Rock-Paper-Scissors Game Development - Interim Report



Submitted by: Reddy Manjunath

Course Code: CSM-216

Group: group-1

Date of Submission:

**Acknowledgment:**  
I would like to thank my instructors and peers who provided valuable guidance and feedback in the  
development of this project. Their support has been instrumental in progressing through the initial stages of  
design and implementation.

**Table of Contents**1. Introduction  
2. Objectives and Scope of the Project  
3. Application Tools  
4. Project Design  
5. Flowchart

**Introduction:**The purpose of this project is to develop an interactive Rock-Paper-Scissors game using Python. This game is Interim Report Submission - Rock-Paper-Scissors Game designed to be user-friendly and feature multiple rounds with increasing difficulty based on time constraints.  
This project aims to demonstrate the application of Python's GUI capabilities with Tkinter, image handling  
with PIL, and audio effects with Pygame.

**Objectives and Scope of the Project**:  
The primary objective of this project is to create a Rock-Paper-Scissors game that engages the user in a  
progressively challenging experience. The game is structured in four rounds with varying time constraints,  
requiring the user to score a certain number of points to proceed. The scope includes designing the interface,  
implementing game logic, and ensuring smooth transitions between rounds.

**Application Tools**:  
The tools and libraries used in this project are:  
- Programming Language: Python  
- Libraries: Tkinter (for GUI), Pygame (for sound effects), PIL (for image manipulation)  
- IDE: Visual Studio Code  
- Version Control: Git

**Project Design**:  
The game is structured with a main class Rock-Paper-Scissors Game that handles game initialization, round transitions, and game logic. Each round requires the user to reach a target score within a specified time limit.  
The main components include a score tracker, a timer, and buttons for player choice. Computer choices are  
randomly generated and displayed opposite the player's choice to simulate an interactive opponent.

Flowchart  
A flowchart representing the main flow of the game logic is included in the next page.  
1. Start Game  
2. Initialize Scores and Round Timer  
3. Display Round Interface  
4. Player Chooses Option  
5. Determine Winner for Each Round  
6. Update Scores  
7. Check Timer and Target Score  
8. End Game or Move to Next Round

