Working with Images

We have seen some basic tags in earlier session.
Now let us see some advanced tags.

We can use <img> tag to insert an image on the screen.
Example shows you different attributes of this tag.
You can also insert an image as a background of webpage using body tag.

In body tag we have an attribute 'background'.
<body background=url>, this syntax can be used to display an image as a background
URL – uniform resource locator.

☐ Images can be displayed on a webpage by using <IMG> tag.

☐ The following example explains how to place images in a
webpage.

<source>

```
<HTML>
<HEAD>
<TITLE>INCLUDING IMAGES</TITLE>
</HEAD>
<BODY>
<CENTER> Including an image into a webpage</CENTER>

<BR>
            <IMG
        SRC="sunset.jpg"
        WIDTH="150"
        HEIGHT="150"
        ALT="Satyam Computers" >

</BODY>
</HTML>
```

</source>

<Execute>

Including an image into a webpage

</Execute>

Hyperlink

Hyperlinks are used for linking web pages.
Using hyperlinks, we can navigate the web pages from one place to another.
Anchor Tag <A> is used to define a hyperlink.

We have 4 ways of defining hyperlinks.
1) Simple Text hyperlink,

2) Image as a hyperlink,
3) Using mailto protocol and
4) Links in the same document.

This type of links we see in many web pages.
A simple text used to display as hyperlink and when you click on it, you will get you another page.

By default, hyperlink text will be in blue color and with underline.

Eg: <A href=url> some text </A>

Other than text, we can also use images as hyperlinks.
Now a days, many web applications are using this type of approach.

We can define an image tag <img> with in the <A> tag.
What ever we give with in <A> and </A>, that will execute in hyperlink format.

☐ A **hyperlink** (often referred to as simply a link), is a reference or navigation element in a document to another section of the same document, another document, or a specified section of another document, that automatically brings the referred information to the user when the navigation element is selected by the user.

☐ Hyperlinks are created using Anchor tag <A> and</A>

Types of hyperlinks:

Text as Hyperlink

☐ Navigate from one page to another page using simple text as hyperlink.

☐ The following example explains how text will work as hyperlink.

Source   Execute

Click each button to know more.

Image as Hyperlink

☐ Navigate from one page to another page using simple text as hyperlink.

☐ The following example explains how text will work as hyperlink.

Source   Execute

Click each button to know more.

Text as Hyper Link Example

\<source\>

```
<HTML>
<HEAD>
<TITLE>TEXT HYPERLINK</TITLE>
</HEAD>
<BODY>
<CENTER>
<B> A sample text hyperlink</B>
<BR>
<A HREF="http://esupport.satyam.com">
LearnMoreabout </A>
</CENTER>
</BODY>
</HTML>
```

\</source\>

\<Execute\>

A sample text hyperlink
LearnMoreabout

\</Execute\>

Clicking on the above link, the page will be redirected to corresponding page which is specified in the href attribute

Image as Hyperlink

\<source\>

```
<HTML>
<HEAD>
<TITLE>IMAGE HYPERLINK</TITLE>
</HEAD>
<BODY>
<CENTER>
<B> A sample image hyperlink</B>
<BR>Learn More about
<A HREF="http://esupport.satyam.com">
<IMG SRC="Sunset.jpg" width=50 height=50>
</A>
</CENTER>
</BODY>
</HTML>
```

</source>

<Execute>

A sample image hyperlink

Learn More about

</Execute>

Clicking on the above image, the page will be redirected to corresponding page which is specified in the href attribute

Hyperlink Contd:

In some web applications, we see hyperlinks applied for email id's.
Eg: "For any suggestion or feedback, send an email to 'mvrkanth@rediffmail.com'.
Here, for email id 'mvrkanth@rediffmail.com' hyperlink will be given and when you click on this link, it will open an email box.
This will happen using 'mailto' protocol.

Till now, what ever the links we have seen, they provide links to another document.

Here, we are going to have hyperlinks with in the document. i.e.., same document, links in different locations.

Eg: In wikipedia website, we see this type of links.

Here we use, name attribute in <A> tag to define a location.

Lets see usage:
<A name="top">Top Location</A> - this statement defines, "top" is the location name and 'Top Location' is the text appears on the browser screen and this is the starting line of "top".

<A href=#top>Click to go to Top position</A> - this statement defines, hyperlink to location "top".
Symbol '#' denotes, the given href value is a location name in the current page.

Any hyperlink can be in three states, unvisited hyperlink, active hyperlink and visited hyperlink.

We can differentiate each of these hyperlinks by applying different colors to different states.

Three attributes are used for changing the color of a hyperlink. These attributes are specified in the <BODY> tag of the document.

ALINK - To specify the color for all active hyperlinks in our document.
VLINK - To specify the color for all visited hyperlinks in our document.

Eg: <body link="green" alink="yellow" vlink="red">

The following example shows how to apply different colors to different hyperlink states.

Mail to Hyperlink

☐ Mail to hyperlinks are used to create an empty email, addressing a
  pecific email address.

☐ The following example shows how an email address work as a hyperlink.

Source   Execute

🔍 Click each button to know more.

<source>

```
<HTML>
<HEAD>
<TITLE>MAIL HYPERLINK</TITLE>
</HEAD>
<BODY>
<CENTER>
<B> A sample mail-to hyperlink</B>
<BR> Any Queries? Just <A HREF="mailto:Silpa_V@satyamlearning.com"> mail us</A>
</CENTER>
</BODY>
</HTML>
```

</source>

<Execute>

Any Queries? Just mail us

</Execute>

Intra Document Linking

☐ Navigation to the named sections of page using <A>

☐ The following example explains how to link a section of document
  with same document.

\<source\>

```
<HTML>
<HEAD><TITLE>NAMED ANCHORS</TITLE>
</HEAD>
<BODY>
<CENTER>
<B> Let us know about Intra document linking.</B>
<BR>Select where you want to go :
<A HREF="#FIRSTLINE"> First Line </A>
<A HREF="#LASTLINE"> Last Line </A>
</CENTER>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<A NAME="FIRSTLINE"> This is the line with the anchor named "FIRST LINE"</A>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<A NAME="LASTLINE"> This is the line with the anchor named "LASTLINE"</A>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>
<BR><BR><BR><BR>

</BODY>
</HTML>
```

\</source\>

\<Execute\>

Let us know about Intra document linking.
Select where you want to go : go to firstline
Last Line

</Execute>

Colors with Hyperlink

◻ Any hyperlink can be in three states, unvisited hyperlink, active hyperlink and visited hyperlink.

◻ We can differentiate each of these hyperlinks by applying different colors to different states.

◻ Three attributes are used for changing the color of a hyperlink. These attributes are specified in the <BODY> tag of the document .

Attribute Name	Description
LINK	To specify the color for all unvisited hyperlinks in our document
ALINK	To specify the color for all active hyperlinks in our document
VLINK	To specify the color for all visited hyperlinks in our document

The following example shows how to apply different colors to different hyperlink states.

Source	Execute

Click each button to know more.

<source>

```
<HTML>
<HEAD>
<TITLE>HYPERLINKS COLORS </TITLE>
</HEAD>
<BODY BGCOLOR="cyan"
              TEXT="white"
              LINK="blue"
              ALINK="red"
              VLINK="green">

<A HREF="SAMPLE1.HTML">SAMPLE1</A>
<A HREF="SAMPLE2.HTML">SAMPLE2</A>
<A HREF="SAMPLE3.HTML">SAMPLE3</A>

</BODY>
</HTML>
```

</source>

<Execute>

SAMPLE1 SAMPLE2 SAMPLE3

</Execute>

Tables

Table tag is used to organize the information in a proper order.
Using row and column format, huge complex data can be arranged in a readable form.

In HTML, we use <Table> tag to create the tables. It is a container tag, so it needs ending tag </Table>.
This tag has 3 sub tags.
<tr> Table Row

<th> Table Heading
<td> Table Data

Closing tag for above tags is optional.
Table tag has some attributes also, which we will discuss in coming slides.

A single column can be spread to multiple columns size, using colspan attribute in table tag.
<table colspan=no. of columns> - This will expand a single column cell to given no. of columns size.
<table rowspan=no.of rows> - This will expand a single row cell to given no. of rows.
This will work same as, merging 2 or more cells in excel sheet.

☐ Tables allow us to organize information in a row and column format.

☐ In HTML, tables are created using the table tag <TABLE>, with the ending tag </TABLE>.

☐ The essential tags that are used inside the <TABLE> are :
         <TR> (with optional </TR>),
         <TH> (with optional </TH>) and
         <TD> (with optional </TD>).

The following example explains how to create a simple table.

Source   Execute

Click each button to know more.

<source>

```
<HTML>
<HEAD>
<TITLE>SAMPLE TABLE CREATION</TITLE>
</HEAD>
<BODY>
        <TABLE border="1">
                <CAPTION> The Price Menu </CAPTION>

                <TR>
                        <TH> Book code
                        <TH> Name </TH>
                        <TH> Price
                </TR>
                <TR>
                        <TD>B_01
                        <TD>Java A..Z
                        <TD>$599
                </TR>
                <TR>
                        <TD>B_02
                        <TD>HTML A..Z
                        <TD>$499
                </TR>
        </TABLE>
</BODY>
</HTML>
```

</source>

<Execute>

The Price Menu

Book code	Name	Price
B_01	Java A..Z	$599
B_02	HTML A..Z	$499
ypk	INTERNET CONCEPTS	$100

</Execute>

Colspan

☐ The <COLGROUP> element is used to divide the columns based on percentages, this can be placed in the <TABLE> element.

☐ The following example will explain how a colgroup element divides the column.

Source   Execute

Click each button to know more.

<source>

```
<HTML>
<HEAD>
<TITLE>COLUMN SPANNING</TITLE>
</HEAD>
<BODY>
        <CENTER>
                <TABLE BORDER="2" HEIGHT=100 CELLSPACING="4" CELLPADDING="4">
                <CAPTION> Usage of COLSPAN tag </CAPTION>
                        <TR>
                                <TH COLSPAN=3> The Price Menu </TH>
                        </TR>
                        <TR>
                                <TD>B_01
                                <TD>Java A...Z
                                <TD>$599
                        </TR>
                        <TR>
                                <TD>B_02
                                <TD>HTML A...Z
                                <TD>$499
                        </TR>
                </TABLE></CENTER>
</BODY>
</HTML>
```

</source>

<Execute>

Usage of COLSPAN

The Price Menu		
B_01		BASIC
B_02	HTML A...Z	$499

</Execute>

Column groups

◻ The <COLGROUP> element is used to divide the columns based on percentages, this can be placed in the <TABLE> element.

◻ The following example will explain how a colgroup element divides the column.

Source   Execute

Click each button to know more.

<source>

```
<Html>
<Head>
<Title> Creating Column Groups</title>
</head>
<Body>
<H1> Creating Column Groups </H1>
<TABLE BORDER=1>
<COLGROUP WIDTH="50%">
<COLGROUP SPAN="2" WIDTH="25%" >
<TR>
        <TH>CAT</TH>
        <TH>RAT</TH>
        <TH>RACETIME</TH>
<TR>
        <TD>SNIPPY</TD>
        <TD>CIPPY</TD>
        <TD>1:00</TD>
<TR>
        <TD>LOOCY</TD>
        <TD>CRAZY</TD>
        <TD>2:16</TD>
</TR>
</TABLE>
</BODY>
</HTML>
```

</source>

<Execute>

Creating Column Groups

CAT	RAT	RACETIME
SNIPPY	CIPPY	1:00
LOOCY	CRAZY	2:16

</Execute>

Frames

Frames will help us in dividing a browser screen into multiple windows and in these windows, we can insert, html pages. This can be done using 2 tags.

<frameset> - it is used to divide the browser screen into multiple windows.

<frame> - this is used to insert an html page in each window and give a name to that window.

Frames

❑ Frames give us ability to divide a browser window into several independent parts.

❑ <FRAMESET> tag is used to divide the page into frames.

❑ <FRAME> tag is used to create the frames.

❑ We can resize a frame in a browser by dragging it, to avoid this we can disable this feature by using the NORESIZE attribute in the <FRAME> element.

FRAME 1 MAIN FILE	FRAME 2 content.html
index.html menu menu menu menu	FRAME 3 content.html
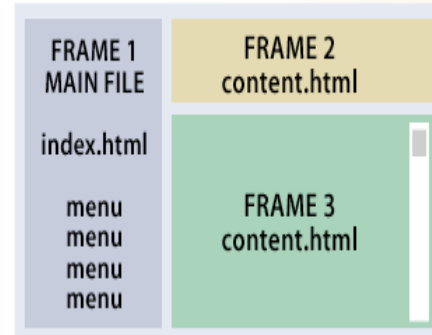
The following example explains how to divide a webpage into different parts using FRAMES.

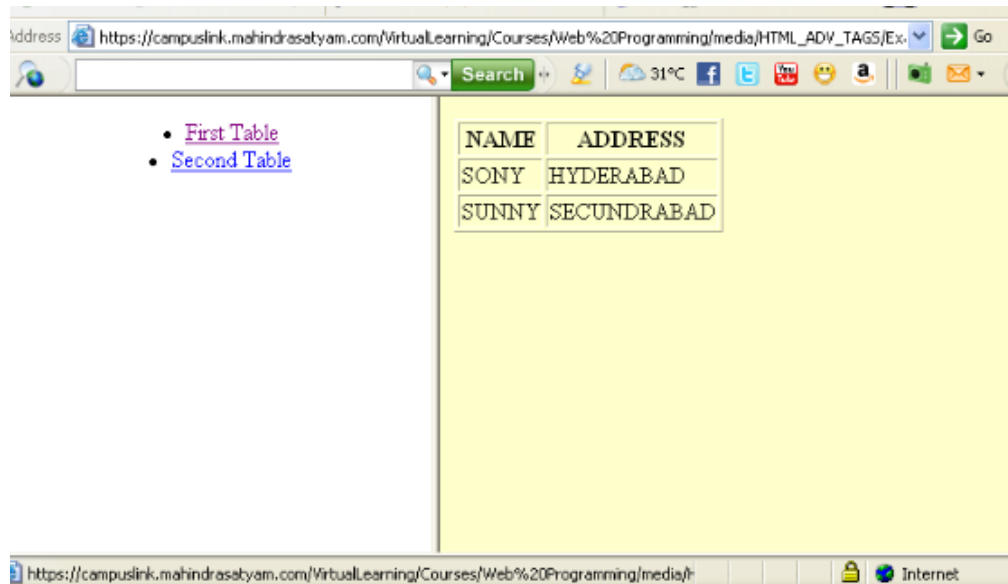**Source**   **Execute**

Click each button to know more.

<source>

```
<HTML>
<HEAD>
<TITLE>Basic Frames </TITLE>
</HEAD>
        <FRAMESET COLS="50%, 50%">
                <FRAME SRC="tablemenu.html" NAME="FRAME1">
                <FRAME SRC="startup.html" NAME="FRAME2">
        </FRAMESET>
</HEAD>
<BODY>
</BODY>
</HTML>
```
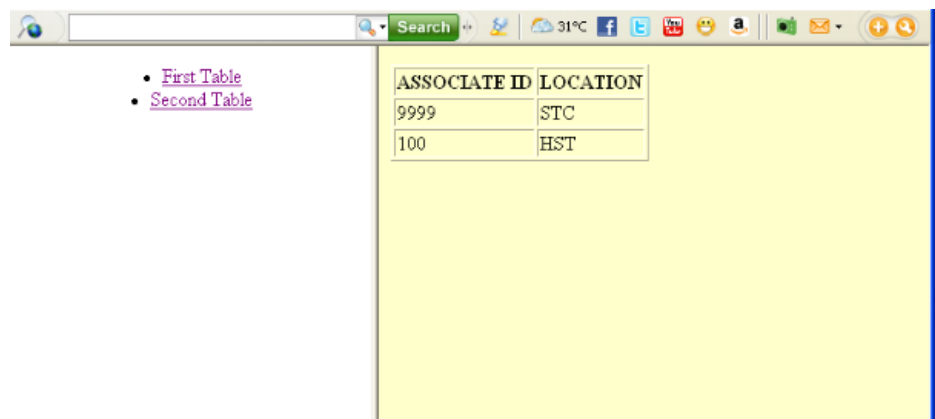
</source>

<Execute1>//when first table link is clicked

</Execute1>

<Execute2>//when second table link is clicked

</Execute2>

Predefined Target Names:

After dividing and giving a name to frames, we can use these frames for targeting and displaying required files.

We can use attribute target in anchor <A> Tag to do this.

Eg: <A href=html_file.html target=window_name>some text</A>

In this example, when user clicks on some text, href file will open in target window.

☐ We can use several predefined targets that can be assigned to TARGET attribute.

☐ The following are the various predefined target names.

✔ _blank : Opens document in a new and unnamed browser.

✔ _self : Opens document in the same window or frame.

✔ _parent : Opens document in the <FRAMESET> parent of the current document.

✔ _top :Replace the current document when the linked document is opened.

```
Tablemenu.html:

<HTML>
<HEAD>
<TITLE>CREATING FRAMES</TITLE>
</HEAD>
<BODY>
<CENTER>
<UL>
<LI><A HREF="firsttable.html" TARGET="FRAME1">First Table</A>
<LI><A HREF="secondtable.html"TARGET="FRAME2"> Second Table</A>
</UL>
</CENTER>
</BODY>
</HTML>
```

Inline Frames, Division Tags,Span tags:
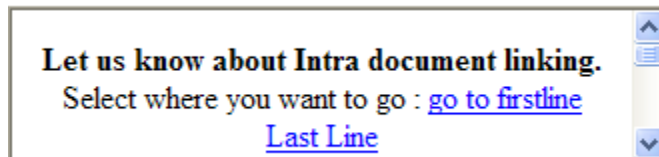
Inline frames are used for dividing the browser screen, like frameset.

Inline frames

☐ Rather than dividing the entire browser window, Frames can be resized and placed anywhere in the browser.

These kinds of frames are supported through <IFRAME/> tag.

The following example shows the usage of <IFRAME>tag.

\<source\>

```
<HTML>
<HEAD>
<TITLE>Inline Frames </TITLE>
</HEAD>
<BODY>
<BR><BR>
                <CENTER>
                <IFRAME WIDTH=50% HEIGHT=20%  SRC="example3.4.html">
                </IFRAME>
                </CENTER>
</BODY>
</HTML>
```

\</source\>

\<Execute\>

Let us know about Intra document linking.
Select where you want to go : go to firstline
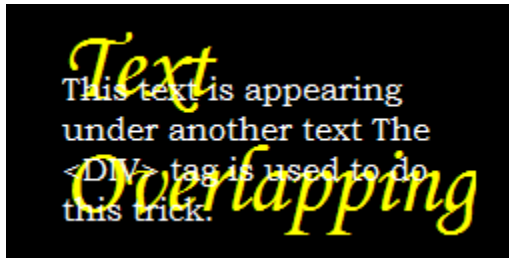Last Line

\</Execute\>

Division tag

- The \<DIV\> tag (closing tag \</DIV\> tag) lets us overlap text at a specific location in a web page with the help of its STYLE attribute.

- The following example shows how to overlap the text in a webpage.

\<source\>

```
<HTML>
<HEAD>
<TITLE>DIVISION TAG</TITLE>
</HEAD>
<BODY BGCOLOR="#00000">
<DIV STYLE="POSITION:ABSOLUTE; LEFT=50;TOP=20; WIDTH=200; HEIGHT=250">
<FONT FACE="Monotype Corsiva" SIZE=7 COLOR="yellow"> Text Overlapping</FONT></DIV>
<DIV STYLE="POSITION:ABSOLUTE; LEFT=50;TOP=40; WIDTH=200; HEIGHT=250">
<FONT FACE="Bookman Old Style" SIZE=3 COLOR="white">
This text is appearing under another text The &ltDIV&gt tag is used to do this trick.
</FONT>
</DIV>
</BODY>
</HTML>
```

\</source\>

<Execute>

</Execute>

Span tag

☐ To apply styles to some parts of text only, we can use <SPAN> tag, with the ending tag </SPAN>.

☐ The following example explains how to apply styles to a specific part of the text.

<source>

```
<HTML>
<HEAD>
<TITLE>ABOUT SPAN TAG</TITLE>
</HEAD>
<BODY BGCOLOR="red" text='"yellow">
<P> This is the sample text showing the affect of applying inline
<SPAN CLASS="redface" STYLE="color:aqua"> Styles. </SPAN></P>
</BODY>
</HTML>
```

Read Mail

</source>

<Execute>

</Execute>

Forms:

For any front end designing of a web application, we use forms.

Forms will provide us with textboxes, checkboxes, buttons and various other elements.

These elements will help us in designing a interactive web application.

Validation on these forms can be done using scripting languages.

<input> tag is a sub tag of <form> tag.

Using this tag, we can insert the textbox, password, checkbox and radio buttons.

- ☐ Forms in HTML are created using <FORM> and </FORM>.

- ☐ The ACTION attribute has the URL of a page to which the control has to reach.

- ☐ We use METHOD attribute to specify the way we are sending the information to the web server.

- ☐ This attribute takes two values:
  - ✔ Get.
  - ✔ Post.

- ☐ The following example explains how to create a simple form.

Source   **Exec**

Click each button to know

<source>

```
<HTML>
<HEAD>
<TITLE>CREATING FORM</TITLE>
</HEAD>

<BODY>

<CENTER> <P> Basic Forms </P></CENTER>

<FORM NAME="FORM1" ACTION="" METHOD="get">

 Enter your employee ID:

<INPUT TYPE="text" NAME="Id" SIZE="40" MAXLENGTH="10">

</FORM>
</BODY>
</HTML>
```

</source>

<Execute>

Basic Forms

Enter your employee ID:

</Execute>

Input tag

```
<INPUT TYPE="TEXT">
    tag : NAME,MAXLENGTH,SIZE,VALUE.

<INPUT TYPE="PASSWORD">
    tag : NAME,MAXLENGTH,SIZE,VALUE.

<INPUT TYPE="CHECKBOX">
tag : NAME.

<INPUT TYPE="RADIO">
tag : NAME.
```

checkboxes

The following example explains how to place the text fields an checkboxes in a webpage.

Source   Execute

Click each button to know more.

<source>

```
<HTML>
<BODY>
<FORM>
        Your Gender please :
        <INPUT TYPE=RADIO NAME="RADIO1">Male
        <INPUT TYPE=RADIO NAME="RADIO1">Female
        <br>Your Favourite Dish :
        <INPUT TYPE=CHECKBOX NAME="CHECK">Idly
        <INPUT TYPE=CHECKBOX NAME="CHECK">Upma<br>
        Name :
        <INPUT TYPE=TEXT SIZE=25 MAXLENGTH=25 NAME="TEXT1" VALUE="SATYAM"><BR>
        Password :
        <INPUT TYPE=PASSWORD SIZE=25 MAXLENGTH=25 NAME="TEXT2" VALUE="SLCLAB">

</FORM>
</BODY>
</HTML>
```

</source>

<Execute>

Name : SATYAM

Password: ••••••

Your Gender please : ○ Male ○ Female

Your Favourite Dish : ☐ PIZZA ☐ ICECREAM

</Execute>

Types of Buttons:

Submit Button:

☐ For submitting the inputted data to the server we use this tag.

    <INPUT TYPE="SUBMIT" VALUE="SUBMIT">

This will generate a button with the text given to 'value' attribute displayed on it.

Reset Button:

☐ If user wants to clear all the changes he made to the form, he can choose reset option which clears all the fields.

    <INPUT TYPE="RESET" VALUE="CLEAR">

This will generate a button, with the text given to value attribute.

Normal Button:

If user want to create a normal button, for which user can write their own code or set of instructions, following syntax is used

<input type="button" value="Click me">

<select> tag is used to display list of items in a drop down box.

The following example demonstrates how to use different
types of buttons in a webpage.

<source>

```
<HTML>
<HEAD>
<TITLE> Buttons Demonstration </TITLE>
</HEAD>
<BODY>
        <FORM ACTION="">
        User Id :<INPUT TYPE="text" ><BR>
        Password:<INPUT TYPE="password"><BR>
        <INPUT TYPE="submit" VALUE="submit"><INPUT TYPE="reset">
        </FORM>
</BODY>
</HTML>
```

</source>

<Execute>

LOGIN

User Id : [_____]

Password: [_____]

[Login] [Clear]

</Execute>

Select Tag

☐ <SELECT> tag : NAME,SIZE.

The following example how to display a list of items using the select tag.

Source   **Execute**

🖱 Click each button to know more.

<source>

```
<HTML>
        <BODY>
            SELECT YOUR LOCATION :
        <SELECT NAME="SATYAM" SIZE="1">
                <OPTION>SATYAM-STC
                <OPTION>SATYAM-SLC
                <OPTION>SATYAM-MASHA-ALLAH
                <OPTION>SATYAM-HARSHA TOWERS
                <OPTION>SATYAM-HIGHTECH CITY
                <OPTION>SATYAM-IT CENTER
                </SELECT>
        </BODY>
</HTML>
```

</source>

<Execute>

SELECT YOUR LOCATION :

```
SATYAM-MASHA-ALLAH
SATYAM-HARSHA TOWERS
SATYAM-HIGHTECH CITY
SATYAM-IT CENTER
```

</Execute>

Text Area:

☐ The <TEXTAREA> tag, creates a two-dimensional text field on the form.

```
<TEXTAREA NAME="address" ROWS="10"
COLS="100" MAXLENGTH="2000" WRAP>
```

☐ The above syntax creates a 10-row, 100-column area into which the user can enter data of maximum length "2000". The WRAP attribute makes the text wrap, if the user does not hit the return key

<textarea> is used to display a text box with row and column size.
This element is generally used to insert a box for suggestions, feedback, address type of text boxes.

Till now we discussed about,
Inserting images on the screen.
Inserting tables with various attributes.
Inserting forms and dividing the screen into multiple frames.
You can visit to www.w3schools.com to know more about HTML.