

PYTHON WORKSHOP

ASSIGNMENT - 02

1. What are data types in python? Explain?

* Integer :- positive (or) negative whole numbers are the integer data types in python.

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

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

* Boolean :- Data with one of @ two built in-values true @ false value that T@F are Capital true @ false are not valid because python will throw an error for them.

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

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

* Tuple :- A tuple object is an unordered collection of one @ 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 1996. 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. What Python had expectation handling and was targeted for operating system. The name Python is named from the British TV show Monty Python. In addition to exception handling, Python included classes, lists and strings.

3. Explain operators in python?

* Arithmetic operators are addition, subtraction, multiplication, division, floor division, modulus, Exponentiation.

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

* Assignment operators: $=$, $+=$, $-=$, $*=$, $/=$, $\% =$, $// =$, $** =$, $&=$, $|=$, $\wedge =$, $>>=$, $// =$.

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

* Logical operators = and, or, not.

* Membership operators = in, not in.

* Bitwise operators = $\&$, $|$, \wedge , \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 translates 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.