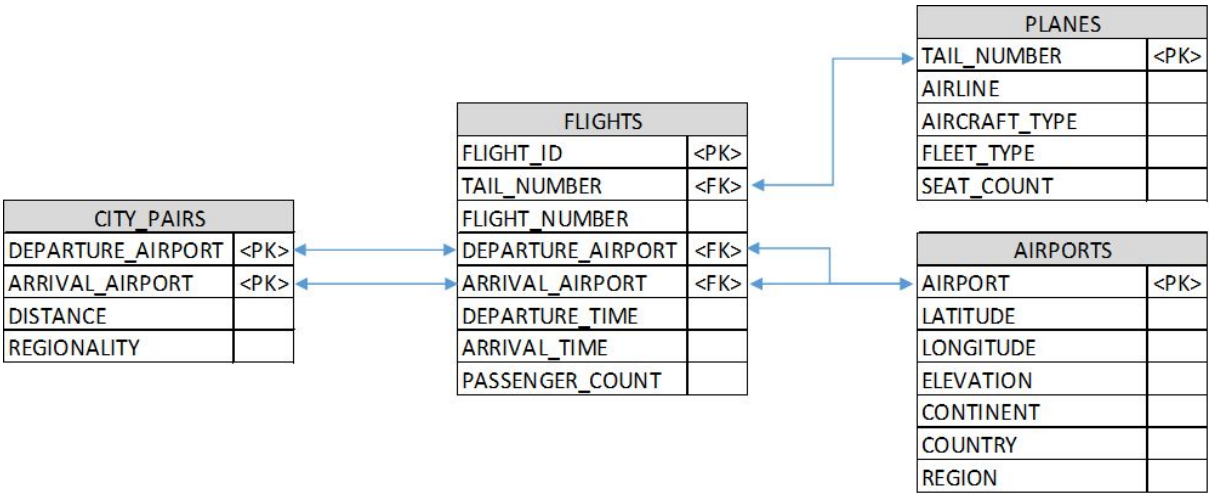
SQL quiz Coursera

[Introduction to Data Analytics for Business]

In this quiz, you'll be writing queries based on the following database



1. How many aircrafts are there in the PLANES table?

SELECT count(tail_number) as all_aircrafts from planes;

```
+---------------+
| all_aircrafts |
+---------------+
|            25 |
+---------------+
```

2. Write a query that provides a list of all planes that have a seat count of 100 or more, ordered from lowest to highest number of seats.

   SELECT * from planes where seat_count >= 100 order by seat_count desc;

3. Write a query that provides the number of flights flown by each aircraft.

   SELECT tail_number, count(flight_id) as sum_flights
   from flights
   group by tail_number
   order by sum_flights desc;

4. Write a query that provides a list of planes that flew more than 600 passengers across all flights.

   How many planes are in that list?

SELECT f.tail_number, count(f.flight_id) as sum_flights, p.seat_count
from flights f
join planes as p
on f.tail_number = p.tail_number
group by f.tail_number
having (sum_flights * p.seat_count) >600
order by sum_flights desc;

```
+-------------+-------------+------------+
| TAIL_NUMBER | sum_flights | SEAT_COUNT |
+-------------+-------------+------------+
| N111AA      |           5 |        150 |
| N116AA      |           4 |        168 |
| N125EE      |           4 |        187 |
+-------------+-------------+------------+
```

5. Write a query that provides the total number of flights by country.

```
SELECT f.tail_number, f.FLIGHT_NUMBER, f.departure_airport,
a.COUNTRY, count(a.COUNTRY) as flights_by_country
from flights f
join airports a
on f.departure_airport = a.airport
group by a.COUNTRY
order by flights_by_country desc;
```

6. Write a query that provides the total number of flights by regionality.

```
SELECT f.tail_number, f.FLIGHT_NUMBER, f.departure_airport, f.arrival_airport,
sp.REGIONality, count(sp.REGIONality) as flights_by_regionality
from flights f
join city_pairs sp
on f.departure_airport = sp.departure_airport
group by sp.REGIONality
order by flights_by_regionality desc;
```

7. How many CITY_PAIRS are there which depart from one of the following airports?
KLAX, KDEN, KORD, KDET, KLGA

SELECT count(*) as sum_depart_from
from CITY_PAIRS
where departure_airport in ('KLAX', 'KDEN', 'KORD', 'KDET', 'KLGA')

```
+-----------------+
| sum_depart_from |
+-----------------+
|             722 |
+-----------------+
```

8. How many airports are missing elevation values?
   SELECT count(*) as missing_elevation_values
   from airports
   where elevation is Null

```
+--------------------------+
| missing_elevation_values |
+--------------------------+
|                        6 |
+--------------------------+
```

9. What flight number had the lowest passenger count (try using a subquery if you can!)?
   SELECT flight_number, TAIL_NUMBER, sum(PASSENGER_COUNT)
   from flights
   where TAIL_NUMBER in
   (SELECT TAIL_NUMBER from Planes order by SEAT_COUNT limit 3)
   group by TAIL_NUMBER
   order by sum(PASSENGER_COUNT)

```
+---------------+-------------+----------------------+
| FLIGHT_NUMBER | TAIL_NUMBER | sum(PASSENGER_COUNT) |
+---------------+-------------+----------------------+
| ALN626        | N133BB      |                   55 |
| SKY163        | N126AA      |                   73 |
| SKY968        | N129CC      |                  126 |
+---------------+-------------+----------------------+
```

```
SELECT flight_number, TAIL_NUMBER, PASSENGER_COUNT
from flights
order by PASSENGER_COUNT
limit 3
```

10. What is the average distance flown by SKY Airline flights (nearest mile)?

```
SELECT AVG(DISTANCE)
FROM flights f
join city_pairs sp
on f.DEPARTURE_AIRPORT = sp.DEPARTURE_AIRPORT AND
f.ARRIVAL_AIRPORT = sp.ARRIVAL_AIRPORT
where TAIL_NUMBER in
(SELECT TAIL_NUMBER from planes where AIRLINE = 'SKY')
```

```
+---------------+
| AVG(DISTANCE) |
+---------------+
| 1767.96389687 |
+---------------+
```