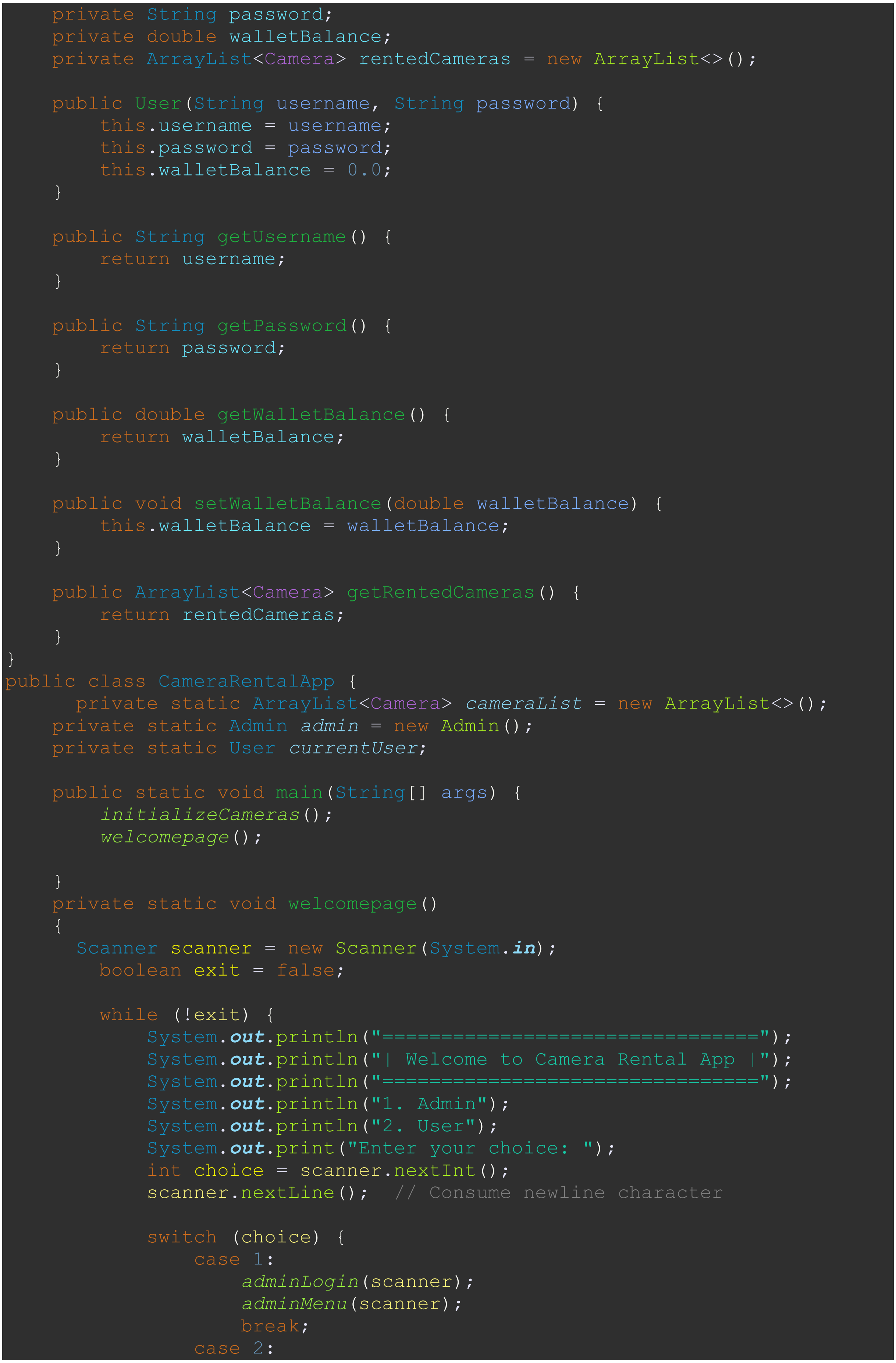
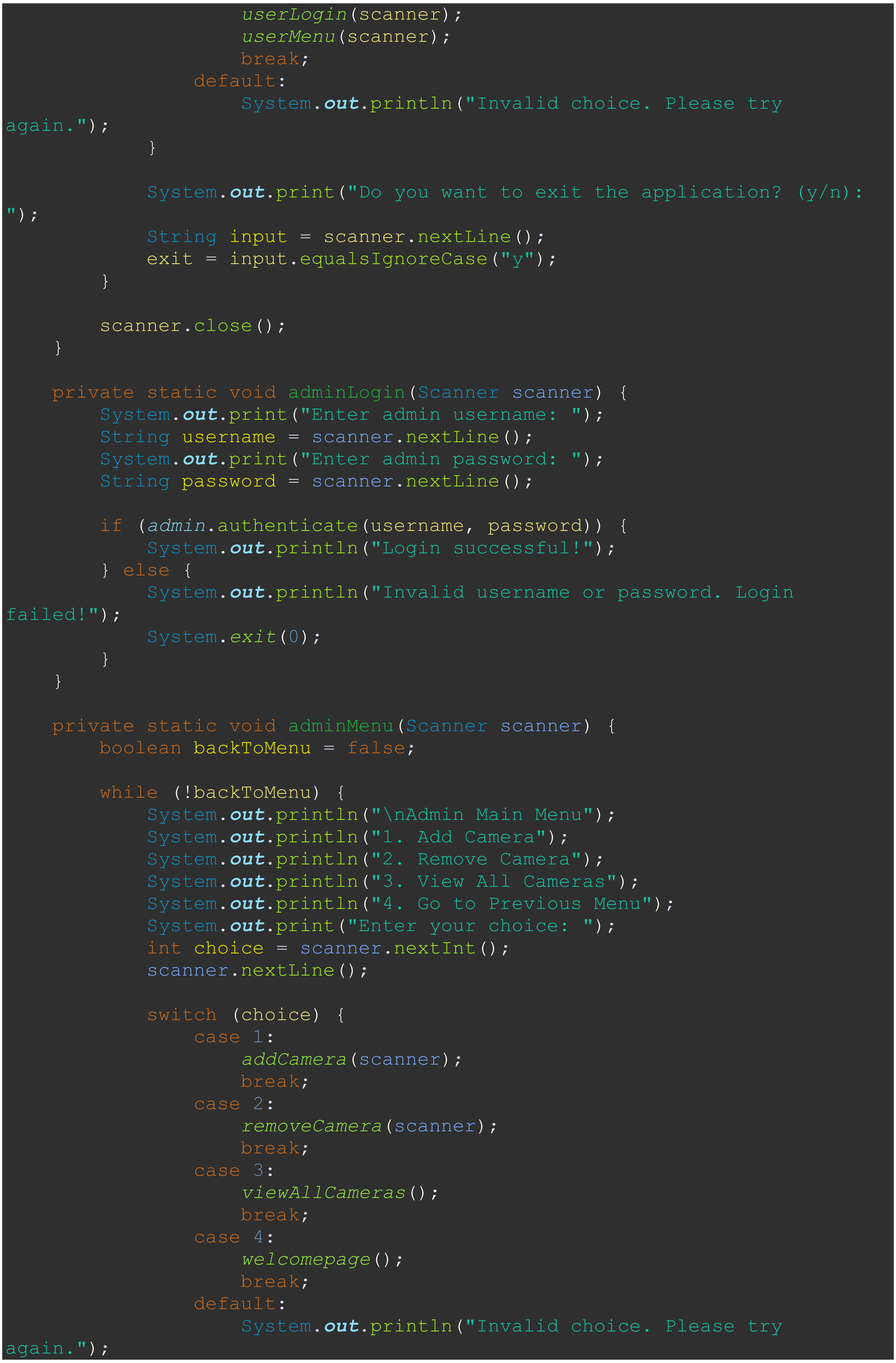
Code: -

```
import java.util.ArrayList;
import java.util.Scanner;

class Camera {
    private int id;
    private String brand;
    private String model;
    private double price;
    private boolean available;

    public Camera(int id, String brand, String model, double price, boolean
available) {
        this.id = id;
        this.brand = brand;
        this.model = model;
        this.price = price;
        this.available = available;
    }

    public int getId() {
        return id;
    }

    public String getBrand() {
        return brand;
    }

    public String getModel() {
        return model;
    }

    public double getPrice() {
        return price;
    }

    public boolean isAvailable() {
        return available;
    }

    public void setAvailable(boolean available) {
        this.available = available;
    }
}

class Admin {
    private String username = "admin";
    private String password = "password";

    public boolean authenticate(String username, String password) {
        return this.username.equals(username) &&
this.password.equals(password);
    }
}

class User {
    private String username;
```

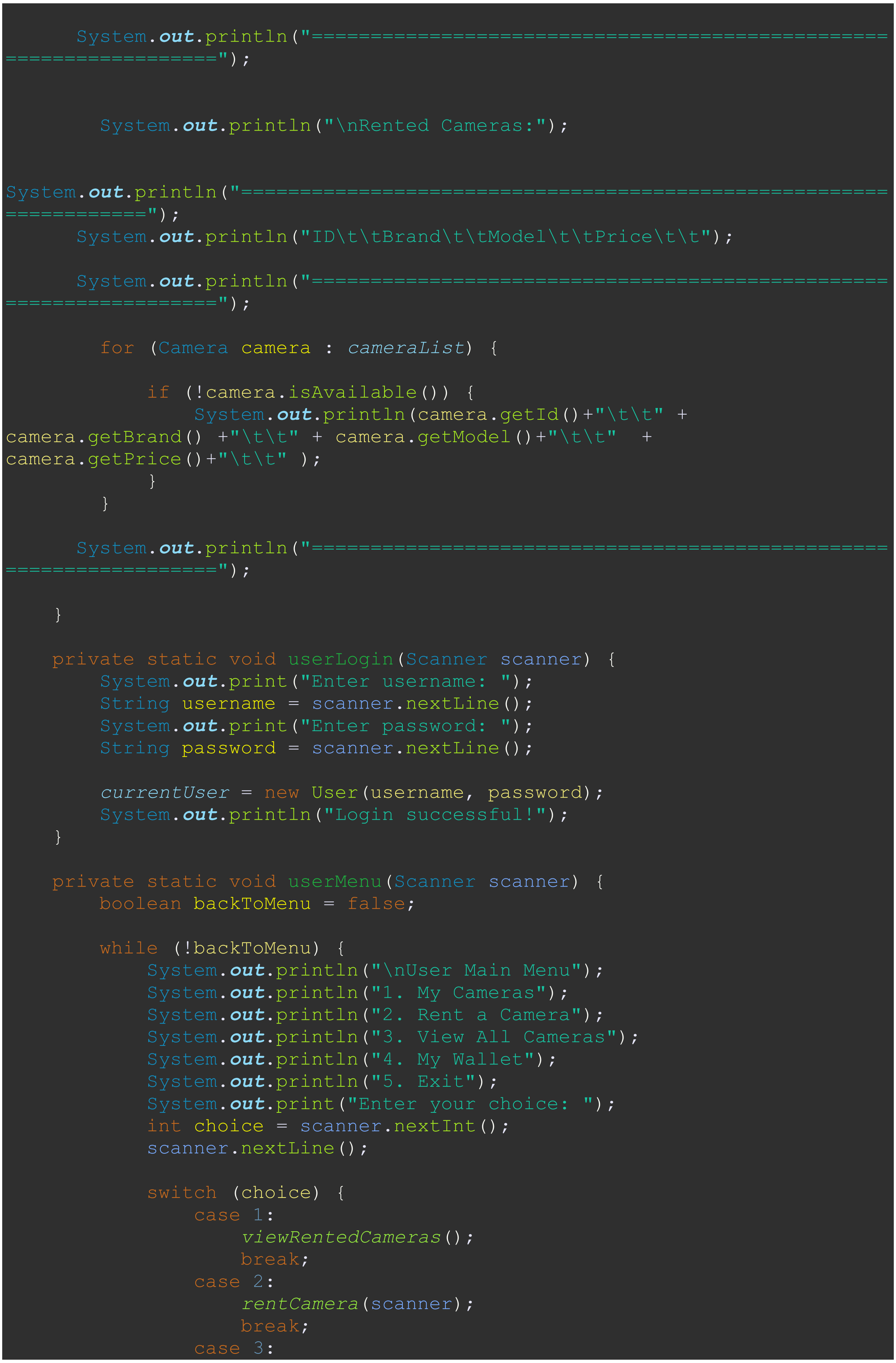


```
    private String password;
    private double walletBalance;
    private ArrayList<Camera> rentedCameras = new ArrayList<>();

    public User(String username, String password) {
        this.username = username;
        this.password = password;
        this.walletBalance = 0.0;
    }

    public String getUsername() {
        return username;
    }

    public String getPassword() {
        return password;
    }

    public double getWalletBalance() {
        return walletBalance;
    }

    public void setWalletBalance(double walletBalance) {
        this.walletBalance = walletBalance;
    }

    public ArrayList<Camera> getRentedCameras() {
        return rentedCameras;
    }
}
public class CameraRentalApp {
      private static ArrayList<Camera> cameraList = new ArrayList<>();
    private static Admin admin = new Admin();
    private static User currentUser;

    public static void main(String[] args) {
        initializeCameras();
        welcomepage();

    }
    private static void welcomepage()
    {
      Scanner scanner = new Scanner(System.in);
        boolean exit = false;

        while (!exit) {
            System.out.println("================================");
            System.out.println("| Welcome to Camera Rental App |");
            System.out.println("================================");
            System.out.println("1. Admin");
            System.out.println("2. User");
            System.out.print("Enter your choice: ");
            int choice = scanner.nextInt();
            scanner.nextLine();  // Consume newline character

            switch (choice) {
                case 1:
                    adminLogin(scanner);
                    adminMenu(scanner);
                    break;
                case 2:
```

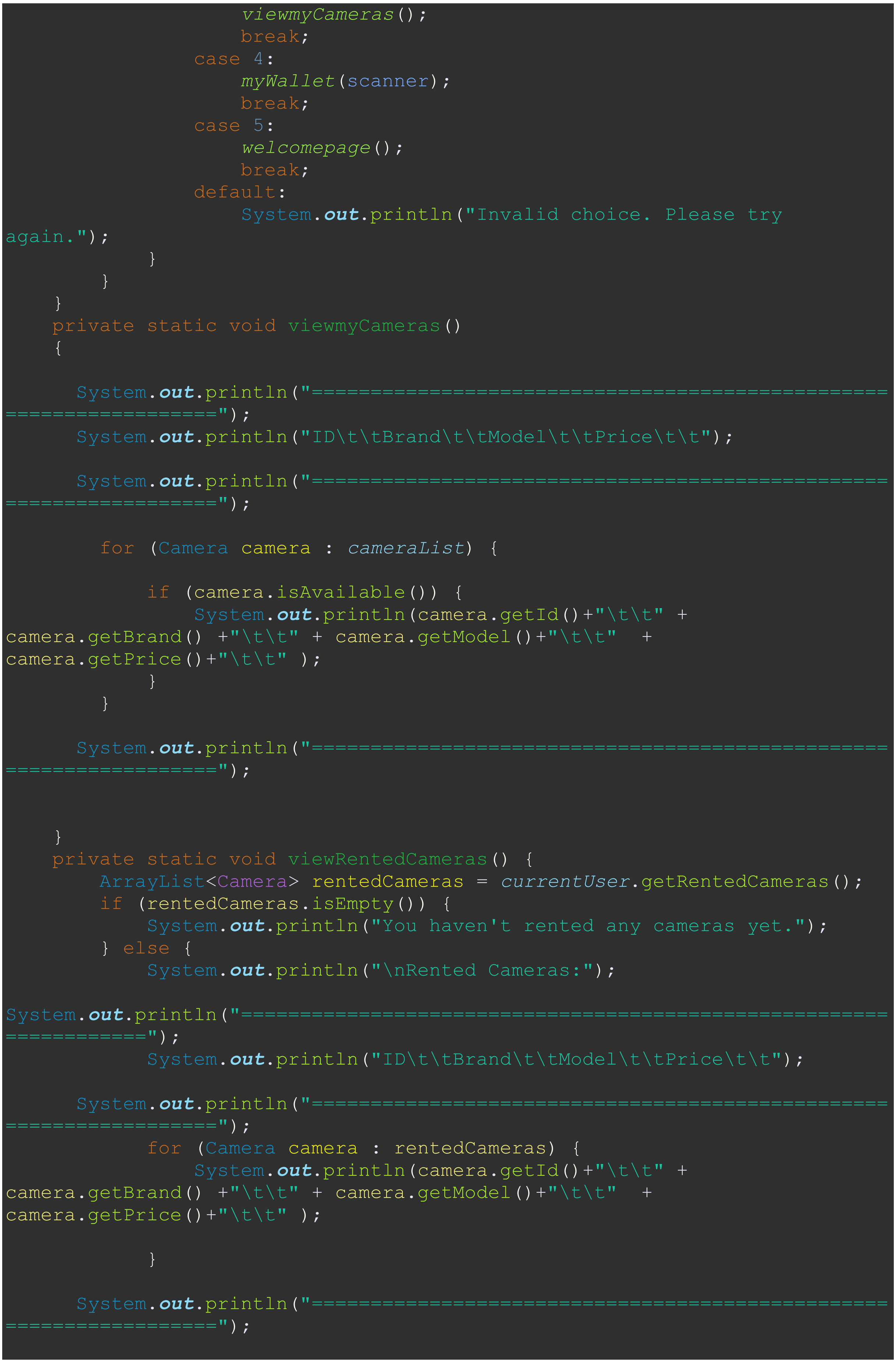


```
                    userLogin(scanner);
                    userMenu(scanner);
                    break;
                default:
                    System.out.println("Invalid choice. Please try
again.");
            }

            System.out.print("Do you want to exit the application? (y/n):
");
            String input = scanner.nextLine();
            exit = input.equalsIgnoreCase("y");
        }

        scanner.close();
    }

    private static void adminLogin(Scanner scanner) {
        System.out.print("Enter admin username: ");
        String username = scanner.nextLine();
        System.out.print("Enter admin password: ");
        String password = scanner.nextLine();

        if (admin.authenticate(username, password)) {
            System.out.println("Login successful!");
        } else {
            System.out.println("Invalid username or password. Login
failed!");
            System.exit(0);
        }
    }

    private static void adminMenu(Scanner scanner) {
        boolean backToMenu = false;

        while (!backToMenu) {
            System.out.println("\nAdmin Main Menu");
            System.out.println("1. Add Camera");
            System.out.println("2. Remove Camera");
            System.out.println("3. View All Cameras");
            System.out.println("4. Go to Previous Menu");
            System.out.print("Enter your choice: ");
            int choice = scanner.nextInt();
            scanner.nextLine();

            switch (choice) {
                case 1:
                    addCamera(scanner);
                    break;
                case 2:
                    removeCamera(scanner);
                    break;
                case 3:
                    viewAllCameras();
                    break;
                case 4:
                    welcomepage();
                    break;
                default:
                    System.out.println("Invalid choice. Please try
again.");
```

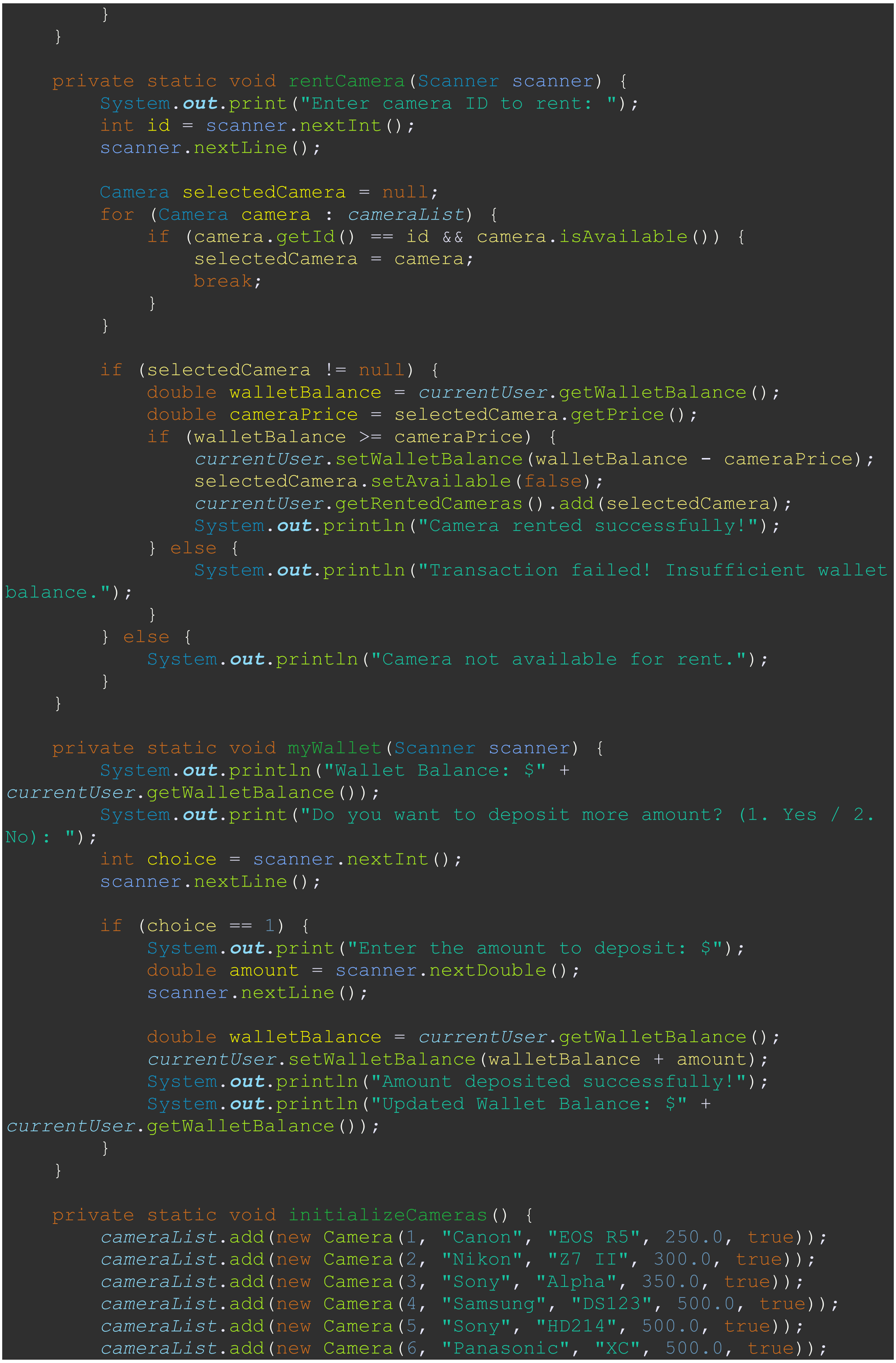
```
            }
        }
    }



      private static void addCamera(Scanner scanner) {
        System.out.print("Enter camera ID: ");
        int id = scanner.nextInt();
        scanner.nextLine();
        System.out.print("Enter camera brand: ");
        String brand = scanner.nextLine();
        System.out.print("Enter camera model: ");
        String model = scanner.nextLine();
        System.out.print("Enter camera price: ");
        double price = scanner.nextDouble();
        scanner.nextLine();
        Camera camera = new Camera(id, brand, model, price, true);
        cameraList.add(camera);
        System.out.println("Camera added to the list.");
    }

    private static void removeCamera(Scanner scanner) {
        System.out.print("Enter camera ID to remove: ");
        int id = scanner.nextInt();
        scanner.nextLine();

        Camera cameraToRemove = null;
        for (Camera camera : cameraList) {
            if (camera.getId() == id) {
                cameraToRemove = camera;
                break;
            }
        }

        if (cameraToRemove != null) {
            cameraList.remove(cameraToRemove);
            System.out.println("Camera removed from the list.");
        } else {
            System.out.println("Camera not found in the list.");
        }
    }

    private static void viewAllCameras() {
        System.out.println("\nAvailable Cameras:");

System.out.println("=======================================================
============");
      System.out.println("ID\t\tBrand\t\tModel\t\tPrice\t\t");

      System.out.println("=================================================
==================");

        for (Camera camera : cameraList) {

            if (camera.isAvailable()) {
                System.out.println(camera.getId()+"\t\t" +
camera.getBrand() +"\t\t" + camera.getModel()+"\t\t"  +
camera.getPrice()+"\t\t" );
            }
        }
```



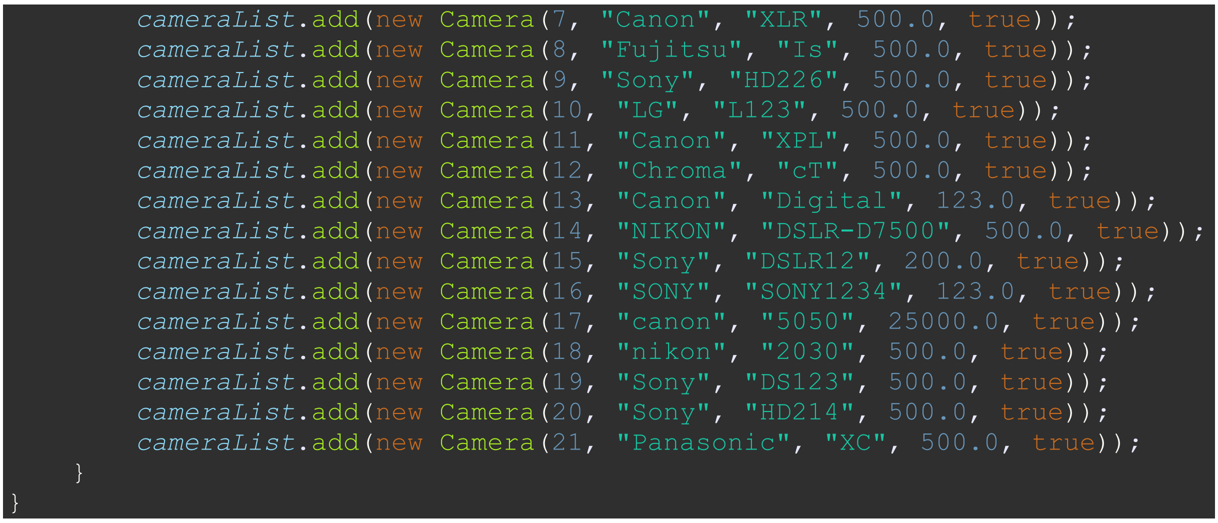
```
      System.out.println("=================================================
==================");


        System.out.println("\nRented Cameras:");


System.out.println("=======================================================
============");
      System.out.println("ID\t\tBrand\t\tModel\t\tPrice\t\t");

      System.out.println("=================================================
==================");

        for (Camera camera : cameraList) {

            if (!camera.isAvailable()) {
                System.out.println(camera.getId()+"\t\t" +
camera.getBrand() +"\t\t" + camera.getModel()+"\t\t"  +
camera.getPrice()+"\t\t" );
            }
        }

      System.out.println("=================================================
==================");

    }

    private static void userLogin(Scanner scanner) {
        System.out.print("Enter username: ");
        String username = scanner.nextLine();
        System.out.print("Enter password: ");
        String password = scanner.nextLine();

        currentUser = new User(username, password);
        System.out.println("Login successful!");
    }

    private static void userMenu(Scanner scanner) {
        boolean backToMenu = false;

        while (!backToMenu) {
            System.out.println("\nUser Main Menu");
            System.out.println("1. My Cameras");
            System.out.println("2. Rent a Camera");
            System.out.println("3. View All Cameras");
            System.out.println("4. My Wallet");
            System.out.println("5. Exit");
            System.out.print("Enter your choice: ");
            int choice = scanner.nextInt();
            scanner.nextLine();

            switch (choice) {
                case 1:
                    viewRentedCameras();
                    break;
                case 2:
                    rentCamera(scanner);
                    break;
                case 3:
```



```
                    viewmyCameras();
                    break;
                case 4:
                    myWallet(scanner);
                    break;
                case 5:
                    welcomepage();
                    break;
                default:
                    System.out.println("Invalid choice. Please try 
again.");
            }
        }
    }
    private static void viewmyCameras()
    {

      System.out.println("=================================================
==================");
      System.out.println("ID\t\tBrand\t\tModel\t\tPrice\t\t");

      System.out.println("=================================================
==================");

        for (Camera camera : cameraList) {

            if (camera.isAvailable()) {
                System.out.println(camera.getId()+"\t\t" + 
camera.getBrand() +"\t\t" + camera.getModel()+"\t\t"  + 
camera.getPrice()+"\t\t" );
            }
        }

      System.out.println("=================================================
==================");



    }
    private static void viewRentedCameras() {
        ArrayList<Camera> rentedCameras = currentUser.getRentedCameras();
        if (rentedCameras.isEmpty()) {
            System.out.println("You haven't rented any cameras yet.");
        } else {
            System.out.println("\nRented Cameras:");

System.out.println("=======================================================
============");
            System.out.println("ID\t\tBrand\t\tModel\t\tPrice\t\t");

      System.out.println("=================================================
==================");
            for (Camera camera : rentedCameras) {
                System.out.println(camera.getId()+"\t\t" + 
camera.getBrand() +"\t\t" + camera.getModel()+"\t\t"  + 
camera.getPrice()+"\t\t" );

            }

      System.out.println("=================================================
==================");
```



```
        }
    }

    private static void rentCamera(Scanner scanner) {
        System.out.print("Enter camera ID to rent: ");
        int id = scanner.nextInt();
        scanner.nextLine();

        Camera selectedCamera = null;
        for (Camera camera : cameraList) {
            if (camera.getId() == id && camera.isAvailable()) {
                selectedCamera = camera;
                break;
            }
        }

        if (selectedCamera != null) {
            double walletBalance = currentUser.getWalletBalance();
            double cameraPrice = selectedCamera.getPrice();
            if (walletBalance >= cameraPrice) {
                currentUser.setWalletBalance(walletBalance - cameraPrice);
                selectedCamera.setAvailable(false);
                currentUser.getRentedCameras().add(selectedCamera);
                System.out.println("Camera rented successfully!");
            } else {
                System.out.println("Transaction failed! Insufficient wallet
balance.");
            }
        } else {
            System.out.println("Camera not available for rent.");
        }
    }

    private static void myWallet(Scanner scanner) {
        System.out.println("Wallet Balance: $" +
currentUser.getWalletBalance());
        System.out.print("Do you want to deposit more amount? (1. Yes / 2.
No): ");
        int choice = scanner.nextInt();
        scanner.nextLine();

        if (choice == 1) {
            System.out.print("Enter the amount to deposit: $");
            double amount = scanner.nextDouble();
            scanner.nextLine();

            double walletBalance = currentUser.getWalletBalance();
            currentUser.setWalletBalance(walletBalance + amount);
            System.out.println("Amount deposited successfully!");
            System.out.println("Updated Wallet Balance: $" +
currentUser.getWalletBalance());
        }
    }

    private static void initializeCameras() {
        cameraList.add(new Camera(1, "Canon", "EOS R5", 250.0, true));
        cameraList.add(new Camera(2, "Nikon", "Z7 II", 300.0, true));
        cameraList.add(new Camera(3, "Sony", "Alpha", 350.0, true));
        cameraList.add(new Camera(4, "Samsung", "DS123", 500.0, true));
        cameraList.add(new Camera(5, "Sony", "HD214", 500.0, true));
        cameraList.add(new Camera(6, "Panasonic", "XC", 500.0, true));
```



```
        cameraList.add(new Camera(7, "Canon", "XLR", 500.0, true));
        cameraList.add(new Camera(8, "Fujitsu", "Is", 500.0, true));
        cameraList.add(new Camera(9, "Sony", "HD226", 500.0, true));
        cameraList.add(new Camera(10, "LG", "L123", 500.0, true));
        cameraList.add(new Camera(11, "Canon", "XPL", 500.0, true));
        cameraList.add(new Camera(12, "Chroma", "cT", 500.0, true));
        cameraList.add(new Camera(13, "Canon", "Digital", 123.0, true));
        cameraList.add(new Camera(14, "NIKON", "DSLR-D7500", 500.0, true));
        cameraList.add(new Camera(15, "Sony", "DSLR12", 200.0, true));
        cameraList.add(new Camera(16, "SONY", "SONY1234", 123.0, true));
        cameraList.add(new Camera(17, "canon", "5050", 25000.0, true));
        cameraList.add(new Camera(18, "nikon", "2030", 500.0, true));
        cameraList.add(new Camera(19, "Sony", "DS123", 500.0, true));
        cameraList.add(new Camera(20, "Sony", "HD214", 500.0, true));
        cameraList.add(new Camera(21, "Panasonic", "XC", 500.0, true));
    }
}
```