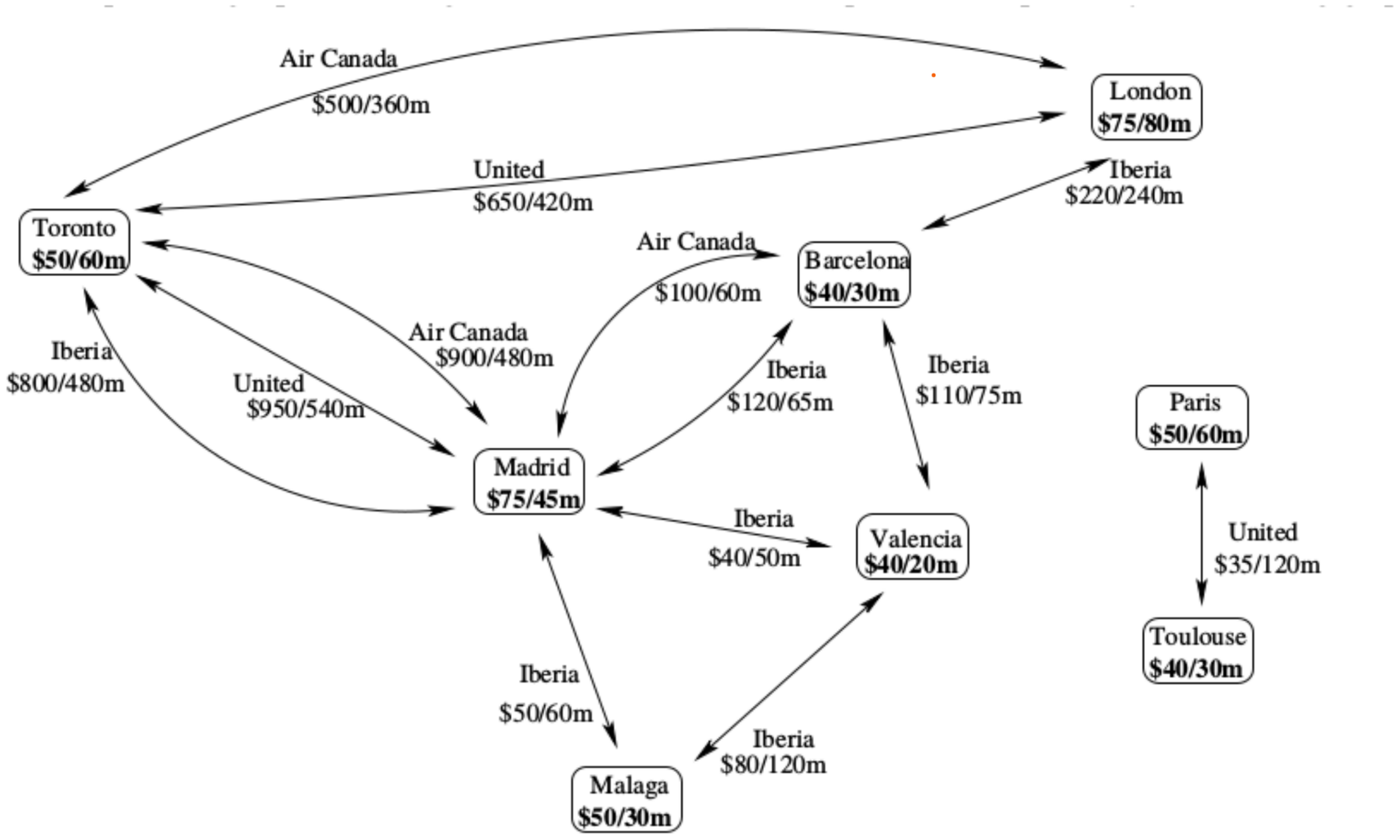
Air flight management system

17 April 2020 15:55



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A database can be naturally represented using Prolog facts.

In this assignment, create a Prolog database representing aparticular flight network. Above is the graph showing a flight network.

Each node denotes an airport-city with its corresponding tax and minimum security delay. Each link denotes a flight and is labelled with its corresponding airline name, price, and duration.

The interface required for the flight database is :

1) The query :

must produce all the possible flights in both directions with the price in dollars and the duration in minutes. Note that your database should only list each flight link once.

2) the query :

?- airport(city,airporttax,minsecuritydelay).

must produce all the cities with the airport tax in dollars and the minimum security delay in minutes.

Assuming the above database in Prolog, write Prolog clauses (facts, rules or queries) to express the following sentences:

(a) Is there a flight from Toronto to Madrid?

(b) A flight from city A to city B with airline C is cheap if its price is less than $400.	

(c) Is it possible to go from Toronto to ::Paris in two flights?

(d) A flight from city A to city B with airline C is preferred if it's cheap (see (b)) or it's with Air Canada.

(e) If there is a flight from city A to city B with United, then there is a flight from city A to city B with Air Canada.