

PYHTON BASIC QUESTIONS

1.what is python, and why is it popular?

-> Python is a programming language and it is popular because it's easy to learn, versatile and actively large community

2.what is an interpreter in python?

-> A python interpreter is a program that reads and executes python code line by line, essentially translating the high- level python code into machine that the computer can understand.

3.What are pre-defined keywords in python?

-> words that have specific meaning and reserved for use in python program are known as pre-defined keywords in python.

4.Can keywords be used as variable names?

-> No keywords can't be used as variables names python will throw an error

5.What is mutability in python?

-> mutability in python is the ability of an object to modify or make changes in the python code.

6.Why are lists mutable, but tuples are immutable?

-> Lists are mutable because we can change the order of items in a list or reassign an item in the list, but tuples are immutable because their content can't be changed after they are created.

7.What is the difference between "==" and "is" operator in python?

-> The "==" operator checks if two objects have same value while "is" operator checks if two variables have reference to the same object in memory

8.What are logical operators in python?

-> Logical operators are used to combine multiple conditions together and evaluate them as a single boolean expression

9.What is the type casting in python?

->Type casting or type conversion is the process of changing one data type into another in python.

10.What is the difference between implicit and explicit typecasting?

->The implicit type casting means the interpreter automatically converts a data type when needed, while explicit type casting requires the programmer to manually specify the conversion using built in function.

11.What is the purpose of conditional statements in python?

->Conditional statements in python control the flow of a program by executing code based on certain conditions

12.How does the elif statement work?

->If the first condition is false, it moves on to the next "elif" statement to check if that condition is true.

13.What is the difference between for and while loops?

->A for loop in python repeats executing a code block from a sequence till certain number of times. whereas a while loop in python repeats execution of a code block till condition is true which is not certain.

14.Describe a scenario where a while loop is more suitable than a for loop?

->Use for loop when you know the loop should execute n times and use a while loop for reading a file into a variable, use a while loop when the increment value is nonstandard.