TECHNOLOGY

Caltech | **Center for Technology & Management Education**

Full Stack Java Developer

HTML

Forms in HTML

Learning Objectives

By the end of this lesson, you will be able to:

⦿ Learn how to use and create forms to collect customer feedback

⦿ Investigate how to use HTTP methods to connect to the server

⦿ Learn how to create checkboxes and radio buttons to make forms appealing

⦿ Learn how to use a multi-text input control and iframes to collect user feedback

A Day in the Life of a Full Stack Developer

You are a member of a web application project that handles user data. The users are required to sign up or log in to the application to access the available data. Each developer in the team has been assigned a specific module of the application to work on.

Your task is to develop the sign-up form that captures the user's details and creates an account for them. To accomplish this, you will need to use forms in HTML and HTTP methods to store and retrieve the data for sign-up. You will also need to explore the various features and options available in HTML forms to create a user-friendly sign-up page.

Forms

Forms

An HTML document contains:

Normal content

Markup

Controls

Labels

Forms

Here is an example of a form:

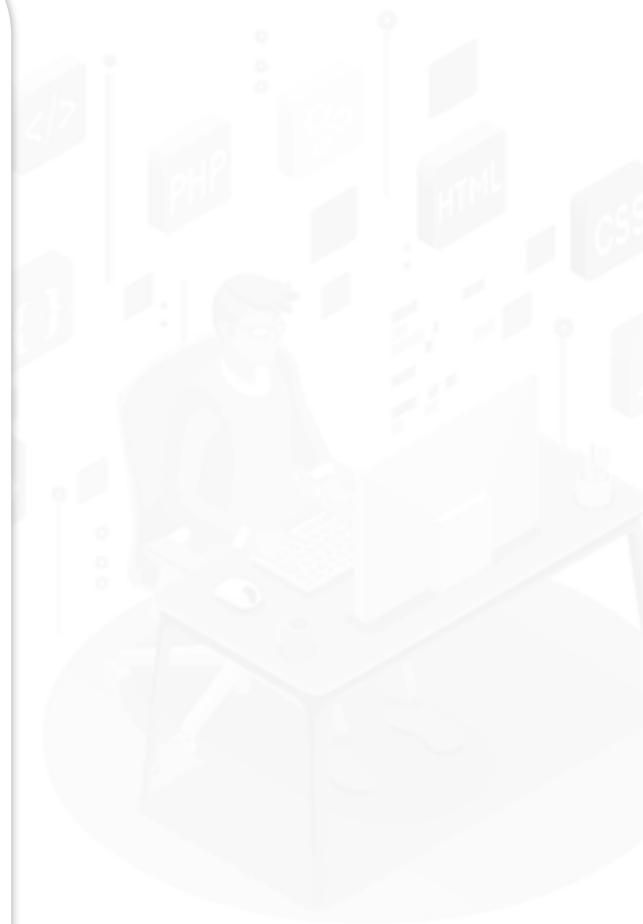**First Name:**

Last Name:

Date of Birth:

Email ID:

Mobile Number:

SUBMIT   RESET

Forms

Input components are contained within the <form> element.

```
<form>

Text fields, checkboxes, radio buttons,
submit buttons.

</form>
```

Forms

The action attribute of <form> defines the process to be performed on the form.

It can be .php, .jsp, .asp, etc., or any URL where the form should be processed.

Input type

The input type="text" specifies a single-line text input field.
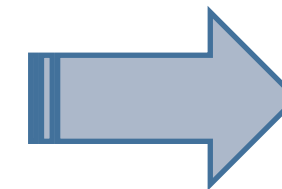
Label

Form elements have a label defined by the label tag.
Therefore, the attribute is the ID of the element the label is associated with.

Forms

Example:

Output

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Forms</h2>
<form>
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"
value="Rehmat"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname"
value="kaur"><br><br>
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

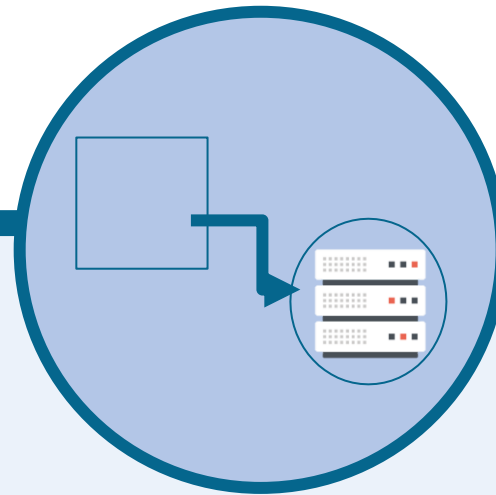**HTML Forms**

First name:

Rehmat

Last name:

kaur

Submit

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HTTP Methods

HTTP Methods

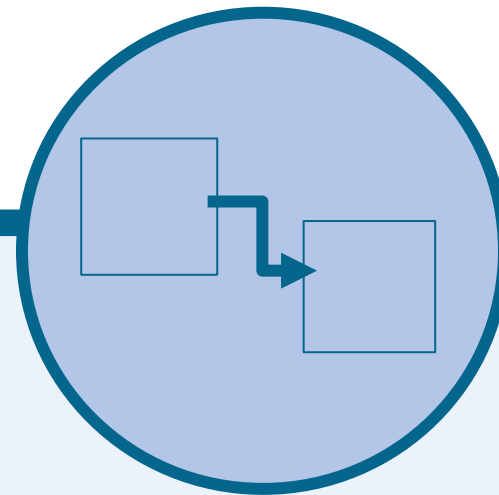Once a form is set, the data either needs to be communicated with or fetched from the server.

To send data to a server, utilize the POST method since it:

- Is never cached
- Does not remain in the browser history
- Cannot be bookmarked
- Has no restrictions on data length

HTTP Methods

Once a form is set, the data either needs to be communicated with or fetched from the server.

With the GET method, one may retrieve data from a specified resource since it:

- Remains in the browser history
- Can be bookmarked
- Is never be used when dealing with sensitive data
- Has length restrictions
- Is used only to request data

Input Text Fields

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Input Text Fields

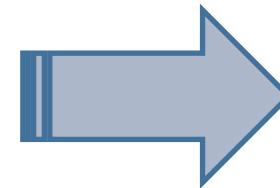Input text refers to the text that the user has entered in the text field.

A single-line text input field is defined **by input type="text">**

The text field's default width is 20 characters.

Input Text Fields

Example:

```html
<!DOCTYPE html>
<html>
<body>
<h3>Text Fields</h3>
<form>
<label for="fname">First Name:</label><br>
<input type="text" id="fname" name="fname"><br>
<label for="lname">Last Name:</label><br>
<input type="text" id="lname"
name="lname"><br><br>
</form>
</body>
</html>
```

Output

Text Fields

First Name:

Last Name:

Select Menus

Select Menus

The option that has to be picked is designated with the choose tag.

<select>

Defines a drop-down list
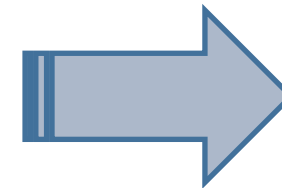
<option>

Defines an option that can be selected

To define a pre-selected option, add the selected attribute to the option.

Select Menus

Example:

```
<!DOCTYPE html>
<html>
<body>
<h3>Select Menus</h3>
<form>
<label for="colors">Choose a color:</label>
<select id="colors" name="colors">
<option value="red">Red</option>
<option value="green">Green</option>
<option value="yellow">Yellow</option>
<option value="blue">Blue</option>
<option value="black">Black</option>
</select>
</form>
</body>
</html>
```

Output

Select Menus

Choose a color: Red ▾

Red
Green
Yellow
Blue
Black

Checkboxes and Radio Buttons

Checkboxes

Checkboxes are commonly used to record inputs.

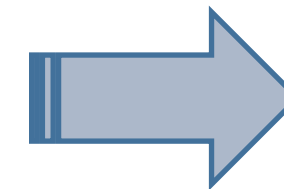A checkbox allows selecting one or more selections from a list.

Checkboxes

The <input type="checkbox"> defines a checkbox.

Example:

```
<!DOCTYPE html>
<html>
<body>
<form>
Choose languages you know:
<br>
<input type="checkbox" name="HTML"
value="yes">HTML<br>
<input type="checkbox" name="C#"
value="yes">C#<br>
<input type="checkbox" name="Java"
value="yes">Java<br>
</form>
</body>
</html>
```
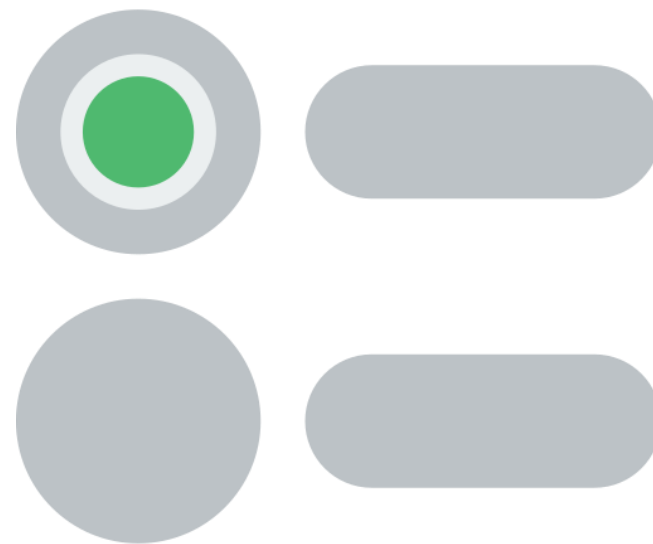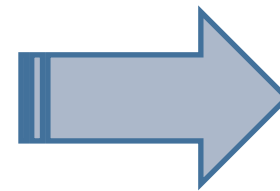
Output:

Choose languages you know:
☑ HTML
☐ C#
☑ Java

Radio Buttons

Radio buttons allow choosing one option.

A radio button is defined with the input type="radio">.

Radio Buttons

Example:

```
<!DOCTYPE html>
<html>
<body>
<form>
Select the right option:
<br>
<input type="radio" name="male"
value="male">Male<br>
<input type="radio" name="female"
value="female">Female<br>
        </form>
</body>
</html>
```

Output

Select the right option:
○ Male
○ Female

Text Areas, Buttons, and Iframes

Text Areas

\<textarea\> tag defines multi-line text input control.

This element is used to collect the user inputs.

Text Areas

It can hold unlimited characters, and the text renders in a fixed-width font.
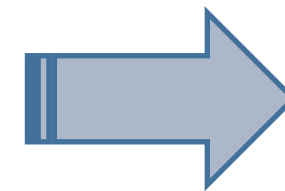
Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>The textarea element</h2>
<form>
<textarea id="message" name="message" rows="4"
cols="50">
Our world is an amazing place. Let's keep our
planet neat and clean. Remember to use trash
bins and maintain hygiene in your surroundings.
</textarea>
<br>
</form>
</body>
</html>
```
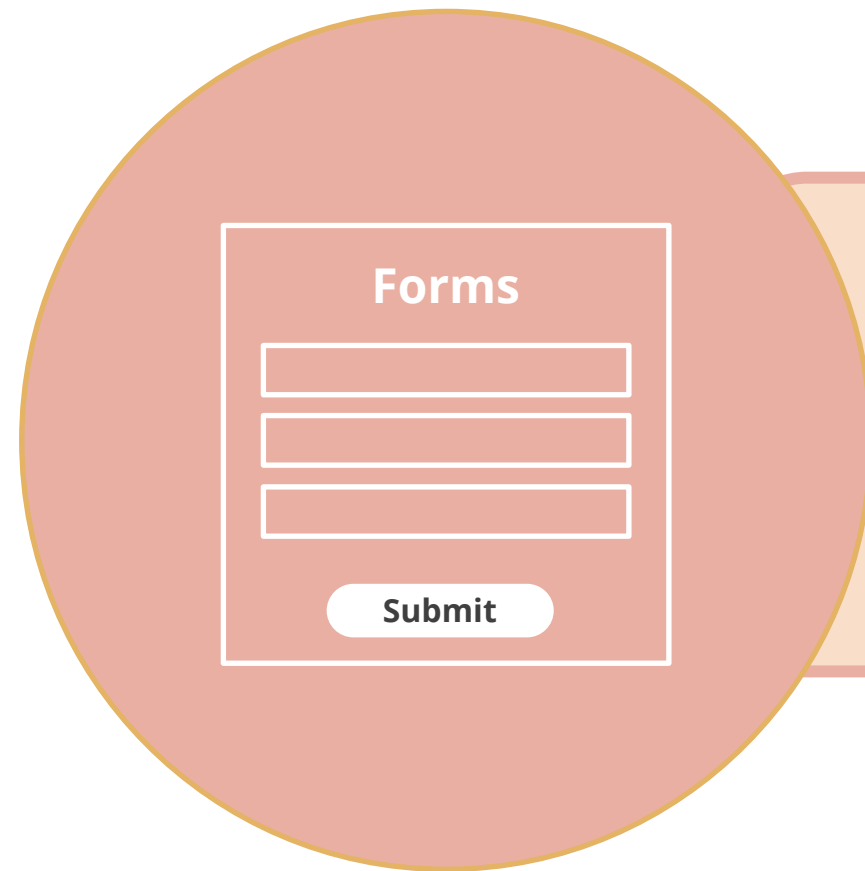
Output:

The textarea element

```
A text area can hold ▲▼
an unlimited number
```

Button Tag

The button tag is used to create a button within a clickable form.

Forms

Submit

A user can submit information in a form by clicking the button.

Button Tag

<button> tag is used for control.

Syntax:

```
<button type="button|submit|reset">
```
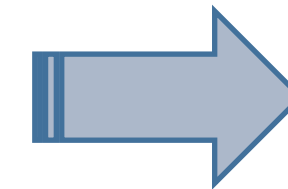
Clickable button

Submit form-data

Reset the form-data to its initial values

Button Tag

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Buttons</h2>
<form>
<label for="fname">First Name:</label><br>
<input type="text" id="fname" name="fname"><br>
<label for="lname">Last Name:</label><br>
<input type="text" id="lname"
name="lname"><br><br>
<button type="submit"
value="Submit">Submit</button>
<button type="reset"
value="Reset">Reset</button>
</form>
</body>
</html>
```

Output:

Buttons

First Name:

[   ]

Last Name:

[   ]

[Submit] [Reset]

Iframes

An iframe allows multiple HTML documents to be displayed independently.

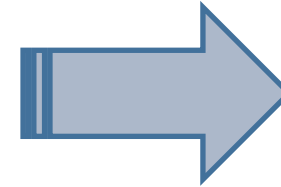Each window shows a separate HTML page or web page. The syntax is as follows:

```
iframe src="url"
title="description"></iframe>
```
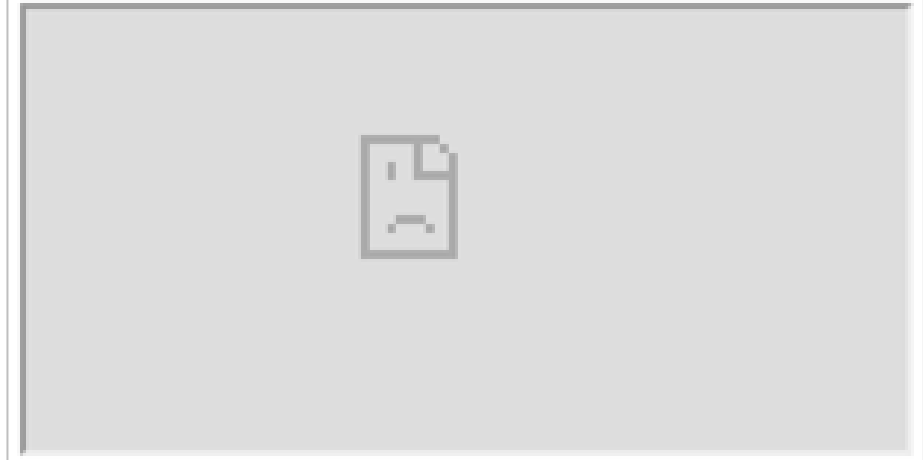
Iframes

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Iframes </h2>
<iframe src="" height="200" width="300"
title="Iframes">
</iframe>
</body>
</html>
```

Output

Iframes

Key Takeaways

- Input components are contained within the <form> element.

- The POST method is used to communicate data to a server.

- The GET method is used to obtain data from a given resource.

- Input text refers to the text that the user has entered in the text field.

- The select tag is used for the selected option that needs to be selected.

- <textarea> tag defines multi-line text input control.

Thank You