.

(15) Link:

It specifies the color of hyperlinks that have not yet been visited.

(16) Alink:

It specifies the color of hyperlinks as they are being clicked.

(17) Vlink:

It specifies the color of hyperlinks as they have been visited.

(18)<!--   --> Comment tag:

Annotates a web page with a comment. In the HTML that we can by lookingat the HTML but it will not be displayed in the web browser.

<! ------ This is a comment--------- >

Formatting with HTML tags:

To set the actual style of text as displayed in a web page we can text style tags.There are a number of ways to apply styles to text.

(1) <b>:

It creates a bold text i.e, sets the text style to bold.

Attributes:

a. Id:

It is a unique alphanumeric identifier for the tag which we can use to refer toit.

b. Style:

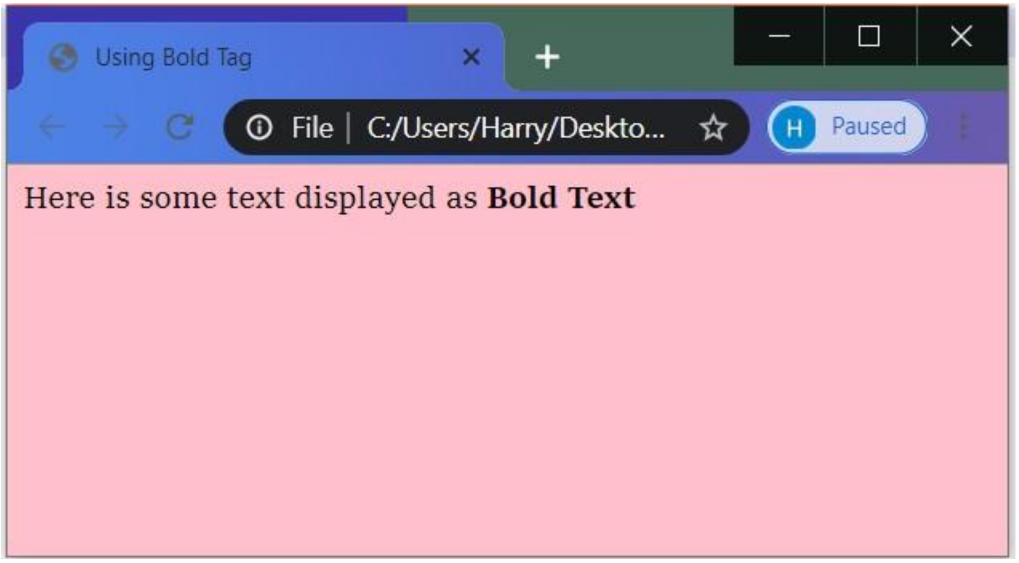
The Inline style indicating how to render the element.

Example:

```
<html>
        <head>
                <title>Using Bold Tag </title>
        </head>
        <body bgcolor=”pink”>
                Here is some text displayed as <b> Bold Text </b>
```

```
          </body>
</html>
```

Output:



Here is some text displayed as **Bold Text**

(2)<I>:

It displays text in Italics.(3)

<U>:

It displays text in Underlined text.(4)

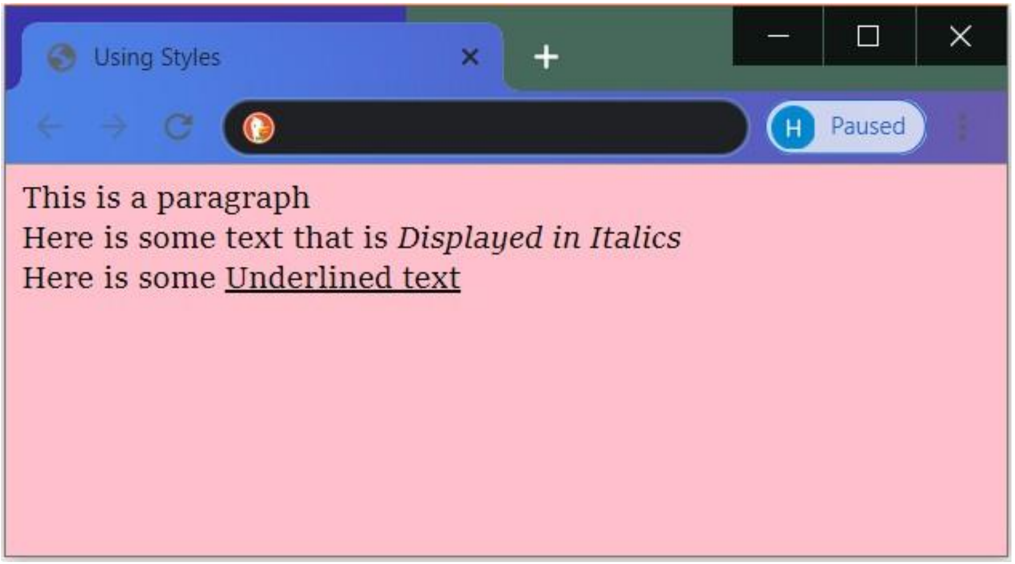
<P>:

It displays the Paragraph text.

Example:

```
<html>
          <head>
                    <title> Using Styles </title>
          </head>
          <body bgcolor=”pink”>
                    <p> This is a paragraph <br>
                    Here is some text that is <i> Displayed in Italics </i>
                    <br>Here is some <u> Underlined text </u>
          </body>
</html>
```

Output:



This is a paragraph
Here is some text that is *Displayed in Italics*
Here is some Underlined text

(5) <s> and <strike>:

It Displays text in smile through style. The <s> and <style> tags are used forthe same effect. HTML 2 used <strike> , HTML 3 called it <s>, HTML 3.2 caused it <strike> again.

(6) <big>:

Renders text in a bigger font than the current default.

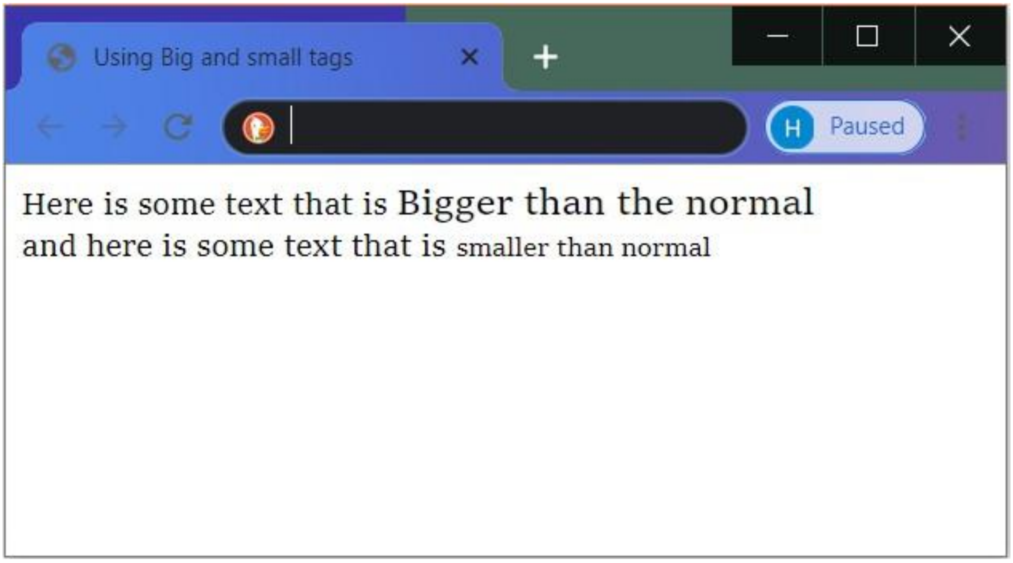
(7) <small>:

Renders text in a smaller font than the current default.

Example:

```
<html>
        <head>
                <title> Using Big and small tags </title>
        </head>
        <body>
                Here is some text that is <big> Bigger than the normal </big> <br>and here is
                some text that is <small> smaller than normal </small>
        </body>
</html>
```

Output:



Here is some text that is Bigger than the normal
and here is some text that is smaller than normal

(8) <sub>: It Styles the text as a subscript.

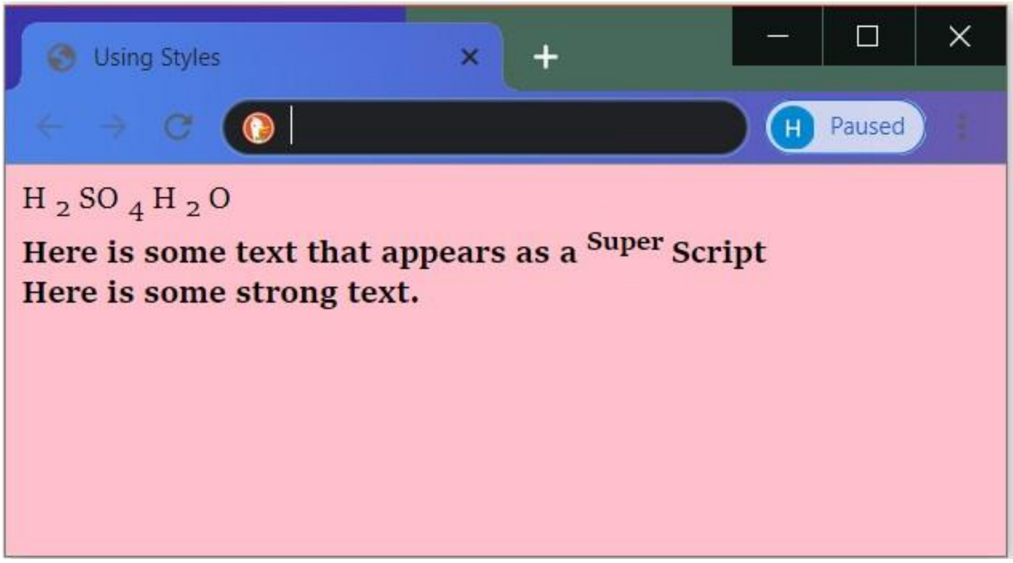
(9) <sup>: It Styles the text as a superscript.

(10)<strong>: Emphasizes text strongly, usually rendered in bold.

Example:

```
<html>
        <head>
                <title>Using Styles </title>
        </head>
        <body bgcolor=”pink”>
                H  <sub>  2  </sub>  SO  <sub>  4  </sub> H
                <sub> 2 </sub> O
                <br>
        <b>Here is some text that appears as a <sup> Super </sup> Script <br>Here is some <strong> strong </strong> text.
        </body>
</html>
```

Output:



$H_2 SO_4 H_2 O$

Here is some text that appears as a $^{\text{Super}}$ Script
Here is some strong text.

(11)Headings:

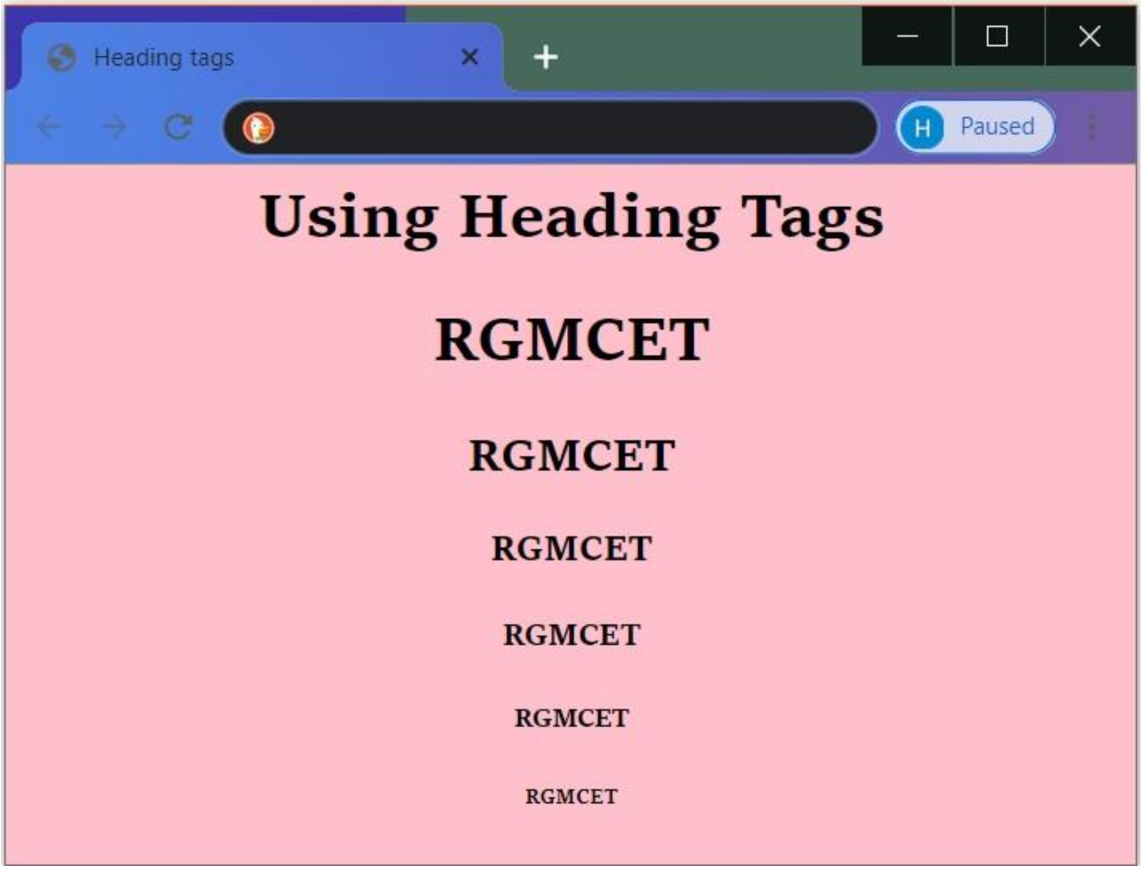
<h1>,<h2>,<h3>,<h4>,<h5> & <h6>

The heading element tags are <h1>,<h2>,<h3>,<h4>,<h5><h6>. These elements create the headings in our web pages by displaying bold text in avariety of sizes <h1> being larger <h6> being smaller.

Example:

```
<html>
        <head>
                <title> Heading tags </title>
        </head>
        <body bgcolor=”pink”>
                <center>
                <h1> Using Heading Tags</h1><br>
                <h1> RGMCET </h1><br>
                <h2> RGMCET </h2><br>
                <h3> RGMCET </h3><br>
                <h4> RGMCET </h4><br>
                <h5> RGMCET </h5><br>
                <h6> RGMCET </h6><br>
                </center>
        </body>
</html>
```

Output



Using Heading Tags

RGMCET

RGMCET

RGMCET

RGMCET

RGMCET

RGMCET

(12)<font>:

This tag will give us an option to select text size, color and face.

<u>Attributes:</u>

a. color: Color of the text.

b. Size: Size of the text in points

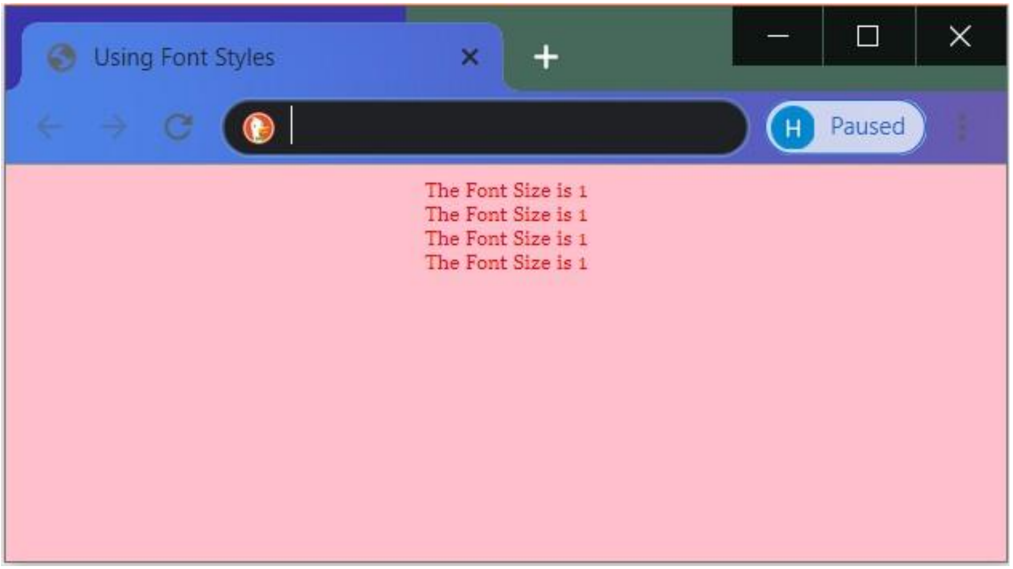
c. Face: The font face can be a list of names separated by commas.

d. Id: Unique alphanumeric identifier for a tag, which we can use to refer to it.

Example:

```
<html>
        <head>
                <title> Using Font Styles </title>
        </head>
        <body bgcolor=”pink”>
                <center>
                <font size=”1” color=”red”> The Font Size is 1 </font> <br>
                <font size=”10” color=”yellow”> The Font Size is 10 </font> <br>
                <font size=”20” color=”orange”> The Font Size is 20</font> <br>
                <font size=”30” color=”aqua”> The Font Size is 30 </font> <br>
                </center>
        </body>
</html>
```

Output



```
The Font Size is 1
The Font Size is 1
The Font Size is 1
The Font Size is 1
```

(13)<marquee> tag:

Displays scrolling text in a marquee style.

Attributes:

a. Align:

Sets the alignment of the text relative to marquee.Set to:

Top(default), middle (or) bottom.

b. behavior:

Sets how the text in the marquee should move can be scroll (default), slide(text enters from one side and stops at the other side), alternate (text seemsto bounce from one side to the other).

c. bgcolor:

It sets the background color for the marquee box.

d. Direction:

Sets the direction the text should scroll can be left, right, down or up.

e. Height:

It specifies the height of the marquee.

f. Loop:

Sets how many times we want the marquee to cycle. Is set to positive integeror -1 for continuous cycling.

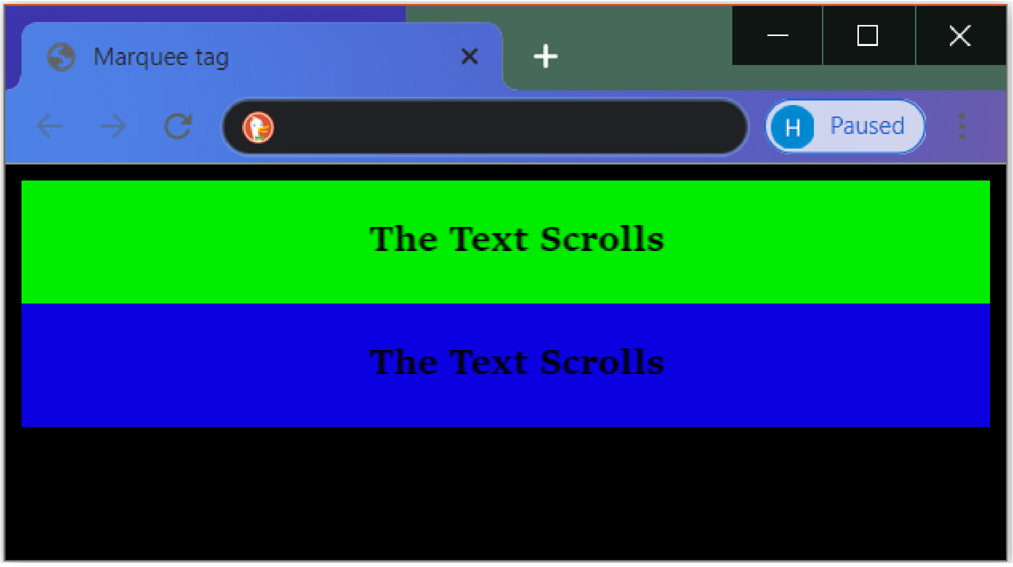
g. Scrolldelay:

Sets the number of the milliseconds between each successive display text.

Example:

```
<html>
        <head>
                <title> Marquee tag </title>
        </head>
        <body bgcolor=”pink”>
                <marquee align=”top” loop=”infinite” behavior=”scroll” bgcolor=”red”
direction=”right”> <h3> The Text Scrolls </h3></marquee>
<marquee align=”middle” loop=”infinite” behavior=”slide” bgcolor=”blue”
direction=”left”> <h3> The Text Scrolls </h3></marquee>
        </body>
</html>
```

Output



The Text Scrolls

The Text Scrolls

(14) <pre> tag(preformatted text):

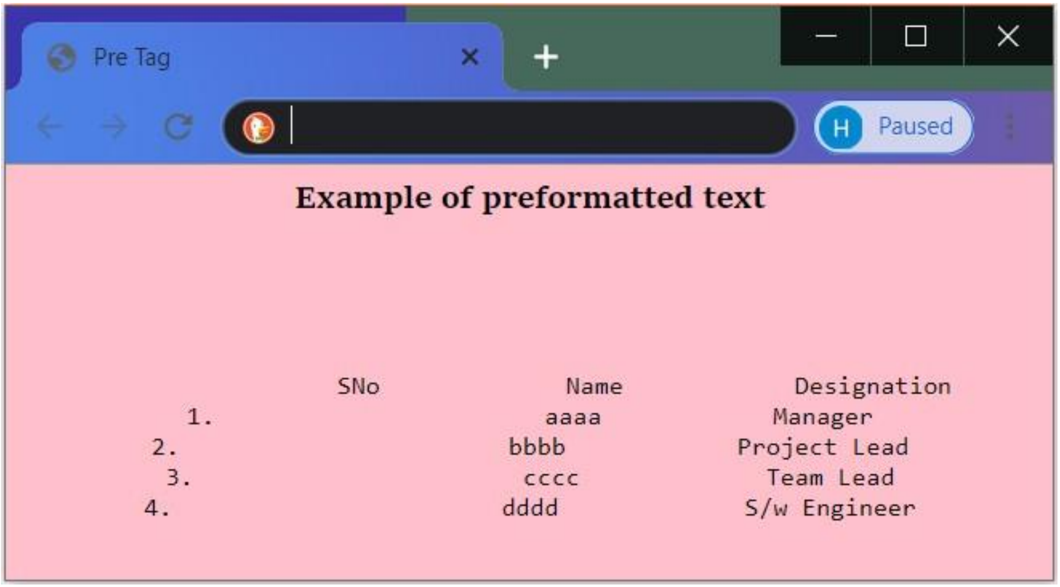
<pre> marks the text as preformatted text i.e, all the spaces and carriage returns as rendered exactly as you type them.

Example:

```
<html>
        <head>
                <title> Pre Tag </title>
        </head>
        <body bgcolor=”pink”>
                <center>
                <h4> Example of preformatted text </h4> <br> <br>
                <pre>

                SNo         Name              Designation
                1.          aaaa               Manager
                2.          bbbb               Project Lead
                3.          cccc               Team Lead
                4.          dddd                S/w Engineer
                </pre>
        </center>
    </body>
</html>
```

Output:



```
                    Example of preformatted text




                      SNo              Name              Designation
         1.                          aaaa             Manager
      2.                           bbbb            Project Lead
       3.                            cccc             Team Lead
      4.                           dddd            S/w Engineer
```

Lists:

Lists lets us display information in a compact, right format. There are three kindsof lists:

1. Unordered List
2. Ordered List
3. Definition List

Unordered List:

An Unordered list is a list of items that are marked with burden. The Unordered list is created by using <ul>tag are the list items in the list are createdby </ul> tag and the list items in the list are created by <li> tag.

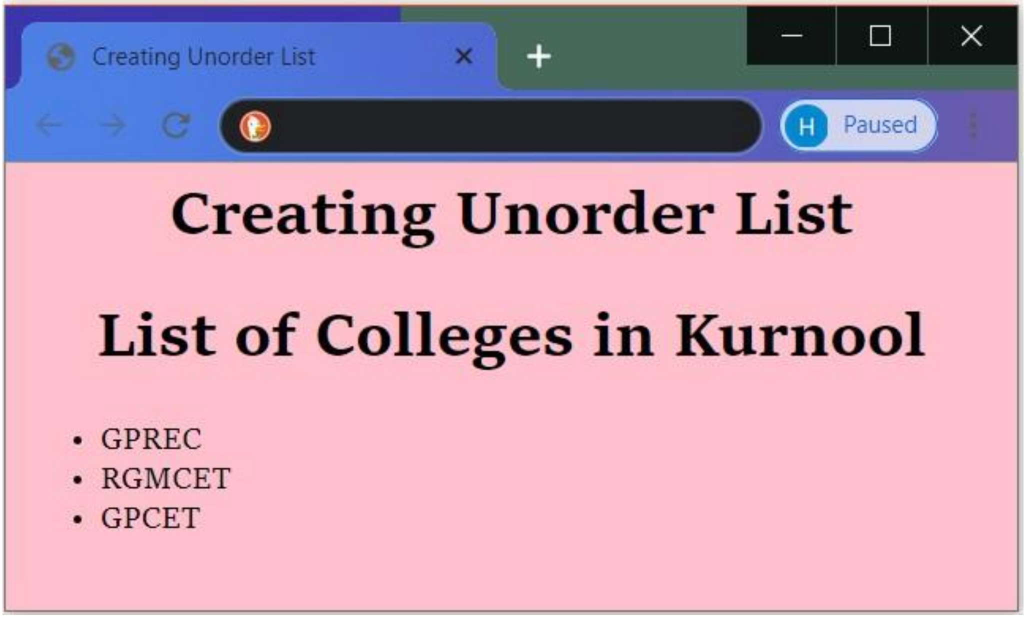
```
<ul>
   <li>List Item 1 </li>
  <li>List Item 2 </li>
</ul>
```

Example:

```
<html>
```

```
<head>
      <title> Creating Unorder List </title>
</head>
<body bgcolor=”pink”>
  <h1 align=”center”> Creating Unorder List</h1>
  <h1 align=”center”>List of Colleges in Kurnool</h1>
<ul>
   <li>GPREC</li>
   <li>RGMCET</li>
   <li>GPCET</li>
 </ul>
</body>
</html>
```

Output



Creating Unorder List

List of Colleges in Kurnool

- GPREC
- RGMCET
- GPCET

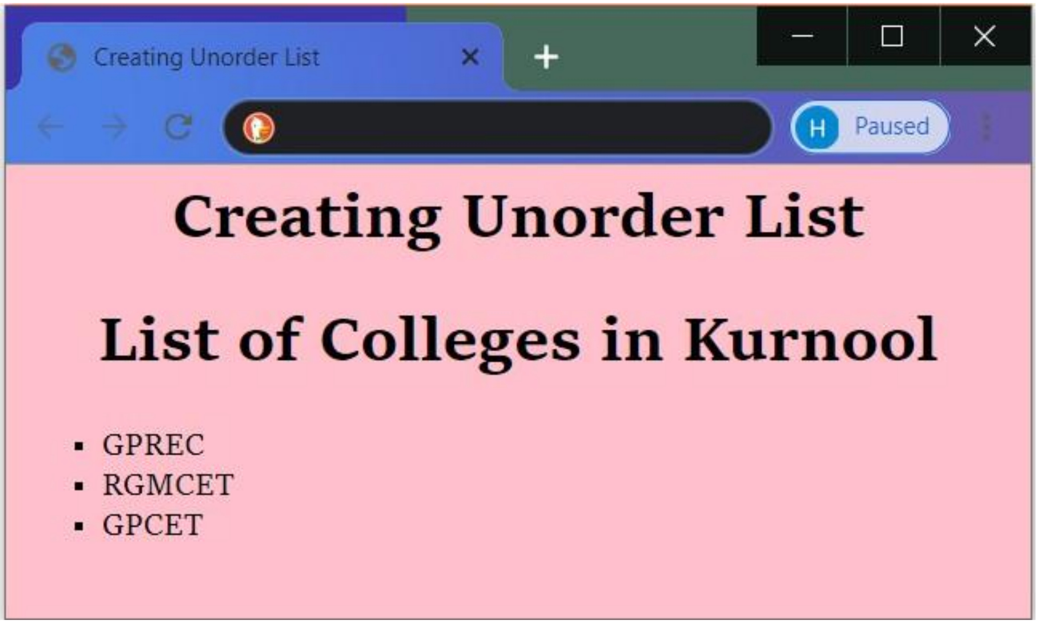
Creating Customized Unordered Lists:

We customized unordered lists by setting the “Type” attribute to three different values. DISC (default), SQUARE and CIRCLE which sets the type of bullet thatappears before the list item.

Example:

```
<html>
<head>
      <title> Creating Unorder List </title>
</head>
<body bgcolor=”pink”>
  <h1 align=”center”> Creating Unorder List</h1>
  <h1 align=”center”>List of Colleges in Kurnool</h1>
<ul type=”square”>
   <li>GPREC</li>
   <li>RGMCET</li>
   <li>GPCET</li>
 </ul>
</body>
</html>
```

Output



Creating Unorder List

List of Colleges in Kurnool

- GPREC
- RGMCET
- GPCET

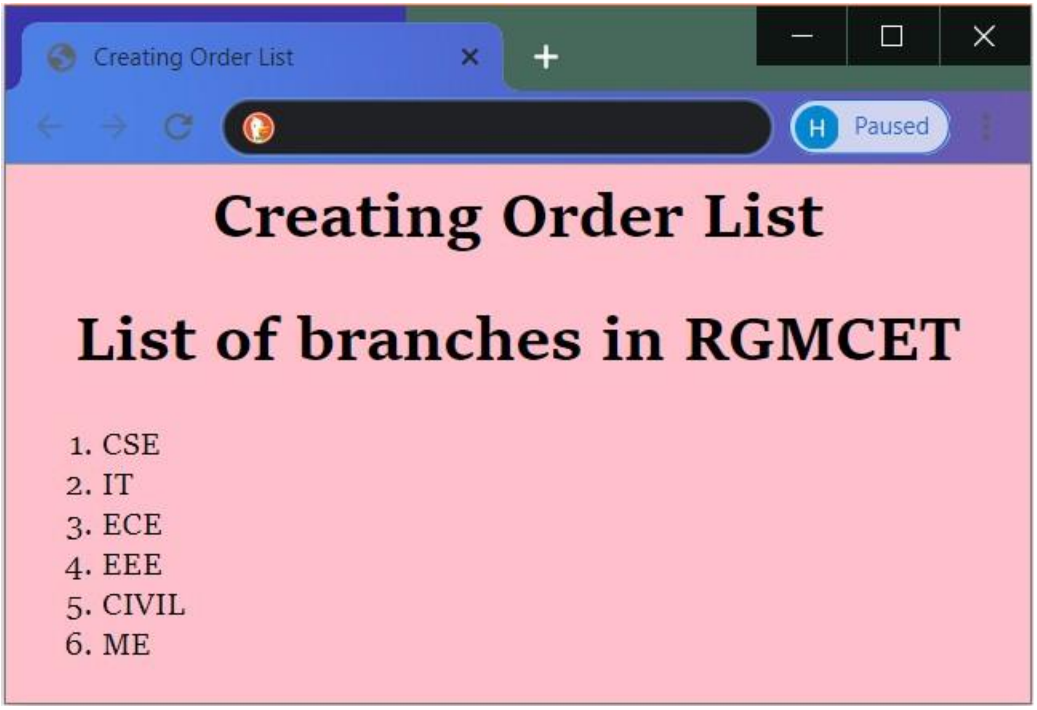
Ordered List:

While the unordered lists display simple bullet before each list item. Ordered lists use a number system / lettering scheme to indicate that the items are ordered in some ways, ordered lists are created by <ol> tag and the list items are created using <li> tag.

Example:

```
<html>
<head>
      <title> Creating Order List </title>
</head>
<body bgcolor=”pink”>
  <h1 align=”center”> Creating Order List</h1>
  <h1 align=”center”>List of branches in RGMCET</h1>
<ol>
     <li>CSE</li>
     <li>IT</li>
     <li>ECE</li>
     <li>EEE</li>
     <li>CIVIL</li>
     <li>ME</li>
 </ol>
</body>
</html>
```

Output



Creating Order List

List of branches in RGMCET

1. CSE
2. IT
3. ECE
4. EEE
5. CIVIL
6. ME

Creating Customized Ordered Lists:-

We can customize the numbering system used in ordered lists by using the TYPEattribute, which we can set to these values:

1. Default numbering system (1, 2, 3, ….)

A. Uppercase Letters (A, B, C, …..)

a. Lowercase Letters (a, b, c, …)

I. Large Roman Numerals (I, II , III, ….)

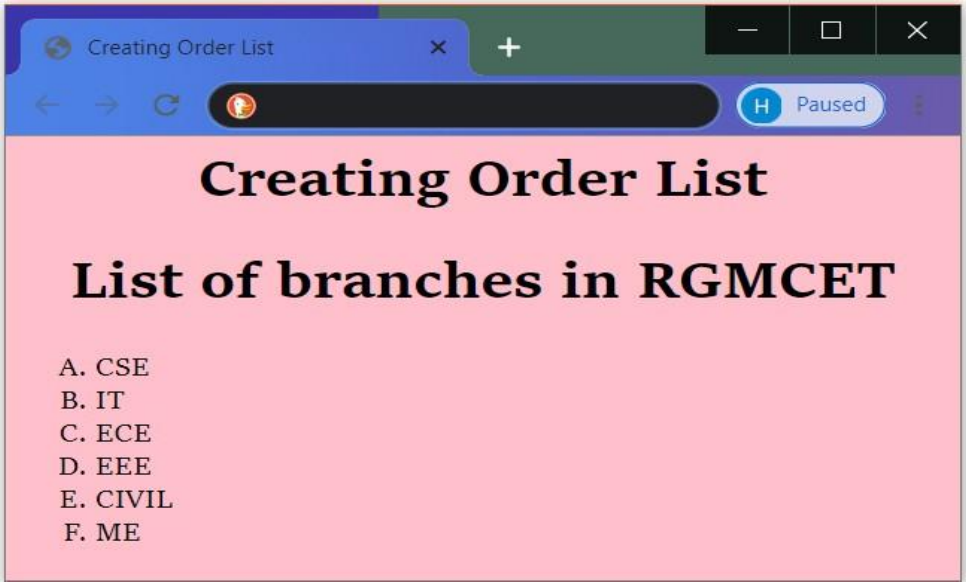
i. Small Roman Numerals (i, ii, iii, …..)

Example:

```
<html>
<head>
 <title> Creating Order List </title>
 </head>
 <body bgcolor=”pink”>
    <h1 align=”center”> Creating Order List</h1>
        <h1 align=”center”>List of branches in RGMCET</h1>
```

```
            <ol type=”A”>
                  <li>CSE</li>
                  <li>IT</li>
                  <li>ECE</li>
                  <li>EEE</li>
                  <li>CIVIL</li>
                  <li>ME</li>
         </ol>
 </body>
</html>
```

Output



Creating Order List

List of branches in RGMCET

A. CSE
B. IT
C. ECE
D. EEE
E. CIVIL
F. ME

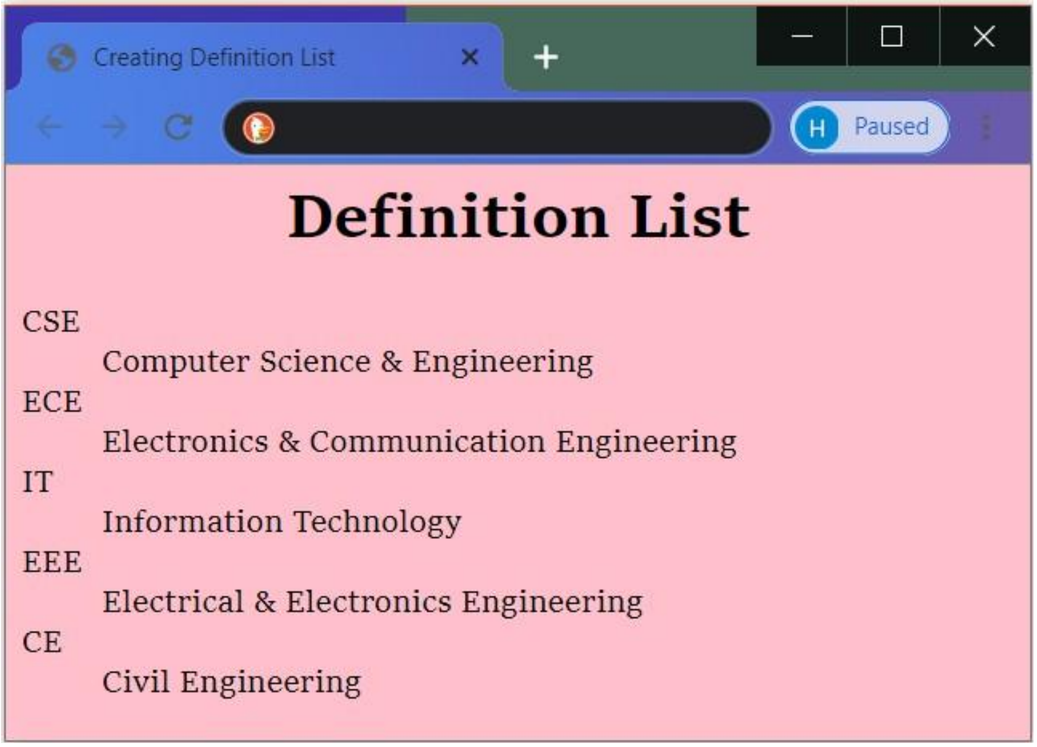
Definition List:-

These lists include both definition terms as well as their definition. To create the definition lists we use <dl> tag. For creating definition terms we use <dt> tag andfor data definitions we use <dd> tag.

Example:

```
<html>
    <head>
         <title>Creating Definition List</title>
    </head>
    <body bgcolo=”pink”>
        <h1 align=”center”>Definition List</h1>
        <dl>
                <dt>CSE<dd>Computer Science & Engineering
                <dt>ECE<dd>Electronics & Communication Engineering
                <dt>IT<dd>Information Technology
                <dt>EEE<dd>Electrical & Electronics Engineering
                <dt>CE<dd>Civil Engineering
      </dl>
    </body>
</html>
```

Output



Definition List

CSE
    Computer Science & Engineering
ECE
    Electronics & Communication Engineering
IT
    Information Technology
EEE
    Electrical & Electronics Engineering
CE
    Civil Engineering

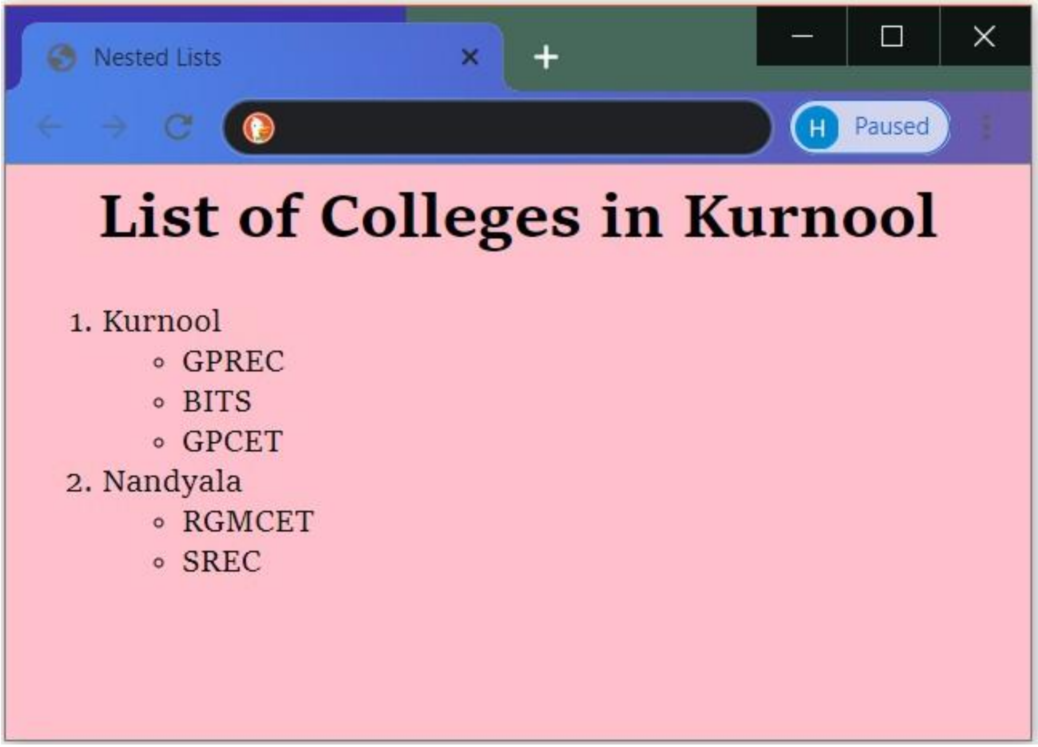
Nesting Lists:-

We have the capability of nesting lists inside other lists.

Example:

```
<html>
    <head>
         <title>Nested Lists</title>
    </head>
    <body bgcolor=”pink”>
        <h1 align=”center”>List of Colleges in Kurnool</h1>
 <ol>
     <li>Kurnool</li>
       <ul>
           <li>GPREC</li>
           <li>BITS</li>
             <li>GPCET</li>
      </ul>
   <li>Nandyala</li>
      <ul>
           <li>RGMCET</li>
           <li>SREC</li>
      </ul>
 </ol>
</body>
</html>
```

Output



List of Colleges in Kurnool

1. Kurnool
   - GPREC
   - BITS
   - GPCET
2. Nandyala
   - RGMCET
   - SREC

Creating Hyperlinks:

What makes the web so effective is the ability to define links from one page to another. In web terms, a “hyperlinks” is a reference on the web. Hyperlinks can point to any resources on the web. An anchor is a term used to define a hyperlinkdestination inside a document. Format of anchor tag is:

<a href=”address”> Line Text </a>

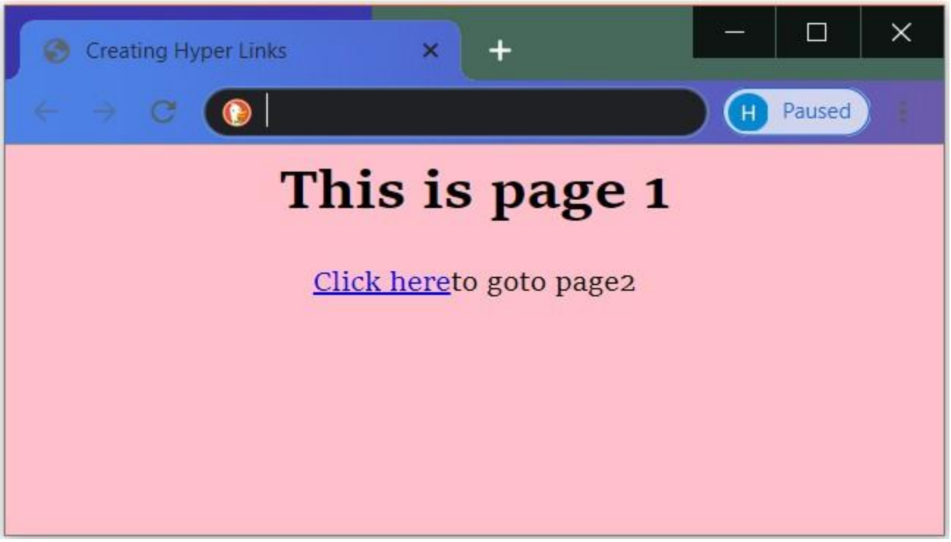
The <a> anchor tag has the following attributes.

1. href: It holds the target URL of the hyperlink.
2. Id: A unique alphanumeric identifier for the tag, which we can use to refer toit.
3. name: It specifies an anchor name, the name we want to use when referringto enclose items.
4. Target: This attribute defines where the linked document will be opened.

Example:

```
<html>
  <head>
    <title>Creating Hyper Links</title>
  </head>
  <body bgcolor="pink">
    <center><h1>This is page 1</h1>
    <a href=”page2.html”>Click here</a>to goto page2
    </center>
  </body>
</html>
```

Output



This is page 1

Click hereto goto page2

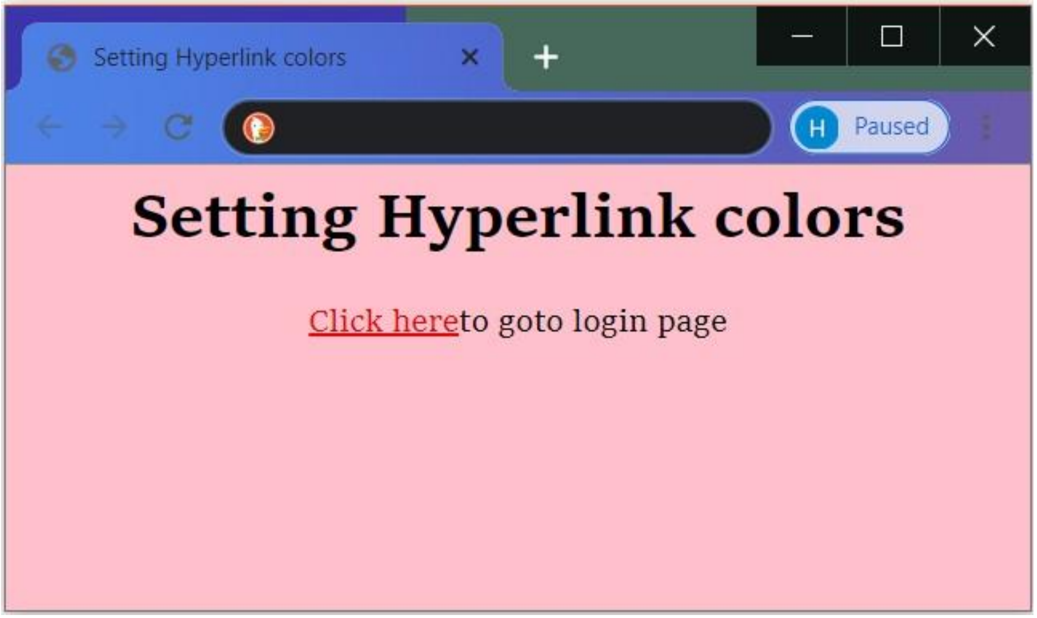
Setting hyperlink colors:

The default color of hyperlinks in a page is blue. Hyperlink that we have already visited are displayed in violet and when we click a hyperlink,it turns red when themouse button is down.We can set these colos in <body> tag attributes link,vlink(visited link),alink(active link).

Example

```
 <html>
  <head>
    <title>Setting Hyperlink colors</title>
  </head>
  <body bgcolor="pink" link=”green” vlink=”blue” alink=”red”>
  <center><h1>Setting Hyperlink colors</h1>
  <a href=”login.html”>Click here</a>to goto login page
  </body>
</html>
```

Output



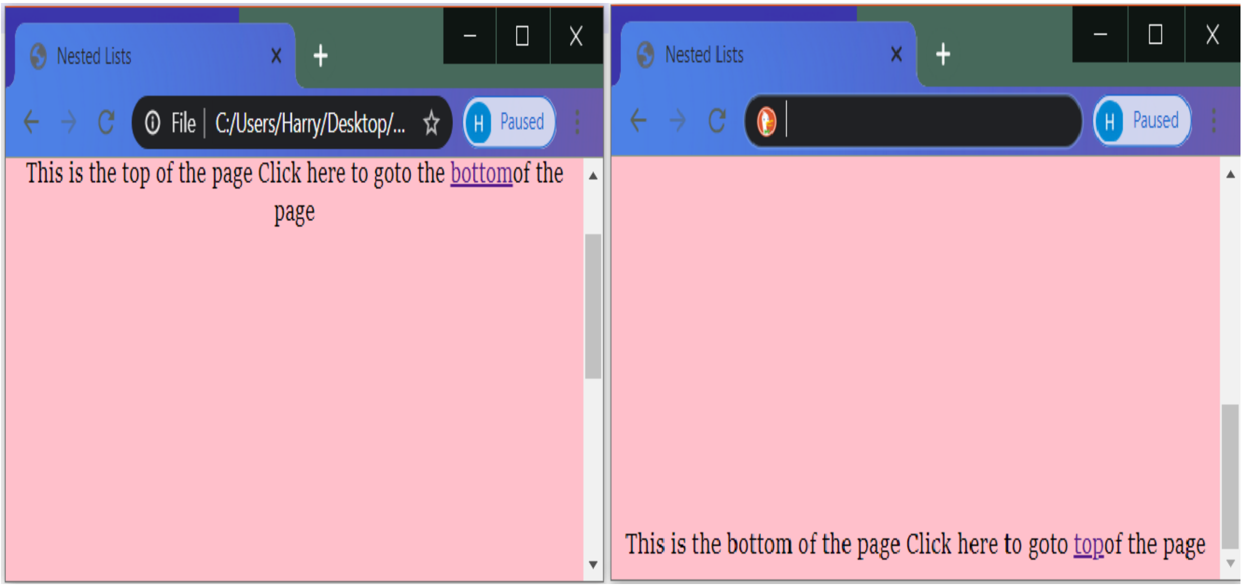
Setting Hyperlink colors

Click hereto goto login page

Providing navigation with in the page:

```
<html>
   <head>
    <title>Nested Lists</title>
  </head>
  <body bgcolor="pink">
  <center><h1>Linking to a section in a page</h1>
  <a name=”top”>This is the top of the page</a>
  Click here to goto the <a target=”#bottom”>bottom</a>of the page
<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>
<br><br><br><br><br>
<a name=”bottom”>This is the bottom of the page</a> Click here to
goto <a target=”#top”>top</a>of the page
</center>
</body>
</html>
```

Output



This is the top of the page Click here to goto the bottomof the page

This is the bottom of the page Click here to goto topof the page

Creating HML tables:

A HTML table arranges data/information in terms of rows and columns.Tables are defined in HTML using <table> tag.A table is divided into rows and each row each divided into data cells(columns).The rows of table are created using <tr> tag and data cells are created by <td> tag.

<tr> - Table row

<td> - Table data

Format

```
<table>
       <tr>
             <td>row1,col1</td>
             <td>row1,col2</td>
        </tr>
       <tr>
             <td>row2,col1</td>
             <td>row2,col2</td>
        </tr>
 </table>
```

- Heading in a table are defined with <th> tag

Format

```
<table>
       <tr>
             <th>heading 1</th>
             <th>heading 2</th>
        </tr>
       <tr>
             <td>data1</td>
             <td>data2</td>
        </tr>
 </table>
```

Attributes of <table> tag:

- align : specifies the horizontal alignment of the table in the browserwindow,set to ”left,center,right”.
- background : specifies the URL of a background image to be used asbackground for the table.
- bgcolor : sets the background color of the table cells.
- border : sets the border width.
- bordercolor : sets the external border color of the entire table.
- cellpadding : sets the spacing between cell walls and content.
- cellspacing : sets the spacing between table cells.
- height : sets the height of the whole table.
- width : sets the width of the table.

Attributes of <tr> tag:

- align : specifies the horizontal alignment content in the table cells set to “left,center,right”.
- bgcolor : sets the background color of the table cells.
- bordercolor : sets the external border color of the entire table.
- Valign : sets the vertical alignment of data,set to top,middle,bottom.

Alignment of <td> tag

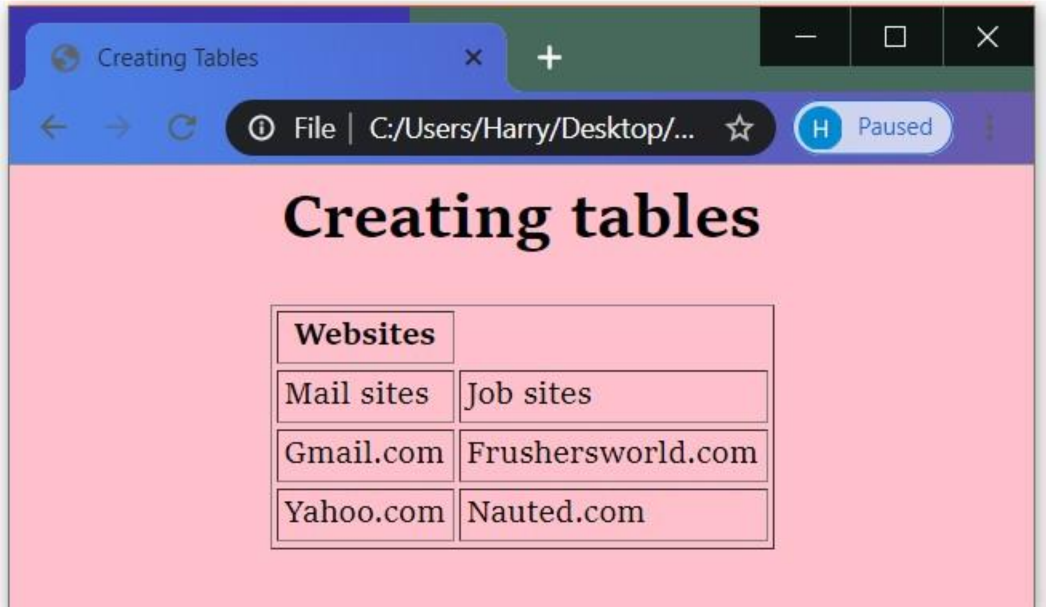
- align : specifies the horizontal alignment content in the table cells set to “left,center,right”.
- bgcolor : sets the background color of the table cells.
- bordercolor : sets the external border color of the entire table.
- colspan : indicates the how many cell columns of the table this cell shouldspan.
- rowspan : indicates the how many cell rows of the table this cell shouldspan.

Example

```
<html>
  <head>
```

```
    <title>Creating Tables</title>
  </head>
  <body bgcolor="pink">
  <center><h1>Creating tables</h1>
  <table border=”1” cellpadding=”3” cellspacing=”3”>
       <tr>
             <th colspa=”2”>Websites</th>
       </tr>
        <tr>
               <td>Mail sites</td>
               <td>Job sites</td>
       </tr>
       <tr>
               <td>Gmail.com</td>
               <td>Frushersworld.com</td>
       </tr>
    <tr>
               <td>Yahoo.com</td>
               <td>Nauted.com</td>
   </tr>
</center>
</table>  </body></html>
```

Output



Creating tables

Websites	
Mail sites	Job sites
Gmail.com	Frushersworld.com
Yahoo.com	Nauted.com

Advanced Table elements :

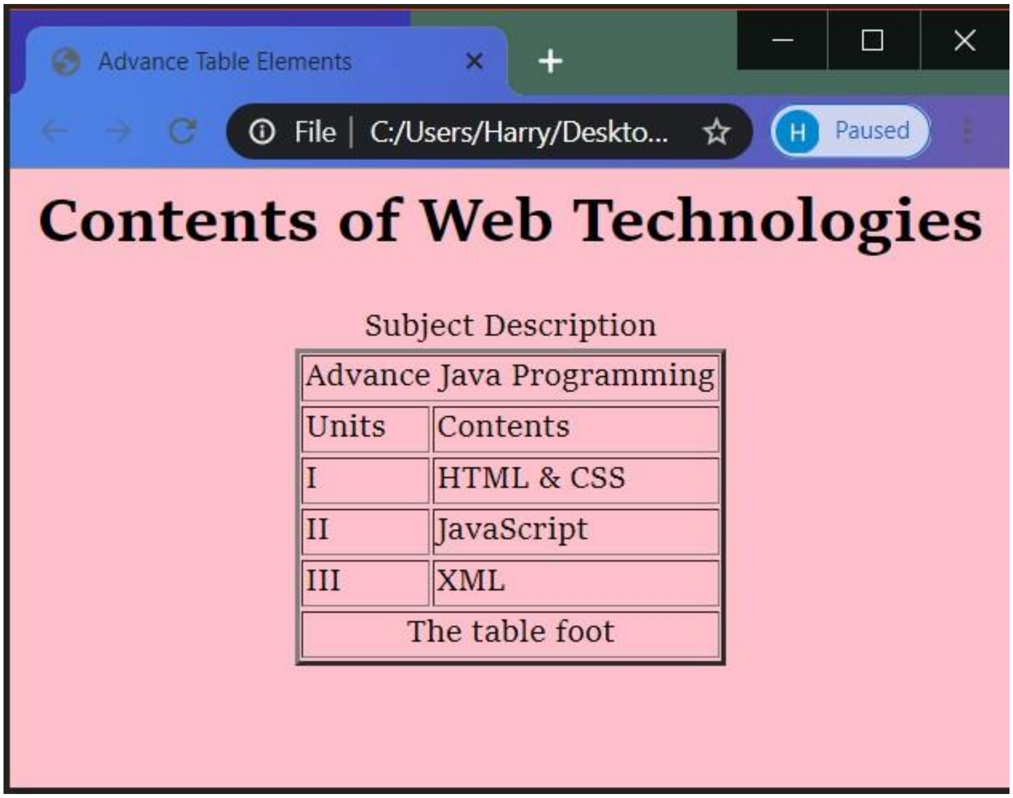
- <caption> : the element is an ptional element and it used to provide a string which describes,the contern of the table ,it must follow the table element.
- <thead> : The rows in a table can bc groudated one are more time we cancreate a table by using this <thead>.
- <tbody> : creates a table body when grouping rows.
- <tfoot> : Creates a table foot when groupin rows

Example:

```
<html>
  <head>
    <title>Advance Table Elements</title>
  </head>
  <body bgcolor="pink">
  <h1 align="center">Contents of Web Technologies</h1>
  <center>
     <table border="2">
```

```
              <caption>Subject Description</caption>
        <thead>
               <tr> <td colspan="2">Advance Java Programming</td>
        </thead>
        <tbody>
               <tr> <td>Units</td>
                     <td>Contents</td>
               </tr>
               <tr> <td>I</td>
                      <td>HTML & CSS</td>
               </tr>
               <tr> <td>II</td>
                      <td>JavaScript</td>
               </tr>
               <tr> <td>III</td>
                      <td>XML</td>
                </tr>
        </tbody>
        <tfoot align="center">
               <tr>
                      <td colspan="2">The table foot</td>
               </tr>
</tfoot>
</table>
</center>
       </body>
     </html>
```

Output



Contents of Web Technologies

Subject Description

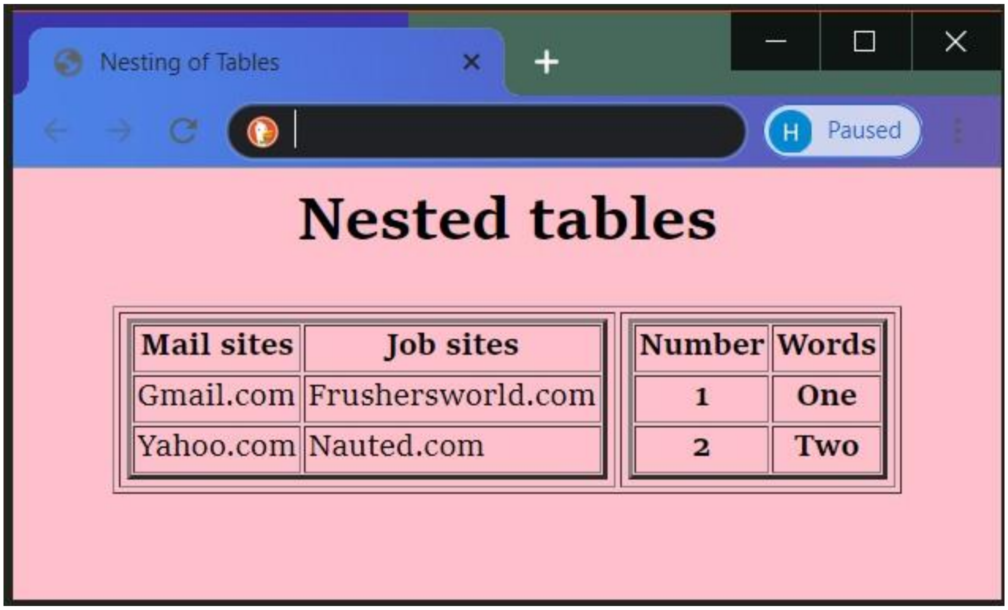
Advance Java Programming	
Units	Contents
I	HTML & CSS
II	JavaScript
III	XML
The table foot	

Nesting of Tables:

```
<html>
  <head>
    <title>Nesting of Tables</title>
  </head>
  <body bgcolor="pink">
  <center><h1>Nested tables</h1>
  <table border="1" cellpadding="3" cellspacing="3">
    <tr>
     <td>
       <table border="2">
        <tr>
               <th>Mail sites</th>
               <th>Job sites</th>
       </tr>
       <tr>
               <td>Gmail.com</td>
               <td>Frushersworld.com</td>
       </tr>
       <tr>
               <td>Yahoo.com</td>
               <td>Nauted.com</td>
       </tr>
      </table>
     </td>
    <td>
       <table border="2">
          <tr>
             <th>Number</th>
             <th>Words</th>
          </tr>
          <tr>
             <th>1</th>
             <th>One</th>
          </tr>
          <tr>
             <th>2</th>
             <th>Two</th>
          </tr>
        </table>
      </td>
    </tr>
</table>
</center>
 </body>
```

```
</html>
```

Output



Nested tables

Mail sites	Job sites
Gmail.com	Frushersworld.com
Yahoo.com	Nauted.com

Number	Words
1	One
2	Two

Images in HMTL:

In HTML we have the capability of displaying images in a webpage.This imagesmust be in a format that the web browser can handle , such as Graphics Interchange Format(GIF) , Joint Photograph Expert Group(JPEG) , and for somebrowser Portable Network Graphics(PNG) formats.

Displaying images in webpage is done by using <img> tag

Format

```
<img src=”URL of image source”>
```

Attributes of <img> tag:

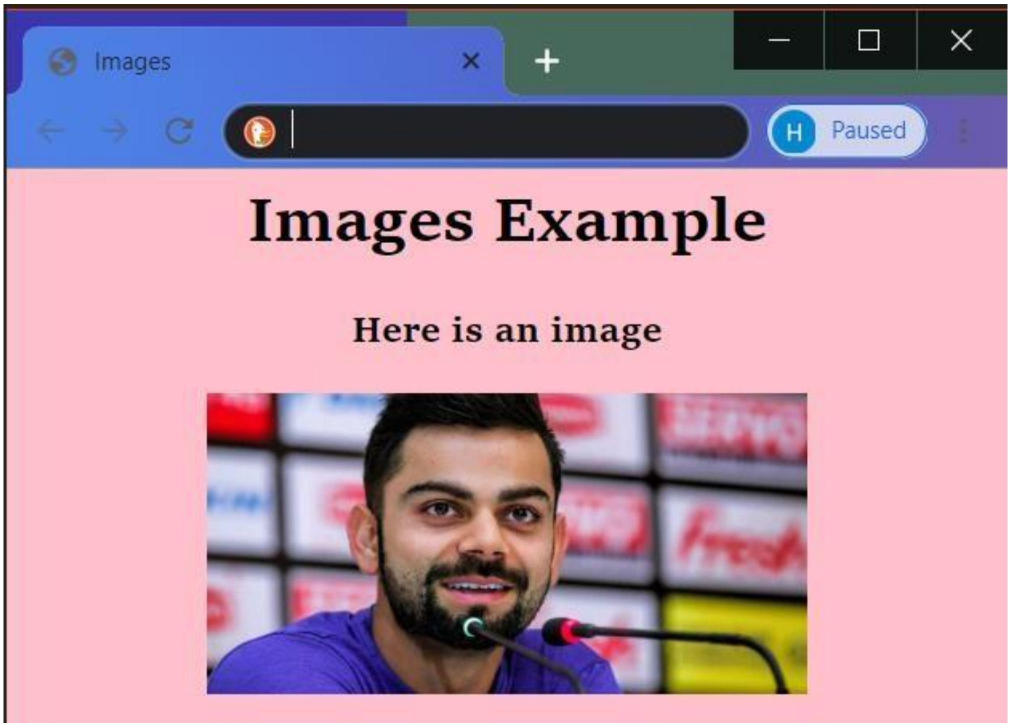
- alt : this attribute is used to specify text to be displayed in place of image forbrowser that cannot handle graphics.
- src : specifies the URL of the image to display.
- border : sets the border for the image.
- height : indicates the height of the image.
- width : indicates the width of the image.

- hspace : sets the horizontal space around the image.
- vspace : sets the vertical space around the image.

Example

```
<html>
<head>
  <title>Images</title>
</head>
<body bgcolor="pink">
 <center>
   <h1>Images Example</h1>
   <h3>Here is an image</h3>
   <img src="one.jpg" alt="here is an image" width="300" height="150">
  </center>
</body>
</html>
```

Output



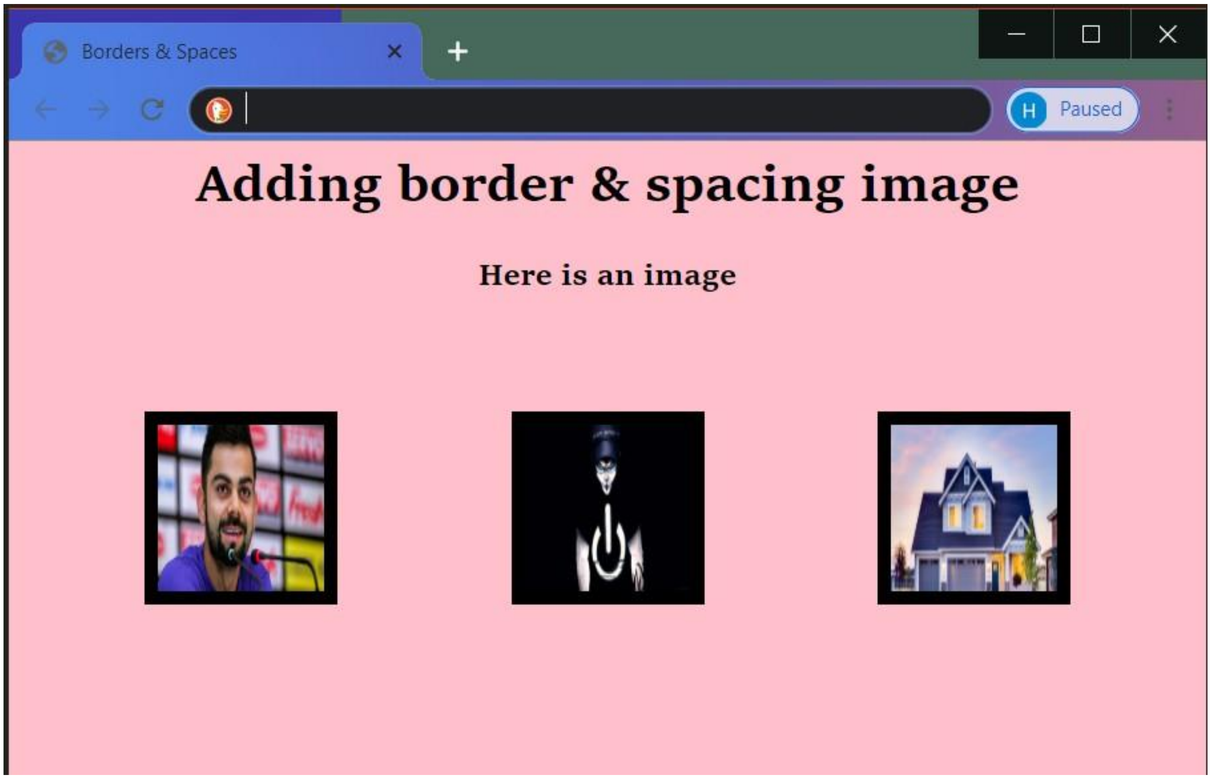
Images Example

Here is an image

Adding borders and spaces around image:

```
<html>
<head>
  <title>Borders & Spaces</title>
</head>
<body bgcolor="pink">
 <center>
   <h1>Adding border & spacing image</h1>
   <h3>Here is an image</h3>
   <img src="one.jpg" alt="here is an image" width="100" height="100"
hspace="50" vspace="50" border="8">
   <img src="two.png" alt="here is an image" width="100" height="100"
hspace="50" vspace="50" border="8">
   <img src="three.png" alt="here is an image" width="100" height="100"
hspace="50" vspace="50" border="8">
  </center>
</body>
</html>
```

Output:



Adding border & spacing image

Here is an image

Creating HTML Forms:

Form is a collection of various HTML control files , buttons ,checkboxes , radio buttons ,text fields et., and they use to send the data to the server. There are severalform elements.

- Button : <input type=”button”> :- are the standard clickable buttons.
- Checkbox : <input type=”checkbox”> :- displayed usually as a small boxwith a check mark in it. The use can toggle the checkbox on or off by checking the checkbox
- Customizable Buttons : <button> :- display images one other HMTL insideitself.
- File uploading controls : <input type=”file”> :- allow the user to upload filesto the server.
- Hidden controls : store data that is not visible to users unless they view theweb page source code.
- Image controls : <input type=”image”> :- are like submit buttons except thatthey are images the user can click.
- Password controls : <input type=”password”> :- are like text fields , buteach typed character displaying by an asterisk or instead any character.

- Radio buttons : <input type=”radio”> :- displaying usually as a circle whichwhen selected displayed a dot in the middle. These controls are much like checkboxes except that they work int mutually exclusive at a time.
- Reset button : <input type=”reset”> : - allow the user to clear all the data they has entered.When the user click reset button all controls in the form areremoved to that original state displaying the data they had when they first appeared.
- Selection : Works much like drop down list boxes also called select controlsFormat is:

```
<select>
        <option>Item1</option>
        <option>Item1</option>
        <option>Item1</option>
</select>
```

- Submit button : when we click the button all the data in the form will be sentto web server for processing.
- Text area : are two dimensional text fields allowing user to enter more thanone line of text.

  Format is: <textarea>
- Text fields : allow the user to enter one line of text also called a textboxFormat is :

  <input type=”text”>

In order to create form we use <form> tagFormat
is :

```
<form>
 |
 |
</form>
```

Attributes of <form> tag:

- name : gives the name of the form so that we can return it in code . Set to analphanumeric string.
- target : indicates a named frame for browser to display the form results.

- method : indicates a method or protocol for sending data to the target actionURL.
- action : gives the URL that that will handle the form data.

Example

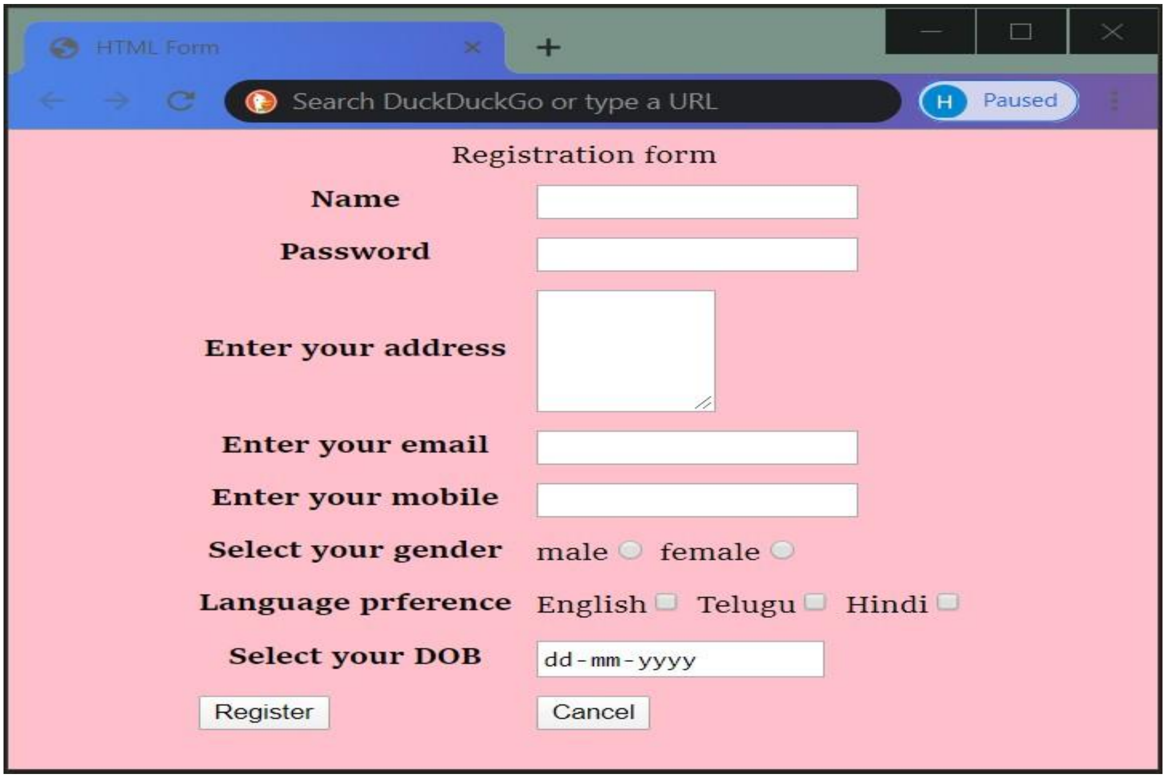
Registration.html

```
<html>
<head>
<title>HTML Form</title>
</head>
<body bgcolor="pink">
<center>
<form name="form1">
<table border="0" cellpadding="4" cellspacing="4">
<caption>Registration form</caption>
<tr>
<th>Name</th>
<td><input type="text" name="name" /></td>
</tr>
<tr>
<th>Password</th>
<td><input type="password"/></td>
</tr>
<tr>
<th>Enter your address</th>
<td><textarea rows="5" cols="10"></textarea></td>
</tr>
<tr>
<th>Enter your email</th>
<td><input type="email"/></td>
</tr>
<tr>
```

```
<th>Enter your mobile</th>
<td><input type="number"/></td>
</tr>
<tr>
<th>Select your gender</th>
<td>
male<input      type="radio"      name="g"      value="m"/>
female<input type="radio" name="g" value="f"/>
</td>
</tr>
<tr>
<th>Language prference</th>
<td>
English<input     type="checkbox"     value="     "/>
Telugu<input     type="checkbox"     value="     "/>
Hindi<input type="checkbox"  value=" "/>
</td>
</tr>
<tr>
<th>Select your DOB</th>
<td><input type="date"/></td>
</tr>
<tr>
<td ><input type="submit" value="Register"/></td>
<td><input type="reset" value="Cancel"/></td>
</td>
</tr>
</table>
</form>
</body>
```

```
</html>
```

Output



Registration form

Name	
Password	
Enter your address	
Enter your email	
Enter your mobile	
Select your gender	male ○ female ○
Language prference	English □ Telugu □ Hindi □
Select your DOB	dd-mm-yyyy
Register	Cancel

Working with Frames:

HMTL frames allow user to present documents in multiple views which may beindependent windows or sub windows. To divide a webpage into multiple parts and load different pages in a single web page we use the concept of frames. To dothis we use "<frameset>" tag which indicates the browser that the webpage window has a frame. We can divide it into rows and columns by using attributes such as 'rows' & 'cols'. In order to provide definition or each frame we use "<frame>" tag.

Format is :

```
 <frameset rows="30%,70%">
        <frame src="source page URL" name="frame name">
        <frame src="source page URL" name="frame name">
</frameset>
```

- <frameset> element actually takes place of <body> tag.

Attributes of <frameset> tag:

- border : used in the outermost <frameset> tag to set the border thickness forframes.
- bordercolor : set the color of the borders for all frames in the frameset.
- frameborder : set whether or not border for all frames in the frameset.Can be set to ‘yes’ or ‘no’ or ‘1’ or ‘0’.
- framespacing : set the pixel spacing between frames. set to the positiveintegers.
- cols : set the number of columns in the frameset. Separate the values assigned to this attribute with comma(,) each value represents width of acolumn. Can be set to pixel values,percentages.
- Rows : set the number of rows in the frameset. Separate the values assigned to this attribute with comma(,) each value represents width of a column. Can be set to pixel values,percentages.

Attributes of <frame> tag:

- bordercolor : set the color used for the frmae border. This setting overridesthe color specified in the surrounding <frameset> element.
- frameborder : sets whether or not border surround the frame. Can be set to‘yes’ or ‘no’ or ‘1’ or ‘0’.
- name : sets the name of the frame we can use named frames as target for <a>tag.
- scrolling : determines scrolling possible values are : auto,yes or no.
- src : specifies the URL of the frame document. If we don’t specify a URLthe frame will appear blank.

Creating vertical frames:

In order to display vertical frame we have use of ‘cols’ attribute.

Example

```
<html>
<head>
<title>Vertical Frames</title>
</head>
```

```
<frameset cols="30%,70%">
        <frame src=frame1.html>
        <frame src=frame2.html>
</frameset>
</html>
```

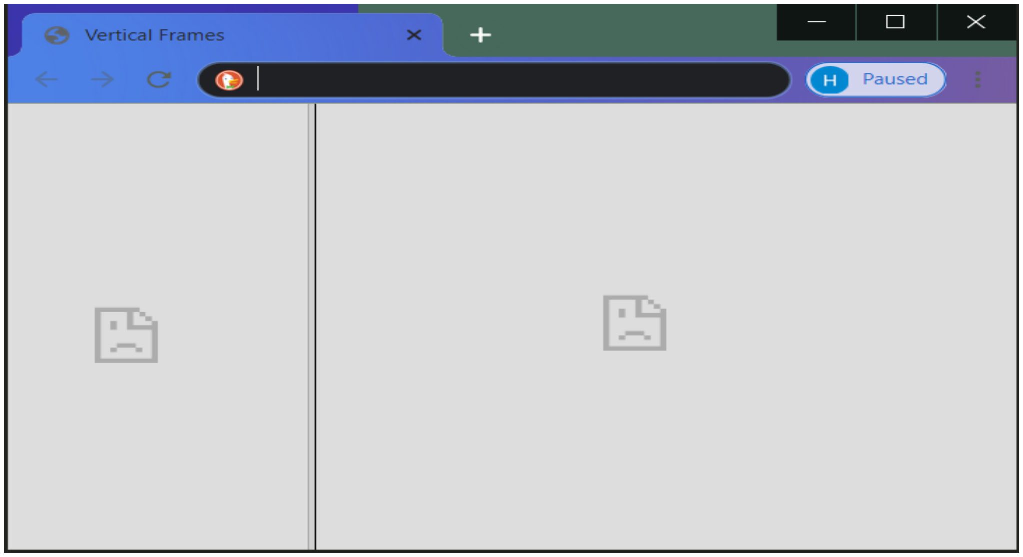
Frame1.html

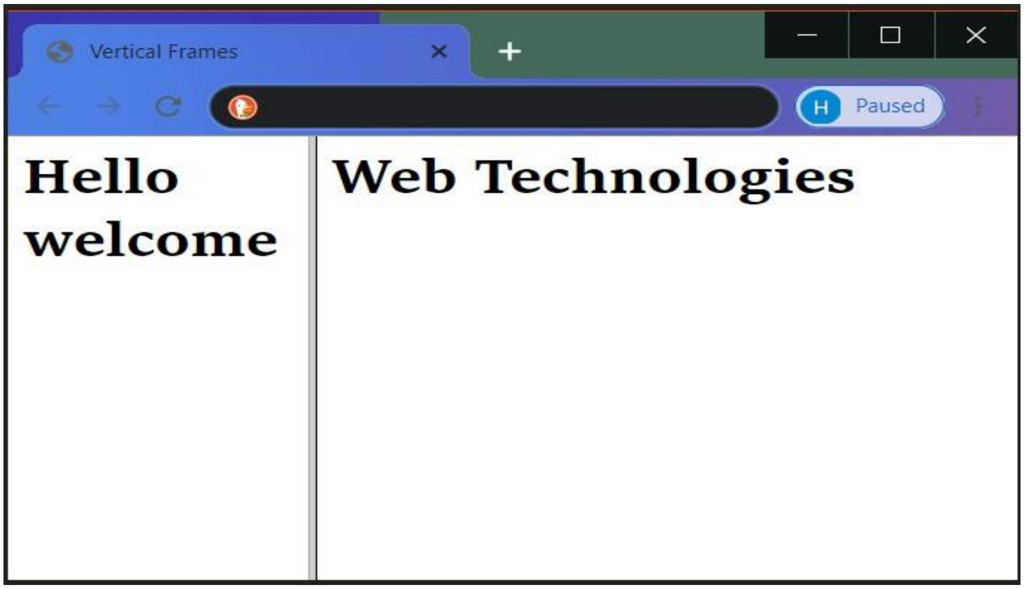
```
<html>
<head>
        <title>page1</title>
</head>
<body>
 <h1>Web Technologies</h1>
</body>
</html>
```

Frame2.html

```
<html>
<head>
        <title>page2</title>
</head>
<body>
 <h1>Web Technologies</h1>
</body>
</html>
```

Output





Hello welcome

Web Technologies

Creating horizontal frames:

In order to display horizontal frame we have use of ‘cols’ attribute.

Example

```
<html>
<head>
        <title>Horizontal Frames</title>
</head>
<frameset cols="50%,50%">
        <frame src=page1.html>
        <frame src=page2.html>
</frameset>
</html>
```

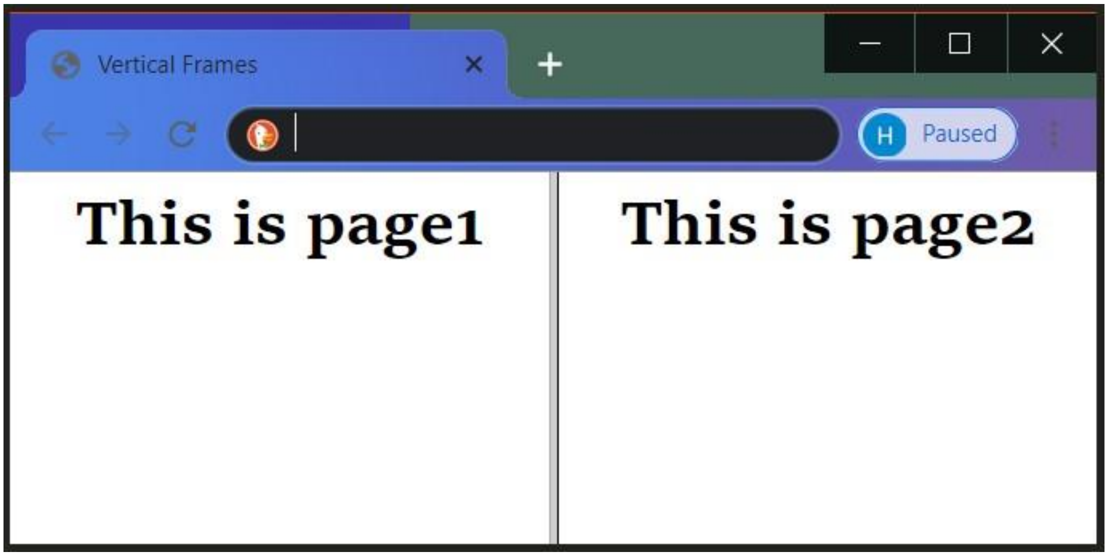
page1.html

```
<html>
<head>
        <title>page1</title>
</head>
<body>
 <h1 align=”center”>This is page1</h1>
</body>
</html>
```

page2.html

```
<html>
<head>
        <title>page2</title>
</head>
<body>
 <h1 align=”center”>This is page2</h1>
</body>
</html>
```

Output



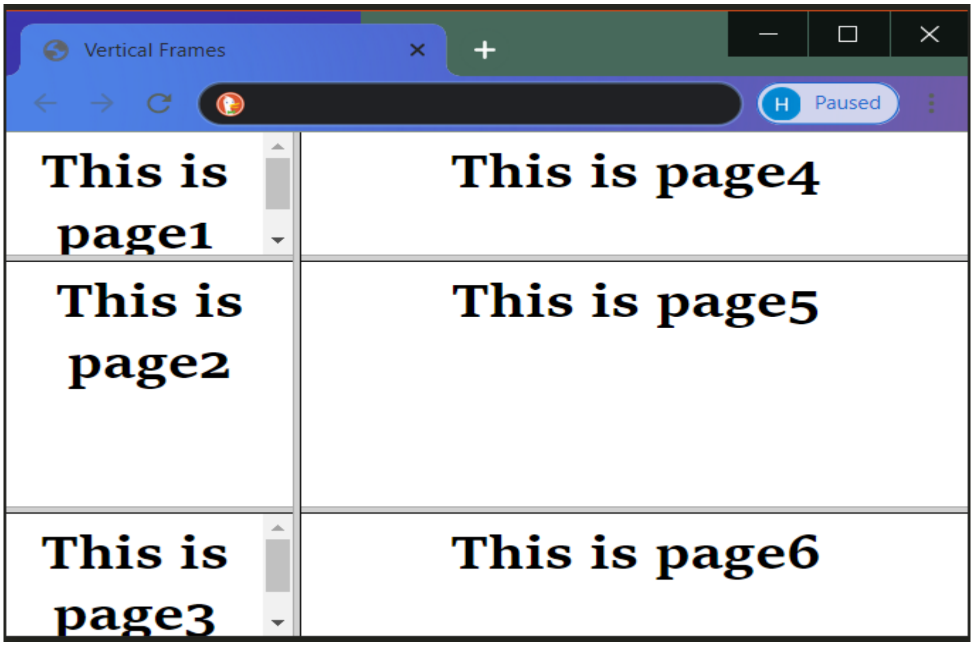
This is page1

This is page2

Creating horizontal & vertical frames :

```
<html>
<head>
        <title>Horizontal Frames</title>
</head>
<frameset cols="30%,70%">
    <frameset cols="25%,50%,25%">
        <frame src=page1.html>
        <frame src=page2.html>
        <frame src=page3.html>
    </frameset>
    <frameset cols="25%,50%,25%">
        <frame src=frame1.html>
        <frame src=frame2.html>
        <frame src=frame3.html>
    </frameset>
</frameset>  </html>
```

Output



This is page1

This is page4

This is page2

This is page5

This is page3

This is page6

<noframes> tag:

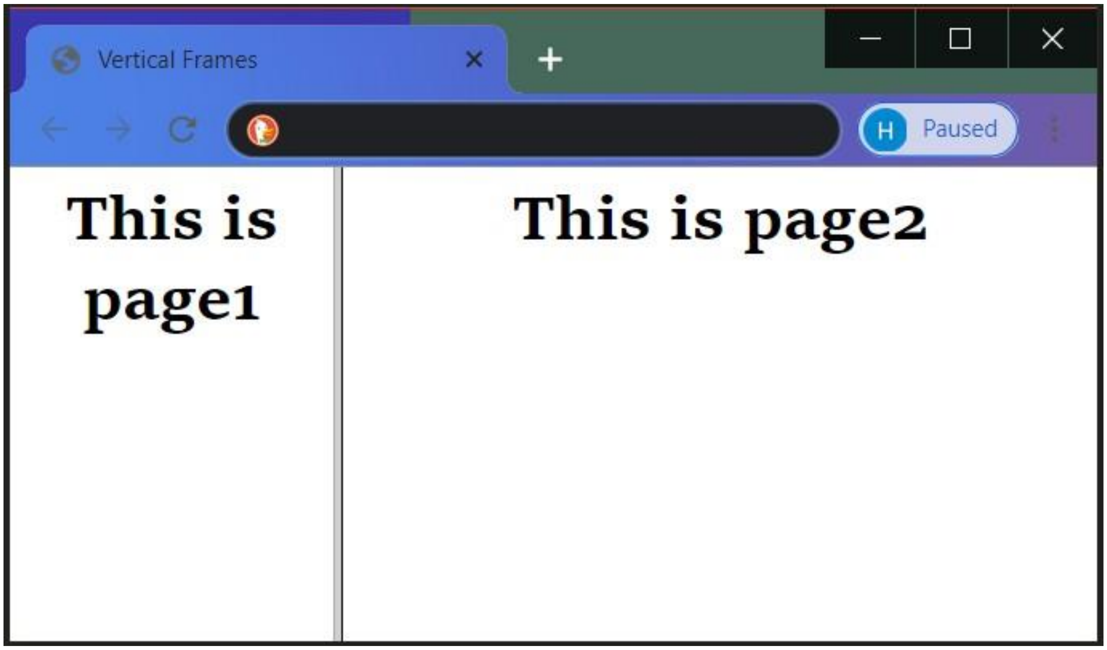
When the browser does not support frameset use <noframes> element to indicateto users that the browser doesnot support frames.The <noframes> element is ignored that handle frames.

Example

```
<html>
<head>
        <title>Vertical Frames</title>
</head>
<frameset cols="30%,70%">
        <noframes>Your browser does not support frames...</noframes>
        <frame src=on.html>
        <frame src=two.html>
</frameset>
```

```
</html>
```

Output



This is page1

This is page2

Named frames:

One important aspect of working with frames is using named frames. When wegive frmae a name , we can use as a target to load new page into the frame.

Example

```
<html>
<head>
        <title>Vertical Frames</title>
</head>
<frameset cols="40%,60%">
        <frame src=menu.html>
        <frame src=default.html name="display">
</frameset>
</html>
```

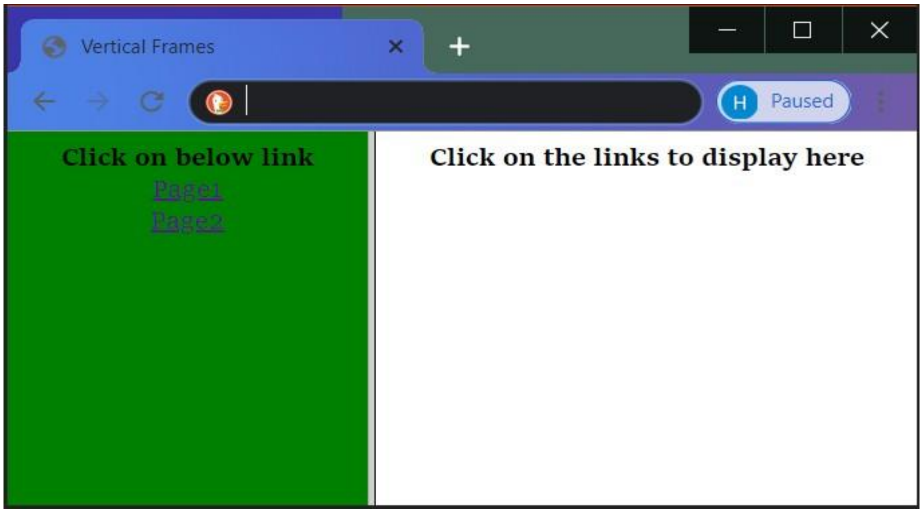
menu.html

```
<html>
<head>
        <title>Menu</title>
</head>
<body bgcolor="green">
  <center><b>Click on below link</b>
        <br><a href="page1.html" target="display">Page1
        <br><a href="page2.html" target="display">Page2
  </center>
</body>
</html>
```

Defual.html

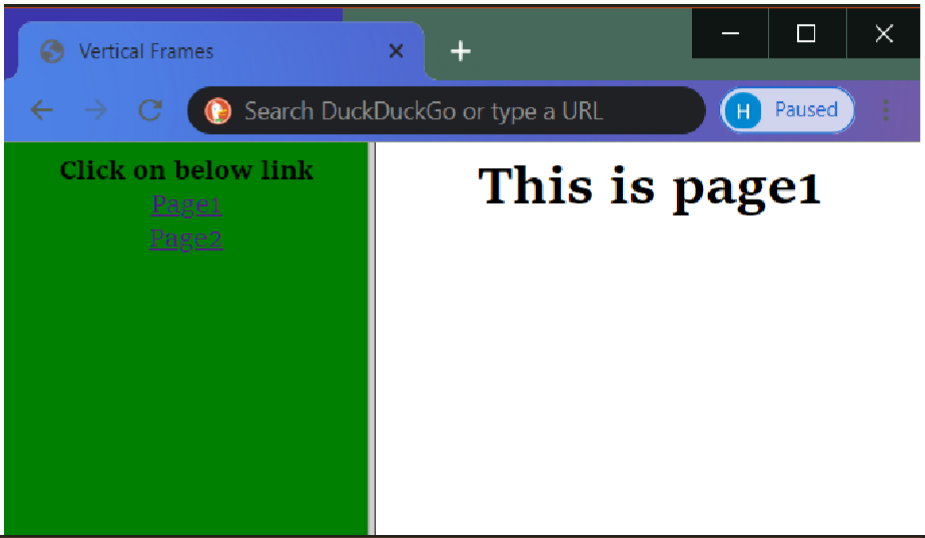
```
<html>
<head>
        <title>Vertical Frames</title>
</head>
<frameset cols="40%,60%">
        <frame src=menu.html>
        <frame src=default.html name="display">
</frameset>
</html>
```

Output



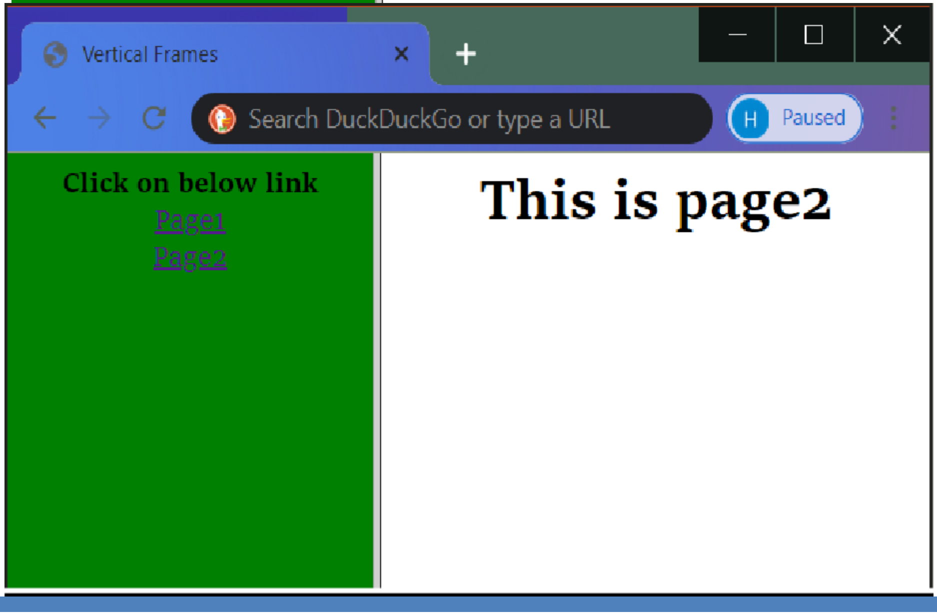
Click on below link
Page1
Page2

Click on the links to display here



Click on below link
Page1
Page2

This is page1



Click on below link
Page1
Page2

This is page2

Cascading Style Sheets:

Style sheets represent the World Wide Web consortium‟s effort to improve on the tag andattribute based style of formatting. Style sheets provide a way of customizing whole pages all at once and in much richer detail than the simple use of tags and attributes. The format of style sheet will be:

```
<style type=”text/css”>
        selector{property:value;property:value;}
        selector{property:value;property:value;}
</style>
```

Every line in <style> tag is called as a „**Rule**‟ and a style rule has two parts:

a. Selector.
b. Set of declarations.

A selector is used to create a link between the rule and the HTML tag. The declaration has two parts again:

a. Property.
b. Value.

A property specifies additional information and value specifies property value. For example:

```
<style type=”text/css”>
body {background-color: #d0e4fe;}
 h1 {
color: orange;
 text-align: center;
}
p {
font-family: "Times New Roman";
font-size: 20px;
}
</style>
```

If we add above code in the <head> element of web page , entire web page will be displayed in various styles given in style element.

Style sheets are implemented with cascading style sheets specification. Conventionally styles are cascaded i.e., we don‟t have to use just a single set of styles inside a document, but we can import as many styles as we like. There are three mechanisms by which we can apply styles to our HTML documents:

1. Inline Style sheets.
2. Embedded Style sheets.
3. External Style sheets.

Inline Style Sheets:

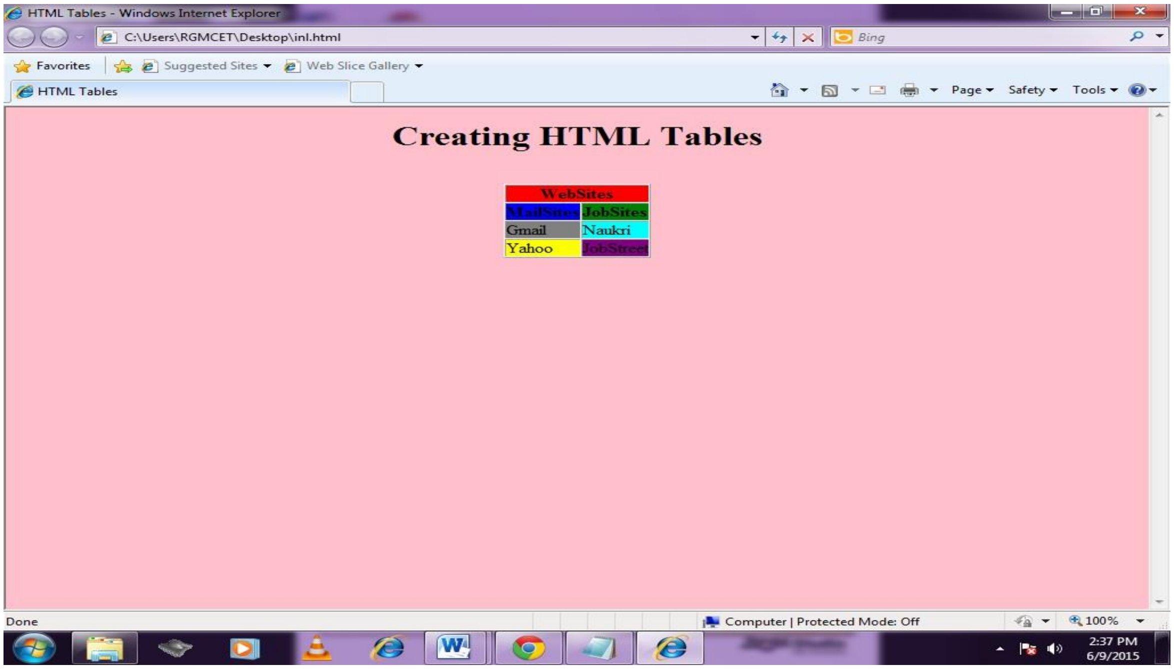
Inline style sheets mix content with presentation. To use inline styles we use style attribute in the relevant tag.

Example:

```
<html>
    <head>
        <title>HTML Tables</table>
    </head>
    <body bgcolor=‟pink‟>
        <center>
            <h1>Creating HTML Tables</h1><br>
            <table border=”2” cellpadding=”4” cellspacing=”4”>
                <tr>
                  <th colspan=”2” style=”background-color:red”> WebSites</th>
                </tr>
                <tr>
                    <th style=”background-color:blue”>MailSites</th>
                    <th style=”background-color:green”>JobSites</th>
                </tr>
                <tr>
                    <td style=”background-color:grey”>Gmail</td>
                    <td style=”background-color:aqua”>Naukri</td>
```

```
                                        </tr>
                                        <tr>
                                                <td style=”background-color:yellow”>Yahoo</td>
                                                <td style=”background-color:purple”>JobStreet</td>
                                        </tr>
                                </table>
                        </center>
                </body>
        </html>
```

Output:


HTML Tables - Windows Internet Explorer
C:\Users\RGMCET\Desktop\inl.html
Bing
Favorites
Suggested Sites
Web Slice Gallery
HTML Tables
Page
Safety
Tools
Done
Computer | Protected Mode: Off
100%
2:37 PM
6/9/2015

Creating HTML Tables

WebSites	
MailSites	JobSites
Gmail	Naukri
Yahoo	JobStreet

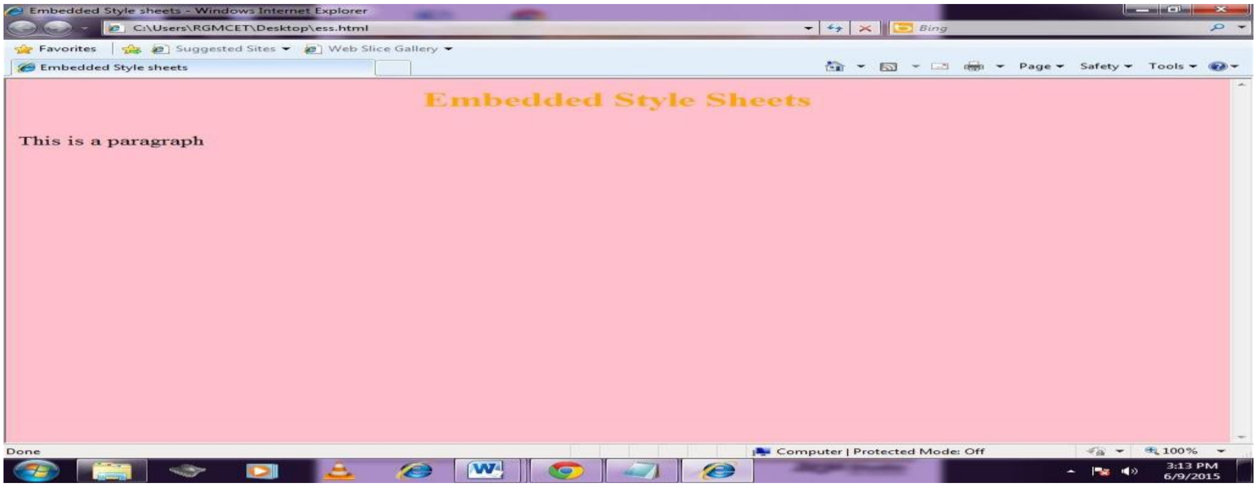
Embedded Style sheets:

An embedded style sheet is used when a single document has a unique style. We define internal styles in the head section of a HTML page by using „**<style>**‟ tag. The styles defined using embedded style sheets are applied throughout the page and we put the styles into oneplace.

Example:

```
   <html>
              <head>
                        <title>Embedded Style sheets</title>
                        <style type=”text/css”>
                                            body{background-color:
                                            pink;}
                                            h1 {
                                               color:orang
                                               e;
                                               text-align:
                                               center;
                                                }
                                            p {
                                               font-family:    "Times    New
                                               Roman";
                                               font-size: 20px;
                                               }
                        </style>
              </head>
              <body>
                        <h1>Embedded Style Sheets</h1><br>
                        <p>This is a paragraph
              </body>
   </html>
```

Output:


Embedded Style sheets - Windows Internet Explorer
C:\Users\RGMCET\Desktop\ess.html
Bing
Favorites
Suggested Sites
Web Slice Gallery
Embedded Style sheets
Page
Safety
Tools
Done
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6/9/2015

Embedded Style Sheets

This is a paragraph

External Style Sheets:

External style sheets are just that the style sheets are stored separately from our web page.These are useful especially if we are setting the styles for an entire website. When we change the styles in external style sheet we change the styles of all pages. We use „**<link>**‟ element to access the style sheet file defined into our web page. The format of <link> element is:

<link rel=”stylesheet” type=”text/css” href=”extstylesheet.css”>

Example:

extern.css:

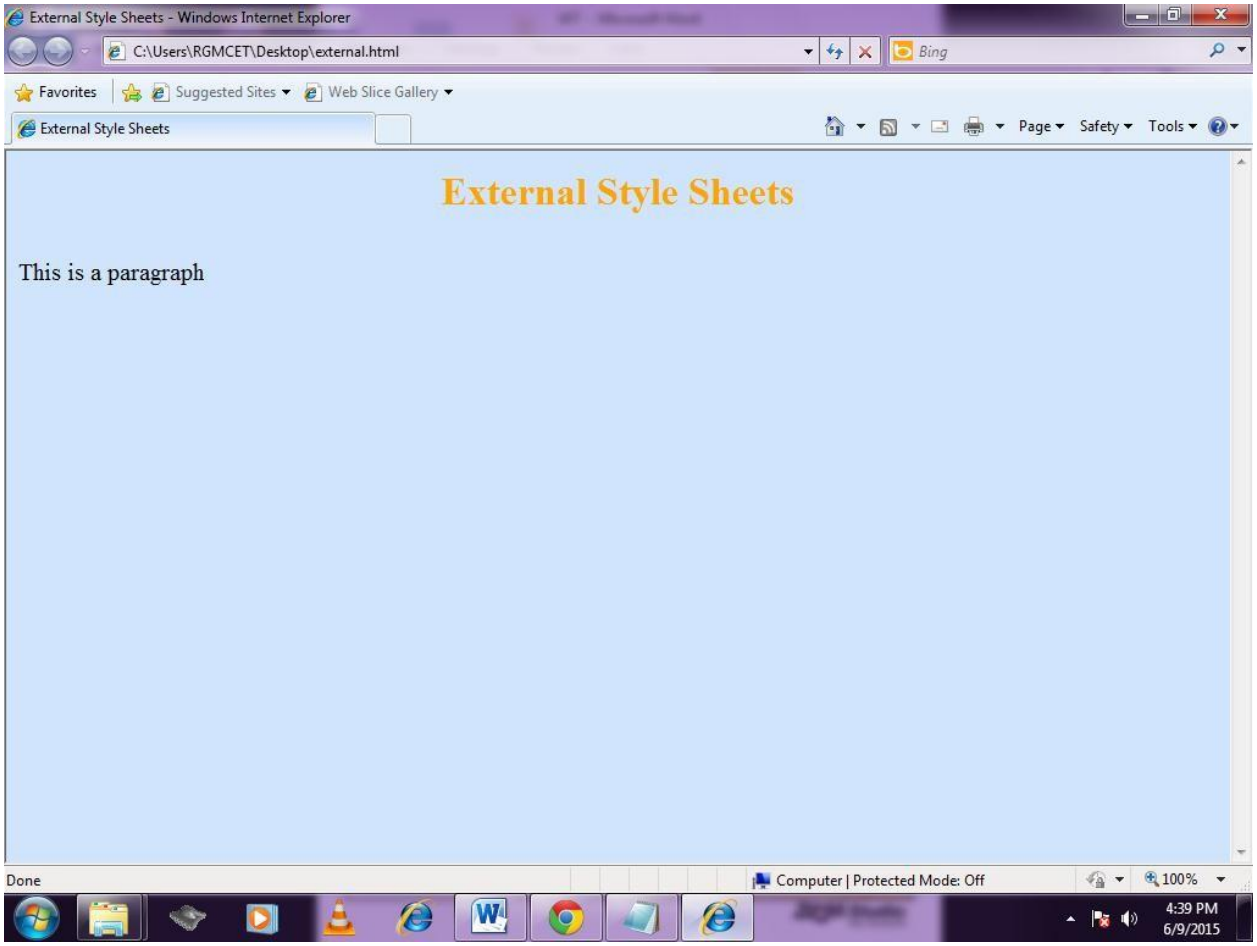
```
body {background-color: #d0e4fe;}
h1 {
color: orange; text-align: center;
}
p {
font-family: "Times New Roman"; font-size: 20px;
}
```

extern.html:

```
<html>
<head>
<title>External Style Sheets</title>
```

```
<link rel=”stylesheet” type=”text/css” href=”extern.css”>
</head>
<body>
<h1>External Style Sheets</h1><br>
<p>This is a paragraph
</body>
</html>
```

Output:



External Style Sheets

This is a paragraph

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C:\Users\RGMCET\Desktop\external.html
Bing
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Safety
Tools
Done
Computer | Protected Mode: Off
100%
4:39 PM
6/9/2015