

WD – HTML (HTML FORMS)

Question 1: What are HTML forms used for? Describe the purpose of the input, textarea, select, and button elements.

Ans: - HTML forms are used to collect user input and send data to a server for processing. They are essential for creating interactive web applications, allowing users to enter and submit data, such as personal information, search queries, or feedback.

❖ Here's the purpose of the various form elements:

- `<input>` element: This is used for various types of user input, such as text, numbers, checkboxes, radio buttons, or file uploads. The type of input is specified with the type attribute (e.g., `type="text"`, `type="password"`, `type="checkbox"`).
- `<textarea>` element: This is used for multi-line text input. It allows the user to enter longer text or paragraphs, such as in a comment box or description field.
- `<select>` element: This creates a dropdown list from which the user can choose one or more options. It works in conjunction with `<option>` elements that define the available choices.
- `<button>` element: This is used to create a clickable button that can submit a form or trigger some JavaScript

action. It can be of type submit to send the form data or reset to reset the form.

Question 2: Explain the difference between the GET and POST methods in form submission. When should each be used?

Ans: - The GET and POST methods are two ways to send form data to a server, but they work differently

➤ GET method:

- Data is appended to the URL as query parameters
- It's visible in the browser's address bar, making it less secure for sensitive data like passwords.
- It is **idempotent**, meaning that re-submitting the same GET request will not cause a change in the server's state.
- Best used for **non-sensitive data** like search queries or filters, where the data is intended to be shared (such as bookmarking the URL).

➤ POST method:

- Data is sent in the body of the HTTP request, not visible in the URL

- It's **more secure** for sensitive information like passwords or personal details.
- POST requests can result in changes to the server's state (like adding or updating records).
- Best used for **sensitive data** or when performing actions that change the state on the server, like submitting a registration form or posting a comment.

Question 3: What is the purpose of the label element in a form, and how does it improve accessibility?

Ans: - The <label> element is used to define labels for form controls (such as input fields, checkboxes, radio buttons, etc.).

Associates labels with form elements: By using the for attribute with the ID of the corresponding input, a label explicitly links to a form element, which helps screen readers and other assistive technologies properly interpret the form.

Example:

```
<label for="email">Email:</label>
```

```
<input type="email" id="email" name="email">
```

- **Improves form usability:** When a user clicks on the label, it automatically focuses on the associated input field. This is particularly helpful for smaller input fields or checkboxes.
- **Enhances accessibility:** Screen readers can read the label aloud when the user focuses on the form control, providing better context for users with disabilities. Without labels, screen readers may not be able to provide clear instructions for each form element.