

HTML Basics

Question 1: Define HTML. What is the purpose of HTML in web development?

HTML (HyperText Markup Language) is the standard markup language used to create and structure web pages. It defines the content and structure of a webpage using various tags and elements. The purpose of HTML in web development is to provide a framework for displaying text, images, links, multimedia, and other elements in a browser. It serves as the foundation of every website, allowing web developers to organize information and make it accessible to users via the internet.

Question 2: Explain the basic structure of an HTML document. Identify the mandatory tags and their purposes.

An HTML document has a specific structure that ensures proper rendering in web browsers. The mandatory tags in an HTML document are:

1. `<!DOCTYPE html>`: Declares the document type and version of HTML.
2. `<html>`: The root element that contains all other elements.
3. `<head>`: Contains metadata about the document (e.g., title, character set, links to stylesheets).
4. `<title>`: Specifies the title of the webpage displayed on the browser tab.
5. `<body>`: Contains the main content of the webpage, including text, images, links, and other elements.

Question 3: What is the difference between block-level elements and inline elements in HTML? Provide examples of each.

Block-level elements:

- These elements start on a new line and occupy the full width available.
- They are used to structure the layout of a webpage.

Examples: <div>, <p>, <h1> to <h6>, <section>, <article>, <header>, <footer>.

Inline elements:

- These elements do not start on a new line and only take up as much width as necessary.
 - They are used to style or modify parts of text within block elements.
- Examples: , <a>, , , .

Question 4: Discuss the role of semantic HTML. Why is it important for accessibility and SEO? Provide examples of semantic elements.

Semantic HTML refers to the use of HTML elements that have a clear meaning and define the role of the content. It improves the readability of the code and helps browsers, search engines, and assistive technologies understand the content more effectively.

Importance:

- Accessibility: Screen readers and assistive technologies rely on semantic elements to provide meaningful context to visually impaired users.
- SEO: Search engines use semantic elements to better understand webpage content, improving indexing and ranking.

Examples of semantic elements: <header>, <footer>, <main>, <article>, <section>, <nav>, <aside>.