Artificial Intelligence and Data Science Department

Subject/Odd Sem 2023-23/Experiment 6

Program: Imperfect information game - ROCK PAPER SCISSORS

```
import random
1.
   def get player choice():
        return random.choice(["Rock", "Paper", "Scissors"])
   def determine winner(player1 choice, player2 choice):
       if player1 choice == player2 choice:
            return "It's a tie!"
       elif (
            (player1 choice == "Rock" and player2 choice == "Scissors")
    or
            (player1 choice == "Scissors" and player2 choice ==
    "Paper") or
            (player1 choice == "Paper" and player2 choice == "Rock")
        ):
            return "Player 1 wins!"
        else:
            return "Player 2 wins!"
   def play imperfect information game():
       print("Welcome to the Rock, Paper, Scissors Imperfect
    Information Game!")
        input("Press Enter to reveal your choices...")
       player1 choice = get player choice()
       player2 choice = get player choice()
       print(f"Player 1 chose: {player1 choice}")
       print(f"Player 2 chose: {player2 choice}")
```



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```
result = determine_winner(player1_choice, player2_choice)
    print(result)

if __name__ == "__main__":
    play_imperfect_information_game()
```

Output

```
Welcome to the Rock, Paper, Scissors Imperfect Information Game!
Press Enter to reveal your choices...Rock
Player 1 chose: Paper
Player 2 chose: Scissors
Player 2 wins!
```

```
Welcome to the Rock, Paper, Scissors Imperfect Information Game!
Press Enter to reveal your choices...Paper
Player 1 chose: Scissors
Player 2 chose: Paper
Player 1 wins!
```

```
Welcome to the Rock, Paper, Scissors Imperfect Information Game!
Press Enter to reveal your choices...
Player 1 chose: Rock
Player 2 chose: Rock
It's a tie!
```