Assignment 3
TRON

DECEMBER 14

F2NSO1
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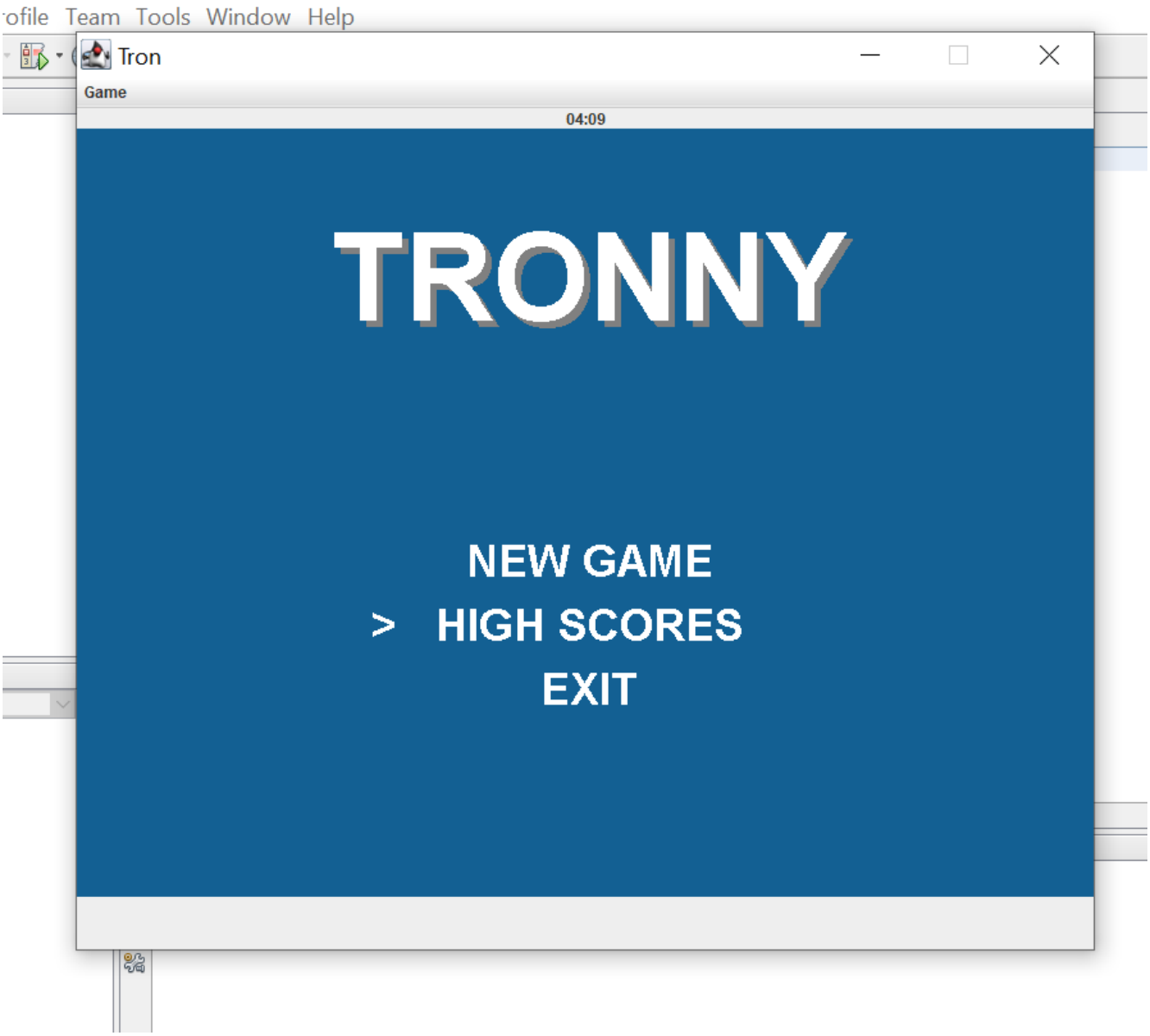
Logo
Name

Documentation



Task Description

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.

Analysis

The program's features include two players with separate controls. The winner's score will be inserted or updated by 1. Winning can be achieved by crashing the opponent or him going out of bounds.

Solution

We will make an OOP approach to make the program clean and readable.

To implement player, we will split into 3 parts. A placeholder and the player itself.

Trail -> holds previous positions of player and detects crashing

Holder -> holds position values of player

Player -> owns player-like attributes (name, color and a reference holder)

Storing the players' scores, requires these.

PlayerData -> has player's name and score and used to traverse the results

DB_Manager -> performs database operations

To handle the game logic,

Manager -> shows menu, execute user's options and runs the game

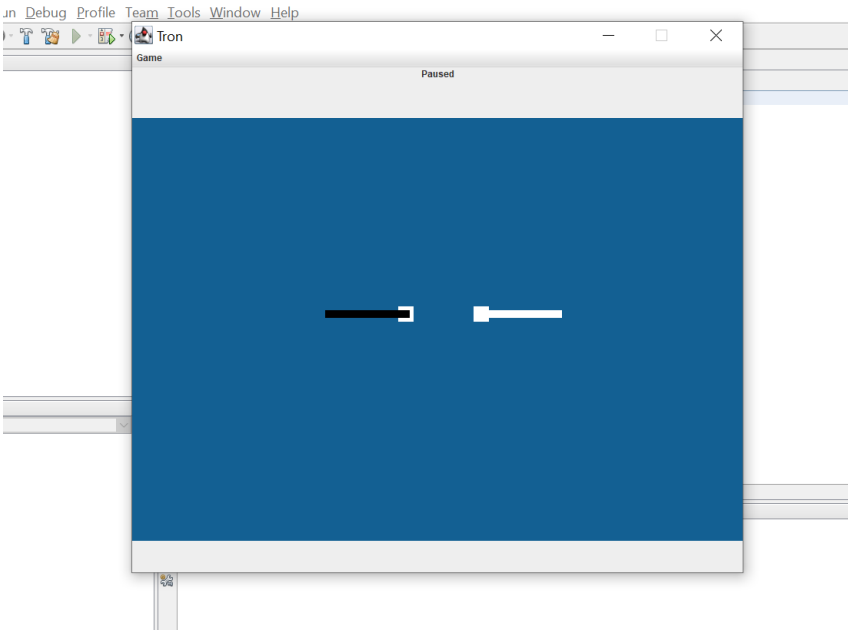
For the UI of the game,

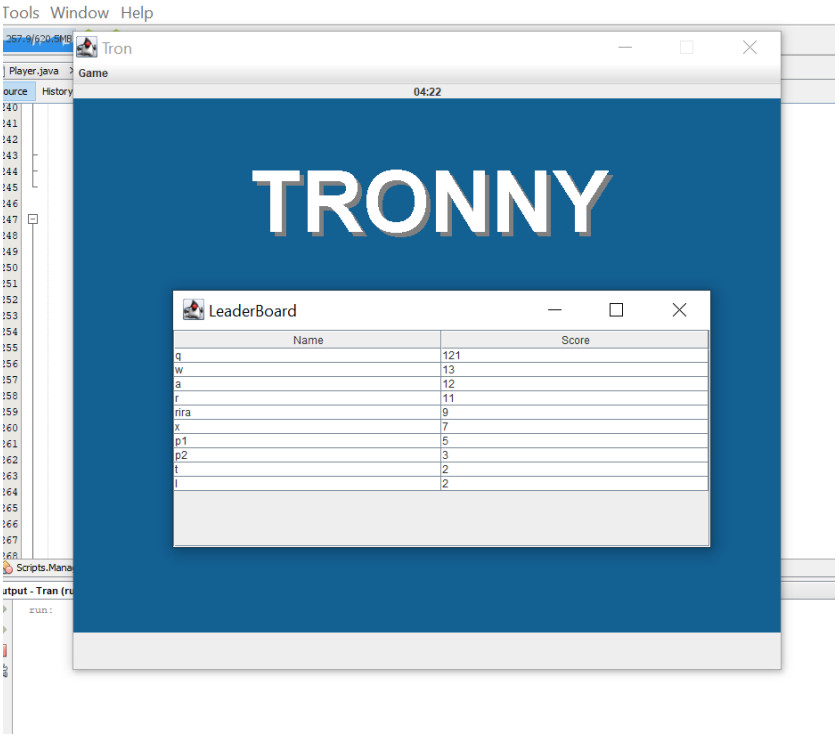
GameGUI -> handles swing components such as menu, optionpanes and boxes

Finally, driver code is run by

Main -> Create the GameGUI

Visuals


Debug Profile Team Tools Window Help
Tron
Game
Paused


Tools Window Help
Tron
Game
04:22
TRONNY
LeaderBoard
Name
Score
q 121
w 13
a 12
r 11
rira 9
x 7
p1 5
p2 3
t 2
l 2