

HTML Introduction

What is HTML?

- **HTML** is an initialism for "**HyperText Markup Language**".
- It is the language of the web.
- It is used to create websites.
- It is used to define a page layout, meaning it is a barebone page structure.
- **HTML** is used for making pages of the website also called webpages that we see on the internet
- It consists of a set of tags.
- This set of tags is written in HTML Document.
- **".html"** or **".htm"** is the extension.
- There are so many versions of **HTML** but **HTML5** is the latest version.

Features of HTML

- It is platform-independent.
- Images, videos, and audio can be added to a web page.
- Hypertext can be added to the text.
- It is a markup language.
- It is interpreted language
- It can be integrated with other languages like CSS, JavaScript etc.
- Semantic Structure.
- local Storage & Indexed DB – Client-side data storage.
- Offline Capabilities (PWA) with Cache API & Service Workers.

Why the word HyperText & Markup Language

The word hypertext markup language comprises the words “**hypertext**” and “**markup language**”. The term "**hypertext**" refers to the linking of text with other documents and “**markup language**” refers to a language that uses a set of tags. So, **HTML** is the linking of text with other documents using some set of tags.

Note:- Tags refers to some meaningful texts enclosed in angle braces **<...>**. For eg. **<head>**. Each tag has a different meaning and importance in building an HTML page which can affect the web page in its own ways

A beautiful analogy to understand HTML:



Car Skeleton (only body) is **HTML**



Car Painted or Decorated is **CSS**



Car Engine and Internal logic is **JS**

Here in the explanation for the above analogy, the car skeleton refers to HTML with the page body. When that skeleton is painted it the car gets CSS and after all that car is provided with some functionalities like engine, etc (which refers to JavaScript), the car gets life and can run. Similarly, when we develop our websites we need HTML for the structure and if we want our website to look good and prettier we need CSS and if we want to add functionalities to our webpage we need JavaScript.

History of HTML:

- In 1989, **Tim Berners Lee** established **www** and created **HTML** in 1991.
- From 1995 to 1997, he started working on versions of HTML.
- In 1999, a committee was organized that made **HTML4.0** a standard.
- **HTML4.0** is used by many, even today. However, the stable version of HTML is 5.0 also known as **HTML5**.

HTML Document Structure

How does an HTML document structure look?

HTML document structure contains some set of tags. Tags are some text enclosed within `<...>` angle braces. A tag is like a container for either content or other HTML tags. The below text shows how the HTML document structure looks:

```
<!DOCTYPE html>
<html>
<head>
  <title>Document</title>
</head>
<body>
  <!-- content -->
</body>
```

```
</html>
```

NOTE: These are the five must-use tags for HTML

```
<!DOCTYPE html>, <html>, <head>, <title>, <body>
```

1. `<!DOCTYPE html>`

The `<!DOCTYPE>` declaration tag is used by the web browser to understand the version of the HTML used in the document. The current version is 5 i.e. HTML 5.

2. `<html>`

The `<html>` tag is the root of an HTML page.

3. `<head>`

The `<head>` tag contains page metadata.

4. `<title>Document</title>`

The `<title>` tag contains the title of a page and is shown in the browser title bar.

5. `</head>`

The `</head>` tag is closing of `<head>` tag.

6. `<body>`

`<body>` tag is the main tag of HTML. It contains the main body of the page and is shown in the white part of the browser.

7. `</body>`

The `</body>` tag is closing of `<body>` tag.

8. `</html>`

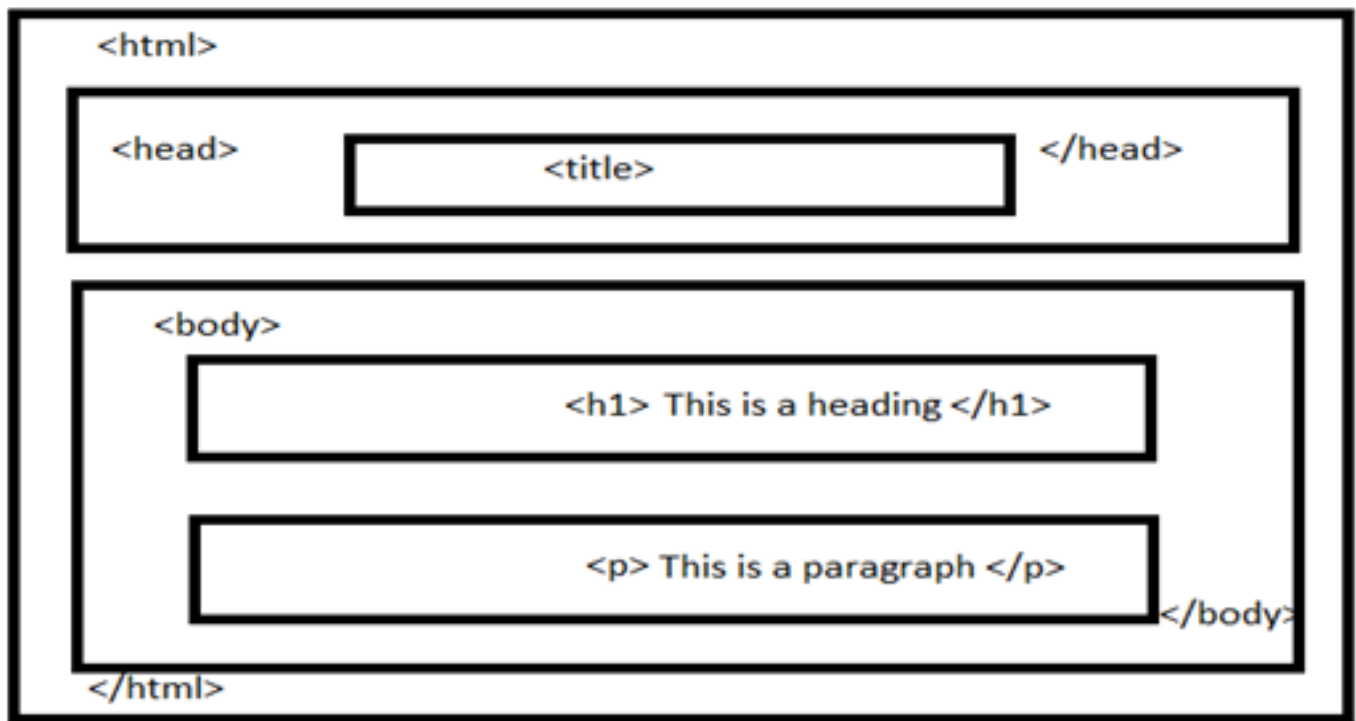
The `</html>` tag is closing of `<html>` tag.

HTML Page Structure

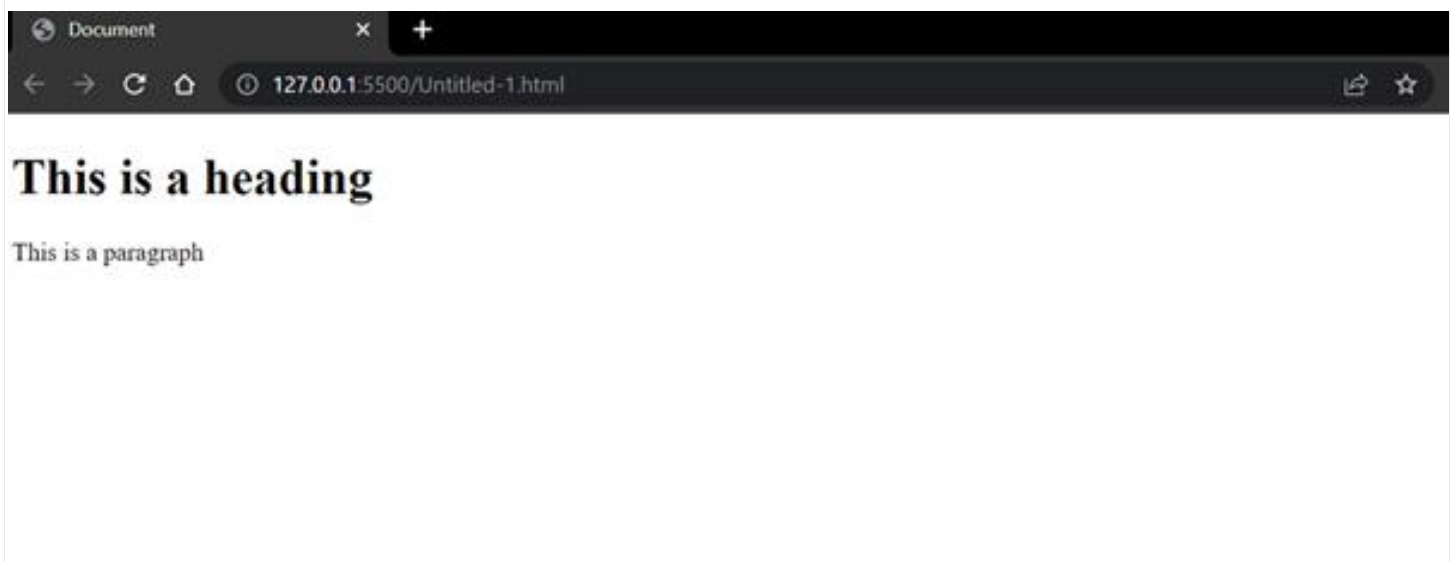
A basic HTML document:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Document</title>
</head>
<body>
  <h1>This is our first heading</h1>
  <p>This is our latest paragraph</p>
</body>
</html>
```

Visualization of this HTML document:



Display of this content on a web browser:



In the browser's title bar, all content of the `<head>` section will be displayed, while on the white background of the browser, all content of the `<body>` section will be displayed.

HTML Tags

What is an HTML tag?

If you want to build a beautiful website. Tags will help you to do so.

A tag is like a container for either content or other HTML tags. Tags are words enclosed within `<` and `>` braces.

They are like keywords which defines that how web browser will format and display the content
Some of the tags are mentioned below,

- `<html>`
- `<head>`
- `<title>`
- `<body>`

These are also known as “**Starting tags**” or “**Opening tags**”.

The following tags end with a closing tag i.e.

- `<html>` tag has its closing `</html>` tag
- `<head>` tag has its closing `</head>` tag
- `<title>` tag has its closing `</title>` tag
- `<body>` tag has its closing `</body>` tag

Closing tags are used to close the content in between them. These are the tags enclosed within angle braces `<, >` and a forward slash `/`. For example: `</html>`. These closing tags are also known as “**Ending tags**”.

Some tags don’t have their corresponding closing tags and these are known as “**Stand-Alone tags**” / “**Empty tags**” / “**Self-closing tags**”. For example:

- `
` tag
- `<hr />` tag
- `` tag

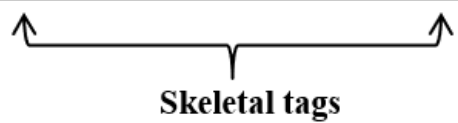
NOTE: In these Empty tags, they have a space between the characters and the forward-slash (`/`). This is because if you omit this space, older browsers will have trouble rendering that line break.

pictorial representation of tags:-

Skeletal Tags

Some basic tags and their meanings are discussed below:

<u>Opening Tag</u>	<u>Closing Tag</u>
<html>	</html>
<head>	</head>
<title>	</title>
<body>	</body>



These three tags are known as “**skeletal tags**”.