Phase-End Project

Camera Rental Application

Code:

```
package camera;
import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;
class cameraData {
 private int cameraId;
 private String brand;
 private String model;
 private double price;
 private boolean available;
 cameraData(int cameraId, String brand, String model, double price, boolean available) {
 this.cameraId = cameraId;
 this.brand = brand;
 this.model = model;
 this.price = price;
 this.available = available;
 }
 public int getCameraId() {
 return cameraId;
 }
 public String getBrand() {
 return brand;
 }
 public String getModel() {
 return model;
 }
 public double getPrice() {
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 return price;
 }
 public boolean isAvailable() {
 return available;
 }
 public void setAvailable(boolean available) {
 this.available = available;
 }
}
public class CameraRentalApp {
 private static final double INITIAL_BALANCE = 1000;
 private static List<cameraData> cameraList;
 private static double walletBalance;
 public static void main(String[] args) {
 initialize();
 login();
 }
 private static void initialize() {
 cameraList = new ArrayList<>();
 walletBalance = INITIAL_BALANCE;
 cameraList.add(new cameraData(1, "Canon", "DSLR", 1000, true));
 cameraList.add(new cameraData(2, "Sony", "Ds123", 500, false));
 cameraList.add(new cameraData(3, "LG", "5050", 280, true));
 cameraList.add(new cameraData(4, "Lenova", "XPL", 300, true));
 cameraList.add(new cameraData(5, "Nikon", "SRL", 350, true));
 cameraList.add(new cameraData(6, "Sony", "2130", 260, false));
 cameraList.add(new cameraData(7, "Samsung", "DL", 550, true));
 cameraList.add(new cameraData(8, "LG", "Digital", 120, true));
 }
 private static void login() {
 Scanner scanner = new Scanner(System.in);
```

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System.out.println("Developed by  vajjala kalyan");
System.out.println("+------------------------------+");
System.out.println("| WELCOME TO CAMERA RENTAL APP |");
System.out.println("+------------------------------+");
System.out.println("PLEASE LOGIN TO CONTINUE\n");
System.out.print("ENTER USERNAME: ");
String username = scanner.nextLine();
System.out.print("ENTER PASSWORD: ");
String password = scanner.nextLine();
if (username.equals("kalyan") && password.equals("kalyan123")) {
System.out.println("******************");
System.out.println(" LOGIN SUCCESSFUL");
System.out.println("******************\n");
showMainMenu(scanner);
} else {
System.out.println("**********************");
System.out.println(" AUTHENTICATION FAILED");
System.out.println("**********************");
}
System.out.println("********* THANK YOU FOR VISITING CAMERA RENTAL APPLICATION PROJECT!
*********");
}
private static void showMainMenu(Scanner scanner) {
int choice;
do {
System.out.println("\nMENU");
System.out.println("***********");
System.out.println("1. MY CAMERA");
System.out.println("2. RENT A CAMERA");
System.out.println("3. VIEW ALL CAMERAS");
System.out.println("4. MY WALLET");
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System.out.println("5. EXIT");
System.out.print("Select your option: ");
choice = scanner.nextInt();
switch (choice) {
case 1:
showMyCameraMenu(scanner);
break;
case 2:
rentCamera(scanner);
break;
case 3:
viewAllCameras();
break;
case 4:
viewWalletBalance(scanner);
break;
case 5:
return;
default:
System.out.println("INVALID INPUT");
break;
}
} while (true);
}
private static void showMyCameraMenu(Scanner scanner) {
int choice;
do {
System.out.println("\nMY CAMERA");
System.out.println("**********");
System.out.println("1. ADD");
System.out.println("2. REMOVE");
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System.out.println("3. VIEW MY CAMERAS");
System.out.println("4. GO TO PREVIOUS MENU");
System.out.print("Enter Your Choice: ");
choice = scanner.nextInt();
switch (choice) {
case 1:
addCamera(scanner);
break;
case 2:
removeCamera(scanner);
break;
case 3:
viewMyCameras();
break;
case 4:
return;
default:
System.out.println("INVALID INPUT");
break;
}
} while (true);
}
private static void addCamera(Scanner scanner) {
int cameraId = cameraList.size() + 1;
System.out.print("ENTER CAMERA BRAND: ");
String brand = scanner.next();
System.out.print("ENTER CAMERA MODEL: ");
String model = scanner.next();
System.out.print("ENTER CAMERA PRICE PER DAY: ");
double price = scanner.nextDouble();
boolean available = true;
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cameraList.add(new cameraData(cameraId, brand, model, price, available));
System.out.println("YOUR CAMERA HAS BEEN SUCCESSFULLY ADDED TO THE LIST.\n");
System.out.println("**********\n");
viewAllCameras();
}
private static void removeCamera(Scanner scanner) {
System.out.print("WHICH ONE YOU WANT TO REMOVE 'ENTER CAMERA ID': ");
int cameraId = scanner.nextInt();
boolean removed = false;
for (cameraData camera : cameraList) {
if (camera.getCameraId() == cameraId) {
cameraList.remove(camera);
System.out.println("CAMERA SUCCESSFULLY REMOVED FROM THE LIST.");
System.out.println("**********\n");
removed = true;
break;
}
}
if (!removed) {
System.out.println("CAMERA WITH ID " + cameraId + " IS NOT FOUND IN THE LIST.");
}
viewAllCameras();
}
private static void viewMyCameras() {
System.out.println("================================================");
System.out.println("CAMERA_ID\t| BRAND\t| MODEL\t| PRICE\t| STATUS |");
System.out.println("================================================");
for (cameraData data : cameraList) {
String status = data.isAvailable() ? "Available" : "Rented";
System.out.println(data.getCameraId() + "\t\t" + data.getBrand() + "\t" +
data.getModel() + "\t" +
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data.getPrice() + "\t" + status);
}
System.out.println("================================================");
}
private static void rentCamera(Scanner scanner) {
System.out.println("================================================");
System.out.println("CAMERA_ID\t| BRAND\t| MODEL\t| PRICE\t| STATUS |");
System.out.println("================================================");
for (cameraData data : cameraList) {
if (data.isAvailable()) {
String status = data.isAvailable() ? "Available" : "Rented";
System.out.println(data.getCameraId() + "\t\t" + data.getBrand() + "\t"
+ data.getModel() + "\t" +
data.getPrice() + "\t" + status);
}
}
System.out.println("================================================");
System.out.print("WHICH ONE YOU WANT TO RENT 'ENTER CAMERA ID': ");
int cameraId = scanner.nextInt();
boolean rented = false;
for (cameraData camera : cameraList) {
if (camera.getCameraId() == cameraId) {
if (camera.getPrice() <= walletBalance) {
System.out.println("RENTED SUCCESSFULLY\n");
camera.setAvailable(false);
walletBalance -= camera.getPrice();
System.out.println("CURRENT WALLET BALANCE - " + walletBalance);
} else {
System.out.println("ERROR: TRANSACTION FAILED DUE TO INSUFFICIENT WALLET BALANCE. " +
"PLEASE DEPOSIT THE AMOUNT TO YOUR WALLET.");
}
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rented = true;
break;
}
}
if (!rented) {
System.out.println("CAMERA WITH ID " + cameraId + " IS NOT FOUNDa IN THE LIST.");
}
}
private static void viewAllCameras() {
System.out.println("=================================================");
System.out.println("CAMERA_ID\t| BRAND\t| MODEL\t| PRICE\t| STATUS |");
System.out.println("=================================================");
for (cameraData data : cameraList) {
String status = data.isAvailable() ? "Available" : "Rented";
System.out.println(data.getCameraId() + "\t\t" + data.getBrand() + "\t" +
data.getModel() + "\t" +
data.getPrice() + "\t" + status);
}
System.out.println("=================================================");
}
private static void viewWalletBalance(Scanner scanner) {
System.out.println("YOUR CURRENT WALLET BALANCE IS: " + walletBalance);
System.out.print("DO YOU WANT TO DEPOSIT MORE AMOUNT TO YOUR WALLET? (1.YES 2.NO): ");
int choice = scanner.nextInt();
if (choice == 1) {
System.out.print("ENTER DEPOSIT AMOUNT: ");
double addAmount = scanner.nextDouble();
walletBalance += addAmount;
System.out.println("YOUR WALLET BALANCE UPDATED SUCCESSFULLY...");
}
System.out.println("CURRENT WALLET BALANCE - " + walletBalance);
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    }
}
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