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Task Solutions

Q1. The three gestures used in base Rock Paper Scissors are rock, paper, and scissors. The way these are scored is as such: Rock beats Scissors, Scissors beats Paper, Paper beats Rock. It gets a lot more complicated when you introduce new gestures, but let's keep it simple for now. We're definitely going to need a way to decide who has won and who has lost, or whether the round has ended in a draw. Using the rules provided, give us an engine for deciding this based on the player's moves. Rock Beats Scissors As a player, I want rock to beat scissors. So that I can play with rules I'm familiar with.

• Given I have chosen rock When the opponent chooses scissors Then I should win. • Given I have chosen scissors When the opponent chooses rock Then they should win Scissors Beats Paper As a player, I want scissors to beat paper. So that I can play with rules I'm familiar with.

• Given I have chosen scissors When the opponent chooses paper Then I should win. • Given I have chosen paper When the opponent chooses scissors Then they should win. Paper Beats Rock As a player, I want paper to beat rock. So that I can play with rules I'm familiar with.

• Given I have chosen paper When the opponent chooses rock Then I should win. • Given I have chosen rock When the opponent chooses paper Then they should win. Same move results in Draw As a player, I want the same moves to draw. So that I can play with rules I'm familiar with.

• Given I have chosen rock When the opponent chooses rock Then it should be a draw.

• Given I have chosen paper When the opponent chooses paper Then it should be a draw.

• Given I have chosen scissors When the opponent chooses scissors Then it should be a draw. Some rules to keep in mind

- In a Single file the developer needs to store the player's name and the highest score
- Developer need to display the highest score when any person starts a new game
- If any player beats the highest score then his/her score should be updated as the highest score for the game
- The score cannot be in negative value and the file in which developer is storing user's data should provide the information when it is required to be fetched and if not able to find then proper handling of this scenario should be there
- Until and unless user wants to quit the game the playing option should be available

Answer:

```
import random
options=['Rock','Paper','Scissor']
name=input("Enter your name :")
ComputerScore=0
PlayerScore=0
NumberOfRounds=0
gameOn=True
print(f"Welcome {name.title()}")
while NumberOfRounds<5:
  ComputerOption=random.choice(options)
  PlayerOption=input("Enter Rock/ Paper/ Scissor :").title()
  print(f"Computer option :{ComputerOption}")
  print(f"{name.title()} option :{PlayerOption}")
  NumberOfRounds += 1
```

```
  if ComputerOption==PlayerOption:
    print('Tie')
  elif (ComputerOption=='Rock' and PlayerOption == 'Scissor') or
(ComputerOption=='Scissor' and PlayerOption=='Paper') or
(ComputerOption=='Paper' and ComputerOption=='Rock'):
    print("Computer wins")
    ComputerScore += 1
  elif (PlayerOption=='Rock' and ComputerOption == 'Scissor') or
(PlayerOption=='Scissor' and ComputerOption=='Paper') or
(PlayerOption=='Paper' and ComputerOption=='Rock'):
    print(f"{name.title()} wins")
    PlayerScore += 1
  else:
    print("Choose a valid option to play this game.")
  print("------------------------")
  print("")
  print(f"Round No: {NumberOfRounds}")
  print("------ Score Board ------")
  print(f"{name.title()}: {PlayerScore} | Computer: {ComputerScore}")
  print("================================")
  print("")
  if NumberOfRounds==5:
    gameOn=False
    break
if PlayerScore==ComputerScore:
  print("Draw!!")
```

```
elif PlayerScore>ComputerScore:
  print(f"Congrats {name.title()}, You won the game!!")
else:
  print(f"Oops Computer won the game!! Better luck next time {name.title()}!")
```

OUTPUT

```
Enter your name :Wasim
Welcome Wasim
Enter Rock/ Paper/ Scissor :Paper
Computer option :Rock
Wasim option :Paper
Wasim wins
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Round No: 1
------ Score Board ------
Wasim: 1 | Computer: 0
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Enter Rock/ Paper/ Scissor :Scissor
Computer option :Scissor
Wasim option :Scissor
Tie
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Round No: 2
------ Score Board ------
Wasim: 1 | Computer: 0
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Enter Rock/ Paper/ Scissor :Scissor
Computer option :Paper
Wasim option :Scissor
Wasim wins
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Round No: 3
------ Score Board ------
Wasim: 2 | Computer: 0
==============================

Enter Rock/ Paper/ Scissor :
```