

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

Logic:

1. Ask the candidate to enter their age.
2. Check, if the age is 18 or above.
3. If it becomes true then, print “You are eligible to vote”.
4. If it will be false then, print “You are not eligible to vote.”

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

Logic:

1. Read the numbers in the list.
2. Select a number largest in default, compare with other numbers.
3. Iterate through the list, with the current number and the default number.
4. If you got a largest value, return the larger number.
5. Repeat this for all the values.

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

Logic:

1. Read the employee’s salary.
2. If the salary will be higher than \$50000 then add 10% bonus.
3. If not, then exit the loop.
4. Return the calculated amount.

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

Logic:

1. Read the given number.
2. If the given number is divided by 2 and the remaining will be 0, then print Even
3. If the given number is not divided by 2 and the remaining will be 1, then print Odd.

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

Logic:

1. Read the given word.
2. Use the reverse logic to the list of characters.
3. Convert the characters into a string.
4. Return the reversed string.

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

Logic:

1. Check the scored mark's each of the student.
2. If the mark will be less than 40 or below, print "Fail".
3. Else print "Pass".

**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.

Logic:

1. Get the total amount of customer purchased.
2. Check if the customer order is more than \$100, then apply for 20 % discount.
3. Less the 20% in the total amount.
4. Return the final amount.

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

Logic:

1. Read the balance in account and withdrawal amount.
2. If the balance is above than the withdrawal amount then process the withdrawal.
3. Debit the withdrawal amount from the balance and update the balance amount.
4. If the withdrawal amount is above than the balance amount then, print "Insufficient Balance".

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

Logic:

1. Read the year given.
2. If the year is divisible by 400, it is a leap year.
3. If the year is divisible by 100 but not by 400, it is not a leap year.
4. If the year is divisible by 4 but not by 100, it is a leap year.
5. Otherwise, it is not a leap year.

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

1. Read the list of numbers.
2. Create an empty list to store even numbers.
3. Iterate through the list and check if each number is divisible by 2.
4. If divisible, add the number to the new list.
5. Return the list of even numbers.

