ID1110 COURSE PROJECT

MISSION MOON

INTRODUCTION:

Background and context: "Mission Moon" is an engaging endless runner game that follows the adventure of a moon prince as he strives to return to his kingdom. The game employs a perspective point to illustrate the prince's ultimate goal. The background of the game features bats and thorns, representing the obstacles the prince encounters on his journey. To enhance the difficulty and showcase the prince's increasing hardships, "Mission Moon" incorporates three different speed levels. As the player progresses through the game, the speed of the path gradually increases in each level. This progressive increase in speed reflects the growing challenges and obstacles the moon prince faces.

Problem Statement: To create an endless runner game with a path in a perspective view.

Objectives: To apply the perspective view approach for land generation and test hand eye coordination of the user with the changing speed using different functions in “kivy”.

Significance: “Mission Moon” lies in the endless runner genre whose significance can be attributed to various key factors like simplicity, accessibility, addictive gameplay and innovative motions which has helped it to gain tremendous popularity.

Motivation: In our first semester, our professor, Sovan Sir, introduced us to the concept of Perspective view in our Engineering drawing course. This topic fascinated us immensely at that time. In the second semester, during YACC's game development session, our seniors introduced us to the Godot game engine, which sparked our interest and encouraged us to embark on our game development journey. These two experiences became our primary motivation for creating our game, 'Mission Moon'. Furthermore, our fondness for endless runner games like Subway Surfers and Temple Run, which we have been playing since childhood, also played a significant role in shaping our mindset towards developing a game in this genre.

PROJECT OVERVIEW

Project Timeline:

1. On May 12th, we initiated the project discussion, exploring various options such as game development, app development, web development, and simulation of complex situations. Among these options, game development stood out and fascinated us the most.
2. After thorough exploration for four days, on May 16th, we finalised our project and began deliberating on different genres of games to develop. Additionally, we sought advice from our seniors regarding Python frameworks like Kivy and Pygame. Based on their recommendations, we decided to proceed with Kivy due to its more intuitive framework compared to Pygame. Consequently, for the next 3-4 days, we invested our time to familiarise ourselves with various functions and interfaces in Kivy.
3. On 21st May, we decided that we will try our hands on the endless runner genre.
4. I(Swapnil) and Devansh took charge of developing the backend part, while Punith focused on the frontend part. For nearly 3 days, we surfed the available internet resources for application of perspective view approach in game. So, that's how we all made our contributions for the project.
5. On 1st June, we made our first commit after finishing the user_actions and transforming_function. Then within a span of 3 days we uploaded the whole project with background images and sounds.
6. On 8th June we gave a finishing touch to all the commits by adding comments.

Project Repository:

https://github.com/swap5113github/MissionMoon-SDP.git

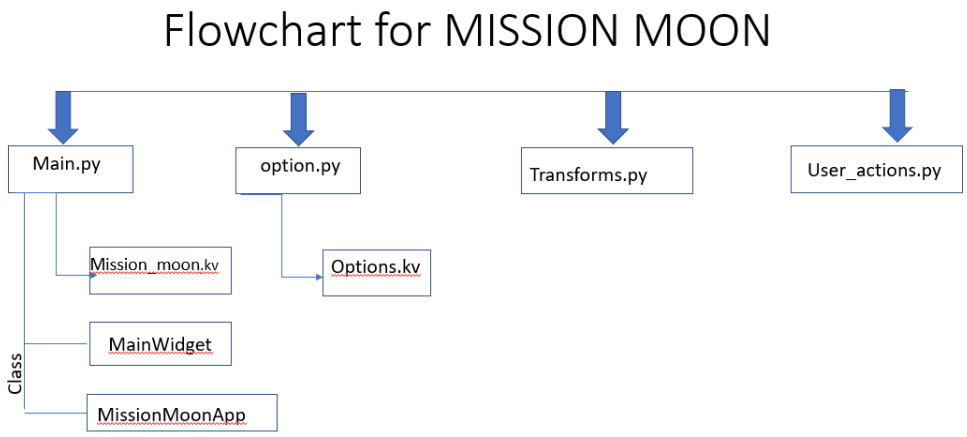
Team Members and Contributions:

1. **Devansh Manoj Kesan**: Logic and code of main file and transforms, Restructuring of the code
2. **Swapnil Mishra**: Logic and code of main file(joint) and user_actions , Project Report
3. **Sai Puneeth**: Code of "options.py" file, searching for assets (images and sounds)

METHODOLOGY:

1. **Approach and methodology employed**: Object Oriented Programming

2. **Tools, technologies and frameworks used**: Kivy, Microsoft paint software, Online sources for images and sounds



Reference :

https://youtu.be/l8Imtec4ReQ

https://codewithjonathan.net/resourceskivy

Github Accounts:

Swapnil Mishra : Swap5113github

Devansh Kesan: Devansh-Kesan

Sai Punith : SaiPunith9023