About Lab 1

Lab 1 asks you to write 4 programs. The first three all deal with different kinds of input; the fourth uses abstract classes to make a game

Part 1:Program Pyramid

Remember the Pyramid program you wrote for Part 3 of Lab 0. This had a variable SIZE that represents the number of lines in the pyramid. Part 1 of this lab asks you to make SIZE a program argument, so if you put 5 in the argument tab of the Run Configuration menu and then run the program you will see.

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    *
   ***
  *****
 *******
*********
```

The only tricky part of this is that program arguments are always strings. The Integer class has a static method ParseInt(String s) which

Part 2: Program HiLo

This part has you implement a familiar guessing game. The program chooses a number between 1 and 1000 and asks the user to guess it. For each guess the program responds whether the guess is too high or too low. This continues until the user guesses the number. Before stopping the program prints the number of guesses the user needed. This will give you practice getting input from the System.in input stream.

Note that the lab asks you to print the number the user is trying to guess, to make it easier for the graders to determine if your program is working correctly.

Part 3. Program LongestLine:

In this part you will write a program that opens a text file, whose name is an argument to the program. The program should walk through every line of the file, counting the words in each, and it should print the line that has the most words. Of course, several lines might tie for having the most words, in which case you can print any one of the longest lines.

One easy   way to count the number of words in a string is to open a scanner on the string and use it to loop through the string with hasNext( ) and next( ).

Part 4: Fighting Squirrels

This part has you complete the implementation of a simple fighting game. We give you the controller module and an abstract class for the fighters in the game. Your job is to make concrete subclasses of this abstract class that construct three different fighters.