1. **Vowels and Consonants**
   Write a program that counts the number of vowels and consonants in a given string. Assume that the string only contains alphabetic characters and spaces.

2. **Palindrome**
   Write a program that checks if a given string is a palindrome (reads the same forwards and backwards). Ignore spaces and case differences.

3. **Length of a String**
   Write a program to implement your own version of the `strlen` function that calculates the length of a string without using the built-in `strlen`.

4. **Frequency of Characters**
   Write a program that takes a string as input and counts the frequency of each character in the string, ignoring case.

5. **Transpose of a Matrix**
   Write a program that computes the transpose of a given `m x n` matrix. The transpose of a matrix is obtained by swapping its rows and columns

6. **Searching in a Matrix**
   Write a program that searches for a specific integer in a `m x n` 2D matrix.

7. **Matrix Multiplication**
   Write a program to multiply two matrices. The order of the first matrix should be `p x q` and the order of the second matrix should be `q x r`. The result should be stored in a new matrix of order `p x r`.