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Bridge Workshop, SQL Track
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Homework Assignment 1

Please use the tables in the `flights` database. Your deliverable should include the SQL queries that you write in support of your conclusions.

1. Which destination in the flights database is the furthest distance away, based on information in the flights table. Show the SQL query(s) that support your conclusion.

```
SELECT DISTINCT Dest, Distance
FROM Flights
ORDER BY Distance DESC
LIMIT 1
```

```
HNL  4983
```

2. What are the different numbers of engines in the planes table? For each number of engines, which aircraft have the most number of seats? Show the SQL statement(s) that support your result.

```
SELECT DISTINCT Engines
FROM Planes
ORDER BY Engines
```

```
1
2
3
4
```

```
SELECT Engines, MAX(Seats)
FROM Planes
GROUP BY Engines
```

```
1    16
2    400
3    379
4    450
```

```
SELECT DISTINCT Engines, Seats, Model
FROM Planes
WHERE Engines=1 AND Seats=16 OR Engines=2 AND Seats=400 OR
     Engines=3 AND Seats=379 OR Engines=4 AND Seats=450
ORDER BY Engines, Model
```

```
1    16   OTTER DHC-3
2    400  777-200
2    400  777-222
2    400  777-224
2    400  777-232
3    379  A330-223
4    450  747-451
```

3. Show the total number of flights.

```
SELECT COUNT(*)
FROM Flights
336776
```

4. Show the total number of flights by airline (carrier).

```
SELECT Carrier, COUNT(*)
FROM Flights
GROUP BY Carrier
9E   18460
AA   32729
AS   714
B6   54635
DL   48110
EV   54173
F9   685
FL   3260
HA   342
MQ   26397
OO   32
UA   58665
US   20536
VX   5162
WN   12275
YV   601
```

5. Show all of the airlines, ordered by number of flights in descending order.

```
SELECT Carrier, COUNT(*)
FROM Flights
GROUP BY Carrier
ORDER BY COUNT(*) DESC
UA   58665
B6   54635
EV   54173
DL   48110
```

```
AA   32729
MQ   26397
US   20536
9E   18460
WN   12275
VX   5162
FL   3260
AS   714
F9   685
YV   601
HA   342
OO   32
```

6. Show only the top 5 airlines, by number of flights, ordered by number of flights in descending order.

```
SELECT Carrier, COUNT(*)
FROM Flights
GROUP BY Carrier
ORDER BY COUNT(*) DESC
LIMIT 5
```

```
UA   58665
B6   54635
EV   54173
DL   48110
AA   32729
```

7. Show only the top 5 airlines, by number of flights of distance 1,000 miles or greater, ordered by number of flights in descending order.

```
SELECT Carrier, COUNT(*)
FROM Flights
WHERE Distance > 1000
GROUP BY Carrier
ORDER BY COUNT(*) DESC
LIMIT 5
```

```
UA   41135
B6   30022
DL   28096
AA   23583
EV   6248
```

8. Create a question that (a) uses data from the flights database, and (b) requires aggregation to answer it, and write down both the question, and the query that answers the question.

   What and where was the maximum wind gust encountered?

```
SELECT ROUND(MAX(wind_gust),2), Origin
FROM Weather
1206.43    EWR
```