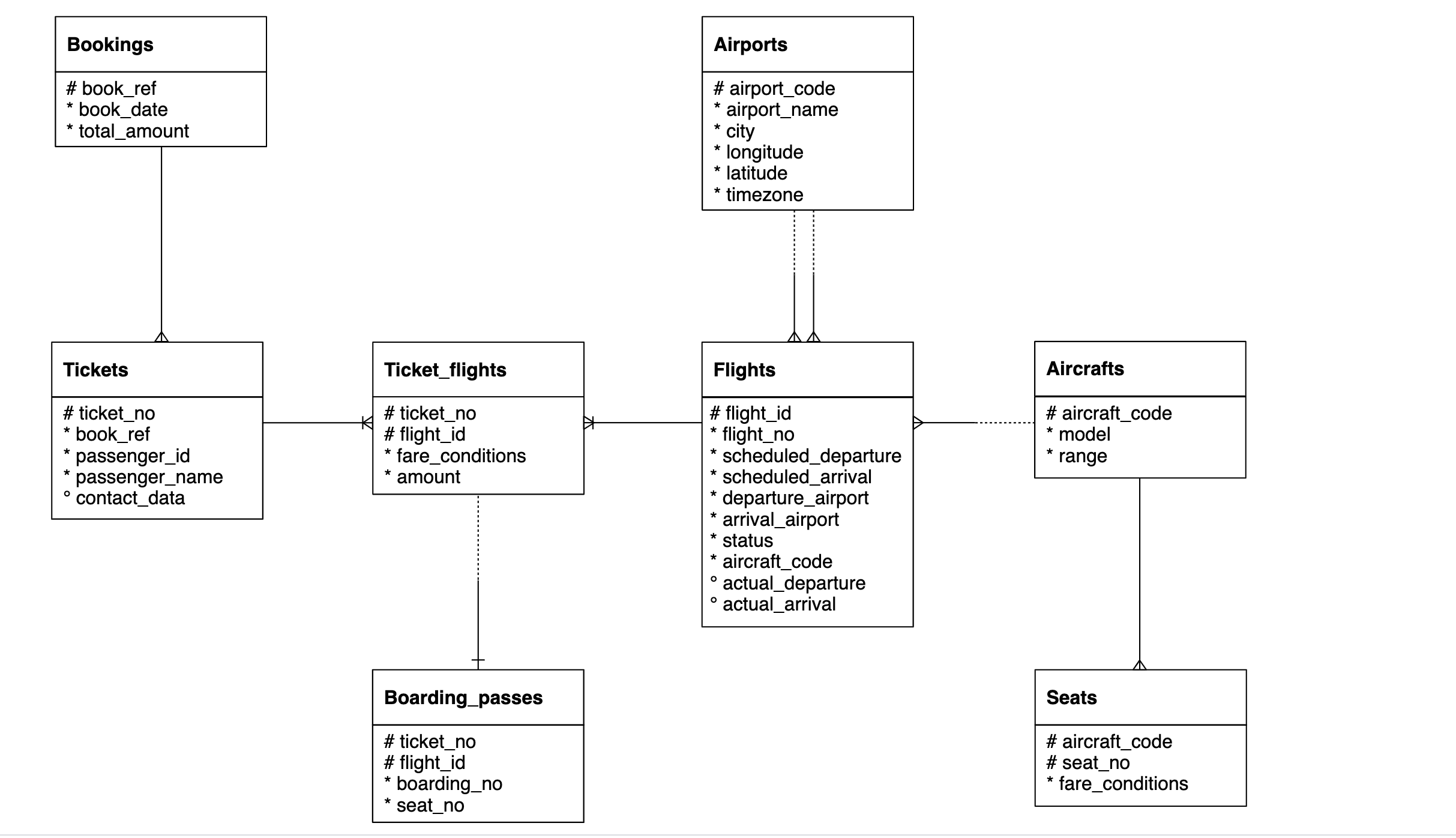
**SQL Assignment: All concepts II**

*\*\*Same database file from previous assignment will be used in this assignment. If you haven’t download the first assignment yet follow the instructions:*

**Download the following database file from the link:**

**AirlineDB**: https://drive.google.com/file/d/15ehp3FtyuYqExne3FaFcWHB4TFI\_vtSR/view?usp=sharing

**Table structure**



Important Instructions:

* Download the database link and restore in postgres. For restoration, you can refer to the instructions in the first chapter of SQL
* The AirlineDB is quite big in size, hence restoration might take time. Once the restoration starts, wait for 15 to 20 mins and don’t shut down the computer
* Table names in database has “**booking.”** as prefix. For example, bookings.tickets, bookings.boarding\_passes. Hence use the prefix in the query as well
  + Correct way of accessing tables: SELECT \* FROM **bookings.tickets**
  + Wrong way of accessing tables: SELECT \* FROM tickets
* Queries need to be submitted in a **word/text file**. CSV output of the queries will **NOT** be accepted
* Expected output written is written in some of the following question to make sure that you are getting the columns in the same sequence. It doesn’t mean that you will get same values in the output. The exact values in your queries might be different depending on the values sorted in your copy of database.

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

Ans:

Select

Airport\_code

From bookings.Airports

Where timezone = 'Europe/Moscow'

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

Ans :

Select

Fare\_conditions,Count (seat\_no)

From bookings.seats

Group by Fare\_conditions

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

Ans :

Select

Distinct A.Aircraft\_code,S.Fare\_conditions

From bookings.Aircrafts A

Inner join bookings.Seats S

On A.Aircraft\_code = S.Aircraft\_code

Where S.fare\_conditions = 'Business'

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

Ans:

Select departure\_airport, Count(Scheduled\_departure) DEPCOUNT

From bookings.Flights

Group by departure\_airport

Order by 2 desc

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

Ans:

Select departure\_airport, Count(Scheduled\_departure) DEPCOUNT

From bookings.Flights

Group by departure\_airport

Order by 2 Asc

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

Ans : Select departure\_airport, Count(Scheduled\_departure ) - Count (actual\_departure) Can\_dep

From bookings.Flights

Where departure\_airport = 'DME'

Group by 1

1. Identify flight ids having range between 3000 to 6000

Ans: Select F.Flight\_id,A.Range

From bookings.flights F

Inner join bookings.Aircrafts A

On F.Aircraft\_code = A.Aircraft\_code

Where A.Range between 3000 and 6000

Order by 2

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

Ans : Select

Count(Flight\_id)

From bookings.flights

Where Departure\_Airport in ('URS','KUF')

And Arrival\_Airport in ('URS','KUF')

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

Ans:

Select

Count(Flight\_id)

From bookings.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

Ans:

Select

Count(Flight\_id)

From bookings.flights

Where Departure\_Airport In ('KZN', 'DME', 'NBC','NJC','GDX','SGC','VKO','ROV')

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

Ans :

Select \*

From bookings.flights F

Inner join bookings.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

Ans:

Select Flight\_id,Status,Model ->> 'en' as keyEn

From bookings.Flights F

Inner join bookings.Aircrafts\_data A

on F.Aircraft\_code = A.Aircraft\_code

Where Model ->> 'en' 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

Ans:

Select Flight\_id,Status,Model ->> 'en' as keyEn

From bookings.Flights F

Inner join bookings.Aircrafts\_data A

on F.Aircraft\_code = A.Aircraft\_code

Where Model ->> 'en' like 'Boeing%'

And Status in ('Cancelled','Delayed')

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

Ans:

Select Count (Departure\_Airport),Departure\_Airport,Status,Actual\_arrival

From bookings.Flights F

Where Status in ('Cancelled')

And Actual\_arrival is null

Group by 2,3,4

Order by 1 desc

limit 1

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

Ans :

Select Flight\_id,Model ->> 'en' as keyEn

From bookings.Flights F

Inner join bookings.Aircrafts\_data A

on F.Aircraft\_code = A.Aircraft\_code

Where Model ->> 'en' like 'Airbus%'

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

Ans:

Select Flight\_id,departure\_Airport,Date1 ,Time1,

Rank() over (Partition by departure\_Airport order by date1) rankedA,

Rank() over (Partition by date1 order by Time1 desc) rankedD

From (Select Flight\_id,departure\_Airport,

Cast (Scheduled\_departure as Date)Date1,

Cast (Scheduled\_departure as Time) Time1

from bookings.flights)A

1. Identify list of customers who will get the refund due to cancellation of the flights?

Ans:

Select Passenger\_id,Passenger\_name,TF.Ticket\_no,TF.flight\_id,TF.Amount,F.Status

FROM bookings.tickets T

Inner Join bookings.Ticket\_Flights TF

On T.Ticket\_no = TF.Ticket\_no

Inner Join Bookings.Flights F

On TF.Flight\_id = F.Flight\_id

Where Status = 'cancelled'

1. And how much amount they will get?

Ans :

Select Passenger\_id,Passenger\_name,Sum(Amount),F.Status

FROM bookings.tickets T

Inner Join bookings.Ticket\_Flights TF

On T.Ticket\_no = TF.Ticket\_no

Inner Join Bookings.Flights F

On TF.Flight\_id = F.Flight\_id

Where Status = 'Cancelled'

Group by 1,2,4

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

Ans:

Select Flight\_id,departure\_Airport,Status,Date1 ,Time1,

Rank() over (Partition by departure\_Airport order by date1) rankedA,

Rank() over (Partition by date1 order by Time1) rankedD

From (Select Flight\_id,departure\_Airport,Status,

Cast (Scheduled\_departure as Date)Date1,

Cast (Scheduled\_departure as Time) Time1

from bookings.flights

Where Status = 'Cancelled')A

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

Ans:

Select Flight\_id,Status,Model ->> 'en' as keyEn

From bookings.Flights F

Inner join bookings.Aircrafts\_data A

on F.Aircraft\_code = A.Aircraft\_code

Where Model ->> 'en' like 'Airbus%'

And Status in ('Cancelled')

1. Identify list of flight ids having highest range.

Ans :

Select F.Flight\_id,A.Range

From bookings.Flights F

Inner join bookings.Aircrafts A

On F.Aircraft\_code = A.Aircraft\_code

Order By 2 desc