

CAMERA RENTAL APPLICATION PROGRAM:

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

```
class Camera {
```

```
    private static int idCounter = 1;
```

```
    private int id;
```

```
    private String brand;
```

```
    private String model;
```

```
    private double perDayPrice;
```

```
    public Camera(String brand, String model, double perDayPrice) {
```

```
        this.id = idCounter++;
```

```
        this.brand = brand;
```

```
        this.model = model;
```

```
        this.perDayPrice = perDayPrice;
```

```
    }
```

```
    public int getId() {
```

```
        return id;
```

```
    }
```

```
    public String getBrand() {
```

```
        return brand;
```

```
    }
```

```
    public String getModel() {
```

```
        return model;
```

```
    }
```

```
public double getPerDayPrice() {  
    return perDayPrice;  
}  
}
```

```
class CameraRental {  
    private List<Camera> cameraList;  
    private double walletBalance;
```

```
public CameraRental() {  
    cameraList = new ArrayList<>();  
    walletBalance = 0.0;  
}
```

```
public void addCamera(Camera camera) {  
    cameraList.add(camera);  
    System.out.println("Your camera has been successfully added to the list.");  
}
```

```
public void removeCamera(int cameraId) {  
    boolean removed = false;  
    Iterator<Camera> iterator = cameraList.iterator();  
    while (iterator.hasNext()) {  
        Camera camera = iterator.next();  
        if (camera.getId() == cameraId) {  
            iterator.remove();  
            removed = true;  
            break;  
        }  
    }  
}
```

```
if (removed) {  
    System.out.println("Camera successfully removed from the list.");  
} else {  
    System.out.println("Camera with the specified ID not found.");  
}  
}
```

```
public void viewMyCameras() {  
    if (cameraList.isEmpty()) {  
        System.out.println("No cameras are currently added to the list.");  
    } else {  
        System.out.println("My Cameras:");  
        for (Camera camera : cameraList) {  
            System.out.println("ID: " + camera.getId() +  
                ", Brand: " + camera.getBrand() +  
                ", Model: " + camera.getModel() +  
                ", Per Day Price: " + camera.getPerDayPrice() + " INR");  
        }  
    }  
}
```

```
public void rentCamera(int cameraId) {  
    Camera selectedCamera = null;  
    for (Camera camera : cameraList) {  
        if (camera.getId() == cameraId) {  
            selectedCamera = camera;  
            break;  
        }  
    }  
    if (selectedCamera == null) {  
        System.out.println("Camera with the specified ID not found.");  
    }  
}
```

```

    } else {
        if (walletBalance >= selectedCamera.getPerDayPrice()) {
            walletBalance -= selectedCamera.getPerDayPrice();
            System.out.println("Your transaction for the camera has been successfully completed.");
        } else {
            System.out.println("Insufficient balance in your wallet to rent this camera.");
        }
    }
}

```

```

public void viewAllCameras() {
    if (cameraList.isEmpty()) {
        System.out.println("No cameras are currently available for rent.");
    } else {
        System.out.println("Available Cameras:");
        for (Camera camera : cameraList) {
            System.out.println("ID: " + camera.getId() +
                ", Brand: " + camera.getBrand() +
                ", Model: " + camera.getModel() +
                ", Per Day Price: " + camera.getPerDayPrice() + " INR");
        }
    }
}

```

```

public void viewWalletBalance() {
    System.out.println("Your current wallet balance is " + walletBalance + " INR.");
}

```

```

public void depositToWallet(double amount) {
    walletBalance += amount;
    System.out.println("Your wallet balance has been updated successfully. Current balance is " +

```

```

        walletBalance + " INR.");
    }

    public void run() {
        Scanner scanner = new Scanner(System.in);
        int choice;
        do {
            System.out.println("\nWelcome to the Camera Rental App");
            System.out.println("Please login to continue");
            System.out.print("Username: ");
            String username = scanner.nextLine();

            System.out.println("\nMain 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: ");
            choice = scanner.nextInt();
            scanner.nextLine(); // Consume the newline character

            switch (choice) {
                case 1:
                    System.out.println("\nMy Cameras Menu:");
                    System.out.println("a. Add");
                    System.out.println("b. Remove");
                    System.out.println("c. View My Cameras");
                    System.out.println("d. Go to Previous Menu");
                    System.out.print("Enter your choice: ");
                    char subChoice = scanner.nextLine().charAt(0);

```

```

switch (subChoice) {
    case 'a':
        System.out.print("Enter the camera brand: ");
        String brand = scanner.nextLine();
        System.out.print("Enter the model: ");
        String model = scanner.nextLine();
        System.out.print("Enter the per day price (INR): ");
        double perDayPrice = scanner.nextDouble();
        scanner.nextLine(); // Consume the newline character
        addCamera(new Camera(brand, model, perDayPrice));
        break;
    case 'b':
        System.out.print("Enter the camera ID to remove: ");
        int cameraId = scanner.nextInt();
        scanner.nextLine(); // Consume the newline character
        removeCamera(cameraId);
        break;
    case 'c':
        viewMyCameras();
        break;
    case 'd':
        // Go to previous menu
        break;
    default:
        System.out.println("Invalid choice. Please try again.");
}

break;

case 2:
    System.out.print("Enter the camera ID you want to rent: ");
    int rentCameraId = scanner.nextInt();
    scanner.nextLine(); // Consume the newline character

```

```

        rentCamera(rentCameraId);

        break;
case 3:
    viewAllCameras();

    break;
case 4:
    System.out.println("\nMy Wallet Menu:");
    System.out.println("a. My Wallet");
    System.out.println("b. Add Money");
    System.out.println("c. Go to Previous Menu");
    System.out.print("Enter your choice: ");
    char walletChoice = scanner.nextLine().charAt(0);
    switch (walletChoice) {
        case 'a':
            viewWalletBalance();

            break;
        case 'b':
            System.out.print("Enter the amount to deposit (INR): ");
            double depositAmount = scanner.nextDouble();
            scanner.nextLine(); // Consume the newline character
            depositToWallet(depositAmount);

            break;
        case 'c':
            // Go to previous menu

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

    break;
case 5:
    System.out.println("Exiting the application. Goodbye!");

```

```
        break;
    default:
        System.out.println("Invalid choice. Please try again.");
    }
} while (choice != 5);
}
}
```

```
public class CameraRentalApp {
    public static void main(String[] args) {
        CameraRental rentalApp = new CameraRental();

        // Adding some sample cameras
        rentalApp.addCamera(new Camera("Canon", "EOS R5", 50.0));
        rentalApp.addCamera(new Camera("Nikon", "Z7 II", 60.0));
        rentalApp.addCamera(new Camera("Sony", "A7R IV", 55.0));

        rentalApp.run();
    }
}
```