Database Report – Airport Management System

The database that I chose to design for this project was one of an airport management system that manages employees of the airport and flights in operation. The tables in this Database incorporate the airports themselves, the employees of the subsequent airports, the flights incorporated by the airports, the airlines that operate the flights, the airline employees, the tickets sold by the airlines to the passengers, and the passengers of the flight.

The airport table contains the primary key airport id, and others airport name, location of the airport which marks down to the city id and county id.

The airport employee table is for the employees directly hired by the airport, which consists of the employee's PPSN (primary key) that identifies them, the id of the airport (foreign key, in reference to airport id in the airport table) which they work in, their name, age, employee type (which is the sector they belong to) and their position (specific job title).

The flight table is comprised of the primary key flight id, and others including the destination, departure time, arrival time, status (whether it's on time, delayed, or cancelled), number of stops, flight type (whether it's a direct, zero stops, or connecting flight, one or more stops), and foreign keys origin, which references airport id in the airport table, and airline id which references airline id in the table airline.

The airline table which includes the primary key airline id that identifies the airline, and the name of the airline.

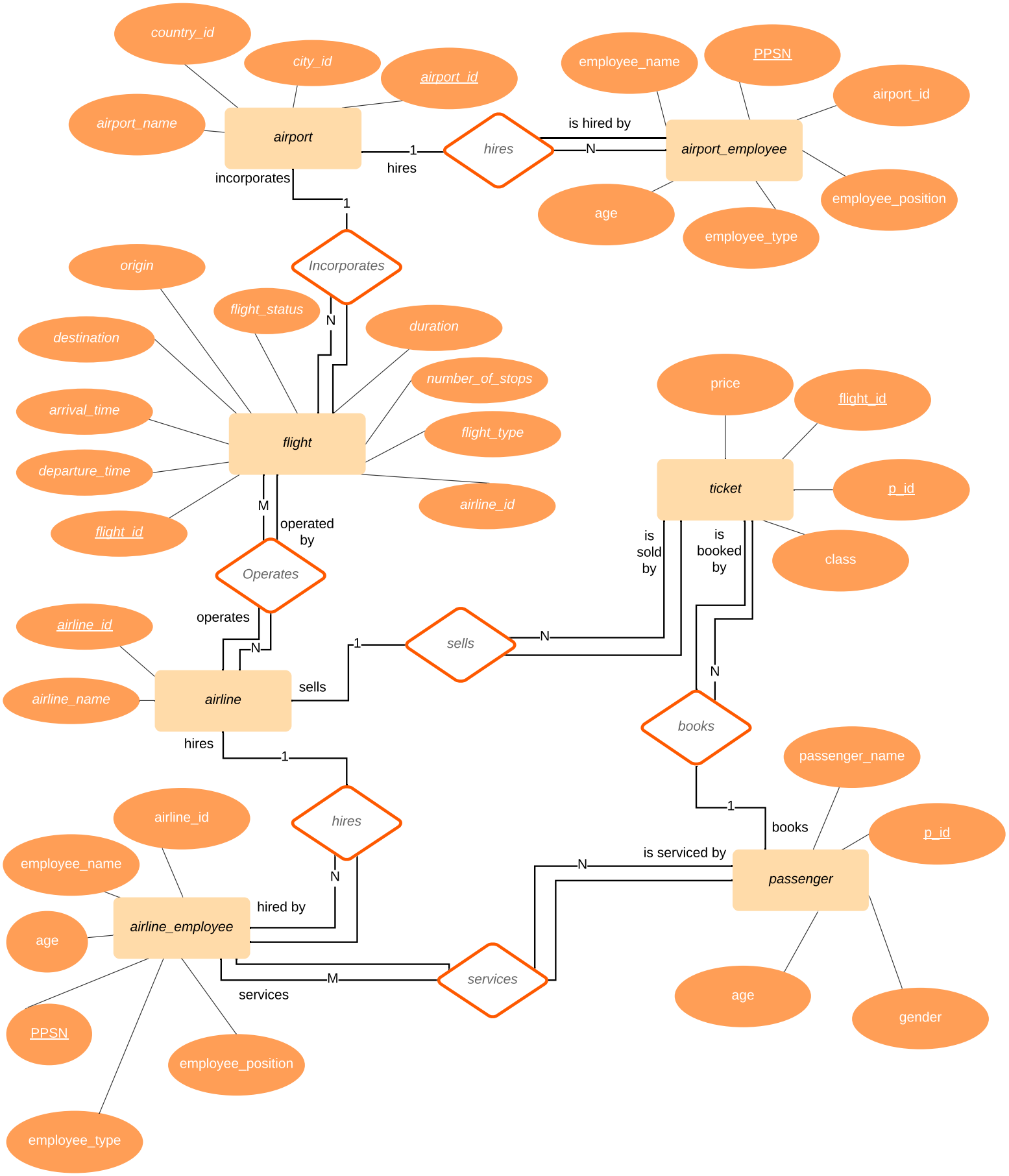
The airline employee table is for the employees of a specific airline, which contains the employee's PPSN (primary key) that identifies them, the id of the airline that recruited them, their name, age, job type, job position, and foreign key airline id of the airline table which identifies the airline they are involved in.

The ticket table which consists of the flight id and p_id (passenger id) which are combined as the primary key of the table that reference the flight id in the flight table and p_id in the passenger table consecutively. The table also contains the price and class of the ticket.

The passenger table which consists of the primary key p_id (passenger id, or passport identification number of the passenger that uniquely identifies them), the name, age, and gender of the passenger also.

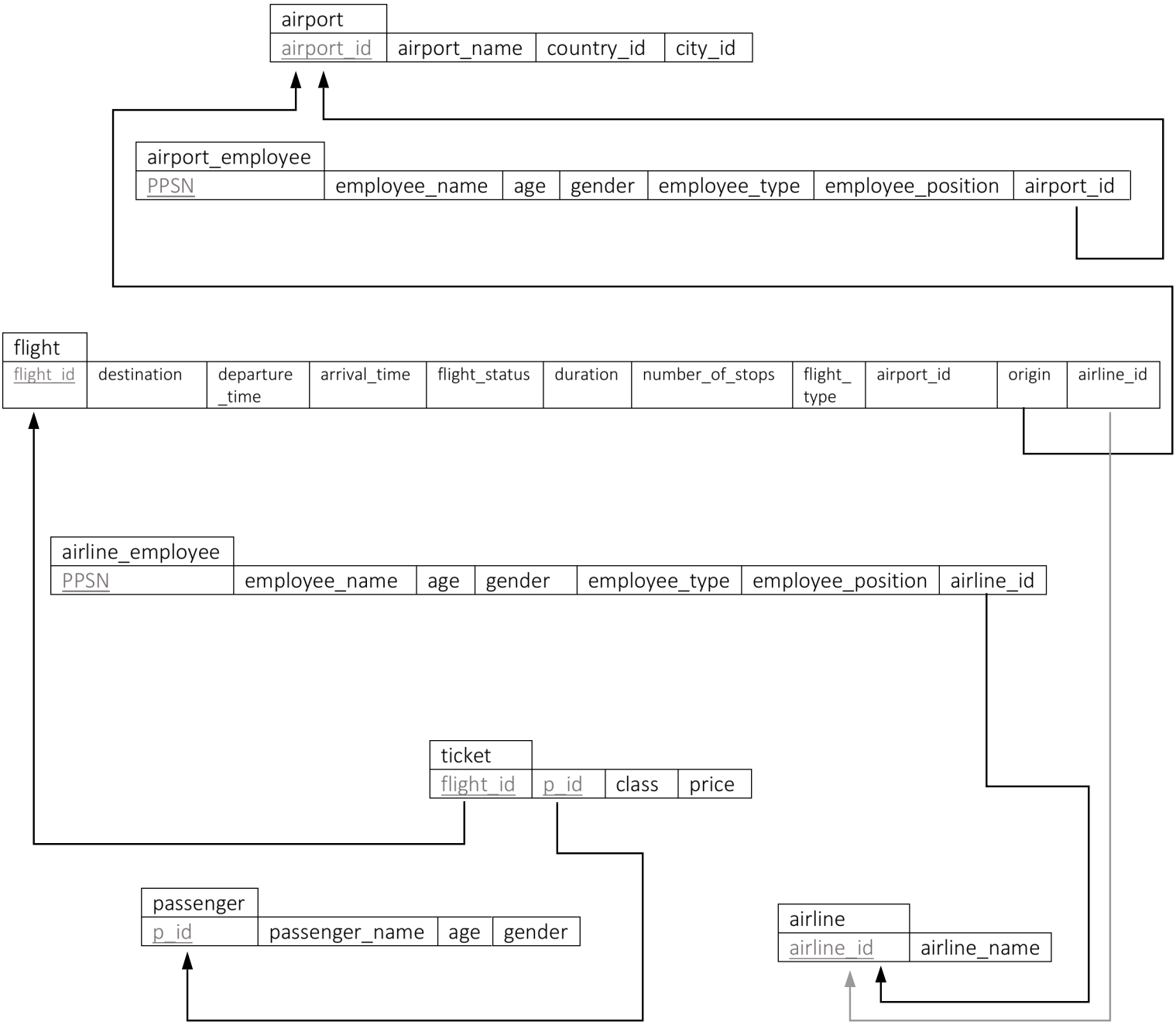
Basic Airport Management Relational Diagram

Caroline Liu | November 20, 2019



Mapping to Relational Schema

The mapping from the entity relationship diagram to an outline relational schema is shown below:



Functional Dependency