Color Switch

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Implementation

➔ All the scenes used in the project were made using FXML Scenebuilder and their implementation in their respective controller classes.
➔ Initially, the main menu of the game of the game is loaded onto the stage, from where a player has the option to start a new game, load a saved game, and exit the game.
  a. There can be at max 3 saved games that can be loaded
  b. Exiting the game saves the state of the last three recently saved games.
➔ In the game, there are 4 types of obstacles :-
  a. Square
  b. Triangle
  c. Circle
  d. Plus
➔ A person can earn points by collecting stars, which are placed such that players have to maneuver past any one of the obstacle

Implementation (Cont.)

➔ As the game progresses, the difficulty of the game increases. The rotation speed of the obstacles is increased, thus making it harder to maneuver around them.

➔ Player has the option to pause the game at any point during the game, from where they can either save the game they are playing or resume the game.

➔ If a player is not able to safely maneuver past a obstacle, a collision occurs and a player is sent to the respawn page

➔ In the respawn page, there are 3 options :-

    a. Respawn back to the position where the player died, but to so, the player has to pay 3 stars

    b. Start a new game from the initial position

    c. Return back to the main menu

Contributions

Abhinav

- UML Diagrams
- Creating FXML Objects - Circle, Star, Color Switcher
- Creating FXML Scenes - GamePage, PausePage
- Creating Event Handlers of the scenes for connecting them with one another
- GamePageController - Detecting Collisions
- Displaying scores on the scenes
- Serialization & Deserialization
- Presentation

Krishna

- UML Diagrams
- Creating FXML Objects - Square, Triangle, Plus, Ball
- Creating FXML Scenes - GamePage, MainPage, RespawnPage, SavedGamesPage
- GamePageController - Moving all objects in the class (Animations)
- Creating and adding functionality for the Obstacle and Ball Class
- Functioning of resume button and respawn button
- Adding background sounds

Bonus Features

- We have added background sounds for various parts of the game making the experience multidimensional and more interactive. The parts in which sounds have been added are :-
    - Ball bounce
    - Collision with Obstacle
    - Button Click
    - Changing of ball colour
    - Collecting a star
    - Reviving back in the game