

Tutorial D01: Dimensional Modelling

Question on Dimensional Modelling

The PopFlexi Rental Agency (PRA) rents apartment and commercial property in the Central business district. Each property has an address and owner.

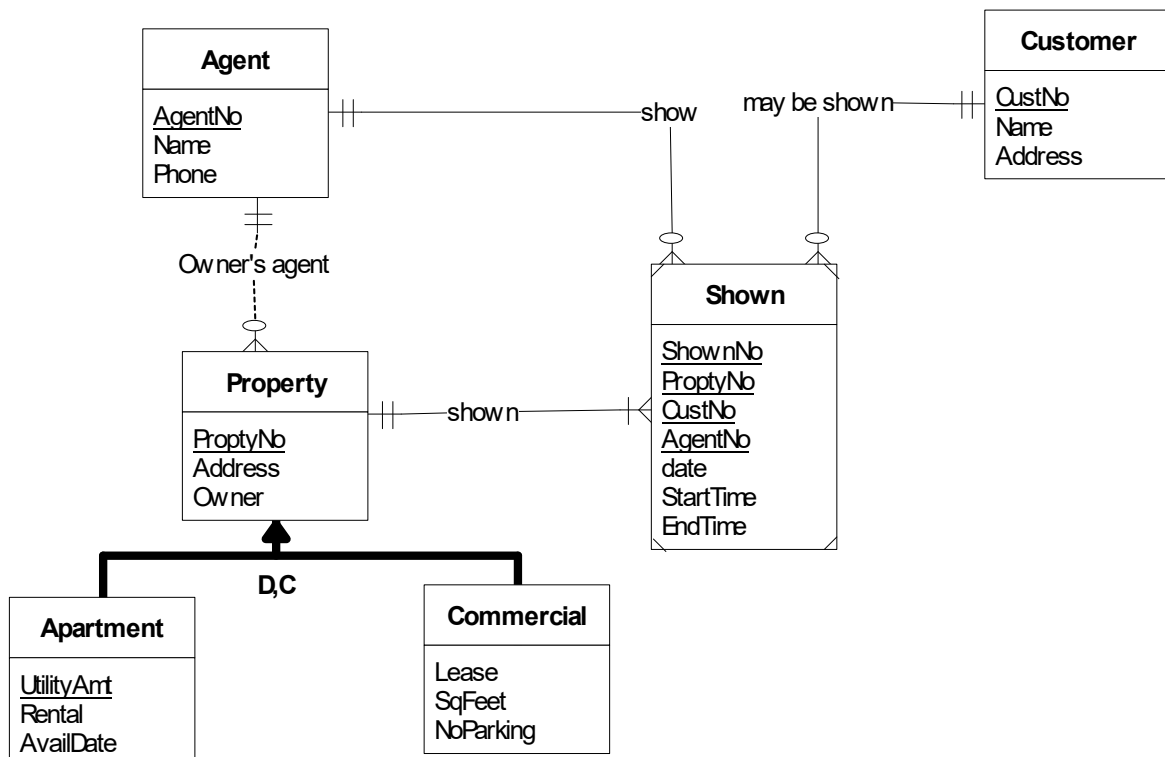
- Apartments rent by the month and the system needs the monthly rental, the approximate utility bills, and an available date.
- Commercial property rents by the year and the systems provides yearly lease cost, square feet and number of parking spaces for each property.

PRA employs agents to rent the property. The system keeps the name, address and phone number for each agent. Each property has a single 'owner's agent' who is responsible for working with the owner to assure the property is maintained. There are number of agents who are 'renter's agents' who show the property and try to obtain renters for it.

When an agent shows a property, the system must record each date and time and potential customer that a given agent showed a given property to. Agents may be both owner and renter agents for a given property. Each property may have many renters' agents and each renter agent can show many properties several times to the same customer.

The system keeps track of the name, address and phone for each customer.

The ERD for the above rental system is shown below:



PRA employs you to assist in analysing agents' activities in terms of the amount of time spent in showing potential customers properties. PRA is satisfied with tracking of activities with day of week, month and quarter and year. In addition PRA would like to keep the status of property for example, 'Viewed', 'Rented' and the status date.

- (a) Using dimensional modelling, design an appropriate data warehouse in the space provided.
- (b) What is/are the metric(s)/fact(s)/measurement(s) of the Fact table and show how it/they is/are computed?
- (c) State the lowest level of detail demonstrated by the data warehouse.