Case Study 1

Course(s): Databases
Day: 4

Problem Statement-

1. National Car Rental maintains a detailed database of its inventory (cars to rent) and customers. Customers rent a car mainly for two purposes: business and leisure.
    a. For each customer, National records the social security number, name, and address. If the customer rents the car for business purposes, in addition to the above information, National records the name of the company and the work phone number of the customer.
    b. In order to provide better service to customers, National prioritizes bookings based on length-of rent (LOR). National offers the following types of cars: luxury, midsize, and economy. For each type, the company calculates protection level. A protection level is the number of cars that should be reserved for the demand in the current class.
    c. The company monitors the number of cars of a particular type available, as well. National charges customers a daily rate depending on LOR and the type of car they rent.
    d. A customer may be assigned exactly one car, and a car may be assigned to one or more customers as long as there is no overlap. Draw an EE-R diagram for the above circumstances.

Draw an ERD and convert into tables also.