

Professional Diploma in Web Development

# Introduction to HTML

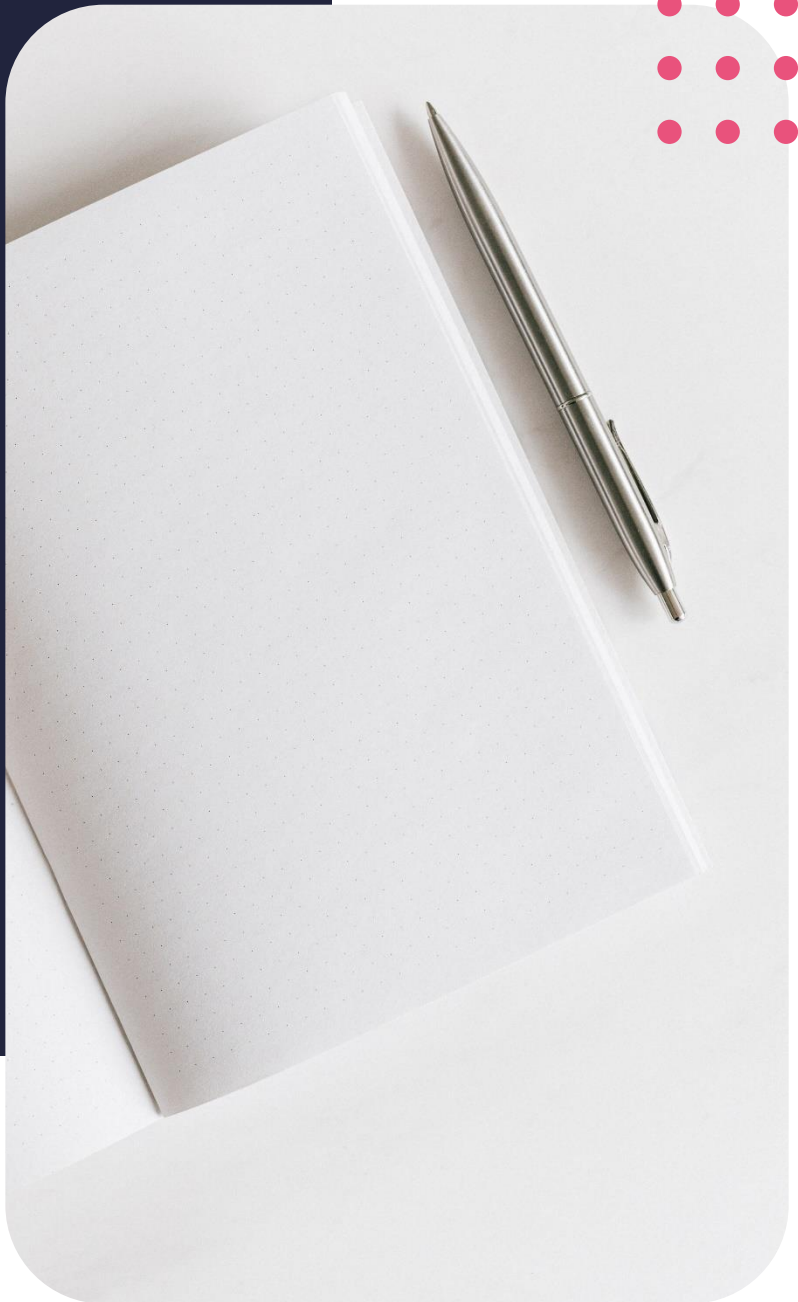
Module 1 Lesson 2

Summary Notes



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## Lesson outcomes

In this lesson, we jump right into web development we learn more about the HTML markup language. We will install the required software so that we can begin developing our first web page using HTML.

# What is HTML?

## HTML defined

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

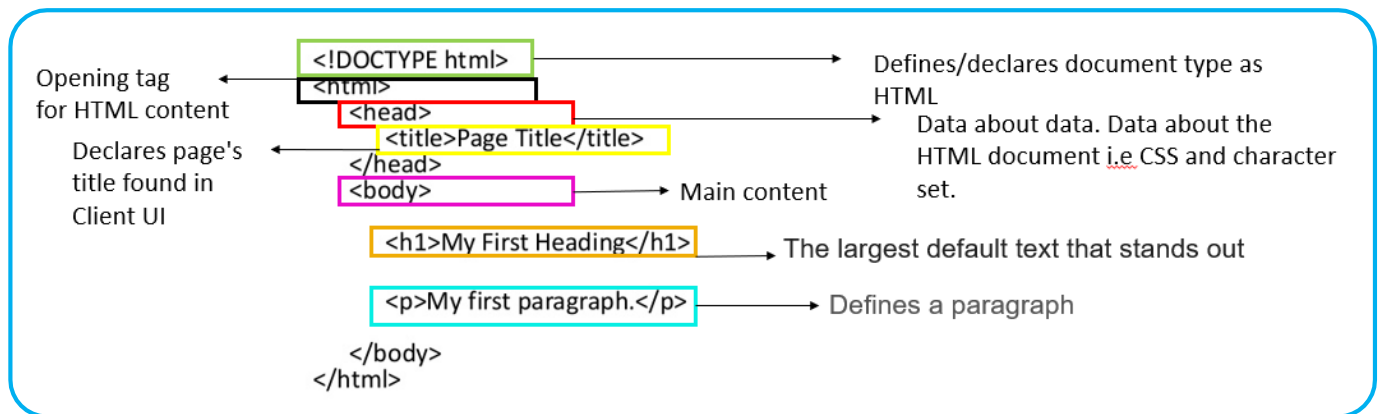
## Characteristics of HTML

- Cornerstone technology used by most websites.
- Enables media files to be embedded.
- Semantically defines web page.
- Allows developers to embed JavaScript.
- Elements/tags have attributes.

## HTML 5

- The 5<sup>th</sup> iteration of the HTML standard.
- Adds support for embedded multimedia content, relying less on JavaScript.
- Introduces markup and application programming interfaces (APIs).
- Enables cross-platform implementation for low-powered devices.
- Enriches the semantic content of documents by introducing new page structure elements.
- Accommodates the use of multiple and outdated browsers.

## Defining an HTML document



## HTML tags and elements

Elements/Types	Description
Tags	Tags are the starting and ending parts of an HTML element. Below is an example of the paragraph tag.  <b>&lt;p&gt; &lt;/p&gt;</b>
Elements	Elements enclose the contents in between the tags. Below is an example of the paragraph element.  <b>&lt;p&gt;This is some text&lt;/p&gt;</b>

## Common HTML tags

Element/Tag	Description
<a> </a>	An anchor element with an HREF attribute. The value of the HREF attribute is a URI (i.e., an Internet address).
<div> </div>	A dummy element which contains block-level elements. It is used with style sheets.
<h1></h1> ... <h6> </h6>	Headings (levels 1-6, i.e. H3 is a subheading within a H2 subheading).
<img>	Image. Attributes: must have SRC and ALT.
<li> </li>	List item. Used within an ordered (<ol>) or unordered (<ul>) list
<span> </span>	A dummy element which contains in-line content.

Element/Tag	Details
<header>	Specifies a header for a document or section i.e. used for large texts and headings
<nav>	Defines navigation links i.e. used with list items
<section>	Defines a section in a document
<article>	Defines an article
<aside>	Defines content aside from the page content i.e. Sidebars
<footer>	Defines a footer for a document or section usually found below the webpage or post
<main>	Specifies the main content of a document
<figure>	Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

# Installing the IDE

## Integrated development environment (IDE)

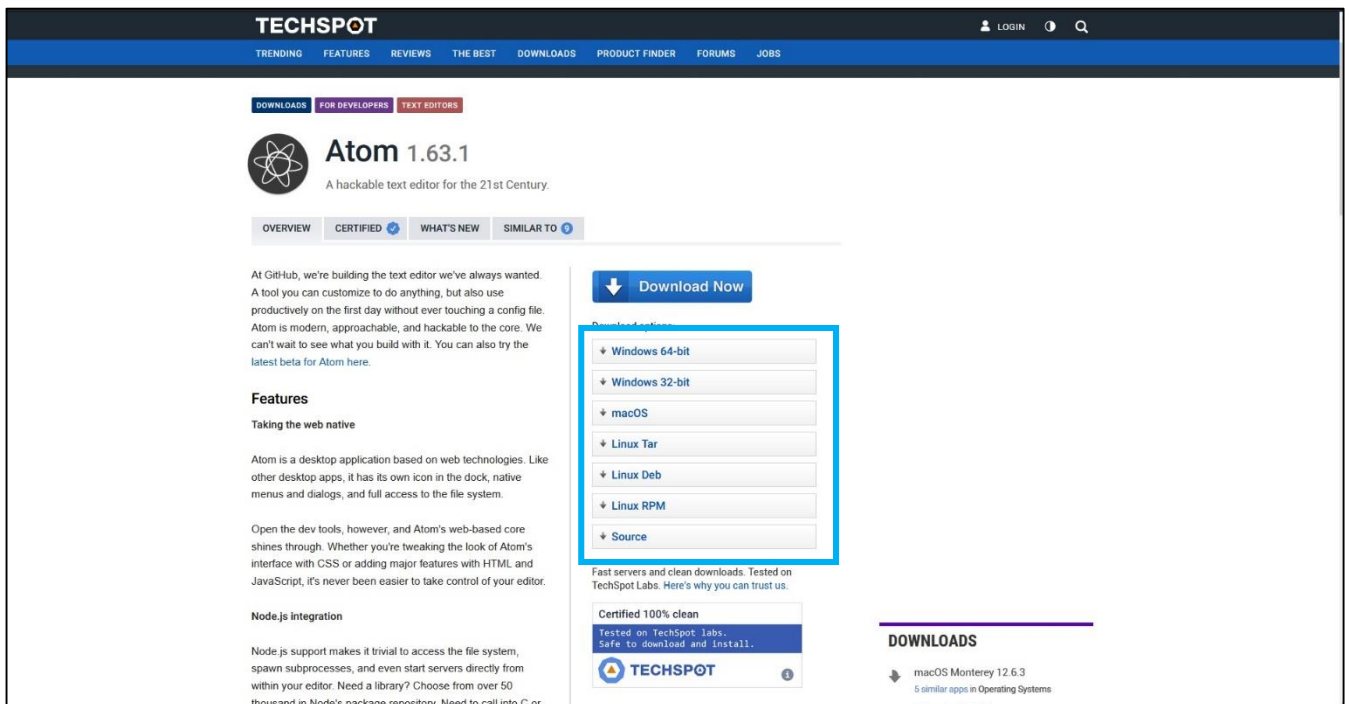
An IDE is a software tool that provides developers to write programming code. An IDE normally consists of at least a source code editor. Transferring files and scripts to the web client (browser).

## Examples of popular IDEs

- Visual Studio Code - <https://code.visualstudio.com/download>
- ATOM – <https://atom.io>
- Sublime Text - <https://www.sublimetext.com>
- Brackets - <http://brackets.io>
- Notepad++ - <https://notepad-plus-plus.org/downloads>

## Downloading and installing ATOM

1. Visit <https://www.techspot.com/downloads/6540-atom-text-editor.html> and download the ATOM IDE for your operating system.



2. Once ATOM has been downloaded, double click and on the executable file and wait for ATOM to install.



## Installing packages (optional)

In order to install the atom beautify and atom live server packages. Ensure that you have watched the lesson. The installation process is demonstrated at roughly 19:35 minutes into the lesson. Below are the URL links used to install the packages as well as a sample of the commands used in the .

### Software links

<https://git-scm.com/downloads>

<https://nodejs.org/en/>

### GitHub links

<https://github.com/jas-chen/atom-live-server>

<https://github.com/Glavin001/atom-beautify>

### CMD commands for atom live server

```
cd [your path to the atom packages folder here]
git clone https://github.com/jas-chen/atom-live-server
cd atom-live-server
npm install
```

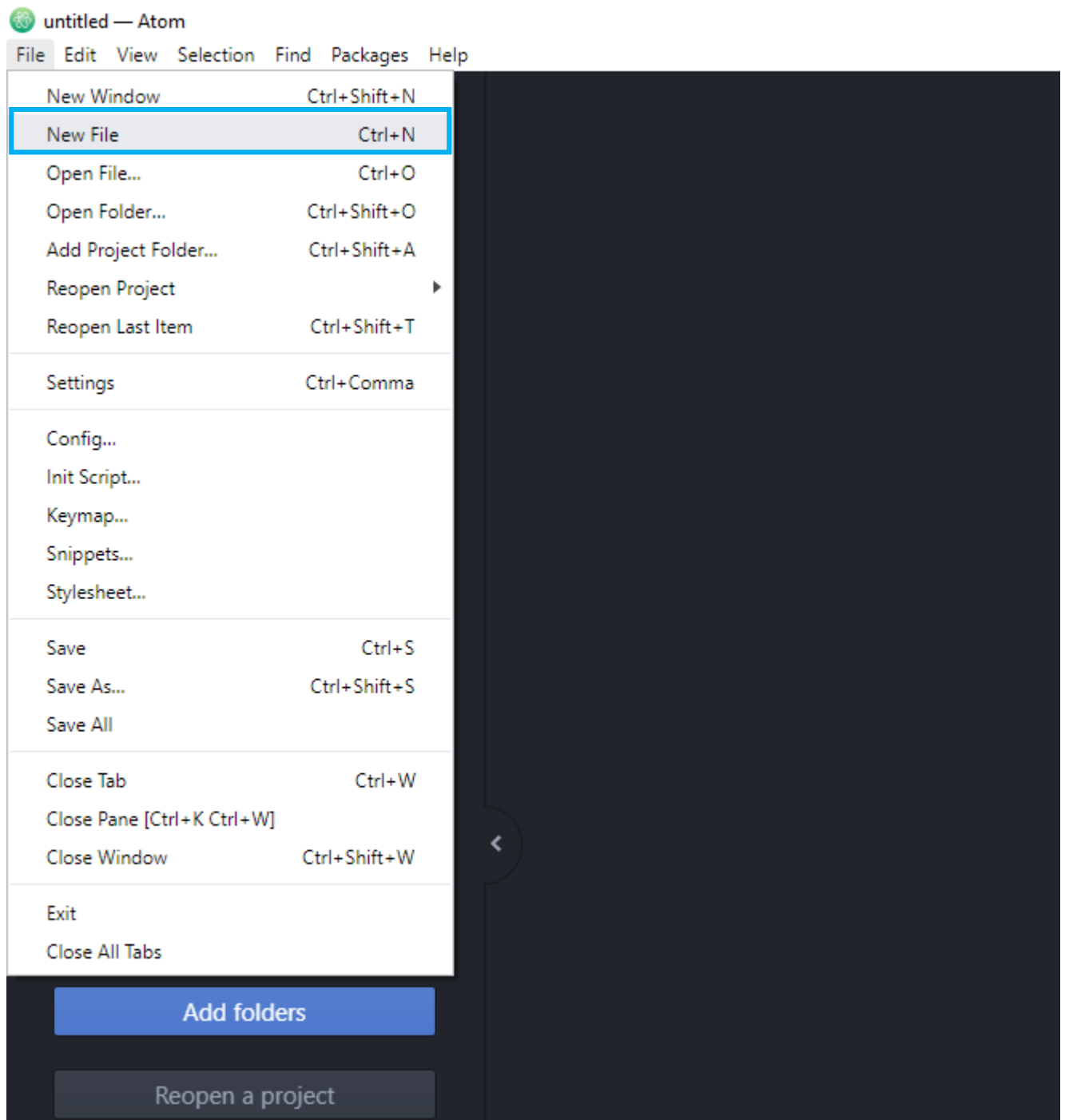
### CMD commands for atom beautify

```
cd [your path to the atom packages folder here]
git clone https://github.com/Glavin001/atom-beautify
cd atom-beautify
npm install
```

# Creating our first web page

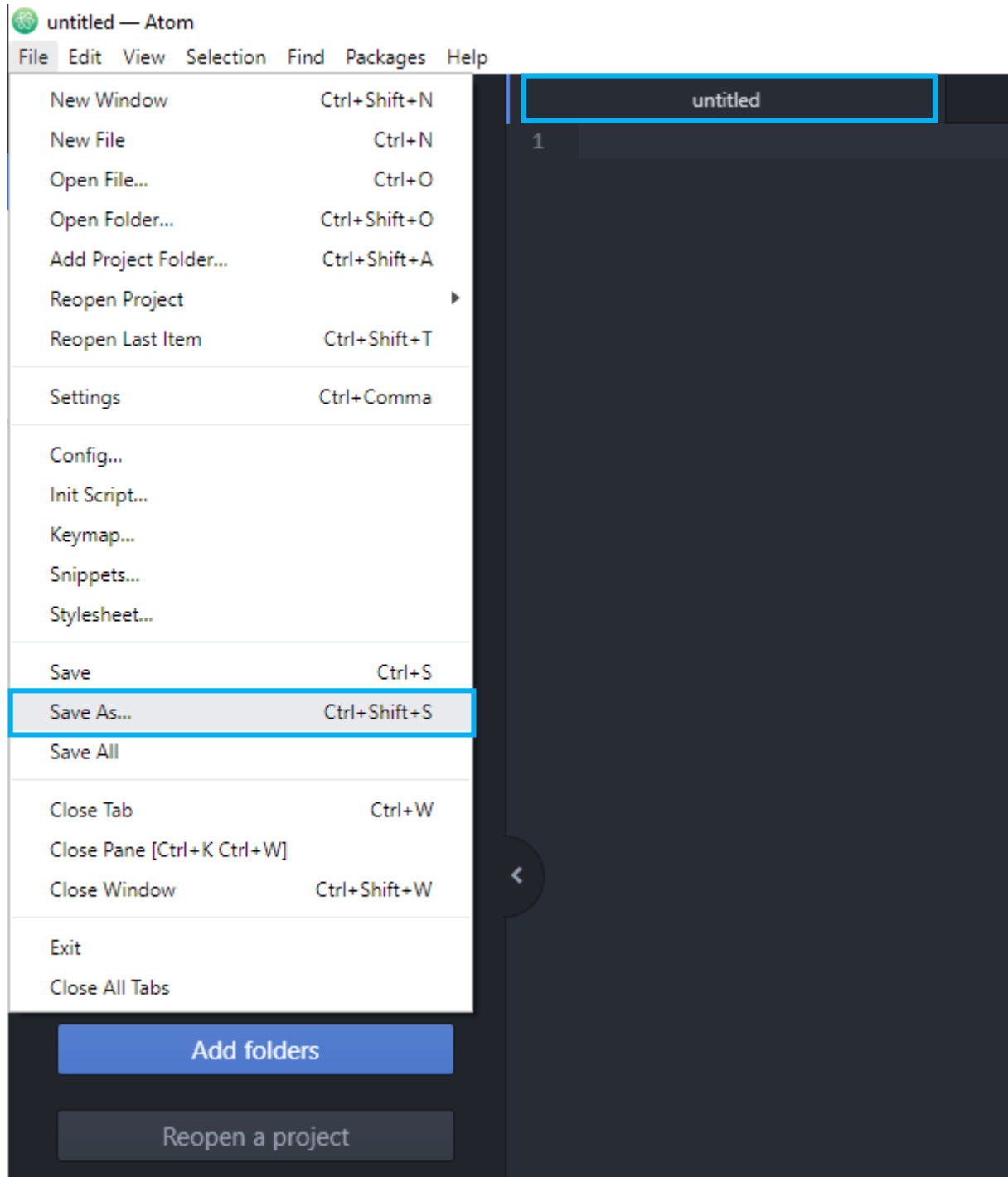
## Creating an HTML document

3. To create you first script, navigate to the file tab and select **New file**.

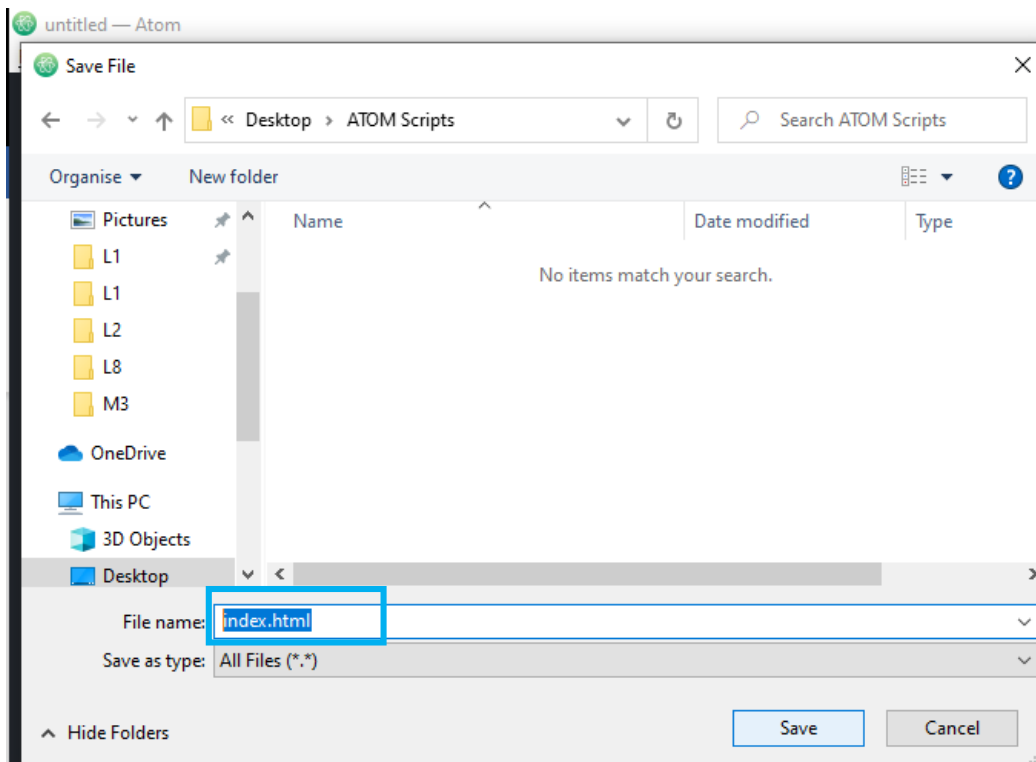




- Once you have created a new file you should see a new pane appear with an untitled heading. Navigate to the file tab and click **Save As**



5. Save the file in your desired location with the name as **index.html**



6. Copy and paste the following source code into the script you just saved and save the file again.

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>My first website</title>
  </head>
  <header>
    <h1>Hello World</h1>
  </header>
  <body>
    <p>Welcome to my first website! Yay!</p>
  </body>
</html>
```

7. Navigate to the folder where you saved your index.html file and open the file. The file should open in your default internet browser and you should see the following output.

