

FRONTEND\_CHAMPS

# HTML

## BEGINNER TO ADVANCED



## BEGINNER LEVEL:

### Basic Structure:

- Every HTML document starts with **<!DOCTYPE html>**, followed by **<html>**, **<head>**, and **<body>** tags.



```
<!DOCTYPE html>
<html>
<head>
  <title>My First Webpage</title>
</head>
<body>
  <h1>Hello, World!</h1>
</body>
</html>
```

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### Common Tags:

- **Headings:** `<h1>` to `<h6>` for titles and subtitles.
- **Paragraph:** `<p>` for text blocks.
- **Links:** `<a href="URL">` for hyperlinks.
- **Images:** `` for images.
- **Lists:** `<ul>` (unordered), `<ol>` (ordered), and `<li>` for list items.


### Attributes:

- Attributes provide additional information about elements, e.g., ``.
- Common attributes include **id**, **class**, **src**, and **href**.

## INTERMEDIATE LEVEL:

### Forms and Inputs:

- Use **<form>** to collect user input with various types of inputs like **<input type="text">**, **<input type="email">**, **<textarea>**, etc.



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

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### Tables:

- Structure tabular data using **<table>**, with rows **<tr>** and cells **<td>** or header cells **<th>**.

### Semantic HTML:

- Use elements like **<header>**, **<footer>**, **<article>**, and **<section>** to give meaning to content, improving accessibility and **SEO**.

## ADVANCED LEVEL:

### HTML5 Features:

- **Canvas:** `<canvas>` for drawing graphics via JavaScript.
- **Audio/Video:** `<audio>` and `<video>` for multimedia content.
- **Local Storage:** `localStorage` and `sessionStorage` for client-side storage.

### Custom Data Attributes:

- Use **data-\*** attributes to store custom data that can be accessed in JavaScript.

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### Responsive Design:

- Implement responsive design using meta tags like **<meta name="viewport" content="width=device-width, initial-scale=1.0">**.
- Combine with CSS media queries to adapt the layout for different screen sizes.

### Accessibility:

- Ensure web accessibility by using proper **alt** text for images, ARIA roles, and semantic tags.
- Example: **<button aria-label="Close">x</button>** ensures the button's purpose is clear for screen readers.