TP9-Using array (part 2)

Problem1: Write a program in C to find the second largest number in an array.

Example:

INPUT:

Input the size of array : 5

Input 5 numbers in the array :
Enter number 1: 2
Enter number 2: 9
Enter number 3: 1
Enter number 4: 4
Enter number 5: 6

Output:

The Second largest element in the array is : 6

Problem2: Write a C program to input 4 numbers and store in the two 2x2 matrices, say m1 and m2. Each matrix is a 2D array of 2 rows and 2 columns. int m1[2][2], m2[2][2];

a) Find the matrix m3 which is the summation of these two matrices. (m3 = m1+m2)

b) Find and display the max and min numbers in m3.

Example:

INPUT:

Enter 4 numbers for matrix m1:
2 3
3 4
Enter 4 numbers for matrix m2:
1 2
3 5

Output:

Sum of matrices (m3):
3 5
6 9
Maximum number in m3: 9
Minimum number in m3: 3

Problem3: Write a program in C to delete an element at a desired position from an array.

Example:

INPUT:

Input 5 elements in the array in ascending order:
element - 0 : 1
element - 1 : 2
element - 2 : 3
element - 3 : 4
element - 4 : 5

Input the position where to delete: 3

Output:

The new list is : 1 2 4 5

Problem4: Create a student management system program in C that allows users to perform the following actions:

1. Add a new student
2. Delete a student by Id
3. Display all students
4. Exit

Hint: Each student has three attributes Id, name, gender.

Example:

```
Student Management System
1. Add a new student
2. Delete a student by Id
3. Display all students
4. Exit
Enter your choice: 1
Enter student ID: 123
Enter student Name: dara
Enter student gender(male/female): male
Student added successfully.
```

```
Student Management System
1. Add a new student
2. Delete a student by Id
3. Display all students
4. Exit
Enter your choice: 3
All students in the list:
ID       Name    Gender
123     dara    male
124     Pisey   female
```

```
Student Management System
1. Add a new student
2. Delete a student by Id
3. Display all students
4. Exit
Enter your choice: 2
Enter student ID to delete: 124
Student deleted successfully.
```

```
Student Management System
1. Add a new student
2. Delete a student by Id
3. Display all students
4. Exit
Enter your choice: 3
All students in the list:
ID       Name    Gender
123     dara    male
```