

# Sub: Web Programming

## Unit I

**HTML** has many tags that allow us to **organize** the **text** of our page. These tags provide indications such as "This is a paragraph", "This is a title", etc. Paragraphs are defined by the `<p> </p>` **tag** and line breaks by the `<br />` **tag**.

In a Web page, the content is organized into the different formats, such as layers, paragraphs, lines, tables, and divisions that we have already learned. Organizing text refers to the proper placement of all the HTML tags and their content in a Web page.

### HTML Table

- ▶ **HTML table tag is used to display data in tabular form (row \* column). There can be many columns in a row.**
- ▶ **We can create a table to display data in tabular form, using `<table>` element, with the help of `<tr>` , `<td>`, and `<th>` elements.**

#### **HTML Table:**

```
<!DOCTYPE html>

<html>

<body>

<h2>Basic HTML Table</h2>

<table>

  <tr>

    <th>Firstname</th>

    <th>Lastname</th>

    <th>Age</th>

  </tr>

  <tr>

    <td>NEHA</td>

    <td>PATIL</td>

    <td>50</td>

  </tr>
```

```

<tr>

<td>sona</td>

<td>patel</td>

<td>25</td>

</tr>

<tr>

<td>mona</td>

<td>patil</td>

<td>28</td>

</tr>

</table>

</body>

</html>

```

**Output:**

## Basic HTML Table

Firstname	Lastname	Age
NEHA	PATIL	50
sona	patel	25
mona	patil	28

**HTML TABLE ADDING BORDER:**

```

<!DOCTYPE html>

<html>

<body>

<h2>Basic HTML Table</h2>

```

```
<table border="5">

<tr>

  <th>Firstname</th>

  <th>Lastname</th>

  <th>Age</th>

</tr>

<tr>

  <td>NEHA</td>

  <td>PATIL</td>

  <td>50</td>

</tr>

<tr>

  <td>sona</td>

  <td>patel</td>

  <td>25</td>

</tr>

<tr>

  <td>mona</td>

  <td>patil</td>

  <td>28</td>

</tr>

</table>

</body>

</html>
```

## Basic HTML Table

Firstname	Lastname	Age
NEHA	PATIL	50
sona	patel	25
mona	patil	28

### Working with Multimedia - Audio and Video File:

**HTML audio tag** is used to define sounds such as music and other audio clips. Currently there are three supported file format for HTML 5 audio tag.

1. mp3
2. wav
3. ogg

HTML5 supports <video> and <audio> controls. The Flash, Silverlight and similar technologies are used to play the multimedia items.

This table defines that which web browser supports which audio file format.

```
<html>
<body>

<h1>The audio element</h1>

<p>Click on the play button to play a sound:</p>

<audio controls>

  <source src="C:\Users\deepak bagul\Music\tt.mp3" type="audio/mpeg">
  Your browser does not support the audio element.
</audio>

</body>
</html>
```

The `controls` attribute adds audio controls, like play, pause, and volume.

The `<source>` element allows you to specify alternative audio files which the browser may choose from. The browser will use the first recognized format.

The text between the `<audio>` and `</audio>` tags will only be displayed in browsers that do not support the `<audio>` element.

The `<audio>` tag is used to embed sound content in a document, such as music or other audio streams.

The `<audio>` tag contains one or more `<source>` tags with different audio sources. The browser will choose the first source it supports.

The text between the `<audio>` and `</audio>` tags will only be displayed in browsers that do not support the `<audio>` element.

There are three supported audio formats in HTML: MP3, WAV, and OGG.

## HTML Video

The HTML `<video>` element is used to show a video on a web page.

### The HTML `<video>` Element

To show a video in HTML, use the `<video>` element:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<video width="320" height="240" controls>
```

```
<source src="movie.mp4" type="video/mp4">
```

```
<source src="movie.ogg" type="video/ogg">
```

```
Your browser does not support the video tag.
```

```
</video>
```

```
</body>
```

```
</html>
```

The `controls` attribute adds video controls, like play, pause, and volume.

It is a good idea to always include `width` and `height` attributes. If height and width are not set, the page might flicker while the video loads.

The `<source>` element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.

The text between the `<video>` and `</video>` tags will only be displayed in browsers that do not support the `<video>` element.

### HTML `<video>` Autoplay

To start a video automatically use the `autoplay` attribute

## HTML Form

An **HTML form** is *a section of a document* which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.

An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .

### Why use HTML Form

HTML forms are required if you want to collect some data from of the site visitor.

For

### HTML Form Syntax

1. **<form** action="server url" method="get|post">
2. //input controls e.g. textfield, textarea, radiobutton, button
3. **</form>**

### HTML Form Tags

Tag	Description
<form>	It defines an HTML form to enter inputs by the used side.
<input>	It defines an input control.
<textarea>	It defines a multi-line input control.
<label>	It defines a label for an input element.
<select>	It defines a drop-down list.
<option>	It defines an option in a drop-down list.
<button>	It defines a clickable button.

### The <input> Element

The HTML `<input>` element is the most used form element.

An `<input>` element can be displayed in many ways, depending on the `type` attribute.

Here are some examples:

Type	Description
<code>&lt;input type="text"&gt;</code>	Displays a single-line text input field
<code>&lt;input type="radio"&gt;</code>	Displays a radio button (for selecting one of many choices)
<code>&lt;input type="checkbox"&gt;</code>	Displays a checkbox (for selecting zero or more of many choices)
<code>&lt;input type="submit"&gt;</code>	Displays a submit button (for submitting the form)
<code>&lt;input type="button"&gt;</code>	Displays a clickable button

## HTML `<input>` element

The HTML `<input>` element is fundamental form element. It is used to create form fields, to take input from user. We can apply different input type to gather different information from user. Following is the example to show the simple text input

### Example

```

<!DOCTYPE html>
<html>
<body>
<form>
Firstname<input type="text" id="fname" name="fname"><br><br>
  <input type="submit" value="Submit">
</form>
</body>
</html>

```

### The input Element

First name:

## HTML TextField Control

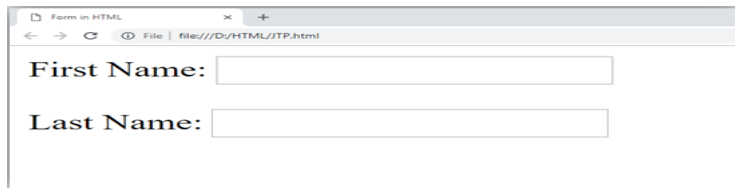
The type="text" attribute of input tag creates textfield control also known as single line textfield control. The name attribute is optional, but it is required for the server side component such as JSP, ASP, PHP etc.

**<form>**

First Name: **<input type="text" name="firstname"/>** **<br/>**

Last Name: **<input type="text" name="lastname"/>** **<br/>**

**</form>**

A screenshot of a web browser window titled "Form in HTML". The address bar shows "file:///D:/HTML/JTP.html". The page content displays a form with two text input fields. The first field is preceded by the label "First Name:" and the second by "Last Name:". Both fields are empty.

## The <select> Element

The `<select>` element defines a drop-down list:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<form>
```

```
  <select id="class" name="class">
```

```
    <option value="fycs">fycs</option>
```

```
    <option value="syys">Syys</option>
```

```
    <option value="tycs">tycs</option>
```

```
  </select>
```

```
</form>
```

```
</body>
```

```
</html>
```

**Output:**

Choose a class:

The `<option>` elements defines an option that can be selected.

By default, the first item in the drop-down list is selected.

To define a pre-selected option, add the `selected` attribute to the option:

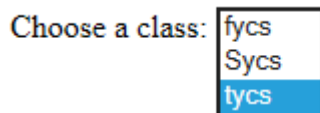


```

<!DOCTYPE html>
<html>
<body>
<form>
  <label id="cars">Choose a class:</label>
  <select id="cars" name="cars">
    <option value="fycs">fycs</option>
    <option value="syscs">Syscs</option>
    <option value="tycs" selected>tycs</option>
  </select>
</form>
</body>
</html>

```

**Output:**



## The <textarea> Element

The <textarea> element defines a multi-line input field (a text area):

```
<textarea name="message" rows="10" cols="30">
```

The rows attribute specifies the visible number of lines in a text area.

The cols attribute specifies the visible width of a text area.

```

<!DOCTYPE html>
<html>
<body>

<form>
  <textarea name="message" rows="10" cols="30">The cat was playing in the
garden.</textarea>
  <br><br>
  <input type="submit">
</form>

</body>
</html>

```

## The <button> Element

The <button> element defines a clickable button:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>The button Element</h2>
```

```
<button type="button">Click Me!</button>
```

```
</body>
```

```
</html>
```

## INPUT TYPE ELEMENT:

### 1. <input type="text">:

### 2. <input type="password">:

The <input> element of type "password" allow a user to enter the password securely in a webpage. The entered text in password field converted into "\*" or ".", so that it cannot be read by another user.

## Example:

```
<form>
```

```
  <label>Enter Password</label><br>
```

```
  <input type="Password" name="password"><br>
```

```
</form>
```

### 3. <input type="submit">:

```
  <input type="reset">:
```

```
<input type="reset" value="Reset">
```

### 4.<input type="radio">:

```
  <form>
```

```
    <p>Kindly Select your favorite color</p>
```

```
    <input type="radio" name="color" value="red"> Red <br>
```

```
    <input type="radio" name="color" value="blue"> blue <br>
```

```
    <input type="radio" name="color" value="green">green <br>
```

```
    <input type="radio" name="color" value="pink">pink <br>
```

```
    <input type="submit" value="submit">
```

```
  </form>
```

---

## 5. <input type="checkbox">:

<form>

<label>Enter your Name:</label>

<input type="text" name="name">

<p>Kindly Select your favourite sports</p>

<input type="checkbox" name="sport1" value="cricket">Cricket<br>

<input type="checkbox" name="sport2" value="tennis">Tennis<br>

<input type="checkbox" name="sport3" value="football">Football<br>

<input type="checkbox" name="sport4" value="baseball">Baseball<br>

<input type="checkbox" name="sport5" value="badminton">Badminton<br><br>

<input type="submit" value="submit">

</form>

## OUTPUT:

Registration Form

Enter your Name:

Kindly Select your favorite sports

☐

Cricket

☐

Tennis

☐

Football

☐

Baseball

☐

Badminton

## <input type="button">:

The <input> type "button" defines a simple push button, which can be programmed to control a functionally on any event such as, click event.

<form>

<input type="button" value="Click me " onclick="alert('you are learning HTML')">

</form>

## 8. <input type="file">:

The <input> element with type "file" is used to select one or more files from user device storage. Once you select the file, and after submission, this file can be uploaded to the server with the help of JS code and file API.

1. <input type="file" name="newfile">

**HTML5 added new types on <input> element. Following is the list of types of elements of HTML5**

type=" "	Description
color	Defines an input field with a specific color.
date	Defines an input field for selection of date.
datetime-local	Defines an input field for entering a date without time zone.
email	Defines an input field for entering an email address.
month	Defines a control with month and year, without time zone.
number	Defines an input field to enter a number.
url	Defines a field for entering URL
week	Defines a field to enter the date with week-year, without time zone.
search	Defines a single line text field for entering a search string.
Tel	Defines an input field for entering the telephone number.

**Following is the description about types of <input> element with examples**

**Color:** The <input> type "color" is used to define an input field which contains a colour. It allows a user to specify the colour by the visual colour interface on a browser.

```
<!DOCTYPE html>
<html>
<body>
    <h3>Input "color" types:</h3>
    <form>
        Pick your Favorite color: <br><br>
        <input type="color"><br><br>
    </form>
</body>

</html>
```

## Input Type Range

The `<input type="range">` defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the `min`, `max`, and `step` attributes:

```
<!DOCTYPE html>
<html>
<body>

<h2>Range Field</h2>

<form>
  <input type="range" id="vol" name="vol" min="0" max="50">
  <input type="submit" value="Submit">
</form>

</body></html>
```

## Input Type Search

The `<input type="search">` is used for search fields (a search field behaves like a regular text field).

```
<!DOCTYPE html>
<html>
<body>
<h2>Search Field</h2>
<form>
  <input type="search" id="gsearch" name="gsearch">
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

**Input Type Date:** The `<input type="date">` is used for input fields that should contain a date. Depending on browser support, a date picker can show up in the input field.

```
<!DOCTYPE html>
<html>
<body>
<form >
  <label for="birthday">Birthday:</label>
  <input type="date" id="birthday" name="birthday">
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

Birthday:

## Input Type Email

The `<input type="email">` is used for input fields that should contain an e-mail address.

Depending on browser support, the e-mail address can be automatically validated when submitted.

Some smartphones recognize the email type, and add ".com" to the keyboard to match email input.

```
<!DOCTYPE html>
<html>
<body>
<form>
  <label for="email">Enter your email:</label>
  <input type="email" id="email" name="email">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

## Input Type Month

The `<input type="month">` allows the user to select a month and year.

Depending on browser support, a date picker can show up in the input field.

```
<!DOCTYPE html>
<html>
<body>

<form>
  <label for="bdaymonth">Birthday (month and year):</label>
  <input type="month" id="bdaymonth" name="bdaymonth">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

---

Birthday (month and year):

## Input Type Number

The `<input type="number">` defines a **numeric** input field.

You can also set restrictions on what numbers are accepted.

The following example displays a numeric input field, where you can enter a value from 1 to 5:

---

```
<input type="number" id="quantity" name="quantity" min="1" max="5">
```

## Input Type Tel

The `<input type="tel">` is used for input fields that should contain a telephone number.

```
<form>
  <label for="phone">Enter your phone number:</label>
  <input type="tel" id="phone" name="phone" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}">
</form>
```

## Input Type Time

The `<input type="time">` allows the user to select a time (no time zone).

Depending on browser support, a time picker can show up in the input field.

```
<form>
  <label for="appt">Select a time:</label>
  <input type="time" id="appt" name="appt">
</form>
```

## Input Type Url

The `<input type="url">` is used for input fields that should contain a URL address.

Depending on browser support, the url field can be automatically validated when submitted.

Some smartphones recognize the url type, and adds ".com" to the keyboard to match url input.

```
<form>
  <label for="homepage">Add your homepage:</label>
  <input type="url" id="homepage" name="homepage">
</form>
```

## Input Type Week

The `<input type="week">` allows the user to select a week and year.

Depending on browser support, a date picker can show up in the input field.

```
<form>  
  <label for="week">Select a week:</label>  
  <input type="week" id="week" name="week">  
</form>
```