CSCI 1120 (Low-Level Computing), Spring 2010
Homework 4

Credit: 10 points.

1 Reading

Be sure you have read, or at least skimmed, the readings for 3/29, linked from the "Lecture topics and assignments" page[1].

2 Programming Problems

Do the following programming problems. You will end up with at least one code file per problem. Submit your program source by sending mail to `bmassing@cs.trinity.edu`, with each file as an attachment. Please use a subject line that mentions the course number and the assignment (e.g., "csci 1120 homework 4"). You can develop your programs on any system that provides the needed functionality, but I will test them on one of the department's Linux machines, so you should probably make sure they work in that environment before turning them in.

1. (10 points) Write a C program that gets a sequence of integers from the user (ending with anything that's not an integer) and then prints:

   - The smallest number entered.
   - The largest number entered.
   - The average of all the numbers entered (sum of all numbers divided by how many there are).

   Here is a sample execution of the program (user input shown in italics):

   ```
   enter some integers, anything non-numeric to end
   20
   40
   -4
   4
   ruru

   minimum = -4
   maximum = 40
   average = 15.000000
   ```

   Your program should do something reasonable if no numbers are entered (e.g., print "no numbers entered"). It also should work for any number of inputs (so you probably should *not* try to use an array to store the input).

   You may (or may not) find it helpful to use constants `INT_MIN` and `INT_MAX` (the smallest and largest `int`s), defined in `limits.h`.

[1] `http://www.cs.trinity.edu/~bmassing/Classes/CS1120_2010spring/HTML/schedule.html`