**HTML**

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**Introduction to HTML**

**What is HTML?**

* HTML is a language for describing web pages.
* HTML stands for **H**yper **T**ext **M**arkup **L**anguage.
* HTML is not a programming language, it is a markup language.
* A markup language is a set of markup tags.
* The purpose of the tags is to describe page content.

**HTML Tags**

* HTML markup tags are usually called HTML tags
* HTML tags are keywords (tag names) surrounded by angle brackets like <html>
* HTML tags normally come in pairs like <b> and </b>
* The first tag in a pair is the start tag, the second tag is the end tag
* The end tag is written like the start tag, beginning with a forward slash
* Start and end tags are also called opening tags and closing tags

Syntax:

<tagname>content</tagname>

**HTML Elements**

* "HTML tags" and "HTML elements" are often used to describe the same thing.
* An HTML element is everything between the start tag and the end tag, including the tags:

**HTML Element:**

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

HTML Documents = Web Pages

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**HTML Attributes**

* HTML elements can have attributes
* Attributes provide additional information about an element
* Attributes are always specified in the start tag
* Attributes come in name/value pairs like: name="value"

**HTML Headings**

* Headings are defined with the <h1> to <h6> tags.
* <h1> defines the most important heading. <h6> defines the least important heading.

**HTML Lines**

 The <hr /> tag creates a horizontal line in an HTML page.

**HTML Comments**

* Comments can be inserted into the HTML code to make it more readable and understandable.
* Comments are ignored by the browser and are not displayed.

Eg:<!—This is a comment-->

**HTML Paragraphs**

 Paragraphs are defined with the <p> tag.

**HTML Line Breaks**

 Use the <br /> tag if you want a line break (a new line) without starting a new paragraph:

**HTML Hyperlinks (Links)**

* A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.
* When you move the cursor over a link in a Web page, the arrow will turn into a little hand.
* Links are specified in HTML using the <a> tag.
* The <a> tag can be used in two ways:

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1)To create a link to another document, by using the href attribute

2)To create a bookmark inside a document, by using the name attribute

**HTML Link Syntax**

* The HTML code for a link is simple. It looks like this: <a href="*url*">*Link text*</a>
* The href attribute specifies the destination of a link.

Eg: <a href=”http://www [.softentec.com](http://www.softentec.com/)/”>Soften Technologies</a>

**HTML Links - The target Attribute**

* The target attribute specifies where to open the linked document.
* The example below will open the linked document in a new browser window or a new tab:

Eg: <a href=”http://www [.softentec.com](http://www.softentec.com/)/” target="\_blank“>Soften Technologies</a>

**HTML Links - The name Attribute**

* The name attribute specifies the name of an anchor.
* The name attribute is used to create a bookmark inside an HTML document.

**HTML Images - The <img> Tag and the Src Attribute**

* In HTML, images are defined with the <img> tag.
* The <img> tag is empty, which means that it contains attributes only, and has no closing tag.
* To display an image on a page, you need to use the src attribute. Src stands for "source".
* The value of the src attribute is the URL of the image you want to display.

**Syntax for defining an image:**

<img src="*url*" alt="*some\_text*"/>

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**HTML Images - The Alt Attribute**

* The required alt attribute specifies an alternate text for an image, if the image cannot be displayed.
* The value of the alt attribute is an author-defined text: <img src="boat.gif" alt="Big Boat" />
* The alt attribute provides alternative information for an image if a user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

**HTML Table**

* HTML table tag is used to display data in tabular form (row \* column).
* There can be many columns in a row.
* HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc.
* But it is recommended to use div tag over table to manage the layout of the page .

|  |  |  |
| --- | --- | --- |
| **Tag** | **Description** |  |
|  |
| <table> | It defines a table. |  |
|  |  |  |
| <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. |  |
| <caption> | It defines the table caption. |  |
|  |  |  |
| <colgroup> | It specifies a group of one or more columns in a table for formatting. |  |
| <col> | It is used with <colgroup> element to specify column properties for |  |
|  | each column. |  |
|  |  |  |
| <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. |  |
|  |  |  |

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**HTML Table Example**

Let's see the example of HTML table tag. It output is shown above.

<table>

<tr><th>First\_Name</th><th>Last\_Name</th><th>Marks</th></tr>

<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>

<tr><td>James</td><td>William</td><td>80</td></tr>

<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>

<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>

</table>

**Output:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First\_Name** | **Last\_Name** |  | **Marks** |  |
|  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Sonoo | Jaiswal |  | 60 |  |
|  |  |  |  |  |
| James | William |  | 80 |  |
|  |  |
|  |  |  |  |  |
| Swati | Sironi |  | 82 |  |
|  |  |
|  |  |  |  |  |
| Chetna | Singh |  | 72 |  |
|  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**HTML Table with Border**

* + There are two ways to specify border for HTML tables. o By border attribute of table in HTML

o By border property in CSS

1. HTML Border attribute
   * You can use border attribute of table tag in HTML to specify border.
   * But it is not recommended now.

<table border="1">

<tr><th>First\_Name</th><th>Last\_Name</th><th>Marks</th></tr>

<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>

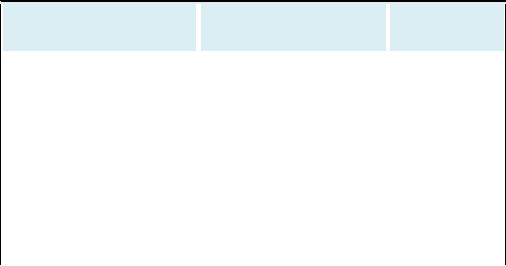
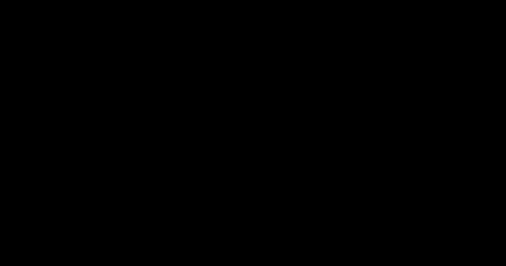
<tr><td>James</td><td>William</td><td>80</td></tr>

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<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>

<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>

</table>



 **First\_Name**  **Last\_Name**  **Marks** 

|  |  |  |  |
| --- | --- | --- | --- |
| Sonoo | Jaiswal | 60 |  |
|  |  |  |  |
| James | William | 80 |  |
|  |  |  |  |
| Swati | Sironi | 82 |  |
| Chetna | Singh | 72 |  |
|  |
|  |  |  |  |

1. CSS Border property
   * It is now recommended to use border property of CSS to specify border in table. <style>

table, th, td {

border: 1px solid black;

}

</style>

**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.

**Why use HTML Form**

* 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.

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**HTML Form Syntax**

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

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

</form>

HTML Form Tags

Let's see the list of 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. |  |
|  |  |  |

**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.

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**<form>**

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

**</form>**

Output:

First Name:

Last Name:

**Label Tag in Form**

* It is considered better to have label in form as it makes the code parser/browser/user friendly.
* If you click on the label tag, it will focus on the text control.
* To do so, you need to have for attribute in label tag that must be same as id attribute of input tag.

**<form>**

**<label** for="firstname"**>**First Name: **</label>**

**<input** type="text"id="firstname"name="firstname"**/> <br/> <label** for="lastname"**>**Last Name: **</label>**

**<input** type="text"id="lastname"name="lastname"**/> <br/>**

**</form>**

Output:

First Name:

Last Name:

**HTML Password Field Control**

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

**<form>**

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

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

**</form>**

Output:

Password:

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**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.

**<form>**

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

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

**</form>**

Email:

**Radio Button Control**The radio button is used to select one from multiple options. It is used ingender, quiz questions etc.

* If you use one name for all the radio buttons, only one radio button can be selected at a time.

**<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 **<br/>**

**</form>**

Output:

Gender: Male Female

**Checkbox Control**

The checkbox control is used to check multiple options from given checkboxes.

**<form>**

Hobby:**<br>**

**<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>**

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Output:

Hobby:

Cricket Football Hockey

**HTML Form Example**

Let's see a simple example of creating HTML form.

**<form** action="#"**>**

**<table>**

**<tr>**

**<td** class="tdLabel"**><label** for="register\_name"class="label"**>**Enter name:**</label><**

**/td>**

**<td><input** type="text"name="name"value=""id="register\_name"style="width:160px"**/></td>**

**</tr>**

**<tr>**

**<td** class="tdLabel"**><label** for="register\_password"class="label"**>**Enter password:**</l abel></td>**

**<td><input** type="password"name="password"id="register\_password"style="width:160px"**/>**

**</td>**

**</tr>**

**<tr>**

**<td** class="tdLabel"**><label** for="register\_email"class="label"**>**Enter Email:**</label>**

**</td>**

**<td**

**><input** type="email"name="email"value=""id="register\_email"style="width:160px"**/**

**></td>**

**</tr>**

**<tr>**

**<td** class="tdLabel"**><label** for="register\_gender"class="label"**>**Enter Gender:**</label**

**></td>**

**<td>**

**<input** type="radio"name="gender"id="register\_gendermale"value="male"**/> <label** for="register\_gendermale"**>**male**</label>**

**<input** type="radio"name="gender"id="register\_genderfemale"value="female"**/> <label** for="register\_genderfemale"**>**female**</label>**

**</td>**

**</tr>**

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**<tr>**

**<td** class="tdLabel"**><label** for="register\_country"class="label"**>**Select Country:**</la bel></td>**

**<td><select** name="country"id="register\_country"style="width:160px"**> <option** value="india"**>**india**</option>**

**<option** value="pakistan"**>**pakistan**</option> <option** value="africa"**>**africa**</option> <option** value="china"**>**china**</option> <option** value="other"**>**other**</option>**

**</select>**

**</td>**

**</tr>**

**<tr>**

**<td** colspan="2"**><div** align="right"**><input** type="submit"id="register\_0"value="register"**/>**

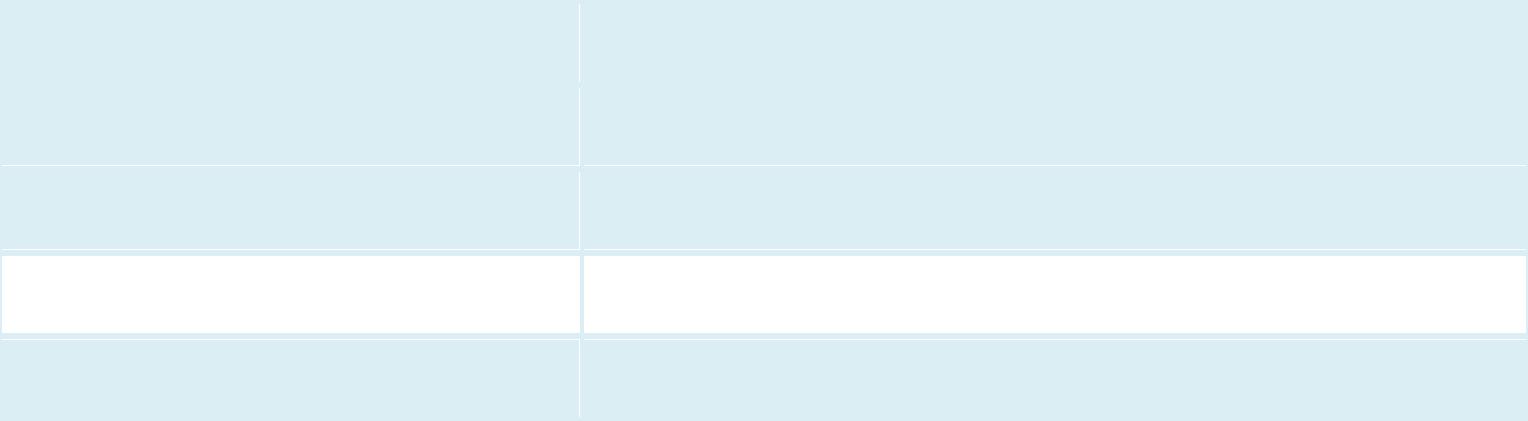
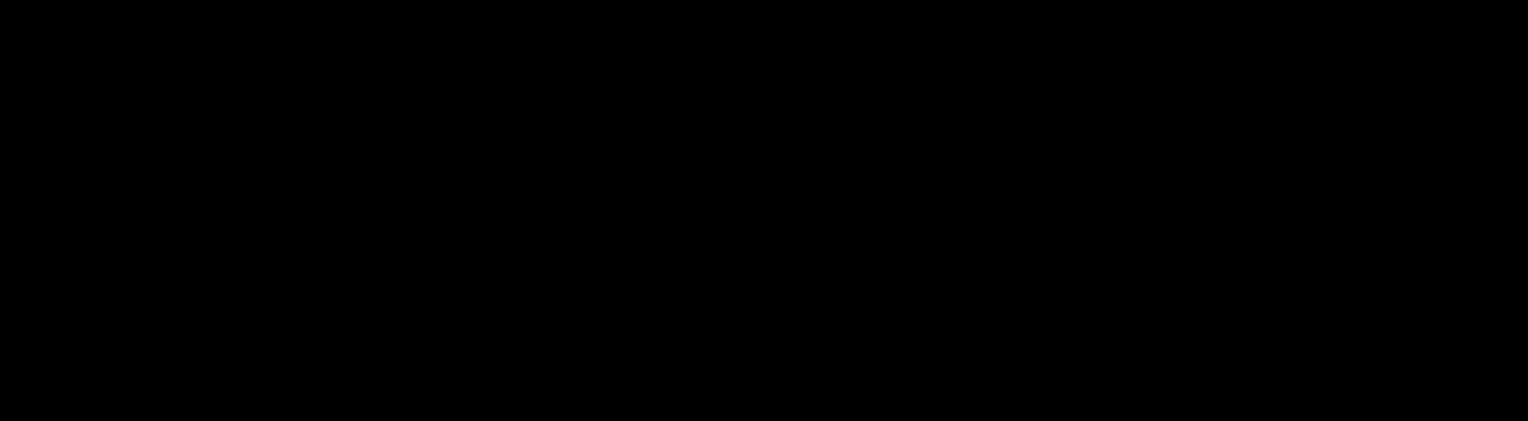
**</div></td>**

**</tr>**

**</table>**

**</form>**

Output:



Enter name:

Enter password:

Enter Email:

|  |  |  |
| --- | --- | --- |
| Enter Gender: |  | male female |
|  |  |  |

Select Country:

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**HTML Textarea**

* The HTML <textarea> tag is used to define a multi-line text input control.
* It can hold unlimited number of characters and the texts are displayed in a fixed-width font (usually courier).
* The size of the HTML textarea is defined by <cols> and <rows> attribute, or it can also be defined through CSS height and width properties.

**<textarea** rows="9"cols="70"**>** textarea tag example with rows and columns.

**</textarea>**

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