

# **Hajee Karutha Rowther Howdia College (Autonomous)**

Uthamapalayam, Theni Dt - 625533

## **Department of Information Technology**



### **Study Material Internet and Web Programming 17UCTN21**

**Materialized by**

*K. A. Sheik Fareed. M.Sc., M.Phil.,  
Assistant Professor of IT Department,  
HKRH College, Uthamapalayam.*

# **Syllabus**

## **17UCTN21- Internet & Web Programming**

### **Unit-I : Introduction to HTML**

History of HTML - Structured of a HTML program - HEAD and BODY tags – Title tag - Paragraph tag – Heading tag (H1 to H6) - Formatting tags :Bold tag – Italic tag – Underline tag - Strike thru tag – Subscript tag - Super script tag.

### **Unit-II : Lists**

Ordered list and unordered list – Definition List - Heading in a list – Nested lists - Marquee tag - Break tag – Horizontal ruler tag -Font tag.

### **Unit -III : Tables**

Table building tags and attributes of table - TABLE tag - Table header tag - Table row tag - Table data tag – Row span – column span – Coloring table cells – some sample tables.

### **Unit -IV : Links**

Linking pages using Anchor tag - Attributes of anchor tag - Image tag and attributes - Frame tag and attributes.

### **Unit -V : Forms**

Form tag - Input tag type s – Text box, Radio button, Submit button, Check box, Password - Sample web page creation - Internet and Browsers – E-mail.

### **Text Book:**

**World Wide Web design with HTML** – C.Xavier, Tata McGraw Hill, 2000.

### **Reference Book:**

**HTML Complete Reference** - BPB Publications - 2<sup>nd</sup> Edition.

## UNIT I:

### History of HTML

First developed by Tim Berners-Lee in 1990, **HTML** is short for **Hypertext Markup Language**. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks. Every web page you see on the Internet is written using one version of HTML code or another.

HTML code ensures the proper formatting of text and images so that your Internet browser may display them as they are intended to look. Without HTML, a browser would not know how to display text as elements or load images or other elements. HTML also provides a basic structure of the page, upon which Cascading Style Sheets are overlaid to change its appearance. One could think of HTML as the bones (structure) of a web page.

### Structured of a HTML

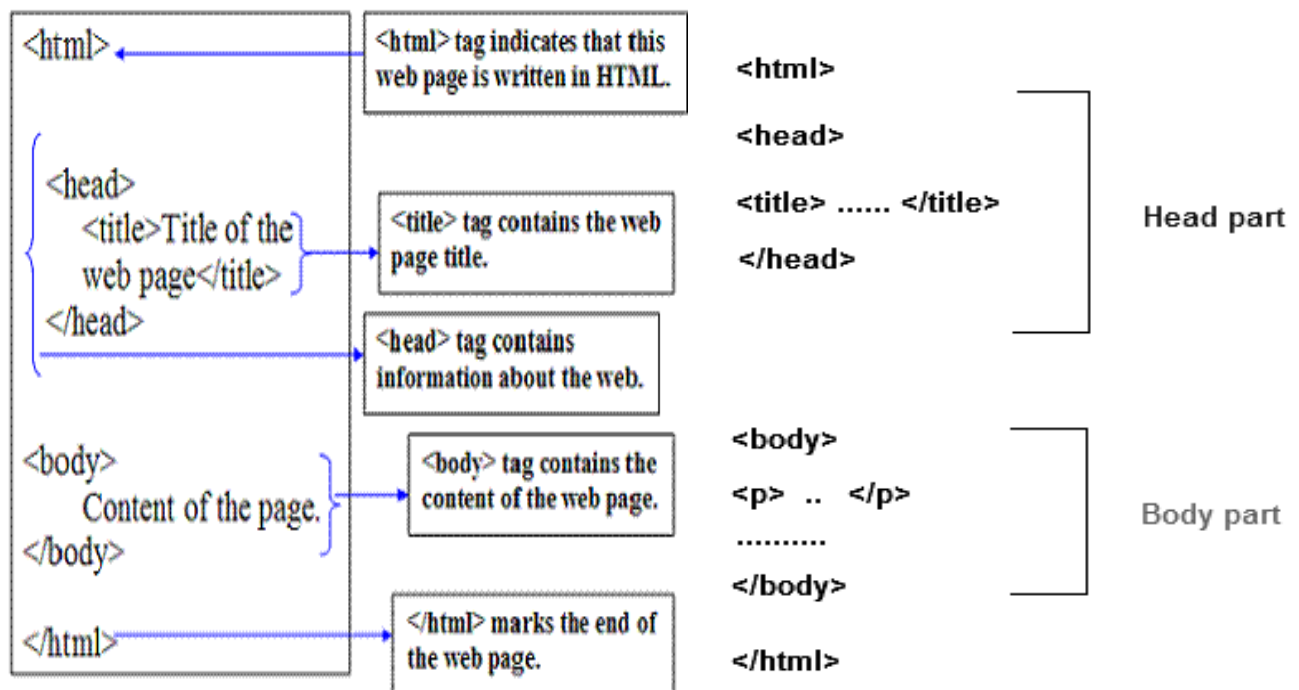
An HTML document has two main parts: the **head** and the **body**. But firstly every HTML document should start by declaring that it is an HTML document. These tags are of the form:

**<HTML>**

Should appear at the beginning of your document.

**</HTML>**

Should appear at the end of your document.



## HEAD of an HTML

The HEAD of an HTML document is where information (which might be ignored by some Web browsers), such as the document's title, can be placed. There are several elements that can be referenced in the HEAD of a document but we will concentrate on the document's title. (The document's title appears as the viewing window's title on browsers such as Internet Explorer and Netscape.) The region associated with the HEAD of a document should be declared using the following

### HTML tags:

`<HEAD>`

Should appear after the `<html>` definition.

`</HEAD>`

Should appear after any HEADer text. A typical entry in the HEAD of a document would be:

`<TITLE>`

Title of the document

`</TITLE>`

## BODY of an HTML document

The BODY of an HTML document is where all the information you wish to view must appear. The text must be carefully marked-up, paragraphs must begin with the `<p>` marker and the end of each paragraph must be clearly marked using the HTML tag `</P>`.

Web browsers are, generally speaking, very robust. That is, they will always show some presentation of the text - albeit the wrong or unintended layout. If the body text doesn't contain paragraph breaks then the text will be viewed as one long paragraph! (See what the ASCII text file **example.txt** looks like if it is saved as **example.html**.)

The region associated with the BODY of a document should be declared using the following HTML tags:

`<BODY>`

Should appear after the `</HEAD>` definition.

`</BODY>`

Should appear after the document's text but before the `</HTML>` tag.

The purpose of a web browser (like Internet Explorer) is to read HTML documents and display them as web pages. The browser does not display the HTML tags.

## Title tag:

The **<title>** tag defines the title of the document. The title element is required in all HTML /XHTML documents. A simple HTML document, with the minimum of required tags:

```
<HTML>
<HEAD>
<TITLE>Title of the document</TITLE>
</HEAD>
<BODY>
    The content of the document.....
</BODY>
</HTML>
```

## Paragraphs tags:

The **HTML <P>....</P> element** represents a paragraph. Paragraphs are usually represented in visual media as blocks of text separated from adjacent blocks by blank lines and/or first-line indentation, but HTML paragraphs can be any structural grouping of related content, such as images or form fields. HTML paragraphs are defined with the **<P>** tag.

### Example

```
<HTML>
  <BODY>
    <P>
      This is the first paragraph of text.
      This is the first paragraph of text.
      This is the first paragraph of text.
      This is the first paragraph of text.
    </P>
    <P>
      This is the second paragraph.
      This is the second paragraph.
      This is the second paragraph.
      This is the second paragraph.
    </P>
  </BODY>
</HTML>
```

## Sample output:



This is the first paragraph of text. This is the first paragraph of text. This is the first paragraph of text.

This is the second paragraph. This is the second paragraph. This is the second paragraph. This is the second paragraph.



## Formatting Tags

- Bold
- Italic
- Underline
- Strike thru
- Subscript
- Super script

## HTML Text Formatting Tags

<u>Tag</u>		<u>Description</u>
<code>&lt;B&gt;...&lt;/B&gt;</code>	-	<b>Bold</b>
<code>&lt;I&gt;...&lt;/I&gt;</code>	-	<i>Italics</i>
<code>&lt;U&gt;...&lt;/U&gt;</code>	-	Underline
<code>&lt;S&gt;...&lt;/S&gt;</code>	-	<del>Strike-through</del>
<code>&lt;SUP&gt;...&lt;/SUP&gt;</code>	-	Superscript (E=MC <sup>2</sup> )
<code>&lt;SUB&gt;...&lt;/SUB&gt;</code>	-	Subscript (H <sub>2</sub> O)

## **Bold :**

Using bold text will display your text in a thicker font making one or more words **really stand out** from the rest and will tend to draw the reader's attention to these words. Bold text is sometimes used for list headers such as in this list of font styles. To create bold text, place the desired text within the `<B>...</B>` tags.

Example: `<B>your bold text goes here. </B>`

## **Italics :**

The italics font style *slants the text to the right* and thus can also be used to draw special attention to one or more words. To display text in italics using HTML, place the desired text within the `<I>...</I>` tags.

Example: `<I>Your italics text goes here.</I>`

## **Underline :**

Like bold and italics, underlining can also be used to place special emphasis on one or more words but this tends to have limited use on web pages since underlined text is also the default font style for hyperlinks. To create underlined text, place the desired text within the `<U>...</U>` tags.

Example: `<U>Your underlined text goes here.</U>`

## **Strike-through :**

Using HTML, you can create text that looks like it's been crossed out or appears like it has a line drawn through it. Formally this is used to indicate text that has been edited or changed but it also has some ~~funny clever~~ *humorous* applications that might be worth exploring. To create strike-through text, place the desired text within the `<STRIKE>...</STRIKE>` tags or the `<S>...</S>` tags.

Example: `<STRIKE>Your strike-through text goes here.</STRIKE>`

## **Superscript:**

Using HTML, you can create text that is raised above the preceding text and is displayed in a smaller font. This can be used for mathematical considerations or it can be used to formally annotate compositions such as articles or essays.

To create superscript text, place the desired text (typically a number) within the `<SUP>...</SUP>` tags.

## **Example:**

Such-and-such went on record to say that he greatly approved of the latest agreement.<sup>1</sup> Elsewhere, however, it was reported that he did not approve.<sup>2</sup>

## Subscript:

This kind of text is lowered below the baseline of the preceding text and is displayed in a smaller font. This can be used to display chemical notation:

To create subscript text, place the desired text within the <SUB>...</SUB> tags.

Example: The chemical notation of water is H<SUB>2</SUB>O.

## Example:

```
<HTML>
```

```
<BODY>
```

```
<h4 align="center"> Formatting tags</h4> <BR>
```

```
<B> This tag is used to Bold the letters</B> ----->BOLD <BR>
```

```
<I> This tag is used to Italic the letters</I> ----->ITALIC<BR>
```

```
<U> This tag is used to Underline the letters</U> ----->UNDERLINE<BR>
```

```
<Strike> This tag is used to Strike the letters</Strike> ----->STRIKE THRU<BR>
```

```
H<SUB>2</SUB>O -----> SUBSCRIPT<BR>
```

```
E=MC<SUP>2</SUP> -----> SUPER SCRIPT
```

```
</BODY>
```

```
</HTML>
```

## Sample output:



## Formatting tags

**This tag is used to Bold the letters ----->BOLD**

*This tag is used to Italic the letters ----->ITALIC*

This tag is used to Underline the letters ----->UNDERLINE

~~This tag is used to Strike the letters ----->STRIKE THRU~~

H<sub>2</sub>O -----> SUBSCRIPT

E=MC<sup>2</sup> -----> SUPER SCRIPT





## UNIT II:

### Lists

HTML lists are used to present list of information in well formed and semantic way. There are three different types of list in HTML and each one has a specific purpose and meaning.

- **Ordered list** — Used to create a list of related items, in a specific order.
- **Unordered list** — Used to create a list of related items, in no particular order.
- **Definition list** — Used to create a list of terms and their descriptions.

### Ordered List

Create numbered or alphabetized lists are called as ordered lists. An ordered list starts with the <OL> tag and ends with </OL>. Each list item starts with the <LI> and ends with </LI> tag. The list items are marked with numbers.

#### Example 1:

```
<HTML>
<BODY>
  <H4 Align="center"> Odered List</H4>
  <OL>
    <LI>Beetroot</LI>
    <LI>Ginger</LI>
    <LI>Potato</LI>
    <LI>Radish</LI>
  </OL>
</BODY>
</HTML>
```

#### Sample output:



## Attribute types for ordered list

There are five types of attribute for <OL> tag to specify the type of numbering you like.

By default, it is a number. Following are the possible options

<OL type = "1"> - Default-Case Numerals.

<OL type = "I"> - Upper-Case Numerals.

<OL type = "i"> - Lower-Case Numerals.

<OL type = "A"> - Upper-Case Letters.

<OL type = "a"> - Lower-Case Letters.

### Example 2:

Following is an example where we used <OL type = "I">

```
<HTML>
<BODY>
<OL TYPE = "I">
<LI>Beetroot</LI>
<LI>Ginger</LI>
<LI>Potato</LI>
<LI>Radish</LI>
</OL>
</BODY>
</HTML>
```

### Sample output:

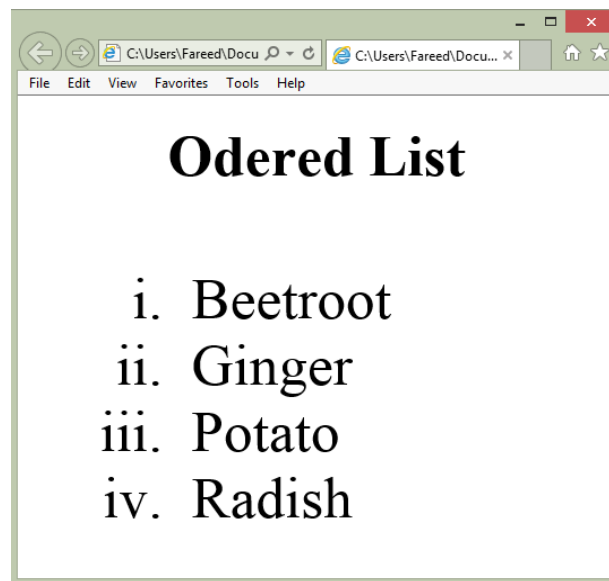


### Example 3:

Following is an example where we used <OL type = "i">

```
<HTML>
<BODY>
  <OL TYPE = "i">
    <LI>Beetroot</LI>
    <LI>Ginger</LI>
    <LI>Potato</LI>
    <LI>Radish</LI>
  </OL>
</BODY>
</HTML>
```

### Sample output:

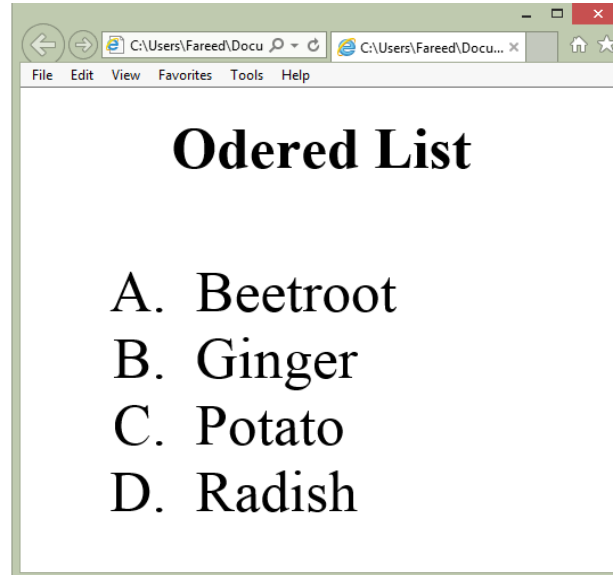


### Example 4:

Following is an example where we used <OL type = "A">

```
<HTML>
<BODY>
  <OL TYPE = "A">
    <LI>Beetroot</LI>
    <LI>Ginger</LI>
    <LI>Potato</LI>
    <LI>Radish</LI>
  </OL>
</BODY>
</HTML>
```

**Sample output:**

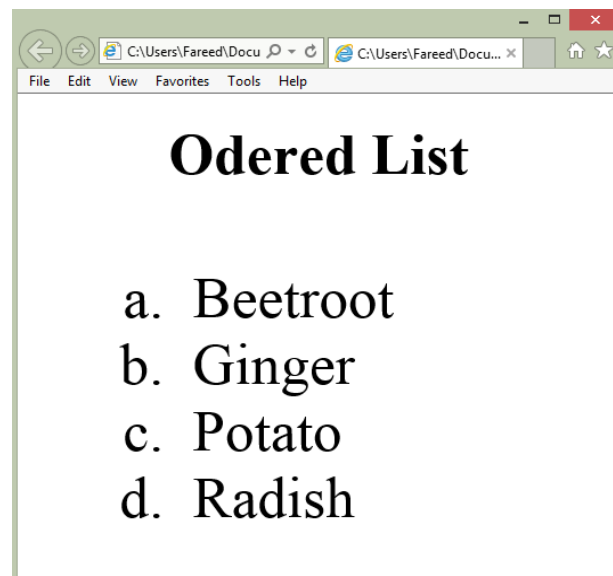


**Example 5:**

Following is an example where we used `<OL type = "a">`

```
<HTML>  
<BODY>  
  <OL TYPE = "a">  
    <LI>Beetroot</LI>  
    <LI>Ginger</LI>  
    <LI>Potato</LI>  
    <LI>Radish</LI>  
  </OL>  
</BODY>  
</HTML>
```

**Sample output:**



## Unordered List

An unordered list starts with the <UL> tag and ends with</UL>. Each list item starts with the <LI> tag and ends with</LI> end tag is optional.

### Example 1:

```
<HTML>
<BODY>
  <H4 Align="center"> Unordered List</H4>
  <UL>
    <LI>Apple</LI>
    <LI>Orange</LI>
    <LI>Pineapple</LI>
    <LI>Mango </LI>
  </UL>
</BODY>
</HTML>
```

### Sample output:



### Attribute types for unordered list

There are three types of attribute for <UL> tag to specify the type of bullet you like. By default, it is a disc. Following are the possible options.

<UL type = "disc"> → This default type

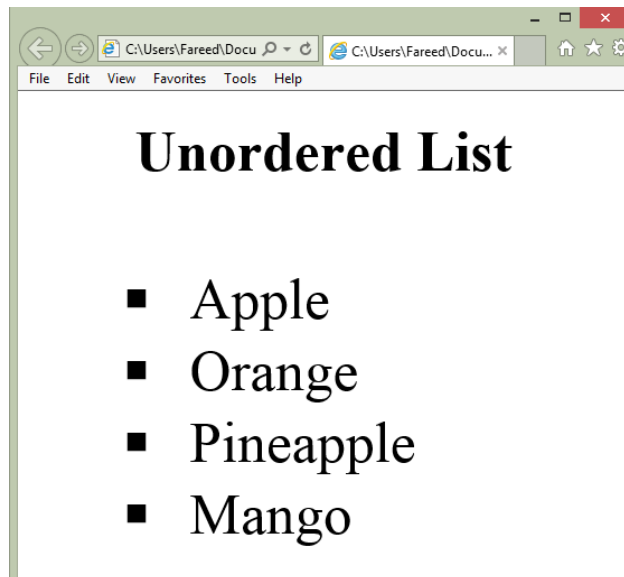
<UL type = "square">

<UL type = "circle">

**Example 2:**

Following is an example where we used <UL Type = "square">

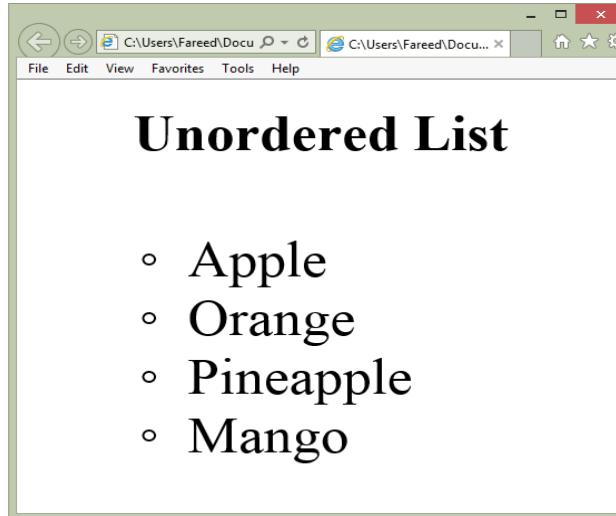
```
<HTML>
<BODY>
  <H4 Align="center"> Unordered List</H4>
  <UL Type = " square">
    <LI>Apple</LI>
    <LI>Orange</LI>
    <LI>Pineapple</LI>
    <LI>Mango </LI>
  </UL>
</BODY>
</HTML>
```

**Sample output:****Example 2:**

Following is an example where we used <UL Type = "circle">

```
<HTML>
<BODY>
  <H4 Align="center"> Unordered List</H4>
  <UL Type = "circle ">
    <LI>Apple</LI>
    <LI>Orange</LI>
    <LI>Pineapple</LI>
    <LI>Mango </LI>
  </UL>
</BODY>
</HTML>
```

## Sample output:



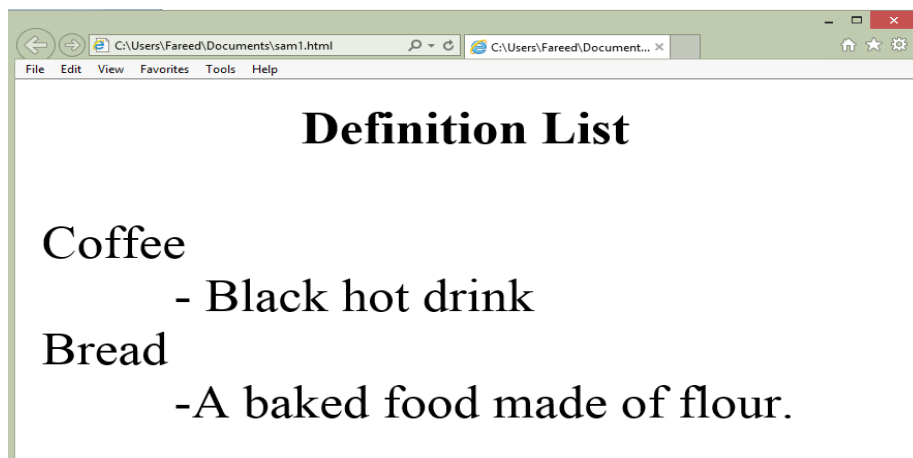
## Definition Lists

The definition list uses the `<DL>` element of which both the start and end tags are required. In between these are placed at least one `<DT>` tag and one `<DD>` tag which render the *definition term* and the *Definition Data* respectively. The end tags for `<DT>` element and `<DD>` elements are optional.

### Example:

```
<HTML>
<BODY>
  <DL>
    <DT>Coffee</DT>
    <DD> - Black hot drink</DD>
    <DT>Bread</DT>
    <DD> -A baked food made of flour.</DD>
  </DL>
</BODY>
</HTML>
```

## Sample output:



## Nesting Lists

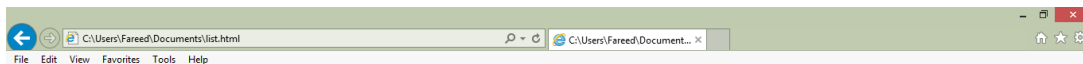
We can nest other lists inside of ordered lists and you can even nest an unordered list inside of an ordered list thus making for a more sophisticated display.

### Example 1:

The three basic steps to creating a web page are:

```
<OL Type="1">
  <LI> Decide on a subject. </LI>
    <UL>
      <LI> Business</LI>
      <LI> Family</LI>
      <LI> Hobby</LI>
    </UL>
  <LI> Acquire the necessary tools and materials. </LI>
    <UL>
      <LI> Web browser</LI>
      <LI> Text editor or HTML editor</LI>
      <LI> Graphics and clip-art</LI>
      <LI> Graphics editor</LI>
    </UL>
  <LI> Write the HTML source code.
</OL>
```

### Sample output:



1. Decide on a subject.
  - Business
  - Family
  - Hobby
2. Acquire the necessary tools and materials.
  - Web browser
  - Text editor or HTML editor
  - Graphics and clip-art
  - Graphics editor
3. Write the HTML source code.





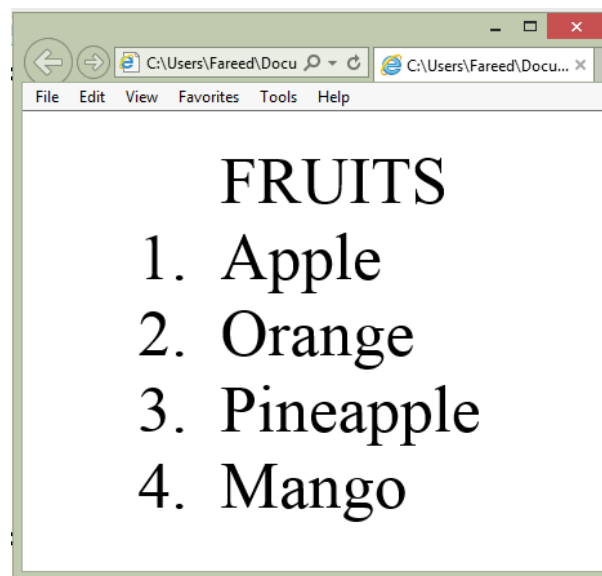
## Lists Header

The LH or list header element is used to provide a title for a list.

### Example 1:

```
<HTML>
<BODY>
  <OL>
    <LH> FRUITS</LH>
    <LI>Apple</LI>
    <LI>Orange</LI>
    <LI>Pineapple</LI>
    <LI>Mango </LI>
  </OL>
</BODY>
</HTML>
```

### Sample output:



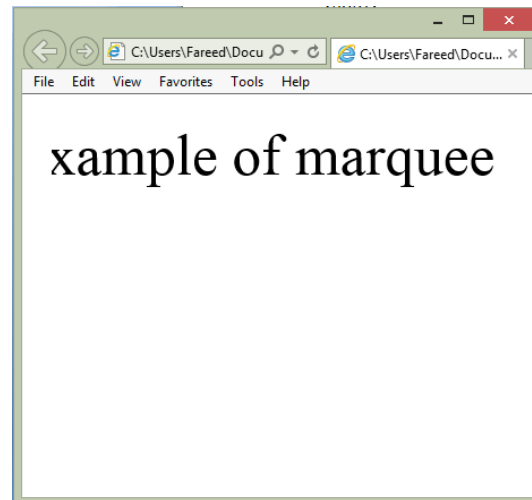
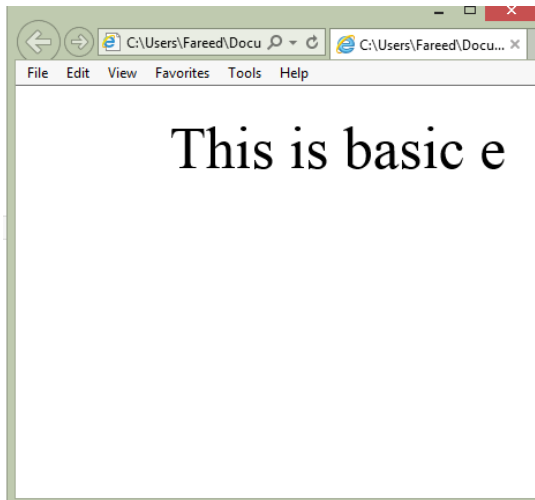
## Marquee tag

Marquee tag is used to move the text /image from left to right or right to left or top to bottom or bottom to top in webpage. Marquee tag starts with <MARQUEE> ....ends with </MARQUEE>

### Example:

```
<HTML>
<BODY>
  <MARQUEE>This is basic example of marquee</MARQUEE>
</BODY>
</HTML>
```

## Sample output:



## Line Break tag

Use the `<BR>` tag if you want a line break (a new line) without starting a new paragraph. The `<BR>` element is an empty HTML element. It has no end tag. HTML tags are not case sensitive:

### Example

```
<HTML>
```

```
<BODY>
```

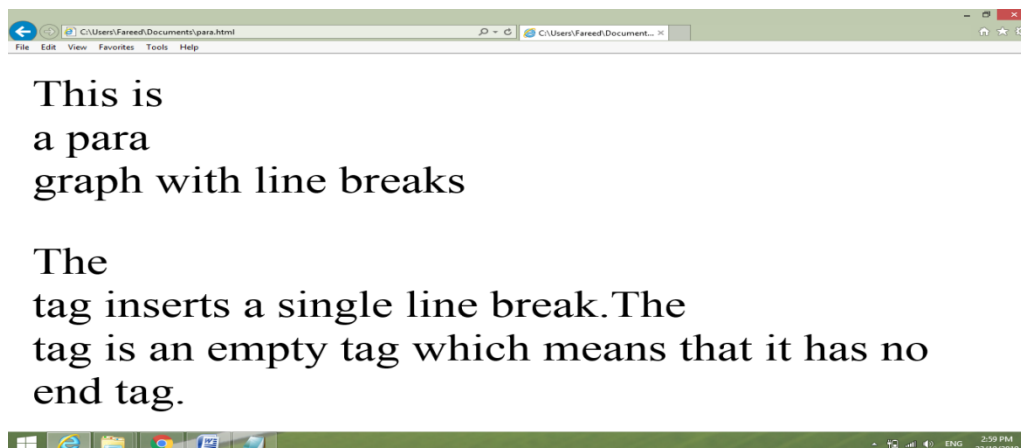
```
<P>This is <BR> a para <BR> graph with line breaks</P>
```

The `<br>` tag inserts a single line break. The `<br>` tag is an empty tag which means that it has no end tag.

```
</BODY>
```

```
</HTML>
```

### Sample output



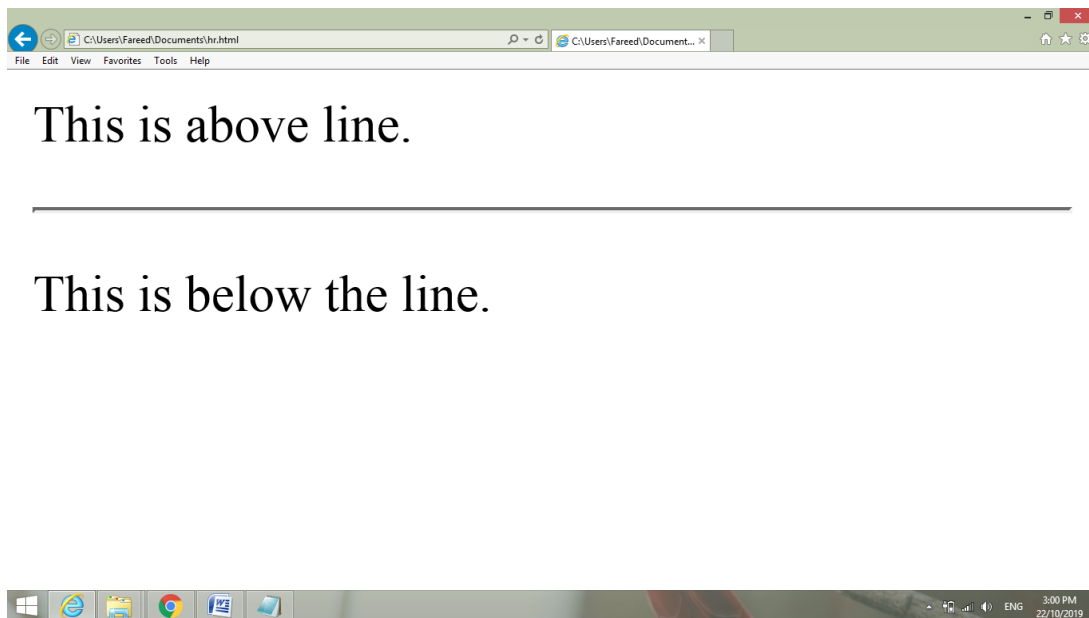
## Horizontal ruler tag

The <HR> element is used to represent a thematic break between paragraph-level elements. It is typically rendered as a horizontal line.

### Example

```
<HTML>
<BODY>
  <P>This is above line.</P> <HR>
  <P>This is below the line.</P>
</BODY>
</HTML>
```

### Output



### Font tag:

Fonts play a very important role in making a website more user friendly and increasing content readability. Font face and color depends entirely on the computer and browser that is being used to view your page but you can use HTML <FONT> tag to add style, size, and color to the text on your website.

The font tag is having three attributes called **size**, **color**, and **face** to customize your fonts. To change any of the font attributes at any time within your webpage, simply use the <FONT> tag. The text that follows will remain changed until you close with the </FONT> tag. You can change one or all of the font attributes within one <FONT> tag.

## Set Font Size

You can set content font size using **size** attribute. The range of accepted values is from 1 (smallest) to 7 (largest). The default size of a font is 3.

### Example:

```
<HTML>
  <HEAD>
    <TITLE>Setting Font Size</title>
  </HEAD>
  <BODY>

    <FONT size = "1"> IT NME </FONT></BR>

    <FONT size = "2"> IT NME </FONT></BR>

    <FONT size = "3"> IT NME </FONT></BR>

    <FONT size = "4"> IT NME </FONT></BR>

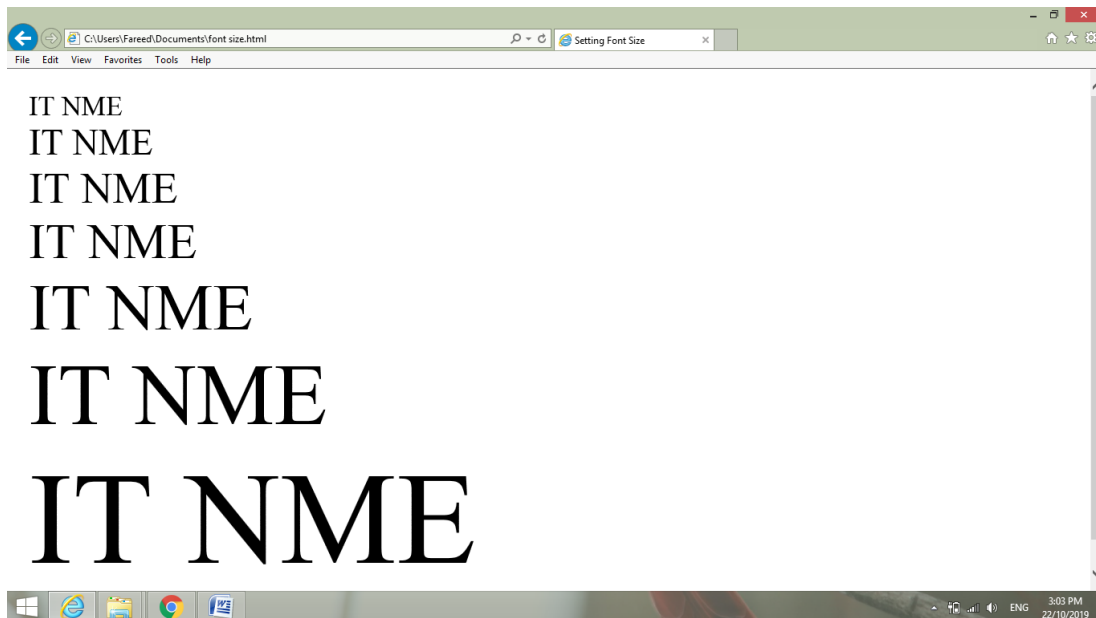
    <FONT size = "5"> IT NME </FONT></BR>

    <FONT size = "6"> IT NME </FONT></BR>

    <FONT size = "7"> IT NME </FONT>

  </BODY>
</HTML>
```

### Sample output:



## Setting Font Face

You can set font face using *face* attribute but be aware that if the user viewing the page doesn't have the font installed, they will not be able to see it. Instead user will see the default font face applicable to the user's computer.

### Example:

```
<HTML>

<HEAD>

<TITLE>Font Face</TITLE>

</HEAD>

<BODY>

<FONT face = "Times New Roman" size = "5">Times New Roman</FONT></BR>

<FONT face = "Verdana" size = "5">Verdana</FONT></BR>

<FONT face = "Comic sans MS" size = " 5">Comic Sans MS</FONT></BR>

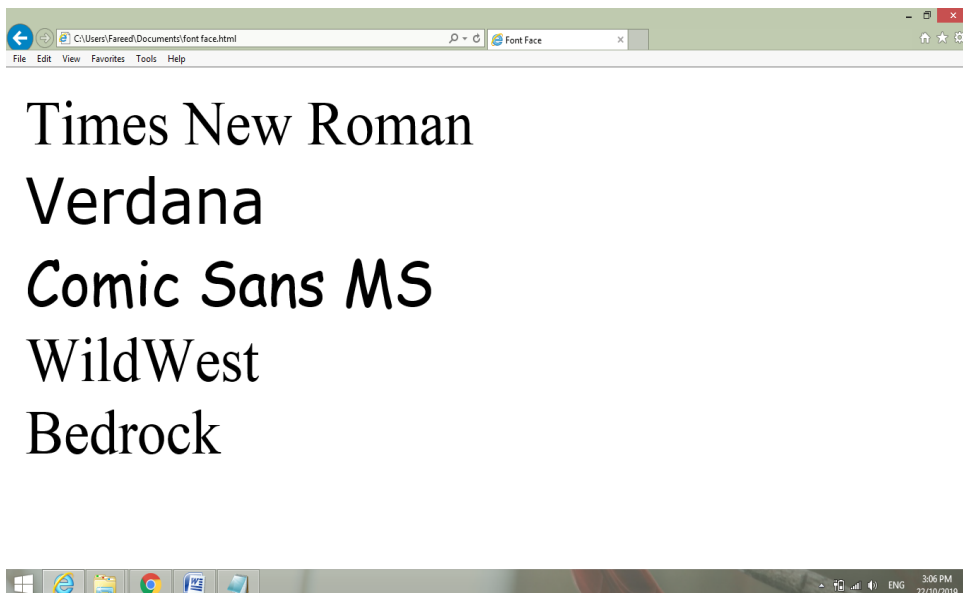
<FONT face = "WildWest" size = "5">WildWest</FONT></BR>

<FONT face = "Bedrock" size = "5">Bedrock</FONT></BR>

</BODY>

</HTML>
```

### Sample output:



## Setting Font Color

You can set any font color you like using *color* attribute. You can specify the color that you want by either the color name or hexadecimal code for that color.

### Example:

```
<HTML>

<HEAD>

  <TITLE>Setting Font Color</TITLE>

</HEAD>

<BODY>

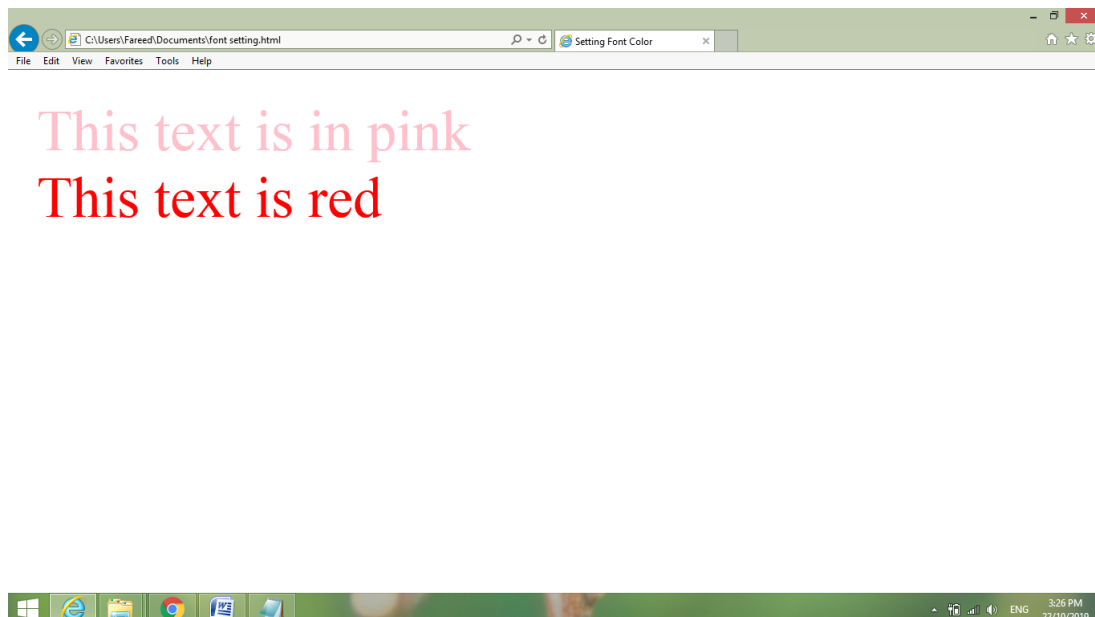
  <FONT color = "pink">This text is in pink</FONT></BR>

  <FONT color = "red">This text is red</FONT>

</BODY>

</HTML>
```

### Output:



## UNIT III:

### Tables

Tables are created using the table element which uses both a start and an end tag. The `<TABLE>.....</TABLE>` tags are required to contain at least one set of `<TR>...</TR>` tags which themselves are required to contain at least one set of `<TD>...</TD>` tags. Each set of `<TR> ... </TR>` tags creates one *table row* while each set of `<TD>...</TD>` tags creates one *table data cell*.

Tag	Description
<code>&lt;TABLE&gt;</code>	Defines a table
<code>&lt;TH&gt;</code>	Defines a table header
<code>&lt;TR&gt;</code>	Defines a table row
<code>&lt;TD&gt;</code>	Defines a table cell

#### Example:

```
<TABLE border="1">
  <TR>
    <TD>row 1, cell 1</TD>
    <TD>row 1, cell 2</TD>
  </TR>
  <TR>
    <TD>row 2, cell 1</TD>
    <TD>row 2, cell 2</TD>
  </TR>
</TABLE>
```

#### Sample output:

<b>row 1, cell 1</b>	<b>row 1, cell 2</b>
<b>row 2, cell 1</b>	<b>row 2, cell 2</b>

### Example for attribute:

```
<TABLE border="5" width="300" align="center">
  <TR>
    <TD> Cell content </TD>
  </TR>
</TABLE>
```

### Sample output:



### HTML Tables and the Border Attribute

If you do not specify a border attribute, the table will be displayed without borders. Sometimes this can be useful, but most of the time, we want the borders to show.

### Example:

```
<TABLE border="1">
  <TR>
    <TD>Row 1, cell 1</TD>
    <TD>Row 1, cell 2</TD>
  </TR>
</TABLE>
```

### HTML Table Headers

Table heading can be defined using <TH> tag. This tag will be put to replace <TD> tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use <TH> element in any row. Headings, which are defined in <TH> tag are centered and bold by default.

```
<TABLE border="1">
  <TR>
    <TH>Header 1</TH>
    <TH>Header 2</TH>
  </TR>
  <TR>
    <TD>row 1, cell 1</TD>
    <TD>row 1, cell 2</TD>
  </TR>
  <TR>
    <TD>row 2, cell 1</TD>
    <TD>row 2, cell 2</TD>
  </TR>
</TABLE>
```



### Sample output:

Header 1	Header 2
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

### Column span:

Define table cells that span more than one column **colspan="number of columns"**. The colspan attribute whose value defines how many columns a table cell will span. Hence, a <TD> tag using a colspan="2" attribute-value pair will specify that that particular cell will stretch over the equivalent of two columns worth of space:

### Example: (cell spans two columns)

```
<TABLE border="3">
  <TR>
    <TD align="center" colspan="2">MY DAILY MENU</TD>
  </TR>
  <TR>
    <TD valign="top"><B>Breakfast</B></TD>
    <TD>Orange juice<BR>Toast<BR>Black coffee</TD>
  </TR>
  <TR>
    <TD valign="top"><B>Lunch</B></TD>
    <TD>Tuna sandwich<BR>Apple</TD>
  </TR>
  <TR>
    <TD valign="top"><B>Dinner</B></TD>
    <TD>Hamburger steak<BR>Mashed potatoes<BR>Green beans<BR>Jello</TD>
  </TR>
</TABLE>
```

### Output :( cell spans two columns)

MY DAILY MENU	
<b>Breakfast</b>	Orange juice
	Toast
	Black coffee
<b>Lunch</b>	Tuna sandwich
	Apple
<b>Dinner</b>	Mashed potatoes
	Green beans

Note that, as well as using colspan="2" in the 'MY DAILY MENU' table cell to make it span two columns, we also used align="center" to center the content.

## Row span:

Define table cells that span more than one row. `rowspan="number of rows"` ~ The `rowspan` attribute works just like the `colspan` attribute. By using the `rowspan` attribute, you can force a table cell to span the number of rows specified by the respective value.

### Example (cell spans three rows)

```
<TABLE border="3">
  <TR>
    <TD align="center" colspan="3">MY DAILY MENU</TD>
  </TR>
  <TR>
    <TD rowspan="3">M<BR>o<BR>n<BR>d<BR>a<BR>y</TD>
    <TD valign="top"><B>Breakfast</B></TD>
    <TD>Orange juice<BR>Toast<BR>Black Coffee</TD>
  </TR>
  <TR>
    <TD valign="top"><B>Lunch</B></TD>
    <TD>Tuna sandwich<BR>Apple</TD>
  </TR>
  <TR>
    <TD valign="top"><B>Dinner</B></TD>
    <TD>Hamburger steak<BR>Mashed potatoes<BR>Green beans<BR>Jello</TD>
  </TR>
</TABLE>
```

### Output: (cell spans three rows)

MY DAILY MENU		
M o n d a y	<b>Breakfast</b>	Orange juice
		Toast
		Black coffee
	<b>Lunch</b>	Tuna sandwich
		Apple
	<b>Dinner</b>	Mashed potatoes
		Green beans

## Coloring table cells

You can set table background using one of the following two ways –

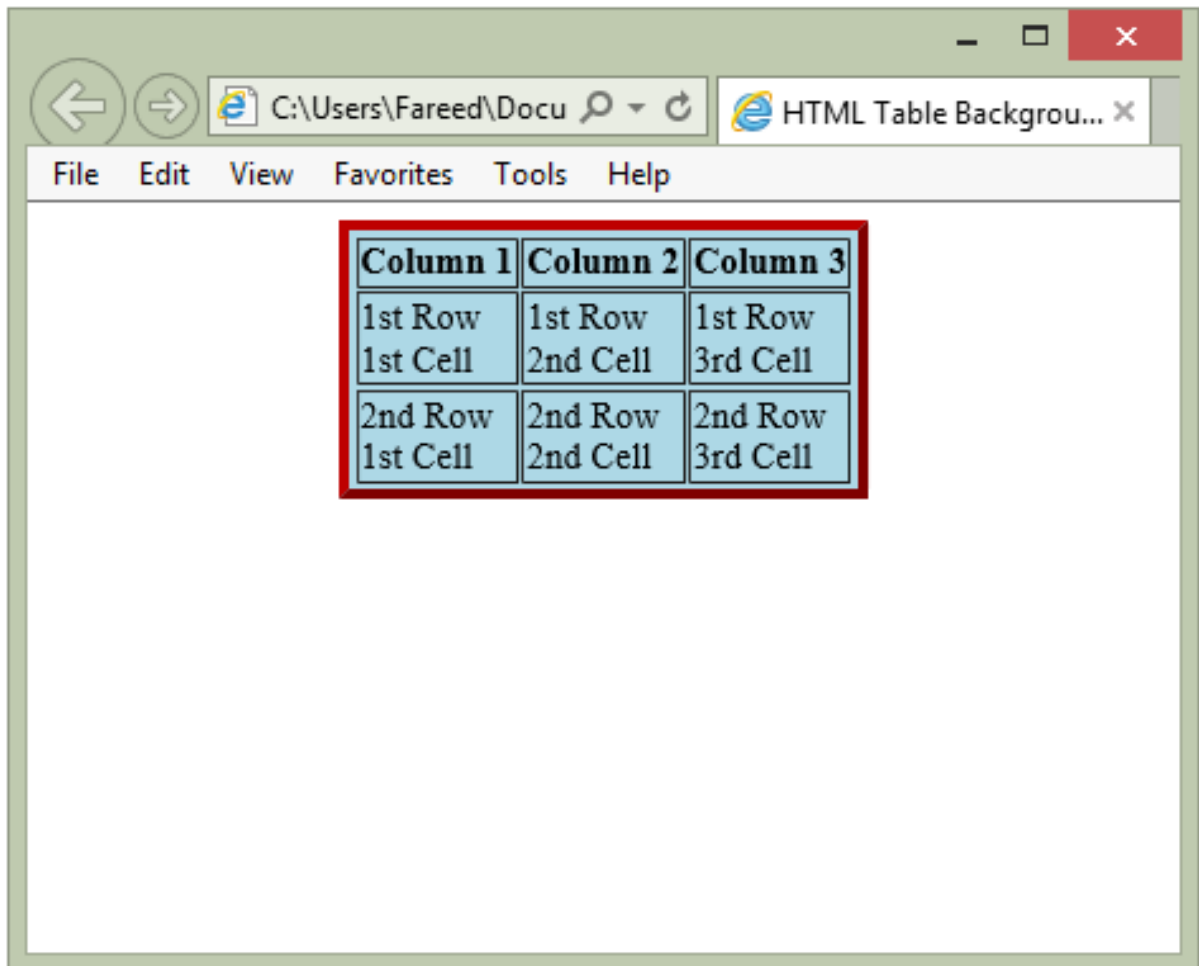
- bgcolor attribute – You can set background color for whole table or just for one cell.
- background attribute – You can set background image for whole table or just for one cell.

You can also set border color also using bordercolor attribute.

### Example :

```
<HTML>
  <HEAD>
    <TITLE>HTML Table Background</TITLE>
  </HEAD>
  <BODY>
    <TABLE border = "5" bordercolor = "red" bgcolor = "lightblue">
      <TR>
        <TH>Column 1</TH>
        <TH>Column 2</TH>
        <TH>Column 3</TH>
      </TR>
      <TR>
        <TD >1st Row <BR> 1st Cell</TD>
        <TD>1st Row <BR> 2nd Cell</TD>
        <TD>1st Row <BR> 3rd Cell</TD>
      </TR>
      <TR>
        <TD >2nd Row <BR> 1st Cell</TD>
        <TD>2nd Row <BR> 2nd Cell</TD>
        <TD>2nd Row <BR> 3rd Cell</TD>
      </TR>
    </TABLE>
  </BODY>
</HTML>
```

Sample output:



### Time table sample program:

```
<HTML>
```

```
<H3 align="center"> Time Table</H3>
```

```
<BODY>
```

```
<TABLE border = "3" align="center" bordercolor = "red" >
```

```
<TR>
    <TH bgcolor="Skyblue">X-'A'</TH>
    <TH bgcolor="Skyblue">1</TH>
    <TH bgcolor="Skyblue">2</TH>
    <TH bgcolor="Skyblue">3</TH>
    <TH bgcolor="Skyblue">4</TH>
    <TH bgcolor="Skyblue">5</TH>
</TR>
```

1<sup>st</sup> Row

1<sup>st</sup> Column

```
<TR>
    <TH bgcolor="Skyblue">Monday</TH>
    <TD>Tamil</TD>
    <TD>English</TD>
    <TD>Science</TD>
    <TD>Social</TD>
    <TD>Maths</TD>
</TR>
```

2<sup>nd</sup> Row

2<sup>nd</sup> Column

```
<TR>
    <TH bgcolor="Skyblue">Tuesday</TH>
    <TD>English</TD>
    <TD>Social</TD>
    <TD>Maths</TD>
    <TD>Tamil</TD>
    <TD>Science</TD>
</TR>
```

3<sup>rd</sup> Row

3<sup>rd</sup> Column

4<sup>th</sup> Row

```
<TR>
  <TH bgcolor="Skyblue">Wednesday</TH>
  <TD>Science</TD>
  <TD>Maths</TD>
  <TD>Social</TD>
  <TD>Tamil</TD>
  <TD>English</TD>
</TR>
```

4<sup>th</sup> Column

5<sup>th</sup> Row

```
<TR>
  <TH bgcolor="Skyblue">Thursday</TH>
  <TD>Maths</TD>
  <TD>Social</TD>
  <TD>Science</TD>
  <TD>English</TD>
  <TD>Tamil</TD>
</TR>
```

5<sup>th</sup> Column

6<sup>th</sup> Row

```
<TR>
  <TH bgcolor="Skyblue">Friday</TH>
  <TD>Social</TD>
  <TD>Maths</TD>
  <TD>English</TD>
  <TD>Tamil</TD>
  <TD>Science</TD>
</TR>
```

6<sup>th</sup> Column

```
</TABLE>
```

```
</BODY>
```

```
</HTML>
```

Sample output:

The screenshot shows a web browser window with the following details:

- Address bar: C:\Users\Fareed\Docu...
- Menu bar: File, Edit, View, Favorites, Tools, Help
- Page Title: Time Table
- Table Content:

X-'A'	1	2	3	4	5
Monday	Tamil	English	Science	Social	Maths
Tuesday	English	Social	Maths	Tamil	Science
Wednesday	Science	Maths	Social	Tamil	English
Thursday	Maths	Social	Science	English	Tamil
Friday	Social	Maths	English	Tamil	Science

## UNIT - IV:

### Links

Links are found in nearly all Web pages. Links allow users to click their way from page to page.

Tag	Description
<code>&lt;a&gt;</code>	Defines an anchor

### Anchor Tag

An anchor tag is an HTML tag. It is used to define the beginning and end of a hypertext link. Search engines use the tag to determine the subject matter of the destination URL. Users click on the anchor text to reach the link target.

A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document. Links are specified in HTML using the `<a>` tag. The `<a>` tag can be used in two ways:

1. To create a link to another document, by using the href attribute
2. To create a bookmark inside a document, by using the name attribute

### HTML Link Syntax

The HTML code for a link is simple. It looks like this:

```
<a href="url">Link text</a>.
```

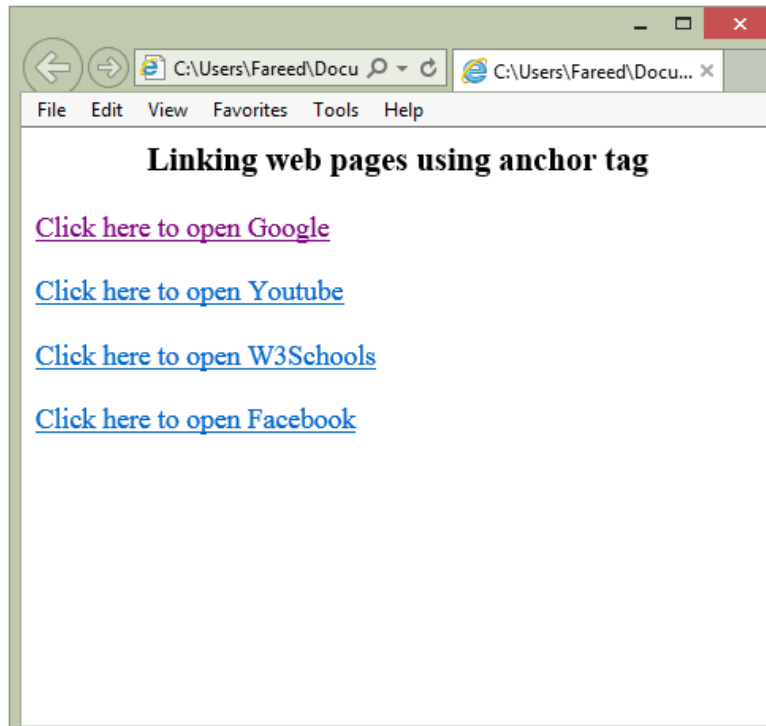
The href attribute specifies the destination of a link.

### Example

```
<HTML>  
<BODY>  
  <H3 align="center"> Linking web pages using anchor tag</H3>  
  <a href="https:\\www.google.co.in">Click here to open Google </a> <BR><BR>  
  <a href="https:\\www.youtube.com">Click here to open Youtube</a> <BR><BR>  
  <a href="https:\\www.w3schools.com">Click here to open W3Schools</a><BR>  
  <a href="https:\\www.facebook.com">Click here to open Facebook</a> <BR><BR>  
</BODY>  
</HTML>
```



## Sample output:



### The target attribute

The target attribute specifies where to open the linked document.

### Example

```
<a href="http://www.google.com/" target="_blank">google!</a>
```

### The name attribute

- ☐ The name attribute specifies the name of an anchor.
- ☐ The name attribute is used to create a bookmark inside an HTML document.
- ☐ Bookmarks are not displayed in any special way. They are invisible to the reader.

### Example

A named anchor inside an HTML document:

```
<a name="tips">Useful Tips Section</a>
```

Create a link to the "Useful Tips Section" inside the same document:

```
<a href="#tips">Visit the Useful Tips Section</a>
```

Or, create a link to the "Useful Tips Section" from another page:

```
<a href="http://www.google.com/html_links.htm#tips">Visit the Useful Tips  
Section</a>
```

## Image tag

The <img> element is the most straight-forward way of displaying a static image on a page. You should normally use it whenever an image is actually a part of the content (as opposed to using an image as part of a page's design).

All <img> tags must have a defined src attribute. This defines the image to be displayed. Typically, the src is a URL, but a data representation of the image can also be used in some cases.

### Attribute:

**src** : Specifies the URL of an image to be displayed.

**height** : Identifies the intrinsic height of an image file

**width** : Indicates the intrinsic width of the image

**align** : used to specify the alignment and placement of an image relative to the surrounding text.

### Example:

```
<HTML>
<BODY>
   <BR><BR>
  
  
   BR><BR>
  
  
  
</BODY>
</HTML>
```

Sample output:

In The Name of Allah, The Most Gracious, The Most Merciful

**HAJEE KARUTHA ROTHER HOWDIA COLLEGE (AUTONOMOUS)**  
(Re-Accredited with "A" Grade, CGPA of 3.26 out of 4.00 by NAAC, Bangalore)  
Uthamapalayam, Theni district - 625533.

**Diamond Jubilee 60th Year 1953-2013**

The screenshot shows a web browser window with the address bar displaying "C:\Users\Fareed\Docum...". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The main content area features a green banner with the college's name and accreditation information. Below the banner, there are six photographs arranged in two rows of three, showcasing the college's infrastructure, including multi-story buildings and a large open field.

## Frame tag:

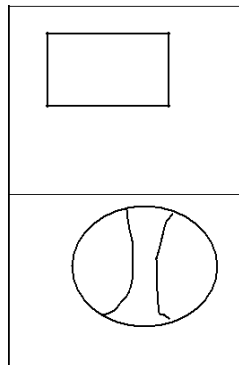
HTML Frames are used to divide the web browser window into multiple sections where each section can be loaded separately. A frameset tag is the collection of frames in the browser window to display more than one page in single web page by using frame tag.

The frameset tag is used to define how to divide the browser. Each frame is indicated by frame tag and it basically defines which HTML document shall open into the frame. To define the horizontal frames use row attribute of frame tag in HTML document and to define the vertical frames use col attribute of frame tag in HTML document.

## Frame set:

```
<Frame set rows="50%50%">  
    <frame src=" D:\box.bmp">  
    <frame src=" D:\ball.bmp">  
</Frame set>
```

## Sample output:



## Attributes of Frameset tag:

### Cols:

The cols attribute is used to create vertical frames in web browser. This attribute is basically used to define the no of columns and its size inside the frameset tag. The size or width of the column is set in the frameset in the following ways:

Example 1:

```
<frameset cols = "300, 400, 300"> Use absolute value in pixel
```

Example 2:

```
<frameset cols = "30%, 40%, 30%"> Use percentage value
```

**Rows:**

The rows attribute is used to create horizontal frames in web browser. This attribute is used to define no of rows and its size inside the frameset tag. The size of rows or height of each row use the following ways:

Example 1:

```
<frameset rows = "300, 400, 300"> Use absolute value in pixel
```

Example 2:

```
<frameset rows = "30%, 40%, 30%"> Use percentage value
```

**Border:**

This attribute of frameset tag defines the width of border of each frames in pixels. Zero value is used for no border.

Example: 

```
<frameset border="4" frameset>
```

**Example for accessing other web in a frame:****Frame 1: (File name is : frame1.html)**

```
<HTML>  
<BODY bgcolor="sky blue">  
    <H3> Frame 1</H3>  
</BODY>  
</HTML>
```

**Frame 2: (File name is : frame2.html)**

```
<HTML>  
<BODY bgcolor="Yellow">  
    <H3> Frame 2</H3>  
</BODY>  
</HTML>
```

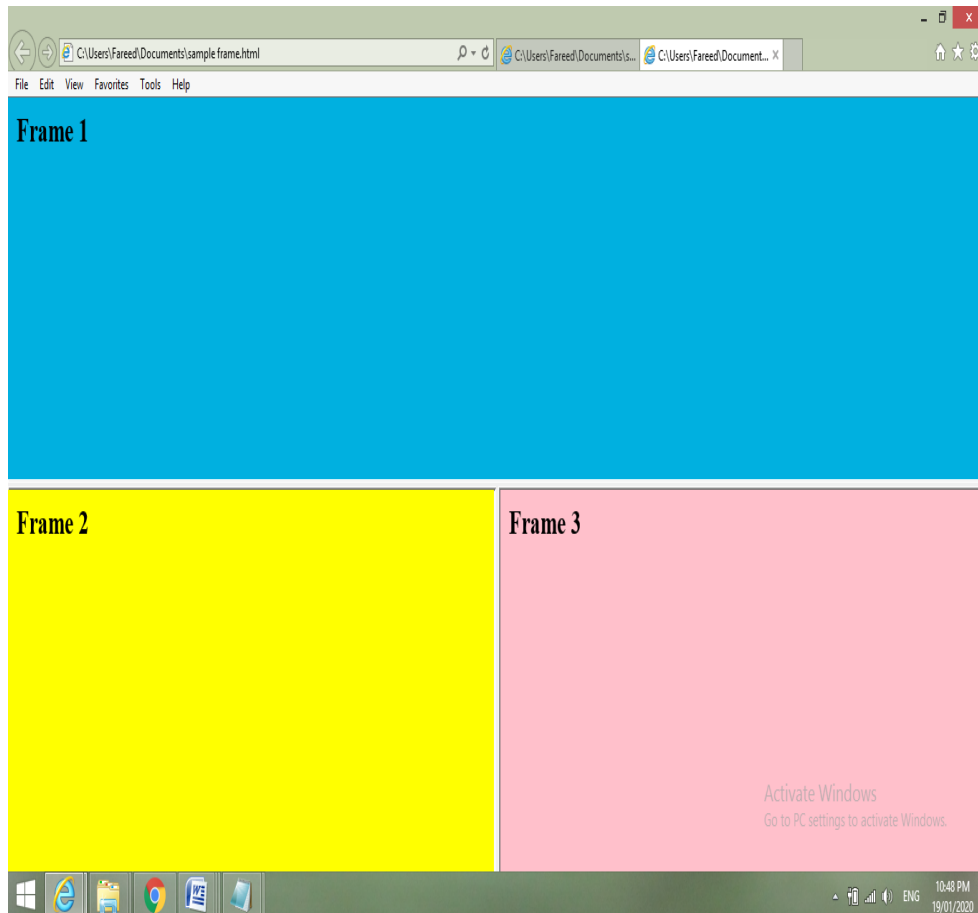
**Frame 3: (File name is : frame3.html)**

```
<HTML>  
<BODY bgcolor="Pink">  
    <H3> Frame 2</H3>  
</BODY>  
</HTML>
```

**Main page :**

```
<HTML>  
  <frameset rows="50%,50%">  
    <frame src="frame1.html">  
  <frameset cols="50%,50%">  
    <frame src="frame2.html" >  
    <frame src="frame3.html">  
  </frameset>  
</HTML>
```

**Sample output:**



## Unit V

### Forms

HTML forms are used to pass data to a server. A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

#### <FORM> tag :

```
<FORM>
```

```
    input elements
```

```
</FORM>
```

#### HTML Forms - The Input Element:

- ☐ The most important form element is the input element.
- ☐ The input element is used to select user information.
- ☐ An input element can vary in many ways, depending on the type attribute. An input element can be of type text field, checkbox, password, radio button, submit button, and more.

#### (i)Text Fields

<Input type="Text"> defines a one-line input field that a user can enter text into a box.

#### Example:

```
<HTML>
```

```
<BODY>
```

```
    <FORM>
```

```
        Name : <input type="Text" name="Fname"><BR><BR>
```

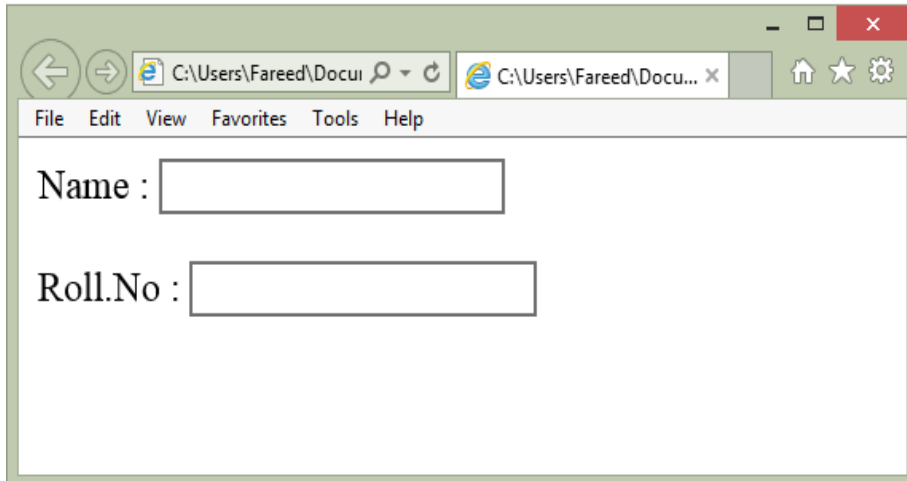
```
        Roll.No : <input type="Text" name="Rollno">
```

```
    </FORM>
```

```
</BODY>
```

```
</HTML>
```

### Sample output:



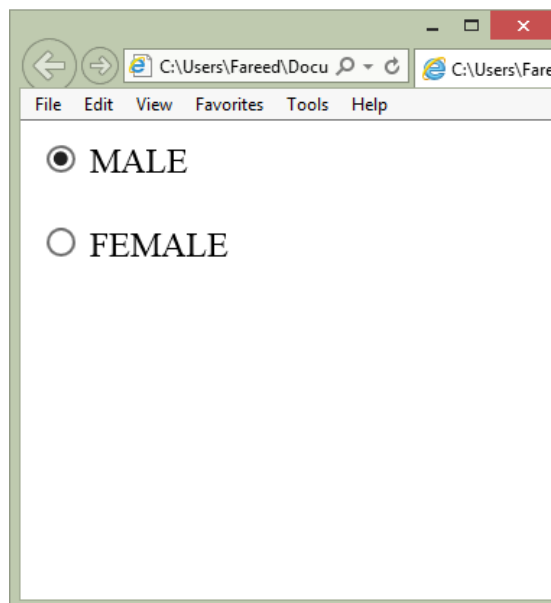
### (ii)Radio Buttons

`<input type="Radio">` defines a radio button. Radio buttons let a user select only one option from the limited number of choices:

#### Example:

```
<HTML>
<BODY>
  <FORM>
    <input type="Radio" name="Male" value="male"> MALE <BR><BR>
    <input type="Radio" name="Female" value="female"> FEMALE
  </FORM>
</BODY>
</HTML>
```

#### Output:






### (iii) Password Field

The characters in a password field are masked, shown as asterisks or circles.  
<input type="Password"> defines a password field:

#### Example:

```
<HTML>
  <BODY>
    <FORM>
      User Name : <input type="Text" name="Fname"> <BR><BR>
      Password  : <input type="Password" name="Pass">
    </FORM>
  </BODY>
</HTML>
```

#### Output:



The screenshot shows a web browser window with a menu bar (File, Edit, View, Favorites, Tools, Help) and a toolbar with navigation buttons. The main content area displays a form with two input fields. The first field is labeled 'User Name : ' and contains the text 'Raja'. The second field is labeled 'Password : ' and contains ten black dots, indicating that the password is masked. A small eye icon is visible at the end of the password field, likely used to toggle the visibility of the password.

## (iv) Checkboxes

`<input type="Checkbox">` defines a checkbox. Checkboxes let a user select ONE or MORE options of a limited number of choices.

```
<HTML>
```

```
<BODY>
```

```
<FORM>
```

```
Name : <input type="Text" name="Fname"><BR><BR>
```

```
Age : <input type="Text" name="Age"><BR><BR>
```

```
Qualification : <input type="Checkbox" name="SSLC">SSLC
```

```
<input type="Checkbox" name="HSC">HSC
```

```
<input type="Checkbox" name="UG">UG
```

```
<input type="Checkbox" name="HSC">PG
```

```
<input type="Checkbox" name="M.Phil">M.Phil
```

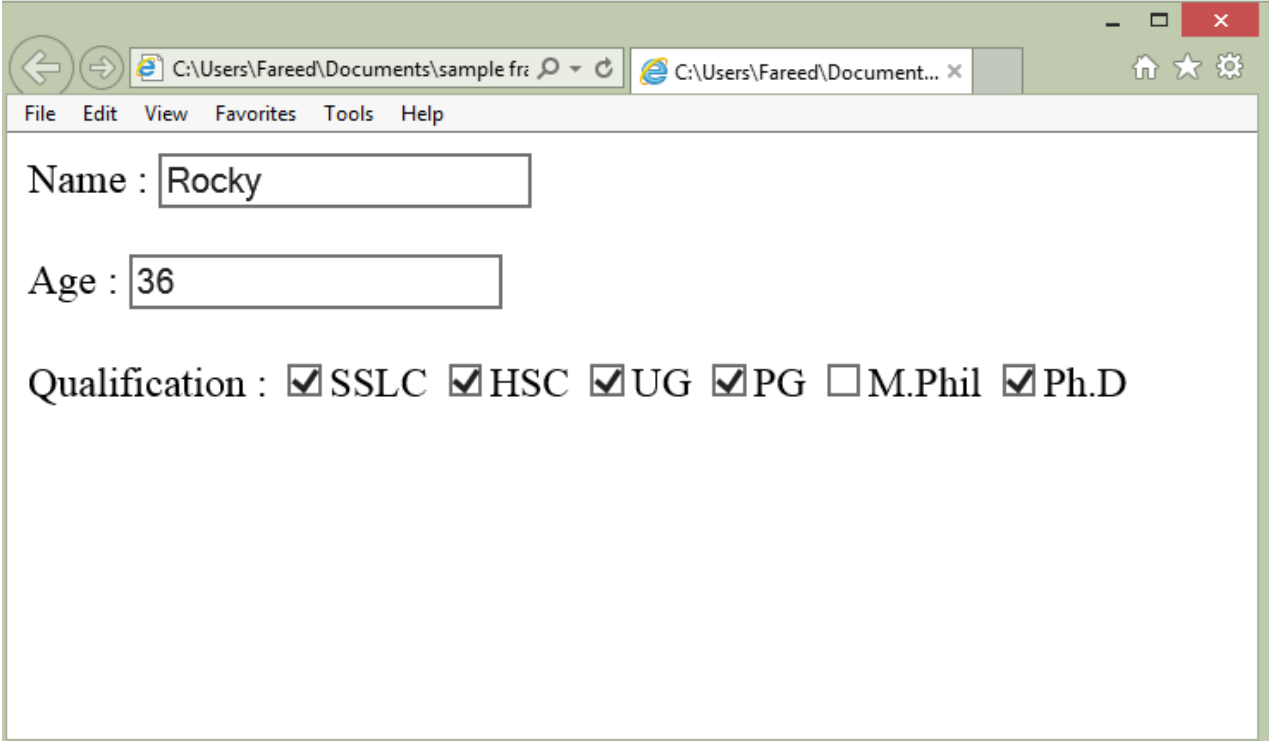
```
<input type="Checkbox" name="Ph.D">Ph.D
```

```
</FORM>
```

```
</BODY>
```

```
</HTML>
```

### Output:



The screenshot shows a web browser window with the following content:

Name :

Age :

Qualification :  SSLC  HSC  UG  PG  M.Phil  Ph.D

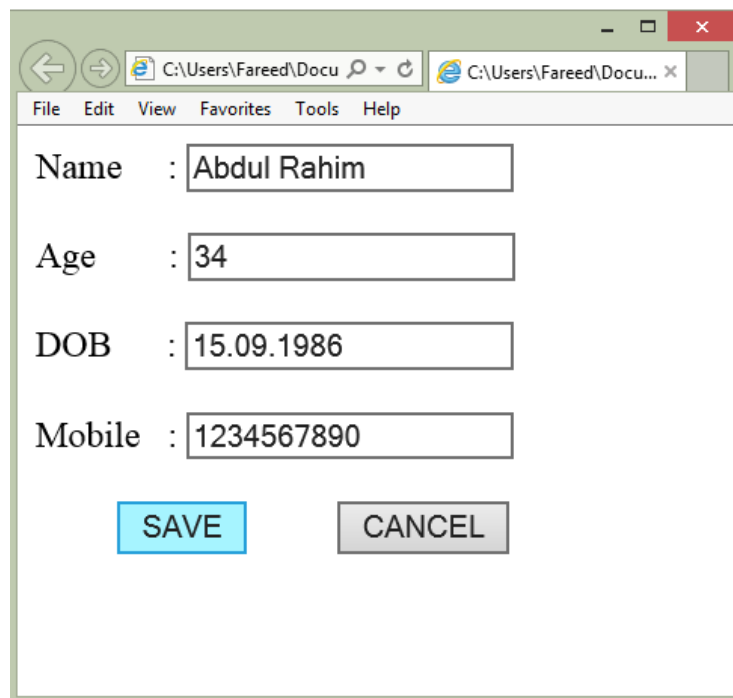
## (v)Submit Button

`<input type="Submit">` defines a submit button. A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. We can also use `<input type="Button">`. The file defined in the action attribute usually does something with the received input:

### Example:

```
<HTML>
  <BODY>
    <FORM>
      Name: <input type="Text" name="Fname"><BR><BR>
      Age : <input type="Text" name="Age"><BR><BR>
      DOB  : <input type="Text" name="DOB"><BR><BR>
      Mobile: <input type="Text" name="Mobile"><BR><BR>
              <input type="Button" name="Save" value="SAVE">
              <input type="Button" name="CANCEL" value="CANCEL">
    </FORM>
  </BODY>
</HTML>
```

### Output:

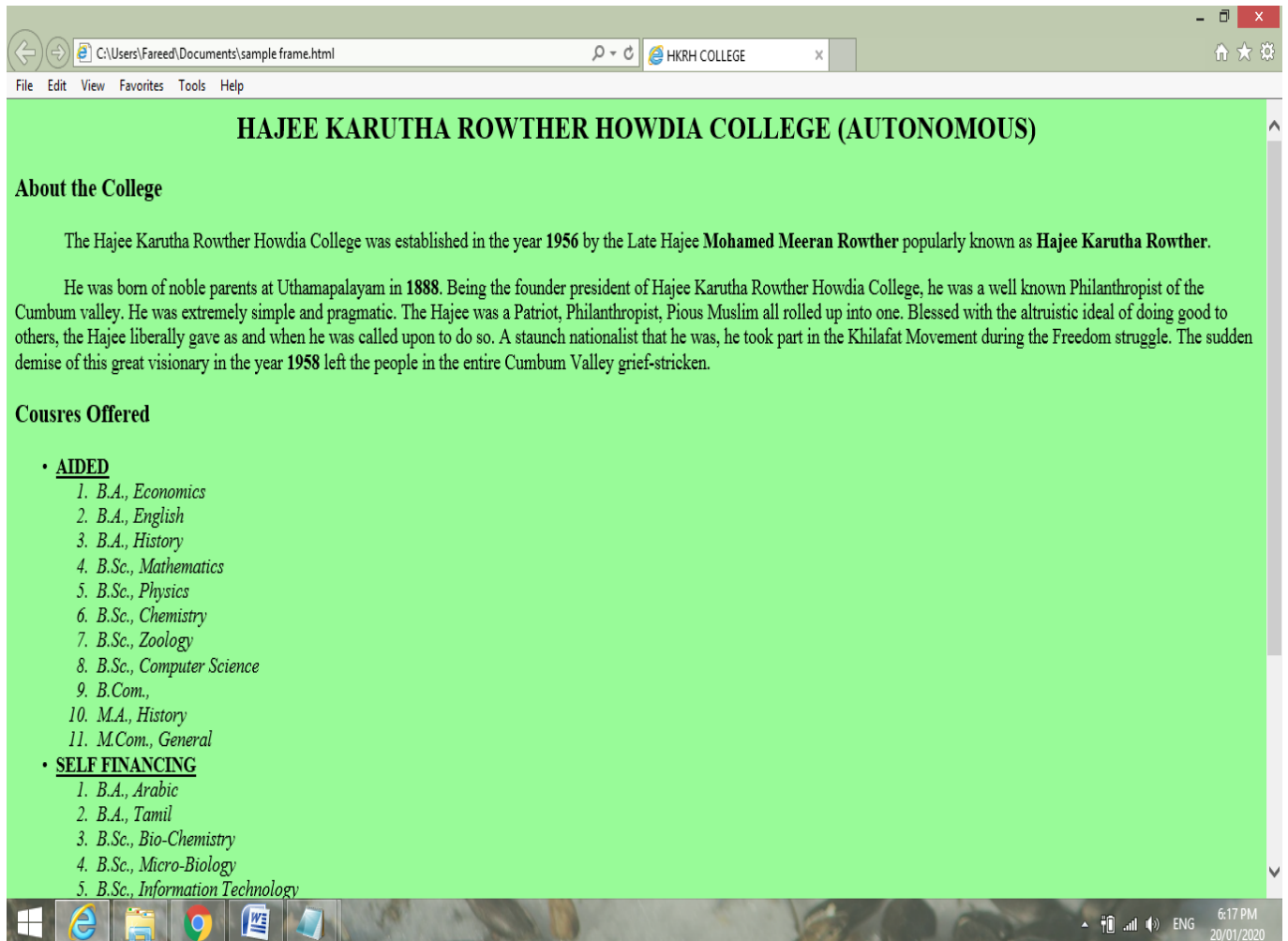


The screenshot shows a web browser window with a form. The form contains four text input fields and two buttons. The input fields are labeled 'Name', 'Age', 'DOB', and 'Mobile'. The 'Name' field contains 'Abdul Rahim', 'Age' contains '34', 'DOB' contains '15.09.1986', and 'Mobile' contains '1234567890'. Below the input fields are two buttons: a blue 'SAVE' button and a grey 'CANCEL' button.



```
<LI>B.B.A.,</LI>
<LI>M.A., Tamil</LI>
<LI>M.A., English</LI>
<LI>M.A., Economics</LI>
<LI>M.Sc., Computer Science</LI>
<LI>M.Sc., Mathematics</LI>
<LI>M.Sc., Chemistry</LI>
<LI>M.Sc., Physics</LI>
<LI>M.Sc., Zoology</LI>
<LI>M.Com., Computer Application</LI></I>
</OL>
</UL>
</BODY>
</HTML>
```

**Sample output:**



## Internet and Browsers

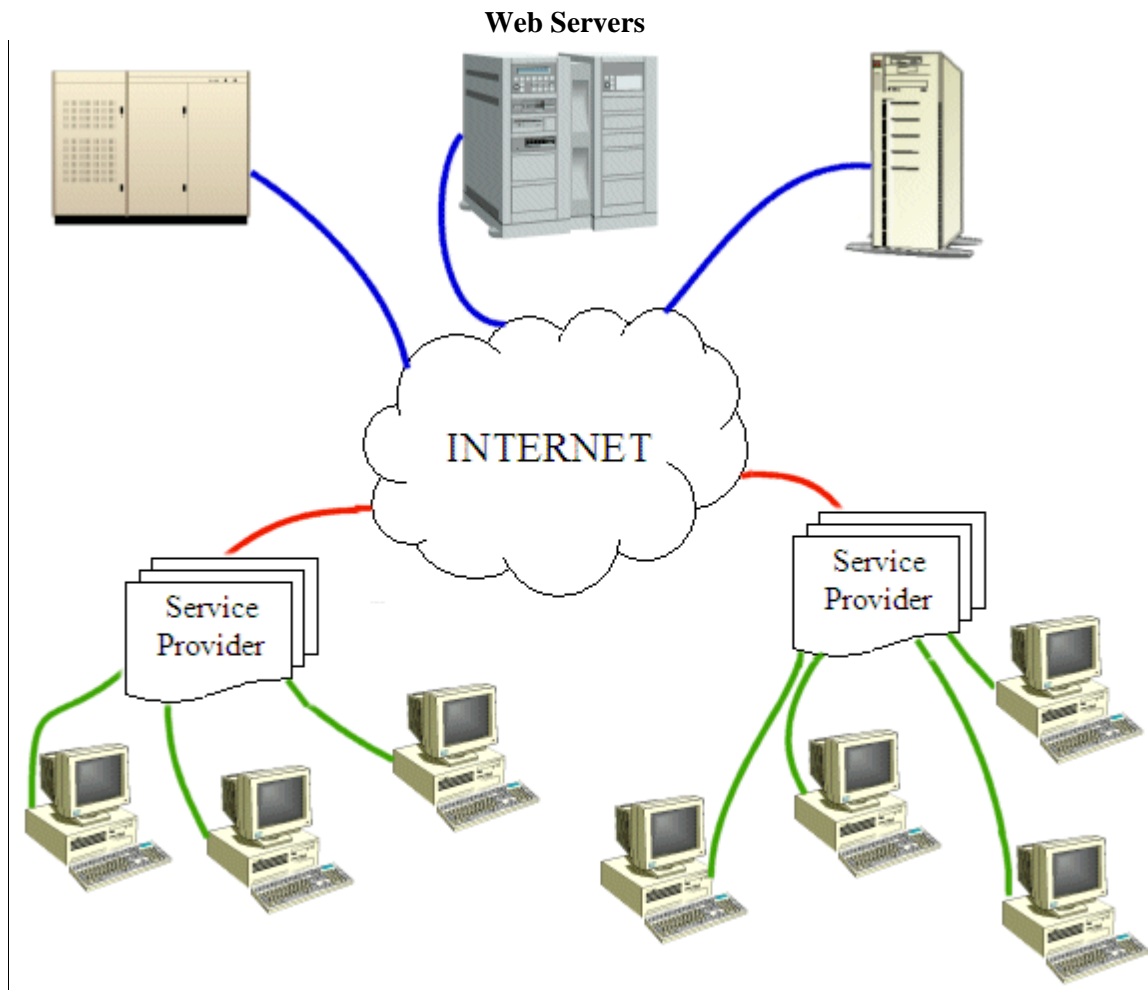
The Internet is a global wide area network that connects computer systems across the world. It includes several high-bandwidth data lines that comprise the Internet "backbone." These lines are connected to major Internet hubs that distribute data to other locations, such as web servers and ISPs.

The Internet was developed in the United States by the "United States Advanced Research Projects Agency" (DARPA). The Internet was first connected in October, 1969[1] and was called ARPANET. The World Wide Web was created at CERN in Switzerland in 1990 by a British (UK) scientist named Tim Berners-Lee.



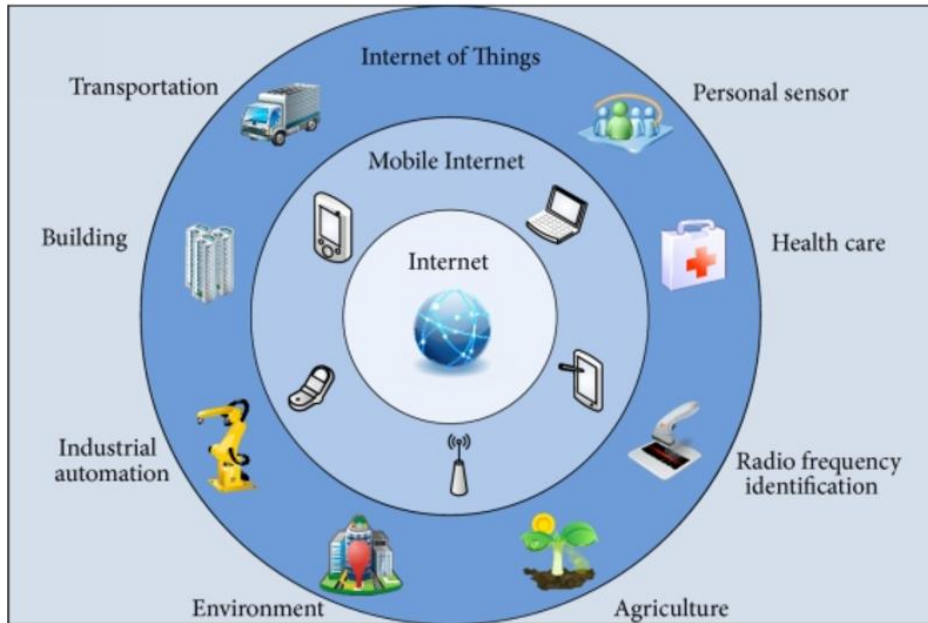
In the early days of the Internet, most people connected to the Internet using a home computer and a dial-up modem. DSL and cable modems eventually provided users with "always-on" connections. Now mobile devices, such as tablets and smartphones, make it possible for people to be connected to the Internet at all times. The Internet of Things has turned common appliances and home systems into "smart" devices that can be monitored and controlled over the Internet. As the Internet continues to grow and evolve, you can expect it to become an even more integral part of daily life.

In order to connect to the Internet, you must have access to an Internet service provider (ISP), which acts the middleman between you and the Internet. Most ISPs offer broadband Internet access via a cable, DSL, or fiber connection. When you connect to the Internet using a public Wi-Fi signal, the Wi-Fi router is still connected to an ISP that provides Internet access. Even cellular data towers must connect to an Internet service provider to provide connected devices with access to the Internet.



**The Internet provides different online services. Some examples include:**

- Web – a collection of billions of web pages that you can view with a web browser
- Email – the most common method of sending and receiving messages online
- Social media – websites and apps that allow people to share comments, photos, and videos
- Online gaming – games that allow people to play with and against each other over the Internet.
- Software updates – operating system and application updates can typically downloaded from the Internet



## Web Browser

A web browser, or simply "browser," is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari.



The primary function of a web browser is to render HTML, the code used to design or "mark up" webpages. Each time a browser loads a web page, it processes the HTML, which may include text, links, and references to images and other items, such as cascading style



sheets and JavaScript functions. The browser processes these items, then renders them in the browser window.

Early web browsers, such as Mosaic and Netscape Navigator, were simple applications that rendered HTML, processed form input, and supported bookmarks. As websites have evolved, so have web browser requirements.

## Email

Email, short for "electronic mail," is one of the most widely used features of the Internet, along with the web. It allows you to send and receive messages to and from anyone with an email address, anywhere in the world

When you configure an email account, you must define your email address, password, and the mail servers used to send and receive messages. Fortunately, most webmail services configure your account automatically, so you only need to enter your email address and password.

The screenshot shows an email composition interface. At the top, the subject line is "Photography Studio Grand Opening!". Below it, the "To" field contains three recipients: Olenna Mason, Julia Fillory, and Henri Rousseau. There are "Cc" and "Bcc" options to the right. The main body of the email contains the following text: "Photography Studio Grand Opening!", "Hi Everyone,", "I have exciting news for you! This Saturday will be the grand opening of my new studio, EC Photography! It will be from 10:00 to 4:00. There will be entertainment and lots of food, so come out and enjoy the festivities!", "Hope to see you there!", and "Elena". Below the text is a rich text editor toolbar with options for font (Sans Serif), text color, bold, italic, underline, link, list, and indent. At the bottom, there is a blue "Send" button, a text color selector, and icons for attachments, links, emojis, images, location, and currency. On the right side of the bottom bar, there are "Saved", a trash icon, and a menu icon.

Besides the email address and password, you may also have to enter the incoming and outgoing mail servers and enter the correct port numbers for each one. If you want to send an email to multiple recipients, you can simply add each email address to the "To" field. However, if the email is primarily intended for one person, you should place the additional addresses in the "CC" (carbon copy) field. If you are sending an email to multiple people that don't know each other, it is best to use the "Bcc" (blind carbon copy) field. This hides the email addresses of each recipient, which helps prevent spam.