**MINI PROJECT-2**

**CAMERA RENTAL APPLICATION**

**Camera Class**

**package** miniprojectJava;

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

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

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

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

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

**private** String status;

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

**this**.id = id;

**this**.brand = brand;

**this**.model = model;

**this**.rentalAmount = rentalAmount;

**this**.status = status;

}

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

**return** id;

}

**public** String getBrand() {

**return** brand;

}

**public** String getModel() {

**return** model;

}

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

**return** rentalAmount;

}

**public** String getStatus() {

**return** status;

}

**public** **void** setStatus(String status) {

**this**.status = status;

}

}

**CameraModule Class**

package miniprojectJava;

import java.util.ArrayList;

import java.util.Iterator;

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;

String status = "Available";

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

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 ---");

System.out

.println("---------------------------------------------------------------------------------------");

System.out.printf("| %-10s | %-20s | %-15s | %-15s | %-20s |\n", "ID", "BRAND", "MODEL", "PRICE", "STATUS");

System.out

.println("---------------------------------------------------------------------------------------");

for (Camera camera : cameras) {

System.out.printf("| %-10d | %-20s | %-15s| %-15.0f | %-20s |\n", camera.getId(), camera.getBrand(),

camera.getModel(), camera.getRentalAmount(), camera.getStatus());

System.out.println(

"--------------------------------------------------------------------------------------");

}

}

}

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();

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

System.out.println("INVALID CAMERA INDEX.");

return;

}

Camera camera = cameras.get(index);

if (camera.getStatus().equals("Available")) {

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

WalletModule.deductAmount(camera.getRentalAmount());

camera.setStatus("Rented");

System.out.println("CAMERA RENTED SUCCESSFULLY. AMOUNT DEDUCTED: " + camera.getRentalAmount());

} else {

System.out.println("INSUFFICIENT WALLET BALANCE. PLEASE ADD FUNDS TO YOUR WALLET.");

}

} else {

System.out.println("SORRY THIS PRODUCT IS NOT AVAILABLE");

}

}

public static void removeCamera() {

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

int index = scanner.nextInt();

Iterator<Camera> iterator = cameras.iterator();

boolean remove = false;

while (iterator.hasNext()) {

Camera camera = iterator.next();

if (camera.getId() == index) {

iterator.remove();

remove = true;

}

}

if (remove) {

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

} else {

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

}

}

}

**WalletModule Class**

**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();

**if** (amount > 0) {

*walletBalance* += amount;

System.***out***.println(

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

System.***out***.println(

"------------------------------------------------------------------------------------------------------------------------------");

**break**;

} **else** {

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

System.***out***.println("PLEASE ENTER VALID AMOUNT");

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

**break**;

}

**case** 2:

condition = **false**;

**break**;

**default**:

System.***out***.println("INVALID CHOICE. PLEASE TRY AGAIN.");

}

}

}

}

**CameraRentalApplication Class**

**package** miniprojectJava;

**import** java.util.Scanner;

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

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

**private** **static** **void** wecomeScreen() **throws** InterruptedException {

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

Thread.*sleep*(1000);

System.***err***.println(" WELCOME TO CAMERA RENTAL APP ");

Thread.*sleep*(1000);

System.***err***.println("DEVELOPED BY : SREEKANTH REDDY VADDEMANI");

Thread.*sleep*(1000);

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

}

**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.");

}

}

}

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

*wecomeScreen*();

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.......");

Thread.*sleep*(1000);

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

Thread.*sleep*(300);

System.***err***.println(" THANK YOU ");

Thread.*sleep*(300);

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

System.*exit*(0);

**default**:

System.***out***.println("INVALID CHOICE. PLEASE TRY AGAIN.");

}

}

} **else** {

System.***out***.println("PLEASE ENTER VALID DATA");

}

}

}