

Web Engineering –

Lecture 3–HTML Tags

HTML `<form>` tag

Why we use “form” tags in HTML?

HTML `<form>` tag

Why we use “form” tags in HTML?

HTML forms are used to collect user input.

The `<form>` defines;

`<form>`

:

:

`</form>`

HTML “Post and Get” Method

2 HTTP Request Methods: GET and POST

These methods are used for a request and/or response between a client and server

1. **GET** – Requests data from a specified resource
2. **POST** – Submits data to be processed to a specified resource

HTML `<form>` tags

```
<form action = "ABC.html" method="post">
```

```
:  
:  
:
```

```
</form>
```

HTML `<form>` tags

```
<form action = "DEF.html" method="get">
```

```
  :
```

```
  :
```

```
  :
```

```
</form>
```

HTML – GET Method

1. GET requests can be cached
2. GET requests remain in the browser history
3. GET requests can be bookmarked
4. GET requests should never be used when dealing with sensitive data
5. GET requests have length restrictions
6. GET requests should be used only to retrieve data

HTML – Post Method

1. POST requests are never cached
2. POST requests do not remain in the browser history
3. POST requests cannot be bookmarked
4. POST requests have no restrictions on data length

HTML – Compare GET vs. POST

| | GET | POST |
|-----------------------------|---|---|
| BACK button/ Reload | Harmless | Data will be re-submitted |
| Bookmarked | Can be bookmarked | Cannot be bookmarked |
| Cached | Can be Cached | Cannot be Cached |
| History | Parameters remain in browser history | Parameters are not saved in browser history |
| Restrictions of data Length | Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters) | No restrictions |

HTML – Compare GET vs. POST

| | GET | POST |
|---------------------------|--|--|
| Restrictions on data type | Only ASCII characters allowed | No restrictions. Binary data is also allowed |
| Security | GET is less secure compared to POST because data sent is part of the URL Never use GET when sending passwords or other sensitive information! | POST is a little safer than GET because the parameters are not stored in browser history or in web server logs |
| Visibility | Data is visible to everyone in the URL | Data is not displayed in the URL |

HTML `<button>` tag

Definition and Usage

The `<button>` tag defines a clickable button.

Inside a `<button>` element you can put content, like text or images.

This is the difference between this element and buttons created with the `<input>` element.

Tip: Always specify the type attribute for a `<button>` element. Different browsers use different default types for the `<button>` element.

HTML `<button>` tag

```
<button type="button">Click Me!</button>
```



HTML `<input>` tag

- ▶ The `<input>` element is the most important **form element**.
- ▶ The `<input>` element has many variations, depending on the **type** attribute.
- ▶ Here are the types used:

| Type | Description |
|--------|--|
| text | Defines normal text input |
| radio | Defines radio button input (for selecting one or many choices) |
| submit | Defines a submit button (for submitting the form) |

HTML <input> tag Text

<form>

First name:

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

Last name:

<input type="text" name="lastname">

</form>

HTML `<input>` tag Text

`<form>`

First name:`
`

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

`
`

Last name:`
`

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

`</form>`

First name:

Last name:

HTML `<input>` tag Radio button

`<input type="radio">` defines a radio button

Radio buttons let a user select ONE of a limited number of choices:

`<form>`

`<input type="radio" name="fru" value="apple" checked>Apple`

`
`

`<input type="radio" name="fru" value="mango">Mango`

`</form>`

HTML `<input>` tag Radio button

`<input type="radio">` defines a radio button

Radio buttons let a user select ONE of a limited number of choices:

`<form>`

`<input type="radio" name="fru" value="apple" checked>Apple`

`
`

`<input type="radio" name="fru" value="mango">Mango`

`</form>`



HTML `<input>` tag Check Box

`<input type="checkbox">` defines a **Check Box**

- ▶ The checked attribute is a Boolean attribute.
- ▶ When present, it specifies that an `<input>` element should be pre-selected (checked) when the page loads.
- ▶ The checked attribute can be used with `<input type="checkbox">` and `<input type="radio">`.
- ▶ The checked attribute can also be set after the page load, with a JavaScript.

```
<form action="demo_form.html">
```

```
  <input type="checkbox" name="vehicle" value="Bike"> I have a bike<br>
```

```
  <input type="checkbox" name="vehicle" value="Car" checked> I have a car<br>
```

```
  <input type="submit" value="Submit">
```

```
</form>
```

HTML <input> tag Check Box

<input type="checkbox"> defines a **Check Box**

- ▶ The checked attribute is a Boolean attribute.
- ▶ When present, it specifies that an <input> element should be pre-selected (checked) when the page loads.
- ▶ The checked attribute can be used with <input type="checkbox"> and <input type="radio">.
- ▶ The checked attribute can also be set after the page load, with a JavaScript.

```
<form action="demo_form.asp">
```

```
  <input type="checkbox" name="vehicle" value="Bike"> I have a bike<br>
```

```
  <input type="checkbox" name="vehicle" value="Car" checked=""> I have a car<br>
```

```
  <input type="submit" value="Submit">
```

```
</form>
```

☐ I have a bike

☒ I have a car

Submit

HTML `<select>` tag

Definition and Usage

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

The `<option>` tags inside the `<select>` element define the available options in the list

Tip: The `<select>` element is a form control and can be used in a form to collect user input.

HTML <select> tag

<select>

<option value="volvo">Volvo</option>

<option value="saab">Saab</option>

<option value="mercedes">Mercedes</option>

<option value="audi">Audi</option>

</select>

HTML <select> tag

<select>

<option value="volvo">Volvo</option>

<option value="saab">Saab</option>

<option value="mercedes">Mercedes</option>

<option value="audi">Audi</option>

</select>

A visual representation of the HTML select tag output. It shows a rectangular box with a double border. Inside the box, the word 'Volvo' is written in a standard font. To the right of the text, there is a small black downward-pointing triangle, indicating that the menu is currently closed and 'Volvo' is the selected option.

HTML `<select>` tag

`<select>`

`<option value="volvo">Volvo</option>`

`<option value="saab">Saab</option>`

`<option value="mercedes">Mercedes</option>`

`<option value="audi">Audi</option>`

`</select>`



Quiz

Write the HTML `<table>` tags to draw following table.

Table 1: This the caption

| This is the Header | | | |
|---|--------|--------|--|
| Left Navigation Bar <ul style="list-style-type: none">• Link 1• Link 2• Link 3• Link 4 | Cell 1 | Cell 2 | Right Navigation Bar <ul style="list-style-type: none">1. Link 52. Link 63. Link 74. Link 8 |
| | Cell 3 | Cell 4 | |
| This is the Footer | | | |

Quiz

Write the HTML `<table>` tags to draw following table.

Table 1: This is the caption

| This is the Header | | | |
|---|--------|--------|--|
| Left Navigation Bar <ul style="list-style-type: none">• Link 1• Link 2• Link 3• Link 4 | Cell 1 | Cell 2 | Right Navigation Bar <ol style="list-style-type: none">1. Link 52. Link 63. Link 74. Link 8 |
| | Cell 3 | | |
| This is the Footer | | | |

Quiz

Write the HTML `<table>` tags to draw following table.

| | | | | |
|-----------------|---|---|---|---|
| Title goes here | | | A | B |
| C | D | E | F | G |
| | H | I | | J |
| | K | L | M | |
| N | O | | | |

Quiz

Write the HTML `<table>` tags to draw following table.

Table 1

| Table 2 This is the header row | | | | | |
|-------------------------------------|---------|---------|--|-----------------|---------------------------|
| cell 7 | cell 8 | cell 9 | | cell 11 | cell 12 |
| cell 13 | cell 14 | | | cell 17 | Tabel 1 cell 18 |
| cell 19 cell 20 | | | | cell 23 | cell 24 |
| cell 25 | cell 26 | | | cell 29 | cell 30 |
| cell 31 | cell 32 | | | cell 35 cell 36 | |
| | | cell 10 | | | |