APPLICATION DEVELOPMENT PRACTICES

Amypo Technologies Pvt Ltd

Forms :

- An HTML form is used to collect user input. The user input is most often sent to a server for processing.

The <form> Element

The HTML <form> element is used to create an HTML form for user input:

<form>

.

form elements

.

</form>

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

<input> element :

Depending on the type attribute , it can be displayed in many ways

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)

<input type="button">   Displays a clickable button

Text Fields:

- The <mark>\<input type="text"\></mark> defines a single-line input field for text input

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

<h2>Text input fields</h2>

<form>
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="Amypo"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname" value="Tech">
</form>


</body>
</html>
```

Text input fields

First name:
Amypo

Last name:
Tech

<label>Element :

Notice the use of the <label> element in the example above.

- The <label> tag defines a label for many form elements.

- 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.

Radio Buttons :

- The <input type="radio"> defines a radio button.

- Radio buttons let a user select ONE of a limited number of choices.

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

<h2>Radio Buttons</h2>

<p>Choose your favorite Web language:</p>

<form>
  <input type="radio" id="html" name="fav_language" value="HTML">
  <label for="html">HTML</label><br>
  <input type="radio" id="css" name="fav_language" value="CSS">
  <label for="css">CSS</label><br>
  <input type="radio" id="javascript" name="fav_language" value="JavaScript">
  <label for="javascript">JavaScript</label>
</form>

</body>
</html>
```
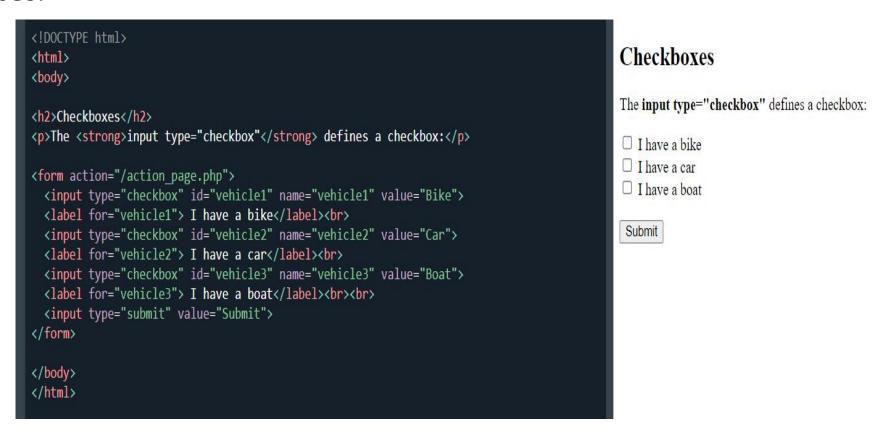
Radio Buttons

Choose your favorite Web language:

- ○ HTML
- ○ CSS
- ○ JavaScript

Checkboxes :

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

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

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

<h2>Checkboxes</h2>
<p>The <strong>input type="checkbox"</strong> defines a checkbox:</p>

<form action="/action_page.php">
  <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
  <label for="vehicle1"> I have a bike</label><br>
  <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
  <label for="vehicle2"> I have a car</label><br>
  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
  <label for="vehicle3"> I have a boat</label><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

Checkboxes

The **input type="checkbox"** defines a checkbox:

☐ I have a bike
☐ I have a car
☐ I have a boat

Submit

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.

The Name Attribute for <input>
- Notice that each input field must have a name attribute to be submitted.
- If the name attribute is omitted, the value of the input field will not be sent at all.

Example
- This example will not submit the value of the "First name" input field:

```
<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" value="John"><br><br>
  <input type="submit" value="Submit">
</form>
```

The Action Attribute :

- 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.

- In the example below, the form data is sent to a file called "action_page.php".

- This file contains a server-side script that handles the form data:

Example:

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

<h2>HTML Forms</h2>

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="Amypo"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname" value="Tech"><br><br>
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

HTML Forms

First name:

Amypo

Last name:

Tech

Submit

<Select> Element:

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

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

<h2>The select Element</h2>

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

<form action="/action_page.php">
  <label for="lang">Choose a fav lang:</label>
  <select id="lang" name="lang">
    <option value="java">java</option>
    <option value="c++">c++</option>
    <option value="python">python</option>
    <option value="web dev">web dev</option>
  </select>
  <input type="submit">
</form>


</body>
</html>
```

The select Element

The select element defines a drop-down list:

Choose a fav lang: [java ▾] [Submit]

java
c++
python
web dev

<textarea>:

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

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

<h2>Textarea</h2>
<p>The textarea element defines a multi-line input field.</p>

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

</body>
</html>
```

Textarea

The textarea element defines a multi-line input field.

```
The cat was playing in the
garden.
```

Submit

<datalist> :

- The <datalist> element specifies a list of pre-defined options for an <input> element.

- Users will see a drop-down list of the pre-defined options as they input data.

- The list attribute of the <input> element, must refer to the id attribute of the <datalist> element.

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

<h2>The datalist Element</h2>

<p>The datalist element specifies a list of pre-defined options for an input element.</p>

<form action="/action_page.php">
  <input list="browsers" name="browser">
  <datalist id="browsers">
    <option value="Edge">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
  <input type="submit">
</form>


</body>
</html>
```

The datalist Element

The datalist element specifies a list of pre-defined options for an input element.

[   ] [Submit]

Input type password :

<mark><input type="password"></mark> defines a password field:

<!DOCTYPE html>

<html>

<body>

<h2>Password field</h2>

<p>The input type="password" defines a password field:</p>

<form action="/action_page.php">

```html
  <label for="username">Username:</label><br>
  <input type="text" id="username" name="username"><br>
  <label for="pwd">Password:</label><br>
  <input type="password" id="pwd" name="pwd"><br><br>
  <input type="submit" value="Submit">
</form>


<p>The characters in a password field are masked (shown as asterisks or circles).</p>


</body>
</html>
```

Input Type Submit :

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

- The form-handler is typically a server page with a script for processing input data.

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

```
<form action="/action_page.php">
  <label for="fname">            </label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <label for="lname">           </label><br>
  <input type="text" id="lname" name="lname" value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>
```

Input type reset:

- <mark><input type="reset"></mark> defines a reset button that will reset all form values to their default values:

```
<form action="/action_page.php">
  <label for="fname">                 </label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <label for="lname">                 </label><br>
  <input type="text" id="lname" name="lname" value="Doe"><br><br>
  <input type="submit" value="Submit">
  <input type="reset" value="Reset">
</form>
```

Input type radio:

- <mark><input type="radio"></mark> defines a radio button.

- Radio buttons let a user select ONLY ONE of a limited number of choices:

```
<form>
 <input type="radio" id="html" name="fav_language" value="HTML">
 <label for="html">        </label><br>
 <input type="radio" id="css" name="fav_language" value="CSS">
 <label for="css">     </label><br>
 <input type="radio" id="javascript" name="fav_language" value="JavaScript">
 <label for="javascript">             </label>
</form>
```

Input Type Button:

- <input type="button"> defines a button:

- <mark>Example :</mark>

  <input type="button" onclick="alert('Hello World!')" value="Click Me!">

Input Type Color :

- The <input type="color"> is used for input fields that should contain a color.

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

Example

<form>

  <label for="favcolor"> Select your favorite color: </label>

  <input type="color" id="favcolor" name="favcolor">

</form>

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.

```
<form>
  <label for="birthday">          </label>
  <input type="date" id="birthday" name="birthday">
</form>

<form>
  <label for="datemax">      </label>
  <input type="date" id="datemax" name="datemax" max="1979-12-31"><br><br>
  <label for="datemin">        </label>
  <input type="date" id="datemin" name="datemin" min="2000-01-02">
</form>
```

Input type email:

- The <mark><input type="email"></mark> 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.

```
<form>
  <label for="email">enter your email</label>
  <input type="email" id="email" name="email">
</form>
```

Input type image :

- The <input type="image"> defines an image as a submit button.

- The path to the image is specified in the src attribute.

```
<form>
<input type="image" src="img_submit.gif" alt="Submit" width="48" height="48">
</form>
```

Input type file :

The <input type="file"> defines a file-select field and a "Browse" button for file uploads.

```
<form>
 <label for="myfile">                  </label>
 <input type="file" id="myfile" name="myfile">
</form>
```

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.

```
<form>
 <label for="birthdaymonth"></label>
 <input type="month" id="birthdaymonth" name="birthdaymonth">
</form>
```

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:

```
<form>
 <label for="quantity"></label>
 <input type="number" id="quantity" name="quantity" min="1" max="5">
</form>
```

Input Type Range:

- The <input type="range"> defines a control for entering a number whose exact value is not important (like a slider control).

```
<form>
 <label for="vol"> </label>
 <input type="range" id="vol" name="vol" min="0" max="50">
</form>
```

Input type search :

```
<form>
 <label for="gsearch"></label>
 <input type="search" id="gsearch" name="gsearch">
</form>
```