**CS3130 (Design and Analysis of Algorithm Lab)**

**Assignment 4**

* **Date of Assignment: 23 Nov. 2021**
* **Last Date of Submission: 23 Nov. 2021**

1. Write a C program to implement Quick Sort Algorithm.

**Home Assignment:**

1. Given a binary array, sort it in linear time and constant space. Output should print all zeroes followed by all ones.

For example: Input: { 1, 0, 1, 0, 1, 0, 0, 1 } Output: { 0, 0, 0, 0, 1, 1, 1, 1 }

1. Given an array consisting of positive and negative integers, segregate them in linear time and constant space. The output should contain all positive numbers follow negative numbers. (Hint: Use concept of Quick sort).

For example: Input: [9, -3, 5, -2, -8, -6, 1, 3] Output: [-3, -2, -8, -6, 5, 9, 1, 3]

1. Given an array of integers, move all zeroes present in the array to the end. The solution should maintain the relative order of the items in the array. (Hint: Use concept of Quick sort)

***(Format to submit the assignment)***

**CS3130 (Design and Analysis of Algorithm Lab)**

**Assignment No. 4 (Date: )**

Name:

Registration:

C Program Code:

Output:

Home Assignment Code

Output