

PLANTS VS ZOMBIES

Made By: Rishabh Devgon and Smera Goel

Core Classes: *Creature*: Plants and Zombies inherit common attributes from this class including visual elements, transitions and attributes.

Plant: Is the parent class for all implemented plants: PeaShooter, Cherry-Bomb, SunFlower, Walnut.

Zombie: Is the parent class for the different types of zombies, each having unique features.

Menu: Is the parent class for all menus implemented in the game.

Design Pattern Used: MVC: Specifies that an application consist of a data model, presentation information, and control information to logically group related actions on a controller together and incorporate for multiple views.

Description: The game is based on protecting your house from Zombies with the help of your garden elements. The way you manipulate the resources available to you in the game (lawnmowers, suns, plants etc) determines your success in the game.

Implementation: We have made several levels with dynamically increasing difficulty while also making use of multithreading for various tasks. We have implemented the shovel, pause menu, lawnmower, all types of plants and zombies using OOP concepts in event driven programming while handling all errors that we came across and making use of design patterns. Also, since both of us are from CSD, we have made conscious visual design choices, cues and animations focussing on a smooth UI/ UX experience.

CONTRIBUTIONS

Rishabh: Helped in making of the core and side classes, deciding hierachal structure of classes and interfaces used, class relationships, image editing, making layouts, buttons and other visual cues, bonus game mode, animations, timelining, coding helper functions, coding menus, error checking, saving, presentation.

Smera: Helped in making of the core and side classes, deciding hierachal structure of classes and interfaces used, class relationships, image editing, making layouts, buttons and other visual cues, implementing multithreading, animations, coding menus, error handling, smoothening transitions, timeling, character manipulation, collisions, shop.

BONUS FEATURES

We have implemented a fertilizer which restores health of plants, have made zombies of different types with different traits, responsive buttons, multi threading, implementing restorative shopping, visual theme consistency and bonus game mode.