Please answer the following questions using Airline DB database.

**How to attempt questions:**

* Students need to write queries for the questions mentioned in the using Airline DB database
* Read the questions carefully before writing the query in **Airline Playground** (in the Playground chapter of SQL)
* Airline DB: https://www.skillovilla.com/playground/sql?exerciseId=0181e251-6ea8-4595-ae2b-0c690119f8db

**How to submit the Assignment:**

* Copy the SQL query code and paste it in the answer section in this file
* Once the assignment is done, submit the file over LMS

**Invalid Submissions:**

* Pasting pictures of the code as answer is **NOT** acceptable
* Uploading output data (CSVs) of the SQL queries is **NOT** acceptable

**Write your answers(query) in the answer and submit it. To write the answer in the assignment, please follow the below example in yellow**

Example

Questions: Extract all the columns of the flights table

Answer: SELECT \* FROM flights

1. ***Questions:******Find list of airport codes in Europe/Moscow timezone***

***Expected Output: Airport\_code***

**Answer: select distinct airport\_code from**

**airports**

**where timezone = 'Europe/Moscow'**

1. ***Write a query to get the count of seats in various fare condition for every aircraft code?***

***Expected Outputs: Aircraft\_code, fare\_conditions ,seat count***

**Answer: SELECT fare\_conditions, aircraft\_code,**

**count(seat\_no) seat\_count**

**FROM seats**

**GROUP BY 1,2**

**ORDER BY 1**

1. ***How many aircrafts codes have at least one Business class seats?***

***Expected Output : Count of aircraft codes***

**Answer: SELECT COUNT(DISTINCT aircraft\_code)**

**FROM seats**

**WHERE fare\_conditions = 'Business'**

1. ***Find out the name of the airport having maximum number of departure flight***

***Expected Output : Airport\_name***

**Answer SELECT split\_part(split\_part(ap.airport\_name, ':', 2),',',1) airport,**

**count(f.flight\_no)**

**from flights f**

**inner join airports ap**

**on f.departure\_airport = ap.airport\_code**

**where actual\_departure is not null**

**GROUP BY 1**

**ORDER BY 2 DESC**

**LIMIT 1**

**method 2**

**SELECT ap.airport\_name,**

**count(f.flight\_no)**

**from flights f**

**inner join airports ap**

**on f.departure\_airport = ap.airport\_code**

**where actual\_departure is not null**

**GROUP BY 1**

**ORDER BY 2 DESC**

**LIMIT 1**

1. ***Find out the name of the airport having least number of scheduled departure flights***

***Expected Output : Airport\_name***

**Answer: SELECT split\_part(split\_part(ap.airport\_name, ':', 2),',',1) airport,**

**count(f.flight\_no)**

**from flights f**

**inner join airports ap**

**on f.departure\_airport = ap.airport\_code**

**where scheduled\_departure is not null**

**GROUP BY 1**

**ORDER BY 2 asc**

**LIMIT 1**

**method 2**

**SELECT ap.airport\_name,**

**count(f.flight\_no)**

**from flights f**

**inner join airports ap**

**on f.departure\_airport = ap.airport\_code**

**where scheduled\_departure is not null**

**GROUP BY 1**

**ORDER BY 2 asc**

**LIMIT 1**

1. ***How many flights from ‘DME’ airport don’t have actual departure?***

***Expected Output : Flight Count***

**Answer: SELECT count(flight\_no)**

**from flights**

**where departure\_airport= 'DME' and actual\_departure is NULL**

1. ***Identify flight ids having range between 3000 to 6000***

***Expected Output : Flight\_Number , aircraft\_code, ranges***

**Answer: select f.flight\_id, f.flight\_no, f.aircraft\_code,**

**a.range**

**from flights f**

**Full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where a.range between 3000 and 6000**

1. ***Write a query to get the count of flights flying between URS and KUF?***

***Expected Output : Flight\_count***

**Answer: select count(flight\_no)**

**from flights**

**where departure\_airport in ('URS', 'KUF') and**

**arrival\_airport in ('KUF', 'URS')**

1. ***Write a query to get the count of flights flying from either from NOZ or KRR?***

***Expected Output : Flight count***

**Answer: select count(flight\_no)**

**from flights**

**where departure\_airport= 'NOZ' or**

**departure\_airport='KRR'**

1. ***Write a query to get the count of flights flying from KZN,DME,NBC,NJC,GDX,SGC,VKO,ROV***

***Expected Output : Departure airport ,count of flights flying from these airports.***

**Answer: select departure\_airport,count(flight\_no)**

**from flights**

**where departure\_airport in ('KZN','DME','NBC','NJC','GDX','SGC','VKO','ROV')**

**group by 1**

**order by 2 desc**

1. ***Write a query to extract flight details having range between 3000 and 6000 and flying from DME***

***Expected Output :Flight\_no,aircraft\_code,range,departure\_airport***

**Answer: select f.flight\_no, f.aircraft\_code,a.range,**

**f.departure\_airport**

**from flights f**

**inner join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where (a.range between 3000 and 6000)**

**and (f.departure\_airport= 'DME')**

1. ***Find the list of flight ids which are using aircrafts from “Airbus” company and got cancelled or delayed***

***Expected Output : Flight\_id,aircraft\_model***

**Answer: select f.flight\_id, split\_part(split\_part(a.model, ':', 2),',',1)**

**from flights f**

**full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where ((f.status ='Cancelled' or f.status= 'Delayed') and**

**(split\_part(a.model, ':', 2) ilike '%Airbus%'))**

**Method 2**

**select f.flight\_id, a.model**

**from flights f**

**full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where ((f.status ='Cancelled' or f.status= 'Delayed') and**

**(a.model ilike '%Boeing%'))**

1. ***Find the list of flight ids which are using aircrafts from “Boeing” company and got cancelled or delayed***

***Expected Output : Flight\_id,aircraft\_model***

**Answer: select f.flight\_id, split\_part(split\_part(a.model, ':', 2),',',1)**

**from flights f**

**full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where ((f.status ='Cancelled' or f.status= 'Delayed') and**

**(split\_part(a.model, ':', 2) ilike '%Boeing%'))**

**method 2**

**select f.flight\_id, a.model**

**from flights f**

**full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where ((f.status ='Cancelled' or f.status= 'Delayed') and**

**(a.model ilike '%Boeing%'))**

1. ***Which airport(name) has most cancelled flights (arriving)?***

***Expected Output : Airport\_name***

**Answer: with my\_table as (**

**SELECT split\_part(split\_part(a.airport\_name, ':', 2),',',1) airport,**

**dense\_rank() over(partition by 1 order by count(f.flight\_id) desc) rnk**

**from airports a**

**full outer join flights f**

**on a.airport\_code= f.arrival\_airport**

**where f.status= 'Cancelled'**

**group by 1)**

**select airport from my\_table**

**where rnk=1**

**Method 2**

**SELECT split\_part(split\_part(a.airport\_name, ':', 2),',',1) airport,**

**count(f.flight\_id)**

**from airports a**

**full outer join flights f**

**on a.airport\_code= f.arrival\_airport**

**where f.status= 'Cancelled'**

**group by 1**

**order by 2 desc**

**limit 2**

1. ***Identify flight ids which are using “Airbus aircrafts”***

***Expected Output : Flight\_id,aircraft\_model***

**Answer: select f.flight\_id, split\_part(split\_part(a.model, ':', 2),',',1)**

**from flights f**

**full outer join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where (split\_part(a.model, ':', 2) ilike '%Airbus%')**

1. ***Identify date-wise last flight id flying from every airport?***

***Expected Output: Flight\_id,flight\_number,schedule\_departure,departure\_airport***

**Answer: with my\_table as(**

**select Flight\_id,flight\_no, scheduled\_departure, departure\_airport,**

**DENSE\_RANK() over(partition by (to\_char(scheduled\_departure, 'YYYY MM DD')),**

**departure\_airport order by max(scheduled\_departure))**

**last\_flight**

**from flights**

**group by 1)**

**select \* from my\_table**

**where last\_flight =1**

1. ***Identify list of customers who will get the refund due to cancellation of the flights and how much amount they will get?***

***Expected Output : Passenger\_name,total\_refund***

**Answer: select tk.passenger\_name,f.status,**

**t.amount as total\_refund**

**from flights f**

**full outer join ticket\_flights t**

**on f.flight\_id = t.flight\_id**

**full outer join tickets tk**

**on t.ticket\_no=tk.ticket\_no**

**where f.status='Cancelled'**

1. ***Identify date wise first cancelled flight id flying for every airport?***

***Expected Output : Flight\_id,flight\_number,schedule\_departure,departure\_airport***

**Answer: with my\_table as(**

**select Flight\_id,flight\_no, scheduled\_departure, departure\_airport,**

**DENSE\_RANK() over(partition by (to\_char(scheduled\_departure, 'YYYY MM DD')),**

**departure\_airport order by min(scheduled\_departure))**

**last\_flight**

**from flights**

**where status= 'Cancelled'**

**group by 1**

**)**

**select \* from my\_table**

**where last\_flight =1**

1. ***Identify list of Airbus flight ids which got cancelled.***

***Expected Output : Flight\_id***

**Answer: select f.flight\_id**

**from flights f**

**inner join aircrafts a**

**on f.aircraft\_code= a.aircraft\_code**

**where (f.status = 'Cancelled' and**

**split\_part(split\_part(a.model, ':', 2),',',1) ilike '%Airbus%')**

**20.*Identify list of flight ids having highest range.***

***Expected Output : Flight\_no, range***

**Answer: with highest\_range\_flight as**

**(select f.flight\_id,f.flight\_no,a.range,**

**dense\_rank() over(order by a.range desc) my\_rnge**

**from**

**flights f full join aircrafts a**

**on a.aircraft\_code=f.aircraft\_code**

**group by f.flight\_id,a.range**

**)**

**select flight\_no,range from highest\_range\_flight**

**where my\_rnge=1**

**group by flight\_no,range**

**order by 2 desc**