

Day-8 Exercise (Homework):

Here are more than 10 exercise questions based on the Python operators content, suitable for homework:

1. Arithmetic Operators

- Question 1: Calculate the area and perimeter of a rectangle given its width and height.
- Question 2: Write a program to calculate the simple interest on a given principal, rate of interest, and time.
- Question 3: Find the quotient and remainder when a given number is divided by another number.

2. Comparison Operators

- Question 4: Write a program to check if a given number is even or odd.
- Question 5: Create a program to determine if a person is eligible to vote (age \geq 18).
- Question 6: Given two numbers, find the larger of the two.

3. Logical Operators

- Question 7: Write a program to check if a year is a leap year. (A leap year is divisible by 4, but not by 100, unless it is also divisible by 400.)
- Question 8: Create a program to determine if a person is eligible to drive based on age and whether they have a license.

4. Bitwise Operators

- Question 9: Write a program to swap the values of two variables using the XOR bitwise operator.
- Question 10: Given two numbers, find their bitwise AND and OR.

5. Assignment Operators

- Question 11: Write a program to increment the value of a variable by 10 using the += operator.
- Question 12: Create a program to double the value of a variable using the *= operator.

6. Membership Operators

- Question 13: Check if a given character is present in a given string.
- Question 14: Determine if a given element exists in a list.

7. Identity Operators

- Question 15: Create two lists and check if they are identical using the is operator.
- Question 16: Assign a value to a variable and then assign the same value to another variable. Check if they refer to the same object in memory.