WEEK-2	SORTING AND SEARCHING TECHNIQUES
Lab A	Lab Assignment 2 (14-20th August)

1) Finish all the labs of previous week
2) An array **ARR** of n elements (where elements might not be unique) is given. It is desired to construct an array **ARRNEW** from ARR where elements of ARRNEW are the unique elements of ARR, i.e. if there are N elements in ARR out of which K (K ≤ N) elements are unique then size of the array ARRNEW is K and will contain all the unique K elements. Propose and implement an efficient scheme to create the array ARRNEW.
3) **Write a program to implement Linear search Algorithm**
4) **Implement a Binary search Algorithm without recursion**

WEEK-2	SORTING AND SEARCHING TECHNIQUES
Lab B	Lab Assignment 2 (14-20th August)

5) **Write a program to implement Bubble sort Algorithm, determine the execution time for 100, 1000, 10000 number. (generate input random)**

6) **Write a program to implement insertion sort Algorithm, determine the execution time for 100, 1000, 10000 number. (generate input random)**

7) You have been given two sorted lists of size M and N. It is desired to find the Kth smallest element out of M+N elements of both lists. Propose and implement an efficient algorithm to accomplish the task. Further, propose and implement an efficient algorithm to accomplish the task considering that elements in both lists are unsorted.

8) You have been given a sorted array **ARR** (of size M, where M is very large) of two elements, 0 and 1. It is desired to compute the count of 0s in the array ARR. Propose and implement an efficient algorithm to accomplish the task.

9) **Write a program to implement merge sort, quick sort Algorithm**