

Lists, Tables, and Forms

Web Development Essentials - Session 3

Session Overview

Learning Goals for Today:

- Learn how to create different types of lists in HTML
- Understand how to structure data using HTML tables
- Build interactive forms for user input
- Apply HTML best practices for accessibility and usability

Lists in HTML

Unordered Lists ():

- Bulleted lists

```
<ul>
  <li>Item 1</li>
  <li>Item 2</li>
</ul>
```

Ordered Lists ():

- Numbered lists

```
<ol>
  <li>First item</li>
  <li>Second item</li>
</ol>
```

Description List (<dl>, <dt>, <dd>):

- Used for term/description pairs

```
<dl>
  <dt>HTML</dt>
  <dd>A markup language for creating web pages</dd>
</dl>
```

Nesting Lists

Nesting Lists:

- Lists can be nested inside one another (unordered or ordered)

```
<ul>
  <li>First item
    <ul>
      <li>Sub-item</li>
    </ul>
  </li>
  <li>Second item</li>
</ul>
```

Tables in HTML

What Are Tables?

- Used for displaying tabular data in rows and columns

`<table>`: Wraps the entire table

`<tr>`: Defines a table row

`<th>`: Defines a header cell

`<td>`: Defines a data cell

```
<table>
  <tr>
    <th>Heading 1</th>
    <th>Heading 2</th>
  </tr>
  <tr>
    <td>Data 1</td>
    <td>Data 2</td>
  </tr>
</table>
```

Adding Table Borders and Captions

Table Borders:

- To add borders, use CSS or the `border` attribute

Table Captions:

- Add a caption for context

```
<table>
  <caption>Monthly Sales Report</caption>
  <tr>
    <th>Month</th>
    <th>Sales</th>
  </tr>
</table>
```

```
<table style="border: 1px solid black;">
  <tr>
    <th>Header 1</th>
    <th>Header 2</th>
  </tr>
  <tr>
    <td>Data 1</td>
    <td>Data 2</td>
  </tr>
</table>
```

Spanning Rows and Columns

Merging Cells:

- **Rowspan:** Merge cells vertically
- **Colspan:** Merge cells horizontally

```
<table>
  <tr>
    <td rowspan="2">Merged Row</td>
    <td>Cell 2</td>
  </tr>
  <tr>
    <td>Cell 3</td>
  </tr>
</table>
```

Introduction to Forms

What Are Forms?

- Forms collect user input and send it to a server

```
<form action="/submit" method="POST">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name">
  <input type="submit" value="Submit">
</form>
```

<form>: Wraps the entire form

action: Where the form data is sent

method: HTTP method (GET or POST)

Common Form Elements

Text Input: `<input type="text">`

Email Input: `<input type="email">`

Password Input: `<input type="password">`

Submit Button: `<input type="submit">`

Text Area: `<textarea></textarea>` (For multi-line text)

```
<label for="email">Email:</label>  
<input type="email" id="email" name="email">
```

Form Elements: Radio Buttons and Checkboxes

Radio Buttons: `<input type="radio">` (Single choice)

```
<input type="radio" id="male" name="gender" value="male">  
<label for="male">Male</label>
```

Checkboxes: `<input type="checkbox">` (Multiple choices)

```
<input type="checkbox" id="subscribe" name="subscribe" value="yes">  
<label for="subscribe">Subscribe to newsletter</label>
```

Select Dropdown and Buttons

Dropdown Menus:

- `<select>` tag for multiple options

```
<label for="country">Country:</label>
<select id="country" name="country">
  <option value="usa">USA</option>
  <option value="uk">UK</option>
</select>
```

Buttons:

- `<button>` for customized buttons

```
<button type="submit">Submit Form</button>
```

Hands-On Activity

Goal: Build a webpage with:

- An ordered list (``) and an unordered list (``)
- A table with at least 2 rows and 2 columns
- A form that collects the user's name, email, and a message

Instructions:

- Use your code editor (VS Code)
- Test the form submission locally

Best Practices for Forms

Accessibility:

- Always use `<label>` elements for form inputs
- Add `aria-labels` where needed
- Provide helpful error messages and form validation

Security:

- Avoid exposing sensitive information in GET requests
- Use `POST` for secure form submissions

Summary

What We Learned Today:

- How to create lists (ordered, unordered, and description lists)
- How to structure data with HTML tables
- Building interactive forms for user input

Questions?

Q&A Session

- Any questions before we wrap up?

Thank You & See You in the Next Class!