

Assinment - 2

① What are the data types in ~~ph~~ python? Explain

* **Numbers** :- Number stores numeric values. python creates number objects when a number is assigned to a variable

Ex:- $a=3, b=5$

~~ph~~ Python supports 4 types of numeric data.

1. int (10, 2, 29, etc.)

2. long (90809000L, -0x1929292L, etc.)

3. float (1.9, 9.902, 15.2, etc.)

4. Complex (2.14j, 2.0 + 2.3j, etc.)

* **String** :- String can be defined as the sequence of characters represented in the quotation marks. In python, we can use single, double, or triple quotes to define a string

Example: `str1 = 'hello world'`
`str2 = 'how are you'`

* **List** :- List are similar to arrays in c. However, the list can contain data of different types. The items stored in the list are separated with a comma (,) and enclosed within square brackets []

* **Tuple** :- Tuple is similar to the list in many ways. tuple also contain the collection of the items of different datatypes. The items of the tuple are separated with a comma (,) and enclosed in parentheses ().

* **Dictionary** :- Dictionary is an ordered set of a key-value pair of items. It is like an associative array or a hash table where each key stores a specific value. Key can hold any primitive data type whereas value is an arbitrary python object.

② Briefly Explain the history of python?

② python was created by 'Guido van Rossum' in 1990 to 1990. He was a member of national research institute of Mathematics and computer science initially it was designed as a response to the ABC programming language that was also foregrounded in the Netherlands. Among the main features of python compared to the ABC language was that python had exception handling and was targeted for the Amoeba 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 the operators python?

③ Operators in python are

- * Arithmetic operator
- * Relational operator
- * Assignment operator
- * Logical operator
- * Membership operator
- * Identity operator
- * Bitwise

* Arithmetic operators:- +, -, *, /, %, **, //

* Relational operators:-

<, >, <=, >=, ==, !=

* Assignment operators:-

=, +=, -=, /=, *=, %=, **=, //=

* Logical operators:-

and, or, not

* Membership operators:-

in, not in

* Identity operators:-

is, is not

* Bitwise operators:-

&, |, ^, ~, <<, >>

Q Explain features of python?

A *

- * Easy to code

- * Free and open source

- * Object-oriented language

- * GUI programming support

- * High Level language

- * Extensible feature

- * Python is integrated language

- * Python is portable language

- * Interpreted language

- * Large standard library

- * Dynamically Typed language

Q Justify why python interactive interpreted language?

A Unlike c/c++ etc, python is an interpreted object-oriented programming language. Unlike c language, 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.