

Design a database for the following scenario by drawing an E-R Diagram.

What queries do you think the dealership will want to make on this database? By who? When? List 6. Make sure your E-R Diagram can support these queries.

Car dealership.

The dealership employs a number of people. Each employee has a unique employee ID (EID). Some employees manage other employees. Each employee is paid a base salary plus a commission on each car they sell (5% for the first 5 cars a month, 10% for each car after the fifth), a 2% commission on the monthly payment of each car they lease someone (while that car is under lease), plus 2% of the sales made by anyone they directly manage. (What other data about employees can you think of recording?)

Each car has a unique vehicle identification number (VIN), make, model, year, color (outer and interior), base price, arrival date. (What else can you think of recording?)

When a car is sold the selling price (which may not equal the base price) and the date is recorded.

Cars can be used or new. New cars come with a warranty option. Used cars have some number of miles on them. Warranties have a price and duration based on miles and time. Every used car goes through a 6 point inspection before it is sold. The results of this inspection, and any repairs required, must be recorded so that the cost of the repairs can be offset by a higher selling price.

The dealership also leases cars and, upon the expiration of the lease, sells the cars as used. Previously leased cars are sold for a higher price than other used cars. Only new cars are available for leasing. A lease has a duration and a monthly payment.

This dealership does not have a service department.