

1.1 What is HTML?

Introduction

HTML (**HyperText Markup Language**) is the foundation of the web. Every website, from simple blogs to complex web applications, relies on HTML to structure and display content. It acts as a skeleton that browsers interpret to render visually rich web pages.

History of HTML

HTML was created by **Tim Berners-Lee** in 1991 to share and structure scientific documents. Over the years, it has evolved through multiple versions, with **HTML5** (released in 2014) being the most recent major update. Each version has introduced new features to improve usability, multimedia support, and accessibility.

Why is HTML Important?

- **Standardized Structure** → HTML provides a universal way to organize web content.
- **Browser Compatibility** → Every web browser (Chrome, Firefox, Edge, Safari) understands and renders HTML.
- **Foundation for Web Development** → HTML works alongside CSS (for styling) and JavaScript (for interactivity) to build complete web pages.
- **SEO (Search Engine Optimization)** → Proper HTML structure helps search engines index and rank web pages efficiently.

How HTML Works

HTML consists of elements enclosed within **tags** (<tag>). These elements tell the browser how to display content.

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Introduction to HTML</title>
</head>
<body>
  <h1>Welcome to HTML!</h1>
  <p>HTML is the backbone of the web.</p>
</body>
</html>
```

Explanation of Code:

- `<!DOCTYPE html>` → Declares the document as an HTML5 file.
- `<html>` → The root element containing all HTML content.
- `<head>` → Includes metadata (not visible on the page).
- `<title>` → Sets the page title (visible in the browser tab).
- `<body>` → Contains the visible webpage content.
- `<h1>` → Represents a large heading.
- `<p>` → Defines a paragraph of text.

Real-World Applications of HTML

- **Personal Blogs & Portfolios** → Simple HTML pages can display personal work or experiences.
 - **Corporate Websites** → Businesses use HTML to create professional online presences.
 - **E-Commerce Stores** → Online shops structure products and information using HTML.
 - **Web Applications** → Even complex applications like Gmail and Facebook rely on HTML for their frontend.
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Task: Hands-on Practice

1. Create a new file named `index.html`.
2. Copy and paste the example code above.
3. Open the file in a browser (Chrome, Firefox, Edge, etc.).
4. Experiment: Modify the heading and paragraph text to personalize your webpage.