SOOP Lab-3
Topic: Nested Loops, One Dimensional Array

Lab Practice and Exercises:

1. Write a program to print the following series up to n terms where n is a user input.
   (1) + (1+2) +(1+2+3) + (1+2+3+4) + (1+2+3+4+5) + ……..
2. Write a program to print all the prime numbers between two given integers using ‘for’ and ‘while’ as outer and inner loop respectively.
3. Write a program to find the maximum, minimum and average from a list of floating-point numbers.
4. Write a program to make a list of integers taking input from user. Then insert a value in that list at a desired location (*not index*) which will be user input as well.

Sample Input and Output

Enter 5 integers: 2 5 0 9 1
Enter data to insert in the list: 33
Enter location to insert at: 3
List before insertion of new data: 2 5 0 9 1
List after insertion of new data: 2 5 33 0 9 1

Home Assignment 3:

1. Write separate programs to print the following patterns taking number of rows as user input.

(a)	(b)
*	a a
* *	ab bb
* * *	abc ccc
* * * *	abcd dddd
* * * * *	abcde eeeee

2. Write a program that will read an integer between 20 and 99 from user and print it out in words. You have to use **switch** statement and repeat the whole process 'n' [user input] times. Note that, you can use no more than 2 switch statements with 10 cases per switch at most.

Sample Input	**Sample Output**
Enter an integer [20-99]: 38	In words: Thirty Eight
Enter an integer [20-99]: 23	In words: Twenty Three

3. Write a program to delete duplicate elements from an array. Check this problem
4. Find k-th maximum and k-th minimum from an array.
5. Write a program to merge two sorted arrays.