Homework-3

Objective:

Write a program that simulates a game of rock, paper, scissors between a human and the computer in best 2 out of 3 rounds.

Requirements:

- Functionality (80 pts)
    - No Syntax, Major Run-Time, or Major Logic Errors. (80 pts*)
        - *Code that cannot be compiled due to syntax errors is non-functional code and will receive no points for this entire section.
        - *Code that cannot be executed or tested due to major run-time or logic errors is nonfunctional code and will receive no points for this entire section.
    - Clear and Easy-To-Use Interface (10 pts)
        - Users should easily understand what the program does and how to use it.
        - Users should be prompted for input and should be able to enter data easily.
        - Users should be presented with output after major functions, operations, or calculations.
        - All the above must apply for full credit
    - Determine the winner of a round: (30 pts)
        - The player[human user] can enter either "rock", "paper" or "scissors".
            - If the player enters anything other than that the computer automatically gets a point.
        - The computer randomly selects "rock", "paper" or "scissors".
            - Use the Random class
            - You can use randomly selected integers to represent the gestures.

- For each combination either the computer scores 1 point, the player scores 1 point, or they score neither on draws.

Rock vs Paper = Paper wins
Paper vs Scissors = Scissors wins
Scissors vs Rock = Rock wins

- o Declare the Overall Winner or a Tie: (20 pts)

  - After exactly 3 rounds, the winner or a tie is declared based on the points earned.

- o Replay the Game: (20 pts)

  - The player is then asked whether or not they want to play again, and

    - if the user selects "Yes", the scores must be reset and the game starts over

    - otherwise terminate the program

- Coding Style (10 pts)

  - o Readable Code

    - Meaningful identifiers for data and methods.

    - Proper indentation that clearly identifies statements within the body of a class, a method, a branching statement, a loop statement, etc.

    - All the above must apply for full credit.

- Comments (10 pts)

  - o Your name at the beginning of the file as a single-line comment. (5 pts)

  - o At least 5 meaningful comments in addition to your name. These must describe the function of the code it is near. (5 pts)

Submission:

- Submit the .java file on Dropbox