Course: CS 101

Assignment: Program 3 algorithm

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Due: September 22nd

Problem:

Rock-Paper-Scissors is an ancient and well-known game, sometimes used as a sort-of-random selection method. Of course, the game isn't truly random, since an intelligent player can observe and exploit non- random behavior of their opponent. For example, if you notice that your opponent most often chooses Paper, then you can choose Scissors (which beats Paper) in an attempt to win.

Rules of the game: Each player chooses a weapon: Rock, Paper, or Scissors, and reveals it to the other at the same time. The winner is determined by simple rules:

Rock breaks Scissors (Rock wins)

Scissors cuts Paper (Scissors wins)

Paper covers Rock (Paper wins)

If both players choose the same thing, it's a tie, and neither wins.

Algorithm:

1. Declared global variables necessary for the program. Including a variable

to display instructions for the game

1. Imported the sys module to exit the program via the exit() function
2. Use a while loop and write the code to have the computer select its

weapon out of r(rock), p(paper) or s(scissor)

1. (i) In the aforementioned loop prompt the user to choose their weapon or

h(help) for instructions

(ii) Print a warning message if the player entered an invalid character and give

the user the opportunity to choose again

(iii) If the user entered a valid input, continue playing the game

5) Compare the user's selection with the computer's selection to

to see who the winner is and display the result. Increment counters  
 for wins, losses, ties and rounds played etc

6) If the user played one or more rounds and selects q to quit, print a summary

report. The report will entail a comparison of the total rounds, wins, losses and

ties between the player and the computer. Then the program will exit.

Else, the program will just exit