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.

   Logic:

   a. Num=input(int("Enter a Number"))
   b. If(num!=IsNonNumeric): print ("Enter a Valid Number")

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.

   Logic:

   a. Declare a list, lst= [1,2,3,4,5,3,1,5]
   b. find set(lst) to get a occuring 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.

   Logic:

   a. Get Two Strings as a Input on Str1 and Str2
   b. Find the length of both strings are same
   c. Check the strings in if loop

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.

   Logic:

   a. Declare vow = a,e,i,o,u
   b. Get the user input as string
   c. Check the string contains any vow variable thru for loop and find each chars
   d. print the output repeated chars

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.

   Logic:

a. Get the Input of sentence as String
b. Break the sentence into words with length separated by space.
c. Store the words into list and Reverse the word by [::-1]
d. Order the words using set and Print the sentence

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.

   Logic:
   a. Check the list has numbers and shouldn't empty
   b. Read list of numbers
   c. Enter the missing number and find from the list using For Loop

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.

   Logic:
   a. Check the account balance is equal to 0 or less than 0
   b. If minimum or more than the account balance exist, then allow to withdraw

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.

   Logic:
   a. Check the list using set to find duplicates and remove it
   b. Print the values

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.

   Logic:
   a. Enter user input numbers using int
   b. Sum the numbers and 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.

Logic:

a. Get the sentence as User Input
b. If sentence length is equal to 0 then throw message to the user
c. Break the sentence into words
d. List the Alphabetical values from a to z in a array
e. Using for loop, read each character from the words
f. Compare the chars from list of alphabetical array with words
g. If matches continue the loop and print the pangram