**SQL 201**

**Q) DataMart Creation on tutorial.flights. The output should contain all the attributes as different columns in the datamart created**​  
​

Create a DataMart at airline level with different features like​:

1. Total Number of flights​
2. Total Number of delayed flights (Based on arrival delay)​
3. Percentage of delayed flights
4. Total Number of cancelled flights (All reasons)​
5. Percentage of cancelled flights​
6. Give Rank number to each airline based on percentage of delayed flights​.
7. Give Rank number to each airline based on number of destinations it covers​.
8. Add additional features which can help understand airlines better based on their  
    performance​.

Query:  
SELECT  
 airline\_name,

COUNT(DISTINCT flight\_number) AS num\_flight, -- number of unique flight numbers for each airline

SUM(CASE WHEN arrival\_delay < 0 THEN 1 ELSE 0 END) AS Delayed\_Flights, -- number of delayed flights for each airline

ROUND(SUM(CASE WHEN arrival\_delay < 0 THEN 1 ELSE 0 END) \* 100 / COUNT(\*), 2) AS Flight\_delay\_percentage, -- percentage of delayed flights for each airline

SUM(CASE WHEN was\_cancelled = 'true' THEN 1 ELSE 0 END) AS num\_cancelled, -- number of cancelled flights for each airline

ROUND(SUM(CASE WHEN was\_cancelled = 'true' THEN 1 ELSE 0 END) \* 100 / COUNT(\*), 2) AS num\_cancelled\_percentage, -- percentage of cancelled flights for each airline

DENSE\_RANK() OVER(ORDER BY SUM(CASE WHEN arrival\_delay > 0 THEN 0 ELSE 1 END) \* 100 / COUNT(\*)) AS delay\_rank, -- rank of each airline based on the percentage of flights that arrived on time

DENSE\_RANK() OVER(ORDER BY COUNT(DISTINCT destination\_airport)) AS destination\_rank, -- rank of each airline based on the number of distinct destination airports it serves

SUM(air\_time) AS total\_air\_time, -- total air time for each airline

SUM(distance) AS total\_distance, -- total distance traveled by each airline

COUNT(DISTINCT destination\_airport) AS num\_operating\_airport -- number of unique destination airports served by each airline

FROM

tutorial.flights -- table name

GROUP BY airline\_name; -- group by airline\_name

Text

Description automatically generated

Output:

