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## BASIC HTML CURRICULUM: PART 1, SESSION 1

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*Written by Lucy Ikpesu*

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### CLASS DESCRIPTION

In this class, students will explore web page development using the basic HTML tools.

**TOTAL CLASS TIME:** 90 minutes

### CLASS OUTCOME

By the end of this class, students will understand what HTML is and how to use basic HTML tools to create their first simple web page. They will create their first web page and launch in a browser.

## INTRODUCTION

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### What is HTML?

HTML stands for **Hyper Text Markup Language** that describes the structure of web pages using markup. HTML is the "hidden" code that helps us communicate with others on the World Wide Web (WWW). HTML elements are the building blocks of HTML pages represented by tags.

When writing HTML, you add "tags" to the text in order to create the structure. These tags tell the browser how to display the text or graphics in the document. HTML tags label pieces of content such as "heading", "paragraph", " table" , and so on

## ➤ Materials Needed

- Computer
- Google Chrome: <https://www.google.com/chrome/>
- HTML editor software: There are different type of HTML editor, I would recommend any of these two, **download & install** using the link below;
  - Bracket: <http://brackets.io/>
  - **Visual Studio Code**: <https://code.visualstudio.com/download>

## ➤ HTML Editors

Web pages can be created and modified by using HTML editors. This is where you put all your code and content. For the PC use VSC or Bracket and for the MAC use Text Edit.

**To create your first web page with Bracket or Notepad, follow the steps below;**

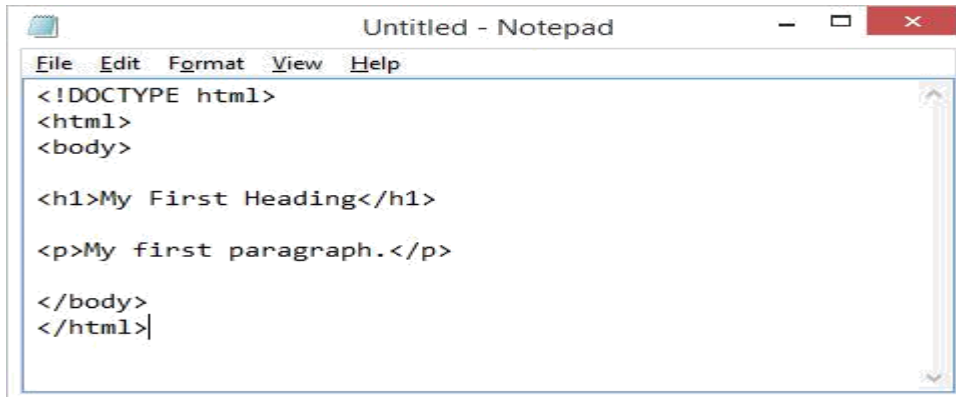
### 1. Open Bracket or VSC

- Open the **Start Screen** (the window symbol at the bottom left on your screen).  
Type **Bracket or Notepad** on windows 8 or later.
- Open **Start > Programs > Accessories > Notepad on windows 7 or earlier.**

### 2. Write some HTML into Bracket or Notepad.

```
<!DOCTYPE html>  
<html>  
<body>  
  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
</body>  
</html>
```

Here's what it looks like in the notepad editor



```
Untitled - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>

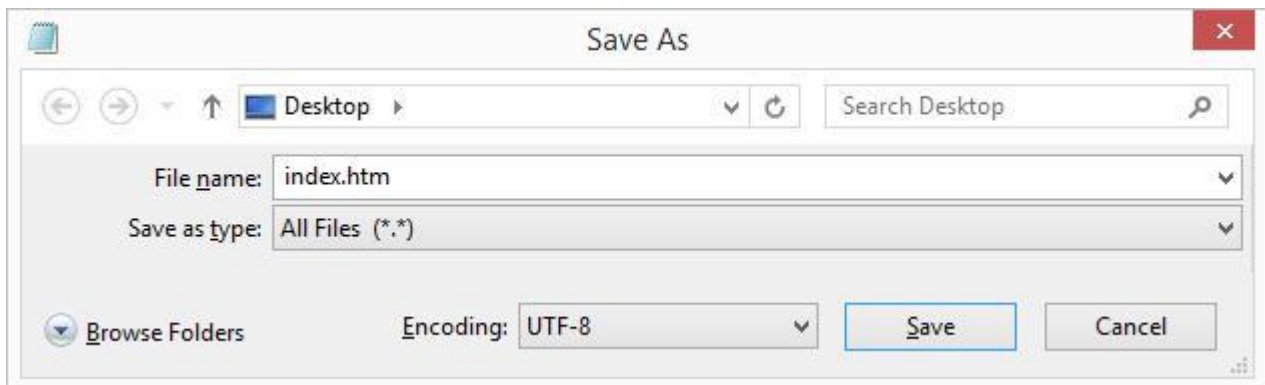
<p>My first paragraph.</p>

</body>
</html>
```

### 3. Save the HTML Page

Select **File** > **Save as** in the Bracket or VSC menu.

Name the file "**index.html**" as shown



You can use either .htm or .html as file extension. There is no difference

### 4: View the HTML Page in Your Browser

Open the saved HTML file in your favorite browser (double clicks on the file, or right-click - and choose "Open with").

And here is the resulting page in a browser



Notice the tags are gone in the browser? That's because the tags tell the browser how to display files but do not show themselves.

### ➤ **Html Syntax**

This simply mean how the codes are written on HTML, so it's important to follow the syntax exactly or your browser will not display your page properly.

## **BASIC HTML CONCEPTS**

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### ➤ **HTML Tags**

- HTML tags are element names surrounded by angle brackets: `<tagname>` content goes here...`</tagname>`
- HTML tags normally come in pairs like `<p>` and `</p>`

The first tag in a pair is the start tag; the second tag is the end tag

The end tag is written like the start tag, but with a forward slash inserted before the tag name.

- Note: HTML tags are not case sensitive: <P> means the same as <p>.

### ➤ HTML Element

The HTML element is everything from the start tag to the end tag <p>My first paragraph.</p>

### ➤ Nested Html Elements

HTML elements can be nested (elements can contain elements).

All HTML documents consist of nested HTML elements.

This example contains four HTML elements:

Example

```
<html>
```

```
<body>
```

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```

Notice above how the tag <h1> and <p> are nested inside the <body> tag, while <body> is nested inside </html>. Each new set of tags are nested inside other tags.

### ➤ Empty HTML Elements

HTML elements with no content are called empty elements.

<br> is an empty element without a closing tag (the <br> tag defines a line break).

Empty elements can be "closed" in the opening tag like this: `<br/>`.

## HTML STRUCTURE

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All HTML documents are divided into two main parts

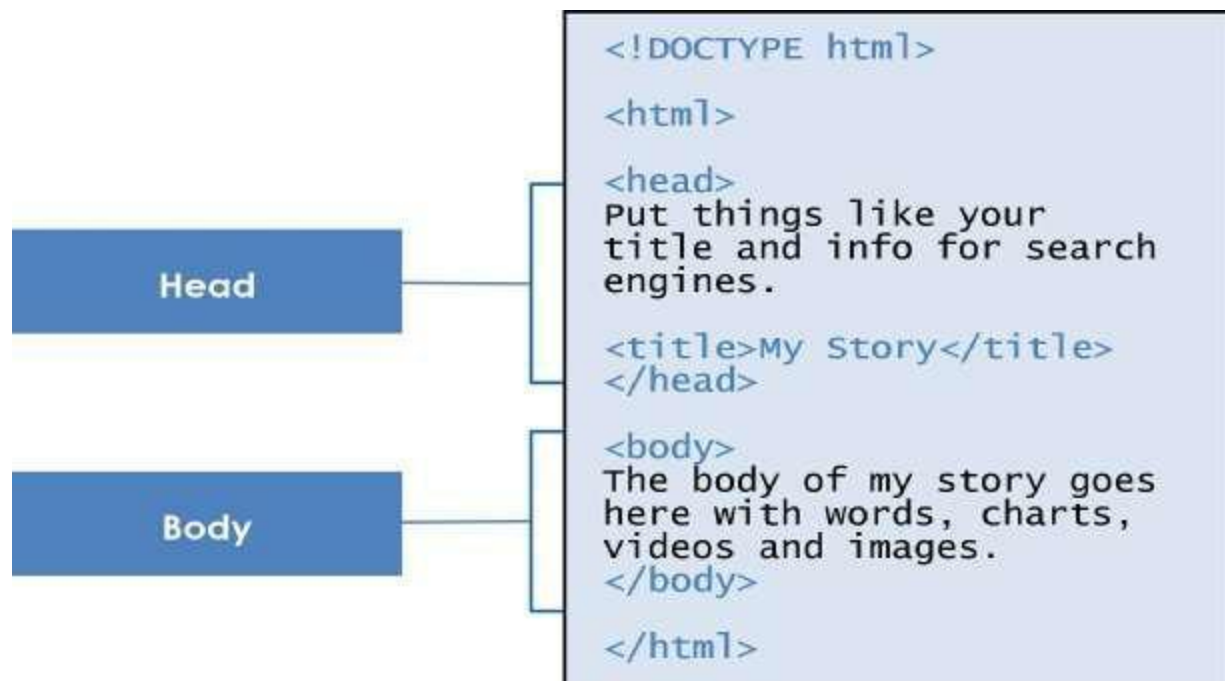
- Head and
- Body.

When you begin any new page, it must have a declaration: `<!DOCTYPE html>`. It's telling or declaring to the browser that the following file is an HTML file.

To build any webpage you will need four primary tags: `<html>`, `<head>`, `<title>` and `<body>`.

These are all container tags and **must appear as pairs with a beginning and an ending**.

Here is a diagram, showing the two main parts and the primary tags.



`<html>...</html>`

Every HTML document begins and ends with the `<html>` tag. This tells the browser that the following document is an html file. Remember, tags tell the browsers how to display information.

`<head>...</head>`

The `<head>` tag contains the title of the document along with general information about the file, like the author, copyright, keywords and/or a description of what appears on the page.

`<title>...</title>`

Appears within the `<head>` tags and gives the title of the page. Try to make your titles descriptive, but not more than 20 words in length. The title appears at the very top of the browser page on the title tab.

`<body>...</body>`

The main content of your page is placed within the body tags: your text, images, links, tables and so on.

## CREATE YOUR FIRST WEB PAGE

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**To Create Your First Webpage, Follow the Instructions Below:**

**1. Open your Text Editor**

- **To find PC Bracket or Notepad go to:**

Start > All Programs > Accessories > Notepad

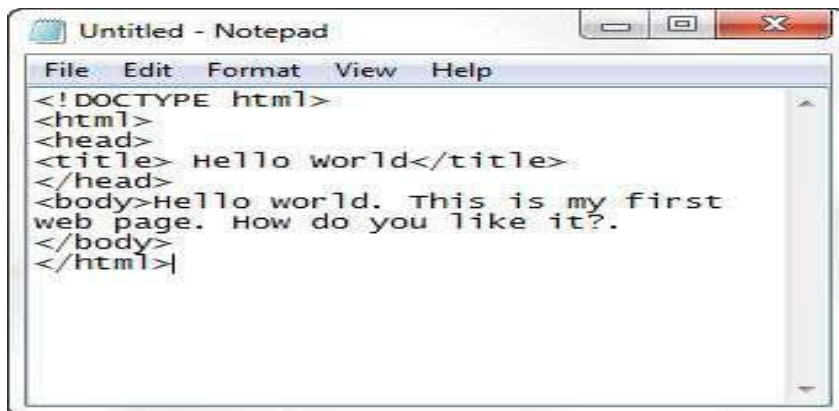
- **To find MAC TextEdit go to:**

Startup MAC > Go Applications > Click on TextEdit

2. Enter the following code inside the editor:

```
<!DOCTYPE html>  
  
<html>  
<head>  
  
<title>hello world</title>  
</head>  
<body>hello world. This is my first web page. How do you like it?.  
  
</body>  
</html>
```

It should look like this (in Notepad):



3. Create a folder on your hard drive called HTML. See Introduction for help.

Save the document as: **helloworld.html** in the HTML folder. Your file can be saved as either an html or hml file.

4. To preview your new document

Go to the HTML folder and open the helloworld.html file. Your browser should open up and your page will appear. Like this:





## BASIC TEXT FORMATTING

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You will notice that a webpage is made up of more than just plain words on a screen. There are headlines, paragraphs, graphics, colors and much more that makes the webpage look well-structured and exciting to view.

Our next tags--headline, paragraph, line break and horizontal rule--will help us make our current page a lot more exciting.

### ➤ **Html Headings**

Headings are defined with the `<h1>` to `<h6>` tags.

`<h1>` defines the most important heading. `<h6>` defines the least important heading.

### **EXAMPLE**

`<h1>`This is heading 1`</h1>`

`<h2>`This is heading 2`</h2>`

`<h3>`This is heading 3`</h3>`

`<h4>`This is heading 4`</h4>`

`<h5>`This is heading 5`</h5>`

`<h6>`This is heading 6`</h6>`

## Headings are important for the following reasons:

- Search engines use the headings to index the structure and content of your web pages.
- Users skim your pages by its headings. It is important to use headings to show the document structure.

`<h1>` headings should be used for main headings, followed by `<h2>` headings, then the less important `<h3>`, and so on.

**Note:** Use HTML headings for headings only. Don't use headings to make text **BIG** or **bold**.

## ➤ HTML Horizontal Rules

The `<hr>` tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The `<hr>` element is used to separate content (or define a change) in an HTML page:

### EXAMPLE

```
<h1>This is heading 1</h1>
```

```
<p>This is some text.</p>
```

```
<hr>
```

```
<h2>This is heading 2</h2>
```

```
<p>This is some other text.</p>
```

```
<hr>
```

## ➤ **Html Paragraphs**

The HTML `<p>` element defines a **paragraph**

### **EXAMPLE**

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

## ➤ **Html Line Breaks**

The HTML `<br>` element defines a **line break**.

Use `<br>` if you want a line break (a new line) without starting a new paragraph:

### **EXAMPLE**

```
<p>This is<br>a paragraph<br>with line breaks.</p>
```

The `<br>` tag is an empty tag, which means that it has no end tag.

## ➤ **Html `<pre>` Element**

The HTML `<pre>` element defines preformat ted text

. The text inside a `<pre>` element preserves both spaces and line breaks.

```
<pre>
```

```
My Bonnie lies over the ocean.
```

```
My Bonnie lies over the sea.
```

```
My Bonnie lies over the ocean.
```

```
Oh, bring back my Bonnie to me. </pre>
```

## HTML LISTS

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Lists come in a variety of forms with most either numbered or bulleted. The numbered lists are called **ordered lists** and the bulleted lists are **unordered lists**.

Lists are nested. There is a tag that identifies the type of list, like numbered or bulleted. Then within that tag there is another tag that itemizes the list. Maybe some definitions would help.

```
<ol>...</ol>
```

**The ordered list is a container tag and is used for numbered lists.**

```
<ul>...</ul>
```

**The unordered list is a container tag and is used for bulleted lists.**

```
<li>...</li>
```

The listed item tag is a container tag and is **nested** within the ordered or unordered tags. Here is an example of the differences between ordered and unordered lists.

**An ordered (numbered) list goes like this:**

```
<ol>  
<li>My first item on the list. </li>  
<li>My second item on the list. </li>  
<li>My third item on the list. </li>  
<li>My fourth item on the list. </li>  
</ol>
```

In the browser it will appear like this:

1. My first item on the list.
2. My second item on the list.
3. My third item on the list.

4. My fourth item on the list.

**An unordered (bulleted) list goes like this:**

```
<ul>  
<li>My first item on the list. </li>  
<li>My second item on the list. </li>  
<li>My third item on the list. </li>  
<li>My fourth item on the list. </li>  
</ul>
```

In the browser it will appear like this:

- My first item on the list.
- My second item on the list.
- My third item on the list.
- My fourth item on the list.

## **REVIEW/CONCLUSION**

This is the end of this session; make sure each student understand what has been taught by asking questions and ensuring that they try out what they have learnt so far by combining the different HTML tools used to build their web page.