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package cargame;

import javax.swing.*.*;

public class CarGame {
    public static void createGuiAndGo() {
        // Create application fram and a game surface

        JFrame frame = new JFrame("Car game");
        frame.setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
        GameSurface s = new GameSurface();

        // Create a few cars and assign behaviours to them

        Car myCar = new Car("car.png");
        myCar.updatePosition(450, 450);
        myCar.setMass(1.0f);
        myCar.setMaxSpeed(100.0f);
        myCar.setMaxSteering(70.0f);
        myCar.addBehaviour(new RoamBehaviour(100, 100, 300, 300));
        Car myCar2 = new Car("car.png");
        myCar2.updatePosition(50, 50);
        myCar2.setMass(1.0f);
        myCar2.setMaxSpeed(120.0f);
        myCar2.setMaxSteering(100.0f);
        myCar2.addBehaviour(new PursuitBehaviour(myCar));
        myCar2.addBehaviour(new BounceOffWallsBehaviour(30, 30, 470, 470));
        Car myCar3 = new Car("playercar.png");
        myCar3.updatePosition(250, 250);
        myCar3.setMass(1.0f);
        myCar3.setMaxSpeed(120.0f);
        myCar3.setMaxSteering(300.0f);
        myCar3.updateVelocity(120.0f, 0.0f);
        PlayerSteeringBehaviour steering = new PlayerSteeringBehaviour();
        myCar3.addBehaviour(steering);
        myCar3.addBehaviour(new BounceOffWallsBehaviour(30, 30, 470, 470));
    }
}

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s.addKeyListener(steering);

// Add the cars to the game surface so that
// they will be drawn

s.getVehicles().add(myCar);
s.getVehicles().add(myCar2);
s.getVehicles().add(myCar3);

// Display the game surface in the frame, and
// make the frame visible

frame.setContentPane(s);
frame.setSize(500, 500);
frame.setVisible(true);

// Since we want to receive keyboard events,
// the game surface needs to have the input focus

s.requestFocusInWindow();

// Create the animation thread and start it

AnimationSystem a = new AnimationSystem(s);
Thread t = new Thread(a);
t.start();
}

public static void main(String[] args) {
    javax.swing.SwingUtilities.invokeLater(new Runnable() {
        public void run() {
            createGuiAndGo();
        }
    });
}
}

```