**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\_formatted,**

**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, b.boarding\_no, b.seat\_no,t.passenger\_id, t.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**

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

**from boarding\_passes**

**group by 1**

**having count(seat\_no) = 1**

**order by 2 asc**

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:** **select**

**to\_char(b.book\_date, 'Mon-YY') Month\_name,**

**t.passenger\_id, t.passenger\_name, b.total\_amount**

**from bookings b join tickets t**

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

**group by 1,2,3,4**

**order by 1,4 desc**

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:** **select**

**to\_char(b.book\_date, 'Mon-YY') Month\_name,**

**t.passenger\_id, t.passenger\_name, b.total\_amount**

**from bookings b join tickets t**

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

**group by 1,2,3,4**

**order by 1,4 asc**

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**

**t.passenger\_id, t.passenger\_name, tf.ticket\_no, count(distinct tf.flight\_id) flight\_count**

**from tickets t join ticket\_flights tf on t.ticket\_no=tf.ticket\_no**

**group by 1,2,3**

**having count(distinct tf.flight\_id)> 1**

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

Expected Output: just one number is required.

**Answer:** **select**

**count(\*) ticket\_without\_boarding\_pass\_count**

**from tickets t left join boarding\_passes bp**

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

**where bp.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,**

**extract(epoch from (actual\_arrival-actual\_departure))/60 duration\_minutes**

**from flights**

**where actual\_arrival is not null and actual\_departure is not null**

**order by 5 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,**

**cast(scheduled\_departure as time) timing**

**from flights**

**where cast(scheduled\_departure as time) between '06:00:00' and '11:00:00'**

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:** **with early\_morning\_flights as (**

**select**

**flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival, departure\_airport,**

**row\_number() over (partition by departure\_airport order by scheduled\_departure asc) as rn**

**from flights**

**where extract(hour from scheduled\_departure) between 2 and 5**

**)**

**select**

**flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival, departure\_airport**

**from early\_morning\_flights**

**where rn = 1**

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) 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) aircraft\_code\_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**

**airport\_name**

**from**

**(select departure\_airport, count(\*) as departure\_count**

**from flights**

**group by departure\_airport**

**order by departure\_count desc**

**limit 1**

**) as max\_departures**

**join Airports on max\_departures.departure\_airport = Airports.airport\_code**

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

Expected Output : Airport\_name

**Answer:** **select**

**airport\_name**

**from**

**(select departure\_airport, count(\*) as departure\_count**

**from flights**

**group by departure\_airport**

**order by departure\_count asc**

**limit 1**

**) as min\_departures**

**join Airports on min\_departures.departure\_airport = Airports.airport\_code**

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

Expected Output : Flight Count

**Answer:** **select**

**count(flight\_id) 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**

**f.flight\_no, f.aircraft\_code, a.range**

**from flights f 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\_id) flight\_count**

**from flights**

**where departure\_airport = 'URF' 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(flight\_id) flight\_count**

**from flights**

**where departure\_airport in ('NOZ','KKR')**

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\_id) flight\_count**

**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**

**f.flight\_no, f.aircraft\_code, a.range, f.departure\_airport**

**from flights f join aircrafts a on f.aircraft\_code = a.aircraft\_code**

**where a.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**

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

**from flights f**

**join aircrafts a**

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

**where model = '%Airbus%' and (f.status = 'Cancelled' or f.status = '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**

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

**from flights f**

**join aircrafts a**

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

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

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

Expected Output : Airport\_name

**Answer: select**

**a.airport\_name as Airport\_Name**

**from**

**(select**

**arrival\_airport,**

**count(\*) as Cancelled\_Count**

**from**

**Flights**

**where**

**status = 'Cancelled'**

**group by**

**arrival\_airport) as cancelled\_flights**

**join**

**Airports a on cancelled\_flights.arrival\_airport = a.airport\_code**

**order by**

**Cancelled\_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**

**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,**

**f.scheduled\_departure,**

**f.departure\_airport**

**from**

**Flights f**

**join (select**

**departure\_airport,**

**max(scheduled\_departure) AS max\_departure**

**from**

**Flights**

**group by**

**departure\_airport) as max\_flights**

**on f.departure\_airport = max\_flights.departure\_airport**

**and f.scheduled\_departure = max\_flights.max\_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(tf.amount) total\_refund**

**from flights f join ticket\_flights tf on f.flight\_id = tf.flight\_id**

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

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

**group by 1**

**order by 2 desc**

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,**

**f.scheduled\_departure,**

**f.departure\_airport**

**from**

**Flights f**

**join (**

**select**

**departure\_airport,**

**min(scheduled\_departure) AS min\_departure**

**from**

**Flights**

**where**

**status = 'Cancelled'**

**group by**

**departure\_airport**

**) as min\_flights on f.departure\_airport = min\_flights.departure\_airport**

**and f.scheduled\_departure = min\_flights.min\_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'**

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

*Expected Output : Flight\_no, range*

**Answer:** **select**

**f.flight\_id, max(a.range) max\_range**

**from flights f join aircrafts a on f.aircraft\_code = a.aircraft\_code**

**group by 1**

**order by 2 desc**