

HTML Basics

HTML stands for **HyperText Markup Language**.
It is the **standard language** used to **create web pages**.
HTML describes the **structure** of a webpage using **tags**.

A simple HTML page looks like this:

```
<!DOCTYPE html>
<html>
<head>
  <title>My First Webpage</title>
</head>
<body>
  <h1>Welcome to my website!</h1>
  <p>This is my first paragraph.</p>
</body>
</html>
```

HTML Syntax & Structure

Syntax means the rules of writing HTML correctly.

- HTML is **case-insensitive** (but by convention, tags are written in lowercase).
- HTML consists of **elements**, made up of:
 - **Opening tag**
 - **Content**
 - **Closing tag**

Basic Structure of an HTML Document:

```
<!DOCTYPE html>      <!-- Doctype -->
<html>               <!-- Root element -->
<head>               <!-- Metadata -->
  <title>Title of the page</title>
</head>
<body>               <!-- Visible content -->
  <!-- Your content here -->
</body>
</html>
```

Important points:

- `<html>`: Everything is inside it.
- `<head>`: Information about the page (not displayed on page).
- `<body>`: The visible part of the web page.

DOCTYPE Declaration

At the very top of every HTML document, you should declare the document type using

```
<!DOCTYPE html>.
```

```
<!DOCTYPE html>
```

Why?

- It tells the browser, "**This is an HTML5 document.**"
- Helps browsers render the page correctly.

Example:

```
<!DOCTYPE html>
<html>
<head>
  <title>Example Page</title>
</head>
<body>
  <p>Hello World!</p>
</body>
</html>
```

Tags, Elements, and Attributes

Tags

- Tags are keywords surrounded by angle brackets < >.
- Example: <p>, <h1>, <a>,

Elements

- An element = opening tag + content + closing tag.

Example:

```
html
CopyEdit
<p>This is a paragraph.</p>
```

- <p> = opening tag

- This is a paragraph. = content
- `</p>` = closing tag

Attributes

- Attributes provide **extra information** about elements.
- Attributes are **written inside the opening tag**.
- They have **name="value"** format.

Example:

```
<a href="https://www.google.com">Visit Google</a>
```

- href is an attribute of `<a>`.
- It defines the **link destination**.

Another Example:

```

```

- src: source of the image.
- alt: alternate text if image can't load.

Comments and Whitespace Handling

Comments

- Comments are **notes** you add inside your code for better understanding.
- They are **ignored** by browsers (not displayed on the page).

Syntax:

```
html
<!-- This is a comment -->
```

Example:

```
<body>
  <!-- Main heading -->
  <h1>My Website</h1>
</body>
```

Whitespace Handling

