Python Basics

Assignment Questions

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1. What is Python, and why is it popular?
2. What is an interpreter in Python?
3. What are pre-defined keywords in Python?
4. Can keywords be used as variable names?
5. What is mutability in Python?
6. Why are lists mutable, but tuples are immutable?
7. What is the difference between "==" and "is" operators in Python?
8. What are logical operators in Python?
9. What is type casting in Python?
10. What is the difference between implicit and explicit type casting?
11. What is the purpose of conditional statements in Python?
12. How does the elif statement work?
13. What is the difference between for and while loops?
14. Describe a scenario where a while loop is more suitable than a for loop.

Practical Questions

1. Write a Python program to print "Hello, World!"
2. Write a Python program that displays your name and age.
3. Write code to print all the pre-defined keywords in Python using the keyword library.
4. Write a program that checks if a given word is a Python keyword.
5. Create a list and tuple in Python, and demonstrate how attempting to change an element works differently for each.
6. Write a function to demonstrate the behavior of mutable and immutable arguments.
7. Write a program that performs basic arithmetic operations on two user-input numbers.
8. Write a program to demonstrate the use of logical operators.
9. Write a Python program to convert user input from string to integer, float, and boolean types.
10. Write code to demonstrate type casting with list elements.
11. Write a program that checks if a number is positive, negative, or zero.
12. Write a for loop to print numbers from 1 to 10.
13. Write a Python program to find the sum of all even numbers between 1 and 50.
14. Write a program to reverse a string using a while loop.
15. Write a Python program to calculate the factorial of a number provided by the user using a while loop.