

Scenario-based questions involving `if-else` statements in Python:

1. Voting Eligibility

Write a program to check if a person is eligible to vote. A person is eligible to vote if their age is 18 or above.

2. Grading System

Create a program that assigns a grade based on the percentage entered by the user:

- 90% and above: Grade A
- 80% to 89%: Grade B
- 70% to 79%: Grade C
- Below 70%: Fail

3. Odd or Even

Ask the user to input a number and check if the number is odd or even.

4. Leap Year Checker

Write a program to check if a given year is a leap year. A year is a leap year if:

- It is divisible by 4, but not divisible by 100, **or**
- It is divisible by 400.

5. Discount Calculator

A store offers a discount based on the total purchase amount:

- Purchases over \$1000: 20% discount
- Purchases between \$500 and \$1000: 10% discount
- Purchases below \$500: No discount

Write a program to calculate the final amount after applying the discount.

6. Triangle Type

Ask the user to input three sides of a triangle. Determine if the triangle is:

- Equilateral: All sides are equal.
- Isosceles: Two sides are equal.
- Scalene: No sides are equal.

7. Login Authentication

Create a program that checks if the username and password entered by the user match predefined values. If they match, display "Login successful"; otherwise, display "Invalid credentials."

8. Divisibility Test

Ask the user to input a number and check:

- If the number is divisible by 3, print "Fizz."
- If the number is divisible by 5, print "Buzz."
- If the number is divisible by both, print "FizzBuzz."
- Otherwise, print the number.

9. Temperature Conversion

Ask the user to input a temperature in Celsius or Fahrenheit. Based on the input, convert it to the other scale:

- Celsius to Fahrenheit: $(\text{Celsius} * 9/5) + 32$
- Fahrenheit to Celsius: $(\text{Fahrenheit} - 32) * 5/9$

10. ATM Withdrawal

Simulate an ATM withdrawal process:

- Ask the user to input the withdrawal amount.
- Check if the amount is a multiple of 100 (e.g., 100, 200).
- If it is, deduct the amount from the balance and display the remaining balance.
- Otherwise, display "Invalid amount."