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

   Logic:
   1. Get the input from the user
   2. Write the code with **If-else** control statement to check the eligibility
   3. If the age is 18 or above print “Eligible to Vote”
   4. Else. Print “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.

   Logic:
   1. Provide the list of numbers
   2. In the given list, Take the first number as the large one as temporary to validate.
   3. Write the for loop for the list and pass the values to the If statement to check the value.
   4. If the passed value is more than the given number, it will update the largest number.
   5. Then print the same.

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.

   Logic:
   1. Read the employees data.
   2. Write the condition If the salary of the person is more than 50,000 then add the 10% bonus and return the statement to print along the final amount.
   3. Else the salary is below 50,000, then return as “Not Applicable for 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.

   Logic:
   1. Get the input from the user
   2. Write the code using If statement, (num %2) it will print even number.
   3. Else, It will print odd number.

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.

   Logic:
   1. Get the input from the user
   2. Write the code using If statement, (num %2) it will print even number.
   3. Else, it will print odd number.

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.

   Logic:
   1. Read the students mark's data.
   2. Write the condition If the mark is 40 or above, we should get the result as "Pass".
   3. Else, the result will be "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 for the discount.

   Logic:
   1. Get the final bill value
   2. If the bill value is above $ 100, provide a 20% discount on the current bill value. Then print the final amount.
   3. Else, If the Bill value is lower than $ 100, Procced without the discount

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.

   Logic:

   1. Check for the type of transaction
   2. If the user chooses of the withdrawal, then fetch the data from the user account details with the current bank balance
   3. Once the user provided the input for the withdrawal amount, Check for the current balance. If the current balance is below the withdrawal amount, then proceed with the transaction
   4. Post completing the transaction, calculate the remaining amount and print the balance of the user.
   5. Else, If the withdrawal amount is above the current balance, print “Insufficient Funds”.

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.

   Logic:

   1. Check for the given input to verify the leap year
   2. Write the code to the check that given year is divisible by 4, then print “It is leap year”. Other wise if the given year is divisible by 400, then print “It is leap year”.
   3. Else, the given year is divisible by 100, then print “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.

    Logic:

    1. Read the list of numbers.
    2. Create a empty list to store the output. Then check the list of numbers divisible by 2. Then store that number on the list.
    3. Then print the same.