Practice Problems [25.02.2024]

String:

- 1. Write a program in C which will take a string as input and count total number of alphabets, digits and special characters in a string.
- 2. Write down a program that will take a word as input and will determine whether the word is palindrome or not.
- 3. Write down a function that compares two strings and returns 1 if they are same and returns 0 otherwise.
- 4. Write a C program to check whether a given substring is present in the given string.

Enter a string: This is a test string.

Enter substring: **string**

Expected Output: 'string' exists as a substring in the string.

Pointer:

- 5. Using pointer arithmetic,
 - a. Write a C program to take input and print elements of an array.
 - b. Write a C program to copy one array to another.
 - c. Write a program to search for an element in an array.
 - d. Write a program to print the reverse of a string.
- 6. Write a function that to swaps two numbers using pointers.
- 7. Write a C program to access two dimensional array using pointers.
- 8. Write a program to dynamically allocate a two dimensional (m*n) array. Take the dimensions m and n as input.

Structure:

- 9. Create a structure called "Student" with members name, age, and total marks. Write a C program to input data for two students, display their information, and find the average of total marks.
- 10. Create a structure named Complex to represent a complex number with real and imaginary parts. Write a C program to add and multiply two complex numbers.