1. **Scenario:** A user is required to enter a valid number in a form, but users sometimes input invalid data.

   Write logic to repeatedly prompt the user until they enter a valid integer.

   1. Read the input from user
   2. Check the input value is integer or not
   3. If integer. Print the value as integer
   4. Otherwise not a integer

2. **Scenario:** A data analysis tool processes a list of numbers and needs to identify the most frequently occurring value.

   Write logic to find the most frequently occurring number in a given list.

   a. Read the input from user
   b. Iterate the value one by one and compare to input. Save the value in another variable
   c. If its match. Save to another variable
   d. Print the matched value

3. **Scenario:** A text-processing application needs to compare words and check if they are anagrams (contain the same letters in a different order).

   Write logic to determine whether two given strings are anagrams.

   a. Read the two inputs.
   b. Convert into lowercase and sort it.
   c. Compare the two words
   d. If its same. Print Anagram
   e. Else print not anagram

4. **Scenario:** A speech analysis program needs to count the number of vowel sounds in a given input.

   Write logic to count the number of vowels in a given string.

   a. Read the input
   b. Assign vowels to the variable “vowls”
   c. Get the input character one by one and compare to the “vowls”
   d. If the character present. Count the number
   e. Finally print the count

5. **Scenario:** A text-editing software includes a feature to reverse the order of words in a sentence for stylistic effects.

   Write logic to reverse the order of words in a sentence while keeping the words themselves intact.

   a. Read the input
   b. Split the input as character and stored as list
   c. Reverse the character
   d. Convert into string
   e. Print the string

6. **Scenario:** A missing number is detected in a sequence of values stored in a database.

   Write logic to find the missing number in a list containing n-1 numbers from 1 to n.

   a. Read the input as list
   b. Count the number and find the last value of the number
   c. Using for loop check the number one by one.
   d. Missing value stored to another variable.
   e. Print the missing number

7. **Scenario:** An ATM machine processes withdrawal requests and needs to ensure that users cannot withdraw more than their account balance.

   Write logic to allow a withdrawal only if the balance is sufficient.

   a. Read the withdraw amt and account balance
   b. If entered amount is less than account balance. Update account balance.
   c. Print the balance.
   d. If entered amount is greater than account balance.
   e. Print insufficient balance

8. **Scenario:** A system needs to verify whether a given dataset contains duplicate entries.

   Write logic to check whether a given list contains duplicate values.

   a. Read the input as list
   b. Find the length of the input
   c. Using set method to check the list
   d. If the length is lesser than given input. Print duplicate present

9. **Scenario:** A digital calculator includes a feature to sum the digits of a number for verification purposes.

   Write logic to calculate the sum of all digits in a given integer.

   a. Read the integer value
   b. Using for loop, iterate one by one and add each value.
   c. Print the sum

10. **Scenario:** A language-learning app wants to verify whether a given sentence is a pangram (contains every letter of the alphabet at least once).

    Write logic to check if a given sentence is a pangram.

    a. Read the two inputs
    b. Remove space and convert to lowercase
    c. Compare those two words
    d. If its match. Print given word is Anagram
    e. Else Not Anagram