

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

Logic:

- i. Ask the user to "Enter the age"
 - ii. Check whether the age is above/ equal to 18 or not
 - iii. If age is 18 or greater, print "Eligible to vote"
 - iv. If not, print "Not Eligible to Vote"
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2.Scenario: A program processes a list of numbers and needs to find the largest value.

Logic:

- i. Read the list of numbers
 - ii. Assume the largest number will be the first value of the list
 - iii. Iterate over the given list and check if the current element of the list are greater than the current largest value.
 - iv. If that element is greater than the current largest number, then store it as the largest value.
 - v. At the end, Return the largest number.
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3.Scenario: A company provides employees with a 10% bonus if their salary exceeds \$50,000

Logic:

- i. Read the employee salary
 - ii. If the salary exceeds \$50,000 then calculate with a 10% bonus
 - iii. Else, consider zero percent bonus
 - iv. Return the calculate bonus amount.
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4. Scenario: A program evaluates a number to determine if it is even or odd.

Logic:

- i. Read the given numbers
 - ii. If the given number is whether divisible by 2.
 - iii. Then print "Even"
 - iv. Else, print "Odd"
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5.Scenario: A text-processing tool reverses a given word or sentence for formatting purposes.

Logic:

- i. Read the given word or sentence
- ii. Split the string into words
- iii. Reverse the order of words
- iv. Then join the words into string
- v. Return the reverse word or sentence

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

Logic:

- i. Read the score of the student
 - ii. If score is 40 or greater, then print "Passed"
 - iii. Else, print "Failed"
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7. Scenario: A retail store offers a 20% discount if a customer's total order exceeds \$100.

Logic:

- i. Read the customer's total order
 - ii. If the total order exceeds \$100, then calculate 20% discount
 - iii. Subtract the discount amount from the total amount
 - iv. Return the final amount to be paid.
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8. Scenario: A banking system processes withdrawal requests and ensures the user has enough balance.

Logic:

- i. Read the account details and the withdrawal request
 - ii. If the account balance is equal or greater than the requested withdrawal amount, then print "Proceed for withdrawal"
 - iii. Subtracting the withdrawal amount from the previous account balance and then updated the final balance amount.
 - iv. Else, print "Insufficient balance".
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9. Scenario: A calendar system verifies whether a given year is a leap year based on standard leap year rules.

Logic:

- i. Read the given input year
- ii. If the given year is divisible by 4, then print "It is a leap year"
- iii. Then check whether the given year is divisible by 400 and 100, then print "It is a leap year"
- iv. If the given year is divisible by 400 but not divisible by 100, then print "It is a leap year"
- v. Else, print "It is not a leap year".

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

Logic:

- i. Read the numbers from a given list
 - ii. Create the empty new list
 - iii. If the given number is divisible by 2, then print "Even"
 - iv. Iterating through the list and check it is divisible by 2
 - v. If divisible then appending numbers to a new list.
 - vi. Return the even numbers list.
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