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Beginner Python exercises



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Rock Paper Scissors Solutions

Exercise 8

Make a two-player Rock-Paper-Scissors game. (*Hint: Ask for player plays (using `input`), compare them, print out a message of congratulations to the winner, and ask if the players want to start a new game*)

Remember the rules:

- Rock beats scissors
- Scissors beats paper
- Paper beats rock

Sample solution

```
1  import sys
2
3  user1 = input("What's your name?")
4  user2 = input("And your name?")
5  user1_answer = input("%s, do yo want to choose rock, paper or scissors?" % user1)
6  user2_answer = input("%s, do you want to choose rock, paper or scissors?" % user2)
7
8  def compare(u1, u2):
9      if u1 == u2:
10         return("It's a tie!")
11     elif u1 == 'rock':
12         if u2 == 'scissors':
13             return("Rock wins!")
14         else:
15             return("Paper wins!")
16     elif u1 == 'scissors':
17         if u2 == 'paper':
18             return("Scissors win!")
19         else:
20             return("Rock wins!")
21     elif u1 == 'paper':
```

```
22         if u2 == 'rock':
23             return("Paper wins!")
24         else:
25             return("Scissors win!")
26     else:
27         return("Invalid input! You have not entered rock, paper or scissors, try again.")
28     sys.exit()
29
30 print(compare(user1_answer, user2_answer))
```

rockpaperscissors.py hosted with [by GitHub](#)

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Another sample solution uses a clever way of checking the winner:


```
1  print('''Please pick one:
2      rock
3      scissors
4      paper''')
5
6  while True:
7      game_dict = {'rock': 1, 'scissors': 2, 'paper': 3}
8      player_a = str(input("Player a: "))
9      player_b = str(input("Player b: "))
10     a = game_dict.get(player_a)
11     b = game_dict.get(player_b)
12     dif = a - b
13
14     if dif in [-1, 2]:
15         print('player a wins.')
16         if str(input('Do you want to play another game, yes or no?\n')) == 'yes':
17             continue
18         else:
19             print('game over.')
20             break
21     elif dif in [-2, 1]:
22         print('player b wins.')
23         if str(input('Do you want to play another game, yes or no?\n')) == 'yes':
24             continue
25         else:
26             print('game over.')
27             break
28     else:
29         print('Draw.Please continue.')
30     print('')
```

rock, paper, scissors game hosted with [by GitHub](#)

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**trinidad75us** • 3 years ago

this solution does not have the new game function you describe.

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It's just an example solution, and given this template, you can image it isn't that hard to add a "new game" function with the addition of a careful `while` loop around the entire function.

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Can you explain how to do it, please?

  • Reply • Share ›**Smarf** → Nikolai Krumov • 21 days ago

At the beginning create a new_game variable set to "Y". Then while new_game is "Y" (or not "N") run your code.

```
new_game = "y"
while new_game == "y":
.....code here
```

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A SIMPLE AND REDABLE SOLUTION:

```
def ppt():
    cont1 = 0
    cont2 = 0
    name1 = input("Jugador 1 Ingrese su nick")
    name2 = input("Jugador 2 Ingrese su nick")
    salir = ""
    print("*****PIEDRA-PAPEL-TIJERA****")
    while salir != "s" and salir != "S":
        print("\n a. Piedra b. Papel c. Tijera \n")
        player1 = input("%s elige piedra,papel o tijera : " % name1)
        while not (player1 == "a" or player1 == "b" or player1 == "c"):
            print(" Ingrese una opción valida")
        print("\n a. Piedra b. Papel c. Tijera \n")
```

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