# HTML (Hyper Text Markup Language):

HTML as the full form says is a Hyper Text markup Language.

**Q.** Now what does this mean?

**A.** Like we humans need a language to interact with each other, to share thoughts and transfer information, browser also uses a language called HTML, that is written using English language in the form of text to talk to the browser so as to what you want.

**Q.** Is this only specific to browser?

**A.** No! But, since our websites open in browser so for now we only talk in reference to the browser.

So we type in Hyper Text Markup Language to interact with the browser and convey our needs but, how does the browser know that my document is speaking in HTML?

The first line that I wrote- <!DOCTYPE HTML>

Now this means, that I am telling my browser that I will be talking to you in HTML and so do not use any other language with me as I will not understand.

**Q.** Why we need this?

**A.** Imagine you are out in a country where there are people who speak multiple languages and not everyone knows every language. You may know English and French but the person you meet may know English and Russian and so before you start a conversation you come up with something like You - “Do you speak English?”

Friend - “Yes”

-----And the conversation begins-----

Similarly, our code interacts with browser and tells that my language is HTML and so the further processing becomes easy and fast.

**Q.** Do I have to always specify?

**A.** Now imagine if you started talking to an unknown Chinese person in English and he understood and responded. Here, you didn’t ask if he/she knows English right? But, you started talking because the other person understood that you know English and he/she has the capability to talk to you in that language and so responded. So, even if you do not specify this, it will work but, it’s always a good practice.

**Q.** Why only **<!DOCTYPE** HTML**>** and not **<HI** HTML**>**?

**A.** This is same as you asking why do I say “Breakfast” and not something like “Asapuri”. Like we have fixed words in English language that we use to communicate our thoughts similarly, we have fixed words in HTML that we use to convey our message. And so, DOCTYPE- meaning Document Type. In the sense, my type of document is HTML.

**Q.** Why “**<**” and “**>**”?

**A.** Well one document may have languages like I might use css and even javascript in my html document so how would the browser know which in which language is it to interpret this word. So, we use “<” in the beginning of our element and “>” to end our element. Meaning, that anything between “<” and “>” is a part of HTML and not some other language.

**Q.** Now what is element?

**A.** All the particular words that the HTML has to convey the messages are known as elements or tags. Like every word in English language, every element in HTML has a specific meaning, e.g. DOCTYPE to specify the type of document.

Now that you know how to tell the browser what language your code will be speaking, let’s dive into the language.

There are many elements in HTML for different purposes and by purpose I refer to only telling the structure of our webpage.

Note-

A webpage is just one page of the website where as a website has one or more than one pages.

We begin with **<html>**

- this tells that okay, from here on, everything below is to be understood in html unless I specify that I am using some other language. We specified the starting and so we also keep the courtesy to specify where I have ended talking in html and so we specify the end with </html>

**Q.** What is “/” in “**</html>**”

**A.** While anything between “**<**” and “**>**” means the html element, similarly, anything between “**</**” and “**>**” means that here my element ends

In **<html>**, out major components include:

**<head>**

**<body>**

To understand this, we’ll refer to our human body. Our human body starts from top of head to the bottom toe or the other way round however you like saying. Similarly, **<html>** ...**</html>** tell that this is my whole human body out of which **<head>**..**</head>** will be my head area and **<body>**..**</body>** will be everything below the head till toe. Now like our head and body come between our body start and end similarly, **<head>**...**</head>** & **<body>**...**</body>** will also come between **<html>**...**</html>** and like the head comes first when we look at human body from the top similarly, in the code also it will be like:

**<html>**

**<head>**

**</head>**

**<body>**

**</body>**

**</html>**

Now you understand why we have **<!Doctype>**, **<html>**, **<head>** and **<body>**. Apart from this, all other elements can be looked up upon at the link -<https://www.w3schools.com/tags/default.asp>

[Moving ahead,](https://www.w3schools.com/tags/default.asp)

**Q.** Why do we require head?

**A.** This is like why do humans need a head or a brain, basically to provide the base for the body to work. Every information that your body needs, your brain, from the head, supplies to it. Similarly, the head has information that maybe required for the body to work or the browser or search engines may look for information that also the head can provide.

Q. Why do we require body?

A. So basically everything that we want the user to see we put in body.

Coming to the head part of the code that I showed in the beginning:

**1 <title>**Welcome**</title>**

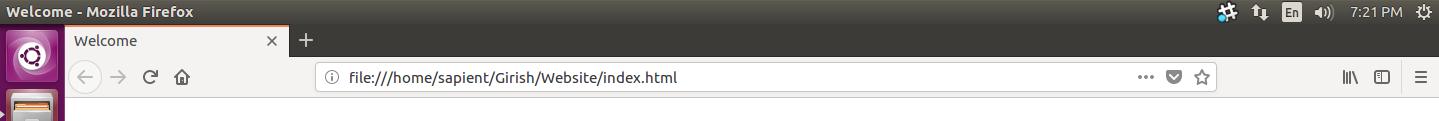
**2 <meta** charset=”utf-8”**/>**

**3 <link** rel=”stylesheet” type=”text/css” src=”css/vendor/960.css”**/>**

**4 <link** rel=”stylesheet” type=”text/css” src=”css/style.css”**/>**

Now lets understand this tag:

**<title>** - Like the name says, it represents the title of the something, which is our webpage(not website) . Let me show you where our title comes:



So, everything that we put inside **<title>** and **</title>** comes in the tab bar of our webpage. Also, it tells the search engines that this is the title of the webpage and thus the information is showed in the search results.

\*Note- To learn about how search engines work you may refer to google for it.

Next we have is **<meta>**

Meta basically represents meta data, which is data about the data. To explain this, consider you play a game where a friend tells you a name of movie and you have to act it out for your team to guess without telling the name of the movie. So to play this, we use the information like length of movie name, which actor played in it, actions, and all. So this information is actually data about the data that you have- the movie name. So data about the data is known as meta data and for short we have the tag **<meta>**.

Now what is “charset=”utf-8”?

We understand what tags are- that start with “**<**” right? So everything else between the tag starting and “**>**” are called attributes or properties. Attributes is basically a little more information about the information. Like we say that there is a table in our office. So the table is our element and its locations is office, it might have a height and also more properties like what type of table it is, what raw material is used to make it and many more such things. All these things are known as attributes.

Similarly, “charset” in **<meta>** tells the information about our data that tells the character set the browser may refer to for understanding our content. We here specify “UTF-8”. Like this, there are many more character sets like – ANSI, ASCII and more(refer to google for more). To understand what the use of charset set is let’s go back to our previous example of English language. We know that the English language has 26 letters and so when you write in English you use one of the 26 letters. But, what if I write a Russian letter in between and English sentence, you won’t understand write unless you know Russian. Similarly, ASCII has particular character, ANSI has some particular characters and UTF has some character that it can recognize. We use this charset when our content has multiple languages that we want to use to build our website that is understandable in different countries in their native language.

Now you must be wondering why I’ve written “**/>**” at the end of meta tag.

- To understand this you must know that there are different types of tags. Some that we tell where the starting is and where the ending is like we did **<head>**..**</head>** and some that do not need ending and hence are closed then and there. For such kind of tags we put “/” before “**>**”.

Examples of such tags are - **<meta>**, **<br>**

Next we have is **<link>**

This like the name specifies, is used to link to the outside of our current file. In this we give the relation of the file with our current file which is “stylesheet” and then then the type of file which is “text/css” and finally the source of our file kept outside.

Coming to the **<body>** tag. In this we put information that we want to display to the user. For this we have tags like <div> to create a division. To study about more tags you can refer to the link that I specified above but for now I’ll talk about a few tags in HTML 5.

**<video width=”320” height=”240” controls>**

**<source** src=”movie.mp4” type=”video/mp4”**>**

**<source** src=”movie.ogg” type=”video/ogg”**>**

The **controls** attribute adds video controls, like play, pause, and volume.

It is a good idea to always include **width** and **height** attributes. If height and width are not set, the page might flicker while the video loads.

The **<source>** element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.

The text between the **<video>** and **</video>** tags will only be displayed in browsers that do not support the **<video>** element.

To have a more detailed understanding of any tag, you can refer to<https://www.w3schools.com/html/html5_intro.asp>

[Now that you understand what HTML is and how it is used, let us dive into CSS. But, before that you need to understand what is an “id” and a “class”.](https://www.w3schools.com/html/html5_intro.asp)

### 

### Class:

To understand this, relate this to a normal classroom of your school. What happens when you say a student is of so and so class. That usually means that the student has some particular subjects to study, some teachers who teach, assignments and homework that they get and all this is same for all other students of the same class. Similarly, when we say that an element belongs to this “class”, we say that it will have the following properties that we define using CSS.

Id:

Like a class, an “class”, and “id” is also the mechanism to defining the properties using CSS but by an “id” we can also control the behavior/working of an element using Javascript.

**Q.** How do we write class and id?

**A.** For class we write as:

<body class=”styling”>

For id we write as:

<body id=”styling”>

# 