

## Lab 3- Loops

1. Develop a program that will output the line of text "I love Programming", 10 times.

Demonstrate how to do this using a for-loop and a while-loop

2. Develop a program that will output the seven times table. You must use a for loop, as follows:

$1 \times 7 = 7$

$2 \times 7 = 14$

$3 \times 7 = 21 \dots$

Modify the program so the user can choose which number they want to output a multiplication table for.

Modify the program so your app continuously asks the user to enter a number.

The program then outputs the multiplication table for the specified number. The program exits when the person types -1 into the app.

3. Calculating sums.

### **Part 1:**

Develop a program that prompts the user to 5 numbers

Your program should output the sum of the 5 numbers;

### **Part 2:**

Modify your program to allow the user to enter as many numbers as they want

Your program should output the sum of all the numbers

When asking users for a number, you must use a do-while loop

**Part 3:**

Repeat Part 2, but use a while loop when asking for input

**Part 4:**

Modify the program in part 1 to output:

The average of all numbers ( sum of numbers / total numbers )

The product of all numbers (multiply all numbers and output result )

4. Develop a program that will prompt the user to 6 numbers and then print the number of positive numbers and the sum of negative numbers in the set.

For example, if user enters: 10 50 -2 30 -10 99

The program should output:

Number + numbers: 4

Sum of -ve numbers: -12

5. Develop a program to read 6 numbers and find the average of all odd numbers.
6. Develop a program that will prompt the user to enter 5 numbers and then print the smallest and largest number to the screen.