

```
import java.util.*;
```

```
class User {
```

```
    private String username;
```

```
    private String password;
```

```
    private double walletAmount;
```

```
    private boolean isAdmin;
```

```
    public User(String username, String password, double walletAmount, boolean isAdmin) {
```

```
        this.username = username;
```

```
        this.password = password;
```

```
        this.walletAmount = walletAmount;
```

```
        this.isAdmin = isAdmin;
```

```
    }
```

```
    public String getUsername() {
```

```
        return username;
```

```
    }
```

```
    public String getPassword() {
```

```
        return password;
```

```
    }
```

```
    public double getWalletAmount() {
```

```
        return walletAmount;
```

```
    }
```

```
    public void setWalletAmount(double walletAmount) {
```

```
        this.walletAmount = walletAmount;
```

```
    }
```

```
public boolean isAdmin() {  
    return isAdmin;  
}
```

```
public void setAdmin(boolean isAdmin) {  
    this.isAdmin = isAdmin;  
}  
}
```

```
class Camera {  
    private String brand;  
    private String model;  
    private double rentalAmount;  
  
    public Camera(String brand, String model, double rentalAmount) {  
        this.brand = brand;  
        this.model = model;  
        this.rentalAmount = rentalAmount;  
    }  
  
    public String getBrand() {  
        return brand;  
    }  
  
    public String getModel() {  
        return model;  
    }  
  
    public double getRentalAmount() {  
        return rentalAmount;  
    }  
}
```

```
}
```

```
class CamRentalApp {  
    private static List<User> userList = new ArrayList<>();  
    private static List<Camera> cameraList = new ArrayList<>();  
    private static User loggedInUser = null;  
  
    public static void main(String[] args) {  
        populateUserList();  
        populateCameraList();  
        System.out.println("Welcome to CamRental!");  
        System.out.println("Java Developer: [Balaji G]");  
        System.out.println("-----");  
        loginOrRegister();  
    }  
  
    private static void populateUserList() {  
        userList.add(new User("Admin221", "Bu@221", 0.0, true));  
        userList.add(new User("user1", "password1", 50.0, false));  
        userList.add(new User("user2", "password2", 100.0, false));  
    }  
  
    private static void populateCameraList() {  
        cameraList.add(new Camera("Canon", "D3500", 50.0));  
        cameraList.add(new Camera("Nikon", "V500", 55.0));  
        cameraList.add(new Camera("Sony", "A7R IV", 60.0));  
    }  
  
    private static void loginOrRegister() {  
        System.out.println("\nLogin/Register Menu:");  
        System.out.println("1. Login");  
    }  
}
```

```

System.out.println("2. Register");
System.out.println("3. Exit");
Scanner scanner = new Scanner(System.in);
int choice = scanner.nextInt();
switch (choice) {
    case 1:
        login();
        break;
    case 2:
        register();
        break;
    case 3:
        exitApp();
        break;
    default:
        System.out.println("Invalid choice. Please try again.");
        loginOrRegister();
        break;
}
}

```

```

private static void login() {
    System.out.println("\nLogin:");
    System.out.println("-----");
    System.out.println("Enter username:");
    Scanner scanner = new Scanner(System.in);
    String username = scanner.nextLine();
    System.out.println("Enter password:");
    String password = scanner.nextLine();
    for (User user : userList) {
        if (user.getUsername().equals(username) && user.getPassword().equals(password)) {

```

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        loggedInUser = user;

        System.out.println("Login successful. Welcome, " + username + "!");

        if (user.isAdmin()) {
            showAdminMenu();
        } else {
            showMainMenu();
        }

        return;
    }
}

System.out.println("Invalid username or password. Please try again.");
login();
}

```

```

private static void register() {
    System.out.println("\nRegister:");
    System.out.println("-----");
    System.out.println("Enter username:");
    Scanner scanner = new Scanner(System.in);
    String username = scanner.nextLine();
    System.out.println("Enter password:");
    String password = scanner.nextLine();
    userList.add(new User(username, password, 0.0, false));
    System.out.println("Registration successful. You can now login with your credentials.");
    loginOrRegister();
}

```

```

private static void showMainMenu() {
    System.out.println("\nMain Menu:");
    System.out.println("1. List Cameras");
    System.out.println("2. Rent Camera");
}

```

```
System.out.println("3. Wallet");

System.out.println("4. Add Money to Wallet");

System.out.println("5. Logout");

Scanner scanner = new Scanner(System.in);

int choice = scanner.nextInt();

switch (choice) {

    case 1:

        listCameras();

        break;

    case 2:

        rentCamera();

        break;

    case 3:

        viewWalletAmount();

        break;

    case 4:

        addMoneyToWallet();

        break;

    case 5:

        loggedInUser = null;

        loginOrRegister();

        break;

    default:

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

        showMainMenu();

        break;

}

}
```

```
private static void listCameras() {

    System.out.println("\nAvailable Cameras:");
```

```

System.out.println("-----");
System.out.println("ID\tBrand\tModel\tRental Amount");
for (int i = 0; i < cameraList.size(); i++) {
    Camera camera = cameraList.get(i);
    System.out.println(i + 1 + "\t" + camera.getBrand() + "\t" + camera.getModel() + "\t$" +
camera.getRentalAmount());
}
showMainMenu();
}

```

```

private static void rentCamera() {
    System.out.println("\nRent Camera:");
    System.out.println("-----");
    System.out.println("Enter the camera ID or 0 to go back:");
    Scanner scanner = new Scanner(System.in);
    int cameraId = scanner.nextInt();
    if (cameraId >= 1 && cameraId <= cameraList.size()) {
        Camera selectedCamera = cameraList.get(cameraId - 1);
        System.out.println("Selected Camera: " + selectedCamera.getBrand() + " " +
selectedCamera.getModel());
        System.out.println("Enter rental duration (in days):");
        int rentalDuration = scanner.nextInt();
        double rentalAmount = selectedCamera.getRentalAmount() * rentalDuration;
        if (loggedInUser.getWalletAmount() >= rentalAmount) {
            loggedInUser.setWalletAmount(loggedInUser.getWalletAmount() - rentalAmount);
            System.out.println("Camera rented successfully!");
            System.out.println("Rental Amount: $" + rentalAmount);
        } else {
            System.out.println("Insufficient wallet balance. Please add money to the wallet.");
        }
    } else if (cameraId == 0) {
        showMainMenu();
    }
}

```

```

    } else {
        System.out.println("Invalid camera ID. Please try again.");
        rentCamera();
    }
    showMainMenu();
}

private static void viewWalletAmount() {
    System.out.println("\nWallet Amount: $" + loggedInUser.getWalletAmount());
    showMainMenu();
}

private static void addMoneyToWallet() {
    System.out.println("\nAdd Money to Wallet:");
    System.out.println("-----");
    System.out.println("Enter the amount to add to the wallet:");
    Scanner scanner = new Scanner(System.in);
    double amount = scanner.nextDouble();
    System.out.println("Enter card number:");
    String cardNumber = scanner.next();
    System.out.println("Processing payment...");

    loggedInUser.setWalletAmount(loggedInUser.getWalletAmount() + amount);
    System.out.println("Payment successful. Wallet amount updated: $" +
        loggedInUser.getWalletAmount());
    showMainMenu();
}

private static void exitApp() {
    System.out.println("\nThank you for using CamRental. Goodbye!");
    System.exit(0);
}

```



```
}
```

```
private static void showAdminMenu() {  
    System.out.println("\nAdmin Menu:");  
    System.out.println("1. List Cameras");  
    System.out.println("2. Add Camera");  
    System.out.println("3. Delete Camera");  
    System.out.println("4. Logout");  
    Scanner scanner = new Scanner(System.in);  
    int choice = scanner.nextInt();  
    switch (choice) {  
        case 1:  
            listCameras();  
            break;  
        case 2:  
            addCamera();  
            break;  
        case 3:  
            deleteCamera();  
            break;  
        case 4:  
            loggedInUser = null;  
            loginOrRegister();  
            break;  
        default:  
            System.out.println("Invalid choice. Please try again.");  
            showAdminMenu();  
            break;  
    }  
}
```

```

private static void addCamera() {
    System.out.println("\nAdd Camera:");
    System.out.println("-----");
    System.out.println("Enter brand:");
    Scanner scanner = new Scanner(System.in);
    String brand = scanner.nextLine();
    System.out.println("Enter model:");
    String model = scanner.nextLine();
    System.out.println("Enter rental amount:");
    double rentalAmount = scanner.nextDouble();
    cameraList.add(new Camera(brand, model, rentalAmount));
    System.out.println("Camera added successfully!");
    showAdminMenu();
}

```

```

private static void deleteCamera() {
    System.out.println("\nDelete Camera:");
    System.out.println("-----");
    System.out.println("Enter the camera ID or 0 to go back:");
    Scanner scanner = new Scanner(System.in);
    int cameraId = scanner.nextInt();
    if (cameraId >= 1 && cameraId <= cameraList.size()) {
        Camera deletedCamera = cameraList.remove(cameraId - 1);
        System.out.println("Camera deleted successfully:");
        System.out.println("Brand: " + deletedCamera.getBrand());
        System.out.println("Model: " + deletedCamera.getModel());
    } else if (cameraId == 0) {
        showAdminMenu();
    } else {
        System.out.println("Invalid camera ID. Please try again.");
        deleteCamera();
    }
}

```

```
    }  
    showAdminMenu();  
  }  
}
```