Rock ,Paper & Scissor

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INTRODUCTION

▶ The game of Rock, Paper, Scissors is a handy game usually played with two people (although technically it can have many players). Hand movements are like rock (with a closed fist), scissors (with V-shaped fingers), or paper (with a flat hand). Paper beats rock, rock beats scissors and scissors beats paper. Two or more players will simultaneously select the touch of their hand (called a rock, paper, or scissors) and the winner is determined by the touch of the other. If the touch is the same it means it is equal and no player wins.

PROBLEM STATEMENT

Design a program that lets the user play the game of Rock, Paper, Scissors against the computer.
Enclose the game in a loop so that it can be played as long as the user wants. Here is how each round of the game should work:

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 and will score one point
5. When the game is over, the computer displays the scores and the winner.
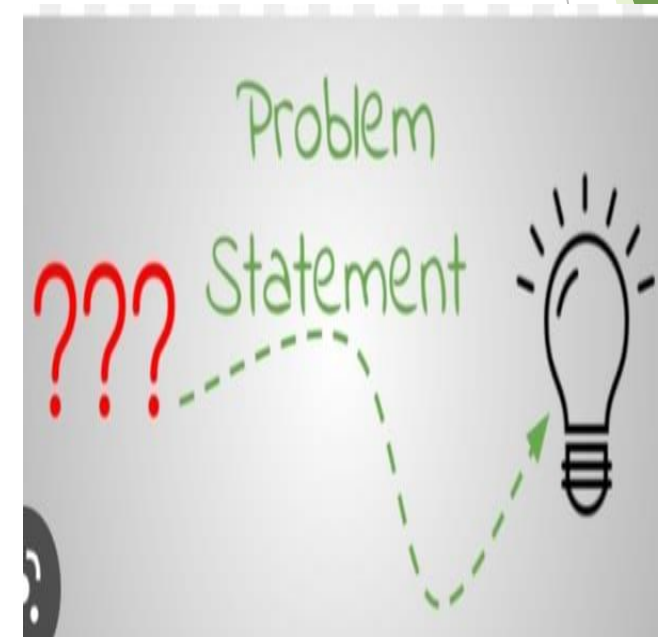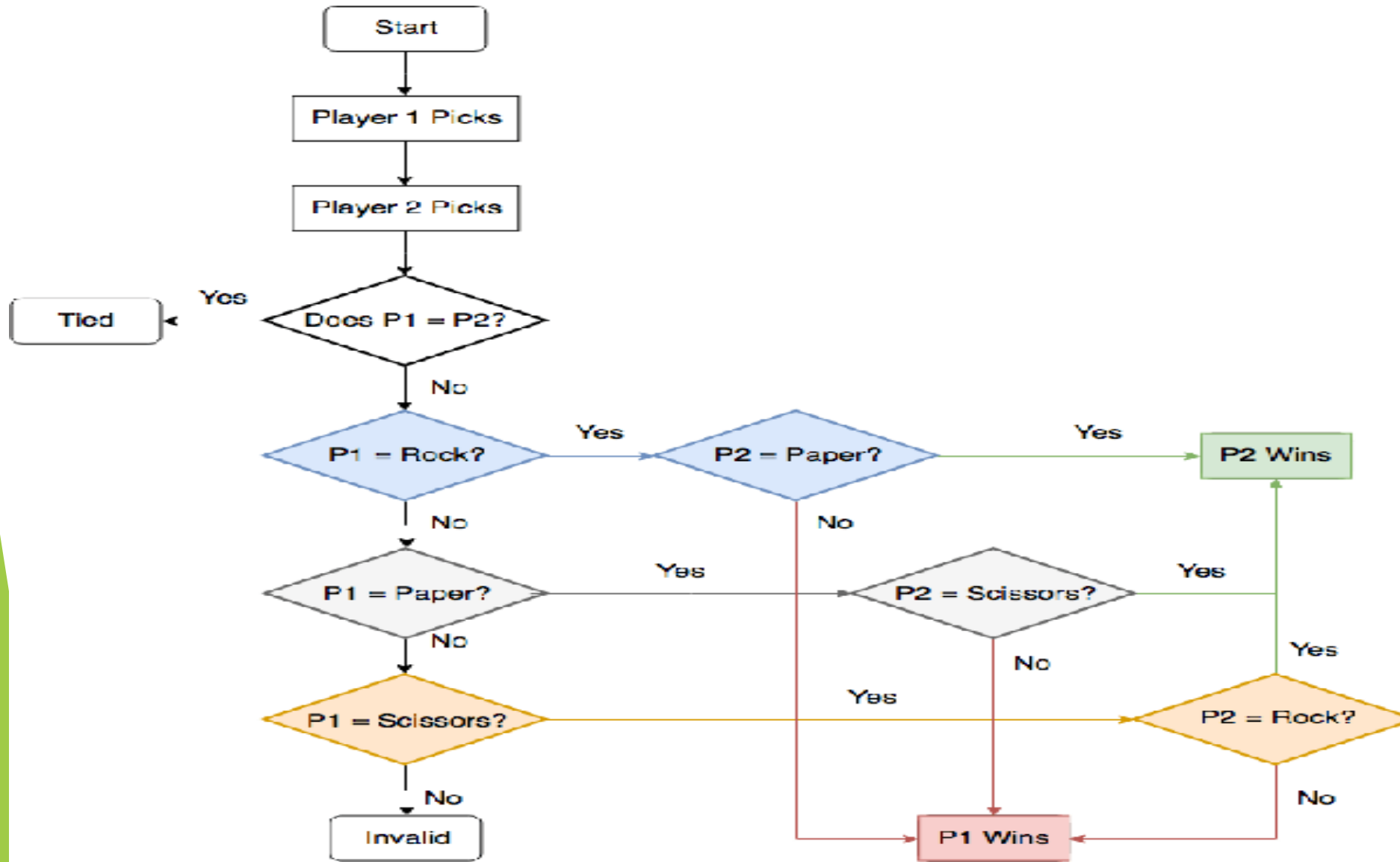
AIM AND OBJECTIVE

The object of the rock-paper-scissor python project is to build a game for a single player that plays with a computer, anywhere, and anytime. This project is base on the rules that: rock blunts scissors so rock wins. scissors cut the paper so scissors win.
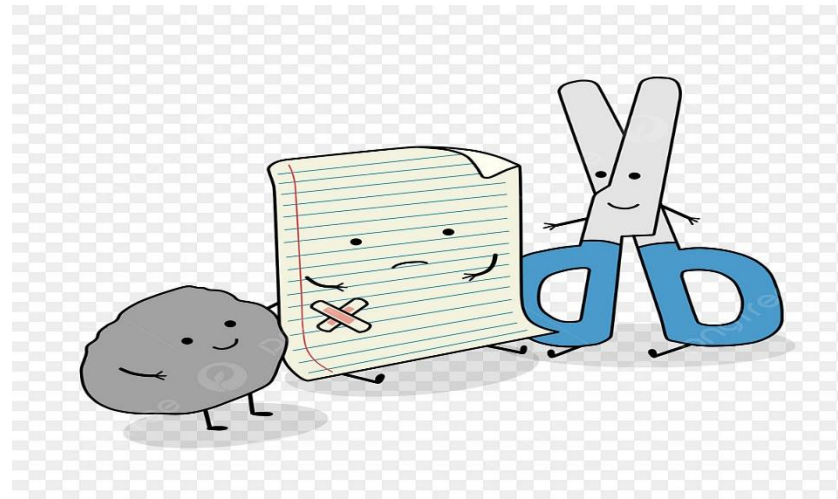
Methodology…

RESULT AND ANALYSIS

Winning Rules of the rock paper and scissor game as follows:
Rock vs paper =>paper wins
Rock vs scissor => rock wins
Paper vs scissor=> 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 vs paper
Paper wins=> computer wins
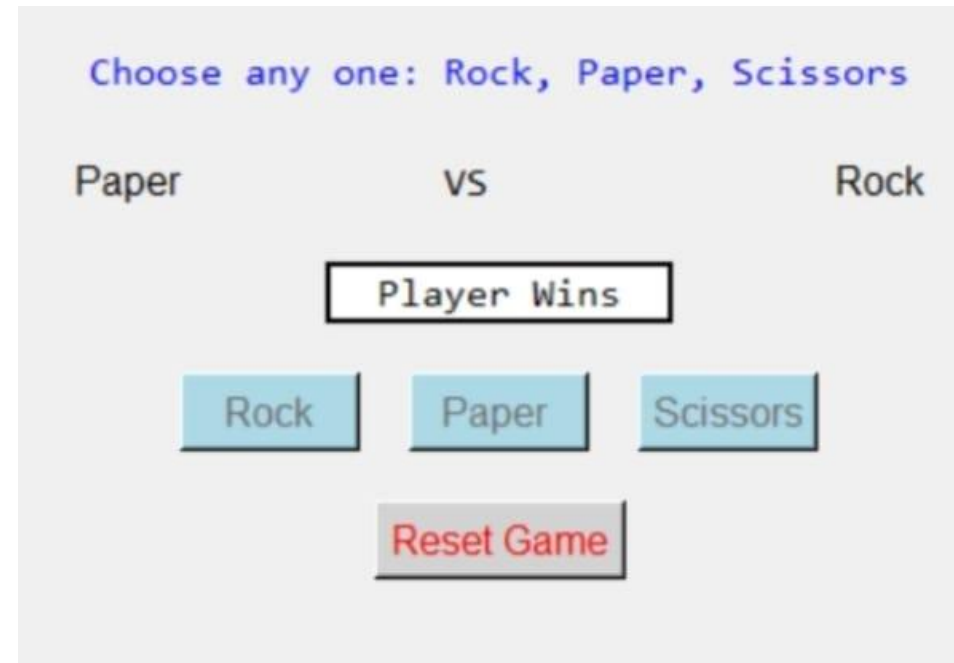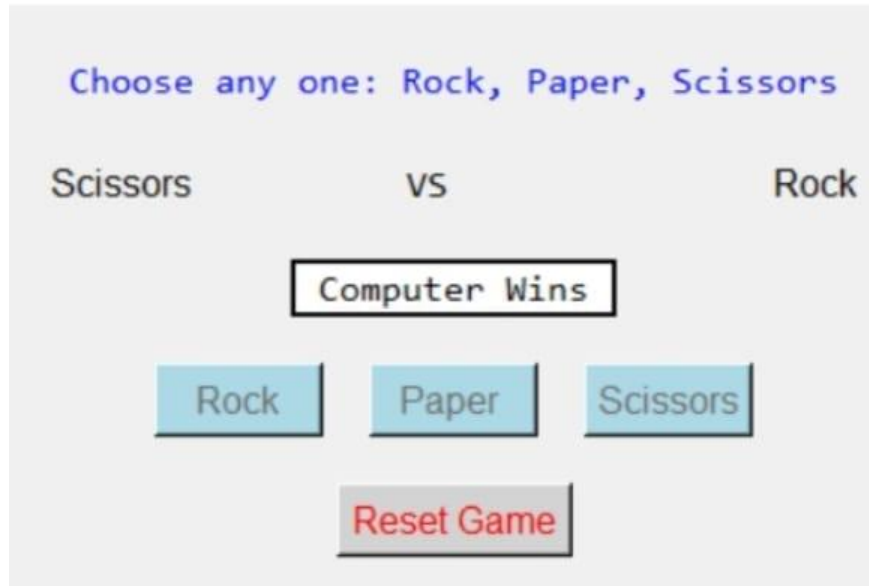Do you want to play again?

-Output of the code


```
Rock, Paper, Scissors?Paper
Tie!
Rock, Paper, Scissors?Paper
You lose! Scissors cuts Paper
Rock, Paper, Scissors?Rock
Tie!
Rock, Paper, Scissors?Scissors
Tie!
Rock, Paper, Scissors?Paper
You win! Paper covers Rock
Rock, Paper, Scissors?n
That's not a valid play. Check the spelling!
```

Possible Conditions

You	Computer	Outcome
Paper	Paper	Tie
Paper	Rock	You Win
Paper	Scissor	Computer win
Rock	Paper	Computer win
Rock	Rock	Tie
Rock	Scissor	You win
Scissor	Paper	You win
Scissor	Rock	Computer win
Scissor	Scissor	Tie

LIMITATIONS!

- Requires additional testing.

- Weak in mobile computing.

- Depends on third party frameworks and libraries.

- Performance and speed.

CONCLUSION

-The end strategy of a simple Rock Paper Scissors game is to be random and fast . Statistically ,each attack will tend to occur just as frequently as another , given that each is equally effective.

- So, this was easy and fun way to create a rock paper scissors game .It is customizable ,as per a developers personal preference .
Not just rock paper scissors ,but many more games can be developed easily in python using various tools and libraries available.

RECOMANDATIONS

-Every one is recommended to play this game as IT IS OUR CHILDHOOD GAME , so it refreshes our childhood memories.

-Disruption overcomes the status quo.

-Statistically, in experienced men most often lead with rock as their first move. By throwing paper on their first move against them you are more likely to win. Statistically, rock is the most frequent move, with the throw rate of 34.5%.

-Learn the pattern of your opponents behaviour.

APENDIX

```python
import random

play = ["Rock", "Paper", "Scissors"]

computer =
play[random.randint(0,2)]

player = False

while player == False:

    player = input("Rock, Paper, Scissors?")
    if player == computer:
        print("Tie!")
    elif  player == "Rock":
        if computer == "Paper":
            print("You lose!", computer, "covers", player)
        else:
            print("You win!", player, "smashes", computer)
```

```python
elif player == "Paper":
    if computer == "Scissors":
        print("You lose!", computer, "cuts", player)

    else:
        print("You win!", player, "covers", computer)
elif player == "Scissors":

    if computer == "Rock":
        print("You lose...", computer, "smashes", player)

    else:
        print("You win!", player, "cuts", computer)

else:
    print("That's not a valid play. Check the spelling!")

player = False
computer = play[random.randint(0,2)]
```

REFERENCE..

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