-- Week2Quiz.sql

-- 1. Which of these four airplanes made the most flights out of New York City airports in 2013?

-- Plane tailnums: 'N125UW','N848MQ','N328AA','N247JB'

Select count(tailnum),tailnum from flights where tailnum in ('N125UW','N848MQ','N328AA','N247JB') and origin in('EWR','JFK','LGA') and year=2013 group by tailnum order by count(tailnum) DESC

-- 2. For each of these planes, show the corresponding meta-data (model, manufacturer, engines, etc.) about each plane?

-- What is surprising about the information returned? How do you think this could happen?

Select f.tailnum,p.year,p.type,p.manufacturer,p.model,p.engines,p.seats,p.speed,p.engine from flights f, planes p where f.tailnum in ('N125U','N848MQ','N328AA','N247JB') and f.tailnum=p.tailnum

-- 3. Write a SELECT statement that shows for all of the flights during the period February 14th to February 17th

-- for each of the four planes above: 'N125UW','N848MQ','N328AA','N247JB'

-- Your select statement should return the following information:

-- tailnum, flight date information, departure delay, arrival delay, 3 digit destination code

Select tailnum,year,month,day,dep\_delay,arr\_delay,dest from flights where (month =2 and day=14) or (month =2 and day=17) and tailnum in('N125UW','N848MQ','N328AA','N247JB')

-- 4. Add a join clause, to also show destination airport name.

-- How many rows were returned?

Select tailnum,year,month,day,dep\_delay,arr\_delay,dest,airports.name from flights JOIN airports ON flights.dest = airports.faa where year=2013 and month =2 and day between 14 and 17 and tailnum in('N125UW','N848MQ','N328AA','N247JB')

13 rows

-- 5. now use a LEFT JOIN instead. How many rows were returned?

Select tailnum,year,month,day,dep\_delay,arr\_delay,dest,airports.name from flights left JOIN airports ON flights.dest = airports.faa where year=2013 and month =2 and day between 14 and 17 and tailnum in('N125UW','N848MQ','N328AA','N247JB')

14 rows

-- 6. Add a second left join clause to also show the number of seats in the planes

Select flights.tailnum,flights.year,flights.month,flights.day,flights.dep\_delay,flights.arr\_delay,flights.dest,airports.name,planes.seats from flights left JOIN airports ON flights.dest = airports.faa left join planes on flights.tailnum=planes.tailnum where flights.year=2013 and flights.month =2 and flights.day between 14 and 17 and flights.tailnum in('N125UW','N848MQ','N328AA','N247JB')

-- 7. rewrite your query using table aliases

Select f.tailnum,f.year,f.month,f.day,f.dep\_delay,f.arr\_delay,f.dest,a.name,p.seats from flights f left JOIN airports a ON f.dest = a.faa left join planes p on f.tailnum=p.tailnum where f.year=2013 and f.month =2 and f.day between 14 and 17 and f.tailnum in('N125UW','N848MQ','N328AA','N247JB')

-- 8. What are the names of the five airports that receive the most flights?

select a.name,count(f.dest) from flights f join airports a on f.dest=a.faa group by a.name order by count(f.dest) desc limit 5

-- 9. What are American Airlines’ destination cities from the New York airports?

Select a.name from flights f join airports a on f.dest=a.faa where f.carrier ='AA' and f.origin in('LGA','EWR','JFK') group by a.name