

Discussion Exercise

Develop a 'simple' model of a flight reservation system. The model should include:

1. A plane (with a unique ID) is assigned to each flight. The assignment can be different each day. A flight that flies on Monday and Wednesday can be using different planes on each day.
2. Planes have a bunch of seats, usually identified by a seat number
3. A particular flight number can only be used once a day
4. A particular flight number can have different Source/Destination on different date. For example, flight number "UA111" can be assigned to "Los Angeles → Oakland" on Monday and then changed to "San Francisco → Boston" on Tuesday.

Include a few key attributes for each entity and relationship as you think is necessary (be creative). Some ideas to consider could include:

- Plane type, manufacturer
- Source/Destination of a flight

How to construct the ER model? Translate the model into relational tables using SQL commands.

How will the ER model and relational tables change if:

- Every flight has a fixed "Source/Destination".
- A flight uses the same plane each day.

Take Home Exercise

If you have time add the following to the model:

- A passenger reserves a seat for a particular flight
- Some passengers are frequent flyers, and therefore have account numbers and accumulated miles
- Flights are assigned to a gate which is located in one terminal.
- A gate can handle multiple flights each day, and different flights on various days
- There are terminals (usually identified by letters) which contain the gates (usually identified by numbers)