

1. What are the data types in python? Explain.

python has five different data types:

1. Numbers: Number data types 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: Lists are the most versatile of python's compound data types. A list contains items, separated by commas and enclosed within square brackets.
4. Tuples: A tuple is another sequence data type that is similar to the list. A tuple consists of a number of values separated by commas. Unlike lists, however tuples are enclosed within parentheses.
5. Dictionary: Python's dictionaries are kind of hash table type. They work like associative arrays or hashes found in perl and consist of key value pairs. A dictionary can be almost any python type, but are usually numbers or strings. Values, on the other hand can be any arbitrary python object. Dictionaries are enclosed within curly braces.

2. Briefly explain history of python.

Ans: Python has one of the most interesting programming languages of our time. It was created by Guido van Rossum during 1985-1990. Python is named after a TV show called Monty Python's Flying Circus and not after python the snake.

3. Explain all the operators in python.

Ans: 1. Arithmetic operators:

Arithmetic operators are used to perform mathematical operations like addition, subtraction, multiplication, division etc.

2. Relational Operators:

Relational operator compare the value. It either returns true or False or True according to condition.

3. Logical Operators:

Relational operator compare the values.

It performs logical AND, logical OR and logical NOT operations.

4. Bitwise Operators:

Bitwise operator act on operands as if they were strings of binary digits. They operate bit by bit, hence the name.

5. Assignment Operators:

These are used in python to assign values to variables.

For example `a=5` is a simple assignment operator that assigns the value 5 on the right to the variable on the left.

4. Explain the features of python.

1. Simple

2. easy to learn

3. free and open source

4. high level language

5. portable

6. python is a Beginner language

7. Interactive

8. interpreted

9. object oriented

10. extensible

11. embeddable

12. extensive libraries

13. Databases.

14. GUI programming

15. scalable.

5. justify why python is interactive, interpreted, language.

A: python is interactive language, python is very much helpful for the debugging purpose. It simply returns the prompt or the corresponding output of the statement if appropriate and returns error for incorrect statements. In this way if have doubts can solve. Unlike c language, which is a compiled programming language.