

Assignment - 02

1. what are data types in python? Explain

* Integer: Positive or negative whole numbers are the integer data types in python

* Float: Any real number with a floating point represents in which a fractional component is denoted by a decimal symbol or scientific notation

* Complex number: A num with a real and imaginary component represented as $x + yi$, x and y are floats and i is -1

* Boolean: Data with one or two built in values True or false notice that T or F are capital true or False are not valid because python will throw an error for them

* string: A string value is a collection of one or more characters put in single, double and triple quotes.

* list: A list object is an ordered collection of one or more data items not necessarily of the same type, put in square brackets.

* Tuple: A tuple object is an ordered collection of one or more data items, not necessarily of the same types put in parenthesis

2. Explain Briefly the history of python?

python was created by guido van Rossum in 1980 to 1990. He was a member of the national Research institute of mathematics and computer Science initially it was designed as a response to the ABC programming language was that python had exception handling and was targeted for Amecoba operating system. the name python is named from the British Tv show monty python. In addition to exception handling python included classes, lists and string.

3. Explain Operators in python?

* Arithmetic Operators are addition, subtraction, multiplication, Division, Floor division, modulus, Exponentiation.

* Relational operators: $<$, $>$, $<=$, $>=$, $=$

* Assignment operators: $+=$, $=$, $-=$, $*=$, $/=$, $%=$, $//=$, $**=$, $&=$, $|=$, $^=$, $>>=$, $<<=$

* Comparison operators: $==$, $!=$, $>$, $<$, $<=$, $>=$

* logical operators = and, or, not

* membership operators: in, not in

* Bitwise Operators: $&$, $|$, $^$, \sim , $<<$, $>>$

4. Explain Features of python?

Easy to code

Free and Open Source

Object oriented language

GUI programming set

High-level language

Extensible Feature

Python is portable language

Python is integrated language

Large standard library

Dynamically typed language.

5 Justify why python is interpreted language

Unlike C/C++ etc., python is an interpreted object oriented programming language. The compiler which is a compiled programming language. The compiler translated the whole code in one go rather than line by line. This is the reason why in C language all the errors are listed during compilation only.