**ROCK, PAPER AND SCISSOR**

The majority of people have played the game “Rock-Paper-Scissors”. Rock-Paper-Scissors originated from China and is a hand game between two players. Each player has three strategies at their disposal: playing rock, playing paper, or playing scissors. The core idea behind this game is that rock beats scissors, scissors beat paper, and paper beats rock. So when both players raise their hands, they can either lose, win, or tie by using the same hand gesture. In theory, this game should be fair no matter the strategy chosen as there is not best response to any option.

**LET’S GET START**

**Step 1:- import random module.**

Random module is used to choice random choices.

**Step 2:- while True.**

The meaning of while True is infinite loop. The use of infinite loop is continuing playing game without restarting the program.

**Step 3:- Taking user input and computer input.**

*print("\n Press 0 for Rock, Press 1 for Paper and Press 2 for Scissor and Press 4 for exit: \n")*

*comp = random.randint(0, 2)*

*user = int(input("Your choice : "))*

In comp variable we import **randint()** function from **random module** for computer random choices.

User choices: - *Press 0 for Rock, Press 1 for Paper and Press 2 for Scissor and Press 4 for exit.*

**Step 4:- Now checking of the condition with “check” function.**

In this function we can check the result of the match. The “check()” function returns the value 0, -1 and 1.

*def check(comp, user):*

*if comp ==user:*

*return 0*

*if(comp == 0 and user ==1):*

*return -1*

*if(comp == 1 and user ==2):*

*return -1*

*if(comp == 2 and user == 0):*

*return -1*

*return 1*

**Step 4:- Assigning the value of “check()” function into “score” variable.**

*score = check(comp, user)*

**Step 5:- Convert user’s ]userChoice(user)] and computer choices {computerChoice(comp)}**

**Into words.**

In these **[userChoice(user)]** and **[computerChoice(comp)]** function we convert the user choice

Computer choice into words. Like: - **0 = Rock, 1= Paper and 3 = “Scissor”**.

*# Convert user's choice into words.*

*def userChoice(user):*

*if(user == 0):*

*print("Your choice is: Rock")*

*if(user == 1):*

*print("Your choice is: Paper")*

*if(user == 2):*

*print("Your choice is: Scissor")*

*if(user > 2):*

*exit()*

*# Convert computer's choice into words*

*def computerChoice(comp):*

*if(comp == 0):*

*print("Computer choice is: Rock")*

*if(comp == 1):*

*print("Computer choice is: Paper")*

*if(comp == 2):*

*print("Computer choice is: Scissor")*

**Step 6:- Printing both choices.**

*userChoice(user)*

*computerChoice(comp)*

**Step 7:- Printing result of the match.**

Now print the result according to **score** variable:-

**If score = 0, Match is draw.**

**If score = -1, User’s victory.**

**Otherwise, Computer’s victory.**

*if(score == 0):*

*print("Its a draw")*

*elif (score == -1):*

*print("You Won")*

*else:*

*print("You Lose")*