

Task 2

2.1

```
VehicleRentalApp (1) [Java Application] /Library/Java/Java
```

```
1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate: AAA100
Enter make: toyota
Enter model: camry
Enter year: 2016
Enter number of seats: 4
Car created.
Vehicle added successfully.

1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate: ABC567
Enter make: honda
Enter model: civic
Enter year: 2024
Enter number of seats: 6
Car created.
Vehicle added successfully.

1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate: ZZZ999
Enter make: toyota
Enter model: rav4
Enter year: 2023
Enter number of seats: 4
Car created.
Vehicle added successfully.
```

```
VehicleRentalApp [1] [Java Application] /Library/Java/JavaVirtualMachines/jdk-21.jdk/Contents/Home/bin/java -Xmx512m -Dfile.encoding=UTF-8 -jar VehicleRentalApp.jar
1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate:
Enter make: toyota
Enter model: camry
Enter year: 2003
Enter number of seats: 4
Car created.
Error: Invalid license plate format. Must be 3 letters followed by 3 numbers.

1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate: AAA1000
Enter make: toyota
Enter model: camry
Enter year: 2023
Enter number of seats: 4
Car created.
Error: Invalid license plate format. Must be 3 letters followed by 3 numbers.

1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit

1
1: Car
2: Minibus
3: Pickup Truck
1
Enter license plate: ZZZ99
Enter make: toyota
Enter model: rav4
Enter year: 2023
Enter number of seats: 4
Car created.
Error: Invalid license plate format. Must be 3 letters followed by 3 numbers.

1: Add Vehicle
2: Add Customer
3: Rent Vehicle
4: Return Vehicle
5: Display Available Vehicles
6: Show Rental History
0: Exit
```

2.2

```
Problems Console Eclipse IDE for Java Developers 2025-09 Release  
<terminated> VehicleRentalTest [JUnit] /Library/Java/JavaVirtualMachines/temurin-21.jdk  
Testing license plate validation...  
✓ AAA100 - Valid plate accepted  
✓ ABC567 - Valid plate accepted  
✓ ZZZ999 - Valid plate accepted  
✓ Empty string - Correctly rejected  
✓ Null - Correctly rejected  
✓ AAA1000 (too long) - Correctly rejected  
✓ ZZZ99 (too short) - Correctly rejected  
✓ License plate correctly remains null after invalid attempts  
Testing rent/return vehicle...  
✓ Vehicle initial status: Available  
Vehicle rented to Test Customer  
✓ First rental successful, status: Rented  
Vehicle is not available for renting.  
✓ Second rental correctly failed, status: Rented  
Vehicle returned by Test Customer  
✓ First return successful, status: Available  
Vehicle is not rented.  
✓ Second return correctly failed, status: Available
```

2.3

```
Problems Console Eclipse IDE for Java Developers 2025-09 Release  
<terminated> VehicleRentalTest [JUnit] /Library/Java/JavaVirtualMachines/temurin-21.jdk  
Testing license plate validation...  
✓ AAA100 - Valid plate accepted  
✓ ABC567 - Valid plate accepted  
✓ ZZZ999 - Valid plate accepted  
✓ Empty string - Correctly rejected  
✓ Null - Correctly rejected  
✓ AAA1000 (too long) - Correctly rejected  
✓ ZZZ99 (too short) - Correctly rejected  
✓ License plate correctly remains null after invalid attempts  
Testing rent/return vehicle...  
✓ Vehicle initial status: Available  
Vehicle rented to Test Customer  
✓ First rental successful, status: Rented  
Vehicle is not available for renting.  
✓ Second rental correctly failed, status: Rented  
Vehicle returned by Test Customer  
✓ First return successful, status: Available  
Vehicle is not rented.  
✓ Second return correctly failed, status: Available
```

HashtagFootballer task 2.1		
		818d037 · 1 minute ago
 Car.java	Initial work	2 weeks ago
 Customer.java	Initial work	2 weeks ago
 Minibus.java	Initial work	2 weeks ago
 PickupTruck.java	Initial work	2 weeks ago
 Rentable.java	Initial work	2 weeks ago
 RentalHistory.java	Initial work	2 weeks ago
 RentalRecord.java	Initial work	2 weeks ago
 RentalSystem.java	task 1.4	2 hours ago
 SportCar.java	Initial work	2 weeks ago
 Task1_Output.txt	task 1.6	2 hours ago
 Task2_Output.txt	task 2.1	1 minute ago
 Vehicle.java	task 1.5	2 hours ago
 VehicleRentalApp.java	added the necessary changes for singleton design task 1.1	3 hours ago
 VehicleRentalTest.java	task 2.2	1 minute ago
 customers.txt	task 1.6	2 hours ago
 rental_records.txt	task 1.6	2 hours ago
 testSingletonRentalSystem.java	task 2.3	2 minutes ago
 vehicles.txt	task 1.6	2 hours ago