25/09/2024

Programming Week 1 MS

First step to output a piece of text using the print() function.

Example: print(“Hello World!”)

Predominantly be using Visual Studio Code and making sure it has the .py extension.

For a good portion of the course, we will be putting our code in a single file and normally stick to the convention of naming it main.py.

Once you have added the line hit the run button at the top of Visual Studio Code.

GitHub, Anaconda, visual studio

Press ctrl, tab & P to launch the code that’s written, then either use the most recent one or search python until you are prompted with “Run python File in terminal”.

Using github, make sure if any changes have been added to commit to main by hitting the button.

GITHUB – New Repository how to

File – new repository – choose folder – finish

How to update github – once github is connected to that folder, anything within that folder will automatically update to the desktop version of github. Once again when you have finished your session remember to simply hit commit to main with any comments you may have to update the web browser version.

In visual studio –

**Shortcuts so far:**

Ctrl & / which changes the code with the #

Ctrl & S for save.

Ctrl Shift & P to run the code simply.

**Data types:**

|  |  |
| --- | --- |
| int | An integer. This is a whole number, it can be positive, negative or zero. e.g. 5 |
| float | A decimal number. e.g. 3.14 |
| str | Text. It consists of individual characters. Strings are enclosed in single quotation marks ' or double quotation marks ". e.g. "Hello World" |
| bool | The values True or False. Used to make decisions, more in Unit 3 |

**Error codes I need to know:**

1. **SyntaxError**A SyntaxError is perhaps the most common kind of complaint you get whilst you are still learning python.  
   It means you have entered something that python does not understand, this is commonly a spelling mistake or something you have missed.  
   **NOTE: Always pay attention to the error message, it is telling you what is wrong with your code!**
2. **NameError**A NameError occurs when a local or global name is not found. This refers to variables, functions, and other things like modules and classes.   
   Basically, python reserves particular words such as print.
3. **TypeError**A TypeError occurs when the data types of objects in an operation are invalid. For example, trying to divide a number by a string.

**How to convert a string to an integer in Python**

To convert, or cast, a string to an integer in Python, you use the int() built-in function.

The function takes in as a parameter the initial string you want to convert and returns the integer equivalent of the value you passed.

The general syntax looks something like this: int("str").