

1. **Scenario:** A system checks if a user is eligible to vote based on age.

Write logic to ask the user for their age and determine if they are eligible to vote based on whether they are 18 or older.

1. Ask user to enter their age.
2. Check the user age is ≥ 18
3. If yes, the user is eligible for vote
4. Otherwise, not eligible

2. **Scenario:** A program processes a list of numbers and needs to find the largest value.

Write logic to identify and return the largest number from a given list.

1. Give the list of number
2. Compare first num with remaining all num.
3. This process is continue until check all num in the list

3. **Scenario:** A company provides employees with a 10% bonus if their salary exceeds \$50,000.

Write logic to determine the bonus amount based on the given salary.

1. Give the employee salary
2. If the salary exceeds \$50,000, then add 10% bonus
3. Otherwise, didn't add 10%
4. Calculate total amount (salary+ bonus)

4. **Scenario:** A program evaluates a number to determine if it is even or odd.

Write logic to check whether a given number is even or odd.

1. Enter the number
2. If the given number is divided by 2
3. The Given number is **even**
4. Otherwise, **odd**

5. **Scenario:** A text-processing tool reverses a given word or sentence for formatting purposes.

Write logic to take a word or sentence as input and produce its reversed version.

1. Read the input word or sentence.
2. Convert the input into a list of characters.
3. Reverse the order of characters.
4. Join the reversed characters into a string.
5. Return the reversed word or sentence.

6. **Scenario:** A grading system determines whether a student has passed or failed based on their score.

Write logic to check if a student has passed a subject by scoring at least 40 marks.

1. Read the student score
2. If the score is ≥ 40 .The student is pass
3. Otherwise fail.

7. **Scenario:** A retail store offers a 20% discount if a customer's total order exceeds \$100. Write logic to calculate the final amount to be paid after applying the discount.

1. Check the customer bill.
2. If the amount exceeds \$100, then add 20% discount
3. Calculate the final amount.

8. **Scenario:** A banking system processes withdrawal requests and ensures the user has enough balance.

Write logic to check if a user has enough balance before allowing a withdrawal and update the remaining balance accordingly.

1. Read the withdrawal amount and current amount in user account
2. Check the withdrawal amount \leq current amount in the user account
3. If sufficient balance is available, then withdrawal the amount
4. Otherwise not

9. Scenario: A calendar system verifies whether a given year is a leap year based on standard leap year rules.

Write logic to determine whether a given year is a leap year.

1. Read the input
2. If the year is divisible by 4 or 400, it is leap year
3. If the year is divisible only by 100, it is not a leap year

10. Scenario: A program filters out only even numbers from a given list

Write logic to extract and return only the even numbers from a list.

1. Give the input in the list.
2. Create an empty list to store even number
3. Using for loop to check whether the number is divisible by 2
4. Return that number
5. Store in empty list.