

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 represent 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 of an two built in values True or false value 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 necessary of the same type put in square brackets.

→ Tuple: A tuple object is an ordered collection of one or more data items not necessary of the same type 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 science research institute of mathematics and computer science. Initially it was designed as a response to the ABC programming language. That python had exception handling and was targeted for ameba operating system. The name python is named from the British. The show mostly is 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, module, exponentiation.

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

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

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

→ Logical operators: and , or , not

→ Membership operators: in , not , in

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