

# Class 2: Building the Event Invitation Page

## SESSION OVERVIEW

By the end of this session, students will be able to:

- Understand how to create the structure for an event invitation page using HTML.
- Organize content into logical sections such as Event Title, Date, Time, Venue, and RSVP Button.
- Identify the role of semantic HTML tags for creating a clean and accessible layout.
- Add placeholders for images, text, and interactive elements like buttons.
- Apply HTML best practices for organizing event information and ensuring clear navigation.
- Develop a fundamental understanding of Tables and Forms.

## SESSION TOPICS

### Building the Event Invitation Page with HTML

- **Understanding Event Invitation Page Structure:**
    - Learn how to create a basic structure for an event invitation page using HTML.
    - Organize the page into clear sections such as Event Title, Date, Time, Venue, and RSVP Button.
  - **Using Semantic Tags for Layout:**
    - Introduction to semantic HTML tags for creating a clean and accessible layout (e.g., `<header>`, `<section>`, `<footer>`).
    - Organize content logically using these tags to enhance both user experience and search engine optimization.
  - **Adding Placeholders for Content:**
    - Learn how to add placeholders for images, text, and buttons, ensuring a user-friendly design.
  - **Event Information Organization:**
    - Understand the importance of structuring event details in a clear format for easy reading and accessibility.
  - **Implementing the RSVP Button:**
    - Understand how to create interactive elements like the RSVP button and how to style it for usability.
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# # Tables and Forms in HTML

Tables and forms are essential elements in HTML for **displaying structured data** and **collecting user input**.

## 1. Creating a Table (<table>)

**Definition:** A table in HTML is created using the <table> element, which organizes data into rows (<tr>) and columns (<th> and <td>).

Tag	Definition	Example Usage
<table>	Creates a table	<table> ... </table>
<tr>	Defines a row in the table	<tr> ... </tr>
<th>	Defines a table header (bold & centered)	<th>Column Name</th>
<td>	Defines a data cell in a row	<td>Row Data</td>
border="1"	Adds a border to the table (optional)	<table border="1">
colspan	Merges multiple columns into one	<td colspan="2">Merged</td>
rowspan	Merges multiple rows into one	<td rowspan="2">Merged</td>

### Example Table Code:

```
<table border="1">
  <tr>
    <th>Name</th>
    <th>Age</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alice</td>
    <td>25</td>
    <td>USA</td>
  </tr>
  <tr>
    <td>Bob</td>
    <td>30</td>
    <td>UK</td>
  </tr>
</table>
```

### Example with colspan and rowspan:

```
<table border="1">
  <tr>
    <th colspan="2">Full Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Alice</td>
    <td>Smith</td>
    <td>25</td>
  </tr>
</table>
```

## 2. Creating a Form (<form>)

### Definition:

A form in HTML allows users to **input and submit data** to a web server. The <form> element wraps input fields, and the data is sent when the user clicks the **submit button**.

### Example Form Code:

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

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

  <label for="message">Message:</label>
  <textarea id="message" name="message"></textarea>

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

## Form Elements and Definitions:

These are the tags and attributes used to make a fully functional form which post the data to webserver

Tag/Attribute	Definition	Example Usage
<code>&lt;form&gt;</code>	Defines a form for user input	<code>&lt;form action="/submit" method="POST"&gt; ... &lt;/form&gt;</code>
<code>action</code>	Specifies where the form data is sent	<code>action="/submit"</code>
<code>method="POST"</code>	Sends data securely (alternative: <code>GET</code> for URL parameters)	<code>&lt;form method="POST"&gt;</code>
<code>&lt;label&gt;</code>	Describes the input field (improves accessibility)	<code>&lt;label for="name"&gt;Name:&lt;/label&gt;</code>
<code>&lt;input&gt;</code>	Defines an input field	<code>&lt;input type="text" name="name"&gt;</code>
<code>type="text"</code>	Allows text input	<code>&lt;input type="text"&gt;</code>
<code>type="email"</code>	Ensures valid email input	<code>&lt;input type="email"&gt;</code>
<code>type="password"</code>	Masks user input for security	<code>&lt;input type="password"&gt;</code>
<code>type="checkbox"</code>	Creates a selectable checkbox	<code>&lt;input type="checkbox"&gt;</code>
<code>type="radio"</code>	Creates radio buttons for selecting one option	<code>&lt;input type="radio" name="gender" value="male"&gt;</code>
<code>type="radio"</code>	Creates radio buttons for selecting one option	<code>&lt;input type="radio" name="gender" value="male"&gt;</code>
<code>&lt;textarea&gt;</code>	Allows multi-line text input	<code>&lt;textarea name="message"&gt;&lt;/textarea&gt;</code>
<code>&lt;button&gt;</code>	A clickable button (usually for form submission)	<code>&lt;button type="submit"&gt;Submit&lt;/button&gt;</code>
<code>required</code>	Makes the input field mandatory	<code>&lt;input type="text" required&gt;</code>
<code>placeholder</code>	Provides a hint in an input field	<code>&lt;input type="text" placeholder="Enter Name"&gt;</code>

### 3. Example: Advanced Form with More Input Fields

```
<form action="/submit" method="POST">  
  <label for="username">Username:</label>  
  <input type="text" id="username" name="username" required>
```

```
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>

<label>Gender:</label>
<input type="radio" name="gender" value="male"> Male
<input type="radio" name="gender" value="female"> Female

<label for="hobbies">Choose Hobbies:</label>
<input type="checkbox" name="hobbies" value="reading"> Reading
<input type="checkbox" name="hobbies" value="sports"> Sports

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

<button type="submit">Register</button>
</form>
```

## Description of the Form:

This is a **user registration form** that collects basic user information and preferences.

- **Action & Method:** The form submits data to /submit using the **POST** method.
- **Username & Password:** Requires users to enter a **username** and **password**.
- **Gender Selection:** Users can select their **gender** using **radio buttons** (only one option can be selected).
- **Hobbies Selection:** Users can select multiple hobbies using **checkboxes**.
- **Country Selection:** Users choose their country from a **dropdown (<select>)** menu.
- **Submit Button:** Registers the user by sending the entered data to the server.

## # HTML Structure:

Let's Initially Create a basic HTML Structure

```
<!DOCTYPE html>
<html lang="en">
```

```
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>

</body>
</html>
```

### Explanation:

This is a basic HTML template.

1. **<!DOCTYPE html>**: Declares the document type, indicating it's an HTML5 document.
2. **<html lang="en">**: The root element of the page, specifying the language as English.
3. **<head>**: Contains meta-information about the page (like character set and viewport settings) and the title of the document.
4. **<meta charset="UTF-8">**: Ensures proper encoding for text characters.
5. **<meta name="viewport" content="width=device-width, initial-scale=1.0">**: Makes the page responsive on different devices.
6. **<title>Document</title>**: Specifies the title that appears in the browser tab.
7. **<body>**: The section where the visible content of the page goes.

## # Building Event Invitation:

Let's break the Event invitation into 3 section

- Header Section
- Main Section
- Footer Section

### 1. Header Section:

```
<header>
  <h1><strong> You are Invited! </strong></h1>
  <p>We cordially invites you to the ultimate coding showdown!</p>
```

```
</header>
```

## Explanation:

This **<header>** section includes:

1. **Main Heading (<h1>):** "You are Invited!" — the event title, styled with bold text.
2. **Paragraph (<p>):** A short invitation message, inviting people to the coding showdown.

## 2. Main Section:

```
<main>
  <section>
    
  </section>

  <section>
    <h2>Event Details</h2>
    <p><strong>Event Name:</strong> CodeXtravaganza 2025 The Ultimate
Coding Showdown</p>
    <p><strong>Date:</strong> 14th March 2025</p>
    <p><strong>Time:</strong> 10:00 AM - 5:00 PM</p>
    <p><strong>Venue:</strong> Unit 007-008, GF, Tower-A, Unitech Cyber
Park, Durga Colony, Sector 39, Gurugram, Haryana</p>
  </section>

  <section>
    <h3>Why Attend? </h3>
    <p>Join us for an electrifying event where top coders, tech
enthusiasts, and problem solvers come together to battle in competitive
programming and innovation challenges!</p>
    <h4>No Team? No Problem!</h4>
    <p>Participate solo or find teammates at our networking zone. Win
exciting prizes, internships, and coding swag!</p>
  </section>
```

```
<section>
  <h2>Event Rules</h2>
  <p><strong>Registration:</strong> Mandatory</p>
  <p><strong>Eligibility:</strong> Open for students & professionals</p>
  <p><strong>Rounds:</strong> Algorithm challenge, Debugging round,
Hackathon sprint</p>
  <p> *Strictly follow the event rules for a fair competition.*</p>
</section>
<section>
  <h2> Glimpses from Past Events</h2>
  <p>Still wondering how epic this event is? Check out some moments from
our previous coding battles! </p>

  <!-- Video of a past event -->
  <h3> Watch the Action Unfold!</h3>
  <video width="600" controls>
    <source src="/" type="video/mp4">
    Your browser does not support the video tag.
  </video>
</section>

<section>
  <h2> Wondering Where to Come? </h2>
  <p>Lost in the matrix of locations? No worries! Just follow the map
below and let Google navigate you straight to the battle arena!</p>

  <iframe

src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3498.2498021696124!
2d77.04440715761918!3d28.45341687571783!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1
!3m3!1m2!1s0x390d188155555555:3A0x6d49bbd8d8d8d8d8!2sUnitech%20Cyber%20Park!5e
0!3m2!1sen!2sin!4v1707741245678!5m2!1sen!2sin"

    width="600"
    height="400"
    style="border:0;"
    allowfullscreen=""
    loading="lazy">
  </iframe>
</section>

<section>
```



```
<h2> RSVP Now!</h2>
<p>Don't miss out! Confirm your spot by filling out the form
below:</p>
<form>
  <label for="name">Name:</label>
  <input type="text" id="name" required><br><br>

  <label for="email">Email:</label>
  <input type="email" id="email" required><br><br>

  <label for="attending">Will you attend?</label>
  <select id="attending">
    <option value="yes">Yes</option>
    <option value="no">No</option>
  </select><br><br>

  <input type="submit" value="Submit RSVP">
</form>
</section>
</main>
```

**Explanation:** This `<main>` section includes various parts of the event page:

1. **Image:** A placeholder image for a past event.
2. **Event Details:** Information about the event like name, date, time, and venue.
3. **Why Attend?:** Describes the event's excitement and opportunities for solo participants.
4. **Event Rules:** Details about registration, eligibility, and rounds.
5. **Past Events:** A video showcasing past events and their highlights.
6. **Location:** An embedded Google Map to show the event venue.
7. **RSVP Form:** A form to confirm attendance with fields for name, email, and attendance choice.

### 3. Footer Section:

```
<footer>
  <p>For any queries, contact us at <a
href="mailto:event@codingninjas.com">event@codingninjas.com</a></p>
  <p>&copy; 2025 CodeXtravaganza. All Rights Reserved.</p>
</footer>
```

### Explanation:

This is a footer section of an HTML document.

1. **<footer>**: Defines the footer area of the page, typically used for information like contact details or copyright notices.
  2. **<p>**: A paragraph element. The first paragraph contains a contact email with a clickable link using the **<a>** tag.
    - **<a href="mailto:event@codingninjas.com">**: This creates a mailto link that, when clicked, opens the default email client to send an email to the provided address.
  3. The second **<p>** contains the copyright notice for the website, specifying that all rights are reserved for "CodeXtravaganza" in 2025.
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## Concept Indepths

### Understanding the <iframe> Tag

The **<iframe>** (Inline Frame) tag is an HTML element used to embed another HTML page or resource within the current web page. It creates a "window" or "frame" inside your page that can display content from a separate source. The content in the **<iframe>** can be another webpage, a video, an image, or even interactive media such as maps, without disrupting the primary content of the page.

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### What is an iFrame?

- **Definition:** The **<iframe>** tag allows you to embed an entire HTML document or resource within another HTML document. The source for this content is typically specified in the **src** attribute, and this content is displayed inside the frame (or window) on your page.
  - **Basic Purpose:** An iframe is used to display external content (such as a map, video, or another webpage) within your own website or webpage, essentially allowing the inclusion of external content seamlessly.
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## Syntax of the <iframe> Tag

```
<iframe src="URL_of_the_embedded_content" width="600" height="400"></iframe>
```

### Explanation of Attributes:

- **src (Required):** This attribute specifies the URL (Uniform Resource Locator) of the content that you want to display inside the iframe. It could be a link to a webpage, a video, or any web resource.  
Example:

```
<iframe src="https://www.example.com"></iframe>
```

- **width and height:** These attributes define the dimensions of the iframe (in pixels). If not specified, the iframe will be rendered with default dimensions.  
Example:

```
<iframe src="https://www.example.com" width="800" height="600"></iframe>
```

- **title:** This attribute provides an accessible name for the iframe. This is important for accessibility and helps users with assistive technologies understand the content of the iframe.  
Example:

```
<iframe src="https://www.example.com" title="Example Website"></iframe>
```

- **frameborder:** This attribute is used to define whether the iframe should have a border around it or not. A value of 0 means no border, while 1 would display a border.  
Example:

```
<iframe src="https://www.example.com" frameborder="0"></iframe>
```

- **allowfullscreen:** This attribute enables the iframe to display content in fullscreen mode if it's supported, typically used for embedded videos.  
Example:

```
<iframe src="https://www.youtube.com" allowfullscreen></iframe>
```

- **sandbox:** This attribute is used for security. It enables an extra set of restrictions on the content inside the iframe. The content inside the iframe is treated as if it's from an

untrusted source. You can specify certain features like allow-forms, allow-scripts, or allow-same-origin to relax some restrictions.  
Example:

```
<iframe src="https://www.example.com" sandbox="allow-forms  
allow-scripts"></iframe>
```

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## Common Use Cases for <iframe>

**Embedding External Content:** You can use iframes to embed external content, such as an embedded YouTube video, Google Maps, or any third-party resources.

Example:

```
<iframe src="https://www.youtube.com/embed/dQw4w9WgXcQ" width="560"  
height="315" frameborder="0" allow="accelerometer; autoplay; encrypted-media;  
gyroscope; picture-in-picture" allowfullscreen>  
</iframe>
```

**1. Embedding Google Maps:** You can embed Google Maps using an iframe, which is useful when showing locations on your website.

Example:

```
<iframe  
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3153.917279798395!2  
d144.95373531531536!3d-37.81827297975104!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13  
.1!3m3!1m2!1s0x6ad65d4b11ccaf39%3A0x5045675218ce8f0!2sFederation+Square!5e0!3m  
2!1sen!2sus!4v1554173073314!5m2!1sen!2sus" width="600" height="450"  
frameborder="0" style="border:0;" allowfullscreen="" aria-hidden="false"  
tabindex="0">  
  
</iframe>
```

**2. Embedding Forms or External Widgets:** If you want to use third-party forms or other embedded tools, you can integrate them using iframes.

Example:

```
<iframe src="https://example.com/contact-form" width="600" height="400">  
  
</iframe>
```

**3. Embedding Social Media Feeds:** Social media sites often provide embeddable feeds that you can display inside an iframe on your website. For instance, embedding a Twitter timeline or an Instagram feed.

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## Pros and Cons of Using <iframe>

### Pros:

1. **Easy Integration:** You can easily embed external content such as maps, videos, and forms without having to recreate them.
2. **Seamless User Experience:** Allows you to display external content directly on your page, providing a better user experience.
3. **Security:** By using the **sandbox** attribute, you can control the behavior of the embedded content and prevent malicious scripts from executing.
4. **Cross-origin Compatibility:** If the iframe content is hosted on a different domain, it can still be embedded without worrying about server configurations or cross-origin resource sharing (CORS) issues.

### Cons:

1. **SEO Impact:** Content inside an iframe is not crawled by search engines in the same way as regular content, meaning the iframe content is not indexed for SEO.
  2. **Performance:** Adding multiple iframes can slow down page loading, as each iframe will load its own content independently.
  3. **Accessibility Issues:** If not properly handled, iframes can be problematic for accessibility. It's important to always use the **title** attribute and ensure that the iframe content is accessible.
  4. **Security Risks:** Embedding content from untrusted sources can expose your site to cross-site scripting (XSS) attacks if the iframe content is not carefully sandboxed.
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## Best Practices for Using <iframe>

**Use the sandbox Attribute:** Always use the sandbox attribute when embedding potentially untrusted content to limit its access to your page. Example:

```
<iframe src="https://example.com" sandbox="allow-scripts  
allow-same-origin"></iframe>
```

**1. Provide Alternative Content:** If the iframe fails to load, consider providing fallback content within the <iframe> tag, such as a message indicating that the content couldn't be loaded.

Example:

```
<iframe src="https://www.example.com">  
Your browser does not support iframes.
```

```
</iframe>
```

**2. Optimize Performance:** Avoid embedding too many iframes, as each iframe will cause an additional network request and can slow down your page load time. If the iframe content is heavy, consider lazy loading it (i.e., only load it when it is about to be viewed).

**3. Responsive Design:** Ensure your iframes are responsive by using CSS, so they adapt to various screen sizes and maintain a good user experience on mobile devices.

## Tips and Trick:

1. HTML Learning: <https://developer.mozilla.org/en-US/docs/Web/HTML>
2. HTML Practice: <https://www.naukri.com/code360/web-development>

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