



# HTML Forms Cheat Sheet

## HTML forms all follow the same basic structure:

1. Forms must be placed inside the `<form>` `</form>` element
2. Forms collect data using a combination of form elements, including `<input>`, `<textarea>`, `<select>`, `<option>`, `<opt-group>`, etc.
3. Each element above must have a `name` attribute or user data will not be stored
4. Form data is sent to a specific web page, listed inside the `action` attribute
5. Data can be sent one of two ways, either `method="get"` or `method="post"`.

## HTML Form Elements

<code>&lt;input type= "type_name"&gt;</code>	
<b>text</b>	<ul style="list-style-type: none"><li>• Will accept any string of characters (numbers, letters or symbols)</li><li>• <code>value</code> will pre-fill an answer for the user; it will be recorded if the user doesn't change it</li><li>• <code>placeholder</code> will pre-fill explanatory text, but this data will not be recorded</li><li>• Default width is 20 characters; width can be changed with <code>size</code> attribute (in characters) or preferably use CSS</li><li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li></ul>
<b>radio</b>	<ul style="list-style-type: none"><li>• As with all labels, the value of the <code>for</code> attribute inside the <code>label</code> element and the <code>id</code> attribute in the <code>input</code> element must be the same</li><li>• For radio buttons and checkboxes, adding a <code>label</code> element allows the user to click on the label as well as the button to choose that option</li><li>• <code>checked</code> can be used to pre-select a specific value</li><li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li></ul>
<b>checkbox</b>	<ul style="list-style-type: none"><li>• As with all labels, the value of the <code>for</code> attribute inside the <code>label</code> element and the <code>id</code> attribute in the <code>input</code> element must be the same</li><li>• For radio buttons and checkboxes, adding a <code>label</code> element allows the user to click on the label as well as the button to choose that option</li><li>• <code>checked</code> can be used to pre-select a specific value</li><li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li></ul>
<b>email</b>	<ul style="list-style-type: none"><li>• Value is automatically validated to ensure that it's either empty or a properly formatted email address</li><li>• Can take a list of comma separated email addresses when the <code>multiple</code> attribute is present</li></ul>

<b>password</b>	<ul style="list-style-type: none"> <li>• Similar to text input type but characters are masked (shown in asterisks or circles)</li> <li>• Doesn't apply any encryption when the data is sent, so do not rely on the <b>password</b> field to secure data</li> </ul>
<b>date</b>	<ul style="list-style-type: none"> <li>• In supporting browsers, submitting a form with date will convert the input data into a string representing a date</li> <li>• Can set a default value for the input with a data inside the <b>value</b> attribute</li> <li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li> </ul>
<b>color</b>	<ul style="list-style-type: none"> <li>• Provides user interface element that allows users to specify color, either by a visual color picker interface or by entering the color into a text field in hexadecimal format (#rrggbb)</li> <li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li> </ul>
<b>time</b>	<ul style="list-style-type: none"> <li>• Allows user to easily enter a time (hours and minutes, and optionally seconds)</li> <li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li> </ul>

<b>&lt;select&gt; element (i.e. a drop-down)</b>	
<b>select</b>	<ul style="list-style-type: none"> <li>• Must specify a <i>value</i> attribute for each <i>&lt;option&gt;</i>, separate from display text</li> <li>• Must specify a <i>name</i> attribute for <i>&lt;select&gt;</i> tag</li> <li>• Optional: add <i>multiple</i> and <i>size</i> attributes to use Control (or Option) key to select multiple drop-down values</li> <li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li> </ul>

<b>&lt;textarea&gt; element</b>	
<b>&lt;textarea&gt;</b>	<ul style="list-style-type: none"> <li>• You must specify the number of rows and columns for proper display, e.g. <b>rows="10"</b> and <b>cols="20"</b></li> <li>• Default text can be placed between <b>&lt;textarea&gt;</b> and <b>&lt;/textarea&gt;</b>. This text will be submitted if the user does not change it, just like in the <b>value</b> attribute in a text box (<b>input type="text"</b>)</li> <li>• More at <a href="https://www.w3schools.com/html/html_form_elements.asp">w3schools</a></li> </ul>

<b>Button elements</b>	
<b>&lt;button&gt;</b>	<ul style="list-style-type: none"> <li>• Three types of buttons: <b>type="button"</b>, <b>type="submit"</b> or <b>type="reset"</b></li> </ul>

	<ul style="list-style-type: none"> <li>• <code>&lt;button&gt;</code> can be styled in CSS</li> <li>• More at <a href="https://www.w3schools.com/html/html_buttons.asp">w3schools</a></li> </ul>
<code>&lt;input type="submit"&gt;</code>	<ul style="list-style-type: none"> <li>• Cannot be styled in CSS; however, <code>value</code> attribute will change button text and <code>background-color</code> will change color</li> <li>• More at <a href="https://www.w3schools.com/html/html_buttons.asp">w3schools</a></li> </ul>
<p>Specify this <code>action</code> in your form and w3schools will send back a human-readable response:</p> <pre>&lt;form action="https://www.w3schools.com/action_page.php"&gt;</pre>	