

Assignment

Section:- B, (C.S.E)

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1. What are the datatypes in Python? Explain.

i. Number:- Number datatypes store numeric values. Number objects are created when you assign a value to them.

ii. Strings:- String in Python are identified as a contiguous set of characters represented in the quotation marks. Python allows either pair of single or double quotes.

iii. Lists:- Lists are the most versatile of Python compound data types. A list contains items, compounds separated by commas and enclosed within square brackets.

iv. 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 with parentheses.

v. 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 key 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?

- Python is a general-purpose interpreted interactive, object-oriented, and high-level programming language
- 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 operators in Python?

- When more than one operator appears in an expression the order of evaluation depends on the rules of precedence. PEMDAS order of operation is followed in Python.
- Parentheses have the highest precedence and can be used to force an expression to evaluate in order you want.
- Exponentiation has the next highest precedence
- Multiplication and division have the same precedence which is higher than.
- Addition and Subtraction which also have the same precedence.
- Operators with same precedence are evaluated from left to right.

4. Explain Features of python.

→ Features of Python

1. Simple
2. Easy to learn
3. Free and open source
4. High level language
5. Python is Beginner's language
6. portable / platform independent
7. Interactive
8. Interpreted
9. object oriented
10. Extensible
11. Embeddable
12. Extensive libraries.

5. Justify why python is interactive interpreted language

→ Python is interactive

You can actually sit at a python prompt and interact with interpreter directly to write your programs. Python is object oriented. Python supports object oriented style or technique of programming that encapsulates code with object.

→ Python is interpreted

Unlike C/C++ etc, python is interpreted object oriented programming language. By interpreted it is meant that which each time a program is run the interpreter check through code errors.