

## Practice Lab Assignment 11

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For this Practice Lab Assignment, you will write programs in C, **making use of Arrays.**

#### Instructions

- There are 10 questions in this assignment.
- Any discussion with neighbor/or any other student is strictly not allowed.
- Mobile phones are not allowed. If found, disciplinary action may be taken.

**Due Date: This is only a Practice Lab so no submission is required.**

#### Grading Criteria

No Grading Criteria.

### Programming Questions

1. Write a Program to enter 2 matrices of  $m \times n$  size and find their multiplication matrix.
2. Write a Program to search a given number in a sorted array of 'n' numbers using binary search.
3. Write a Program to find the sum of lower triangular elements in an array of ' $n \times n$ ' size.
4. Write a Program to find the sum of upper triangular elements in an array of ' $n \times n$ ' size.
5. Write a menu-driven program to sort a given array of 'n' size using (a) Bubble Sort, (b) Selection Sort & (c) Insertion Sort using call by reference.
6. Write a program to sort all the elements of a  $4 \times 4$  matrix.
7. Write a program to check whether 2 strings are anagram to each other or not. Two strings are anagrams if they are written using the same exact letters, ignoring space, punctuation and capitalization. Each letter should have the same count in both strings.

For example, Army and Mary are anagram of each other.

- 8.** Write a program that extracts part of the given string from the specified position. For example, if the string is “Working with strings is fun”, then if from position 4, 4 characters are to be extracted then the program should return string as “king”. Moreover, if the position from where the string is to be extracted is given and the number of characters to be extracted is 0 then the program should extract entire string from the specified position.
- 9.** Write a Program for Binary Search using Recursion.
- 10.** Write a program to find out a pair of two numbers in an array whose sum is closest to 0.