



Databases

Database Design Using E-R Model: Exercises

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2021/2022, Lesson #4 - TP



Outline

- Exercise #1: Automobile Company
- Exercise #2: Worldwide Package Delivery Company

Exercise #1

An automobile company needs a database to assist its dealers in maintaining customer records and dealer inventory and to assist sales staff in ordering cars. Each vehicle is identified by a vehicle identification number (VIN). Each individual vehicle is a particular model of a particular brand offered by the company (e.g., the XF is a model of the car brand Jaguar of Tata Motors). Each model can be offered with a variety of options, but an individual car may have only some (or none) of the available options. The database needs to store information about models, brands, and options, as well as information about individual dealers, customers, and cars.

- TODO:
 - E-R diagram, set of relational schemas, and list of constraints, including primary-key and foreign-key constraints

Exercise #2

Design a database for a worldwide package delivery company (e.g., DHL). The database must be able to keep track of customers who ship items and customers who receive items; some customers may do both. Each package must be identifiable and trackable, so the database must be able to store the location of the package and its history of locations. Locations include trucks, planes, airports, and warehouses.

- **TODO:**
 - E-R diagram, set of relational schemas, and list of constraints, including primary-key and foreign-key constraints

Q&A



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7

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