Exploring the BUTTON Element

In HTML, the BUTTON element is used to add a button control on the form. A button control can be used to perform various tasks, such as submitting or resetting the details of the form. The BUTTON element can be used with the conjunction of FORM element to display the controls in the form. A button control can also be placed on the form by using the INPUT element, but the difference is that you do not have the scope to change the appearance of the button control, except changing the text on the button control. However, you can change the appearance of the button control in case you have created the button control by using the BUTTON element. The button control is created by using the opening and closing tags of the BUTTON element. The text, image, or any multimedia embedded between the opening and closing tags of the BUTTON element become the content of the button control.

The BUTTON element provides a type attribute that allows you to create three kinds of button controls: submit button, reset button, and normal button. The submit button is used to submit the form; whereas, the reset button is used to erase all the text entered in the text box of the form and set the default values. The submit button is created by setting the type attribute to submit; the reset button is created by setting the type attribute to reset; and the normal button is created by setting the value of type attribute to button.

Attributes of the BUTTON Element

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>autofocus</td>
<td>Allows the button control to get the focus as soon as the page loads.</td>
</tr>
<tr>
<td>disabled</td>
<td>Disables the button control.</td>
</tr>
<tr>
<td>form</td>
<td>Refers to the id of the FORM element.</td>
</tr>
<tr>
<td>formaction</td>
<td>Refers to the value of the action attribute of the current form.</td>
</tr>
<tr>
<td>formenctype</td>
<td>Specifies a value that is used to encode the content while submitting to the server. The possible values are application/x-www-form-urlencoded (default), multipart/form-data, text/plain.</td>
</tr>
<tr>
<td>formmethod</td>
<td>Specifies the methods of the HTTP at the time of the submitting the button control. The possible values are get, post, put, and delete.</td>
</tr>
<tr>
<td>formnovalidate</td>
<td>Specifies that the form is not to validate at the time of submitting the button control.</td>
</tr>
<tr>
<td>formtarget</td>
<td>Specifies the destination, such as a new tab or anew window, to load the browsing context.</td>
</tr>
<tr>
<td>name</td>
<td>Provides a name to the button control</td>
</tr>
<tr>
<td>type</td>
<td>Specifies the type of the button control. The possible values are submit, reset, and button.</td>
</tr>
<tr>
<td>value</td>
<td>Provides a value to the button control. You can Use this attribute if the form attribute is present.</td>
</tr>
</tbody>
</table>
Exploring the Multiple-Choice Elements

Multiple-choice elements refer to the elements that offer multiple choices to the user in a Web page, such as check boxes and radio buttons. For instance, you can use these multiple-choice elements in a Web page to display the multiple choice questions and answers. However, the Web page appears cumbersome when all the choices are displayed on it. Therefore, the multiple-choice elements, such as the SELECT, OPTION, and OPTGROUP elements, are used to manage choices.

The SELECT and OPTION Element

The SELECT element allows the user to select a single item from number of options. Unlike the radio button, the SELECT element does not provide any default option that is to be transmitted to the server when no option is selected by the user. The options are written within the opening and closing tags of the SELECT element by using the OPTION element.

Attributes of the SELECT Element

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>disabled</td>
<td>Implies that the drop-down list is disabled</td>
</tr>
<tr>
<td>name</td>
<td>Refers to the name of the drop-down list</td>
</tr>
<tr>
<td>size</td>
<td>Refers to the number of visible options shown in the drop-down list</td>
</tr>
<tr>
<td>autofocus</td>
<td>Allows the button control to get the focus as soon as the page loads</td>
</tr>
<tr>
<td>form</td>
<td>Refers to the id of the FORM</td>
</tr>
<tr>
<td>multiple</td>
<td>Specifies that the multiple items can be selected from the drop-down list</td>
</tr>
</tbody>
</table>

The OPTION element is used to define the options written within the SELECT element. The options are created by embedding the OPTION element within the opening and closing tags of the OPTION element. Each option is separately written within a separate set of OPTION element. The content within the OPTION element is plain text only, which implies that the OPTION element can not contain any other element within it.

Attributes of the OPTION Element

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>label</td>
<td>Refers to the heading of the several groups</td>
</tr>
<tr>
<td>disabled</td>
<td>Disables the OPTION element</td>
</tr>
<tr>
<td>selected</td>
<td>Refers to the option that is to be displayed as default</td>
</tr>
<tr>
<td>value</td>
<td>Refers to the value that is sent to the server</td>
</tr>
</tbody>
</table>

The OPTGROUP Element

The OPTGROUP element is used to create nested and cascading drop-down lists. In both type of lists, the related items are grouped under specific headings.

Attributes of the OPTGROUP Element

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Refers to the heading of the several groups in the cascading menu</td>
</tr>
<tr>
<td>disabled</td>
<td>Disables the OPTGROUP element</td>
</tr>
</tbody>
</table>
Let's now implement examples.

```html
<!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="Avinash"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname" value="Mishra"><br><br>
  <input type="submit" value="Submit">
</form>
</body></html>
```

**OUTPUT:**

![HTML Form Example](image)

```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="cars">Choose a car:</label>
  <select id="cars" name="cars">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
    <option value="fiat">Fiat</option>
    <option value="audi">Audi</option>
  </select>
  <input type="submit">
</form>
</body></html>
```

**OUTPUT:**

![Select Element Example](image)
<!DOCTYPE html>
<html><body>
<h2>Visible Option Values</h2>
<p>Use the size attribute to specify the number of visible values.</p>
<form action="action_page.php">
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="3">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
<option value="fiat">Fiat</option>
<option value="audi">Audi</option>
</select>
<br><br>
<input type="submit">
</form>

OUTPUT:

Visible Option Values
Use the size attribute to specify the number of visible values.

Choose a car:

Volvo
Saab
Fiat

Submit Query

<!DOCTYPE html>
<html><body>
<h1>The optgroup element</h1>
<p>The optgroup tag is used to group related options in a drop-down list:</p>
<label for="cars">Choose a car:</label>
<select id="cars">
<optgroup label="Swedish Cars">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
</optgroup>

<optgroup label="German Cars">
<option value="mercedes">Mercedes</option>
<option value="audi">Audi</option>
</optgroup>
</select>

Output:
<!DOCTYPE html>
<html>
<body>
<h2>The button Element</h2>
<button type="button" onclick="alert('Hello World!')">Click Me!</button>
</body>
</html>

OUTPUT:

Exercise:
1: What is <BUTTON> tag ?
2: Write a short note on Multiple-Choice Elements with example.
1: Write difference between <OPTGROUP> and <OPTION>.