



Ministry of Higher Education
Technological University - Computer Science
Second Stage - Software Branch

HTML

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Introduction :

HTML (HyperText Markup Language) is the fundamental language used to create web pages. It structures web content using a set of tags, which define the page layout and elements such as text, images, and links.

History of HTML :

HTML was developed in 1991 by Tim Berners-Lee, with the first version being very basic. Over time, it has evolved continuously, leading to HTML5, which introduced advanced support for modern elements such as video, audio, and graphics.

HTML5 and Modern Development :

HTML5 introduced advanced features, including:

- Support for multimedia without the need for plugins like Adobe Flash.
- Improvements in forms and input elements.
- Better support for smart devices and modern web browsers.

HTML Features :

1. Easy to Learn and Use – A simple language that doesn't require advanced programming skills.
2. Standard for Web Page Creation – Used in all websites and supported by all browsers.
3. Compatible with Devices and Browsers – Works on computers, smartphones, and tablets.
4. Integrates with Other Languages – Can be used with CSS, JavaScript, PHP, Python, and more.
5. No Special Software Required – Can be written in any text editor and runs directly in a browser.

6. Supports Multimedia – Easily includes images, videos, and audio.
7. Enhances SEO (Search Engine Optimization) – Helps improve website ranking in search results.
8. Open Source and Free – No licenses or subscriptions required.
9. Supports Hyperlinks – Facilitates easy navigation between pages.
10. Supports Tables and Forms – Enables the creation of data tables and interactive forms.
11. Lightweight and Fast – Does not consume many system resources.

Disadvantages of HTML :

1. Not a Programming Language – Does not support logic or dynamic functions.
2. Limited Design Capabilities – Requires CSS for better styling.
3. No Database Support – Relies on PHP, JavaScript for data handling.
4. Code Repetition – Lacks features like variables or functions.
5. Not Dynamic – Cannot interact with users without additional languages.
6. Weak Security – Does not provide protection against cyber attacks.
7. Not Suitable for Complex Projects – Insufficient for advanced websites and applications.

HTML is essential for web development but requires other languages for interactivity and security.

The Relationship Between HTML and CSS :

1. Internal CSS: Written inside the <style> tag within the HTML file.
2. External CSS: Stored in a separate .css file and linked using the <link> tag.
3. Inline CSS: Applied directly within an HTML tag using the style attribute.

Using CSS with HTML makes web pages more visually appealing, easier to maintain, and faster to load.

Conclusion :

HTML is the foundation of web development, providing the basic structure for content and working seamlessly with CSS for design and JavaScript for interactivity. Despite some limitations, such as the lack of database support and dynamic functionality, it remains essential for every web developer. With the advancement of HTML5, it now supports modern features like multimedia and graphics, making it more powerful and efficient. In the end, HTML is not just a markup language but the cornerstone of the modern web.