

↳ What the data types in python? explain?

Ans

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 & 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 dictionaries are kind of hash table type. A dictionary key can be almost any python type but are usually numbers or strings values. on the other hand can be any arbitrary python object.

2) Briefly explain history of python?

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Python has become 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 & not after the Python is snake.

3) Explain all the operators in python?

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- 1) Arithmetic operators: These are used to perform mathematical operations like addition, subtraction, multiplication, division etc.
- 2) Relational operators: These compare the values of either mathematical operators like addition, subtraction.
- 3) Logical operators: These perform logical AND, OR, NOT operators.
- 4) Bitwise operators: These 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 ex: `a = 5` is a simple assignment operator that assigns the value 5 on the right to the variable a on the left.

6) Special operators

1) Identity operators 'is' and 'is not' are the identity operators in python. They are used to check the same part of the memory. It either returns true or false according to the condition.

2) Membership operators 'in' and 'not in' are the membership operators, used to test whether a value is in sequence.

4) Explain the features of python?

→ Features of python.

- * Simple
- * easy to learn
- * Free & open source
- * High level language.
- * Python is a Beginners language.
- * portable.
- * Interactive
- * object oriented.

5) Justify why python is interactive, interpreted language?

→ Python is interactive language. Interactive python is very much helpful for the debugging purpose. It simply returns the prompt or the corresponding output of the statement if appropriate & returns error for incorrect statements. In this way if you have any doubts like: whether a syntax is correct. An interpreter is a translator in computer's language which translates the given code line by line in machine readable bytecode.