**Overview of Python:**

Python is a high-level programming language which is:

* Interpreted, Interactive,Object-Oriented,Beginner’s Language

**Why python:**

* Code Readability, Easy to learn and use
* Open Source , Database Interfaces, Easy to Maintain
* High Level programming, Broad Standard Libraries

**History of python:**

* Python was conceptualized by Guido Van Rossum in the late 1980s.
* Python is derived from ABC programming language, which is a general-purpose programming language that was developed at the CWI.
* Python 1.0 - January 1994 - Python 2.0 - October 16, 2000 -Python 3.0 - December 3, 2008

**Compiler:** A compiler translates the entire source code of a program into machine code or an intermediate code before execution. executed directly by the computer's hardware or a virtual machine.

**Interpreter:** An interpreter, on the other hand, translates and executes the source code line by line. it directly interprets and executes the instructions in the source code.

**Syntax**

* Printing to the Screen: **Print(“Hey There”)** can use single or double quotes
* Indentation is used in Python to delimit blocks.
* such as if, while, def, and class should be terminated with a colon ( : )
* The semicolon ( ; ) is optional at the end of the statement.

**Data types**

* Integer
* Float
* String
* Boolean

**Variables :**

* Python is dynamically typed. You do not need to declare variables
* The declaration happens automatically when you assign a value to a variable.
* Variables can change type, simply by assigning them a new value of a different type.

Python also has ,

* vast development implementation
* Cross-compilers to other languages
* Web development frameworks
* other Science and also has Powerful Libraries