



PRESIDENCY SCHOOL

Keynotes

Grade: IX

Subject: Artificial Intelligence

Month: May & June

Topic: Introduction to Python

Python

- Python is an open-source object-oriented, high-level programming language.
- It is developed by Guido Van Rossum in February 1991
- The show on which Python language is based-**Monty Python's Flying Circus**

Features of Python.

- Python is freely available
- Python uses few keywords and a clear, simple English-like structure.
- Python can run on a variety of platforms. So, it is called cross platform or portable language.
- It supports graphical user interface
- Python has a large set of libraries.

The two modes of interacting with Python are Interactive mode and script mode

Expand the term

- IDE - Integrated Development Environment
- IDLE - Integrated Development Learning Environment

Extension of Python files - .py

The keyboard shortcut to run Python programs in IDLE - F5



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Python character set

- A set of Valid characters that a language can recognize. The character set includes:
 - Letters: A-Z, a-z
 - Digits: 0-9
 - Special symbol: space, +, -, {}, [], > etc
 - Whitespace: Blank space, tabs, carriage return etc

Python variable

- A variable is a named storage location to store values of certain data type.
Example a, x, name etc

Mention the various variable naming conventions

- Variable names are case sensitive
- Keywords should be used with a variable name
- Variable names should be short and meaningful
- All variable names must begin with a letter or an underscore.
- Variable names may contain letters, digits or an underscore but can't contain spaces or other special characters.

Keywords

- Keywords are the reserved words in Python Programming that convey a special meaning to the interpreter.
Example: False, for, if, elif, True, None etc
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Data types:

- Data Types specify the type of data a variable can store. The standard data types offered by Python are:
 - o Number (Integer, float, complex)
 - o Strings
 - o List
 - o Tuple
 - o Dictionary

Operators:

Operators are special symbols which represent computation.

Types of operators in Python:

- Arithmetic operators (+, -, *, /, //, %)
- Relational Operator (>, <, >=, <=, ==, !=)
- Logically operator (and, or, not)
- Assignment Operator (=)
- Shorthand Assignment Operator (+=, -=, *=, **=, /=, //=, %=)
