

# Python Revision

## What is Python?

Python is a popular programming language. It was created by Guido van Rossum, and released in 1991.

It is used for:

- web development (server-side),
- software development,
- mathematics,
- system scripting.

**Interactive Mode:** Interactive Mode, as the name suggests, allows us to interact with OS.

**Script Mode:** In script mode, we type Python program in a file and then use interpreter to execute the content of the file.

**Number:** Number data type stores Numerical Values.

**Sequence:** A sequence is an ordered collection of items, indexed by positive integers.

**Arithmetic operators:** +, -, \*, /, %, \*\* and //.

**Relational operators:** <, <=, >, >=, != or <> and ==.

**Logical operators:** or, and, and not

**Assignment Operator:** =, +=, -=, \*=, /=, %=, \*\*= and //=

**Functions in Python:** A function is named sequence of statement(s) that performs a computation.

**Module:** A module is a file containing Python definitions (i.e. functions) and statements. Standard library of Python is extended as module(s) to a Programmer.

**String:** In python, consecutive sequence of characters is known as a string. An individual character in a string is accessed using a subscript (index).

**List:** Like a string, list is a sequence of values. List can be of any type.

**Dictionaries:** A dictionary is like a list, but more in general. In a list, index value is an integer, while in a dictionary index value can be any other data type and are called keys.

**Tuples:** A tuple is a sequence of values, which can be of any type and they are indexed by integer.