

Data structures Lab

Exercise -1

Date:14/7/25

- 1) Write a program to create a list (stores integer elements) using array and the following operations on it.**
 - a) Insertion by giving position(1,2,3..)**
 - b) Deletion by giving position**
 - c) Make empty**
 - d) Next**
 - e) previous**
 - f) Display the list**
 - g) Find given element**
 - h) Find the kth occurrence of the element**

Note: Find the best case time complexity of the above said algorithms.

- 2) Write a program to create a pointer to a structure called student. The student structure includes regno, name, mark[6], total and grade. Create an array of structures and Perform the following operations on it.**
 - a) find the total and grade**
 - b) find the name of the student who got the highest total**
 - c) sort the students based on total.**
- 3) Modify the above program to allocate memory dynamically for n students. Store the student's details in allocated memory and display the same.**