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
        airport_code
    FROM airports
```

```
WHERE timezone = 'Europe/Moscow'
```

2. ***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(*) AS seat_count
FROM seats
GROUP BY 1,2
```

3. ***How many aircrafts codes have at least one Business class seats?***
   Expected Output : Count of aircraft codes

Answer:
```
SELECT
    COUNT(DISTINCT aircraft_code) AS count_aircraft_codes
FROM seats
WHERE fare_conditions = 'Business'
```

4. ***Find out the name of the airport having maximum number of departure flight***
   Expected Output : Airport_name

Answer:
```
SELECT
    airport_name
FROM airports
WHERE airport_code = (
        SELECT
            departure_airport
        FROM flights
        GROUP BY departure_airport
        ORDER BY COUNT(*) DESC
        LIMIT 1
    )
```

5. ***Find out the name of the airport having least number of scheduled departure flights***
   Expected Output : Airport_name

```
Answer: SELECT
            airport_name
        FROM airports
        WHERE airport_code = (
                SELECT
                    departure_airport
                FROM flights
                GROUP BY departure_airport
                ORDER BY COUNT(*) ASC
                LIMIT 1
            )
```

6. ***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
```

7. ***Identify flight ids having range between 3000 to 6000***
   Expected Output : Flight_Number , aircraft_code, ranges

```
Answer: SELECT
            f.Flight_no AS Flight_number,
            f.aircraft_code,
            a.range
        FROM flights AS f
        Left Join aircrafts AS a
        on f.aircraft_code = a.aircraft_code
        WHERE range BETWEEN 3000 AND 6000
```

8. ***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'
```

9. ***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 IN ('NOZ', 'KRR')
```

10. ***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 1
```

11. ***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 AS f
        JOIN aircrafts AS a
        ON f.aircraft_code = a.aircraft_code
        WHERE f.departure_airport = 'DME' AND a.range BETWEEN 3000
AND 6000
```

12. ***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,
            a.model AS aircraft_model
        FROM flights f
        JOIN aircrafts a
        ON f.aircraft_code = a.aircraft_code
        WHERE a.model::text LIKE '%Airbus%' AND (f.status =
'Cancelled' OR f.status = 'Delayed')
```

13. ***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,
            a.model AS aircraft_model
        FROM flights f
        JOIN aircrafts a
        ON f.aircraft_code = a.aircraft_code
        WHERE a.model::text LIKE '%Boeing%' AND (f.status =
'Cancelled' OR f.status = 'Delayed')
```

14. Which airport(name) has most cancelled flights (arriving)?
Expected Output : Airport_name

Answer:
```sql
SELECT
    a.airport_name
FROM airports AS a
JOIN flights AS f
ON a.airport_code = f.arrival_airport
WHERE f.status = 'Cancelled'
GROUP BY 1
ORDER BY COUNT(*) DESC
LIMIT 1
```

15. Identify flight ids which are using "Airbus aircrafts"
Expected Output : Flight_id,aircraft_model

Answer:
```sql
SELECT
    f.flight_id,
    SUBSTRING(a.model::text, 'Airbus') AS aircraft_model
FROM flights f
JOIN aircrafts a
ON f.aircraft_code = a.aircraft_code
WHERE a.model::text LIKE '%Airbus%'
```

16. Identify date-wise last flight id flying from every airport?
Expected Output:
Flight_id,flight_number,schedule_departure,departure_airport

Answer:
```sql
SELECT
    DISTINCT ON (departure_airport, DATE(scheduled_departure))
    flight_id,
    flight_no,
    scheduled_departure,
```

```
          departure_airport
       FROM flights
       ORDER BY departure_airport, DATE(scheduled_departure) DESC,
scheduled_departure DESC
```

17. ***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(tf.amount) AS total_refund
       FROM tickets AS t
       JOIN ticket_flights AS tf
       ON t.ticket_no = tf.ticket_no


       JOIN flights f
       ON tf.flight_id = f.flight_id
       WHERE f.status = 'Cancelled'
       GROUP BY 1
```

18. ***Identify date wise first cancelled flight id flying for every airport?***
    Expected Output :
    Flight_id,flight_number,schedule_departure,departure_airport

```
Answer: SELECT
          DISTINCT ON (departure_airport, DATE(scheduled_departure))
          flight_id,
          flight_no,
          scheduled_departure,
          departure_airport
       FROM flights
       WHERE status = 'Cancelled'
       ORDER BY departure_airport, DATE(scheduled_departure),
scheduled_departure
```

19. ***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::text LIKE '%Airbus%' AND f.status =
'Cancelled'
```

20. ***Identify list of flight ids having highest range.***
Expected Output : Flight_no, range

Answer:
```
SELECT
    flight_id,
    scheduled_arrival - scheduled_departure AS range
FROM flights
ORDER BY range DESC
```