What is Python?

Python is a text-based programming language that can be used in a variety of ways, for example making word processing programs or web browsers. Due to its versatility Python has proven itself to be a powerful language indeed and has been used by many large companies and organisations such as Google and NASA.

Python is a simple language with its code easy to read as well as write. Within Python there are what are called libraries. These libraries contained preprogrammed commands that can be referenced within your programs, making it easier and quicker to write code.

Installation

If you would like to install Python on your computer, you can do this by simply visiting the official Python website (https://www.python.org) and click on the Download option. Follow the simple instructions on how to install it on either your Windows machine or Mac.

Once installed, open up the Python program. You will be greeted by the Python IDLE (Integrated Development Environment) which is an area to allow you to write and run your Python code.

Selecting "New File" from the File menu within the IDLE will open up a new window. This is where you will write your Python code.
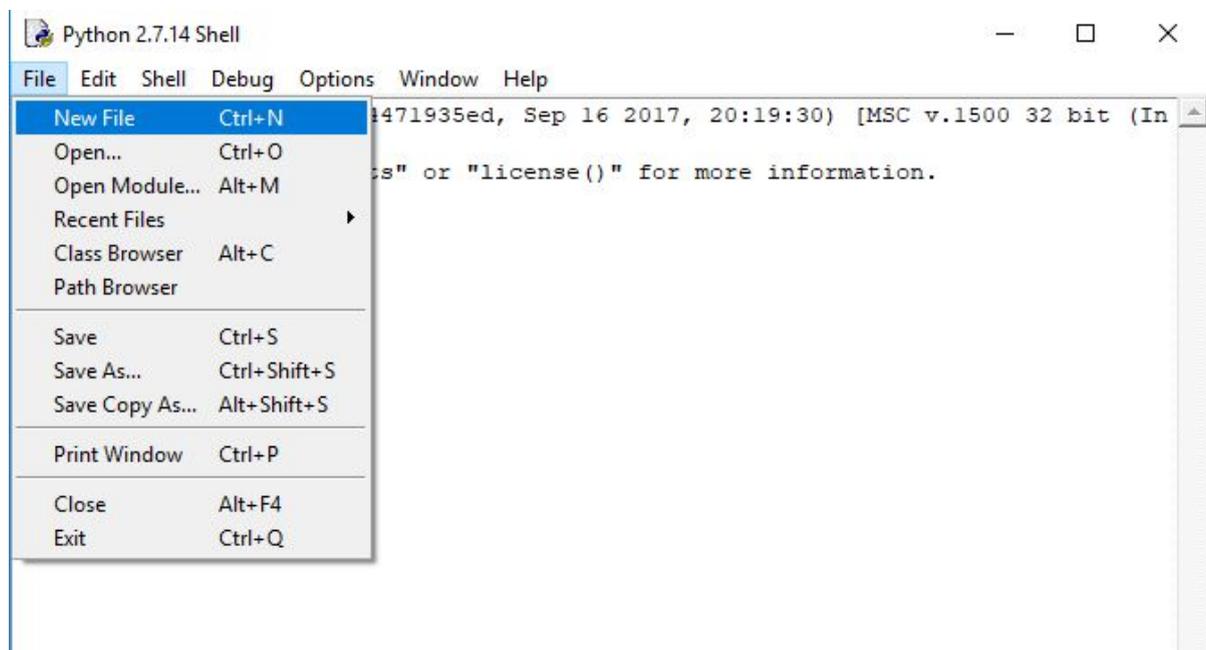
Always remember to save you work as you go along. Once you are ready to test you code, press F5 to run it in the IDLE.
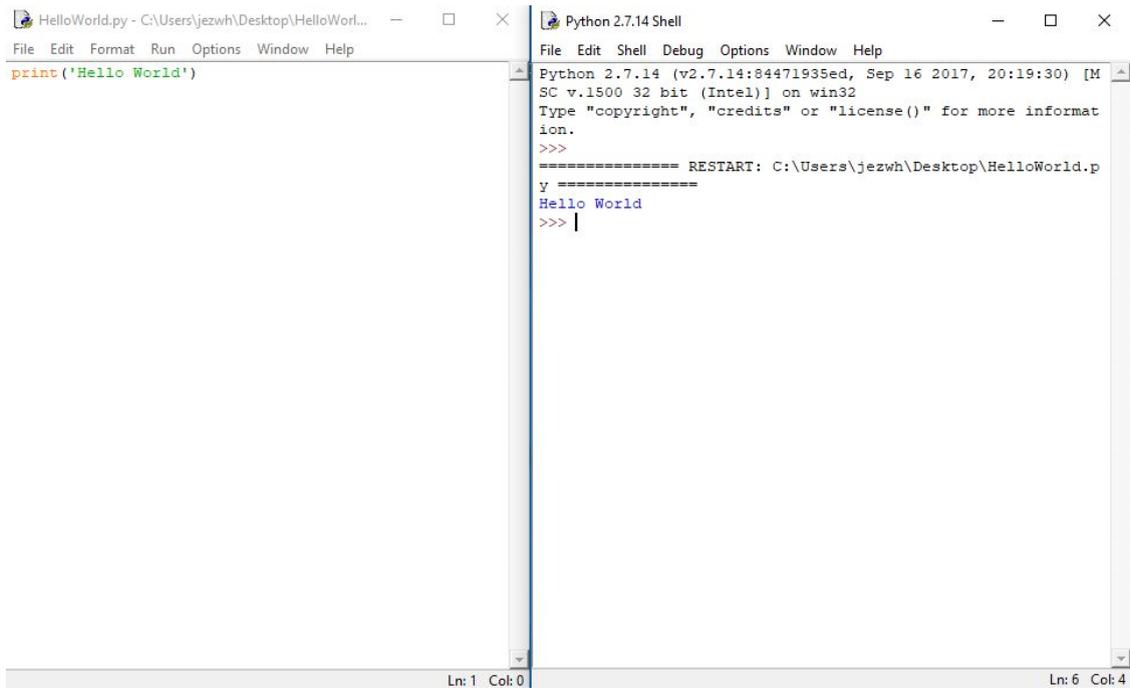
Errors

There will be times when your code doesn't run properly and results in an error being displayed in the IDLE. The key is not to panic as most of the time errors will appear worse than the actual problem and all problems can be corrected.

More errors will appear in the SHELL window, the window that will display any outputs from your code. If an error displays "NameError" then there will be a spelling mistake somewhere in your code. There might be a line number displayed too that will direct you to where the mistake is located.

If a "syntax error" pop-up appears when you attempt to run your code there is a good chance that there's a spelling or typing mistake somewhere in your code.

If the error reads "Unexpected indent" then there is most likely additional spacing that is causing a line of code to become indented unnecessarily.

Common issues

Try not to mix up single and double quotes. If you open with a double quote, you must close with a double quote.

Python is case sensitive so be sure to use the correct case in all cases. Print must be written as print and all variables that have capital letters must be referenced correctly throughout your code.

Be sure to understand how the different brackets are used so as not to get them mixed up. (), [] and {} all have different uses.

Troubleshooting Checklist

☐ If you are copying a sample of code, have you copied it correctly?
☐ Are there any spelling mistakes?
☐ Do the starting quotations and the finishing quotations match in all cases?
☐ Are there extra spaces at the start of you lines that are indenting the code?
☐ Have you asked someone else to check your code?