1. **Scenario:** A program needs to find the second largest number in a numbers.

   Write logic to find the second largest number in a given list.

   - Get the numbers in a list
   - Put nlargest(2).iloc[-1] function and print the output

2. **Scenario:** A function needs to convert an integer to its binary representation without using Python's built-in $bin()$ function.

   - Read the number
   - Take modulus for the digits of the interger number and print the result.

   Write logic to convert a given integer to its binary representation.

3. **Scenario:** A function needs to merge two sorted lists into a single sorted list efficiently.

   Write logic to merge two sorted lists into one sorted list.

   - Initialize the two sorted lists.
   - Merge the list using merge function
   - Print the list

4. **Scenario:** A function needs to find the first non-repeating character in a string for text processing.

   Write logic to find the first non-repeating character in a given string.
   - Get the string into a list
   - Check for unique character
   - Print the first unique character

5. **Scenario:** A program needs to identify common elements between two lists for data filtering.

   Write logic to find the common elements between two lists.

   - Read the input lists
   - Compare the two list to check for common elements present
   - Print the common elements

6. **Scenario:** A function is required to reverse a given number.

   Write logic to reverse a given number.

   - o Get the number
   - o Use str[::-1] to reverse
   - o Print the number

7. **Scenario:** A program needs to count the number of words in a given sentence.

   Write logic to count the number of words in a given sentence.

   - o Get the input statement
   - o Split into words in a list and count the words.
   - o Print the output

8. **Scenario:** A function needs to compute the factorial of a number using iteration instead of recursion.

   Write logic to find the factorial of a given number using iteration.

   - o Read the number.
   - o Use factorial function for the number using iteration
   - o Print the final factorial value.

9. **Scenario:** A program is required to convert all strings in a list to uppercase.

   Write logic to convert all strings in a list to uppercase.

   - o Read the input strings in a list.
   - o Use upper() function to convert the string to uppercase.
   - o Print the output

10. **Scenario:** A function is needed to compute the greatest common divisor (GCD) of two numbers using the Euclidean algorithm.

    Write logic to calculate the GCD of two numbers using the Euclidean algorithm.