

① What are the data types in Python? Explain

→ Numeric data type :- int, float, complex.

int: integer values

Ex: 1, 2, 3 ... etc

float: It contains floating values

Ex: 1.1, 2.2 ... etc

complex: $2 + 10j$...

⇒ Boolean: True False

⇒ String: It is a collection of one or more characters put in a single, double or triple quotes

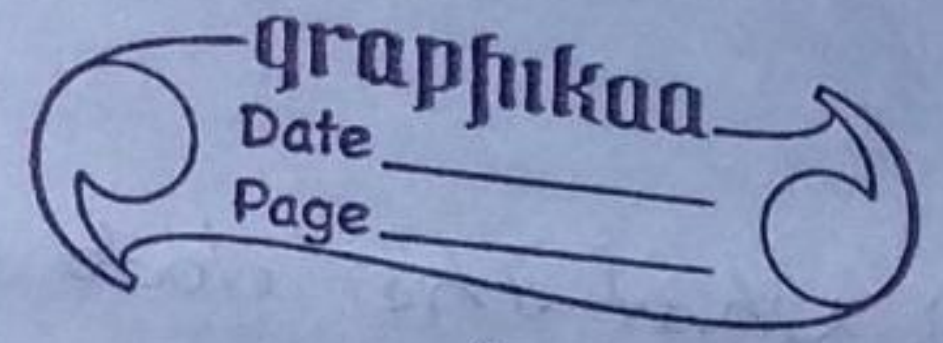
⇒ List: A list object is an ordered collection of one or more data items.

⇒ Tuple: A Tuple object is an ordered collection of one or more data items.

⇒ Dictionary

A dictionary obj is an unordered collection of

Briefly Explain history of python



① python is a general-purpose interpreted, interactive, object-oriented and high level programming language.

② 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.

It was started at CWI in the Netherlands as a successor to ABC capable of exception handling and interfacing with the Amoeba operating system.

python 2.0 was released on october 16, 2000

python 3.0 was released on dec 3, 2008

③ Explain all the operators in python.

① Arithmetic operators

+ Addition

It adds values. ex $a + b = c$

- Subtraction

Subtract the values $c = a - b$

* Multiplication

Multiply the value ~~$c = a * b$~~ $c = a * b$

/ Division

It performs division operation. $c = a / b$

** Exponent

It performs exponential calculation $a ** b = c$

② Comparison operators

$== \Rightarrow$ It will check the value is equal or not.

ex $(a == b)$

$!= \Rightarrow$ It will check value is not equal or not

ex $(a != b)$

$< \> \Rightarrow$ It will check greater than & less than

ex $(a < b)$

$(a > b)$

\geq greater than or equal

\leq $(a \geq b)$

\leq less than or equal

$(a \leq b)$

Assignment operators

$=$ \Rightarrow Assign the value

$+=$ \Rightarrow It adds and assign the value

$- =$ \Rightarrow It sub and assign the value

$* =$ \Rightarrow It mul and assign the value

$/ =$ \Rightarrow It divider & assign the value

Bitwise operators

$\text{AND} (\&)$ \Rightarrow It will give true if both are true

$\text{OR} (|)$ \Rightarrow It will give true even one of them is true

$\text{XOR} (^)$ \Rightarrow It copies the bit if it is set on one operand but not on both

(\ll) Left shift \Rightarrow The value moved to the left

(\gg) Right shift \Rightarrow The value moved to the right

Logical operators

Logical AND \Rightarrow if both operands are true then condⁿ become true

Logical OR \Rightarrow if any of the two operands are non-zero then condⁿ become true

Logical NOT \Rightarrow used to reverse the logical state of a operand.

Q. Explain the features of python.

① Easy to code

It is high level lang. easy to understand

Anybody can learn easily

② Free and open source

It is freely available anyone can download

③ Object oriented lang

It support oops concept

① GUT programming support

It is a graphical user interface

② High-level lang

It is a high level programming lang
we no need to remember system architecture

③ portable lang

We can run python code on other platforms
also.

④ dynamically typed lang

We can decide a type of variable at run
time

⑤ justify why python is interactive interpreted lang?

python is interactive.. when python statement
is entered and it followed by the Return key. if
appropriate, then result will be printed on the
screen, immediately on the next line.
we can debug easily