# HTML
# Hypertext Markup Language
# Notes- Part II

## HTML Tables

HTML tables allow web authors to arrange data like text, images, links, other tables, etc... into rows and columns of cells.

The HTML tables are created using the **<table>** tag in which the **<tr>** tag is used to create table rows and **<td>** tag is used to create data cells.

Example:

```
<body>
      <table border="1">
            <tr>
                  <td>Row 1, Column 1</td>
                  <td>Row 1, Column 2</td>
            </tr>
            <tr>
                  <td>Row 2, Column 1</td>
                  <td>Row 2, Column 2</td>
            </tr>
      </table>
</body>
```

This will produce following result:

| | |
|---|---|
| Row 1, Column 1 | Row 1, Column 2 |
| Row 2, Column 1 | Row 2, Column 2 |

Here border is an attribute of **<table>** tag and it is used to put a border across all the cells. If you do not need a border then you can use **border = "0"**.

### Table Heading

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.

Example:

```
<body>
      <table border="1">
            <tr>
                  <th>Name</th>
                  <th>Salary</th>
            </tr>
            <tr>
                  <td>Ramesh Raman</td>
                  <td>5000</td>
            </tr>
            <tr>
                  <td>Shabbir Hussein</td>
                  <td>7000</td>
            </tr>
      </table>
</body>
```

This will produce following result:

| Name | Salary |
|---|---|
| Ramesh Raman | 5000 |
| Shabbir Hussein | 7000 |

## Cellpadding and Cellspacing Attributes

There are two attributes called **cellpadding** and **cellspacing** which you will use to adjust the white space in your table cells. The **cellspacing** attribute defines the width of the border, while **cellpadding** represents the distance between cell borders and the content within a cell.

Example:

```
<body>
      <table border="1" cellpadding="5" cellspacing="5">
            <tr>
                  <th>Name</th>
                  <th>Salary</th>
            </tr>
            <tr>
                  <td>Ramesh Raman</td>
                  <td>5000</td>
            </tr>
            <tr>
                  <td>Shabbir Hussein</td>
                  <td>7000</td>
            </tr>
      </table>
</body>
```

This will produce following result:

| Name | Salary |
|---|---|
| Ramesh Raman | 5000 |
| Shabbir Hussein | 7000 |

## Colspan and Rowspan Attributes

You will use **colspan** attribute if you want to merge two or more columns into a single column. Similar way you will use **rowspan** if you want to merge two or more rows.

Example:

```
<body>
      <table border="1">
            <tr>
                  <th>Column 1</th>
                  <th>Column 2</th>
                  <th>Column 3</th>
            </tr>
            <tr>
                  <td rowspan="2">Row 1 Cell 1</td><td>Row 1 Cell 2</td><td>Row 1
Cell 3</td>
            </tr>
            <tr>
                  <td>Row 2 Cell 2</td><td>Row 2 Cell 3</td>
            </tr>
            <tr>
                  <td colspan="3">Row 3 Cell 1</td>
            </tr>
      </table>
</body>
```

This will produce following result:

| **Column 1** | **Column 2** | **Column 3** |
|---|---|---|
| Row 2, Cell 1 | Row 1, Cell 2 | Row 1, Cell 3 |
| | Row 2, Cell 2 | Row 2, Cell 3 |
| Row 3, Cell 1 | | |

## Tables Backgrounds

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:

```
<body>
	<table border="1" bordercolor="green" bgcolor="yellow">
		<tr>
			<th>Column 1</th>
			<th>Column 2</th>
			<th>Column 3</th>
		</tr>
		<tr>
			<td rowspan="2">Row 1 Cell 1</td><td>Row 1 Cell 2</td><td>Row 1
Cell 3</td>
		</tr>
		<tr>
			<td>Row 2 Cell 2</td><td>Row 2 Cell 3</td>
		</tr>
		<tr>
			<td colspan="3">Row 3 Cell 1</td>
		</tr>
	</table>
</body>
```

| Column 1 | Column 2 | Column 3 |
|---|---|---|
| Row 2, Cell 1 | Row 1, Cell 2 | Row 1, Cell 3 |
| | Row 2, Cell 2 | Row 2, Cell 3 |
| Row 3, Cell 1 | | |

Here is an example of using background attribute. Here we will use an image available in /images directory.

```
<table border="1" bordercolor="green" background="/images/test.png">
```

| Column 1 | Column 2 | Column 3 |
|---|---|---|
| Row 2, Cell 1 | Row 1, Cell 2 | Row 1, Cell 3 |
| | Row 2, Cell 2 | Row 2, Cell 3 |
| Row 3, Cell 1 | | |

## HTML Lists

HTML offers web authors three ways for specifying lists of information. All lists must contain one or more list elements. Lists may contain:

- **<ul>** - An unordered list. This will list items using plain bullets.
- **<ol>** - An ordered list. This will use different schemes of numbers to list your items.
- **<dl>** - A definition list. This arranges your items in the same way as they are arranged in a dictionary.

### HTML Unordered Lists

An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML **<ul>** tag. Each item in the list is marked with a bullet.

Example:

```
<body>
      <ul>
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ul>
</body>
```

This will produce following result:

- Beetroot
- Ginger
- Potato
- Radish

### The type Attribute

You can use type 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="square">**
- **<ul type="disc">**
- **<ul type="circle">**

Example:

Following is an example where we used **<ul type="square">:**

```
<body>
      <ul type="square">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ul>
</body>
```

This will produce following result:

- Beetroot
- Ginger
- Potato
- Radish

Example:
Following is an example where we used <ul type="disc">:

```
<body>
      <ul type="disc">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ul>
</body>
```

This will produce following result:

- Beetroot
- Ginger
- Potato
- Radish

Example:
Following is an example where we used **<ul type=" circle">:**

```
<body>
      <ul type=" circle">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ul>
</body>
```

This will produce following result:

- Beetroot
- Ginger
- Potato
- Radish

## HTML Ordered Lists

If you are required to put your items in a numbered list instead of bulleted, then HTML ordered list will be used.
This list is created by using **<ol>** tag. The numbering starts at one and is incremented by one for each successive ordered list element tagged with **<li>**.
Example:

```
<body>
      <ol>
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

1. Beetroot
2. Ginger
3. Potato
4. Radish

## The type Attribute

You can use type 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">** - Lower-Case Letters.
- **<ol type="A">** - Upper-Case Letters.

Example:

Following is an example where we used **<ol type="1">**

```
<body>
      <ol type="1">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

Example:

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

```
<body>
      <ol type="I">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

I. Beetroot
II. Ginger
III. Potato
IV. Radish

Example:

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

```
<body>
      <ol type="i">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

i. Beetroot
ii. Ginger
iii. Potato
iv. Radish

Example:

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

```
<body>
      <ol type="A">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

A. Beetroot
B. Ginger
C. Potato
D. Radish

Example:

Following is an example where we used **<ol type="a">**

```
<body>
      <ol type="a">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

a. Beetroot
b. Ginger
c. Potato
d. Radish

## The start Attribute

You can use start attribute for **<ol>** tag to specify the starting point of numbering you need. Following are the possible options:

- **<ol type="1" start="4">** - Numerals starts with 4.
- **<ol type="I" start="4">** - Numerals starts with IV.
- **<ol type="i" start="4">** - Numerals starts with iv.
- **<ol type="a" start="4">** - Letters starts with d.
- **<ol type="A" start="4">** - Letters starts with D.

Example

Following is an example where we used **<ol type="i" start="4" >:**

```
<body>
      <ol type="i" start="4">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
      </ol>
</body>
```

This will produce following result:

iv. Beetroot
v. Ginger
vi. Potato
vii. Radish

## HTML Definition Lists

HTML and XHTML support a list style which is called definition lists where entries are listed like in a dictionary or encyclopedia. The definition list is the ideal way to present a glossary, list of terms, or other name/value list.

Definition List makes use of following three tags.

**<dl>** - Defines the start of the list

**<dt>** - A term

**<dd>** - Term definition

**</dl>** - Defines the end of the list

Example:

```
<body>
      <dl>
            <dt><b>HTML</b></dt>
            <dd>This stands for Hyper Text Markup Language</dd>
            <dt><b>HTTP</b></dt>
            <dd>This stands for Hyper Text Transfer Protocol</dd>
      </dl>
</body>
```

This will produce following result:

**HTML**
This stands for Hyper Text Markup Language

**HTTP**
This stands for Hyper Text Transfer Protocol

## HTML Text Links

A webpage can contain various links that take you directly to other pages and even specific parts of a given page. These links are known as hyperlinks.

Hyperlinks allow visitors to navigate between Web sites by clicking on words, phrases, and images. Thus, you can create hyperlinks using text or images available on a webpage.

A link is specified using HTML tag **<a>**. This tag is called anchor tag and anything between the opening **<a>** tag and the closing **</a>** tag becomes part of the link and a user can click that part to reach to the linked document. Following is the simple syntax to use **<a>** tag.

```
<a href="Document URL" ... attributes-list>Link Text</a>
```

Example:

Let's try following example which links http://www.strathmore.edu at your page:

```
<body>
      <p>Click following link</p>
      <a href="http://www.strathmore.edu" target="_self">Strathmore University</a>
</body>
```

This will produce following result, where you can click on the link generated Strathmore University to reach to the home page of Strathmore University.

Click following link
Strathmore University

### The target Attribute

We have used target attribute in our previous example. This attribute is used to specify the location where linked document is opened. Following are possible options:

| Option | Description |
|---|---|
| **_blank** | Opens the linked document in a new window or tab. |
| **_self** | Opens the linked document in the same frame. |
| **_parent** | Opens the linked document in the parent frame. |
| **_top** | Opens the linked document in the full body of the window. |
| **targetframe** | Opens the linked document in a named *targetframe*. |

Example:

Try following example to understand basic difference in few options given for target attribute.

```
<body>
      <p>Click any of the following links</p>
      <a href="http://www.strathmore.edu/" target="_blank">Opens in New</a> |
      <a href="http://www.strathmore.edu/" target="_self">Opens in Self</a> |
      <a href="http://www.strathmore.edu/" target="_parent">Opens in Parent</a> |
      <a href="http://www.strathmore.edu/" target="_top">Opens in Body</a>
</body>
```

## Linking to a Page Section

You can create a link to a section of a given webpage by using name attribute. This is a two-step process.

First step is to create a link to the place where you want to reach with-in a webpage and name it using **<a...>** tag as follows:

```
<h1>HTML Text Links <a name="top"></a></h1>
```

Second step is to create a hyperlink to link the document and place where you want to reach:

```
<a href="/html/html_text_links.html#top">Go to the Top</a>
```

This will produce following link, where you can click on the link generated Go to the Top to reach to the top of the HTML Text Link tutorial.

## Setting Link Colors

You can set colors of your links, active links and visited links using **link**, **alink** and **vlink** attributes of **<body>** tag.

Example:

Save the following in test.htm and open it in any web browser to see how **link**, **alink** and **vlink** attributes work.

```
<body alink="#54A250" link="#040404" vlink="#F40633">
      <p>Click following link</p>
      <a href="/html/index.html" target="_blank" >HTML Tutorial</a>
</body>
```

## HTML Image Links

We have seen how to create hypertext link using text and we also learnt how to use images in our webpages. Now we will learn how to use images to create hyperlinks.

Example:

It's simple to use an image as hyperlink. We just need to use an image inside hyperlink at the place of text as shown below:

```
<body>
      <p>Click following link</p>
      <a href="index.html " target="_self">
            <img src="/images/logo.png" alt="Home" border="0"/>
      </a>
</body>
```

## HTML Blocks

All the HTML elements can be categorized into two categories (a) Block Level Elements (b) Inline Elements

### Block Elements

Block elements appear on the screen as if they have a line break before and after them. For example, the **<p>, <h1>, <h2>, <h3>, <h4>, <h5>, <h6>, <ul>, <ol>, <dl>, <pre>, <hr />, <blockquote>**, and **<address>** elements are all block level elements. They all start on their own new line, and anything that follows them appears on its own new line.

### Inline Elements

Inline elements, on the other hand, can appear within sentences and do not have to appear on a new line of their own. The **<b>, <i>, <u>, , , <sup>, <sub>, <big>, <small>, <li>, <ins>, <del>, <code>, <cite>, <dfn>, <kbd>**, and **<var>** elements are all inline elements.

### Grouping HTML Elements

There are two important tags which we use very frequently to group various other HTML tags (i) ** ** tag and (ii) **** tag.

### The  tag

This is the very important block level tag which plays a big role in grouping various other HTML tags and applying CSS on group of elements. Even now ** ** tag can be used to create webpage layout where we define different parts (Top, Left, Bottom, Right, etc…) of the page using ** ** tag. This tag does not provide any visual change on the block, but this has more meaning when it is used with CSS.

Example:

Following is a simple example of ** ** tag. We will learn Cascading Style Sheet (CSS) in a separate chapter but we used it here to show the usage of ** ** tag:

```
<body>
<!-- First group of tags -->
      <div style="color:red">
            <h4>This is first group</h4>
                  <p>Following is a list of vegetables</p>
            <ul>
                  <li>Beetroot</li>
                  <li>Ginger</li>
                  <li>Potato</li>
                  <li>Radish</li>
            </ul>
      </div>
      <!-- Second group of tags -->
      <div style="color:green">
            <h4>This is second group</h4>
                  <p>Following is a list of fruits</p>
            <ul>
                  <li>Apple</li>
                  <li>Banana</li>
                  <li>Mango</li>
```

```
            <li>Strawberry</li>
        </ul>
    </div>
</body>
```

This will produce following result:

**This is first group**
Following is a list of vegetables
Beetroot
Ginger
Potato
Radish

**This is second group**
Following is a list of fruits
Apple
Banana
Mango
Strawberry

### The  tag

The HTML **** is an inline element and it can be used to group inline-elements in an HTML document. This tag also does not provide any visual change on the block but has more meaning when it is used with CSS. The difference between the  tag and the ** ** tag is that the **** tag is used with inline elements whereas the ** ** tag is used with block-level elements.

Example:

Following is a simple example of **** tag. We will learn Cascading Style Sheet (CSS) in a separate chapter but we used it here to show the usage of **** tag:

```
<body>
    <p>This is <span style="color:red">red</span> and this is <span
style="color:green">green</span></p>
</body>
```

This will produce following result:

This is red, and this is green

## HTML Backgrounds

By default, your webpage background is white in color. You may not like it, but no worries. HTML provides you following two good ways to decorate your webpage background.

- Html Background with Colors
- Html Background with Images

Now let's see both the approaches one by one using appropriate examples.

## Html Background with Colors

The bgcolor attribute is used to control the background of an HTML element, specifically page body and table backgrounds. Following is the syntax to use **bgcolor** attribute with any HTML tag.

```
<tagname bgcolor="color_value"...>
```

This color_value can be given in any of the following formats:

```
<!-- Format 1 - Use color name -->
<table bgcolor="lime" >
<!-- Format 2 - Use hex value -->
<table bgcolor="#f1f1f1" >
<!-- Format 3 - Use color value in RGB terms -->
<table bgcolor="rgb(0,0,120)" >
```

Example:

Here are the examples to set background of an HTML tag:

```
<body>
      <!-- Format 1 - Use color name -->
      <table bgcolor="yellow" width="100%">
            <tr><td>This background is yellow</td></tr>
      </table>
      <!-- Format 2 - Use hex value -->
      <table bgcolor="#6666FF" width="100%">
            <tr><td>This background is sky blue</td></tr>
      </table>
      <!-- Format 3 - Use color value in RGB terms -->
      <table bgcolor="rgb(255,0,255)" width="100%">
            <tr><td>This background is green</td></tr>
      </table>
</body>
```

This will produce following result:

| This background is yellow |
| --- |
| This background is sky blue |
| This background is green |

## Html Background with Images

The background attribute can also be used to control the background of an HTML elmement, specifically page body and table backgrounds. You can specify an image to set background of your HTML page or table.

Following is the syntax to use background attribute with any HTML tag.

Note: The background attribute is deprecated, and it is recommended to use Style Sheet for background setting.

```
<tagname background="Image URL"...>
```

The most frequently used image formats are JPEG, GIF and PNG images.

Example:

Here are the examples to set background images of a table.

```
<body>
      <!-- Set table background -->
      <table background="/images/my_image.gif" width="100%" height="100">
            <tr>
                  <td>This background is filled up with HTML image.</td>
            </tr>
```

```
    </table>
</body>
```

## HTML Fonts

Fonts play 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. You can use a **<basefont>** tag to set all of your text to the same size, face, and color.

The font tag mainly has three attributes called size, color, and face to customize your web 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.

Note: The font and basefont tags are deprecated and it is supposed to be removed in a future version of HTML. So, they should not be used rather, it's suggested to use CSS styles to manipulate your fonts. But still for learning purpose, this chapter will explain font and basefont tags in detail.

### 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 :

```
<body>
    <font size="1">Font size="1"</font><br />
    <font size="2">Font size="2"</font><br />
    <font size="3">Font size="3"</font><br />
    <font size="4">Font size="4"</font><br />
    <font size="5">Font size="5"</font><br />
    <font size="6">Font size="6"</font><br />
    <font size="7">Font size="7"</font>
</body>
```

This will produce following result:

Font size="1"
Font size="2"
Font size="3"
Font size="4"
Font size="5"
Font size="6"
Font size="7"

### 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:

```
<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="Wide Latin" size="5"> Wide Latin </font><br />
      <font face="Bedrock" size="5"> Arial Rounded MT Bold </font><br />
</body>
```

This will produce following result:

Times New Roman
Verdana
Comic Sans MS
Wide Latin
**Arial Rounded MT Bold**

### Specify alternate font faces

A visitor will only be able to see your font if they have that font installed on their computer. So, it is possible to specify two or more font face alternatives by listing the font face names, separated by a comma.

```
<font face="arial,helvetica">
<font face="Lucida Calligraphy,Comic Sans MS,Lucida Console">
```

When your page is loaded, their browser will display the first font face available. If none of the given fonts are installed, then it will display the default font face Times New Roman.

### 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:

```
<body>
      <font color="#FF00FF">This text is in pink</font><br />
      <font color="red">This text is red</font>
</body>
```

This will produce following result:

This text is in pink
This text is red

## HTML Forms

HTML Forms are required when you want to collect some data from the site visitor. For example, during user registration you would like to collect information such as name, email address, credit card, etc.

A form will take input from the site visitor and then will post it to a back-end application such as CGI, ASP Script or PHP script etc. The back-end application will perform required processing on the passed data based on defined business logic inside the application.

There are various form elements available like text fields, textarea fields, drop-down menus, radio buttons, checkboxes, etc.

The HTML **<form>** tag is used to create an HTML form and it has following syntax:

```
<form action="Script URL" method="GET|POST">
     form elements like input, textarea etc.
</form>
```

## Form Attributes

Apart from common attributes, following is a list of the most frequently used form attributes:

| Attribute | Description |
|---|---|
| **action** | Backend script ready to process your passed data. |
| **method** | Method to be used to upload data. The most frequently used are **GET** and **POST** methods. |
| **target** | Specify the target window or frame where the result of the script will be displayed. It takes values like **_blank, _self, _parent** etc. |
| **enctype** | You can use the **enctype** attribute to specify how the browser encodes the data before it sends it to the server. Possible values are:<br>• **application/x-www-form-urlencoded** - This is the standard method most forms use in simple scenarios.<br>• **mutlipart/form-data** - This is used when you want to upload binary data in the form of files like image, word file etc. |

## HTML Form Controls

There are different types of form controls that you can use to collect data using HTML form:

- Text Input Controls
- Checkboxes Controls
- Radio Box Controls
- Select Box Controls
- File Select boxes
- Hidden Controls
- Clickable Buttons
- Submit and Reset Button

## Text Input Controls

There are three types of text input used on forms:

- Single-line text input controls - This control is used for items that require only one line of user input, such as search boxes or names. They are created using HTML **<input>** tag.
- Password input controls - This is also a single-line text input, but it masks the character as soon as a user enters it. They are also created using HTML **<input>** tag.
- Multi-line text input controls - This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML **<textarea>** tag.

## Single-line text input controls

This control is used for items that require only one line of user input, such as search boxes or names. They are created using HTML **<input>** tag.

Example:

Here is a basic example of a single-line text input used to take first name and last name:

```
<body>
      <form >
            First name: <input type="text" name="first_name" /><br/><br/><br/>
            Last name: <input type="text" name="last_name" />
      </form>
</body>
```

This will produce following result:

First name:

Last name:

### *Attributes*

Following is the list of attributes for **<input>** tag for creating **text** field.

| Attribute | Description |
|---|---|
| type | Indicates the type of input control and for text input control it will be set to **text**. |
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| value | This can be used to provide an initial value inside the control. |
| size | Allows to specify the width of the text-input control in terms of characters. |
| maxlength | Allows to specify the maximum number of characters a user can enter into the text box. |

## Password input controls

This is also a single-line text input, but it masks the character as soon as a user enters it. They are also created using HTML **<input>** tag but **type** attribute is set to **password**.

Example:

Here is a basic example of a single-line password input used to take user password:

```
<body>
      <form >
            Username:  <input type="text" name="username" /><br/><br/><br/>
Password: <input type="password" name="password" />
      </form>
</body>
```

This will produce following result:

Username: hfdEfRwiE

Password: **********

## Multiple-Line Text Input Controls

This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML **<textarea>** tag.

Example:

Here is a basic example of a multi-line text input used to take item description:

```
<body>
      <form>
            Description: <br />
            <textarea rows="5" cols="50" name="description" placeholder="Enter
description here...">
            </textarea>
```

```
      </form>
</body>
```

This will produce following result:

Description:

Enter description here...

### *Attributes*

Following is the list of attributes for **<textarea>** tag.

| Attribute | Description |
|---|---|
| **name** | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| **rows** | Indicates the number of rows of text area box. |
| **cols** | Indicates the number of columns of text area box |

## Checkbox Control

Checkboxes are used when more than one option is required to be selected. They are also created using HTML **<input>** tag but type attribute is set to checkbox.

Example:

Here is an example HTML code for a form with two checkboxes:

```
<body>
      <form>
            <input type="checkbox" name=" mathematics " value="on" /> Mathematics
            <input type="checkbox" name="physics" value="on" /> Physics
      </form>
</body>
```

This will produce following result:

☐Mathematics ☐Physics

### *Attributes*

Following is the list of attributes for **<checkbox>** tag.

| Attribute | Description |
|---|---|
| Type | Indicates the type of input control and for checkbox input control it will be set to **checkbox**. |
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| value | The value that will be used if the checkbox is selected. |
| checked | Set to *checked* if you want to select it by default. |

## Radio Button Control

Radio buttons are used when out of many options, just one option is required to be selected. They are also created using HTML **<input>** tag but type attribute is set to radio.

Example:

Here is example HTML code for a form with two radio buttons:

```
<body>
      <form>
            <input type="radio" name="subject" value="mathematics"> Mathematics
<br />
            <input type="radio" name="subject" value="physics"> Physics
      </form>
</body>
```

This will produce following result:

Mathematics
Physics

### *Attributes*

Following is the list of attributes for radio button.

| Attribute | Description |
|---|---|
| **type** | Indicates the type of input control and for radio input control it will be set to **radio**. |
| **name** | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| **value** | The value that will be used if the checkbox is selected. |
| **checked** | Set to *checked* if you want to select it by default. |

## Select Box Control

A select box, also called drop down box which provides option to list down various options in the form of drop down list, from where a user can select one or more options.

Example:

Here is example HTML code for a form with one drop down box

```
<body>
      <form>
            <select name="dropdown">
                  <option value="" selected>Choose an item</option>
                  <option value=" mathematics " >Mathematics</option>
                  <option value="physics">Physics</option>
            </select>
      </form>
</body>
```

### *Attributes*

Following is the list of important attributes of **<select>** tag:

| Attribute | Description |
|---|---|
| **name** | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| **size** | This can be used to present a scrolling list box. |
| **multiple** | If set to "multiple" then allows a user to select multiple items from the menu |

Following is the list of important attributes of **<option>** tag:

| Attribute | Description |
|---|---|
| value | The value that will be used if an option in the select box is selected. |
| selected | Specifies that this option should be the initially selected value when the page loads. |
| label | An alternative way of labeling options |

## File Upload Box

If you want to allow a user to upload a file to your web site, you will need to use a file upload box, also known as a file select box. This is also created using the **<input>** element but type attribute is set to **file**.

Example:

Here is example HTML code for a form with one file upload box:

```
<body>
      <form>
            <input type="file" name="fileupload" accept="image/*" />
      </form>
</body>
```

This will produce following result:


### *Attributes*

Following is the list of important attributes of file upload box:

| Attribute | Description |
|---|---|
| **name** | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| **accept** | Specifies the types of files that the server accepts. |

## Button Controls

There are various ways in HTML to create clickable buttons. You can also create a clickable button using **<input>** tag by setting its type attribute to button. The type attribute can take the following values:

| Type | Description |
|---|---|
| **submit** | This creates a button that automatically submits a form. |
| **reset** | This creates a button that automatically resets form controls to their initial values. |
| **button** | This creates a button that is used to trigger a client-side script when the user clicks that button. |
| **image** | This creates a clickable button, but we can use an image as background of the button. |

Example:

Here is example HTML code for a form with three types of buttons:

```
<body>
      <form>
            <input type="submit" name="submit" value="Submit" />
            <input type="reset" name="reset" value="Reset" />
            <input type="button" name="ok" value="OK" />
            <input type="image" name="imagebutton" src="images/btcbutton.png" />
      </form>
</body>
```

This will produce following result:


## Hidden Form Controls

Hidden form controls are used to hide data inside the page which later on can be pushed to the server. This control hides inside the code and does not appear on the actual page. For example, following hidden form is being used to keep current page number. When a user will click next page then the value of hidden control will be sent to the web server and there it will decide which page has be displayed next based on the passed current page.

Example:

Here is example HTML code to show the usage of hidden control:

```
<body>
      <form>
      <p>This is page 10</p>
            <input type="hidden" name="pagename" value="10" />
            <input type="submit" name="submit" value="Submit" />
            <input type="reset" name="reset" value="Reset" />
      </form>
</body>
```

This will produce following result: