TRON GAME

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Description of the task

Create a game, with we can play the light-motorcycle battle (known from the Tron movie) in a top view. Two players play against each other with two motors, where each motor leaves a light trace behind of itself on the display. The motor goes in each seconds toward the direction, that the player has set recently. The first player can use the WASD keyboard buttons, while the second one can use the cursor buttons for steering.

A player loses if its motor goes to the boundary of the game level, or it goes to the light trace of the other player. Ask the name of the players before the game starts, and let them choose the color their light traces. Increase the counter of the winner by one in the database at the end of the game. If the player does not exit in the database yet, then insert a record for him. Create a menu item, which displays a highscore table of the players for the 10 best scores. Also, create a menu item which restarts the game.

Solution

TronGUI – renders window gameEngine – gets key strokes and moves bikes based on that direction and timer.

Player – it contains bike for player, checks if game is over (outOfArena or collapseTrail)

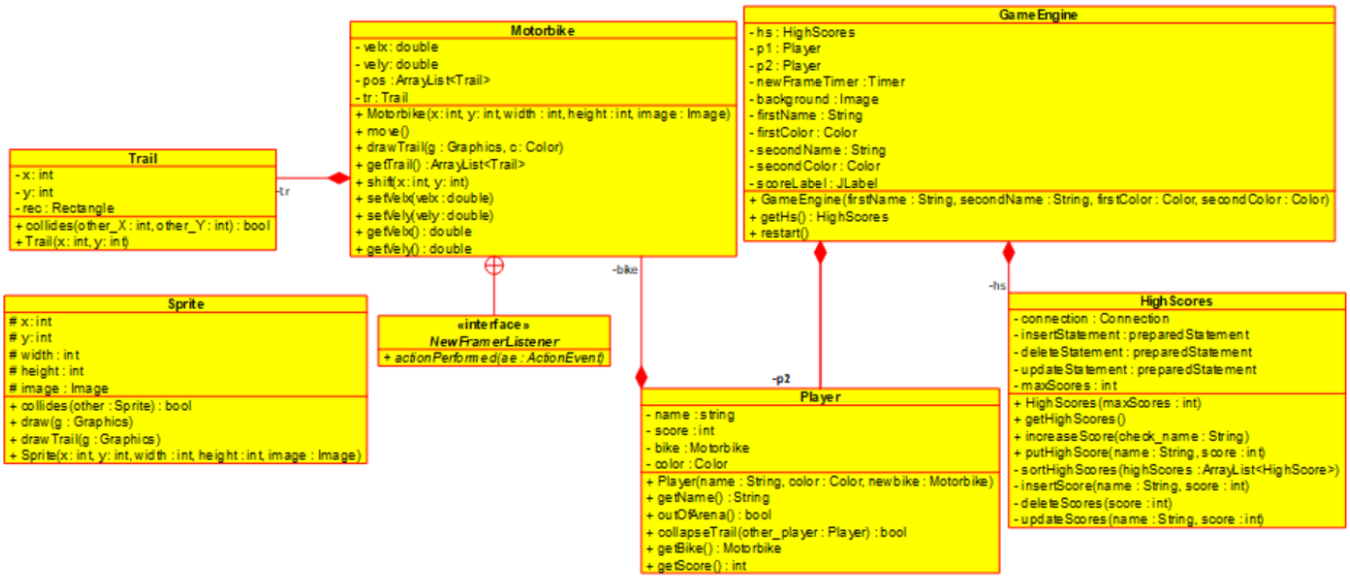
Motorbike – extends sprite class moves based on given direction, also draws its Trail by storing positions in arrayList.

Trail – Contains positions, and have collides method to check if rectangles intersects.

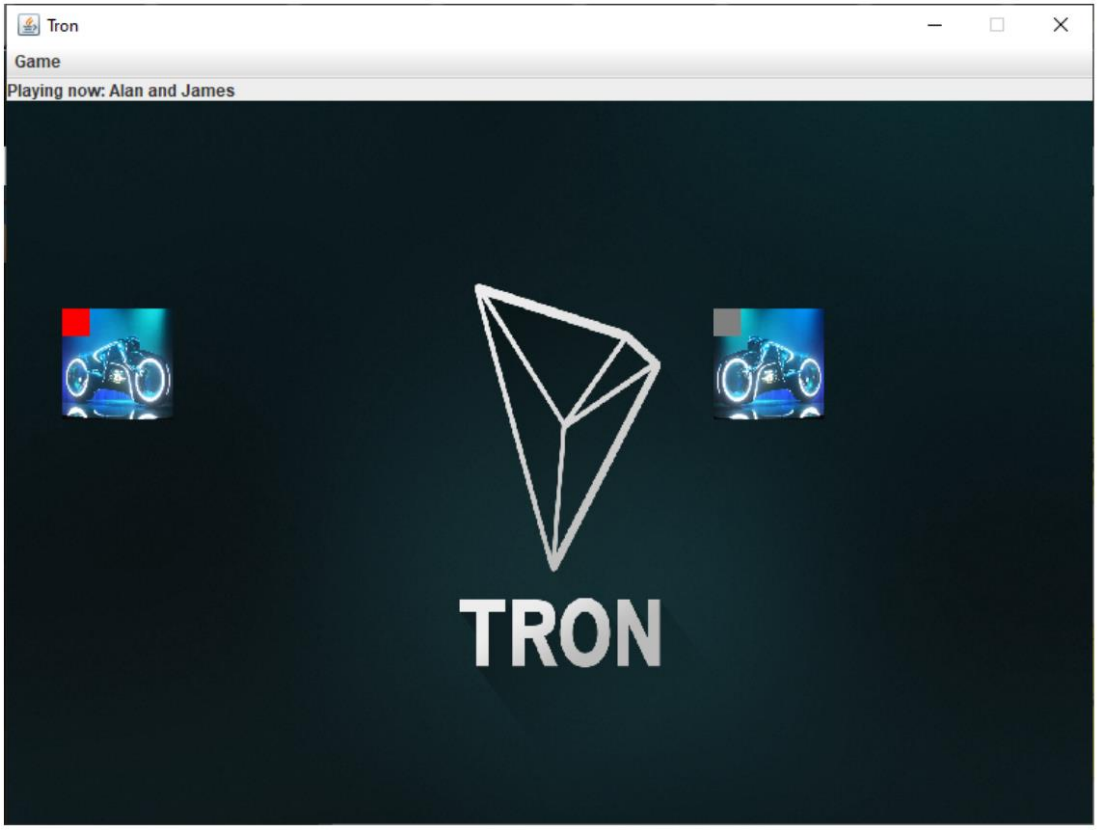
HighScore – used for databases

HighScores – also used for databases

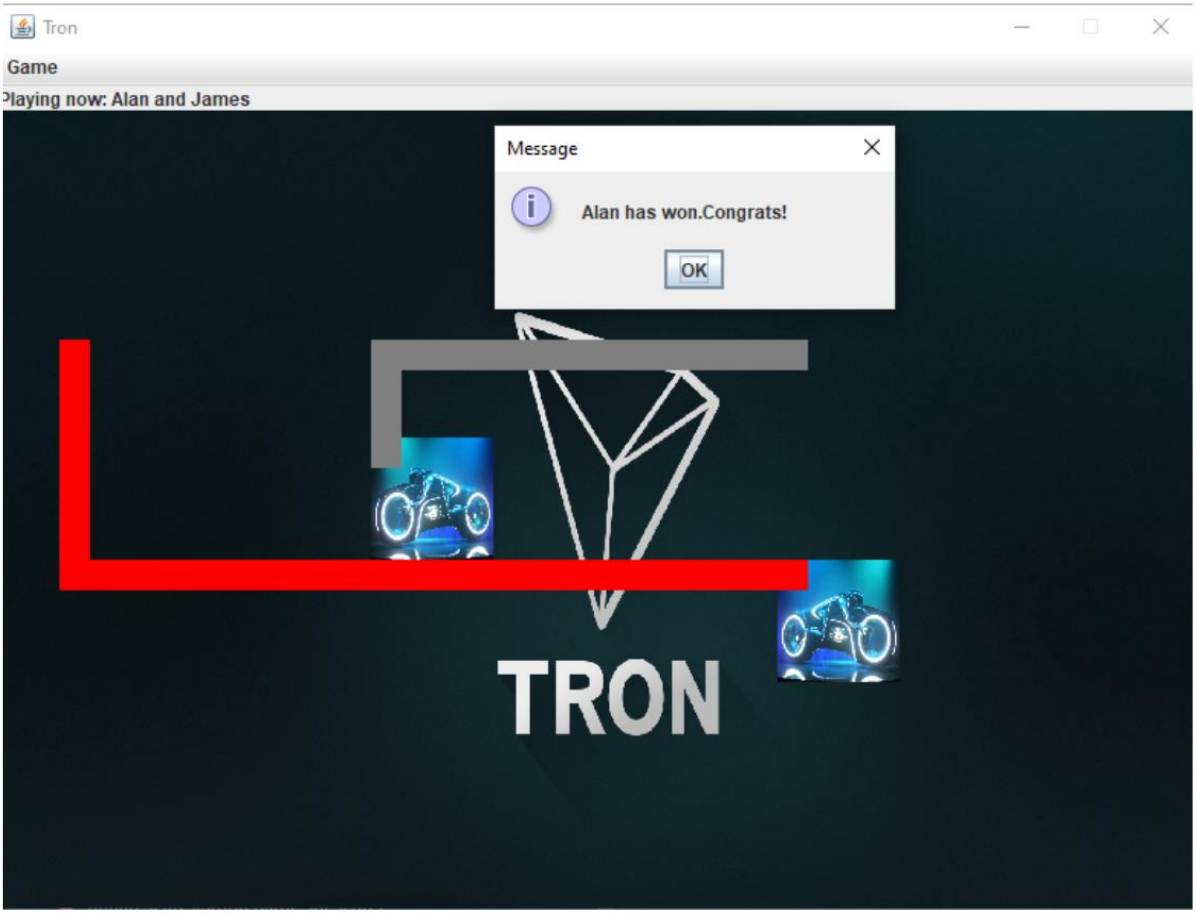
UML Diagram



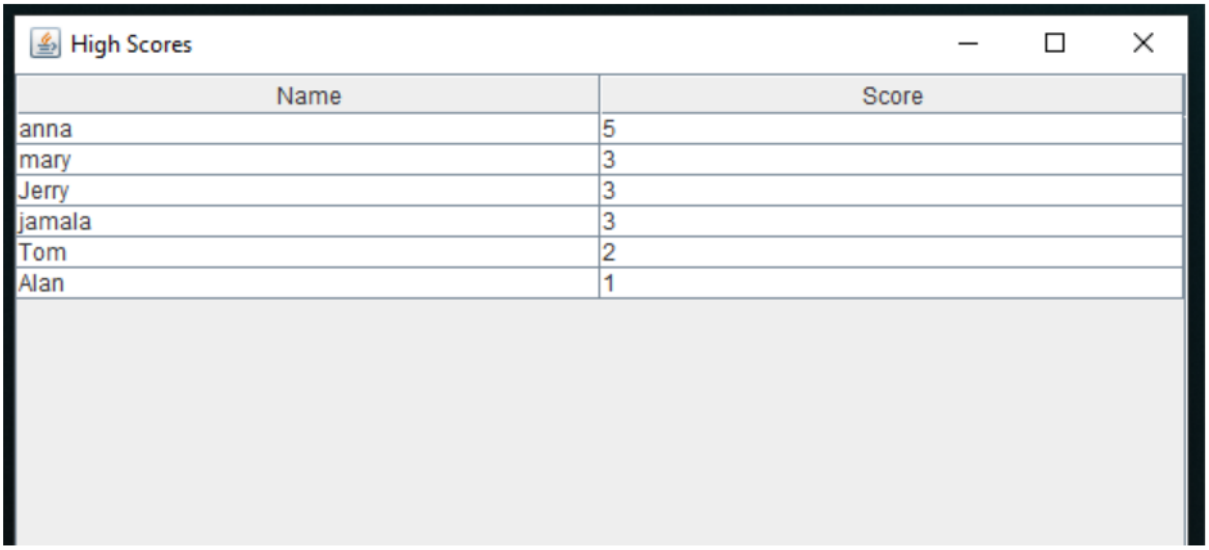
Vizualization of the beginning of game (after players choose name and color)



First player wins. Because second player crossed its trail.

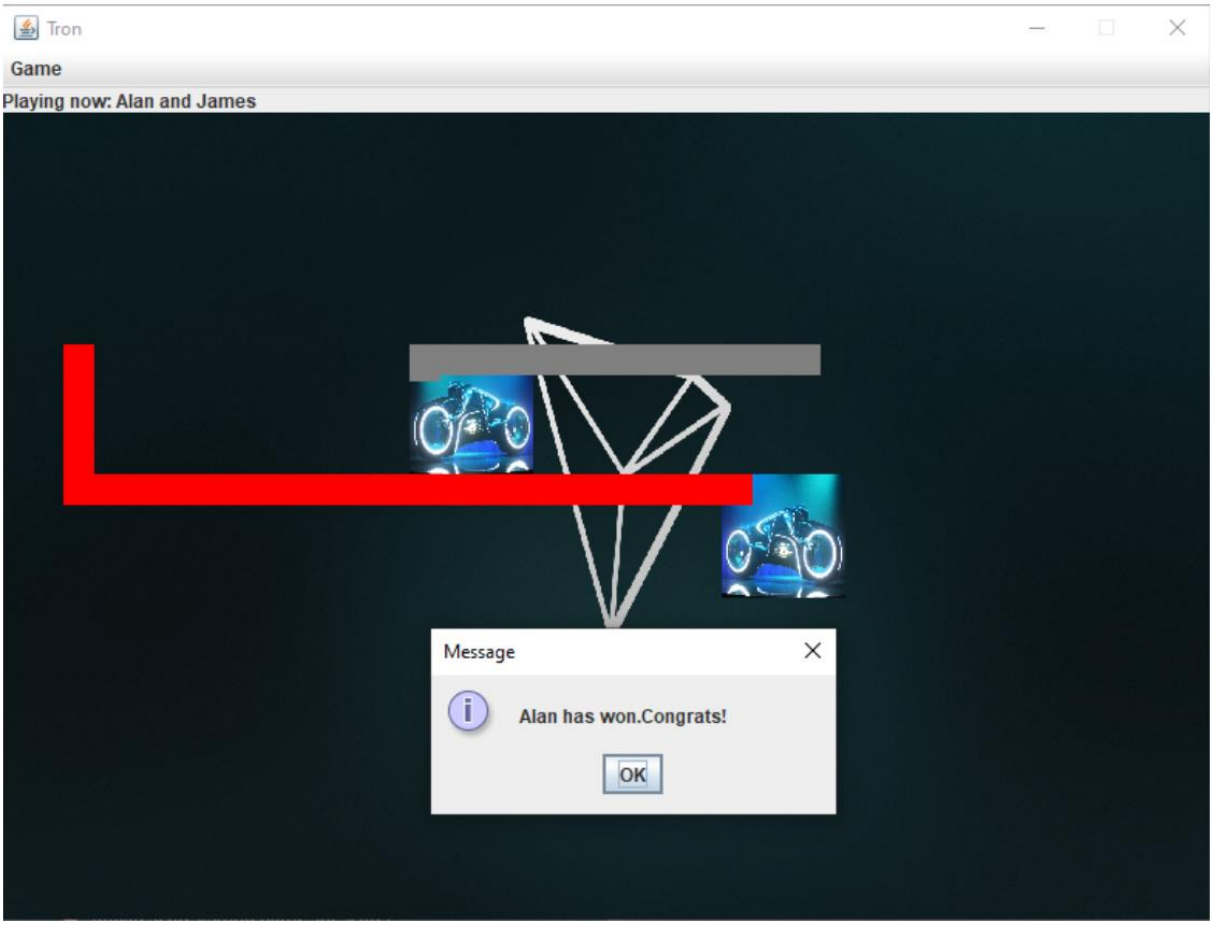


Modification in HighScore table after first player(Alan) wins

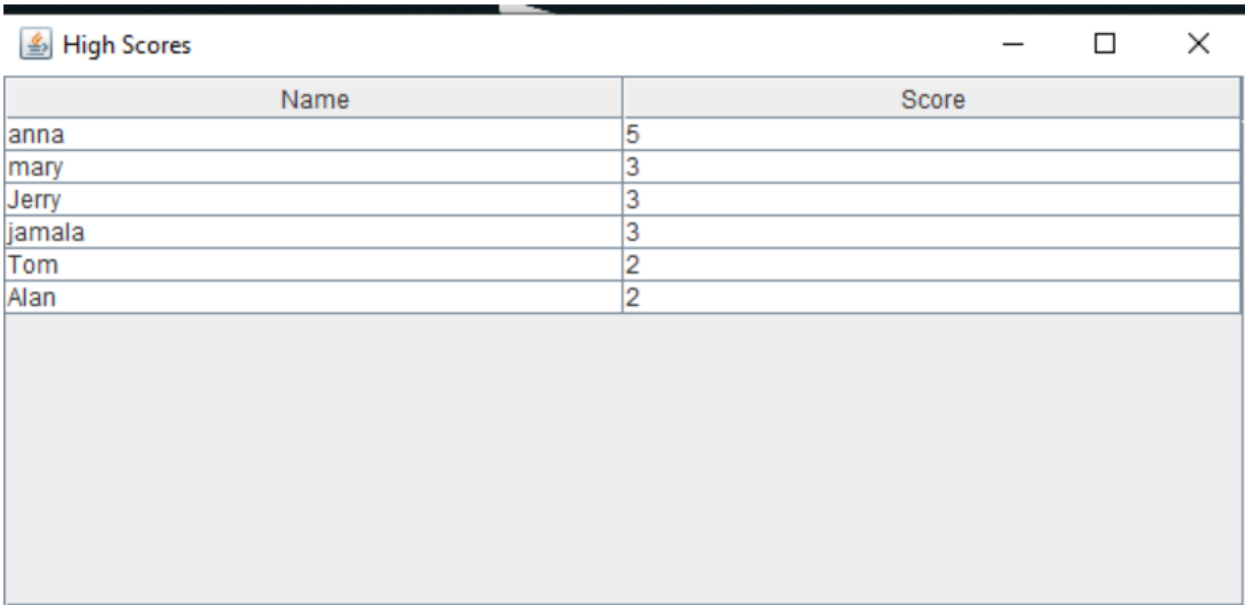


Name	Score
anna	5
mary	3
Jerry	3
jamala	3
Tom	2
Alan	1

First player wins again.

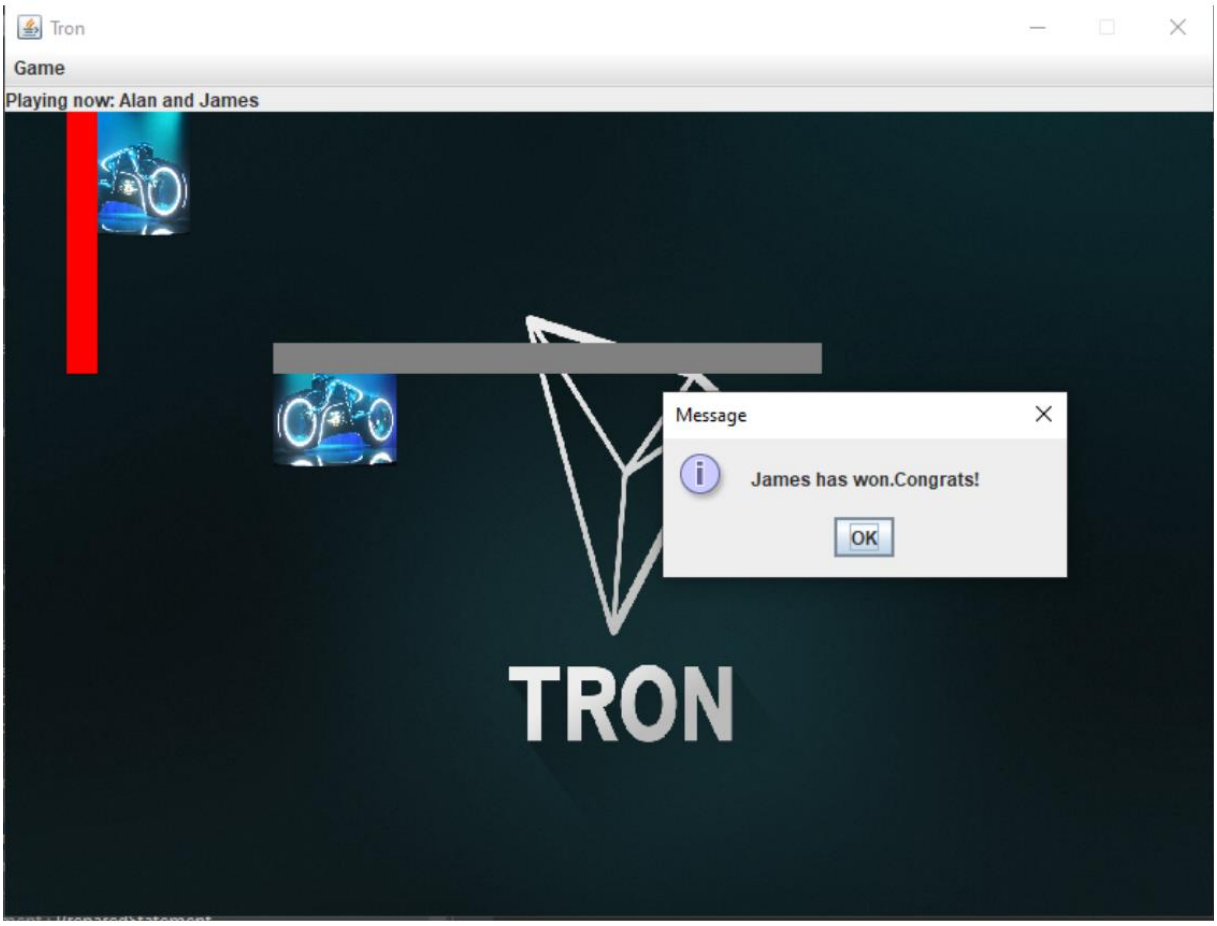


Modification in HighScore Table: (now Alan is 2)

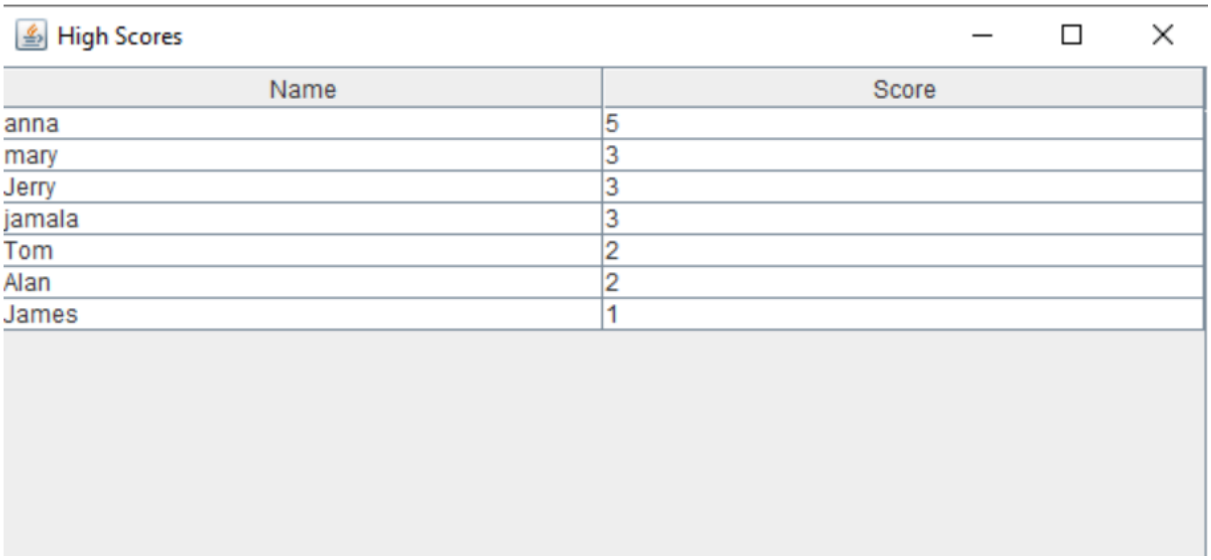


Name	Score
anna	5
mary	3
Jerry	3
jamala	3
Tom	2
Alan	2

Second player wins. First Player is out of arena:



Modification in HighScore Table:



Name	Score
anna	5
mary	3
Jerry	3
jamala	3
Tom	2
Alan	2
James	1