

The classes:

```
} public class Car
;private String carType
;private String manufacturer
;private String model
;private String plateNumber
;private String code
;private Client client

} public Car(String carType, String manufacturer, String model, String plateNumber, String code)
;this.carType = carType
;this.manufacturer = manufacturer
;this.model = model
;this.plateNumber = plateNumber
;this.code = code
{

Getters and setters //
... //

} public void assignClient(Client client)
;this.client = client
{

} ()public boolean isRented
;return client != null
{
```

Override@

```

} ()public String toString
+ "}"return "Car
+ "\" + carType="\" + carType"
+ "\" + manufacturer="\" + manufacturer ,"
+ "\" + model="\" + model ,"
+ "\" + plateNumber="\" + plateNumber ,"
+ "\" + code="\" + code ,"
+ client="\" + client ,"
;{'
{
{

```

```

} public class Client
;private String name
;private String address
;private String mobileNumber
;private String emailAddress

```

```

} public Client(String name, String address, String mobileNumber, String emailAddress)
;this.name = name
;this.address = address
;this.mobileNumber = mobileNumber
;this.emailAddress = emailAddress
{

```

```

Getters and setters //
... //

```

```

Override@
} ()public String toString
+ "}"return "Client

```

```
+ "\" + name=\"" + name"
+ "\" + address=\"" + address , "
+ "\" + mobileNumber=\"" + mobileNumber , "
+ "\" + emailAddress=\"" + emailAddress , "
;{'
{
{
```

```
;import java.util.ArrayList
```

```
;import java.util.List
```

```
} public class CarRentalSystem
```

```
;private List<Car> cars
```

```
} ()public CarRentalSystem
```

```
;()<>cars = new ArrayList
```

```
{
```

```
} public void addCar(Car car)
```

```
;cars.add(car)
```

```
{
```

```
} ()public void printReport
```

```
} for (Car car : cars)
```

```
;System.out.println(car)
```

```
{
```

```
{
```

```
{
```

```
} public class TestCarRentalSystem
{
    public static void main(String[] args)
    {
        ;()CarRentalSystem carRentalSystem = new CarRentalSystem

        Add five cars //
        ;carRentalSystem.addCar(new Car("Sports", "Porsche", "911", "ABC123", "0001"))
        ;carRentalSystem.addCar(new Car("Family", "Toyota", "Camry", "DEF456", "0002"))
        ;carRentalSystem.addCar(new Car("Personal", "Honda", "Civic", "GHI789", "0003"))
        ;carRentalSystem.addCar(new Car("Sports", "BMW", "Z4", "JKL012", "0004"))
        ;carRentalSystem.addCar(new Car("Family", "Ford", "Explorer", "MNO345", "0005"))

        Assign two cars to clients //
        ;Client client1 = new Client("John Smith", "123 Main St", "555-1234", "john@example.com")
        ;Client client2 = new Client("Jane Doe", "456 Elm St", "555-5678", "jane@example.com")

        ;carRentalSystem.getCars().get(0).assignClient(client1)
        ;carRentalSystem.getCars().get(2).assignClient(client2)

        Print report //
        ;()carRentalSystem.printReport
        {
        {
```

UML Class Diagram:

