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: c

**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

 airport\_code

 from airports

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

    aircraft\_code,

    fare\_conditions,

    COUNT(seat\_no) AS seat\_count

FROM

    seats

GROUP BY

    aircraft\_code,

    fare\_conditions;

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

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

**Answer:**

SELECT

    COUNT(DISTINCT aircraft\_code) AS aircraft\_count

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

    a.airport\_name

FROM

    flights f

JOIN

    airports a ON f.departure\_airport = a.airport\_code

GROUP BY

    a.airport\_name

ORDER BY

    COUNT(f.flight\_id) DESC

LIMIT 1;

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

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

**Answer:**

SELECT

    a.airport\_name

FROM

    flights f

JOIN

    airports a ON f.departure\_airport = a.airport\_code

GROUP BY

    a.airport\_name

ORDER BY

    COUNT(f.flight\_id) asc

LIMIT 1;

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

***Expected Output : Flight Count***

**Answer:**

SELECT

    COUNT(\*) AS flight\_count

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

   flight\_id, Flight\_no , aircraft\_code

FROM

    flights

where flight\_id > 3000

and flight\_id < 6000

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

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

**Answer:**

SELECT

    COUNT(\*) AS flight\_count

FROM

    flights

WHERE

    (departure\_airport = 'URS' AND arrival\_airport = 'KUF')

    OR

    (departure\_airport = 'KUF' AND arrival\_airport = '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(\*) AS flight\_count

FROM

    flights

WHERE

    (departure\_airport = 'NOZ' AND arrival\_airport = 'KRR')

    OR

    (departure\_airport = 'KRR' AND arrival\_airport = 'NOZ');

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(\*) AS flight\_count

FROM

    flights

WHERE

    departure\_airport IN ('KZN', 'DME', 'NBC', 'NJC', 'GDX', 'SGC', 'VKO', 'ROV')

GROUP BY

    departure\_airport;

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

    flight\_no,

    aircraft\_code,

    flight\_id AS range,

    departure\_airport

FROM

    flights

WHERE

    flight\_id BETWEEN 3000 AND 6000

    AND 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:**

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:**

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

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

**Answer:**

SELECT

    a.airport\_name

FROM

    flights f

JOIN

    airports a ON f.arrival\_airport = a.airport\_code

WHERE

    f.status = 'Cancelled'

GROUP BY

    a.airport\_name

ORDER BY

    COUNT(\*) DESC

LIMIT 1;

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

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

**Answer:**

SELECT

    f.flight\_id,

    a.model AS aircraft\_model

FROM

    flights f

JOIN

    aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE

    a.model LIKE 'Airbus%'

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

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

**Answer:**

SELECT

    f.flight\_id,

    f.flight\_no AS flight\_number,

    f.scheduled\_departure,

    f.departure\_airport

FROM

    flights f

JOIN (

    SELECT

        departure\_airport,

        MAX(scheduled\_departure) AS max\_scheduled\_departure

    FROM

        flights

    GROUP BY

        departure\_airport

) AS max\_dep ON f.departure\_airport = max\_dep.departure\_airport

            AND f.scheduled\_departure = max\_dep.max\_scheduled\_departure;

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

    t.passenger\_name,

    SUM(CASE WHEN f.status = 'Cancelled' THEN tf.amount ELSE 0 END) AS total\_refund

FROM

    tickets t

JOIN

    ticket\_flights tf ON t.ticket\_no = tf.ticket\_no

JOIN

    flights f ON tf.flight\_id = f.flight\_id

GROUP BY

    t.passenger\_name;

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

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

**Answer:**

SELECT

    f.flight\_id,

    f.flight\_no AS flight\_number,

    f.scheduled\_departure,

    f.departure\_airport

FROM

    flights f

JOIN (

    SELECT

        departure\_airport,

        MIN(scheduled\_departure) AS min\_scheduled\_departure

    FROM

        flights

    WHERE

        status = 'Cancelled'

    GROUP BY

        departure\_airport

) AS min\_dep ON f.departure\_airport = min\_dep.departure\_airport

            AND f.scheduled\_departure = min\_dep.min\_scheduled\_departure;

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

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

**Answer:**

SELECT

    f.flight\_id

FROM

    flights f

JOIN

    aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE

    a.model LIKE 'Airbus%'

    AND f.status = 'Cancelled';

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

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

**Answer:**