ASSIGNMENT - 2

1] What are the datatypes in python? Explain.

Ans: Python has the following datatypes by defaut.

Ext type : str

Numeric type : int, float, complex

Sequence type : range, list

Boolean type : Bool

Binary types : bytes, memory view

Standad datatypes :

(i) Number (ii) String (iii) List (iv) tuple (v) dictionary

(i) Numbers: It stores numeric values python creates numb objects. When a number is assigned to a variable.

Python supports 4 types of numeric data :

(i) int (signed integer like 10, 2, 29, etc)

(ii) long (long integers used for high range values)

iii) float (used to store floating point numbers)

iv) Complex numbers (2.14j, etc).

(ii) String : Defined as a sequence of characters represented in quotation marks.

(i) We use single / double / triple quotations to represent a string.

(ii) String handling is a straight forward task, where the operator '+' is used for concatenation of two strings.

iii) The operation '*' is used for repetition.

iii) List : Similar to an array in c. Items stored in a list are seperated by (,) and square brackets [].

i) We use slice [:] operators to access the data of the list. The concatenation and repetition operators are used in list the same way as in strings.

v) Tuple : It is similar to lists. The items of diff datatype are seperated by commas (,) and enclosed in paranthe It is a read only data structure and we cannot modify the size and value of the items of a tuple.

2] Briefly explain the history of Python.

It was conceived in the late 1980's by Rossum of CWI in Nether lands as a successor to the ABC language, capable of exception handling and interfacing with Amoeba operating system. Its implementation was in 1989. It is now a widely used general purpose, high level programming language. It was developed to enhance code readability and its syntax allows programmers to express concepts in fewer lines of code.

4] Explain the features of python.

Python is a dynamic highlevel, free open source and interpreted programming language. It supports object oriented programming as well as procedural oriented programming. Features:

(i) Easy to code

(ii) free and open source

(iii). Object oriented programming language.

(iv) GUI programming support

(v) High level programming language.

(vi) Extensible features

(vii) Portable

(viii) Integrated language

(ix) Large standard library.

5] Justify why python is an interactive interpreted language.

Ans: It is an object oriented programming language. It runs directly from the source of code. It converts source code written by the programmer into intermediate language which is again translated into machine language. So it's an interpreted language. It is processed at runtime by the interpreter. It needs to be compiled before its execution. It is similar to PERL and PHP.