# COLOR SWITCH

CSE201: ADVANCED PROGRAMMING)

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## Implementation and Design

- We are navigating inside the game windows using the fxml files
- Play Game is used to load the game window and start the game
- Saved game loads the window where we can load all the saved games
- Problem faced were mainly in moving the obstacles and the ball in synchronization.
- We solved this problem by using animation timer and moved the obstacles downwards after the ball reaches a particular height.
- The help window basically tells the information about how to play the game
- There is a label which tells us the no of stars collected
- When the ball collides with obstacle we get a window to exit the game and tells your score and highest score till that instance in the game
- SINGLETON Design: We have only used a single database in the game
- We have used the iterator to make sure the we are accessing array of obstacles in a synchronised way.

#### Individual Contribution

# Abhyudit Badhul

- 1) UML: Class diagram
- 2) Star class
- 3) Movement of balls and obstacle smoothly and in synchronization
- 4) Counting and updating the stars
- 5) Detecting all the collisions happening in the game
- 6) Added css effect to every fxml files
- 7) Designed the ppt
- 8) Calibrated the speeds of obstacle

## Vikhyat Yadav

- 1) UML: Use case diagram
- 2) Constructed 6 Obstacle classes
- 3) Color Switcher
- 4) Randomly generating the obstacle that displays on the screen
- 5) Designed all fxml files and added background music
- 6) Given animations to some obstacles
- 7) Saved the object's states to sequence of bytes and then rebuilds those bytes into real time objects

### Bonus and screenshots



- Added the background music to the game
- Added the collision tune
- Created the hover effect on all buttons
- Introduced speed setting to the obstacles