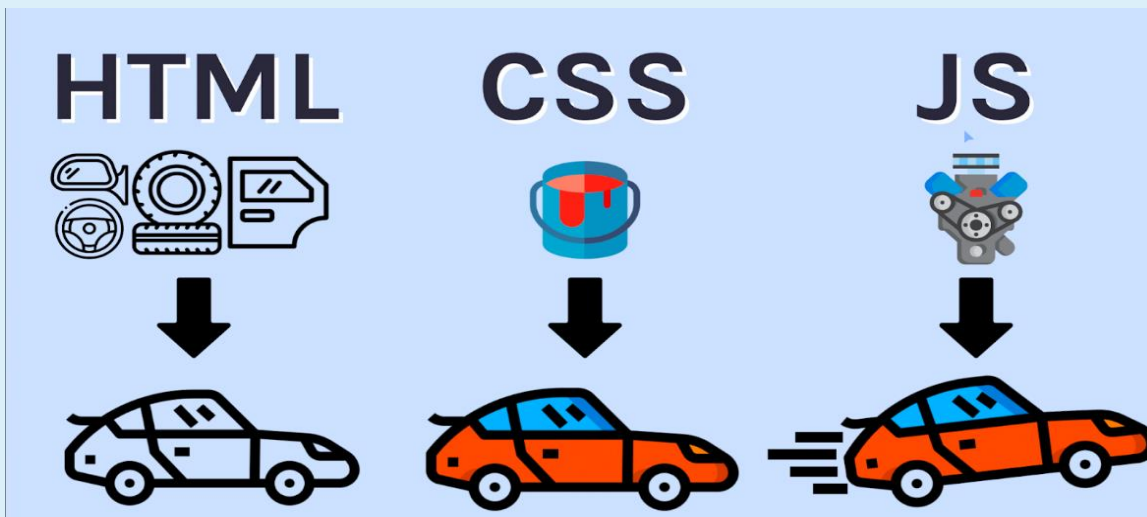
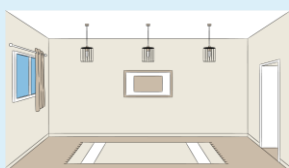


HTML NOTE





HTML



CSS



JavaScript



What is HTML?

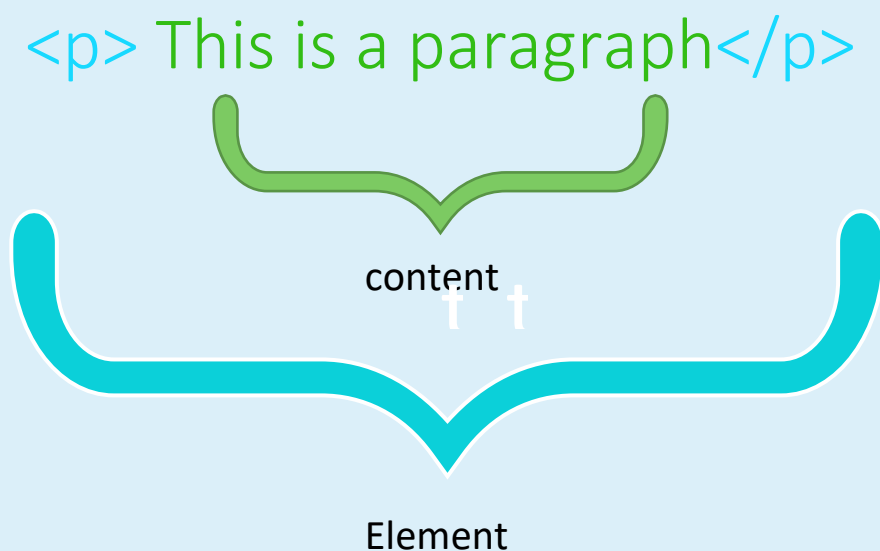
- Hyper Text Markup Language
- HTML is the code that is used to structure a web page and its content.
- HTML element tell the browser how to display the content.
- An HTML document is a text document saved with the .html or .htm extension, containing text and specific tags enclosed in < >
- Created by Tim Berners-Lee in 1991 to structure content on the World Wide Web.

HTML Tags

The component used to design the structure of websites are called HTML tags.

Basically, It is a container for some content or other HTML tags. Most of html elements have opening & closing tags.

An HTML element is a complete set that consists of a start tag (or opening tag), content, and an end tag (or closing tag).



Basic HTML Page ➡

<code><!DOCTYPE html></code>	tells browser you are using HTML5
<code><html></code>	root of an html document
<code><head></code>	container for metadata
<code><title>My First Page</title></code>	page title
<code></head></code>	closing tag
<code><body></code>	defines the document body
<code><p>hello world</p></code>	contain data in paragraph tag
<code></body></code>	
<code></html></code>	

❖ `<!Doctype>`

- The `<!DOCTYPE >` declaration represents the document type and helps browsers to display web pages correctly.
- It must only appear once, at the top of the page.
- The `<!DOCTYPE>` declaration is not case sensitive.

❖ Head

- The `<head>` element contains metadata and links to resources for the HTML document.
- It is placed before the `<body>` element.

Common elements inside `<head>` include:

- `<title>`: Specifies the document's title (displayed in the browser tab).
- `<meta>`: Defines metadata like character set, viewport settings, and SEO keywords.
- `<link>`: Links to external resources like stylesheets.
- `<style>`: Contains internal CSS for styling.
- `<script>`: Embeds or links JavaScript files.
- `<base>`: Sets a base URL for relative links.
- `<noscript>`: Provides fallback content for browsers with JavaScript disabled.

❖ Meta

- Defines metadata about an HTML document. Metadata is data(information) about data.
- Always placed inside the <head> tag.
- Not displayed on the page, but machine-parsable.
- Used by browsers, search engines, and other services.

Common Uses:

- Character encoding: `<meta charset="UTF-8">`
 - Page description: `<meta name="description" content="Page description">`
 - Keywords: `<meta name="keywords" content="HTML, CSS, JavaScript">`
 - Author: `<meta name="author" content="Author Name">`
 - Viewport settings: `<meta name="viewport" content="width=device-width, initial-scale=1.0">`
- Viewport: Controls the user's visible area of a web page.
 - width=device-width: Sets page width to device width.
 - initial-scale=1.0: Sets the initial zoom level when the page loads.

■ <html lang="en">

- The lang="en" attribute specifies that the content of the HTML document is in English.
- It is added to the <html> tag, like this: `<html lang="en">`

❖ Title

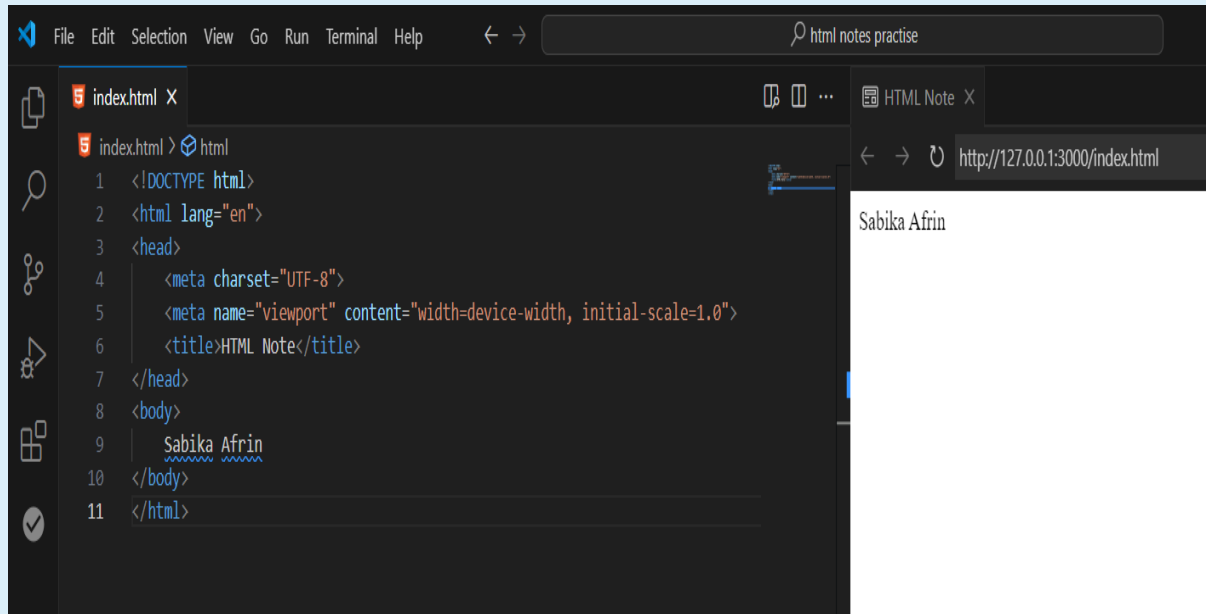
1. The <title> tag defines the webpage's title, shown in the browser tab and bookmarks.
2. It is placed within the <head> section of the HTML document.
3. Essential for SEO, influencing search engine rankings and click-through rates.
4. It appears in the browser tab, bookmarks, and search engine results.
5. Improves accessibility by helping users understand the page's purpose.
6. Only one <title> tag is allowed per HTML document.

❖ Body

1. The <body> tag defines the main content of an HTML document displayed in the browser.
2. It contains all visible elements like text, images, videos, and interactive features.
3. Placed directly after the <head> and before the closing <html> tag.
4. Only one <body> tag is allowed per HTML document.
5. Attributes like class, id, and style can be used to apply styles and scripts.
6. JavaScript can manipulate the <body> content for dynamic updates.

First HTML File name [index.html]

It is the default name for a website's homepage.



HTML is NOT case sensitive

- ✓ <html> = <HTML>
- ✓ <p> = <P>
- ✓ <head> = <HEAD>
- ✓ <body> = <BODY>

❖ Comment

- Syntax: <!-- Comment -->
- Not displayed on the webpage.
- Explains code, disables code, or adds notes.

Example: <!-- This is a sample comment -->

❖ Tags in HTML

- <html>**: Root element of an HTML document.
- <head>**: Container for metadata and links to resources.
- <title>**: Defines the title of the document.
- <base>**: Specifies the base URL for all relative URLs in the document.
- <link>**: Links to external resources (e.g., stylesheets).
- <meta>**: Defines metadata about the document (e.g., description, keywords).
- <style>**: Contains CSS styles for the document.
- <body>**: Contains the content of the HTML document.
- <header>**: Represents introductory content or navigational links.
- <nav>**: Defines navigation links.
- <section>**: Thematic grouping of content.
- <article>**: Independent, self-contained content.
- <aside>**: Content indirectly related to the main content.
- <footer>**: Footer for a section or document.
- <h1> to <h6>**: Defines headings, <h1> is the highest level.
- <main>**: Main content area of the document.
- <p>**: Defines a paragraph.
- <hr>**: Represents a thematic break.
- <pre>**: Preformatted text, preserves whitespace and line breaks.
- <blockquote>**: Block quotation from another source.
- <dialog>**: Dialog box or window.

****: Ordered list.
****: Unordered list.
****: List item.
<dl>: Description list.
<dt>: Term/name in a description list.
<dd>: Description/details of a term.
<figure>: Self-contained content, like illustrations.
<figcaption>: Caption for the <figure> element.
<div>: Generic container for flow content.
****: Generic inline container for text.
<a>: Hyperlink.
****: Embeds an image.
<table>: Defines a table.
<caption>: Table caption.
<thead>: Header group in a table.
<tbody>: Body content in a table.
<tfoot>: Footer group in a table.
<tr>: Table row.
<th>: Table header cell.
<td>: Table data cell.
<form>: Defines an interactive form.
<input>: Input field.
<textarea>: Multiline text input control.
<button>: Clickable button.
<select>: Drop-down list.

<kbd>: Keyboard input.
<samp>: Sample output from a computer program.
<var>: Variable in a mathematical expression or programming context.
<time>: Represents a specific time.
<progress>: Progress of a task.
<meter>: Scalar measurement within a known range.
<details>: Disclosure widget that hides/shows content.
<summary>: Summary, legend, or caption for a `<details>` element.
<dialog>: Dialog box or window.
<abbr>: Represents an abbreviation or acronym.
<address>: Contact information for the author/owner of a document.
<bdi>: Isolates a part of text that might be formatted in a different direction from other text outside it.
<bdo>: Overrides the current text direction.
<cite>: Title of a work.
<data>: Associates a machine-readable translation with its content.
<dfn>: Defines a term.
<s>: Strikethrough text (indicating something that is no longer accurate or relevant).
<q>: Inline quotation.

Document Structure

- `<html>`
- `<head>`
- `<title>`
- `<body>`
- `` (for linking to another page or resource)

Text Content

- `` (for inline text)
- `<div>` (for block-level grouping)
- `
` (line break)
- `<hr>` (horizontal rule)

Lists

- `` (unordered list)
- `` (ordered list)
- `` (list item)

Tables

- `<table>`
- `<thead>`
- `<tfoot>`
- `<tr>` (table row)
- `<th>` (table header)
- `<td>` (table cell)

Forms

- `<form>`
- `<select>`
- `<input type="text">`
- `<input type="password">`
- `<input type="email">`
- `<input type="radio">`
- `<input type="checkbox">`
- `<textarea>`
- `<button>`

- `<option>`
- `<fieldset>`
- `<legend>`

Semantic Elements

- `<header>`: Introductory content like logos or headings.
- `<footer>`: Footer content like links or metadata.
- `<nav>`: Navigation links section.
- `<main>`: Main content of the page.
- `<figure>`: Groups images or media.
- `<figcaption>`: Caption for `<figure>` content.
- `<section>`: Thematic grouping of content.
- `<article>`: Standalone content like posts.
- `<aside>`: Secondary content like sidebars.

Meta Tags

- `<meta charset="UTF-8">`
- `<meta name="viewport" content="width=device-width, initial-scale=1.0">`
- `<meta name="description" content="Description here">`
- `<meta name="keywords" content="keyword1, keyword2">`

Attributes

- `id="value"`
- `class="value"`
- `placeholder="value"`
- `title="value"`
- `disabled`
- `alt="value"`
- `checked`

- required
- readonly
- href="URL"
- type="type"

Media

- <audio>
- <video>
- <source>
- defer (for deferring the execution of a script)
- async (for asynchronous script loading)

Linking & Imports

- <link rel="stylesheet" href="styles.css">
- <link rel="icon" href="icon.ico">
- <style> (for embedded CSS)
- <script> (for JavaScript)

❖ Attributes

Attributes defines the properties or characteristics of a html element.

- Attributes modify the behavior, functionality, or appearance of an element by providing additional information.
- They allow you to customize the behavior of HTML elements.

Example: <html lang="en">

❖ Heading tags

- Its defines heading
- Displayed in larger and bolder font

There are 6 level of heading tags

1.h1 (most important)

2.h2

3.h3

4. h4

5. h5

6. h6 (least important)

❖ Paragraph tags

Used to create paragraph

Syntax: `<p>this is paragraph</p>`

❖ `
`

Used to insert black line in the document. Self closing tag.

Syntax: `
`

❖ Horizontal ruler

Used to draw horizontal line across the web page.

Syntax: `<hr>`

❖ Bold tags

Defines bold text.

Syntax: `Sabika`

❖ Italic tag

Defines italic text .

Syntax: `<i>Afrin</i>`

❖ Big tag

Defines big text.

Syntax: `<big></big>`

❖ Small tag

Defines small text.

Syntax: `<big></big>`

❖ Sup tag

Defines superscripted text.

Syntax: `^{hello}`

❖ Sub tag

Defines subscripted text.

Syntax: `_{hello}`

❖ Anchor Tag

Used to add links to your page

Syntax: ` Google `

`Visit
Example`

href stands for **Hypertext Reference**. It defines the URL or path the hyperlink points to.

The target attribute in an `<a>` tag specifies where to open the linked document:

_self: Default, opens in the same tab.

_blank: Opens in a new tab or window.

_parent: Opens in the parent frame.

_top: Opens in the full body of the window.

_frameName: Opens in a named frame or iframe.

❖ Image Tag

Used to add images to your page

Syntax: ``

src means source & alt means alternative text.

❖ Video Tag

`<video src="myVid.mp4"> My Video </video>`

Attributes

- controls
- height
- width
- loop
- autoplay

❖ Pre Tag

Used to display text as it is (without ignoring spaces & next line)

Syntax: `<pre> This`

`is a sample`
`text.`

`</pre>`

❖ Div Tag

- Div is a container used for other HTML elements
- Block Element (takes full width)
- Used for grouping and organizing content.
- Primarily for styling and layout with CSS.

❖ Span Tag

- Span is also a container used for other HTML elements
- Inline Element (takes width as per size)
- used for styling or grouping small pieces of content within a line.

HTML DIV Example

I am a div

HTML SPAN Example

I am a span

Example:

```
<body>
  <div>
    <h1> Welcome to my website </h1>
  </div>

  <div>
    <p>This is a simple example using div </p>
  </div>
</body>
```

List : Div Tags

<address>
<article>
<aside>
<canvas>
<dd>
<div>
<dl>
<dt>
<main>

<fieldset>
<figcaption>
<figure>
<footer>
<form>
<h1>-<h6>
<header>
<hr>

List : Span Tags

<a>

<label>
<small>

<sup>
<abbr>

<cite>

<i>
<input>
<select>

<sub>
<textarea>
<acronym>
<big>
<button>
<script>

❖ List in HTML

Lists are used to represent real life list data.

- Unordered list

```
<ul>  
<li> Apple </li>  
<li> Mango </li>  
</ul>
```

- Ordered list
``
` Apple `
` Mango `
``

❖Table

- `<table>` defines a table structure
- `<tr>` is used for table rows.
- `<td>` defines table data (cells).
- `<th>` defines table headers.

Example:

```
<table border="1">  
  <tr>  
    <th>Name</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>afrin</td>  
    <td>21</td>  
  </tr>  
  <tr>  
    <td>sabika</td>  
    <td>23</td>  
  </tr>  
</table>
```

Output:

Name	Age
afrin	21
sabika	23

1. <caption>: Provides a title or description for the table.

```
<table>  
  <caption>EmployeeInformation</caption>  
</table>
```

2. colspan: Specifies how many columns a cell should span.

```
<td colspan="2">Merged Cell</td>
```

3. <thead>: Groups the header content in a table (usually used with <th>).

```
<thead>  
  <tr>  
    <th>Header 1</th>  
    <th>Header 2</th>  
  </tr>  
</thead>
```

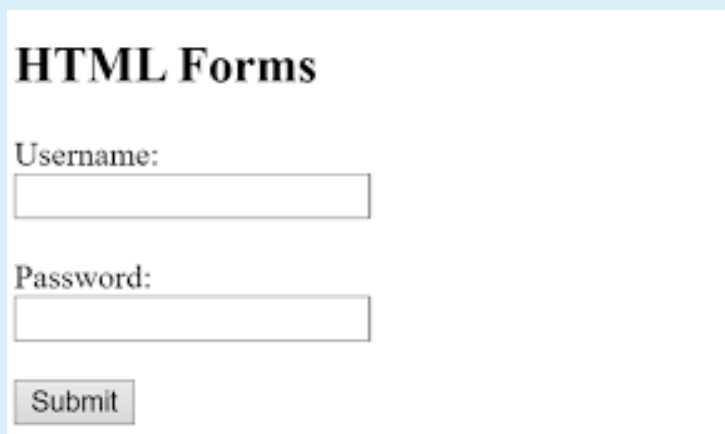
4. <tbody>: Groups the body content of a table (usually used with <td>).

```
<tbody>  
  <tr>  
    <td>Data 1</td>  
    <td>Data 2</td>  
  </tr>  
</tbody>
```

❖ Form in HTML

Forms are used to collect data from the user.

1. `<form>`: Container for all form elements, specifies action and method (GET/POST).
2. `<input>`: Defines interactive controls (text, radio, checkbox, button).
3. `<label>`: Associates a label with a form element for accessibility.
4. `<textarea>`: Multi-line input for text content.
5. `<select>` and `<option>`: Creates dropdown menus for selecting values.
6. `<button>`: Creates clickable buttons for form submission or actions.
7. Forms are used for collecting user input and submitting it to a server.
8. **Checkbox**: A checkbox is an input element in forms that allows users to select one or more options from a list.



HTML Forms

Username:

Password:

1. USE AUTOFOCUS FOR INPUT FIELDS

Explanation: The autofocus attribute automatically focuses on a specific input field when the page loads, improving the user experience for login or search pages.

```
<input type="text" placeholder="Enter your name" autofocus>
```

2. DISABLE AUTOCOMPLETE FOR FORMS

Explanation: You can disable the browser's autocomplete feature for input fields where you want users to manually enter data.

```
<form autocomplete="off">  
  <input type="text" name="username" placeholder="Username">  
</form>
```


3. ADD PLACEHOLDER TEXT IN INPUTS

Explanation: The placeholder attribute adds a hint inside input fields to guide users on what to enter.

```
<input type="email" placeholder="Enter your email">
```

4. USE THE REQUIRED ATTRIBUTE


Explanation: The required attribute ensures users fill in a particular field before submitting the form.



```
<form>
  <input type="text" placeholder="Name" required>
  <button type="submit">Submit</button>
</form>
```

5. USE MAILTO: FOR EMAIL LINKS

Explanation: Create a clickable email link that opens the default email client with a pre-filled recipient.



```
<a href="mailto:someone@example.com">Send Email</a>
```



```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>HTML Note</title>
7  </head>
8  <body>
9      <h1>Form</h1>
10     <form action="/submit" method="POST">
11         <!-- Text input -->
12         <label for="name">Name:</label>
13         <input type="text" id="name" name="name" required><br><br>
14
15         <!-- Email input -->
16         <label for="email">Email:</label>
17         <input type="email" id="email" name="email" required><br><br>
18
19         <!-- Password input -->
20         <label for="password">Password:</label>
21         <input type="password" id="password" name="password" required><br><br>
22
23         <!-- Radio buttons -->
24         <label>Gender:</label>
25         <input type="radio" id="male" name="gender" value="male">
26         <label for="male">Male</label>
27         <input type="radio" id="female" name="gender" value="female">
28         <label for="female">Female</label><br><br>
29
30         <!-- Checkbox -->
31         <input type="checkbox" id="terms" name="terms" value="agree" required>
32         <label for="terms">I agree to the terms and conditions</label><br><br>
33
34         <!-- Dropdown select -->
35         <label for="car">Choose a car:</label>
36         <select id="car" name="car">
37             <option value="volvo">Volvo</option>
38             <option value="saab">Saab</option>
39             <option value="mercedes">Mercedes</option>
40         </select><br><br>
41
42         <!-- Textarea -->
43         <label for="message">Message:</label>
44         <textarea id="message" name="message" rows="4" cols="50"></textarea><br><br>
45
46         <!-- Submit button -->
47         <button type="submit">Submit</button>
48     </form>
49
50 </body>
51 </html>

```

Output:

Form

Name:

Email:

Password:

Gender: ☐ Male ☐ Female

☐ I agree to the terms and conditions

Choose a car:

Message: