**package** miniprojectJava;

**public** **class** Camera {

**private** **final** **int** id;

**private** **final** String brand;

**private** **final** String model;

**private** **final** **double** rentalAmount;

**public** Camera(**int** id, String brand, String model, **double** rentalAmount) {

**this**.id = id;

**this**.brand = brand;

**this**.model = model;

**this**.rentalAmount = rentalAmount;

}

**public** **int** getId() {

**return** id;

}

**public** String getBrand() {

**return** brand;

}

**public** String getModel() {

**return** model;

}

**public** **double** getRentalAmount() {

**return** rentalAmount;

}

@Override

**public** String toString() {

**return** "Camera [id=" + id + ", brand=" + brand + ", model=" + model + ", rentalAmount=" + rentalAmount + "]";

}

}

2

package miniprojectJava;

import java.util.ArrayList;

import java.util.Scanner;

public class CameraModule {

private static ArrayList<Camera> cameras = new ArrayList<>();

private static final Scanner scanner = new Scanner(System.in);

public static void addCamera() {

try {

System.out.println("ENTER THE CEMERA BRAND : ");

String brand = scanner.nextLine();

System.out.println("ENTER THE MODEL : ");

String model = scanner.nextLine();

System.out.println("ENTER THE PER DAY PRICE : ");

double rentalAmount = scanner.nextDouble();

scanner.nextLine();

if (rentalAmount < 0) {

throw new IllegalArgumentException("Rental amount cannot be negative.");

}

int id = cameras.size() + 1;

cameras.add(new Camera(id, brand, model, rentalAmount));

System.out.println("YOUR CEMERA HAS BEEN ADDED SUCCESSFULLY.");

} catch (Exception e) {

System.out.println("Error: " + e.getMessage());

}

}

public static void listCameras() {

if (cameras.isEmpty()) {

System.out.println("No cameras available for rent.");

} else {

System.out.println("\n--- Available Cameras ---");

for (Camera camera : cameras) {

System.out.println(camera);

}

}

}

public static void rentCamera() {

if (cameras.isEmpty()) {

System.out.println("No cameras available for rent.");

return;

}

listCameras();

System.out.print("Enter the index of the camera to rent: ");

int index = scanner.nextInt() - 1;

scanner.nextLine(); // consume newline

if (index < 0 || index >= cameras.size()) {

System.out.println("Invalid camera index.");

return;

}

Camera camera = cameras.get(index);

if (WalletModule.getWalletBalance() >= camera.getRentalAmount()) {

WalletModule.deductAmount(camera.getRentalAmount());

System.out.println("Camera rented successfully. Amount deducted: " + camera.getRentalAmount());

} else {

System.out.println("Insufficient wallet balance. Please add funds to your wallet.");

}

}

public static void removeCamera() {

System.out.println("ENTER CEMERA ID : ");

int index = scanner.nextInt();

if (index <= cameras.size()) {

cameras.remove(index-1);

System.out.println("CAMERA REMOVED SUCCESSFULLY");

} else {

System.out.println("CAMERA IS NOT PRESENT");

}

}

}

3.

**package** miniprojectJava;

**import** java.util.Scanner;

**public** **class** CameraRentalApplication {

**private** **static** **final** Scanner ***scanner*** = **new** Scanner(System.***in***);

**public** **static** **void** main(String[] args) {

System.***out***.println("PLEASE LOGIN TO CONTINUE");

System.***out***.print("USERNAME - ");

String name = ***scanner***.nextLine();

System.***out***.print("PASSWORD - ");

String password = ***scanner***.nextLine();

**if** (name.equals("admin") && password.equals("admin123")) {

**while** (**true**) {

System.***out***.println("-------------------------------");

System.***out***.println("1. MY CEMERA");

System.***out***.println("2. RENT A CEMERA");

System.***out***.println("3. VIEW ALL CEMERAS");

System.***out***.println("4. MY WALLET");

System.***out***.println("5. EXIT");

System.***out***.println("-------------------------------");

System.***out***.println("ENTER YOUR CHOICE: ");

System.***out***.println("-------------------------------");

**int** choice = ***scanner***.nextInt();

***scanner***.nextLine();

**switch** (choice) {

**case** 1:

*userMenu*();

**break**;

**case** 2:

CameraModule.*rentCamera*();

**break**;

**case** 3:

CameraModule.*listCameras*();

**break**;

**case** 4:

WalletModule.*manageWallet*();

**break**;

**case** 5:

System.***out***.println("Exiting application...");

System.*exit*(0);

**default**:

System.***out***.println("Invalid choice. Please try again.");

}

}

} **else** {

System.***out***.println("please Enter valid data");

}

}

**private** **static** **void** showWelcomeScreen() {

***scanner***.nextLine();

}

**private** **static** **void** userMenu() {

**boolean** condition = **true**;

**while** (condition) {

System.***out***.println("---------------------------------");

System.***out***.println("1. ADD");

System.***out***.println("2. REMOVE");

System.***out***.println("3. VIEW MY CEMERA");

System.***out***.println("4. GO TO PREVIOUS MENU");

System.***out***.println("---------------------------------");

System.***out***.println("ENTER YOUR CHOICE: ");

System.***out***.println("---------------------------------");

**int** choice = ***scanner***.nextInt();

**switch** (choice) {

**case** 1:

CameraModule.*addCamera*();

**break**;

**case** 2:

CameraModule.*removeCamera*();

**break**;

**case** 3:

CameraModule.*listCameras*();

**break**;

**case** 4:

condition = **false**;

**break**;

**default**:

System.***out***.println("Invalid choice. Please try again.");

}

}

}

}

4

**package** miniprojectJava;

**public** **class** InvalidCameraIndexException **extends** Exception {

**public** InvalidCameraIndexException(String message) {

**super**(message);

}

}

//package miniprojectJava;

//

//public class InsufficientBalanceException extends Exception {

// public InsufficientBalanceException(String message) {

// super(message);

// }

//}

package miniprojectJava;

import java.util.ArrayList;

import java.util.Collections;

import java.util.Comparator;

public class UtilityModule {

public static void sortCamerasByRentalAmount(ArrayList<Camera> cameras) {

Collections.sort(cameras, Comparator.comparingDouble(Camera::getRentalAmount));

}

public static Camera searchCameraByModel(ArrayList<Camera> cameras, String model) {

for (Camera camera : cameras) {

if (camera.getModel().equalsIgnoreCase(model)) {

return camera;

}

}

return null;

}

}

5

**package** miniprojectJava;

**import** java.util.Scanner;

**public** **class** WalletModule {

**private** **static** **double** *walletBalance* = 0.0;

**private** **static** **final** Scanner ***scanner*** = **new** Scanner(System.***in***);

**public** **static** **double** getWalletBalance() {

**return** *walletBalance*;

}

**public** **static** **void** deductAmount(**double** amount) {

*walletBalance* -= amount;

}

**public** **static** **void** manageWallet() {

**boolean** condition = **true**;

**while**(condition) {

System.***out***.println("YOUR CURRENT WALLET BALENCE IS : INR." + *walletBalance*);

System.***out***.print("DO YOU WANT TO DEPOSITE MORE AMOUNT TO YOUR WALLET?(1.YES 2.NO) - " );

**int** choice = ***scanner***.nextInt();

**switch** (choice) {

**case** 1:

System.***out***.print("ENTER THE AMOUNT - ");

**double** amount = ***scanner***.nextDouble();

*walletBalance* += amount;

System.***out***.println("YOUR WALLET BALENCE UPDATED SUCCESSFULLY. CURRENT WALLET BALANCE - INR" + *walletBalance*);

System.***out***.println("------------------------------------------------------------------------------------------------------------------------------");

**break**;

**case** 2:

condition=**false**;

**break**;

**default**:

System.***out***.println("Invalid choice. Please try again.");

}

}

}

}