Assume you have been hired by a car rental company, to update their car rental record keeping operations. Currently the company has Datasets that contains Vehicle information such as Vin-number, plate number, manufacturer, model, body-type, mileage, year and current location of all the Vehicles on their lot. The system to be built needs to be a web-based application to allow employees to register new vehicle and give out Vehicles to customers based on orders.

The system should also maintain information about each rental location, including their address and main telephone number, to enable the customer to return vehicles to different locations. All the vehicles in the company are classified under a category (such as Sedan, minivan, premium SUV, full size, economy, compact, standard, recreational, passenger van etc.), which are all associated with a specific per diem.

All vehicles in the company have a unique vehicleid, in addition to the vehicle's unique Vin number. The new system must allow employees to search through the website using vehicleid and customers to search through the website to find a vehicle using the categories and make order. The system will either run on a server hosted by the company or hosted in a cloud service. Employees and managers will be able to gain access into and use the system through a web-browser interface. Employees can check-in and rent out cars as well as update car information such as millage and location. Managers can additionally create accounts which will be used by employees to login.

The system will retain information on all customers, including their addresses, phone numbers and their fees & payment options (in form of the debit or credit card information, to be used to pay any fees owed). Only valid driver's license holders. Customers who return vehicles later than the specified number of days, must pay an overdue fee of the vehicles per diem percentage for each overdue hour and the vehicles per diem for each day.

The system will keep track of the amount of money that each customer owes the company. No customer will be able to reserve more than one vehicle. A customer won't be able to reserve a vehicle if they have an overdue fee greater than 100$.