Input and Label in HTML Forms

Input Tag

The <input> tag specifies an input field where the user can **enter data**. <input> elements are used within a <form> element to declare input controls that allow users to input data.

NOTE : It is an **inline tag.**

type Attribute

HTML provides different types of input that you can use for different kinds of entries. By default, the value of type is **text**, which specifies that we want single-line text input.

NOTE : type attribute is mandatory

Some more values for the type attribute are -

- submit
- email
- password
- date
- number
- range
- URL
- checkbox
- radio
- hidden
- time

Input Type Submit

type = "**submit**" represents a **button** that when selected, will submit the form. You can control the text that appears on the submit button with the value attribute.

Example :	<input **type="submit"** value="Submit">
Browser :	Submit

value Attribute

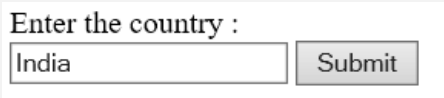Value is not a compulsory attribute to add to the input element.
The value attribute is used differently for different input types:

- For "button", "reset", and "submit" : It defines the text on the button
- For "text", "password", and "hidden" : It defines the initial (default) value of the input field
- For "checkbox", "radio", "image" - it defines the value associated with the input (It is also the value that is sent on submit)

Example : To set India as the default country on the input field

```
<label for="residence"> Enter the country : </label><br/>
<input type="text" id="residence" value="India" />
<input type="submit" value="Submit">
```

Browser :

Enter the country :
India   Submit

---

name Attribute

The HTML form data is sent to the browser or server-side in the form of (name: value), where value is the entry you provide respective to that name parameter.
The name attribute is a **compulsory** attribute for input tag in a form.
Without this attribute, this form element won't be submitted or, in other words would not be sent to the server.

The name attribute also uniquely identifies that piece of data. The **value of the input is accessed using the name attribute.**

label Tag

A label tag describes the kind of input in a form, and it is **not compulsory.** You can do that without the use of a label tag. But it is better to use the <label> tag to describe the kind of input for the form element.

NOTE : This is also an **inline tag.**

> **Example :**   `<label for="fname">First name:</label><br/>`
> `<input type="text" id="fname" name="firstname" />`

- ❖ The label is tied to this input element by giving the "**id**" attribute of the input element the same value as the label's "**for**" attribute.

NOTE : The value of id and name can be the same, and most of the time, this will be the case.

required Attribute

It specifies that an input field must be filled out before submitting the form. Else, it shows a pop up to fill out the required field, or you can say it defines a **mandatory field.**
The required attribute is a boolean attribute.

> **Example :**   `<form>`
> `<input type="text" required>`
> `<input type="submit" value="Submit" />`
> `</form>`
>
> If we click submit without entering any value, this pop-up shows up.
>
>
>
> This is a required field

placeholder Attribute

The placeholder attribute is used with the input element. It describes a **sample value or a short description** of the expected format.
The value of the placeholder attribute specifies a short hint that describes the expected value of an input field.

> **Example :**   `<input type="text" name="fname" placeholder="First name">`

Browser : First name

Input Type password

It is used for entering passwords in an input field. It is not shown on the screen, i.e. The characters in a password field are masked (shown as asterisks or circles).

Example :
```
<form>
  <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">
</form>
```

Browser :

Username:

coding_ninjas

Password:

●●●●●●●

Input Type Date

It is used for input fields that should contain a **date**.

Example :
```
<form>
  <label for="dob">Enter DOB : </label>
  <input type="date" id="dob" name="dob">
</form>
```

Browser : Enter DOB : dd-mm-yyyy

Input type range

It defines a control for entering a number on a slider control. Default range is 0 to 100. However, you can set restrictions on the accepted numbers with the min, max, and step attributes.

Example : `<form>`
`<label for="val"> Value </label>`
`<input` **type="range"** `id="val" name="val" min="0" max="50">`
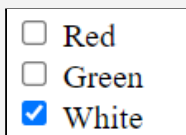`</form>`

Browser :

Input type checkbox

Checkboxes are used when **more than one option** may need to be checked, or you can also use them to enable or disable something.

There is also an attribute named checked, that when present, makes the checkbox selected by default when the page loads.

Example :
`<form>`
`<input` **type="checkbox"** `name="color1" value="red">` Red `<br>`
`<input` **type="checkbox"** `name="color2" value="green">` Green `<br>`
`<input` **type="checkbox"** `name="color3" value="white"` **checked**`>` White
`</form>`

Browser :

Input type radio

The radio button is just like a checkbox, but the difference is that the values of the name attribute are all the same.

The name attributes are all set to the same value makes these radio buttons part of the same set, and therefore, you can **only select one of them at once.**

Example :
`<form >`
`<input` **type="radio"** `name="gender" value="male" checked>` Male`<br>`
`<input` **type="radio"** `name="gender" value="female">` Female`<br>`
`<input` **type="radio"** `name="gender" value="other">` Other
`</form>`

Browser :	

Input type hidden

It defines a hidden input field (not visible to a user).
The hidden field includes some data and submits it along with the form, which is not visible to the user.

A hidden field often stores what database record needs to be updated when the form is submitted.

Example :	`<form>` `<label for="Name">Name:</label>` `<input type="text" id="Nname" name="Nname">  ` **`<input type="hidden"`** `id="loc" name="loc" value="India">` `<input type="submit" value="Submit">` `</form>`
Browser :	