Python
Assignment

1) What are the datatypes of python? Explain

A) Numbers: Number datatypes store numeric values Number objects are created when you assign a value to them

2. Strings: Strings in Python are identified as a contiguous set of characters represented in the quotation marks. Python allows either pair of single or double quotes.

3. Lists: These are the most versatile of python's - compound datatypes. A list contains items seperated by commas & enclosed within square brackets ([ ])

4. Tuples: A tuple is another sequence datatypes that is similar to the list. A tuple consists of a number of values seperated by commas.

5. Dictionary: Python's dictionaries are kind of hash-table types. They work like associative arrays or hashes found in Perl & consist of key value pairs. Dictionaries are enclosed within curly braces.

2) Explain history of Python.

A) In late 1980's history was about to be written. It was that time when working on Python started. soon after that, Guido van Rossum began doing its application based work in December of 1989 at CWI

The programming language Python is said to have succeeded in ABC programming language which had the analysing with Amoeba had the storage of exception handling He had already helped to create ABC but liked most of the features.

The inspiration for the name came from BBC of TV show Python flying as the was big fan of the TV show and also he wanted in a unique & slightly mysterious name for his invention & here we named it Python! He was the "Benevolent dictator for life". until he stepped down from the position as the leader on 12th July 2018. For quite sometime he used to work for google, but currently he is working at dropbox.

The language was released in 1991, it had alot fewer codes to expressed compared to Java, C++ & C. Its main objective is to provide code readability and advanced developer productivity. When it was released it had more than enough capability to provide classes with inheritance, & some datatypes exception handling & functions.

3) Explain Operators in Python.

A) Operators are special symbols that represent computations like addition & multiplications The value the operator is applied to are called Operands.

→The operators +, -, *, /, %perform addition, subtraction, multiplication, division, & exponentation as in follows

→2.0132

→ hour - 1

→ hour * 60 + minute

→ minute / 60

→ 5 * 2

→ (5+9)*(15-7)

2 4) Explain features of Python?

(A) 1. Easy to learn & use:

→ Python is easy to learn & use it is developer friendly & high level programming language.

2. Expressive language:

→ Python language is more expressive means that it is more understandable & readable

3. Interpreted language:

→ Interpreter executes the code line by line at a time. this makes debugging easy & thus suitable for beginners.

4. Cross-platform language:

Python is freely available can equally on different platforms such as windows, linux, unix etc.

5. Free & open source:

Python is freely available at official web address

The source code is also available.

Object-Oriented:

Python supports object oriented language and concepts of classes & objects come into existence.

Extensible:

It implies that other language such as c/c++ can be used to compile the code & then it can be used further in our python code.

GUI: Graphical user interfaces can be developed by using Python.

Integrated:

It can be easily integrated with languages like C, C++, JAVA

5) Justify why Python is interactive interpreted language.

A) Unlike c/c++ etc. Python is an interpreted language. It means that each time a program is run the interpreter checks through the code for errors & then interprets the instructions into machine-readable bytecode.

Python is interactive, when a statement is entered, & is followed by the Return key, if appropriate the result will be printed on the screen, immediately, in the next line. This is particularly advantages in debugging process.