Assignment 1 (DS)

Q1. Write a C/C++ program that declares an array of length N containing integers between 1 and N. Implement menu driven program using switch case for below mentioned functionalities.

(a) insert element at index
(b) delete element at index
(c) find min val
(d) find max val
(e) display array element
(f) reverse display array element
(g) search element in array
(h) array element count
(i) avg of all array element
(j) determine if array contains any duplicates.
(k) reverse array element

Q2. Create an employee structure with the following members empid, employee name, salary, year of joining etc.

Accept the data for certain no. o of employees and find their total, average, max, min salary.

Also find out the employees with maximum, minimum service,use a function to find service for each employee element in the array.

Q3. Write C/C++ prgram which allocate and deallocate memory dynamically.
(a) Allocating 1D array dynamically and access the elements
(b) Allocating 2D array dynamically
        (1) contiguous rows with fixed no.of cols,
        (2) Non contiguous rows with variable no.of columns
(c) Allocate memory for array of structure variables dynamically and access members of each element