AP-PROJECT

Group number : 9

Paras Mehan(2018062)
Tejas dubhir(2018110)

Link :https://github.com/parasmehan123/ap.git
(Private Repository)

Design of Game

- Every Screen has a separate .fxml file and a controller class.
- GameStatus, LevelStatus are the two main classes, which are being used extensively in the game logic.
- GameStatus class stores the player information, location of plants, zombies, LevelStatus, etc.
- LevelStatus class stores the number of zombies, types of zombies, remaining in the current level, etc.
- An ArrayList of objects of GameStatus class is being saved in the file “save.txt.”
- The entire implementation of the game logic is in Main1, Main2.

Implementation

The game loop is being implemented using the animation timer. Which contains the logic for the following components :

- Spawning Zombies, Plants, Pea's Sun-Tokens.
- Moving Zombies.
- Reducing the health of zombies, plants upon attack.
- Removing the dead plants, zombies, peas(upon collision) from the game.
- Producing Sun-Tokens from Sky and Sun-Flowers.

Individual Contribution

UML: Paras	Lawn setup: Tejas
Use case diagram: Tejas	Serialization : Paras
Linking GUI pages : Paras	Plant/ Pea movement : Tejas
Graphics and design: Tejas	Zombie Movement: Paras
Working of pages: Paras and Tejas	Plant/Pea functions: Tejas
Logic and algorithm: Paras and Tejas	Zombie functions : Paras.

Points for Bonus

- Randomly spawning zombie.
- Save at any instant of time while playing.
- Almanac for Plants and Zombies which gives brief description of characters.
- Saving pea at the instant of save game.
- Increasing difficulty with levels as the choice of plants increases, the number of zombies also increases.
- Leaderboard.
- Multiple states saved.
- Select any unlocked level while playing.
- Waiting Page before starting a new level.