Project Proposal

Group # 1

Title : Rock , Paper , Scissors

Introduction

The **Rock, Paper, Scissors** introduces two game modes:

- **Single Round Mode**: Play one round and display the result immediately.
- **Best of N Mode**: The player specifies the number of rounds (e.g., 3, 5), and the game determines the overall winner.

Additionally, the game includes a **Leaderboard** to rank players based on their win percentages. Leaderboard data will be saved in a file for persistence, allowing results to be retained between sessions.

Work Division

MEMBER # 01:

- Writing functions for Single Round and its winner.
- Implement display leaderboard function.

MEMBER # 02:

- Writing functions for best of n and its winner.
- Write function for update leaderboard.

MEMBER # 03:

- Implement functions to welcome user and show main menu and ASCII art.
- Implement load and save leaderboard functions.

Concepts Used in the Project

1. **File Handling**:
   - Reading and writing leaderboard data to a file for persistent storage.
2. **Object-Oriented Programming (OOP)**:
   - Using classes (e.g., Player, RockPaperScissors) to encapsulate functionality.
3. **Control Structures**:
   - Using loops and conditional statements to handle game flow and decisions.
4. **Randomization**:
   - Using Python's random module for computer choices (Rock, Paper, or Scissors).
5. **Basic Math and Logic**:
   - Calculating win percentages and determining game results.