

A.2 Airline Companies

We want to analyze airline companies' flights to compare them from the point of view of their ability to fly with occupied seats and therefore to make profits.

For each flight the information of interest is the company name, the departure and the destination cities, the departure time (hour, day, month, year), the number of unoccupied seats in each class (economic, business, first), the revenue of each class.

A flight code (a combination of the *ICAO airline designator* with the flight number) identifies a flight of an airline company from a departure airport to a destination airport (e.g. AP2701 is an Alitalia flight from Malpensa to Fiumicino, available on certain days a week).

A flight is identified by the flight code and the departure time.

For each city the information of interest is the city's name, the country and the continent.

For each company the information of interest is the name and the type (private or national).

Give a conceptual and logical data mart designs assuming that the following examples of business questions have been collected during the user interviews:

1. Number of unoccupied seats in a given year, by flight code, by company name (or type), by class, by departure time (hour, day, month, year)
2. Number of unoccupied seats in a given class and year, by flight code, by company name, by class, by departure (destination) city (country, continent)
3. Number of unoccupied seats and income of the Alitalia company, by year, by month, by destination country.