Introduction to HTML

HTML, which stands for Hypertext Markup Language, is the standard markup language used to create web pages.

HTML consists of *HTML elements*, which define the different parts of the document. The web developer uses *HTML tags* to specify which elements go on a given page. For example, you can use HTML tags to specify headings, paragraphs, lists, tables, images and much more.

What do I need to create HTML?

You don't need any special equipment or software to create HTML. In fact, you probably already have everything you need. Here is what you need:

- Computer

  This is probably an obvious one. Tablets should be fine too, and maybe even your smartphone.
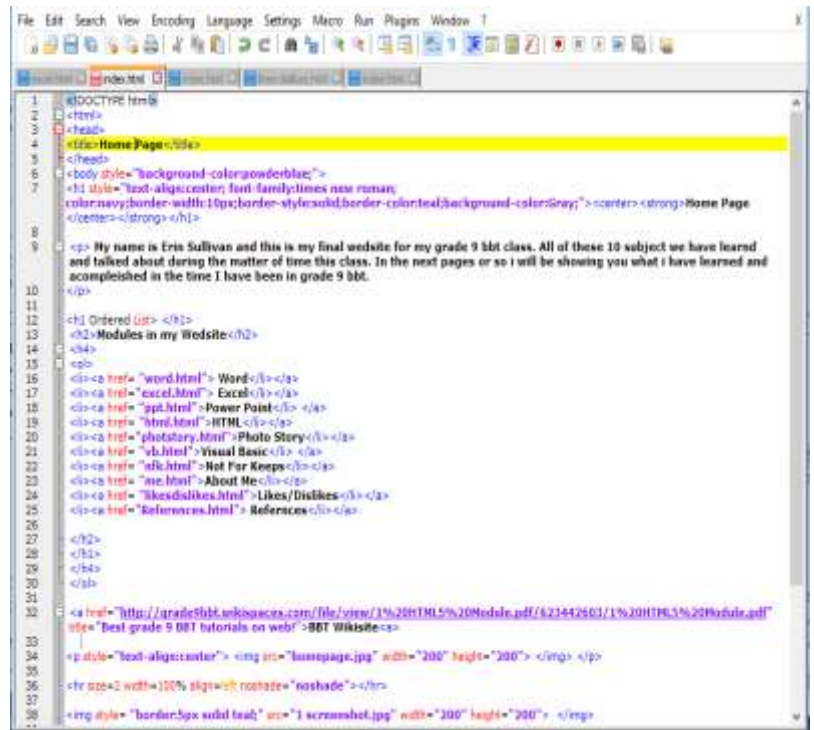
- HTML Editor

  An HTML editor is an application that helps you create HTML pages.

  While you can certainly create HTML documents using a simple text editor, an HTML editor will make your life easier — especially if you plan to write a lot of code.

  HTML editors usually highlight your code so that it's easier to read, like Notepad++ (pictured).

- Web Browser

  To view the results of your HTML code.

About HTML

HTML stands for Hypertext Markup Language, and it's the standard markup language used to create web pages.

Tool Tip

This module will present you with a number of new terms and techniques which you may not be able to remember when you need them. Luckily, there is assistance in the form of a constant search box. All you need to do is press the **ctrl** and **F** keys at the same time and a "find" search tool opens – simply type your search term in the box and the program will take you to the next time that term is used in the document. This tool works on most text based documents (Word, pdf, internet applications, and Notepad too!).
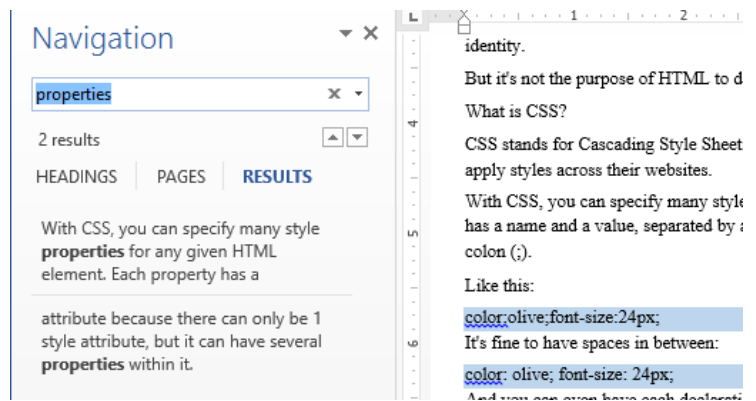
There are a number of video Tutorials in the Shared drive to assist in preparing **and** beginning the HTML module. *S:\+Shared Data Files\BBT 9\HTML 5\Video Tutorials*

HTML Tips

1. Folder Options

A.   Before you begin HTML ensure that your folder options are set so that the preview pane is not selected. To check go to your folder button from your task bar, then select the view tab and turn it off. This is important because it can interfere with your ability to save files.

Folder Button

B.   While in the view tab select the "file name extensions check box. This will show the extensions in your folders. This is helpful when coding so you can see the whole file name.

Ensure the Preview Pane is not selected

File name extension checkbox

You can watch the video on this in the S drive: S:\+Shared Data Files\BBT 9\HTML 5\Video Tutorials\Setting up your folders Or view it here: https://youtu.be/NTqtGbDbCK4
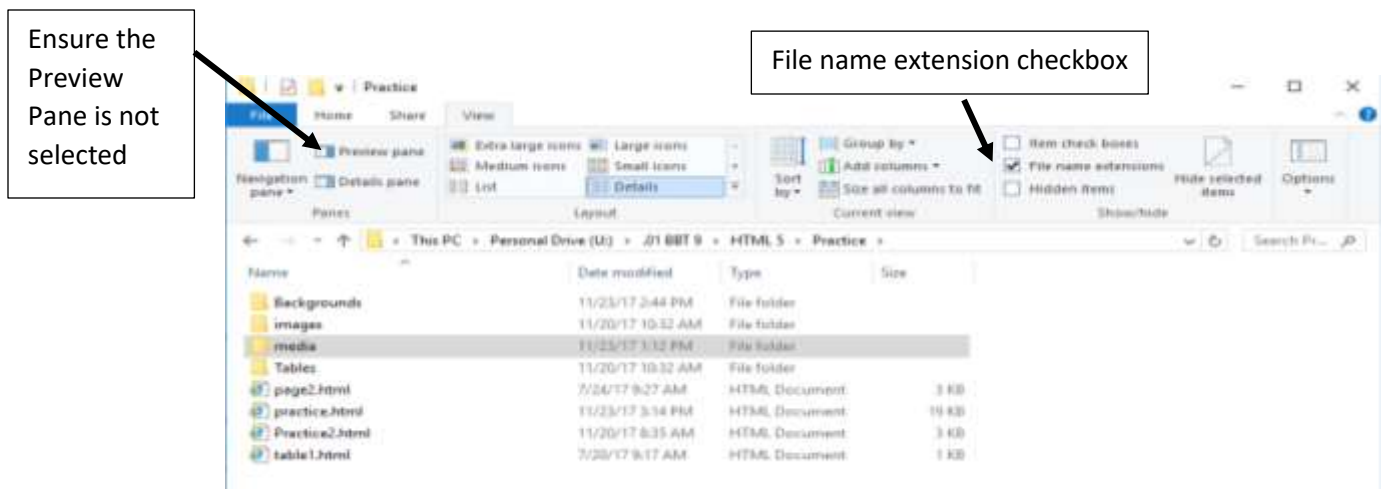
2. Setting up Notepad++

A.   Go to your windows start button locate Notepad++, open it and pin it to your task bar.

B. Open Notepad++ and ignore updates. Then select the settings tab and select preferences
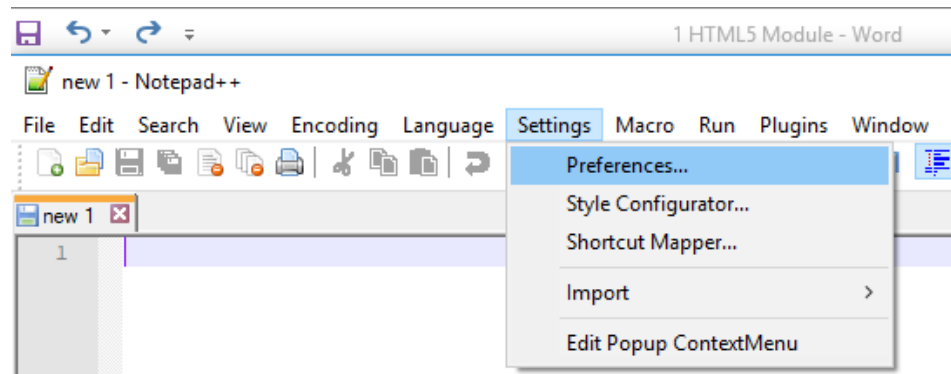
C. In the Preferences window select New Document, then change the language to HTML.
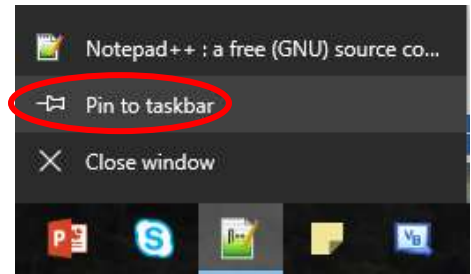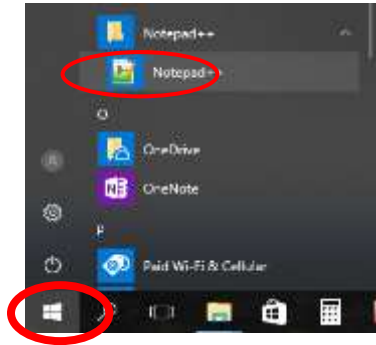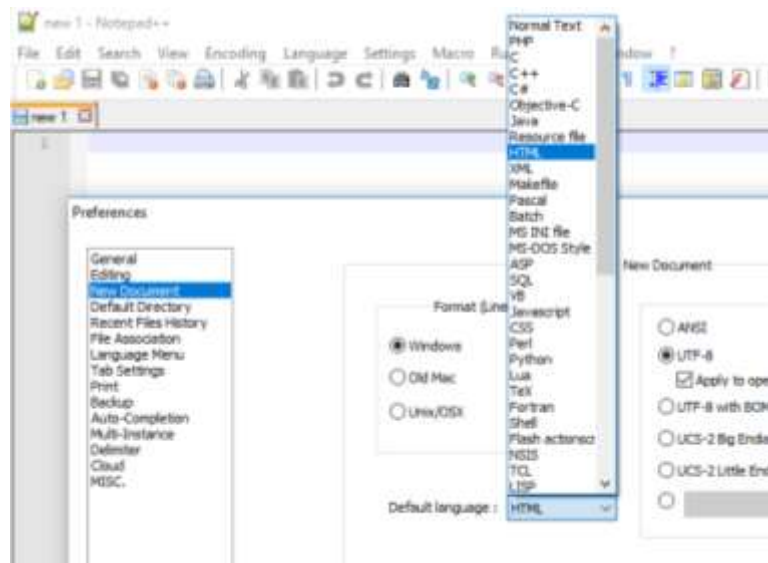
You can Watch the video on this in the S drive: S:\+Shared Data Files\BBT 9\HTML 5\Video Tutorials\Setting up Notepad++ or view it here:
https://youtu.be/1yGA8_TQiBY

3. Setting up your HTML folder

1. If you have not yet created an HTML folder do so now. Create it inside your BBT9 folder in your U drive.
2. Inside your HTML folder create another folder named **Practice**.
3. Open Notepad++ and create a new file and name it **1Index** and save it in your new Practice folder. (Open the folder and ensure it is named **1Index.html**).

File structure in HTML

When coding in HTML it is important that you keep all your files in a neat and organized manner and that all files used in the website are located in the same folder. Html pages cannot look outside their main folder for content to display on the page.   Practice

For example:

The source HTML document (Index.html) needs to be inside the main folder (Practice). Likewise any images, media and backgrounds need to be either in the main Practice folder, or a folder inside the main Practice folder. If you want to use an image or other content from some other folder it needs to be copied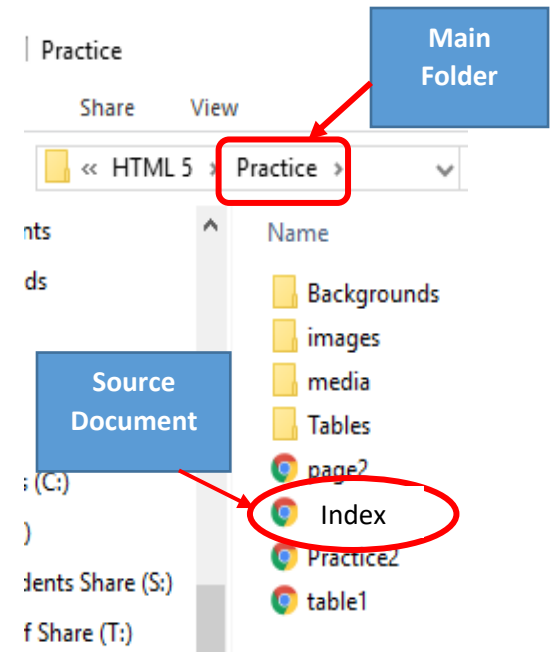 into one of the folders in the main Practice folder – Your Source page (Index.html) cannot look outside the main folder (Practice).

Watch the video on this in the S drive: S:\+Shared Data Files\BBT 9\HTML 5\Video Tutorials\Setting up your Folders

Unit 1 - Lesson 1 - Create your First Web Page!

Let's create a webpage using HTML, then view it in a web browser.
First let's create a folder named HTML. Then create a folder inside this folder named Practice.
All the files you need to create your webpage need to be in the same folder – so this webpage files will all be inside your Practice folder.

OK, lets get straight into it. Here, you will learn just how easy it is to create a web page. In fact, by the time you've finished with *this* Module, you will have created *your own* web page!

When you create a web page you will usually do something like this:

1. Create an HTML file
2. Type some HTML code
3. View the result in your browser
4. Repeat the last 2 steps (if necessary)

Create a Webpage

OK, let's walk through the above steps in more detail.

1. **Create an HTML file**
    An HTML file is simply a text file saved with an .html extension (i.e. as opposed to a .txt extension).

    1. Open up your HTML editor (Notepad++). You could use your computer's normal plain text editor if you prefer.
    2. Create a new file (if one wasn't already created)
    3. In your BBT folder of your U drive, create a new file named 1**Index** and Save the file inside the folder named practice.
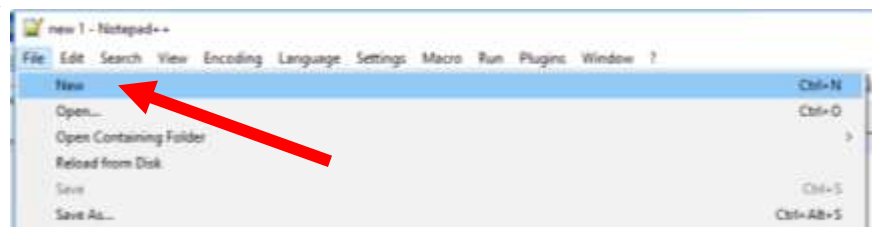
2. Type some HTML code

Type the following code into your Notepad++ file named 1Index: (Pay attention to upper and lower case type)

```
1   <!DOCTYPE html>
2   <html>
3   <head>
4, 5 <title>My HTML Practice Page</title>
6   </head>
7   <body>
    <h1>My First Website</h1>
    <p>Less than 5 minutes into this HTML tutorial and
    I've already created my first homepage!</p>
8   </body>
9   </html>
```

Please note that the h1 tag uses the number 1, not the letter L

These are the 9 basic tags required to create a webpage in HTML 5: Complete your activity sheet questions 1 & 2 now! (Hint these 9 are required to create a second and third page – you will need to remember this later

You can Watch the video on this in the S drive: S:\+Shared Data Files\BBT 9\HTML 5\Video Tutorials\Creating your first webpage
Or view it here: https://youtu.be/nR0oHZ0sYTY

3. View the result in your browser

If you are using Notepad++ you can select the Run command from the main window and select the launch in Chrome option
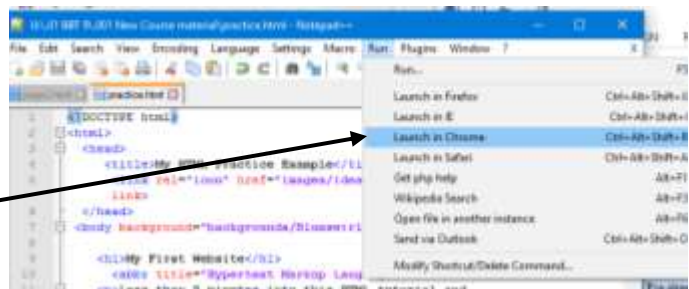
Or you can navigate to your file in your U drive (Index.html) then double click on the html file.
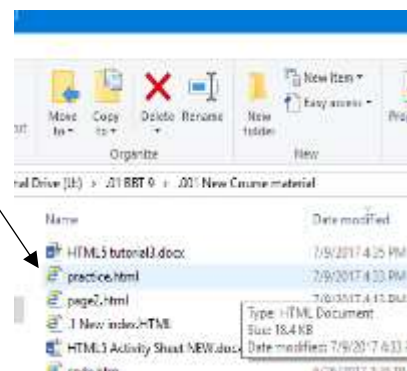
4. Create a new page using the Save as command and saving your current file with a new name. Go ahead and select the Save as command and save your 1Index file as Test. This will give you a test file for testing content. Your opened file is named Test – Your **1Index** file is closed – you will have to open it from your Practice folder. – Close your Test file and open your 1Index file. (Note that you now have 2 html files in your Practice folder – 2 web pages).

Lesson 2 - HTML Elements

HTML elements are the fundamentals of HTML. HTML documents are simply a text file made up of HTML elements. These elements are defined using HTML tags.

An HTML element usually consists of a **start** tag and **end** tag, with the content inserted in between:
<tagname>Content goes here...</tagname>
The HTML **element** is everything from the start tag to the end tag:
<p>My first paragraph.</p>

An *HTML element* is an individual component of an HTML document. Any given web page consists of many HTML elements.

HTML tags tell your browser which elements to present and how to present them. Where the element appears is determined by the order in which the tags appear.

HTML consists of over 100 tags.   Don't let that put you off though - you will probably find that most of the time, you only use a handful of tags on your web pages.

(You can find a list of tags and how to use them here: https://www.quackit.com/html/tags/)

OK, lets look more closely at the example that we created in the previous lesson.

```
<!DOCTYPE html>
<html>
<head>
<title>My HTML Practice Page</title>
</head>
<body>
<h1>My First Website</h1>
<p>Less than 5 minutes into this HTML tutorial and
I've already created my first homepage!</p>
</body>

</html>
```

**Please note that the circled characters are the Number 1, Not the letter L.   They create the Level 1 heading.**

Explanation of the above code:

- The !DOCTYPE... declaration tells the browser which version of HTML the document is using.
- The html element is the document's *root* element - it can be thought of as a container that all other tags sit inside (except for the !DOCTYPE declaration).
- The head tag contains information that is not normally viewable within your browser (such as meta tags, JavaScript and CSS), although the title tag is an exception to this. The content of the title tag is displayed in the browser's title bar (right at the very top of the browser).
- The body tag is the main area for your content. This is where most of your code (and viewable elements) will go.

- The h1 tag defines a level 1 heading. <mark>Please note that the heading tag uses numbers (1-6).</mark>
- The p tag defines a paragraph. This contains the body text.

Did you notice how the<title> element is inside the <Head> element and the <p> element is inside the <body> element? That is called nesting elements and it is a very essential part of the HTML structure. I will leave it at this for now, but I just wanted to introduce to you the idea of nesting elements.

(See: http://www.html5-tutorials.org/introduction-to-html/your-first-webpage/
And: https://www.w3schools.com/html/html_elements.asp)

Closing your Tags

As mentioned in a previous lesson, you'll notice that all of these HTML elements have opening and closing tags, and that the content of the element is placed in between them. There are a few exceptions to this rule.

You'll also notice that the closing tag is slightly different to the opening tag — the closing tag contains a forward slash (/) after the <. This tells the browser that this tag closes the previous one.

UPPERCASE or lowercase?

You can use uppercase or lowercase when coding HTML, however, HTML 5 requires all lowercase and most developers use lowercase. This helps the readability of your code, and it also saves you from constantly switching between upper and lower case.
Therefore...

- **Good:** <head>
- **OK:**   <HEAD>

Hyperlinks

Links (hyperlinks) should be easy to find (be consistently placed) on your Web page and should always let users know where the link will take them.

Type the following code above your closing body tag (</body>) in your HTML editor.

Go to Leo Hayes Webpage

Save and refresh and you can now visit the Leo Hayes website by clicking on the "go to Leo Hayes Website" link in your browser.

Explanation of code:
The <a> tag defines a hyperlink, which is used to link from one page to another. The most important attribute of the <a> element is the href attribute, which indicates the link's destination. The opening tag provides the link – telling the browser that a link to another page is enclosed.
<A href = "https…">   The quotation marks are required.

The display text is the text that goes between the opening and closing tags. This is the text that will display on the browser and become the link. – without this text there is no working link to click on.   In this case the display text is: Go to Leo Hayes Website
The closing tag is required to let the browser know that the link is finished.

Adding pages and Hyperlinks (taking it from a webpage to a website):
First, you need to create a ***third page*** for your website and this file needs to be in the same folder (Practice) as the first page (1Index.html).   To make another page simply select new in your notepad++   Then type in the 9 tags required for all webpages and save it as **2Elements.html.**

```
<!DOCTYPE html>
<html>
 <head>
  <title>Welcome to the Elements Page</title>
 </head>
 <body>


 </body>
</html>
```

Second, In the bottom of your **1Index page** (1Index.html), but before your closing body tag (</body>) enter the following code (shown in **bold**).

** Go to second page
**

You will also need to put a link on your second page to bring you back to your first.

Open 2Elements.html notepad and enter the following (shown in **bold**):

```
 <body>
```
**Back to Home Page **

```
</body>
```

Save and Refresh. You should now have a link that reads **Back to Home Page**. Try your link. You should now have links to and from both of your Web pages. Hey, you have a Web site!

Special note about Hyperlinks – absolute and relative links

Hypertext references can use *absolute* URLS or *relative* URLs.

absolute

This refers to a URL where the full path is provided. For example:

HTML Tutorial

You can also use absolute references on your own pages (**do not do this**):

Home Page

relative

This refers to a URL where the path, relative to the current location, is provided.

For example, if we want to reference the Index page of our Practice website and we are referencing inside our Practice folder we simply need use this:

My Home Page

**NB: all the references you will use to link to your own pages are relative links. If you copy and paste links from your address bar to do this ensure that you are not providing an absolute reference – if you do your teacher will not be able to link to your pages because you are not posting your website to the internet and therefore an absolute reference will not work for anyone else (outside of your computer).

<mark>Linking to Documents in a web page:</mark>
Using the href element you can link to a document in html by replacing the url address with the document address. An example might look like the following:

```
<a href="media/introduction.docx">Click here to view the Introduction to HTML
document</a>
```

If you put this in your 1Index page, ensure it is above your closing body tag.

Show your teacher your Practice folder with the Backgrounds, Images, Media folders, and your 3 webpages. Then show your HTML editor, with your 3 web pages open: 1Index, 2Elements, and Test . Then have your teacher initial your activity sheet at #3.

What you have learned so far:
- Always declare the doctype - <!DOCTYPE html>
- Elements require opening and closing tags
- Use the element <html> to identify the start and end of your HTML programming
- Use the element <head> to separate the information about your page (and titles)
- Use your <title> element to display your webpage name on the title bar
- Use the element <body> to display all the content of your webpage
- Indenting your markup makes it easier to comprehend
- You can nest one element inside another element
- <a > elements are used for hyperlinks
- Quotation marks are required in hyperlinks
- Display text is required in hyperlinks
- All webpages of a website must be saved in the same folder

*Unit 1 Activity Sheet response:

Activity 1 – Review Questions *Answer in your Activity Sheet question # 4*

Now it's time to review what you've learned in this activity. Enter the letter of the correct answer on your Activity Sheet.

1. What does HTML stand for?
 A. Hot Mail
 B. Hypertext Mark-up Language
 C. Hypertext Made-up Language
 D. Hypertext Mail Language

2. What is another name for HTML tags?
  A. Hypertexts   B. Browsers
  C. Elements   D. Links

3. The opening and closing tags for the title of a web page, in order, are:
  A. <title> and </title>   B. </title> and <title>
  C. title and /title   D. <title> and </head>

4. In the correct order the nine tags that are the basics for an HTML Web page are:
 A. <doctype html> <head> </head> <title> </title> <body> </body> </html> </doctype>
 B. <html> <!doctype > <body> <head> <title> </title> </head> </body> </html>

C. <!doctype html> <html> <head> <title> </title></head> </html> <body> </body>
    </!doctype html>

D. <!DOCTYPE html> <html> <head> <title> </title> </head> <body> </body> </html>

5. What is a file extension?

A. A period and letters added to the end of a file name to identify
    the type of file it is.

B. The name of a folder.

C. The name of a text editor program.

D. An addition to the name of a file so that it is different from
    another file of the same name.

Additional resource: https://www.codecademy.com/learn/learn-html/modules/learn-html-elements

Next Lesson: HTML Elements