Rock Paper Scissors

Python is a multipurpose language and one can do anything with it. Python can also be used for game development. Let’s create a simple command-line Rock-Paper-Scissor game without using any external game libraries like PyGame. In this game, the user gets the first chance to pick the option between Rock, paper, and scissors. After the computer select from the remaining two choices(randomly), the winner is decided as per the rules.

**Winning Rules as follows:**

Rock vs paper-> paper wins

Rock vs scissor-> Rock wins

paper vs scissor-> scissor wins.

In this game, [randint()](https://www.geeksforgeeks.org/python-randint-function/) inbuilt function is used for generating random integer values within the given range.

Solution:

# import random module

import random

# print multiline instruction

# performstring concatenation of string

print('Winning rules of the game ROCK PAPER SCISSORS are :\n'

      + "Rock vs Paper -> Paper wins \n"

      + "Rock vs Scissors -> Rock wins \n"

      + "Paper vs Scissors -> Scissor wins \n")

while True:

    print("Enter your choice \n 1 - Rock \n 2 - Paper \n 3 - Scissors \n")

    # take the input from user

    choice=int(input("Enter your choice :"))

     # OR is the short-circuit operator

    # if any one of the condition is true

    # then it return True value

    # looping until user enter invalid input

    while choice > 3 or choice <1:

      choice=int(input('Enter a valid choice please ☺'))

        # initialize value of choice\_name variable

    # corresponding to the choice value

    if choice == 1:

        choice\_name= 'Rock'

    elif choice == 2:

        choice\_name= 'Paper'

    else:

        choice\_name= 'Scissors'

        # print user choice

    print('User choice is \n',choice\_name)

    print('Now its Computers Turn....')

    # Computer chooses randomly any number

    # among 1 , 2 and 3. Using randint method

    # of random module

    comp\_choice = random.randint(1,3)

    # looping until comp\_choice value

    # is equal to the choice value

    while comp\_choice == choice:

        comp\_choice = random.randint(1,3)

     # initialize value of comp\_choice\_name

    # variable corresponding to the choice value

    if comp\_choice == 1:

        comp\_choice\_name = 'rocK'

    elif comp\_choice == 2:

        comp\_choice\_name = 'papeR'

    else:

        comp\_choice\_name = 'scissoR'

    print("Computer choice is \n", comp\_choice\_name)

    print(choice\_name,'Vs',comp\_choice\_name)

    # we need to check of a draw

    if choice == comp\_choice:

        print('Its a Draw',end="")

        result="DRAW"

    # condition for winning

    if (choice==1 and comp\_choice==2):

        print('paper wins =>',end="")

        result='papeR'

    elif (choice==2 and comp\_choice==1):

        print('paper wins =>',end="")

        result='Paper'

    if (choice==1 and comp\_choice==3):

        print('Rock wins =>\n',end= "")

        result='Rock'

    elif (choice==3 and comp\_choice==1):

        print('Rock wins =>\n',end= "")

        result='rocK'

    if (choice==2 and comp\_choice==3):

        print('Scissors wins =>',end="")

        result='scissoR'

    elif (choice==3 and comp\_choice==2):

        print('Scissors wins =>',end="")

        result='Rock'

     # Printing either user or computer wins or draw

    if result == 'DRAW':

        print("<== Its a tie ==>")

    if result == choice\_name:

        print("<== User wins ==>")

    else:

        print("<== Computer wins ==>")

    print("Do you want to play again? (Y/N)")

    # if user input n or N then condition is True

    ans = input().lower

    if ans =='n':

        break

# after coming out of the while loop

# we print thanks for playing

print("thanks for playing")

Expected output:

winning Rules of the Rock paper and scissor game as follows:

rock vs paper->paper wins

rock vs scissors->rock wins

paper vs scissors->scissors wins

Enter choice

1. Rock

2. paper

3. scissor

User turn: 1

User choice is: Rock

Now its computer turn.......

computer choice is: paper

Rock V/s paper

paper wins =>computer wins

do you want to play again?

N