Introduction:

- Python is a general purpose and high-level programming language
- All companies are using python programming language to develop, testing and maintenance the applications etc.
- There are mainly two types of programming languages
    - High level
        - Human readable language
        - Easy to understand
    - Low level
        - Machine readable language like bits (1's and 0's form)

Types Of Applications:

- Desktop or standalone applications
- Web applications
- Distributed applications
- Enterprise applications
- DataScience application

To process huge amount of data:

- PySpark

Data science:

- Capture the data
- Understand the data
- Process the data
- Extract value from data
- Visualize the data
- Communicate with data
- Decision making

History of Python?

- Python was created by Guido Van Rossum in the year of 1989
- It is open source software means, We can download freely and customise the code as well.
- First version was released in Feb 20th, 1991.
- Current version 3.10.x .
- Python supports Functional programming and Object oriented programming approach
- Python = Functional programming + Object oriented programming
- Initial languages like C, Pascal or FORTRAIN follows functional approach.
- C++, Java and dot net follows object-oriented approach.
- Python follows both functional and object-oriented approaches

- Semi colons are mandatory in C and Java programming languages.
- In python semi colons are not required.

Translator

- A Translator is a program that converts any computer programs into machine code.
- There are 'n' number of translators are existing but for us we need to understand 2 types of translators.
- Interpreter: Interpreter is a program; it can convert the program line by line.
- Compiler: Compiler is a program converts the entire program in a single step

Reserved keywords in python

- The words which are reserved to do specific functionality are called reserved words or keywords
- There has 35 reserved words in python
- Those are : if,else, elif, for, while, break, continue, return, yield, pass, try, except, raise, finally, assert, class, def, with, lambda, global, nonlocal, del,import, from , as ,in, not, is, True, False, None, and, or,async and await.