


Design and Implementation

Javafx Scene builder has been used for some scenes. In the beginning, there is a Welcome page leading to Main Menu, from where we can move to play the game, view high score, load game or exit. We encounter a ready-to-play page. Next we move to playing the game, there is a button to move the ball up. Game Objects such as Obstacles(Ring,Rectangle, Windmill, Square), stars, color switching ball are present within the game screen to make the game interesting. Game score and level number can be seen on screen. As the game progresses, we clear each level by crossing a certain number of objects, with increasing levels, the game becomes more and more difficult. The game follows similar rules as the original game of ColorSwitch with exception of resurrecting. On the event of ball colliding with a different colored obstacle, the user can either leave the game or continue by sacrificing stars if they have at least 2 stars.



The user can use saving functionality as well available on the game screen , when we load a saved game, it starts from the exact same state the user left it. The user can save a maximum of 5 games, if saving is used more than 5 times, an message is displayed on the screen telling the user about the save limit.

The user can see high scores over all games.

OOP concepts like inheritance, interfaces, abstract classes , overridden methods, generic programming and more have been used. try,catch blocks and exception handling have been used to handle exceptions.

Care has been taken by the developers to follow game on the lines of the UML diagram.

Iterator, Facade Template,Decorator,Proxy design patterns have been used.



Individual Efforts

ABHINAV(2019006)-Functionalities of buttons and labels, logic for game,animations,game structure, class structure and methods, game features

SARANSH(2019386)- design and color chemes of scenes made via scene builder, saving functionality



Bonus

1. An ordinary color switching ball allows only one color change. Our modified color switching ball allows multiple color switches. This helps to keep the game interesting and swift.
2. User can view high score over all games.

