

Module 2 – Mernstack - HTML

• HTML Basics

Question 1: What is HTML, and why is it important in web development?

HTML stands for HyperText Markup Language, and it's the backbone of every webpage. It helps structure content using elements like headings, paragraphs, images, and links.

In web development, HTML is essential because:

- It organizes content on a webpage.
- It allows us to add images, videos, and links.
- It works with CSS for styling and JavaScript for interactivity.
- It helps in creating accessible websites by using proper tags.

Question 2: What is the basic structure of an HTML document?

An HTML document follows a simple structure.

```
<!DOCTYPE html>

<html>

  <head>

    <title>My First Page</title>

  </head>

  <body>

    <h1>Hello, World!</h1>

    <p>This is a basic HTML page.</p>

  </body>

</html>
```

Mandatory Tags and Their Purpose:

1. **<!DOCTYPE html>** – Tells the browser we're using HTML5.
2. **<html>** – The main container for the whole webpage.

3. **<head>** – Holds metadata like the title and styles.
4. **<title>** – Sets the page title (what you see on the browser tab).
5. **<body>** – Contains everything visible on the page (text, images, links, etc.).

Question 3: What's the difference between block-level and inline elements?

In HTML, elements are classified into two types: block-level and inline.

Block-Level Elements:

- They always start on a new line.
- They take up the full width of their container.
- They're used to structure the page.

Examples:

- **<div>** – A generic container.
- **<p>** – A paragraph.
- **<h1>** to **<h6>** – Headings.
- **<section>** – A section of a page.

Inline Elements:

- They don't start on a new line.
- They only take up as much space as needed.
- They're used inside block-level elements to format text.

Examples:

- **** – A small container for styling text.
- **<a>** – A hyperlink.
- **** – Makes text bold.
- **** – Makes text italic.

Question 4: What is semantic HTML, and why does it matter?

Semantic HTML means **using tags that describe their purpose** clearly. Instead of using a **<div>** for everything, we use meaningful tags like **<header>**, **<article>**, or **<footer>**.

Why is it important?

Better for accessibility – Screen readers can understand content easily.

Improves SEO – Search engines rank properly structured websites higher.

Makes code easier to read – Other developers (and even future you) can understand it better.

Examples of Semantic Elements:

- `<header>` – The top section of a page.
- `<nav>` – Navigation menu.
- `<article>` – A self-contained piece of content.
- `<section>` – Groups related content.
- `<aside>` – Sidebars or extra info.
- `<footer>` – The bottom section of a page.