① What are the datatypes in Python?

Ⓐ Datatypes in Python are :-

Integer - Positive or negative whole numbers (without fractional part)

Float - Any real number with a floating Point representation ~~Complexnumber~~ in which a fractional component.

complexnumber - A number with real & imaginary component represented as a+yj.

Boolean - Data with one of two built-in values True or False. Notice that 'T' and 'F' are capital. true and false are not valid booleans and Python will throw an error for them

BuiltinFunctions :- Math Type Conversion, Herables and Herators. Composite Datatype, Classes, Attributes and Inheritance, Miscellaneous.

② Briefly Explain history of Python?

Ⓐ Python has become one of the most interesting Programming language of our time. It was concieved by guido Van Rossum at CWI in neitherlands during the late 1980's. The Most Amazing Story is that Creatu Python using solely his computer. His office was closed and all he had was simple machine and his brilliant mind. Thus, the first version of this Program first appeared in 1991, that is 29 years ago. Python was ironically named after the famous british

Sketch comedy series "Monty Python's Flying circus" as founding father was a big fan. New Python succeeded in releasing the new major version, Python 3.0 in 2008. and followed by upcoming versions.

(3) Explain all the operators in python?

(A) (1) Arithematic operators: used to perform common mathematical operations, They are.

operator	Name	Example
+	Addition	x + y
−	Substraction	x − y
*	multiplication	x * y
/	division	x / y
%	modulus	x % y
**	Exponentation	x ** y
//	Floor division	x // y

(2) Assignment operators: To assign values to variables

operators	~~Example~~	Same as
=	** =	
+=	&=	
−=	|=	
*=	^=	
/=	>>=	
%=	<<=	
//=		

③ Comparison operators :

==	Equal	x == y
!=	not equal	x != y
>	greater than	x > y
<	less than	x < y
>=	greater than equal to	x >= y
<=	less than equal to	x <= y

④ Logical operators

operator	Description	Example
and	Returns true if statement is true	x < 5 & y > 2
or	Returns true if one statement is true	x < 5 or y > 2
not	Reverse the result if the result is true, returns false	not (x < 5)

⑤ Identity operators

operators	Description	Example
is	Returns true if both variables are same object	x is y
is not	Returns true if both variables are not same object	x is not y

⑥ Python membership operators

in	Returns true if sequence with specified value is present in object	x in y
not in	Returns true if the specified value is not in object	x not in y

(7) Bitwise operators

operator	name	Example
&	AND	x & y
|	OR	x | y
^	XOR	x ^ y
~	NOT	x ~ y
<<	Left shift	x << y
>>	Right shift	x >> y

(9) Explain features in Python

(A) Python is a dynamic high level, free source and interpreted programming language. It supports object oriented programming as well as procedual oriented programming. In Python, we dont need to declare the type of variable because it is a dynamic typed language.

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Features in python:

1. Easy to code
2. Free open source
3. Object oriented language
4. GUI Programming support.
5. High level language
6. Extensible feature.
7. Python is portable language.
8. Python is Integrated language.
9. Interpreted language etc.

⑤ Justify why python is interactive interpreted language.

Ⓐ (.py) files are run in python interpreter. Interactive mode is a command line shell which gives immediate feedback for each statement, while running Previously fed statement, in active memory. As new lines are fed into the interpreter, the fed Program is evaluated both in part and in whole.

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