

**Name of the Case Study : Car Rental Company**

**Course Linkage : RDBMS**

## Focus Area : ER Diagram

## Complexity : Medium

## Problem Statement

A database is to be designed for a Car Rental Company. The information required includes a description of cars, subcontractors (i.e. garages), company expenditures, company revenues and customers. Cars are to be described by such data as: make, model, year of production, engine size, fuel type, number of passengers, registration number, purchase price, purchase date, rent price and insurance details. It is the company policy not to keep any car for a period exceeding one year. All major repairs and maintenance are done by subcontractors (i.e. franchised garages), with whom Car Rental Company has long-term agreements. Therefore the data about garages to be kept in the database includes garage names, addressees, range of services and the like. Some garages require payments immediately after a repair has been made; with others Car Rental Company has made arrangements for credit facilities. Company expenditures are to be registered for all outgoings connected with purchases, repairs, maintenance, insurance etc. Similarly the cash inflow coming from all sources - car hire, car sales, insurance claims - must be kept of file. Car Rental Company maintains a reasonably stable client base. For this privileged category of customers special credit card facilities are provided. These customers may also book in advance a particular car. These reservations can be made for any period of time up to one month. Casual customers must pay a deposit for an estimated time of rental, unless they wish to pay by credit card. All major credit cards care accepted. Personal details (such as name, address, telephone no, driving license, number) about each customer are kept in the database.

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## Questions

1. Identify all of the entities
2. Identify the relationships between entities
3. Draw an Entity Relationship diagram for Car Rental Case Study.

## Learning Outcomes:

1. Students will be able understand the logical database design
2. Able to distinguish between entity, relationship, relationship types and attributes