HTML

HTML stands for **Hyper Text Markup Language**, which is the most widely used language on Web to develop web pages. **HTML** was created by Berners-Lee in late 1991.

 Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

 Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

 Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type.

With the help of HTML only, we can create static web pages.

HTML Element:

An HTML element is defined by a start tag, some content, and an end tag:

<tagname>Content goes here...</tagname>

The HTML **element** is everything from the start tag to the end tag:

Example:

<h1>web programming</h1>

<p> web programming</p>

Note:

 Some HTML elements have no content (like the <br> element).These elements are called empty elements. Empty elements do not have an end tag.

 Void element: All the elements in HTML do not require to have start tag and end tag, some elements does not have content and end tag such elements are known as Void elements or empty elements. These elements are also called as unpaired tag.Some Void elements are
 (represents a line break) , <hr>(represents a horizontal line), etc.

For the default display and styling purpose in HTML, all the elements are divided into two

categories:

1. Block-level element: These are the elements, which structure main part of web page, by

dividing a page into coherent blocks. A block-level element always starts with new line and

takes the full width of web page, from left to right. These elements can contain block-level as

well as inline elements.

Example:

<blockquote>, <canvas>, <dd>, <div>, <dl>, <dt>, <fieldset>,

<form>, <h1>-<h6>, <header>, <hr>, <li>, <main>,<noscript>, <ol>, <output>, <p>, <pre>, <section>, <table>, <tfoot>, <ul> etc.

2. Inline element: Inline elements are those elements, which differentiate the part of a given
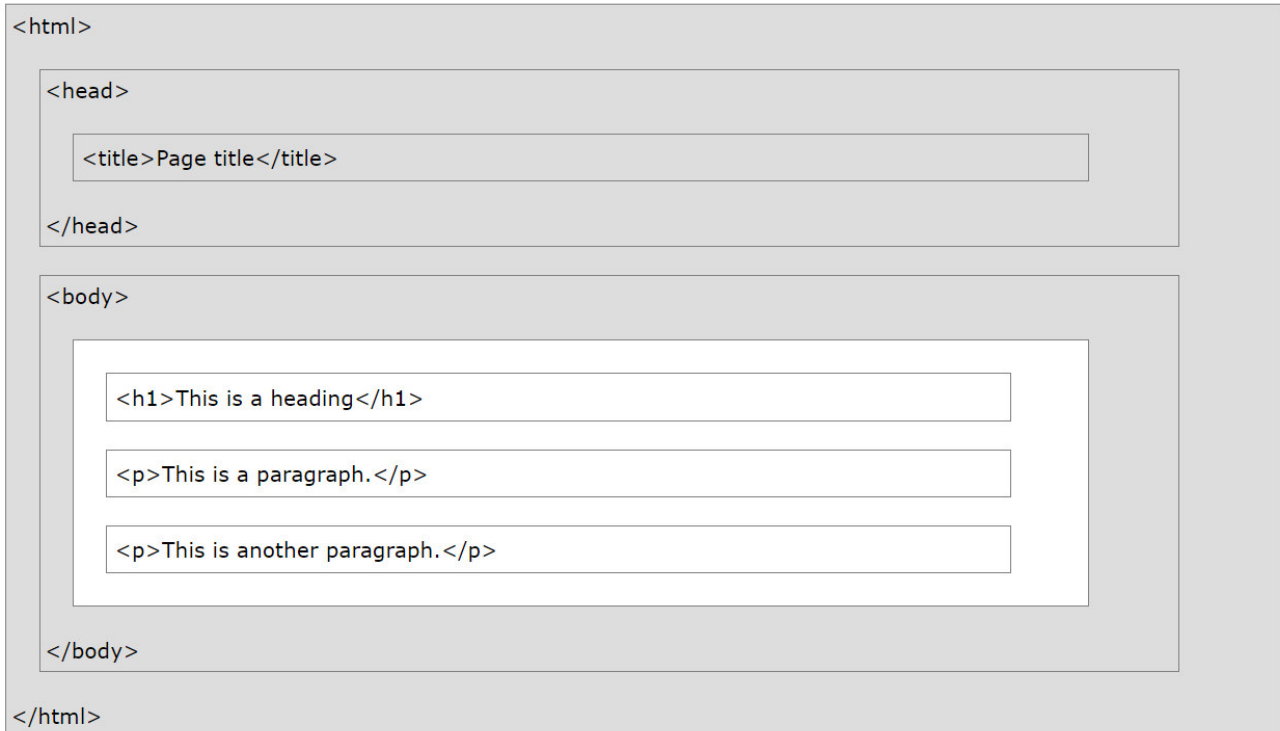
text and provide it a particular function. These elements do not start with new line and take

width as per requirement. The Inline elements are mostly used with other elements.

Example:

<a>, <abbr>, <acronym>, <b>, <bdo>, <big>, <br>, <button>, <cite>, <code>, <dfn>, <em>,<i>, <img>, <input>, <label>, <object>, <q>, <script>, <select>,<small>, <span>, <strong>, <sub>, <sup>, <textarea>, <time>, <tt>, <var> etc

HTML page structure:

```
<html>
    <head>
        <title>Page title</title>
    </head>
    <body>
        <h1>This is a heading</h1>

        <p>This is a paragraph.</p>

        <p>This is another paragraph.</p>
    </body>
</html>
```

The **<html>** element is the root element of an HTML page

⬚ The **<head>** element contains meta information about the HTML page

⬚ The **<title>** element specifies a title for the HTML page (which is shown in the browser's

title bar or in the page's tab)

⬚ The **<body>** element defines the document's body, and is a container for all the visible
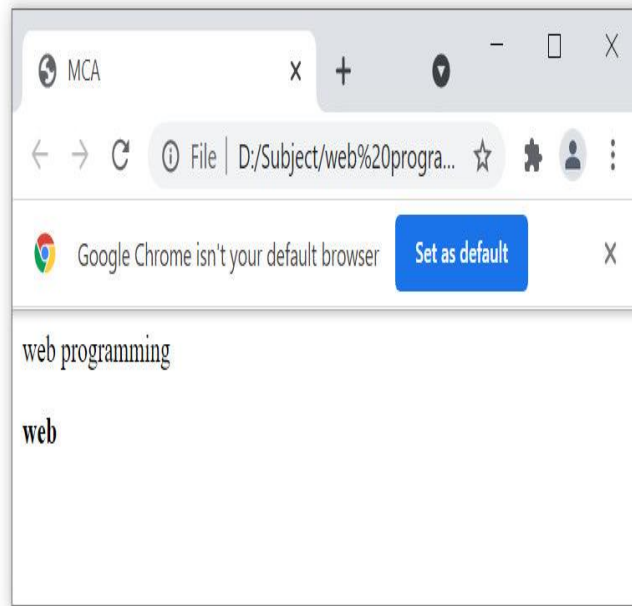
contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

⬚ The **<h1>** element defines a large heading,and <h6> is the smallest.

⬚ The **<p>** element defines a paragraph

Example:

```
<html>
<head>
<title>
MCA
</title>
</head>
<body>
<p>web programming</p>
<b>web</p>
</body>
</html>
```


Features of HTML:

1. It is a very **easy and simple language**. It can be easily understood and modified.

2. It is very easy to make an **effective presentation** with HTML because it has a lot of formatting tags.

3. It is a **markup language**, so it provides a flexible way to design web pages along with the text.

4. It facilitates programmers to add a **link** on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.

5. It is **platform-independent** because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.

6. It facilitates the programmer to add **Graphics, Videos, and Sound** to the web pages which makes it more attractive and interactive.

7. HTML is a case-insensitive language, which means we can use tags either in lower-case or upper-case.

<u>Building blocks of HTML:</u>

An HTML document consists of its basic building blocks which are:

1. **Tags:** An HTML tag surrounds the content and applies meaning to it. It is written

between < and > brackets.

2. **Attribute:** An attribute in HTML provides extra information about the element, and it is

applied within the start tag.

An HTML attribute contains two fields:

- name
- value.

Syntax:

<tag name attribute_name= " attr_value"> content </ tag name>

- The **name** is the property you want to set.
- The **value** is what you want the value of the property to be set and always put within quotations.
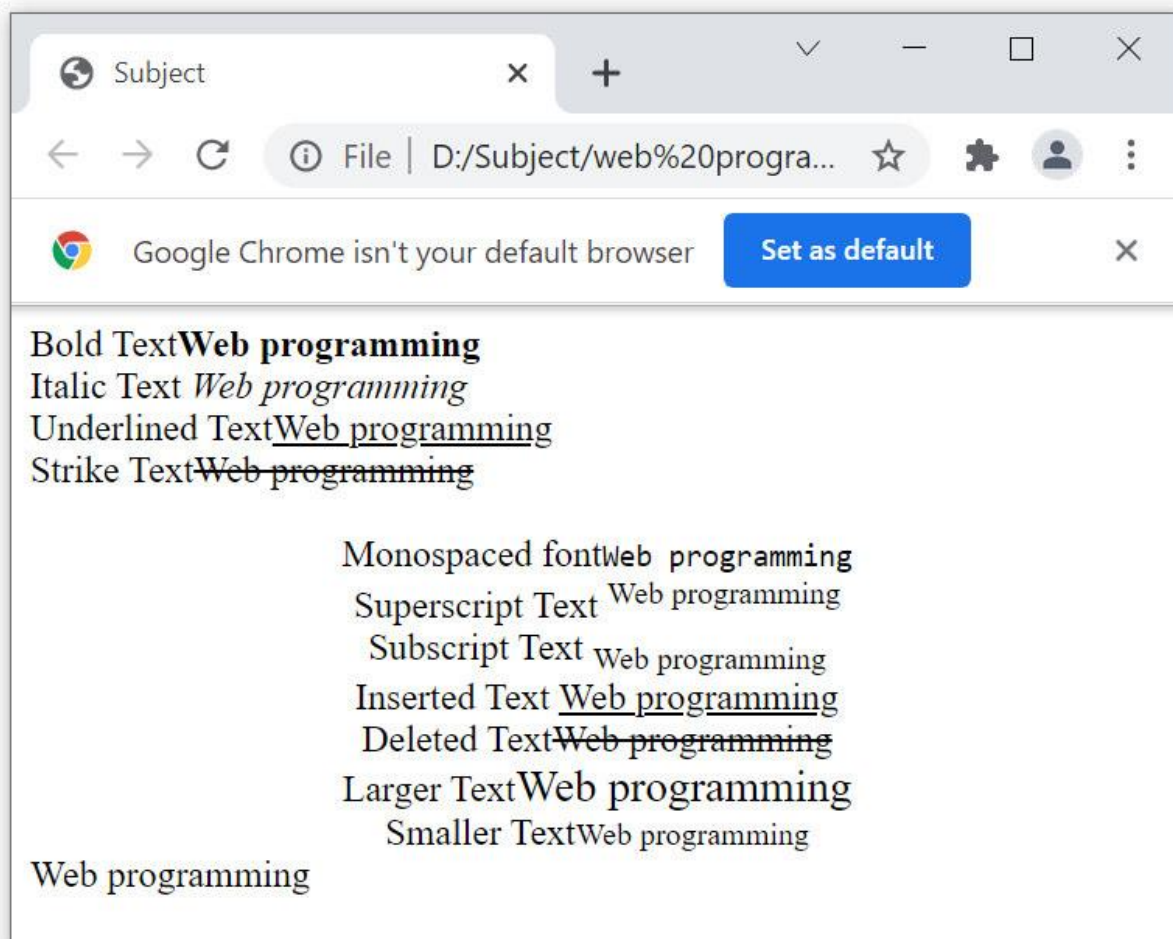
HTML Formatting:

- **Bold Text:** Anything that appears within **...** element, is displayed in bold.
- **Italic Text:** Anything that appears within **<i>...</i>** element is displayed in italicized.
- **Underlined Text:** Anything that appears within **<u>...</u>** element, is displayed with underline.
- **Strike Text:** Anything that appears within **<strike>...</strike>** element is displayed with strikethrough.
- **Monospaced font:** The content of a **<tt>...</tt>** element is written in monospaced font. Most of the fonts are known as variable-width fonts because different letters are of different widths (for example, the letter

'm' is wider than the letter 'i'). In a monospaced font, however, each letter has the same width.

- **Superscript Text:** The content of a **^{...}** element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.
- **Subscript Text:** The content of a **_{...}** element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character's height beneath the other characters.
- **Inserted Text:** Anything that appears within **<ins>...</ins>** element is displayed as inserted text.
- **Deleted Text:** Anything that appears within **~~...~~** element, is displayed as deleted text.
- **Larger Text:** The content of the **<big>...</big>** element is displayed one font size larger than the rest of the text surrounding it.
- **Smaller Text:** The content of the **<small>...</small>** element is displayed one font size smaller than the rest of the text surrounding it .
- **Grouping Content:** The **<div>** and **<span>** elements allow you to group together several elements to create sections or subsections of a page. The <span> element can be used to group inline elements only. These tags are commonly used with CSS to allow you to attach a style to a section of a page.

Eg:

```html
<html>
<head>
<title>Subject</title>
</head>
<body>
<div align="left">
Bold Text<b>Web programming</b>
<br>Italic Text <i>Web programming</i>
<br>Underlined Text<u>Web programming</u>
<br>Strike Text<strike>Web programming</strike>
</div>
<div align="middle">
<br>Monospaced font<tt>Web programming</tt>
<br>Superscript Text <sup>Web programming</sup>
<br>Subscript Text <sub>Web programming</sub>
<br>Inserted Text <ins>Web programming</ins>
<br>Deleted Text<del>Web programming</del>
<br>Larger Text<big>Web programming</big>
<br>Smaller Text<small>Web programming</small>
</div>
<span>Web programming</span>
</body>
</html>
```
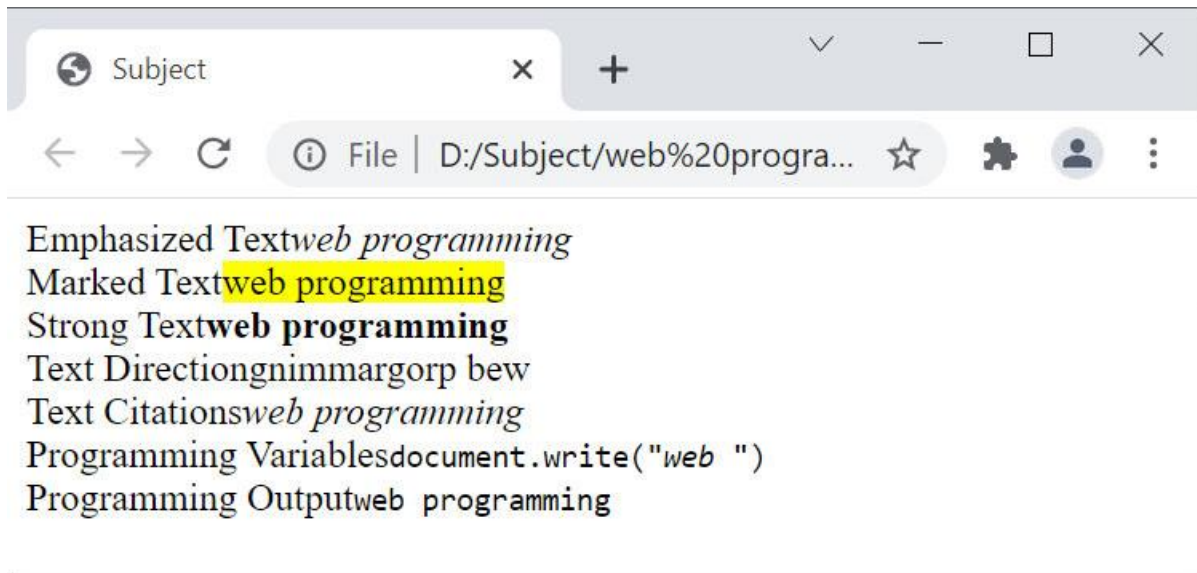
HTML - Phrase Tags:

- **Emphasized Text:** Anything that appears within **...** element is displayed as emphasized text.
- **Marked Text:** Anything that appears with-in **<mark>...</mark>** element, is displayed as marked with yellow ink.
- **Strong Text:** Anything that appears within **...** element is displayed as important text.
- **Text Direction:** The **<bdo>...</bdo>** element stands for Bi-Directional Override and it is used to override the current text direction.
- **Text Citations:** If you are quoting a text, you can indicate the source placing it between an opening **<cite>** tag and closing **</cite>** tag.As you would expect in a print publication, the content of the <cite> element is rendered in italicized text by default.
- **Programming Variables:** This element is usually used in conjunction with the **<pre>** and **<code>** elements to indicate that the content of that element is a variable.
- **Program Output:** The **<samp>...</samp>** element indicates sample output from a program, and script etc. Again, it is mainly used when documenting programming or coding concepts.

Eg:

```
<html>
<head>
<title>Subject</title>
</head>
<body>
Emphasized Text<em>web programming</em><br>
Marked Text<mark>web programming</mark><br>
Strong Text<strong>web programming</strong><br>
Text Direction<bdo dir = "rtl">web programming</bdo><br>
Text Citations<cite>web programming</cite><br>
Programming Variables<code>document.write("<var>web </var>")</code><br>
Programming Output<samp>web programming </samp><br>
</body>
</html>
```

Emphasized Text*web programming*
Marked Text==web programming==
Strong Text**web programming**
Text Directiongnimmargorp bew
Text Citations*web programming*
Programming Variablesdocument.write("web ")
Programming Outputweb programming

Image Tag:

HTML **<img>** tag is used to add image inside webpage/website. HTML img tag is an empty tag that contains attributes only; closing tags are not used in HTML image element.

Syntax:

<img src="" alt="" width="" height="">

Attributes:

1. **src:** It is used to specify the path to the image.

2. **alt:** It is used to specify an alternate text for the image. It is useful as it informs the user about what the image means and also due to any network

displayed then this alternate text will be displayed.

3. **height:** It is used to specify the height of the image.

4. **width:** It is used to specify the width of the image.

Example:

<!DOCTYPE html>

<html>

<body>

<h1>The img element</h1>

<img src="img_girl.jpg" alt="Girl in a jacket" width="500" height="600">

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

The img element

Anchor tag:

The **HTML anchor tag(<a>)** defines hyperlink to other web page as well as files, location, or important attribute of the HTML a tag.

The <a> tag defines a hyperlink, which is used to link from one page to another.

The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

Syntax:

 Link Name

Attribute:

1. **href :**It is used to define the address of the file to be linked.

Example:

```
<!DOCTYPE html>
<html>
<body>
<p>To create a link that opens in the user's email program (to let them send a new email), use mailto: inside the href attribute:</p>
<p><a href="mailto:someone@example.com">Send email</a></p>
</body>
</html>
```

To create a link that opens in the user's email program (to let them send a new email), use mailto: inside the href attribute:

Send email

Table Tag:

An HTML table is defined with the "table" tag. Each table row is defined with the "tr" tag.

A table header is defined with the "th" tag. By default, table headings are bold and centered. A table data/cell is defined with the "td" tag.

Tags:

Tag	Description
\<table\>	It defines a table. **\<table border=" " cellpadding=" " cellspacing=" " bordercolor=" " bgcolor=" "\>** The cellspacing attribute defines space between table cells, while cellpadding represents the distance between cell borders and the content within a cell.
\<tr\>	It defines a row in a table.
\<th\>	It defines a header cell in a table.
\<td\>	It defines a cell in a table. **\<td rowspan=" " colspan=" "\>** Rowspan=merge two or more rows. Colspan=merge two or more columns into a single column.
\<caption\>	It defines the table caption.
\<tbody\>	It is used to group the body content in a table.
\<thead\>	It is used to group the header content in a table.
\<tfooter\>	It is used to group the footer content in a table.

Eg:

```
<html>
<head>
</head>
<body>
<table border="solid " cellpadding="5 " cellspacing="5 " bordercolor="red"  bgcolor="pink">
<caption>IM</caption>
<thead>
<tr><td colspan = "2">This is the head of the table</td> </tr>
</thead>
<tfoot>
<tr><td colspan = "2">This is the foot of the table</td></tr>
</tfoot>
<tbody>
<tr><td>Cell 1</td><td>Cell 2</td></tr>
</tbody>
</table>
</body>
</html>
```

IM

This is the head of the table	
Cell 1	Cell 2
This is the foot of the table	

List Tag:

HTML Lists are used to specify lists of information. All lists may contain one or more list elements.

There are three different types of HTML lists:

1. Ordered List or Numbered List (ol)

In the ordered HTML lists, all the list items are marked with numbers by default. The ordered list starts with <ol> tag and the list items start with <li> tag.

Syntax:

item1

item2

....

item

Attributes:

▢ **reversed:** It defines that the order will be descending.

start: It defines from which number or alphabet the order will start.

 type: It defines which type(1, A, a, I, and i) of the order you want in your list of numeric, alphabetic, or roman numbers.

2. Unordered List or Bulleted List (ul)

In HTML Unordered list, all the list items are marked with bullets. The Unordered list starts with <ul> tag and list items start with the <li> tag.

Syntax:

item1

item2

....

itemn

Attribute:

 type: It specifies which kind of marker is used in the list.

3.Description List or Definition List (dl): A description list is a list of terms, with adescription of each term. The <dl> tag defines the description list, the <dt> tag defines the term name, and the <dd> tag describes each term.

Syntax:

<dl>

<dt>..... </dt>

<dd>..... </dd>

</dl>

Example:

```html
<html>
<head>
</head>
<body>
<ol  type="a" reversed><li>item1</li><li>item2</li></ol>
<ul type="circle"><li>item1</li><li>item2</li></ul>
<ul type="square"><li>item1</li><li>item2</li></ul>
<dl>
<dt>Programming </dt>
<dd>PHP </dd>
<dd>Python </dd>
</dl>
</body>
</html>
```

←   C   ⓘ File | C:/

b. item1
a. item2

○ item1
○ item2

▪ item1
▪ item2

Programming
        PHP
        Python

HTML FORMS

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. .

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

For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.

HTML Form Syntax:

<form action="server url" method="get|post" target="_blank">

 //input controls e.g. textfield, textarea, radiobutton, button

</form>

- The <form> element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

- The `action` attribute defines the action to be performed when the form is submitted.

- Usually, the form data is sent to a file on the server when the user clicks on the submit button.

- The `method` attribute specifies the HTTP method to be used when submitting the form data.

- The form-data can be sent as URL variables (with `method="get"`) or as HTTP post transaction (with `method="post"`).

- The default HTTP method when submitting form data is GET.

- The target attribute specifies where to display the response that is received after submitting the form.
- The `target` attribute can have one of the following values:

Value	Description
_blank	The response is displayed in a new window or tab

_self	The response is displayed in the current window
_parent	The response is displayed in the parent frame
_top	The response is displayed in the full body of the window
framename	The response is displayed in a named iframe

- The default value is _self which means that the response will open in the current window.

FORM ELEMENTS:

Elements	Descriptions
\<label\>	It defines labels for \<form\> elements.
\<input\>	It is used to get input data from the form in various types such as text, password, email, etc by changing its type.
\<textarea\>	It is used to get larger input text space for address, feedback etc
\<button\>	It defines a clickable button to control other elements or execute a functionality.
\<select\>	It is used to create a drop-down list.
\<option\>	It is used to define options in a drop-down list.
\<optgroup\>	It is used to define group-related options in a drop-down list.
\<fieldset\>	It is used to draw a box around other form elements and group the related data.

Elements	Descriptions
<legend>	It defines a caption for fieldset elements

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.

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

EXAMPLE FOR <input type="text">

```
<form>
  <label for="fname">First Name:</label><br>
  <input type="text" id="fname" name="fname"><br>
  <label for="lname">Last Name:</label><br>
  <input type="text" id="lname" name="lname">
</form>
```

First Name:

Last Name:

- The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focuses on the input element.

- The <label> element also helps users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.

- The for attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.

HTML Password Field Control:

The password is not visible to the user in password field control.

Eg:

<form>

  <label for="password">Password: </label>

     <input type="password" id="password" name="password"/>

</form>

HTML 5 Email Field Control:

The email field in new in HTML 5. It validates the text for correct email address. You must use @ and . in this field.

Eg:

<form>

  <label for="email">Email: </label>

     <input type="email" id="email" name="email"/>

</form>

The <textarea> Element

The <textarea> tag in HTML is used to insert multiple-line text in a form. The size of <textarea> can be specify either using "rows" or "cols" attribute or by CSS.
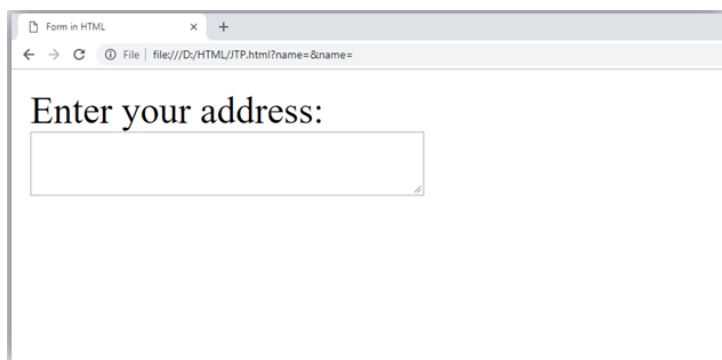
Eg:

<form>

    Enter your address:

  <textarea rows="2" cols="20"></textarea>

 </form>

Radio Buttons

- The `<input type="radio">` defines a radio button.
- Radio buttons let a user select ONE of a limited number of choices.

Eg:
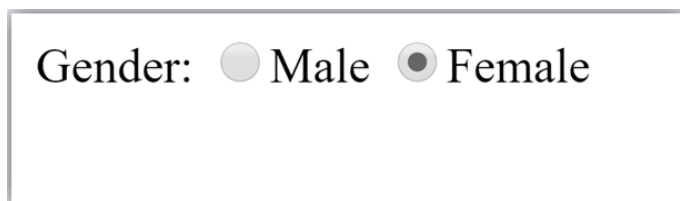
  <form>

   <label for="gender">Gender: </label>

     <input type="radio" id="gender" name="gender" value="male"/>Male

     <input type="radio" id="gender" name="gender" value="female"/>Female
</form>

Checkboxes

The <input type="checkbox"> defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Eg:

<form>

Hobby:

    <input type="checkbox" id="cricket" name="cricket" value="cricket"**/>**

     <label for="cricket">Cricket</label>

    <input type="checkbox" id="football" name="football" value="football"**/>**

     <label for="football">Football</label>

    <input type="checkbox" id="hockey" name="hockey" value="hockey"**/>**

     <label for="hockey">Hockey</label>

</form>

```
Hobby:
☑ Cricket
☑ Football
☐ Hockey
```

Note: These are similar to radio button except it can choose multiple options at a time and radio button can select one button at a time, and its display.

The Submit Button

The <input type="submit"> defines a button for submitting the form data to a form-handler.

The form-handler is typically a file on the server with a script for processing input data.

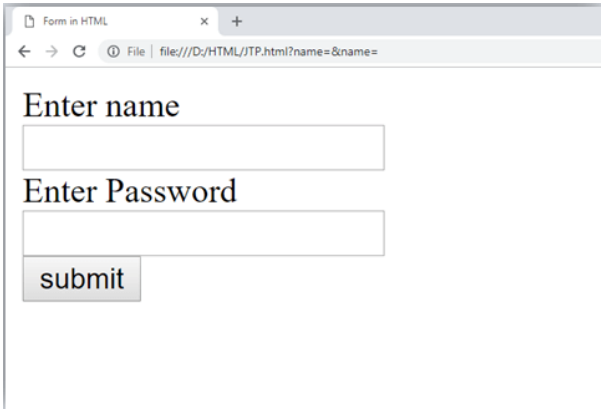The form-handler is specified in the form's action attribute.

Eg:

  <form>

    <label for="name">Enter name</label>

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

```
<label for="pass">Enter Password</label><br>

<input type="Password" id="pass" name="pass"><br>

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

</form>
```


HTML <fieldset> element:

The <fieldset> element in HTML is used to group the related information of a form. This element is used with <legend> element which provide caption for the grouped elements.

Eg:

```
<form>

  <fieldset>

  <legend>User Information:</legend>

  <label for="name">Enter name</label><br>

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

<label for="pass">Enter Password</label><br>

<input type="Password" id="pass" name="pass"><br>

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

</fieldset>

</form>
```

User Information:
Enter name

Enter Password

submit

HTML <select> element:

The <select> element is used to create a drop-down list.

The <select> element is most often used in a form, to collect user input.

The name attribute is needed to reference the form data after the form is submitted (if you omit the name attribute, no data from the drop-down list will be submitted).

The id attribute is needed to associate the drop-down list with a label.

The <option> tags inside the <select> element define the available options in the drop-down list.

Eg:

```
<label for="cars">Choose a car:</label>
<select name="cars" id="cars">
 <option value="volvo" selected>Volvo</option>
 <option value="saab">Saab</option>
 <option value="mercedes">Mercedes</option>
 <option value="audi">Audi</option>
</select>
```

FORM EXAMPLE:

```
<!DOCTYPE html>
 <html>
 <head>
  <title>Form in HTML</title>
 </head>
 <body>
   <h2>Registration form</h2>
   <form>
```

```html
    <fieldset>
      <legend>User personal information</legend>
      <label>Enter your full name</label><br>
      <input type="text" name="name"><br>
      <label>Enter your email</label><br>
      <input type="email" name="email"><br>
      <label>Enter your password</label><br>
      <input type="password" name="pass"><br>
      <label>confirm your password</label><br>
      <input type="password" name="pass"><br>
      <br><label>Enter your gender</label><br>
      <input type="radio" id="gender" name="gender" value="male"/>Male  <br>
      <input type="radio" id="gender" name="gender" value="female"/>Female <br/>
      <input type="radio" id="gender" name="gender" value="others"/>others <br/>
       <br>Enter your Address:<br>
      <textarea></textarea><br>
      <input type="submit" value="sign-up">
    </fieldset>
 </form>
 </body>
</html>
```

Registration form

User personal information

Enter your full name

[   ]

Enter your email

[   ]

Enter your password

[   ]

confirm your password

[   ]

Enter your gender

○ Male
○ Female
○ others

Enter your Address:

[   ]

[sign-up]

HTML FRAMES

HTML <frameset> tag (Not supported in HTML5)

HTML <frameset> tag is used to contain the group of frames which can be controlled and styled as a unit. The <frameset> element also specifies the number of rows and columns in the frameset, and how much space they will occupy in a frame.

Note: Do not use HTML <frameset> element as it is deprecated and not supported by HTML5, but you can use <iframe> tag instead.

Syntax:

<frameset cols=" ">............</frameset>

Eg:

!DOCTYPE html>

<html>

<head>

  <title>Frame tag</title>

</head>

 <frameset cols="50%,50%">

  <frame src="https://www.javatpoint.com/html-table">

  <frame src="https://www.javatpoint.com/css-table">

  </frameset>

</html>

HTML iframes

HTML Iframe is used to display a nested webpage (a webpage within a webpage). The HTML <iframe> tag defines an inline frame, hence it is also called as an Inline frame.

An HTML iframe embeds another document within the current HTML document in the rectangular region.

The webpage content and iframe contents can interact with each other using JavaScript.

An HTML iframe is defined with the <iframe> tag:

```
<!DOCTYPE html>

<html>

<body>

<h2>HTML Iframes example</h2>

<p>Use the height and width attributes to specify the size of the iframe:</p>

<iframe src="https://www.javatpoint.com/" height="300" width="400"></iframe>

</body>

</html>
```

Note: the height and width can also be specified in percentile.

HTML <blockquote> tag

HTML <blockquote> tag makes long quotes look special. It gives them a different style to stand out and look better. It lets you use different things like headings or lists inside the quote. This helps you organize and make your quotes more interesting for people reading your webpage.

Syntax

<blockquote> Contents... </blockquote>

Eg:

```
<blockquote cite="https://www.geeksforgeeks.org/html-tutorials/">

    <p>

        HTML stands for HyperText Markup Language. It

        is used to design web pages using a markup language.

        HTML is the combination of Hypertext and Markup language.

        Hypertext defines the link between the web pages. A

        markup language is used to define the text document within

        tag which defines the structure of web pages.

    </p>

</blockquote>
```

Output:

\<blockquote\> Tag

> HTML stands for HyperText Markup Language. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. A markup language is used to define the text document within tag which defines the structure of web pages.

The \<hr\> tag in HTML represents a thematic break, typically displayed as a horizontal rule.

The primary purpose of the \<hr\> tag is to create a visual separation between content sections within an HTML page.

Eg:

\<html\>

\<body\>

  \<p\>

    There is a horizontal rule

      below this paragraph.

  \</p\>

\<!--HTML hr tag is used here-->

  \<hr\>

  \<p\>

    This is a horizontal rule

      above this paragraph.

  \</p\>

\</body\>

\</html\>

There is a horizontal rule below this paragraph.

This is a horizontal rule above this paragraph.

<u>\<link\> tag</u>

The \<link\> tag defines the relationship between the current document and an external resource.

The \<link\> tag is most often used to link to external style sheets or to add a [favicon](#) to your website.

The \<link\> element is an empty element, it contains attributes only.

Eg:

```
<head>
  <link rel="stylesheet" href="styles.css">
</head>
```

HTML Comments

HTML comments are enclosed within \<!-- and -->, and serve to annotate code for developers. They provide explanations, reminders, or instructions that are invisible on the rendered webpage. These comments aid collaboration and enhance code readability, offering insights into the code structure and purpose.

HTML Comments Example

- Single Line Comment in HTML

- Multiline Comment in HTML

Eg:

```
<html>

<body>

  <!--This is heading Tag-->

  <h1>GeeksforGeeks</h1>

  <!--This is single line comment-->

  <h2>This is <!--given for--> single line comment</h2>

</body>

</html>
```

<meta> tag

The <meta> tag defines metadata about an HTML document. Metadata is data (information) about data.

<meta> tags always go inside the <head> element, and are typically used to specify character set, page description, keywords, author of the document, and viewport settings.

Metadata will not be displayed on the page, but is machine parsable.

Metadata is used by browsers (how to display content or reload page), search engines (keywords), and other web services.

There is a method to let web designers take control over the viewport (the user's visible area of a web page), through the <meta> tag (See "Setting The Viewport" example below).

Attribute	Value	Description
charset	*character_set*	Specifies the character encoding for the HTML document
content	*text*	Specifies the value associated with the http-equiv or name attribute
http-equiv	content-security-policy content-type default-style refresh	Provides an HTTP header for the information/value of the content attribute
name	application-name author description generator keywords viewport	Specifies a name for the metadata

Examples:

Define keywords for search engines:

<meta name="keywords" content="HTML, CSS, JavaScript">

Define a description of your web page:

<meta name="description" content="Free Web tutorials for HTML and CSS">

Define the author of a page:

<meta name="author" content="John Doe">

Refresh document every 30 seconds:

<meta http-equiv="refresh" content="30">

Setting the viewport to make your website look good on all devices:

<meta name="viewport" content="width=device-width, initial-scale=1.0">

Setting the Viewport:

The viewport is the user's visible area of a web page. It varies with the device - it will be smaller on a mobile phone than on a computer screen.

You should include the following <meta> element in all your web pages:

<meta name="viewport" content="width=device-width, initial-scale=1.0">

This gives the browser instructions on how to control the page's dimensions and scaling.

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.