**PYTHON WITH DATA SCIENCE**

**UNDERSTANDING PYTHON SYNTAX, VARIABLES, DATATYPES, STATEMENT AND STRINGS**

Syntax

Every programming language has rules and regulations which we must follow to achieve our the desired result, in other words syntax are set of instructions or rules that the tells how we should write our python code, for example if am to the display an output am going to abide by the rule of using the print() function and also we saved our python code with the extension of .py

Variables and Datatypes

In every program there is need for variables: WHY?, Because we will need to store some values that will be needed latter in the program to perform some operation so we need a named location to make this operation much easier, We term variable to be a temporary memory used to define, store and perform operation on input data or values and this values are known as datatypes which are divided into two parts: Basic and Advance Datatypes. In naming variables there are some rules which we must abide with. The Basic Datatypes are divided into 4 types as follows while we discuss about the advance datatypes as we progress:

1. **Integers:** integers are whole numbers, eg. 12
2. **Floats**: floats are decimal numbers, eg. 12.0
3. **Strings**: Strings are usually passed inside quotation marks ‘’ or “”
4. **Booleans:** Booleans are either True or False

you can read more about variables and datatypes with the link below

<https://thepythonguru.com/datatype-varibles/>

Comment  are use to inform other programmers what are line or blocks of code is all about, we start a comment with an # tag, you can also find more about comment with the link below

<https://www.digitalocean.com/community/tutorials/how-to-write-comments-in-python-3>

Newline is used to end a line of code and as well begin a line of code in a string and it is denoted with '\n' you can find more with the below link

<https://www.freecodecamp.org/news/python-new-line-and-how-to-python-print-without-a-newline/>

Escape sequences allow you to include special characters in strings. To do this, simply add a backslash (\) before the character you want to escape.

String Concatenation and Formatting

string concatenation is the joining of two or more string be it declared or not while string formatting is a way of injecting variables into string with help of {} serving as a place holder and the format function to help place in the variables in all the place holder that is specified, read more about string concatenation and formatting with the link below

<https://www.pythonforbeginners.com/concatenation/string-concatenation-and-formatting-in-python>

String Mothed

This are Function that can be applied on a string, Find more details about string method with the below link

<https://www.programiz.com/python-programming/methods/string>

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