

Explore the Hidden Power of HTML – Beyond the Basics

Objective:

To explore and implement lesser-known HTML5 tags with real-world relevance and demonstrate their proper use in a sample webpage.

Selected HTML5 Tags:

1) `<details>` and `<summary>`

- **What it does:**

These tags create an interactive, collapsible section that users can open or close to view additional information. The `<summary>` tag defines the heading visible to the user, while `<details>` wraps the hidden content.

- **Why it exists:**

It allows developers to include optional or extended content without crowding the page, improving readability and interactivity without using JavaScript.

- **Real-world use:**

- FAQs or “Read More” sections on websites
- Product details or hidden specifications
- Documentation with expandable topics
- In this project: used to reveal “About Me” information neatly.

2) `<progress>`

- **What it does:**

The `<progress>` tag displays the completion progress of a task or process, typically represented as a horizontal progress bar.

- **Why it exists:**

It provides a **semantic, built-in way** to show progress visually without extra scripts or images, making web interfaces more informative.

- **Real-world use:**
 - File uploads or downloads
 - Course or project completion trackers
 - Survey progress indicators
 - In this project: shows learning progress for HTML, DSA, and JavaScript.

3) <meter>

- **What it does:**

The <meter> tag represents a **scalar measurement** within a known range, such as a percentage, score, or capacity level.
- **Why it exists:**

It helps display values that can be measured or rated within a specific limit, unlike <progress> which shows task completion.
- **Real-world use:**
 - Battery charge level indicators
 - System resource usage bars
 - Performance or health meters
 - In this project: displays your **daily energy level** in a visual form.

4) <mark>

- **What it does:**

The <mark> tag highlights a specific portion of text, visually marking it with a background color to emphasize its importance.
- **Why it exists:**

It provides a semantic and accessible way to highlight search results, keywords, or key terms within text.
- **Real-world use:**
 - Highlighting matched words in search results
 - Drawing attention to important instructions or warnings
 - Emphasizing keywords in articles
 - In this project: highlights motivational phrases and keywords like “Keep going”.

5) <optgroup>

- **What it does:**

The <optgroup> tag is used within a <select> element to **group related options** under a labeled heading, making dropdowns easier to navigate.

- **Why it exists:**

It helps organize complex lists into logical categories, improving usability and accessibility—especially when there are many related options.

- **Real-world use:**

- Education portals grouping subjects (e.g., Science, Commerce, Arts)
- Job application forms grouping skills by category
- E-commerce filters grouping products by type
- In this project: used in the “Future Skill Picker” section to group skills under Web Development, Data & AI, and Creative & Design.