

I did use AI to assist me, but it doesn't seem like I took other people's work. I'm sure I worked independently.

This is my first post.

```
import random
```

```
# Constants for the game
```

```
ROCK = 'rock'
```

```
PAPER = 'paper'
```

```
SCISSORS = 'scissors'
```

```
MOVES = [ROCK, PAPER, SCISSORS]
```

```
# Base class for a player
```

```
class Player:
```

```
    def move(self):
```

```
        pass
```

```
    def learn(self, opponent_move):
```

```
        pass
```

```
# Human player
```

```
class Human(Player):
```

```
    def move(self):
```

```
        move = input("Enter your move (rock, paper, scissors): ").lower()
```

```
        while move not in MOVES:
```

```
            move = input("Invalid move. Please try again (rock, paper, scissors): ").lower()
```

```
        return move
```

```
# Computer player that always plays 'rock'
```

```
class RockPlayer(Player):
```

```
def move(self):  
    return ROCK
```

Computer player that chooses a move randomly

```
class RandomPlayer(Player):  
    def move(self):  
        return random.choice(MOVES)
```

Computer player that mimics the opponent's last move

```
class ReflectPlayer(Player):  
    def __init__(self):  
        self.opponent_last_move = None  
  
    def move(self):  
        if self.opponent_last_move:  
            return self.opponent_last_move  
        else:  
            return random.choice(MOVES)  
  
    def learn(self, opponent_move):  
        self.opponent_last_move = opponent_move
```

Computer player that cycles through the three moves

```
class CyclePlayer(Player):  
    def __init__(self):  
        self.index = 0  
  
    def move(self):  
        move = MOVES[self.index]
```

```
self.index = (self.index + 1) % len(MOVES)

return move
```

Main class for the game

class Game:

```
def __init__(self, player1, player2):
```

```
    self.player1 = player1
```

```
    self.player2 = player2
```

```
    self.score1 = 0
```

```
    self.score2 = 0
```

```
def play_round(self):
```

```
    move1 = self.player1.move()
```

```
    move2 = self.player2.move()
```

```
    print(f"Player 1 chooses: {move1} - Player 2 chooses: {move2}")
```

```
    winner = self.determine_winner(move1, move2)
```

```
    if winner == 1:
```

```
        self.score1 += 1
```

```
        print("Player 1 wins this round!")
```

```
    elif winner == 2:
```

```
        self.score2 += 1
```

```
        print("Player 2 wins this round!")
```

```
    else:
```

```
        print("It's a tie!")
```

```
    print(f"Scores: Player 1 - {self.score1}, Player 2 - {self.score2}")
```

```
    self.player1.learn(move2)
```

```

self.player2.learn(move1)

def determine_winner(self, move1, move2):
    if move1 == move2:
        return 0
    elif (move1 == ROCK and move2 == SCISSORS) or \
         (move1 == PAPER and move2 == ROCK) or \
         (move1 == SCISSORS and move2 == PAPER):
        return 1
    else:
        return 2

def play_game(self, rounds):
    print("Starting the Rock-Paper-Scissors game!")
    for round in range(1, rounds + 1):
        print(f"\nRound {round}:")
        self.play_round()
    print("\nGame over!")
    print(f"Final scores: Player 1 - {self.score1}, Player 2 - {self.score2}")

# Run the program
if __name__ == '__main__':
    human = Human()
    computer = random.choice([RockPlayer(), RandomPlayer(), ReflectPlayer(), CyclePlayer()])
    game = Game(human, computer)
    game.play_game(3)

```

Then I realized that the assignment was wrong compared to the architecture of the rps.py file in workspace, so I asked [GPT](#) to help me edit it.

This my prompt



```
Tạo code base theo nội dung này nhá
#!/usr/bin/env python3

"""This program plays a game of Rock, Paper, Scissors between two
Players,
and reports both Player's scores each round."""

moves = ['rock', 'paper', 'scissors']

"""The Player class is the parent class for all of the Players
in this game"""

class Player:
    def move(self):
        return 'rock'

    def learn(self, my_move, their_move):
        pass

def beats(one, two):
    return ((one == 'rock' and two == 'scissors') or
            (one == 'scissors' and two == 'paper') or
            (one == 'paper' and two == 'rock'))

class Game:
    def __init__(self, p1, p2):
        self.p1 = p1
        self.p2 = p2

    def play_round(self):
```

Later in the previous lesson I added the function to record scores so I added them to my work.
Finally I used the file: `pycodestyle_export_csv.py` to check for `pycodestyle` errors

It will output `pycodestyle` errors to `csv result.csv`
I asked GPT to fix the `pycodestyle` error for me



Fix pycodesyle giúp tôi nha

File,Line,Column,Error

```
./rps.py,3,80,E501 line too long (92 > 79 characters)
./rps.py,4,80,E501 line too long (80 > 79 characters)
./rps.py,15,1,"E302 expected 2 blank lines, found 1"
./rps.py,26,1,"E302 expected 2 blank lines, found 1"
./rps.py,28,80,E501 line too long (87 > 79 characters)
./rps.py,30,80,E501 line too long (92 > 79 characters)
./rps.py,34,1,"E302 expected 2 blank lines, found 1"
./rps.py,39,1,"E302 expected 2 blank lines, found 1"
./rps.py,44,1,"E302 expected 2 blank lines, found 1"
./rps.py,59,1,"E302 expected 2 blank lines, found 1"
./rps.py,69,1,"E302 expected 2 blank lines, found 1"
./rps.py,74,1,"E302 expected 2 blank lines, found 1"
./rps.py,80,80,E501 line too long (96 > 79 characters)
./rps.py,81,80,E501 line too long (82 > 79 characters)
./rps.py,91,1,W293 blank line contains whitespace
./rps.py,102,80,E501 line too long (90 > 79 characters)
./rps.py,105,80,E501 line too long (95 > 79 characters)
./rps.py,118,80,E501 line too long (94 > 79 characters)
./rps.py,120,80,E501 line too long (104 > 79 characters)
./rps.py,122,1,"E305 expected 2 blank lines after class or function
definition, found 1"
./rps.py,128,1,W293 blank line contains whitespace
./rps.py,136,1,W293 blank line contains whitespace
./rps.py,139,1,W293 blank line contains whitespace
```



Here's the updated code with the `pycodestyle` issues fixed:

python



Sao chép mã

Then I checked again and saw if GPT fixed pycodestyle by running the `pycodestyle_export_csv.py` file again.

Then I checked that the code was correct according to the requirements on the rubric and I submitted the codes.