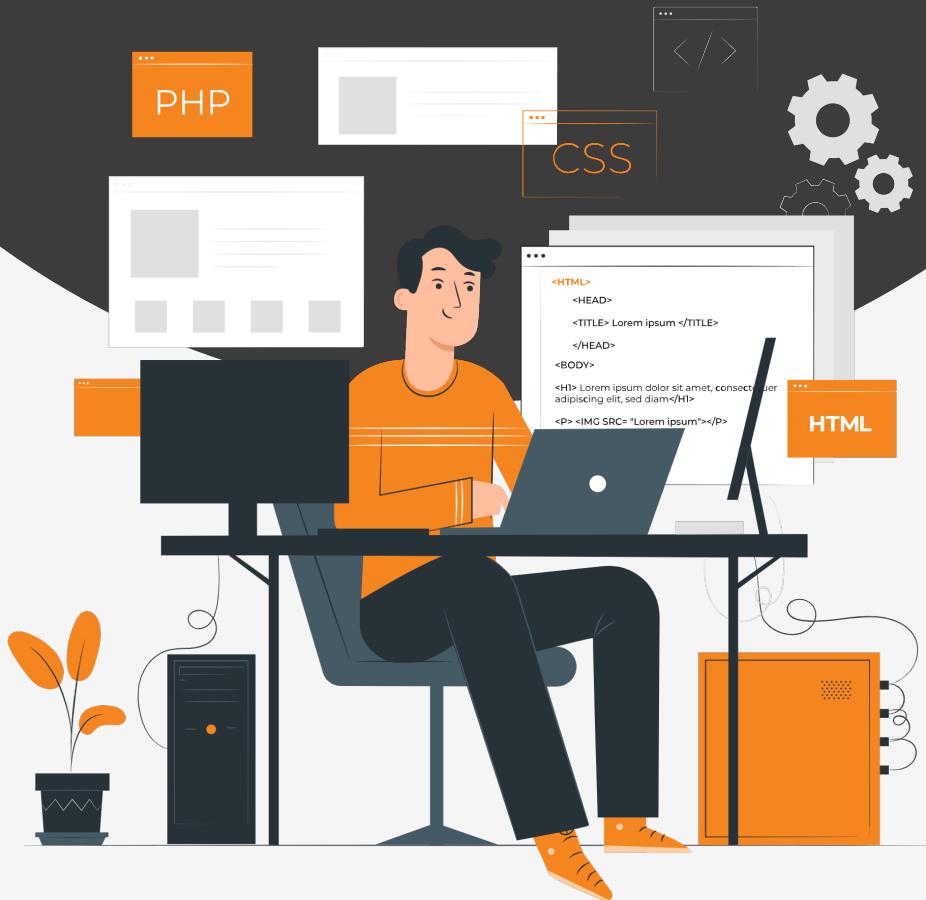


# Lesson:

# Writing a Hello World program in HTML



# Introduction to HTML

HTML is the backbone of web development. It stands for **HyperText Markup Language** and it helps set the structure of the content in our web pages.

Lets understand what is the meaning of HTML:

1. **HyperText:** Means the link that we include on our webpage. Word HyperText comes from the hyperlink.
2. **Markup:** To define and present text content.
3. **Language:** Language gives rules and syntax to follow while writing any code.

Without it, browsers wouldn't know the actual structure of your web page or how to display elements like texts, audio or images. The file extension is **.html, ex: index.html**.

**.htm** is also used as an extension for html files.

But we should use **.html** now for better consistency and compatibility,

## Structure Of HTML Document

Let's create our First HTML Doc - "Hello World"

**Step 1:** Create a new file with the name "index.html".

**Step 2:** Paste following code into the file and save.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title> Hello, World!</title>
  </head>

  <body>
    <h1>Hello, World!</h1>
    <p>This is my first HTML page.</p>
  </body>
</html>
```

**Step 3:** Open the file using any Browser and we are done with our first HTML project.

# Hello, World!

This is my first HTML page.

Now let's understand the above code one by one:

**<!DOCTYPE html>**: We start the file with `<!DOCTYPE html>`. It tells the browser what type of document to expect; in this case it is an HTML document.

- The <DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.
- It must appear only once, at the top of the page(before HTML tag).
- The <DOCTYPE> declaration is not case sensitive. We can write any of the following, it does not give any error.

```
<!DOCTYPE html>
<!DocType html>
<!Doctype html>
<!doctype html>
```

**html lang="en"**: It's the language attribute and it tells the browser the default language. In this case english -en.

Here the <html> tag represents the root of an HTML document or we can say it is the container for all other HTML elements(except <!DOCTYPE> tag)

## What is a tag ?

HTML uses a system of "tags" to define the structure and layout of web pages. Tags are the building blocks of HTML documents and consist of angle brackets enclosing specific keywords. These tags provide instructions to web browsers on how to display the content.

An HTML tag is composed of an opening tag and, in some cases, a closing tag. The opening tag starts with the less-than symbol (<), followed by the tag name, and ends with a greater-than symbol (>). The closing tag is similar, but it also includes a forward slash (/) before the tag name.

**For example:**

**Opening tag: <tagname>**

**Closing tag: </tagname>**

**Note:** We will learn more tags in detail in the upcoming lecture.

**<head>**: This is the head section of the HTML document, which contains meta-information about the document, such as the title of the web page that appears in the browser's title bar or tab.

**<title>**: This is the title tag, which sets the title of the web page. In this example, it's set to "Hello, World!".

The **<title>** tag is like a label for a webpage. It should only have words, and it appears at the top of your web browser or on the tab of the page.

We have to use the **<title>** tag in our webpage!

The words in the title are really important for getting your webpage found in search engines (like Google). Search engines use the title to figure out where to put your page in the search results.

## The **<title>** tag does three things:

- It gives a name for the web page in the web browser.
- It gives a name for the webpage when you save it in your favourites.
- It gives a name for the web page in the search results.

### **Here are some ideas for making good titles:**

- Make the title longer and describe what the page is about. Short titles with only one or two words are not as good.
- Search engines only show about 50–60 letters of the title, so don't make it too long.
- Don't just list words in the title. If you do, your webpage might not show up as much in search results.
- So, try to make the title accurate and meaningful!

**Remember:** We can only have one **<title>** tag in your webpage.

### **Let's take another example:**

```
<!DOCTYPE html>
<html>
<head>
    <title>My Webpage Title</title>
</head>
<body>
    <h1>Welcome to My Webpage</h1>
    <p>This is a sample webpage with a title.</p>
</body>
</html>
```

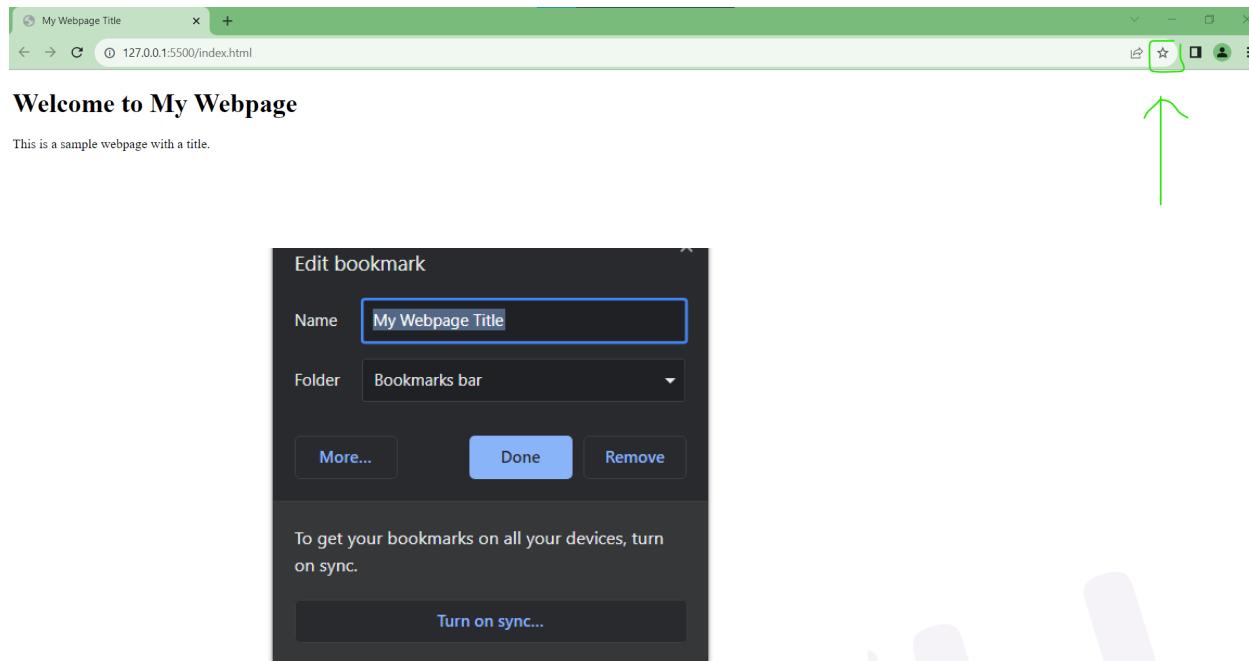
### **Output:**



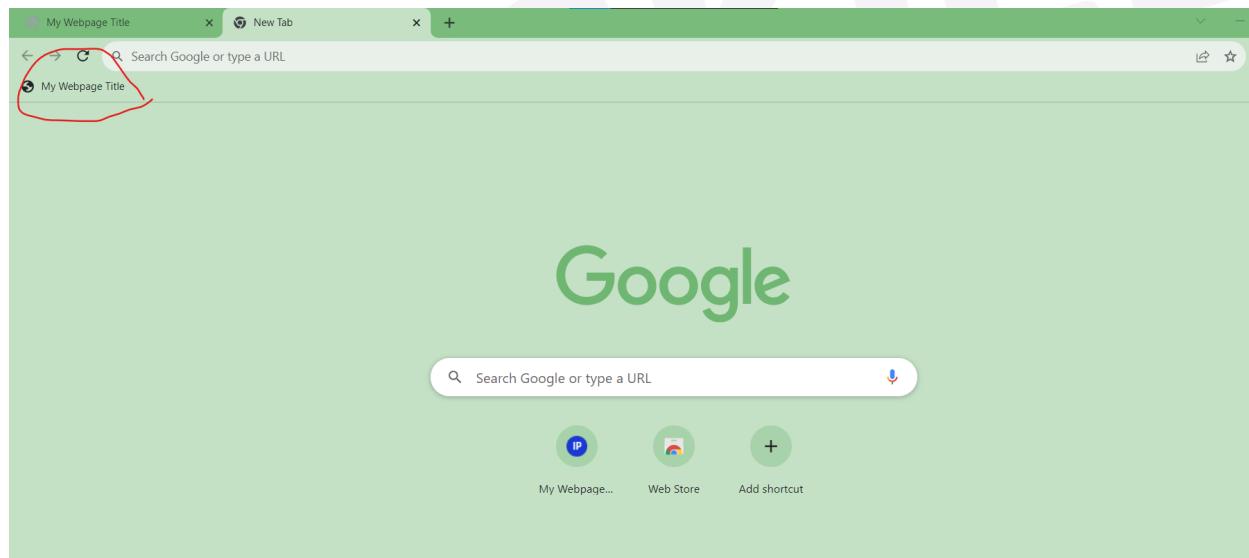
**Welcome to My Webpage**

This is a sample webpage with a title.

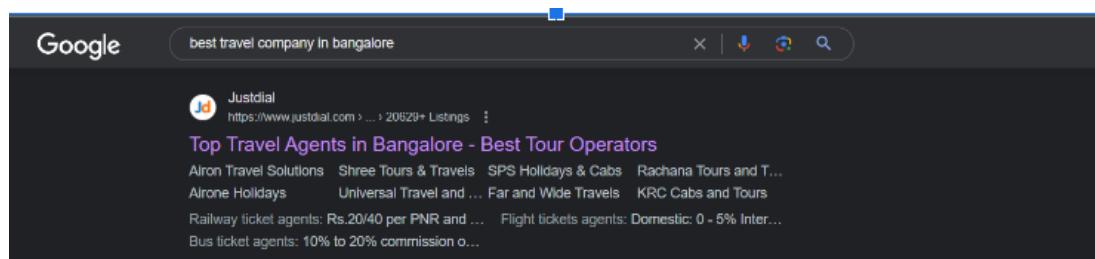
When we bookmark a webpage, the title we set using the <title> tag appears as the name of the bookmark. For example in the above we set the title tag as **My Webpage Title**. When we bookmark it, this shows as below:



### After the bookmark, we can easily see it



When we search for something on a search engine like Google, the titles of the webpages in the search results are the ones defined by the <title> tag. For instance, if you search for "**best travel company in bangalore**," the titles of the search results will be the titles set using the <title> tag on those webpages.



If we inspect it (right click and tab the inspect button), we can easily see that in the title tag.

```
<meta name="theme-color" content="#fff" class="jsx-fcb81ach25268668">
<title class="jsx-7a42fdeb31fa4f23">Top Travel Agents in Bangalore - Best Tour Operators - Justdial</title>
<meta name="Title" content="Top Travel Agents in Bangalore - Best Tour Operators - Justdial" class="jsx-7a42fdeb31fa4f23">
<meta name="description" content="20626 Travel Agents in Bangalore. Find ✓Tour Operators, ✓Travel Agency, ✓Tour Travel Agents, ✓Travel Operators in Bangalore. Get Phone Numbers, Address, Reviews, Photos, Maps for top Travel Agents near me in Bangalore on Justdial." class="jsx-7a42fdeb31fa4f23">
<meta name="keywords" content="Travel Agents in Bangalore, Travel Companies, Reviews, Map, Address, Phone Number, Contact Number, popular Travel Agents, Best Travel Agents" class="jsx-7a42fdeb31fa4f23">
<meta name="twitter:title" content="Top Travel Agents in Bangalore - Best Tour Operators - Justdial" class="jsx-7a42fdeb31fa4f23">
<meta name="twitter:description" content="20626 Travel Agents in Bangalore. Find ✓Tour Operators, ✓Travel Agency, ✓Tour Travel Agents, ✓Travel Operators in Bangalore. Get Phone Numbers, Address, Reviews, Photos, Maps for top Travel Agents near me in Bangalore on Justdial." class="jsx-7a42fdeb31fa4f23">
<meta name="twitter:image" content="https://images.jdmagicbox.com/webstatic/JD LOGO FB.gif"
```

**Note:** We learn more in detail what is the use of inspect and all in the upcoming lectures.

**<body>**: This is the body section of the HTML document, which contains the visible content of the web page, such as headings, paragraphs, and more.

**<h1>**: This is a heading tag, used to define a top-level heading. In this example, it displays the text "Hello, World!" as a heading.

**<p>**: This is a paragraph tag, used to define a paragraph of text. In this example, it displays the text "This is my first HTML page." as a paragraph.

**When you don't close an HTML tag properly, such as an <h1> tag, it leads to what's known as "open" tags. The browser will still try to render the content as best as it can, but it may have unexpected and undesirable consequences on the layout and appearance of the webpage.**

**Let's take an example where we write the syntax correctly:**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <h1> First Heading</h1>
    <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Consequuntur, at?</p>
</body>
</html>
```

**Output:**

# First Heading

  Lorem ipsum dolor sit amet consectetur adipisicing elit. Consequuntur, at?

If we don't close the h1 tag , then the browser behaves differently:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <h1> First Heading
    <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Consequuntur, at?</p>
</body>
</html>
```

**Output:**

# First Heading

  Lorem ipsum dolor sit amet consectetur adipisicing elit. Consequuntur, at?

In this example, the <h1> tag is not closed properly with a </h1> tag. When you view this page in a web browser, the rendering will try to interpret the content, but it causes unexpected results as above.

To avoid these issues, it's essential to always close HTML tags properly. In this case, you should close the <h1> tag with </h1> like this