

Python – Programming Assignment 11

Professor:

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Directions: Write an Object Oriented game of Rock, Paper, Scissors

In the game ROCK, PAPER, SCISSORS each player chooses a hand gesture to show and they “Throw” their gesture out at the same time. The rules are simple: PAPER beats (covers) ROCK, SCISSORS beat (cut) PAPER, and ROCK beats (crushes) SCISSORS.

Specifications:

Your code should contain the following and be properly styled: Note: If you want to code this a different way, that is okay, but it must include OOP.

- A class called Player
 - The player should have the attribute self.name which is provided by the users and the attribute self.choice which is given a default value of None.
 - The player should have three methods:
 - * throw() - a function to randomly choose one of the three throws: ROCK, PAPER, SCISSORS and save in self.choice
 - * win() - a print statement for when the player wins
 - * lose() - a print statement for when the player loses
- You will define functions to play the game. Here was my approach: Two Functions
 - play_game() - where the players each make the throw then I check if they tied, if they didn't tie I call the compare function.
 - compare() - where the players different throws are compared in a series of if/elif statements. Once I find one player wins I call player1.win() on them and player2.lose() on the other to print the results
- Main code that asks a user to input two different names, instantiates two players (player1 and player2) and then calls play_game(player1,player2) to make the game run.

Advanced Options: You could add more user input, let one player play against the computer. You could allow players to cheat and change their choice with some random probability after “looking” at their opponents hand. You could add graphics or sound files that are played only when the local player wins or loses.