Foundations of Technical Programming
Week 11

You may be asked to demonstrate/explain your work to the tutor, if you are absent/unavailable or fail to demonstrate properly, zero marks will be awarded.

Task 11.1 – Sample Program

Program 11.1.c is a menu driven C program based on dynamic memory allocation. On start, this program displays the following menu

1- Add new Number

2- Display Numbers

3. Delete Numbers

4. Quit

When option 1 is selected, the program reads an integer (1 or above) and store it.

When option 2 is selected, the program displays all the stored integers (except 0).

When option 3 is selected, the program reads an integer and searches for it in the previously stored integers, if found assigns “0” as the value. (instead of deleting the number, the program assigns “0” to indicate the value has been deleted).

When option 4 is selected, the program closes.

The program displays the menu repeatedly until option 4 is selected.

The program has been designed to store any values above 0.

Task 11.2

Rewrite tasks 11.1 by enabling the program to store a structure instead of integers.

The structure to be of the following type

```
struct student {
        char name[10];
        char id[10];
        char address[100];
};
```

The program should allow the following four options

1. Add new student
2. Display all students
3. Delete student by Id
4. Delete student by Name
5. Quit

When option 3 is selected, the program should read a student Id and search for that id in the stored list of student details. If found, all the details of the student in that position to be cleared by assigning " " (blank) values. (student ID =" ", student Name = " ", student Address= " ").

When option 4 is selected, the program should close.