Module 2 – Frontend - HTML HTML Basics

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

HTML stands for HyperText Markup Language.
It is the standard language used to create and design web pages.
  1.Structure of Web Pages 2.Content Display 3.Embedding Media:

2. : Explain the basic structure of an HTML document. Identify the mandatory tagsand their purposes.
Ans.

An HTML document is a file that tells a web browser what to show on a web page.
It uses tags to organize and display content like text, images, and links.

1.<!DOCTYPE html> Declaration: Purpose: This is not an HTML tag, but a declaration that informs the web browser about the version of HTML the document is using
2.<html> Tag: Purpose: This is the root element of every HTML document. All other HTML elements (except the <!DOCTYPE> declaration) are nested within it. It often includes a lang attribute to specify the document's language, aiding accessibility and search engines.
3.<head> Tag: Purpose: This section contains metadata about the HTML document that is not directly displayed on the web page itself but provides crucial information to the browser and other services.
4.<body> Tag: Purpose: This section contains all the visible content of the web page that users see and interact with, including text, images, videos, links, forms, and more. This is where the actual content of your website resides.

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

1. Block-level Elements

- Block elements start on a new line.

- They take up the full width of the page (or container).

- Used to create the structure of the page.

✅ Examples of Block-level elements:

- `<div>`

- `<p>` (paragraph)

- `<h1>` to `<h6>` (headings)

- `<ul>`, `<ol>`, `<li>` (lists)

- `<table>`

2. Inline Elements

- Inline elements do not start on a new line.

- They only take up as much width as needed.

- Used for formatting text or small parts of content.

✅ Examples of Inline elements:

- `<span>`

- `<a>` (link)

- `<img>` (image)

- `<strong>`, `<em>`, `<b>`, `<i>`

4. Discuss the role of semantic HTML. Why is it important for accessibility andSEO? Provide examples of semantic elements.
Ans.

Semantic HTML involves using HTML elements that convey meaning and structure to the content they enclose, rather than simply defining how the content should appear visually. This contrasts with non-semantic elements like <div> and <span>, which provide no inherent meaning about their content.

Importance for Accessibility and SEO:

Accessibility:

Semantic HTML is crucial for web accessibility, particularly for users who rely on assistive technologies like screen readers. Semantic elements provide a clear and logical structure to the page, enabling screen readers to interpret content accurately and offer meaningful navigation options. For instance, a screen reader can recognize a <nav> element as a navigation menu, allowing users to easily skip to the main content or specific sections.

SEO (Search Engine Optimization):

Semantic HTML helps search engines understand the structure and content of a website more effectively. When search engine crawlers can interpret the meaning of your content through semantic markup, they are better able to index your pages, associate them with relevant keywords, and potentially improve your site's ranking in search engine results. This clarity can lead to increased visibility and traffic.

Examples of Semantic Elements:

<header>: Represents introductory content, typically at the top of a page or section, and often contains headings, logos, and navigation.

<nav>: Defines a section containing navigation links.

<main>: Encloses the dominant content of the <body> of a document.

<article>: Represents a self-contained composition in a document, such as a blog post or news article.

<section>: Represents a standalone section of content within a document, often with its own heading.

<aside>: Represents content that is tangentially related to the content around it, often displayed as a sidebar.

<footer>: Defines a footer for a document or section, often containing copyright information, contact details, or related links.

<figure> and <figcaption>: Used to embed self-contained content like images, diagrams, or code, with a caption describing the content.

<button>: Represents a clickable button that performs an action on the current page.

<a>: Represents a hyperlink, used for navigation to another resource.