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# Car Rental System

This project is a simple car rental system implemented in Java, designed to manage cars, customers, and rental transactions efficiently.

## Features

- \*\*Car Management\*\*: Add and manage cars, track availability.

- \*\*Customer Management\*\*: Add and manage customer details.

- \*\*Rental Transactions\*\*: Rent cars to customers and calculate rental costs.

- \*\*Cost Calculation\*\*: Simplified rental cost calculation based on rental days.

## Class Overview

- \*\*Car\*\*:

- Attributes: make, model, registration number, availability.

- Methods: Getter methods, `setAvailable`, `toString`.

- \*\*Customer\*\*:

- Attributes: name, driver's license.

- Methods: Getter methods, `toString`.

- \*\*RentalTransaction\*\*:

- Attributes: car, customer, rentalDays.

- Methods: `calculateRentalCost`, `toString`.

- \*\*RentalAgency\*\*:

- Manages lists of cars, customers, and transactions.

- Methods: `addCar`, `addCustomer`, `rentCar`, `findCar`, `findCustomer`, `getTransactions`.

## Installation

### Prerequisites

- Java 8 or later

- JUnit 5 for testing

### Steps

1. \*\*Clone the Repository\*\*:

2.Navigate to the Project Directory:

3.Compile the Project: Ensure you have a src directory containing your Java files.

4Run the Tests: Make sure JUnit 5 is set up. You can run tests using your preferred IDE or build tool.

5.Usage

Adding Cars and Customers: Use addCar and addCustomer methods.

Renting Cars: Call rentCar with a registration number, driver's license, and rental days.

Checking Transactions: Retrieve transaction history with getTransactions.

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