

Assignment 4

Pseudo-Random Numbers

CEC – Computer Science

Instructor: M. Wolverton

Items Due

- Source Code for Rock-Paper-Scissors

Instructions

Complete the coding directive in an IntelliJ IDEA project with the assignment name (e.g. Rock-Paper-Scissors) and package name `ceccs`. Login to the file server at cec-code-lab.aps.edu and create a folder with the assignment name (e.g. Assignment 4). Locate the `fileName.java` (e.g. `Main.java`) files of your source code, then upload them to into the assignment folder. Code will be downloaded and archived for grading on the assignment due date.

Be careful to look at the specific requirements for each program!

Rock-Paper-Scissors

Write a command line rock-paper-scissors game where the player is versus the computer. Gameplay should be menu or text command based, and should repeat until the player issues a quit command. The game should also keep track of score.

- The player may make choices with either of two options:
 - A number or letter based menu (e.g. [1] Rock ... [0] Quit)
 - A text command based system (e.g. player types "paper" or "quit")
- Random Number Generation should be used to make the computer player's selection.
- The program should output a message after each round confirming what selections were made by each player, and indicating which player won or if a draw occurred.
- After each round, the current score statistics should be shown:
 - Human player's wins
 - Computer player's wins
 - Draw rounds.

Sample Output

```
-----
-----Rock Paper Scissors-----
-----

Choose your weapon!
[r] Rock    [p] Paper    [s] Scissors    [q] quit
s
You have chosen Scissors while the computer has chosen Paper.
Scissors cuts paper. You win!
Score -      Player: 1    Computer:0    Draw:0

Choose your weapon!
[r] Rock    [p] Paper    [s] Scissors    [q] quit
q
Goodbye.
```

Optional Challenges

- Difficulty Settings: Create a 'difficulty' setting which makes it *slightly* more or less probable for the computer to win.
- Player Select: Create an option for two human players to play.
- Random Play for Human: Create a random option for the human player each turn.