Problem Statement

RentaCar - a Car Rental Management system

The RentaCar owns a lot of different cars that they provide as a rental service. Currently they have a program that contains information such as make, model, year, seats, number of wheel drive, features, bags, type of car, fuel efficiency. All the rental order, car availability and car check-in and checkout information, however, is still kept on paper. This system was previously workable, because the company had only a few customers. Due to the increase on the number of customers, the company needs to automate the check-in and checkout system.

The new system will have a web-based application to check-in and check-out cars. The system should also maintain information about the availability of customers to check availability of cars and book cars. All the cars in the company are classified under a type(such as SUVs, Trucks, Vans, Luxury), to enable customers to find cars that they are interested in renting. All cars have a unique plate number. The cars are ordered on the garages by the make and model. The new system must allow customers to search through the electronic card catalog to find the car based on the make, model and type.

The system will either run on a server hosted by the company or hosted in a cloud service. Company staff will be able to gain access to and use the system through a web-browser interface. However, only staff can check-in and checkout cars.

The system will retain information on all customers, including their address, 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 identifiable residents of US can become staff. To be registered as a company staff citizenship is required and ID is required to be presented to the Company HR.

Customers should return the car until the expected return date. If they do not return on time they are required to pay extra 25$ + rental fee for each delayed day. The staff can also rent a car but they do not pay penalty for the delayed day. Customers who are senior citizens can have a discount of 10% and they pay only 10$ penalty for each delayed day.

The system will keep track of the amount of money that customer owes the company. No customer will be able to checkout a car if they have another car rented already.