

Q) What are data types in python? Explain.

1) Integer Type: Positive (or) negative whole numbers are the integer data type in python.

Float type: 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 number with a real and imaginary component represented as $x + yi$, x and y are floats and j is -1 .

Boolean: Data with one or two built-in values true or false. Notice that True and False are capital true or false are not called because python will throw an error for them.

String: A string value is a collection of one or more characters ~~is~~ 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 parentheses.

2.) Explain Briefly the history of Python?

a) 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 Amos operating system. The name python is named from the British TV show monthly python in addition to exception handling python included classes, lists and strings.

3) Explain operators in python?

A)

* Arithmetic operations are addition, subtraction, multiplication, division, floor division, modulus, exponentiation.

+ Relational ~~And~~ operators: $<$, $>$, $<=$, $>=$, $==$.

* Assignment operator: $+=$, $=$, $-=$, $*=$, $/=$, $%=$, $//=$, $**=$

$\<=$, $\>=$, $\<$, $\>$, $\<=$, $\>=$

Comparison operator: $=$, $!=$, $>$, $<$, $>=$, $<=$

logical operator: and, or, not.

membership operators: in, not in.

Bitwise operator: $\&$, $|$, \wedge , \sim , \ll , \gg .

4.) Explain features of Python?

A) 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

Pythonically typed language.

5) Justify why python is interpreted language.

A) 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.