

Form tag

Form tag

- An HTML `<form>` tag is used to define a form which collects user input.

```
<form>
```

```
...
```

```
</form>
```

- `<form>` tag is a parent element for variety of elements to take different types of input. For example text fields to input text data, check boxes to input user selection information, radio buttons for user choice, date field for input date in standard date format, etc.
- We are going to discuss some of the most useful data input elements.

Input tag

- The most important form element is `<input>`.
- It is an empty tag.
- It has an attribute **type**, whose value decides what kind of input element it is.
- Following example is useful to know how different input element looks on the page.

```
<form>
```

<code><input type="text"></code>	<code><!--One line text field--></code>
<code><input type="radio"></code>	<code><!--Radio button--></code>
<code><input type="checkbox"></code>	<code><!--Check Box--></code>
<code><input type="password"></code>	<code><!--One line password box--></code>
<code><input type="number"></code>	<code><!--For numeric input--></code>
<code><input type="date"></code>	<code><!--Date picker from Calendar--></code>
<code><input type="time"></code>	<code><!--time in HH:MM:SS format--></code>
<code><input type="color"></code>	<code><!--Color Picker--></code>
<code><input type="email"></code>	<code><!--Email field--></code>
<code><input type="hidden"></code>	<code><!--Not visible but field to send hidden data --></code>
<code><input type="file"></code>	<code><!--File input--></code>
<code><input type="image"></code>	<code><!--image input--></code>
<code><input type="reset"></code>	<code><!--Reset all form data--></code>
<code><input type="submit"></code>	<code><!--submit button to send form data to server--></code>

```
</form>
```

- By running the above code in the browser, you can learn about their appearance and working too.

- When you click on the submit button, all your form data is send to the server where a python script is going to use form data. The question is which particular python script, the answer is, the python script whose url is given as the value of action attribute in <form> tag.

The action Attribute

- The action attribute defines the action to be performed when the form is submitted.
- Normally, the form data is sent to a web page on the server when the user clicks on the submit button.
- `<form action="/somepage.py">`
- There is another important attribute of <form> tag known as method.
- The method attribute specifies the HTTP method (GET or POST) to be used when submitting the form data.

GET

- By default (when you do not specifies method attribute), it is always GET.
- When GET is used, the submitted form data will be visible in the page address field. (Notice this concept in video lesson)
- It appends form data into the url in name-value pair.
- The length of a URL is limited around 3000 characters
- Never use GET to send sensitive data like password or payment card details.

POST

- Always use POST if the form data contains sensitive or personal information.
- The POST method does not display the submitted form data in the page address field.
- POST has no size limitation and can be used to send large amounts of data.

`<form action="/somepage.py" method="post">`

- Form submissions with POST cannot be bookmarked.

The name Attribute

- Each input field should have a name attribute to be submitted.

`<input type="text" name="firstname" >`

- If the name attribute is omitted, the data of that input field will not be sent at all.

Group Radio Button

- Fields like gender selection in the form can be made using radio buttons.
- Without name attribute each radio button is independent field, and you can select both.

```
<input type="radio" value="Male">  
<input type="radio" value="Female">
```

- You can select even both and obviously it is not desired. So we need to group them.
- When we want single selection among a group of radio buttons, we need to group them using common value to the name attribute.

```
<input type="radio" value="Male" name="gender">  
<input type="radio" value="Female" name="gender">
```

- Now you can select only one at a time.
- Value attribute is used to associate data with the field to be sent.

The <select> element

- The <select> element is used to create drop-down list

```
<select name="city">  
    <option>Delhi</option>  
    <option>Bhopal</option>  
    <option>Hyderabad</option>  
    <option>Pune</option>  
    <option>Jaipur</option>  
    <option>Patna</option>  
</select>
```

- Use multiple attribute to allow multiple selections

```
<select name="city" multiple>  
    <option>Delhi</option>  
    <option>Bhopal</option>  
    <option>Hyderabad</option>  
    <option>Pune</option>  
    <option>Jaipur</option>  
    <option>Patna</option>  
</select>
```

The <textarea> element

- It is non-empty tag to take multiline text input.

```
<textarea name="motive" rows="5" cols="20">  
    Describe your motive of learning Django  
</textarea>
```

- The rows and cols are attributes of <textarea> to specify the visible number of lines and width of a text area.

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