**Attempt the following Questions-**

1. ***Represent the “book\_date” column in “yyyy-mmm-dd” format using Bookings table***

*Expected output: book\_ref, book\_date (in “yyyy-mmm-dd” format) , total amount*

**Answer: select book\_ref, to\_char(book\_date, 'yyyy-mon-dd') as book\_date, total\_amount**

**from bookings**

1. **Get the following columns in the exact same sequence.**

Expected columns in the output: ticket\_no, boarding\_no, seat\_number, passenger\_id, passenger\_name.

**Answer: select b.ticket\_no, boarding\_no, seat\_no as seat\_number, passenger\_id, passenger\_name**

**from boarding\_passes b**

**join tickets t**

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

1. **Write a query to find the seat number which is least allocated among all the seats?**

**Answer: select Min(seat\_no) from boarding\_passes**

1. ***In the database, identify the month wise highest paying passenger name and passenger id.***

Expected output: Month\_name(“mmm-yy” format), passenger\_id, passenger\_name and total amount

**Answer:**with t1 as (select to\_char(book\_date,'mon-yy') as Month\_name, passenger\_id, passenger\_name, total\_amount

  from bookings b

  join tickets t

  on b.book\_ref=t.book\_ref),

  t2 as (select Month\_name, passenger\_id, passenger\_name, total\_amount,

  dense\_rank()over(partition by Month\_name order by total\_amount desc) as ranking

  from t1)

  select Month\_name, passenger\_id, passenger\_name, total\_amount

  from t2

  where ranking=1

1. ***In the database, identify the month wise least paying passenger name and passenger id?***

Expected output: Month\_name(“mmm-yy” format), passenger\_id, passenger\_name and total amount

**Answer: with t1 as (select to\_char(book\_date,'mon-yy') as Month\_name, passenger\_id, passenger\_name, total\_amount**

**from bookings b**

**join tickets t**

**on b.book\_ref=t.book\_ref),**

**t2 as (select Month\_name, passenger\_id, passenger\_name, total\_amount,**

**dense\_rank()over(partition by Month\_name order by total\_amount asc) as ranking**

**from t1)**

**select Month\_name, passenger\_id, passenger\_name, total\_amount**

**from t2**

**where ranking=1**

1. **Identify the travel details of non stop journeys or return journeys (having more than 1 flight).**

Expected Output: Passenger\_id, passenger\_name, ticket\_number and flight count.

**Answer: select passenger\_id, passenger\_name, t.ticket\_no, count(f.flight\_id) as flight\_count**

**from flights f**

**join ticket\_flights tf**

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

**join tickets t**

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

**group by 1,2,3**

**having count(f.flight\_id)>1**

1. **How many tickets are there without boarding passes?**

Expected Output: just one number is required.

**Answer: select count(\*) as without\_boarding\_passes**

**from boarding\_passes**

**where ticket\_no is NULL**

1. **Identify details of the longest flight (using flights table)?**

Expected Output: Flight number, departure airport, arrival airport, aircraft code and durations.

**Answer: SELECT**

**flight\_no,**

**departure\_airport,**

**arrival\_airport,**

**aircraft\_code,**

**(scheduled\_arrival - scheduled\_departure) AS duration**

**FROM**

**flights**

**ORDER BY**

**duration DESC**

**LIMIT 1**

1. **Identify details of all the morning flights (morning means between 6AM to 11 AM, using flights table)?**

Expected output: flight\_id, flight\_number, scheduled\_departure, scheduled\_arrival and timings.

**Answer: select flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival,**

**to\_char(scheduled\_departure, 'HH24:MI') timings**

**from flights**

**where to\_char(scheduled\_departure, 'HH24') between '06' and '11'**

1. **Identify the earliest morning flight available from every airport.**

Expected output: flight\_id, flight\_number, scheduled\_departure, scheduled\_arrival, departure airport and timings.

**Answer:** **select flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival, departure\_airport,**

**to\_char(scheduled\_departure, 'HH24:MI') timings**

**from flights**

**order by 6 asc**

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'**

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 1,2**

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 count\_of\_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 Airport\_name**

**from flights f**

**join airports a**

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

**group by 1**

**order by count(\*) desc**

**limit 1**

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

Expected Output : Airport\_name

**Answer: select Airport\_name**

**from flights f**

**join airports a**

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

**where status='Scheduled'**

**group by 1**

**order by count(\*) 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 status <>'Arrived'**

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

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

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

**from flights f**

**join aircrafts a**

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

**where 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(\*) as flight\_count**

**from flights**

**where departure\_airport=' URS' and arrival\_airport='KUF'**

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 in ('NOZ','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(\*) as count\_of\_flying**

**from flights**

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

**group by 1**

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, f.aircraft\_code, range, departure\_airport**

**from flights f**

**join aircrafts a**

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

**where range 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**: **select flight\_id, model as aircraft\_model**

**from flights f**

**join aircrafts a**

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

**where model like '%Airbus%' and**

**status in ('Cancelled', 'Delayed')**

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 flight\_id, model as aircraft\_model**

**from flights f**

**join aircrafts a**

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

**where model like '%Boeing%' and**

**status in ('Cancelled', 'Delayed')**

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

Expected Output : Airport\_name

**Answer: select airport\_name**

**from flights f**

**join airports a**

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

**where status='Cancelled'**

**group by 1**

**order by count(flight\_id) desc**

**limit 1**

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

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

**Answer:  select flight\_id, model as aircraft\_model**

**from flights f**

**join aircrafts a**

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

**where 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: WITH RankedFlights AS (SELECT**

**f.flight\_id,  f.flight\_no, f.scheduled\_departure, f.departure\_airport,**

**ROW\_NUMBER() OVER (PARTITION BY f.departure\_airport, DATE(f.scheduled\_departure) ORDER BY f.scheduled\_departure DESC) AS rn**

**FROM flights f)**

**SELECT   rf.flight\_id,   rf.flight\_no, rf.scheduled\_departure, rf.departure\_airport**

**FROM RankedFlights rf**

**WHERE rf.rn = 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 passenger\_name, sum(amount) as total\_refund**

**from tickets t**

**join ticket\_flights tf**

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

**join flights f**

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

**where status='Cancelled'**

**group by 1**

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

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

**Answer: WITH FirstCancelledFlights AS (  SELECT**

**f.flight\_id, f.flight\_no,  f.scheduled\_departure,  f.departure\_airport,**

**ROW\_NUMBER() OVER (PARTITION BY f.departure\_airport, DATE(f.scheduled\_departure)   ORDER BY f.scheduled\_departure ASC) AS rn**

**FROM flights f**

**WHERE   f.status = 'Cancelled')**

**SELECT   fc.flight\_id,  fc.flight\_no, fc.scheduled\_departure, fc.departure\_airport**

**FROM    FirstCancelledFlights fc**

**WHERE**

**fc.rn = 1**

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

*Expected Output : Flight\_id*

**Answer: select flight\_id**

**from flights f**

**join aircrafts a**

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

**where model like '%Airbus%' and status='cancelled'**

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

*Expected Output : Flight\_no, range*

**Answer: select f.flight\_no, max(amount) as range**

**from  ticket\_flights t**

**join flights f**

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

**group by 1**