**HTML Form Elements and Attributes**

* **form element**: used to create an HTML form for user input.
* **action attribute**: used to specify the URL where the form data should be sent.
* **method attribute**: used to specify the HTTP method to use when sending the form data. The most common methods are GET and POST.

Example Code

<form method="value-goes-here" action="url-goes-here">

<!-- inputs go inside here -->

</form>

* **input element**: used to create an input field for user input.
* **type attribute**: used to specify the type of input field. Ex. text, email, number, radio, checkbox, etc.
* **placeholder attribute**: used to show a hint to the user to show them what to enter in the input field.
* **value attribute**: used to specify the value of the input. If the input has a button type, the value attribute can be used to set the button text.
* **size attribute**: used to define the number of characters that should be visible as the user types into the input.
* **min attribute**: can be used input types such as number to specify the minimum value allowed in the input field.
* **max attribute**: can be used input types such as number to specify the maximum value allowed in the input field.
* **minlength attribute**: used to specify the minimum number of characters required in an input field.
* **maxlength attribute**: used to specify the maximum number of characters allowed in an input field.
* **required attribute**: used to specify that an input field must be filled out before submitting the form.
* **disabled attribute**: used to specify that an input field should be disabled.
* **readonly attribute**: used to specify that an input field is read-only.

Example Code

<!-- Text input -->

<input

type="text"

id="name"

name="name"

placeholder="e.g. Quincy Larson"

size="20"

minlength="5"

maxlength="30"

required

/>

<!-- Number input -->

<input

type="number"

id="quantity"

name="quantity"

min="2"

max="10"

disabled

/>

<!-- Button -->

<input type="button" value="Show Alert" />

* **label element**: used to create a label for an input field.
* **for attribute**: used to specify which input field the label is for.
* **Implicit form association**: inputs can be associated with labels by wrapping the input field inside the label element.

Example Code

<form action="">

<label>

Full Name:

<input type="text" />

</label>

</form>

* **Explicit form association**: inputs can be associated with labels by using the for attribute on the label element.

Example Code

<form action="">

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

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

</form>

* **button element**: used to create a clickable button. A button can also have a type attribute, which is used to control the behavior of the button when it is activated. Ex. submit, reset, button.

Example Code

<button type="button">Show Form</button>

<button type="submit">Submit Form</button>

<button type="reset">Reset Form</button>

* **fieldset element**: used to group related inputs together.
* **legend element**: used to add a caption to describe the group of inputs.

Example Code

<!-- Radio group -->

<fieldset>

<legend>Was this your first time at our hotel?</legend>

<label for="yes-option">Yes</label>

<input id="yes-option" type="radio" name="hotel-stay" />

<label for="no-option">No</label>

<input id="no-option" type="radio" name="hotel-stay" />

</fieldset>

<!-- Checkbox group -->

<fieldset>

<legend>

Why did you choose to stay at our hotel? (Check all that apply)

</legend>

<label for="location">Location</label>

<input type="checkbox" id="location" name="location" value="location" />

<label for="price">Price</label>

<input type="checkbox" id="price" name="price" value="price" />

</fieldset>

* **Focused state**: this is the state of an input field when it is selected by the user.

**Working with HTML Table Elements and Attributes**

* **Table element**: used to create an HTML table.
* **Table Head (thead) element**: used to group the header content in an HTML table.
* **Table Row (tr) element**: used to create a row in an HTML table.
* **Table Header (th) element**: used to create a header cell in an HTML table.
* **Table body (tbody) element**: used to group the body content in an HTML table.
* **Table Data Cell (td) element**: used to create a data cell in an HTML table.
* **Table Foot (tfoot) element**: used to group the footer content in an HTML table.
* **caption element**: used to add a title of an HTML table.
* **colspan attribute**: used to specify the number of columns a table cell should span.

Example Code

<table>

<caption>Exam Grades</caption>

<thead>

<tr>

<th>Last Name</th>

<th>First Name</th>

<th>Grade</th>

</tr>

</thead>

<tbody>

<tr>

<td>Davis</td>

<td>Alex</td>

<td>54</td>

</tr>

<tr>

<td>Doe</td>

<td>Samantha</td>

<td>92</td>

</tr>

<tr>

<td>Rodriguez</td>

<td>Marcus</td>

<td>88</td>

</tr>

</tbody>

<tfoot>

<tr>

<td colspan="2">Average Grade</td>

<td>78</td>

</tr>

</tfoot>

</table>

**Working with HTML Tools**

* **HTML validator**: a tool that checks the syntax of HTML code to ensure it is valid.
* **DOM inspector**: a tool that allows you to inspect and modify the HTML structure of a web page.
* **Devtools**: a set of web developer tools built directly into the browser that helps you debug, profile, and analyze web pages.