🌐 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:

o   `<header>, <footer>, <article>, <section>, <figure>`

🎯 Why Learn HTML?

- So you can properly **tag your content**, and the browser understands what you want.
- Example:
  - o 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:

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

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

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

5. **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:

- o **Create a folder** for your project (name it clearly).

- o **Open that folder** in VSC:
    - o File > Open Folder OR Right-click the folder > Open in Visual Studio Code
- o **Create an HTML file** in that folder:
    - o Name it something like `index.html`
- o **Add the DOCTYPE** at the very top:

```
<!DOCTYPE html>
```

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

```
<title>My First Page</title>
```

7. **Add content inside the `<body>`**:
    - o 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 -->
```