

# **Web Development**

## **from Beginner to**

## **Paid Professional**

*Volume 1*

**Build your portfolio as you learn**  
**Html5, CSS and Javascript**  
**step by step with support**

By

*Ojula Technology Innovations*

**Web Development**  
**from Beginner to Paid Professional**

*Volume 1*

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## Table of Contents

How to Learn HTML5, CSS & Javascript Well .....	7
0. Getting Started with Free Coding Tools .....	8
1. Basic HTML5 & Useful Resources .....	12
1.1. Say Hello to HTML Elements .....	13
1.2. Headline with the H2 Element	
1.3. Inform with the Paragraph Element	
1.4. Fill in the Blank with Placeholder Text	
1.5. Comment/Uncomment HTML	
1.6. Comment out HTML	
1.7. Deleting HTML Elements	
1.8. Introduction to HTML5 Elements	
1.9. Add Images to Your Website	
1.10. Link to External Pages with Anchor Elements	
1.11. Link to Internal Sections of a Page with Anchor Elements	
1.12. Nest an Anchor Element within a Paragraph	
1.13. Make Dead Links Using the Hash Symbol	
1.14. Turn an Image into a Link	
1.15. Create a Bulleted Unordered List	
1.16. Create an Ordered List	
1.17. Create a Text Field	
1.18. Add Placeholder Text to a Text Field	
1.19. Forms: Creating a Form Element	
1.20. Add a Submit Button to a Form	
1.21. Use HTML5 to Require a Field	

- 1.22. Create a Set of Radio Buttons
- 1.23. Create a Set of Checkboxes
- 1.24. Drop-down Menu, Slider, Text Area, Form Validation & File Upload Button
- 1.25. Nest Elements with Div & Span
- 1.26. Declare the Doctype of an HTML Document
- 1.27. Define the Head and Body of an HTML Document
- 1.28. Change the Color of Text
- 1.29. Introduction to the Chrome Inspector
- 1.30. HTML Tables
  - 1.30.1. How to Make a Basic Table
  - 1.30.2. How to Add a Table Heading
  - 1.30.3. How to Add a Table Caption
  - 1.30.4. How to Use the Scope Attribute
  - 1.30.5. How to Use Cell Spanning
  - 1.30.6. How to Add Table Header, Body and Footer
- 2. Basic CSS (Cascaded Style Sheet)
  - 2.1. Use CSS Selectors to Style Elements
  - 2.2. Use a CSS Class to Style an Element
  - 2.3. Style Multiple Elements with a CSS Class
  - 2.4. Universal Selector \*{ }
  - 2.5. Change the Font Size of an Element
  - 2.6. Set the Font Family of an Element
  - 2.7. Import a Google Font
  - 2.8. Specify How Fonts Should Degrade
  - 2.9. How to Size Your Images

- 2.10. Add Borders Around Your Elements
- 2.11. Add Rounded Corners with Border Radius
- 2.12. Make Circular Images with Border Radius
- 2.13. Give a Background Color to a Div Element
- 2.14. Set the id of an Element
- 2.15. Use an id Attribute to Style an Element
- 2.16. Adjust the Padding of an Element
- 2.17. Adjust the Margin of an Element
- 2.18. Add a Negative Margin to an Element
- 2.19. Add Different Padding to Each Side of an Element
- 2.20. Add Different Margins to Each Side of an Element
- 2.21. Use Clockwise Notation to Specify the Padding of an Element
- 2.22. Use Clockwise Notation to Specify the Margin of an Element
- 2.23. Use Attribute Selectors to Style Elements
- 2.24. Understand Absolute versus Relative Units
- 2.25. Style the HTML Body Element
- 2.26. Inherit Styles from the Body Element
- 2.27. Prioritize One Style Over Another
- 2.28. Override Styles in Subsequent CSS
- 2.29. Override Class Declarations by Styling ID Attributes
- 2.30. Override Class Declarations with Inline Styles
- 2.31. Override All Other Styles by using Important
- 2.32. Use Hex Code for Specific Colors
- 2.33. Use Hex Code to Mix Colors
- 2.34. Use Abbreviated Hex Code

2.35. Use RGB values to Color Elements

2.36. Use RGB to Mix Colors

2.37. Selector List

2.38. Descendant Selector

2.39. Adjacent Selector (Combinator)

2.40. Direct Descendant/Child Selector

2.41. Pseudo Classes

2.42. Pseudo Elements

3. A Preview of Volume 2

3. 1. Continuing Your Web Development Training

4. Cheat Sheets, Developer portfolio, Coding Exercises & Practice Projects

4.1. Introduction

4.2. Download Training Resources

4.3. How to Get Further Help

5. More Helpful Resources

## How to Learn HTML5, CSS & Javascript Well

I know there are more than sufficient resources online to teach absolute beginners everything they need to learn web development from scratch. But this book is different because it addresses a few web development problems. The credibility of a web developer is much more than their credentials. It's actually about the strength of their portfolio.

[Employment opportunities](http://www.turing.com/jobs) ([www.turing.com/jobs](http://www.turing.com/jobs)) often come from work samples and concrete skills, rather than a college degree. So, you need to learn well enough. This book will not only help you learn well and build a stunning portfolio, it will also provide you continuous help and support.

With this book and my **dedicated 24/7 help and support team**, there's nothing for you to fear. I have helped many web developers update their development skills, launch successful careers and get hired for [remote jobs](http://www.vanhack.com/jobs) ([www.vanhack.com/jobs](http://www.vanhack.com/jobs)). I notice that even the most ambitious beginners can run into problems, such as unable to decide where to begin. Sometimes they get completely lost on the way and therefore need further help.

The truth is everyone needs help at one point or the other to learn html5, CSS or Javascript correctly in their web development journey. I put sufficient coding challenges and their solutions in this book. You will **get regularly updated cheat sheets, coding exercises, a stunning web developer portfolio to show off your work samples, practice projects, graphics and screenshots used in this book. You will also get further help if you use the free support link at the bottom of this book. I will help you learn well.**

Finally, if you buy this book, I will add you to my web development community so you can continue to learn and get more help until you become a well-paid professional.

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## 0. Getting Started with Free Coding Tools

HTML is on its fifth iteration, and that's why it referred to as HTML5. CSS is on its third, so it's also known as CSS3. Whether you use Windows, Mac or Linux operating system, you need an updated modern browser and a text/code editor, such as a notepad, to get started in your coding journey. However, I highly recommend you download and install [Visual Studio editor](https://code.visualstudio.com/download) (<https://code.visualstudio.com/download>) and [Google Chrome browser](https://www.google.com/chrome) (<https://www.google.com/chrome>) right now to get started. They are very easy to install, and they have a bunch of developer tools pre-installed. There are tons of videos on Youtube on how to install the latest versions of [Visual Studio](https://www.youtube.com/watch?v=m9mIwKeTJhk) ([www.youtube.com/watch?v=m9mIwKeTJhk](https://www.youtube.com/watch?v=m9mIwKeTJhk)) and [Chrome browser](https://www.youtube.com/watch?v=ThQAkabE0J8) ([www.youtube.com/watch?v=ThQAkabE0J8](https://www.youtube.com/watch?v=ThQAkabE0J8)). Once you've installed these, let's get started!

On your desktop or any other location you like on your computer,

1. Create a new folder and give it a good title like **Web-Development**. Open this folder.
2. In this folder, create another folder and give it a title like, **Html\_course**. Open this folder.
3. In this folder, create another folder and give it a title like, **01\_lesson**. Open this folder.
4. In this folder, create a new notepad or text document and rename/change the default title to index and the extension (.txt) to .html. See Figure 0.1.

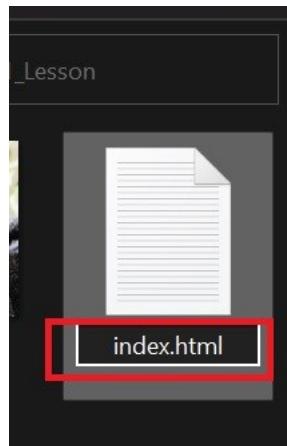


Figure 0.1: Renaming a new text document (Notepad)

Once you press the return/enter button, you will receive a warning that your document/file may become unusable. Select yes to indicate you want to change the file name and extension to **index.html**, the sort of a standard **home page** or **main page** for an application. Your first web file is now ready! Your file should now have the logo of chrome browser, or whatever browser you use, as shown in Figure 0.2.



Figure 0.2: Text document now has the logo of Chrome browser

Now, open Visual Studio which you installed earlier. Go to **File** menu (1) at the top left, and click on it to open the new panel shown in Figure 0.3. Later on in this book, you can select the first option (**New File**) to create a new *untitled* file. A new window will be opened for you to write your code in.

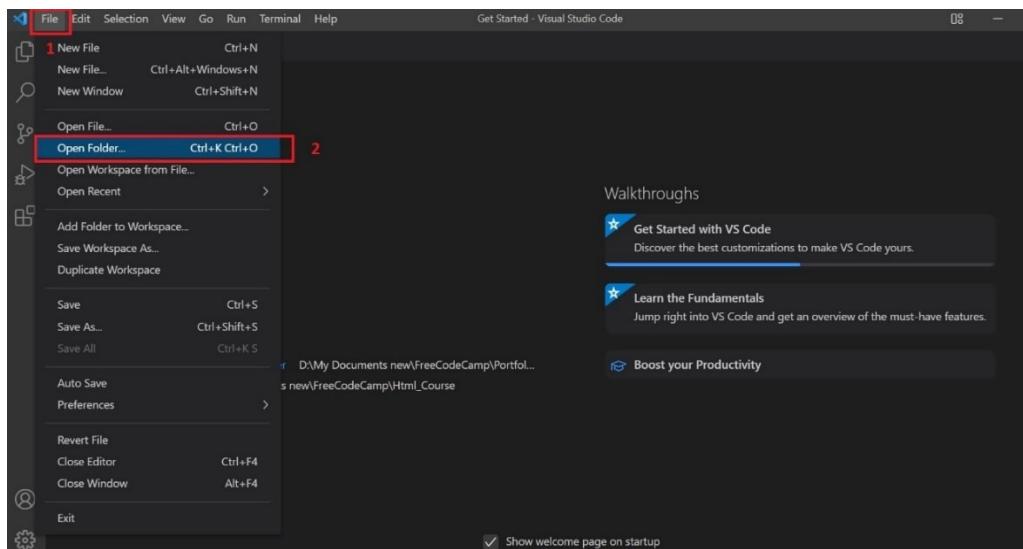


Figure 0.3: How to open a new folder in Visual Studio

But for now, just select **Open Folder** (2). The dialog box shown in Figure 0.4 opens.

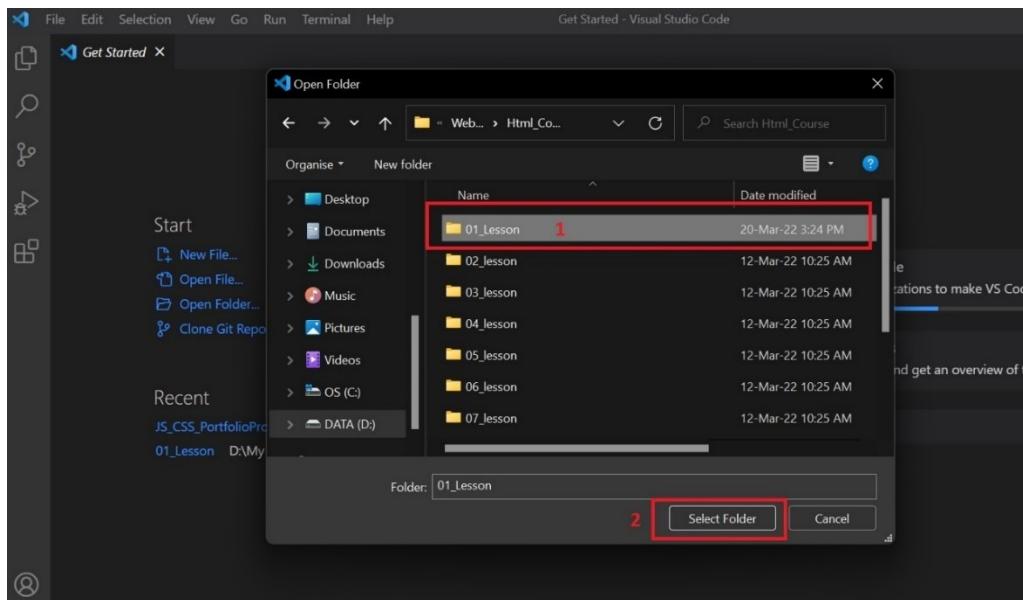


Figure 0.4: How to navigate to and select your 01\_lesson folder on your computer

Navigate to the **01\_lesson** folder and click on it to select it (1). Click the **Select Folder** button (2) to close the dialog window. You should see this folder (1) and your **index.html** file (2) on the left panel of the Visual studio like shown below.

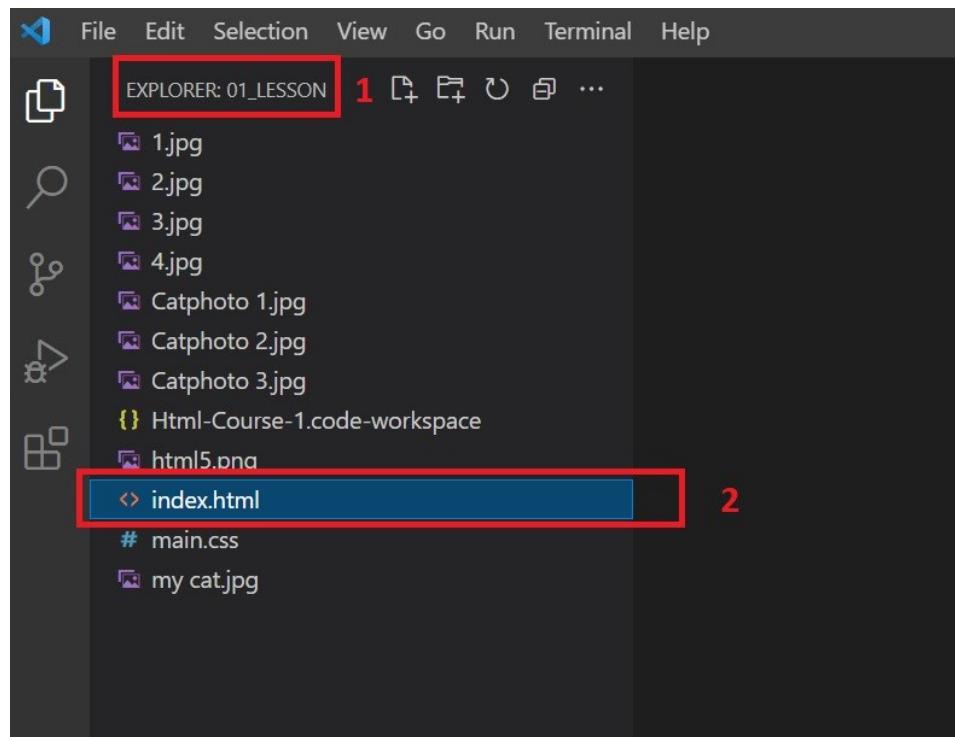


Figure 0.5: Visual Studio file explorer window showing how to select your index.html file

You will not see other files, such as 1.jpg, 2.jpg shown in the above screenshot since you don't

have them for now. This is ok. Click your **index.html** file (2) on the left to select it.

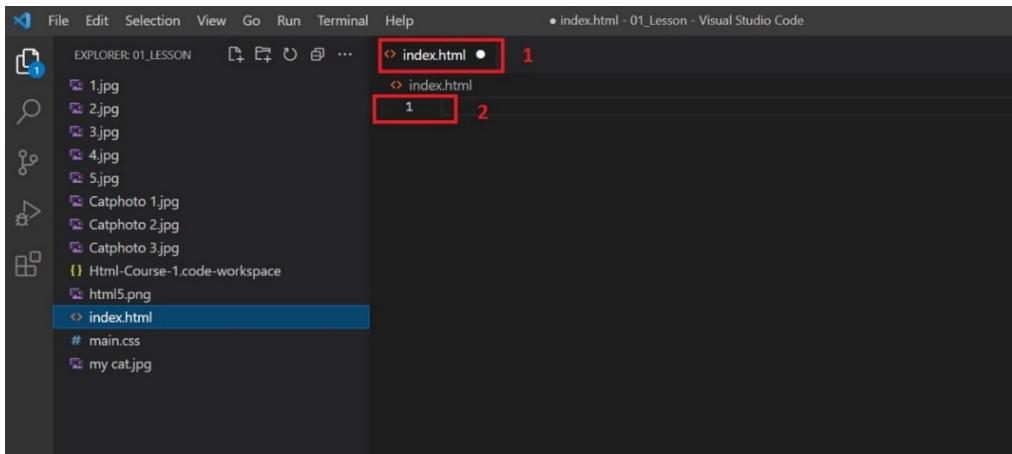


Figure 0.6: Visual Studio code editor window (right side) showing the first line of our code

A code editor window will open on the right side with the title *index.html* (1). Henceforth, you will be writing your code inside a window like this. The number 1 you see below the tab (2) indicates the first line of your code. So, are you ready to start coding? Move on to the next chapter!

## 1. Basic HTML5 & Useful Resources

What does HTML5 actually mean? I see a lot of confusion around this with students and with good reason. To some of them, HTML5 sounds like a version that you download, install or upgrade to, just like with video games.

But HTML5 is a little bit different. If we actually go to read [MDN's little blurb about it](https://developer.mozilla.org/en-US/docs/Glossary/HTML5) (<https://developer.mozilla.org/en-US/docs/Glossary/HTML5>),

*“The term HTML5 is essentially a buzzword that refers to a set of modern web technologies.”*

It's the latest evolution of the standard that defines HTML. The term represents two different concepts. It is a new version of the language of HTML with new elements, attributes and behaviors. It also refers to a larger set of web technologies.

This is nothing you really need to care about right now, but it includes different technologies that help us that help us do things like build websites with 3D graphics, storing information in the browser, and other things that are technically not HTML but which we still call HTML. This whole new set of things was called HTML5 or HTML5 and friends. So, this makes it kind of confusing.

So, when I say HTML5, I'm referring to just the latest evolution of the **standard** that defines HTML. But what does “standard” mean and why is it a standard that defines HTML? Well, the way that HTML works is that there is not one official copy that you download. We never install HTML. There's a very large document called [The HTML Standard](https://html.spec.whatwg.org) (<https://html.spec.whatwg.org>) that says how HTML should work.

So, when we say HTML5, it is not a version of something you download or install; it's just a version of this document and it includes new elements, such as the video element, the audio element, and so on. They weren't around 15 years ago in HTML, and they're now part of this document. Browsers (Chrome, Firefox, Edge, or whatever browser you're using) then implement them.

You could have gotten along just fine without knowing any of this. But I do like to clear this up because I hear students talking about upgrading to HTML5 and things like that. That's not really at all what you do. Your browser and the organization behind it are the ones who implement features based upon the latest version of this HTML standard.

Technically speaking, HTML is a markup language that uses a special syntax or notation to describe the structure of a webpage to the browser. HTML elements usually have opening and closing tags that surround and give meaning to content. For example, different elements can describe text as a heading, paragraph, or list item.

Now, I'd like to quickly introduce you to one of the most useful resources that I use frequently in

this book, and I recommend you use it too. It's called [Mozilla Developer Network](https://developer.mozilla.org/en-US/docs/Web/HTML) or **MDN** (<https://developer.mozilla.org/en-US/docs/Web/HTML>). It's a lifesaver. It is a resource that covers the basics of Web technologies and more. Figure 1.0 is a screenshot of MDN.

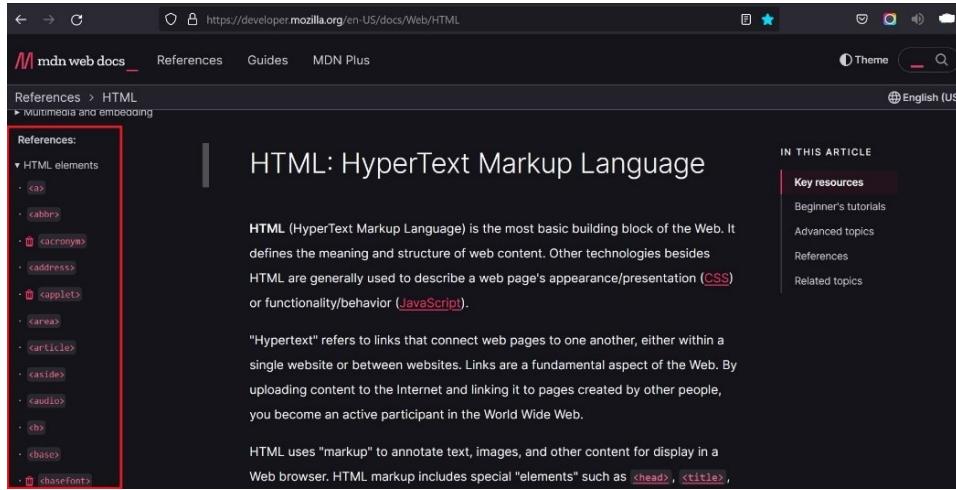


Figure 1.0: HTML Reference page on the [MDN Website](https://developer.mozilla.org/en-US/docs/Web/HTML)

It's a resource for developers and is written by developers. Think of it as the Wikipedia for HTML, CSC, JavaScript, browsers and a whole bunch of other stuff that explains the rules of HTML. It's full of tutorials, references and guides. So, it is documentation or a resource that helps you understand and learn about Web technologies.

However, keep in mind that Mozilla is not the creator of HTML, CSS and JavaScript. There are other resources that are similar to MDN. This is just one sort of encyclopedia of knowledge, but it's not an official document or anything. It's open source and is created by developers.

## 1.1. Say Hello to HTML Elements

In this volume, you'll build a cat photo app to learn some of the most common HTML elements — the building blocks of any webpage. Welcome to my HTML coding challenges. These will walk you through your web development journey, step-by-step.

First, you'll start by building a simple web page using HTML. You can edit the markup in your code editor. Now, type <h1>Hello</h1> in your editor. Your result should look like shown in Figure 1.1.1.

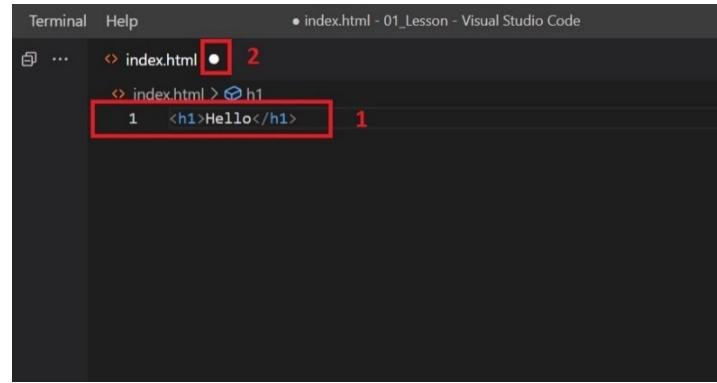


Figure 1.1.1: First line of your markup in the editor is completed

That markup in your code editor that says `<h1>Hello</h1>` (1) is an HTML element. The small white dot (2) means you have unsaved changes in the editor. To save your code, just click File at the top and select Save. This is the path you should always follow to save your changes:

*File > Save*

Once you have saved your code, the small white dot changes to X (3). See Figure 1.1.2.

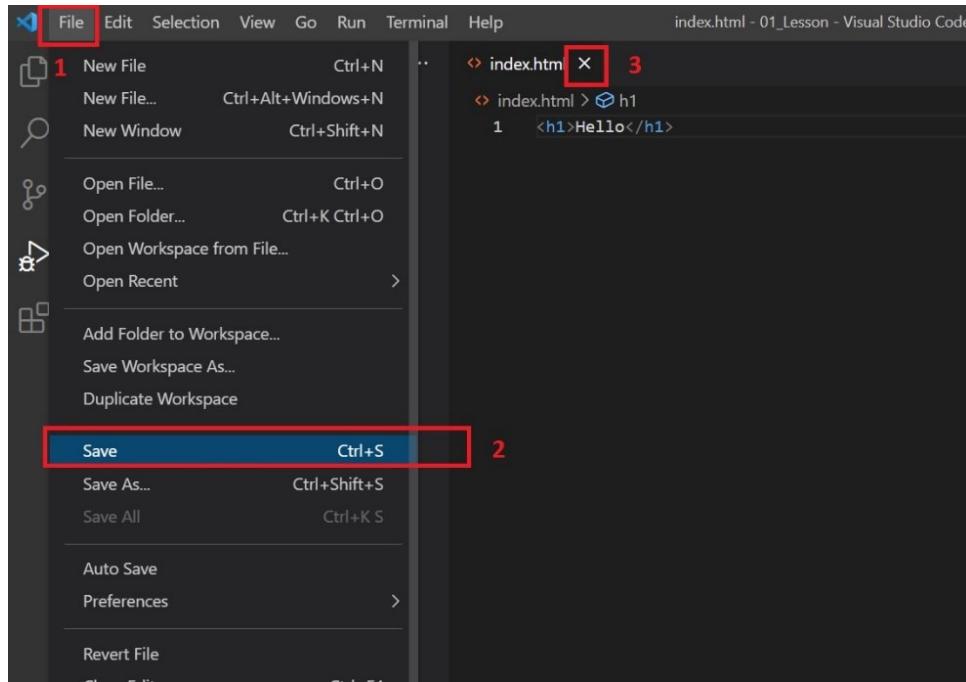


Figure 1.1.2: How to save your code in the editor

Most HTML elements have an **opening tag** and a **closing tag**.

Opening tags look like this:

`<h1>`

Closing tags look like this:

```
</h1>
```

The only difference between opening and closing tags is the forward slash after the opening bracket of a closing tag. Place your mouse pointer immediately after the closing tag, `</h1>` and click once. Then press the return/enter key. The second line **2** of the markup is automatically created for you. This means you're ready to enter the second line of your markup.

As will be explained shortly, each time you want to test/run your code, just right-click anywhere inside the editor window and select “**Open with Live Server**”. If you don’t have Live Server installed, or if you don’t want to use it, just go and click **Run** at the top (1). Then select **Run Without Debugging (2)**.

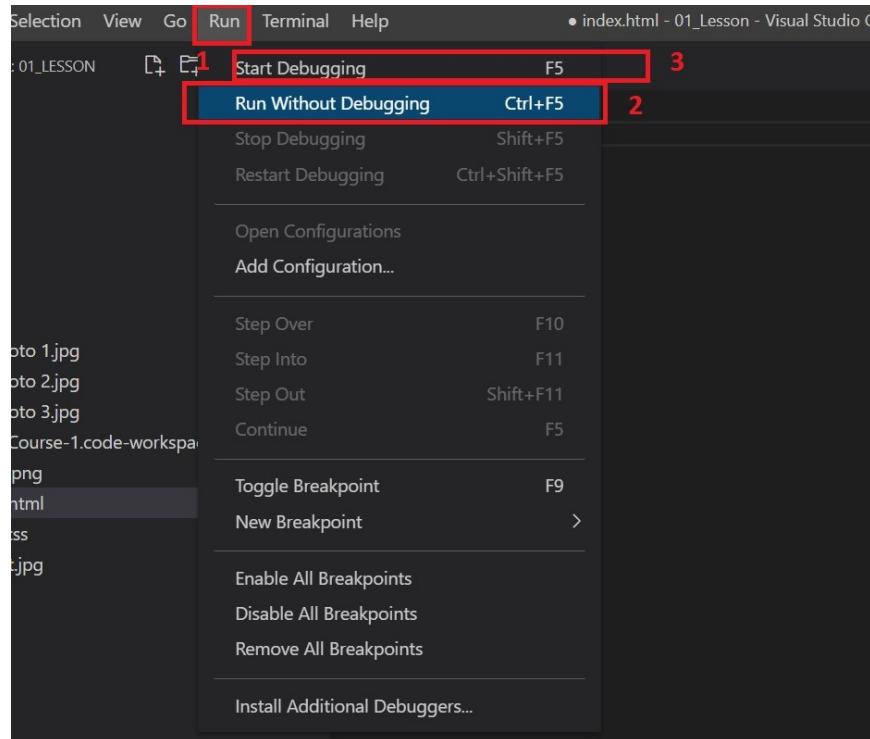


Figure 1.1.3: How to run your code in the editor

This means you only want to see the output of your code but not interested in checking out any error (bugs) that may be present in your markup. If you select **Start Debugging (3)**, this means you also want to check out the errors that may be present in your markup when you run it. For now, since we are sure we have no bugs in this simple markup, select **Run Without Debugging (2)**.

You may be asked to select which browser you want to use to view the output of your code (1 or

2 as shown in Figure 1.1.4).



Figure 1.1.4: How to select a browser to display your output

Otherwise, your default browser, Google Chrome in this case, should open and show you the outcome of your simple code. Your output is a simple **Hello**. See Figure 1.1.5. This is what we expected.

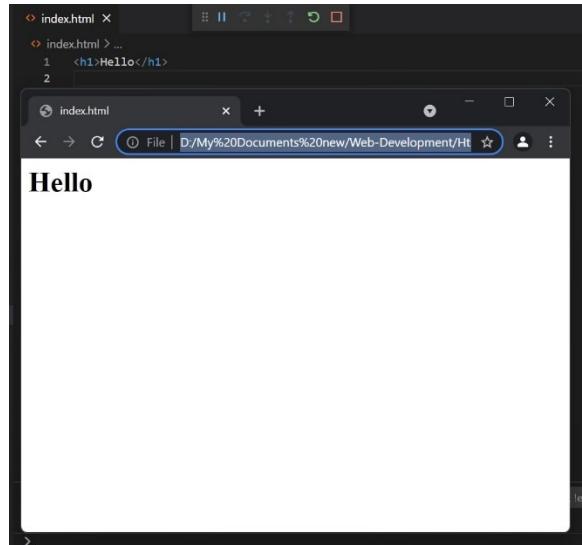


Figure 1.1.5: The output of the code as seen on a Chrome browser

As mentioned earlier, another way to see your output is to open your code with **Liver Server**, a very useful VSCode extension. If you don't already have Live Server installed, you can download it from the VSCode marketplace. The market place has many other useful extensions you can download and install in your Visual Studio. These extensions add more functionalities to your Visual Studio. Here's the link to download Liver Server:

<https://marketplace.visualstudio.com/items?itemName=ritwickdey.LiveServer>. See Figure 1.1.6.

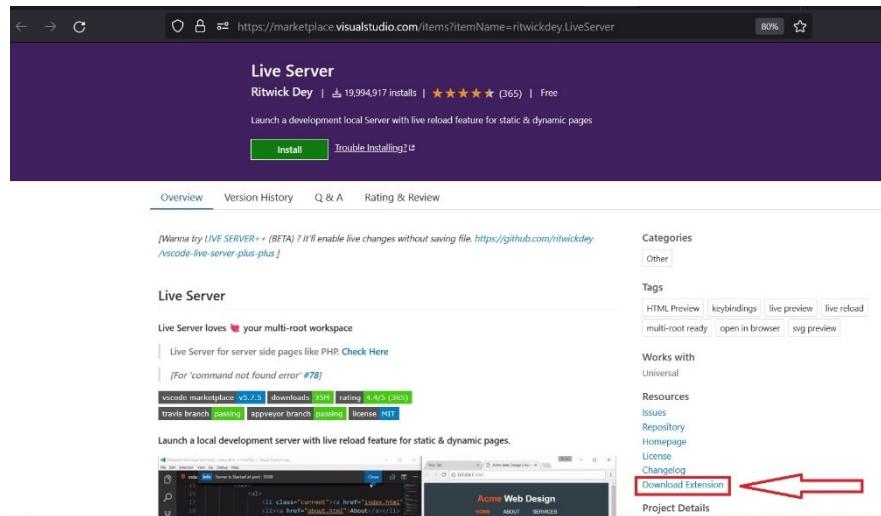


Figure 1.1.6: How to download Live Server extension

To install it, follow the steps highlighted in Figure 1.1.7.