Case III, a Car Rental System

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1 The Faraday Car Rental Company

The welknown car rental company named **Faraday** has decided to create an online booking system for rental cars. Access to the system will be through a web service ment for third party solutions, and through a web application ment for employees in travel agencies.

1.1 Pick up

Rental cars from Faraday can be picked up from airports or hotels.

Airports are identified by their three letter IATA airport code¹.

Hotels are identified by a 6 digit number. Hotels have names, addresses, and star ratings as well.

Rental cars are identified by their license plate, ten alphanumeric characters covers the license plates in the countries where Faraday operates. Furthermore rental cars has a type from 'A' to 'F' that specifies the price and number of seats.

The driver is identified by his or her drivers license number and name as in the passport. The driver must be at least 25 years of age.

1.2 Bookings

When a rental car is booked, pick up station (airport or hotel) should be stated as well as the time of pickup (time and date) and time of delivery. If the delivery place is different from the pickup place an extra fee is calculated.

Rental cars can be moved from pickup station to pickup station within the same city.

1.3 The application

The following tasks should be handled by the web application.

- Show a list of available rental cars inclusive car type in a city in a given time period.
- Make a booking for up to 3 weeks of a specific car, either with the same pickup and delivery place or with two different places. An error message should be returned if the car is no longer available.
- See a booking, given the drivers license number from the booking.
- Cancel a booking, given the drivers license number from the booking.

 $^{^1\}mathrm{See}$ http://www.photius.com/wfb2001/airport_codes_alpha.html