

**CS2413: Data Structures**  
**Fall 2021**

**Lab Assignment #11**

- Release date: Nov 9th, 2021 (Tuesday)
- Due date: Nov 13th, 2021 (Saturday) 11:59 PM
- It should be done INDIVIDUALLY.
- Please turn in your codes through Blackboard in **one file in .cpp format**.  
Do **NOT** compress/zip your submission. This is to ensure faster grading.
- Please name your submission file starting with “LastName\_FirstName\_Lab11”
- Total: 20 pts

**Problem:**

In this assignment you need to implement merge sort. Merge sort algorithm is based on the principle of Divide and Conquer Algorithm.

The merge sort function recursively divides the array into halves until we reach the base case of array with 1 element. After that, the merge function picks up the sorted sub-arrays and merges them to gradually sort the entire array.

You can define an array which is not sorted in your main function. And then you need to call the merge sort function, which will sort the array. Afterwards, you need to print the sorted array.