CS 180 Problem Solving and OO Programming
(More) Practice Problems: Set 2
October 2, 2011

1. Write a Java program that prompts the user to enter a number. The program continues to prompt the user to enter a number until the user enters a 0. Then the program print the average of all numbers entered.

   Example:

   > Enter a number: 20.5
   > Enter a number: 10.2.
   > Enter a number: 0
   > Average of numbers entered is: 15.35

2. Modify the program written in Q1 so that the program stops asking for input after the user has entered a 0 three times. Note that the user might enter a 0 and then enter a non-zero number. Your program should keep adding the non-zero numbers entered by the user until a 0 has been entered three times.
3. Modify the program written in Q2 so that the program stops asking for numbers after the user has entered a zero three times in a row.
4. Write a Java program that reads a string of characters from the input. It counts the number times the character * occurs followed by any of the characters 'a' or 'b' and prints the count. Thus, if the input string is: ``this is *a and *b and **. Does it work **a?", then the output of your program should be 3.
5. Write a Java program that reads a positive decimal integer from the console and converts it to an equivalent binary number.
6. Modify the program in Q5 so that the new program can convert both negative and positive decimal integers to binary.