Lab 7

Instructions: Complete the steps below. Be sure to upload a copy of all your source code (.java) files to the link on Brightspace by its deadline, so that you can receive credit for this lab.

1. Write a program that reads a telephone number from the keyboard as a string of 10 digits. You should output that same telephone number formatted as (nnn)nnn-nnnn.

   Here is a sample run:

   > Enter the phone number: 9876543210
   > Formatted phone number: (987)654-3210

2. Write a program that prompts the user to enter a Social Security number in the format DDD-DD-DDDD, where D is a digit. Your program should check whether the input is valid.

   Here is a sample runs:

   > Enter a SSN: 232-23-5435
   > 232-23-5435 is a valid social security number
   > ENTER a SSN: 23-23-5435
   > 23-23-5435 is an invalid social security number

3. Write a program that asks the user to choose rock, paper, or scissors (or your own variants!) Then, it should repeat back to the user their choice, it should "reveal" its own choice, and then report the results. The program can play fairly, can always win, or can always lose—it's up to you. If RPS is unfamiliar, in the game of rock-paper- scissors, rock defeats scissors, scissors defeat paper, and paper defeats rock.

   Game rules:

   Rock beats/breaks scissors
   Scissors beats/cuts paper
   Paper beat/covers rock
   You may assume that the user will input one of rock, paper, or scissors. Case matters! We'll stick with lower case…

Hint: how can the program make a different decision of rock, paper, or scissors every run?

Here are some sample runs:

Choose your weapon: rock
The user (you) chose rock

The comp (I) chose scissors
You win!

Choose your weapon: rock
The user (you) chose rock
The comp (I) chose rock
You tied!

Choose your weapon: rock
The user (you) chose rock
The comp (I) chose paper
You lose!

Grading Guidelines: This lab is graded on a scale of **0-3 points**, assigned as follows:

- **0 -** The student did not attend the lab,
- **3 -** The solutions are complete OR the student spent the entire lab solving the required lab problems (in this case, the students may not arrive at the lab after the lab started and may not leave until the lab ends).