Lab 10

Show the homework tasks first

Topic: 2D array

Task 1: Write a program that create a two-dimensional integer array named **X** of 3 by 3, and initialize it by user input, and write the following functions.
1. Write a function to print array as printArray(X);
2. Write a function that calculates the average of all the elements in the integer array named x.
3. Write a function that computes the square root of the sum of the squares of all the positive elements in array named X.
4. Write a function that take array X and an integer **num** and return true if **num** exist in X, false otherwise.

Topic: Pointer

Task2: Write a **void printAdddressValue(const char *ch)** function that out the address and the value of a character character array using pointer notation.

Task3: Write **void copyIntArray(int *dest, const int *src, int size)**function which copies an array of integers from one array to other using pointer notation.

Task4: Write the implementation of **void uppercase(char *)** function that convert the character array of lower case characters to uppercase using pointer notation.

Task5: Define a int array called t[ ] of size 20 and initialize it randomly. Send the address of the first element of the array to a function called **ReadThemAll()**. Also pass 2 integers to **ReadThemAll()**. The function will assign the array address to a pointer called p and read int numbers in all the slots between these two numbers. The **ReadThemAll()** function should not use brackets, [ ] but only the asterisk operator, *. When the function is done, have main() print out the entire array.

Task6: Write function **void addArrays(const int *a1, const int *a2, int *sum , int size)** which adds two arrays and store their sum in third array. Do all the array process with the help of pointer notation.