# ***what is HTML?***

What is the term HTML even mean and how does ti relate to the web?

In a minute we'll talk about the big picture of three technologies

that drive the web.

HTML, CSS and JavaScript but where does HTML fit?

In other words, precisely what role does HTML play in web development?

As we go along,

you will see that understanding the answers to these pretty simple questions

will actually help you to make correct coding decisions down the line.

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Well first of all, so what does HTML stand for?

Well it stands for, Hyper Text Markup Language.

So let's go over each one of these words and find out what exactly they mean.

So first of all, hypertext.

Well hypertext is text which contains links to other texts and

that's basically the entire web, right?

One document points to another document which points to a bunch of other documents

and it grows on and on and on.

Sometimes they link back to the original document and

it becomes one gigantic web and obviously it's not just about text nowadays,

hypermedia is plays a huge role in the web today.

You can watch videos, listen to music and

really hypermedia is just an extension of hypertext.

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The next term is Markup.

So markup means to mark something up, to annotate.

So for example, it's really all about content.

On the Web it's all about content.

So if you have some content for example if you have a document you're writing called,

Why I Love This Course,

which is I'm sure is going to be the title of your next blog post.

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That's the content and you want to annotate the content to tell the browser,

or to tell some other machine out there,

some other program out there, what this content is and that's what HTML does.

So HTML goes and surround that, surrounds and

wraps that content in some markup language like tags.

So you can see here Why I Love This Course is wrapped around

with a title tag which kind of tells us and

some other software out there that this is the title of this document.

Which brings me to the first big point, HTML is human readable.

So these tags look like instructions for a document structure.

Structure, you don't need to run it through some interpreter in order to

understand the output structure of this document.

It's very clear what it is.

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The last word in hypertext markup language is language and language basically implies

that it has its own syntax meaning there's a right and a wrong way to code it.

So for instance in the example on the left the closing div tag appears

after the closing h1 tag.

So it's closing order is switched which causes parsing and

potentially rendering errors.

So the html is language.

You could actually code it up in a way such that something is wrong and

something will break.

Html also has it's own semantics which means tag

names can mean something either to machines or to humans.

Okay. So let's talk about the three technologies

that drive the web.

Each one has its own distinctive purpose and

all three of them fit very nicely together.

Let's start with HTML.

HTML provides the structure which means what components

does the HTML document have?

For example, it can have one heading, two paragraphs, and a footer.

Note that that does not tell you anything about how these components are visually

laid out, what they look like, what color they are, what font size they are.

It only tells you what are the components.

Like in a house if you have three rooms and a kitchen you don't really know what

color the kitchen is, what color the walls of the kitchen.

The only thing you know is what components make up the house.

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The color and style is the role of CSS.

So colors, layouts, font style,

font sizes, in other words any stylistic types of things.

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So for example if we have a heading in our HTML document, it will tell us what color,

what font size it is.

So that's the job of CSS and the third,

JavaScript, it's job is to provide behavior, provide functionality.

It adds functionality to the page, so for

example what happens when HTML document finishes loading into the browser?

Or what happens if I click on one of the headings?

That's the job of JavaScript to provide that behavior.

Let's take a look at a quick example of these concepts in action.

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Okay, so the example that we're going to take a look at is located in the examples

lecture zero one folder, and the file we're going to look at is called structure

dash only dash before dot HTML and it's a simple HTML file.

There's nothing but some HTML and the dummy text data here,

dummy text, and it's got a title, it's got a heading here.

Couple of paragraphs and this has a footer,

where in the footer we have the tech support email address.

For the poor soul whose going to try to contact this technical support.

Joking obviously.

Okay, so, basically, nothing more than there's just a HTML and some dummy text

and we're also going to take a look at structure-only-after.html where it's

the exact same HTML document but we inserted some styles into it and

some behavior as well.

So for example, the heading, we made it green and we center aligned it.

The second paragraph has some margin applied to it.

The footer here has a paragraph with our text support email, and

if we click in the text support email is going to pop up and alert for us.

Okay, so let's take a look at both of these documents in the browser.

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Okay so here's the first document.

There is nothing special about it.

It's got that title we talked about, a couple of paragraphs and

the tech support email at the bottom in the footer and

if I click on it nothing actually happens but if we look at document number two we

see that HTML is Structure Only heading is now green and

a much bigger title and we see that the position of it has moved to the center.

And we also see that the second paragraph is in the center and it's much bigger font

compared to before and if we click on the email address that we talked about,

we see an alert gets popped up with the message emailing us is useless,

which sounds just about right for most people's experiences with tech support.

So the thing to notice here is that the difference between the two HTML document

are the up styles and the behavior applied but

the structure of both HTML documents is exactly the same.

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So in summary, we spoke about HTML and the fact that its job is to annotate content

and define document structure and obviously, as any language,

it has a right and wrong syntax, which you'll have to learn in order to code it.

And the three Core Web Technologies, HTML, CSS, and

Javascript work very well together because each one of them has its own distinct and

precise role and they kind of don't really step on each other.

The work very nicely together.

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Next we'll talk about a bit of a relevant history of the HTML standard,

and I do mean relevant.