

## پایتون کد : Listing ۱

```
1 def whoWins(user, comp):
2     '''Determine winner,
3         Input:  user's and computer's choice
4         Output: "user", "computer" or "tie"
5         '''
6     winList = [('paper', 'rock'),
7                ('scissors', 'paper'),
8                ('rock', 'scissors')]
9     if user == comp:
10        win = 'tie'
11    elif (user, comp) in winList:
12        win = 'user'
13    else:
14        win = 'computer'
15    return win
16
17 def getComp():
18     '''Get computer choice
19         Input:  None
20         Output: "paper", "rock" or "scissors"
21         '''
22    import random
23    things = ['paper', 'rock', 'scissors']
24    pick = random.choice(things)
25    print("Computer picks", pick)
26    return pick
27
28 def getUser():
29     '''Get user input
30         Input:  None
31         Output: "paper", "rock", "scissors" or "quit"
32         '''
33    cmdList = ["paper", "rock", "scissors", "quit"]
34    while True:
35        n = input("Human: enter rock, scissors, paper or
quit:")
36        if n not in cmdList :
37            print ( " Bad input ; try again " )
38        else :
39            break
40    return n
41
42 def showResult(score):
43     '''Show game result
```

```
44     Input:  Scores
45     Output: None
46     '''
47     print('')
48     print(format("Game Finished","*^50"))
49     print(format("Player", " <20"),format("Score", " <20"))
50     print(format('-', '-^40'))
51     for key, value in score.items():
52         print(format(key, ' <20'),format(value, ' <20'))
53
54 if __name__ == "__main__":
55     score = {"user":0, "computer":0, "tie":0}
56     while True:
57         userchoice = getUser()
58         if userchoice == "quit":
59             break
60         compchoice = getComp()
61         winner = whoWins(userchoice, compchoice)
62         score[winner] += 1
63     showResult(score)
```