Module 5 – Frontend – HTML5

- **Difference b/w HTML & HTML5?**

Here's a clear comparison between **HTML** and **HTML5**:

Feature	HTML (HTML 4.01 and earlier)	HTML5
Definition	Standard markup language used to create web pages	The latest version of HTML with new features and APIs
Doctype Declaration	Long and complex: `<!DOCTYPE HTML PUBLIC...>`	Simple: `<!DOCTYPE html>`
Multimedia Support	Requires external plugins (e.g., Flash) for audio/video	Native support with `<audio>` and `<video>` tags
Graphics	No built-in support for graphics	Supports `<canvas>` and SVG directly
Semantic Elements	Limited semantic elements (e.g., `<div>`, `<span>`)	Includes semantic tags like `<header>`, `<article>`, `<section>`, etc.
Form Features	Basic input types	New input types: `email`, `date`, `range`, `color`, etc.
Offline Storage	Not available	Supports localStorage and sessionStorage (Web Storage)
Browser Compatibility	Older browsers only	Supported by modern browsers
Geolocation API	Not supported	Built-in geolocation API
WebSockets & Web Workers	Not available	Introduced for real-time communication and background threads

- ## What are the additional tags used in HTML5?

- HTML5 introduced several **new tags** to enhance **structure**, **semantics**, **media handling**, and **interactivity**. Here's a categorized list of the most important additional tags in HTML5:

- **Structural & Semantic Tags**

These help define the structure and meaning of content more clearly:

Tag	Purpose
<header>	Represents introductory content or a group of navigation links
<footer>	Defines a footer for a document or section

Tag	Purpose
<section>	Groups related content or a thematic grouping of content
<article>	Independent, self-contained content (e.g., blog post, news article)
<aside>	Content tangentially related to the main content (e.g., sidebar)
<nav>	Contains navigation links
<main>	Main content of the document
<figure>	Self-contained content, like illustrations or code snippets
<figcaption>	Caption for a <figure> element
<mark>	Highlights or marks text
<time>	Represents a specific time or date/time
<details>	Used to create an interactive widget (like an expandable menu)
<summary>	Provides a summary for the <details> element
<dialog>	Represents a dialog box or popup

- **Media Tags**

Support for multimedia without external plugins:

Tag	Purpose
<audio>	Embeds audio content
<video>	Embeds video content
<source>	Specifies multiple media sources
<track>	Provides text tracks for video/audio (like subtitles)

- **Graphics & Scripting Tags**

For graphics and programmable content:

Tag	Purpose
<canvas>	A drawing surface for dynamic graphics (2D/3D with JS)
<svg>	Scalable Vector Graphics (inline XML-based graphics)

- **Form-related Tags**

Improved form control and input types:

Tag	Purpose
<datalist>	Contains a list of pre-defined options for other input controls
<output>	Represents the result of a calculation
<progress>	Displays progress of a task
<meter>	Represents a scalar measurement (e.g., disk usage)