Assignment #9:

1. Write a program that plays the Hi-Lo guessing game with numbers. The program should pick a random number between 0 and 99 (inclusive), then repeatedly prompt the user to guess the number. On each guess, report to the user that he or she is correct or that the guess is high or low. Continue accepting guesses until the user guesses correctly or chooses to quit with -1 value. Count the number of guesses and report that value when the user guesses correctly. At the end of each game (by quitting or a correct guess), prompt to determine whether the user wants to play again. Continue playing games until the user chooses to stop (with -1).

import java.util.\* ;

/\*\*\* in your program \*\*\*/

Random myRandomNumber = new Random();

int myTwoDigitNumber = Math.abs( myRandomNumber.nextInt() % 100 );

1. Create two child classes, UnderGraduateStudent and GraduateStudent that will extend from the Student class (posted on Blackboard under Documents). Override the char getLetterGrade() method in each of the child classes.

For the GraduateStudent class, the lowest passing grade in the getLetterGrade() is a ‘C’.

90-100 =A

80-89 = B

70-79 =C

<70 = F

For the UnderGraduateStudent, the lowest passing grade in the getLetterGrade() is a ‘D’.

90-100 =A

80-89 = B

70-79 =C

60-69 = D

<60 =F

class UnderGraduateStudent extends Student {

}

class GraduateStudent extends Student {

}

Create a main() method in a separate class to test child classes created.