HW2\_Assignment:

*Write your code in the file****LuckyNines.java****.****Use the IO module for all inputs and outputs.*** *Your task is to write a method called*

*public static int countLuckyNines(int lowerEnd, int upperEnd)*

*which counts and returns the number of nines that appear within a range of numbers. Your solution should make use of looping constructs.*

***In main method****, ask the user for the following information, in this order:*

1. *The lower end of the range*
2. *The upper end of the range*

*Then call****countLuckyNines(lowerEnd, upperEnd)****with the user input values;****countLuckyNines(lowerEnd, upperEnd)****returns the number of nines that appear in the sequence from lower end to upper end (inclusive).  
Hint: Some numbers have more than 1 nine, and not every 9 appears in the ones place.  
Hint2: Nested loops are helpful****On error (i.e. upper end is less than lower end) countLuckyNines returns -1.***

*Example:*

*java LuckyNines*

*100*

*150*

*RESULT: 5*

*Write your code in the file****LuckySevens.java****.****Use the IO module for all inputs and outputs.*** *Sevens are considered lucky numbers. Your task is to count the number of sevens that appear within a range of numbers. Your solution should make use of looping constructs.*

*Ask the user for the following information,****in this order****:*

1. *The lower end of the range*
2. *The upper end of the range*

*Determine the number of sevens that appear in the sequence from lower end to upper end (inclusive).  
Hint: Some numbers have more than 1 seven, and not every 7 appears in the ones place.  
Hint2: Nested loops are helpful****Exit on error.***

*Example:*

*java LuckySevens*

*100*

*150*

*RESULT: 5*

**Due at:**2016-10-26 17:00:00 -0400

**Last day to handin:**2016-10-27 00:00:00 -0400

We are no longer accepting submissions for this assessment.

*Write a program called****SmallestLargest.java****which outputs the biggest and smallest numbers in a list of numbers entered by the user.   
Ask the user for a terminating value which should be entered again when they are done inputting the list of numbers.   
First output the biggest number and then the smallest number.  
There must be at least 1 number in the list.****YOU MUST USE THE IO MODULE FOR INPUT/OUTPUT.*** *Report bad input via IO.reportBadInput() and exit on error.  
  
  
Example:*

*java SmallestLargest*

*3.00*

*5.10*

*6.20*

*9.00*

*100.00*

*17.02*

*10.73*

*19.14*

*3.00*

*RESULT: 100.00*

*RESULT: 5.10*

*Write your code in the file TwoSmallest.java.*

*We wish to write a program that takes a set of numbers and determines which are the****two****smallest.*

*Ask the user for the following information,****in this order****:*

1. *A terminating value (real number). The user will enter this value again later, to indicate that he or she is finished providing input.*
2. *A sequence of real numbers. Keep asking for numbers until the terminating value is entered.*

*Compute and output the smallest and second-smallest real number,****in that order****. It is possible for the smallest and second-smallest numbers to be the same (if the sequence contains duplicate numbers).*

*Example:*

*java TwoSmallest*

*123 [this is the terminating value, not part of the set of numbers]*

*17*

*23.5*

*10*

*15.2*

*30*

*8*

*16*

*123 [this is the terminating value again, indicating that the user is done]*

*RESULT: 8.0*

*RESULT: 10.0*