ROCK PAPER SCISSORS

21CSS101J – PROGRAMMING FOR PROBLEM SOLVING

Mini Project Report

Submitted by

Student Name-Yeshwant Nanda m
[Reg. No.: RA2211003011973]
B.Tech. CSE – CSC(CORE)

Student Name-Mohan Nagal
[Reg. No.: RA2211003011960]
B.Tech. CSE – CSC(CORE)

SCHOOL OF COMPUTING
COLLEGE OF ENGINEERING AND TECHNOLOGY
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
(Under Section 3 of UGC Act, 1956)

S.R.M. NAGAR, KATTANKULATHUR – 603 203
KANCHEEPURAM DISTRICT

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PROBLEM STATEMENT:

THE GAME WILL CONSISTS OF EXACTLY THREE ROUNDS OF ROCK-PAPER-SCISSORS.A PLAYER WILL NEED TO WIN THE MAJORITY OF THREE ROUNDS TO WIN THE GAME.THE GAME WILL RESULT IN A TIE IF NO PLAYER WINS THE MAJORITY OF THE ROUNDS..

PROCEDURE:

1. The computer generates a random number in the range of 1 through 3 (1 - computer has chosen rock, 2 - the computer has chosen scissors, 3 - the computer has chosen paper).
2. The user enters his or her choice of "rock", "paper", or "scissors" at the keyboard.
3. The computer's choice is displayed.
4. The winner is selected according to the following rules:
   Rock smashes scissors (win for Rock)
   Scissors cut paper (win for Scissors)
   Paper wraps rock (win for Paper)
   Choices are the same, draw (no winner)
5. The winner will score one point
6. When the game is over, the computer displays the scores and the winner.

The import statement is placed at the top of the file, before any functions are defined. The function to use is called randint(begin, end). The two parameters represent the beginning and ending numbers to use to generate a random number. The syntax to call a library function is to

write the name of function followed by the dot operator (.) followed by the function name and parameters. For this problem, a random number between 1 and 3 can be generated by this statement:

choice = random.randint(1, 3)

CODING:

```python
import random

user_wins = 0
computer_wins = 0

options = ["rock", "paper", "scissors"]

while True:
    user_input = input("Type Rock/Paper/Scissors or Q to quit:
").lower()
    if user_input == "q":
        break

    if user_input not in options:
        continue

    random_number = random.randint(0, 2)
    # rock: 0, paper: 1, scissors: 2
    computer_pick = options[random_number]
    print("Computer picked", computer_pick + ".")

    if user_input == "rock" and computer_pick == "scissors":

        print("You won!")
        user_wins += 1

    elif user_input == "paper" and computer_pick == "rock":
        print("You won!")
        user_wins += 1

    elif user_input == "scissors" and computer_pick == "paper":

        print("You won!")
        user_wins += 1

    else:
        print("You lost!")
        computer_wins += 1

print("WIN WIN", user_wins, "times.")
print("LOSERRRRR!", computer_wins, "times.")
print("GG'S")
```

RESULTS:

```
"D:\Rock paper scissors PYTHON\venv\Scripts\python.exe" "D:\Rock paper scissors PYTHON\main.py"
Type Rock/Paper/Scissors or Q to quit: ROCK
Computer picked paper.
You lost!
Type Rock/Paper/Scissors or Q to quit: PAPER
Computer picked scissors.
You lost!
Type Rock/Paper/Scissors or Q to quit: SCISSORS
Computer picked scissors.
You lost!
Type Rock/Paper/Scissors or Q to quit: Q
WIN WIN 0 times.
LOSERRRRR!! 3 times.
GG'S

Process finished with exit code 0
```

CONCLUSION:

As resulted above the program and result has successfully executed.so enjoy playing😉

THANK YOU….