

Compute the total number of flights that left each of the airports with the word Chicago in their name in 2013, using a JOIN clause. (3 points)

```
select A.origin, count(*) from flights as A left join airports as B on A.origin = B.faa where year=2013 and B.name like '%Chicago%' group by A.origin ;
```

Compute the total number of flights that left each of the airports with the word Chicago in their name in 2013, using a subquery. Do you notice a difference in the computation speed? (3 points)

```
select origin, count(*) from flights where year=2013 and origin in (select faa from airports where name like '%Chicago%') group by origin;
```

It seems the subquery is faster.

Find the model of the specific plane that flew the most flights in 2014. When was that plane manufactured? (4 points)

```
select a.tailnum, b.model, b.year from flights as a join planes as b on a.tailnum=b.tailnum where a.year=2014 and a.tailnum != 'NA' group by a.tailnum order by count(*) desc limit 1;
```

To the extent possible, list the model numbers of the eight planes that flew at least 2200 segments for Southwest Airlines in 2015. (5 points)

```
select a.tailnum, b.model from flights a join planes b on a.tailnum=b.tailnum where a.carrier='WN' and a.year=2015 group by a.tailnum having count(*) > 2200 order by count(*) desc limit 8;
```

Among those planes whose year of manufacture is known, list the ten oldest planes used by Delta Airlines in 2015 along with the number of segments they flew in that year. (5 points)

```
select a.tailnum, b.year, sum(1) as numsegment from flights a join planes b on a.tailnum=b.tailnum where a.year=2015 and a.carrier='DL' and not b.year='NULL' group by a.tailnum order by b.year limit 10;
```

The plane with tail number N750AT is a Boeing 757 that was manufactured in 1984. It departed from 22 different airports in 2015. List each airport—with its full name—and the number of flights that this particular plane left from it. (5 points)

```
select B.name, sum(1) as numflights from flights A join airports B on A.origin = B.faa where A.year=2015 and A.tailnum='N750AT' group by A.origin;
```