

ICS 103 – Computer Programming in C
Summer Semester 2008 (073)
Lab # 5 (Repetition)

Objective:

Learn the Repetition Structures.

Scope:

The student should know the following:

1. **for** loop
2. **while** loop
3. **do-while** loop

Exercises:

1. Write a program that reads 3 double numbers from user and at the end, prints their sum, product, and average. Use **while** loop in this program.
2. Repeat Q1 using **for** loop.
3. Repeat Q1 using **do-while** loop.
4. Improve the above program of Q1 in the following way:
Instead of just reading 3 numbers always, now the program should ask in advance from the user “How many numbers you want to enter?” Then the program should read as many numbers as user wanted. At the end, the program should print the sum, product and average of the entered numbers.
5. Improve the above program of Q4 in the following way:
When the program asks “How many numbers you want to enter?” write the code using **do-while** loop to make sure that users can enter only a positive number i.e., neither 0 nor a negative number. If user tries to enter a 0 or negative number, the program should print an error message and ask the user again: “How many numbers you want to enter?”. Then the program should read as many numbers as user wanted. At the end, the program should print the sum, product and average of the entered numbers.
6. Write a program that reads some numbers from users until **-1** is entered. For each input number, the program should display its square. Use **for** loop in this program.