

# HTML

## 1. What Is HTML?

HTML (Hypertext Markup Language) is the markup language that became the standard to build up the structure of web pages.

It does not do calculations, logic, etc. Stated differently, it is not a programming language. Rather, it annotates a content such that browsers understand how to render it.

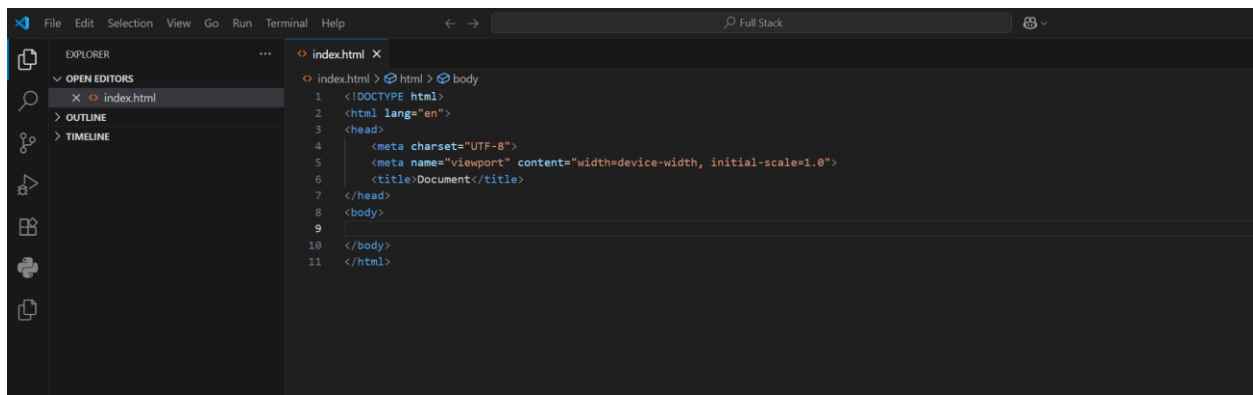
HTML can be used with CSS (which deals with design) and JavaScript (which deals with interactivity) to produce comprehensive websites.

## 2. HTML in Web Development

- Basis to any webpage - There is nothing to style or make interactive without HTML
- Semantic meaning Tags specify what the content is supposed to be (e.g., `<h1>` is a main heading, `<nav>` is a navigation links).
- Accessibility - Suitable HTML makes screen readers and other technologies understand the content.

## 3. Structure of an HTML Document.

Every HTML page follows a similar layout.

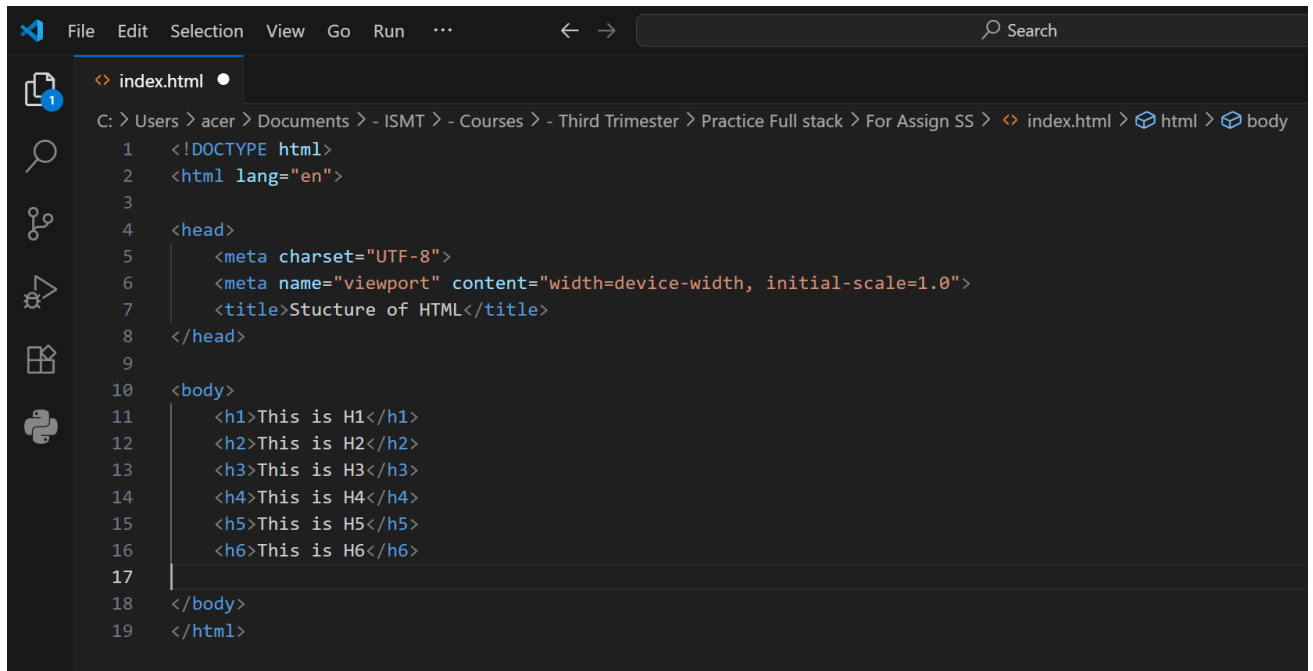


Explanation of tags:

- `<! DOCTYPE html>` - Declares HTML5 version.
- `<html>`- The root container for all HTML content.
- `<head>` - Metadata: title, style, scripts, SEO tags.
- `<body>` - Everything visible on the webpage.

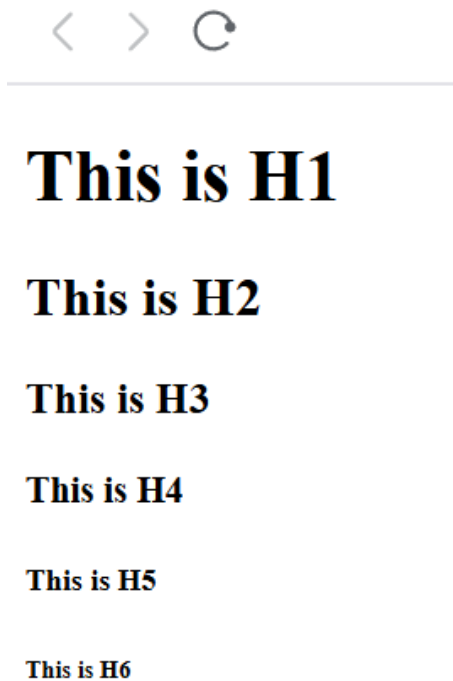
#### 4. Some of the tags used in HTML:

- i. Heading: <h1>to <h6>



```
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Stucture of HTML</title>
8 </head>
9
10 <body>
11   <h1>This is H1</h1>
12   <h2>This is H2</h2>
13   <h3>This is H3</h3>
14   <h4>This is H4</h4>
15   <h5>This is H5</h5>
16   <h6>This is H6</h6>
17
18 </body>
19 </html>
```

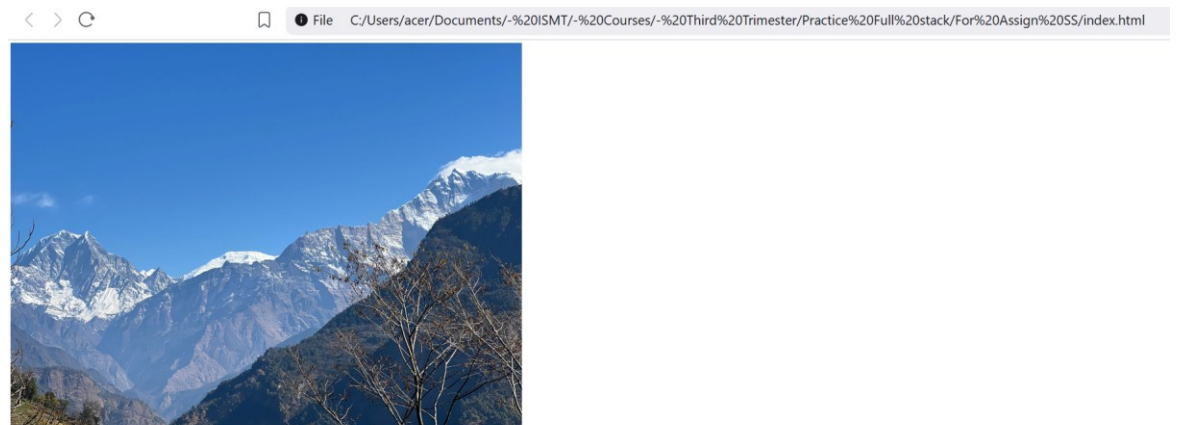
Output:



ii. <img>,

```
index.html X
C:\Users\acer> Documents > - ISMT > - Courses > - Third Trimester > Practice Full stack > For Assign SS > index.html > html
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>Structure of HTML</title>
7  </head>
8  <body>
9      
10 </body>
11 </html>
```

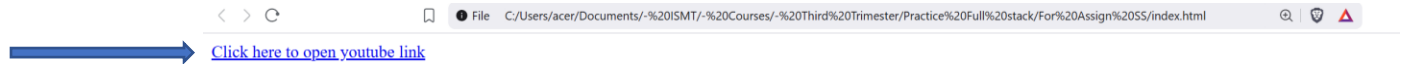
Output:



iii. <a>,

```
File Edit Selection View Go Run ... Search
index.html
C:\Users\acer> Documents > - ISMT > - Courses > - Third Trimester > Practice Full stack > For Assign SS > index.html > ...
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>Structure of HTML</title>
7  </head>
8  <body>
9      <a href="https://www.youtube.com/">Click here to open youtube link</a>
10 </body>
11 </html>
```

Output:

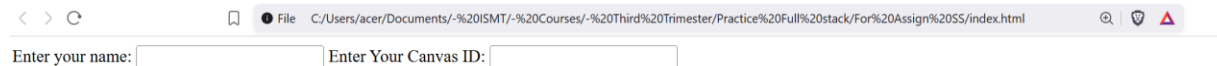


- iv. Attributes: ``
- v. Lists: `<ul>` for unordered, `<ol>` for ordered.
- vi. Forms: `<form>`, `<input>`, `<textarea>`, `<select>`.
- vii. `<button>`,

A screenshot of a code editor window showing the source code of an HTML file named index.html. The code is as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Structure of HTML</title>
8 </head>
9
10 <body>
11   Enter your name: <input type="">
12   Enter Your Canvas ID: <input type="text">
13 </body>
14
15 </html>
```

Output:



- viii. Tables: `<table>`, `<tr>`, `<th>`, `<td>`.
- ix. Media: `<audio>`, `<video>`, `<iframe>`.
- x. Semantic HTML5 tags: `<header>`, `<nav>`, `<section>`, `<article>`, `<aside>`, `<footer>`.

## Example – Personal Bio Page

```
File Edit Selection View Go Run Terminal Help
index.html
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>My Personal Bio</title>
7 </head>
8 <body>
9   <header>
10    <h1>Sajjan Bhandari</h1>
11    <nav>
12      <a href="#about">About</a> |
13      <a href="#skills">Skills</a> |
14      <a href="#contact">Contact</a>
15    </nav>
16  </header>
17  <section id="about">
18    <h2>About Me</h2>
19    <p>Hello! I'm Sajjan Bhandari. My Canvas ID is b195js, My registration number is 240704285
20      . Now, I am currently studying a Bachelor degree in ISMT, Chitwan in the field of BSc.IT.</p>
21    
22  </section>
23  <section id="skills">
24    <h2>Skills</h2>
25    <ul>
26      <li>HTML5 & CSS</li>
27      <li>JavaScript</li>
28      <li>Bootstrap framework</li>
29    </ul>
30  </section>
31  <section id="contact">
32    <h2>Contact Me</h2>
33    <form action="contact.php" method="post">
34      <label>Name:</label><br>
35      <input type="text" name="name" required</input><br>
36      <label>Email:</label><br>
37      <input type="email" name="email" required</input><br>
38      <label>Message:</label><br>
39      <textarea name="message" rows="4" required</textarea><br>
40      <button type="submit">Send</button>
41    </form>
42  </section>
43  <footer>
44    <p>©copy; 2025 Sajjan Bhandari. All rights reserved.</p>
45  </footer>
46 </body>
47 </html>
```

Explanation of the tags:

### Tags & Elements:

- `<p>` – Paragraph element, used to display blocks of text.
- `<h1>`–`<h6>` – Headings, where `<h1>` is the largest and `<h6>` is the smallest.
- `<img>` – Embeds an image in the page.
- `<a>` – Creates hyperlinks for navigation.

### Attributes:

Example: ``

- `src` – Specifies the image file path.
- `alt` – Alternative text shown if the image cannot load.
- `width` – Sets the image width.

### Links & Navigation:

- Example: `<a href="#about">About</a>` – Jumps to the “About” section in the same page.
- `<nav>` – Groups navigation links.

## Lists:

- `<ul>` – Unordered list (bullets).
- `<li>` – List item inside `<ul>` or `<ol>`.

## Forms:

- `<form>` – Container for user input.
- `<input>` – Single-line text, email, password, etc.
- `<textarea>` – multi-line text input.
- `<button>` – Clickable button to submit the form.
- Attributes like `type="email"` and `required` specify input rules.

## Semantic HTML5 Tags:

- `<header>` – Top section, often contains title/logo/navigation.
- `<section>` – Groups related content.
- `<footer>` – Bottom section, usually with copyright or contact info.

Here is the output of above HTML.


The screenshot shows a web browser window with the address bar displaying a file path. The page content is as follows:

### Sajjan Bhandari

[About](#) | [Skills](#) | [Contact](#)

#### About Me

Hello! I'm Sajjan Bhandari. My Canvas ID is b195js. My registration Number is 240704285. Now, I am currently studying a Bachelor degree in ISMT, Chitwan in the field of BSc.IT.



#### Skills

- HTML5 & CSS3
- JavaScript
- Bootstrap Framework

#### Contact Me

Name:

Email:

Message: