**🌐 HTML Basics - Part I**

**🔹 1.1 Introduction to HTML**

💡 Learning how to write code is a powerful skill.  
🧱 No matter how complex a website looks, it all starts with **HTML**, the basic building blocks of every website.  
🎨 Websites are built using two main tools: **HTML** (structure) and **CSS** (style).  
🧩 When you understand how HTML and CSS work together, you can build amazing websites!

**🔹 1.2 Understanding HTML**

**💭 What is HTML?**

* It’s a **standard way of tagging** a text file.
* When you follow this standard, your file becomes an **HTML document**.
* Both **web developers** and **web browsers** use this standard to make sure everything works correctly.

**📜 HTML Versions**

* There are **5 versions** of HTML:
  + From **HTML 1.0** to the latest, **HTML5**.

**⚙️ What is DOCTYPE?**

* **<!DOCTYPE>** is *not* an HTML tag.
* It tells your browser **which version of HTML** you’re using.

**DOCTYPE Examples:**

* HTML5 → <!DOCTYPE html>
* HTML4 → <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" http://www.w3.org/TR/html4/strict.dtd">

✅ In this course, **only use HTML5**, because:

* It works in all browsers (even older ones).
* It’s **easier** to use.
* It handles **errors** better.
* It supports **videos & audios**.
* It adds new **semantic tags** like:
  + <header>, <footer>, <article>, <section>, <figure>

**🎯 Why Learn HTML?**

* So you can properly **tag your content**, and the browser understands what you want.
* Example:
  + How do you tell the browser that something is a **title** or a **paragraph**?
* You follow a **standard set of rules**, and the browser knows what to do.

**🔹 1.3 Writing HTML Code in Visual Studio Code (VSC)**

**🧰 Common Tasks in VSC**

* Open folders or files
* Create new folders or files
* Edit and save your code
* Rename files/folders

**💎 Must-Have VSC Extensions**

| **Extension Name** | **What It Does** |
| --- | --- |
| Open in Browser | Quickly open HTML file in browser |
| Live Server | Start a mini web server with auto refresh |
| Material Icon Theme | Adds cool icons to your files |
| Prettier | Formats your code automatically |
| Auto Rename Tag | Renames paired tags automatically |
| CSS Peek | Lets you see CSS properties from HTML |
| Indent Rainbow | Colors indentations for easy reading |
| JS JSX Snippet | Shortcuts for JavaScript and React |

**🔹 1.4 Basic Rules of HTML Tags**

**🏷️ What Do Tags Do?**

* Tags tell the browser **how to show content**.
* Tags are **hidden keywords** inside a page.

**📌 Example:**

<h1>This is a header</h1>

<p>This is a paragraph</p>

**✅ Tag Rules:**

* **Tags are inside angle brackets**: < >  
  Example: <p>
* **Tags usually come in pairs**:
  + Opening tag: <p>
  + Closing tag: </p>
  + Content goes between them.

<p>This is a <b>bold</b> paragraph.</p>

1. **Some tags don't have pairs** (non-container/self-closing):
   * <br> → Line break
   * <hr> → Horizontal line
   * <img> → Image
2. **Tags can have attributes**:
   * Example: Image tag

<img src="apple.png" width="500px" height="400px" alt="Apple logo">

* src, width, height, and alt are **attributes**.
* Attributes go **only in the opening tag**.

1. **Basic Web Page Structure**:

<html>

<head>

<title>Your Title</title>

</head>

<body>

Page content goes here

</body>

</html>

**📎 Tag Meaning:**

* <html> → Tells browser it’s an HTML file.
* <head> → Contains info not shown in browser (like title).
* <title> → Name of your page shown in browser tab.
* <body> → All visible content (text, images, etc.)

**🔹 1.5 Create Your First HTML Page**

**🛠️ Steps:**

* **Create a folder** for your project (name it clearly).
* **Open that folder** in VSC:
  + File > Open Folder OR Right-click the folder > Open in Visual Studio Code
* **Create an HTML file** in that folder:
  + Name it something like index.html
* **Add the DOCTYPE** at the very top:

<!DOCTYPE html>

1. **Add the HTML boilerplate** (basic structure):
   * Method 1: Type html and select “html:5”
   * Method 2: Type ! and press Enter
2. **Give your page a title** inside <title>:

<title>My First Page</title>

1. **Add content inside the <body>**:
   * You can write text, add images, create links, and more.

**🔹 1.6 Most Common HTML5 Tags**

**📦 Structural Tags**

* <html>, <head>, <body>
* <header>, <footer>, <nav>
* <section>, <article>, <div>
* <h1> to <h6>, <p>, <a>, <br>, <hr>

**📑 Metadata Tags**

* <title>, <meta>, <link>, <style>

**📝 Form Tags**

* <form>, <input>, <textarea>, <button>

**✨ Formatting Tags**

* <b>, <em>, <strong>, <small>, <sup>, <center>

**📋 List Tags**

* <ul>, <ol>, <li>

**🧠 Scripting Tag**

* <script>

**🎥 Embedded Content Tags**

* <img>, <video>, <iframe>

**🗨️ HTML Comments**

* Comments are **invisible notes** inside HTML files.
* Browsers **don’t show** them on the screen.
* Use them to explain your code or hide parts temporarily.

**💬 Syntax:**

<!-- This is a comment -->