



## CL-210

### Data Structures

### Lab # 1 Task

#### Objectives:

- Arrays
  - Insertion
  - Searching
  - Sorting
- Pointers
- Pointer to Function
- Dynamic Memory allocation.

**Note: Carefully read the following instructions (*Each instruction contains a weightage*)**

1. There must be a block of comments at start of every question's code by students; the block should contain brief description about functionality of code.
2. Comment on every function and about its functionality.
3. Mention comments where necessary such as comments with variables, loop, classes etc to increase code understandability.
4. Use understandable name of variables.
5. Proper indentation of code is essential.
6. Write a code in C++ language.
7. First think about statement problems and then write/draw your logic on copy.
8. After copy pencil work, code the problem statement on MS Studio C++ compiler.
9. At the end when you done your tasks, attached C++ created files in MS word file and make your submission on Google Classroom. (Make sure your submission is completed).
10. Please submit your file in this format **19F1234\_L1**.
11. Do not submit your assignment after deadline. Late and email submission is not accepted.
12. Do not copy code from any source otherwise you will be penalized with negative marks.



**Problem: 1 | [1.5 - wtg] 5 marks**

Implement a function that finds common elements in two char arrays. You can assume that the sets are stored using arrays. So, if array1 = {'a','b','g','w','k','s','z','y'} and array2 is {'k','s','z','f'}, then array3 should be {'k','s','z'}. Note array3 should not have any duplicate elements. You have to:

think of all the functions that are required for this problem. Each function should perform its dedicated task. So, plan them out before implementing them.

Main should only have a set of function calls. Cannot not use the array index

**Problem: 2 | [0.25 - wtg] 2.5 marks**

Perform Deletion with respect to position and value in array. Cannot not use the array index

**Problem: 2 | [0.25 - wtg] 2.5 marks**

Perform reverse array function Cannot not use the array index

Best of luck 😊