# Lab 14 – Lists and Loops

Instructions:  Complete each problem. If you're struggling with a problem, feel free to ask questions on the class forum.

This lab is optional, but it gives you valuable programming experience. You should definitely complete the lab if you can.

## Problem 1 – Collect user data

Start up the IDE and create a new console application project named Lab14. Save the project in a reasonable location on the computer.

While the user has not entered -1, prompt for and get a positive integer (including 0) from the user. Valid user inputs are therefore -1, 0, and all positive integers. Use a second while loop (nested inside the first while loop) to validate the user input. Add valid positive integers to a list.

You can assume the user will only enter values that the `int.Parse` method can parse.

Make sure you don't add -1 to the list of data.

## Problem 2 – Find the maximum value in the data

Use a for or foreach loop to find the maximum value in the list. You are NOT allowed to keep track of the maximum value in the while loops from Problem 1, you have to do it separately here. Print out the maximum value after you find it.

## Problem 3 – Calculate the average of the values

Use a for or foreach loop to calculate the average of the values in the list. Print out the average.