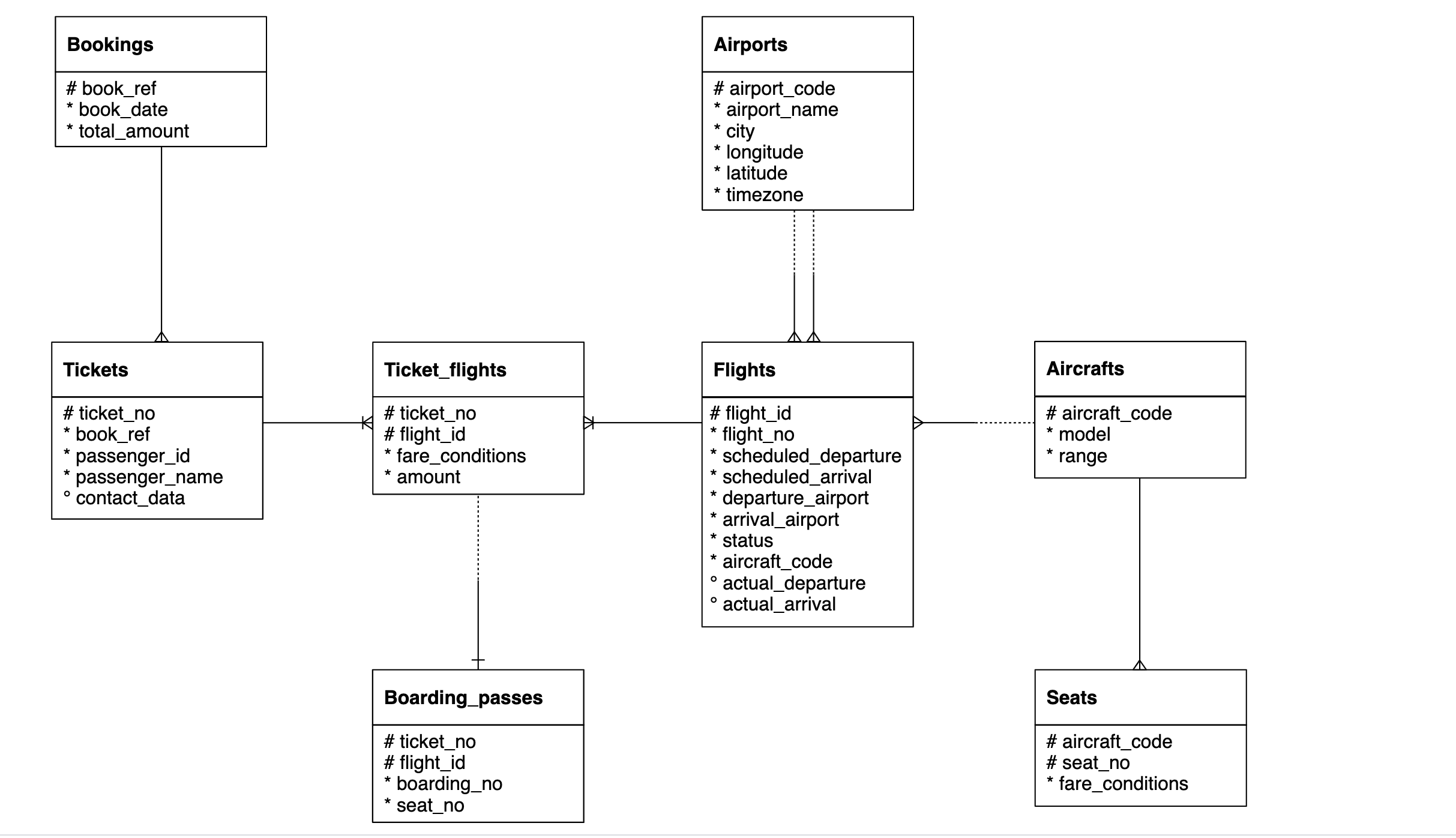
**SQL Assignment: All concepts I**

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

*Expected output*

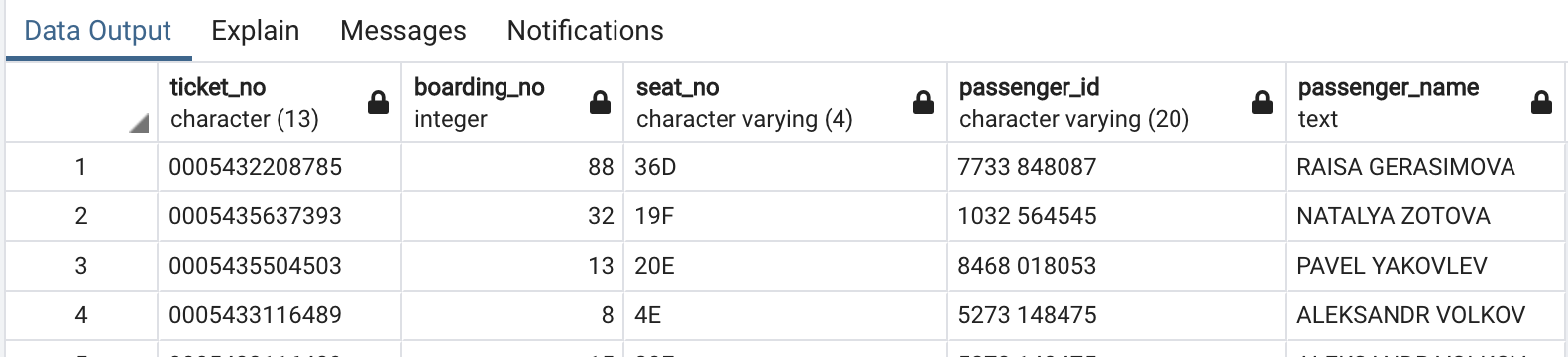


ANS: SELECT book\_ref, to\_char(book\_date, 'yyyy-MON-dd') as book\_date, total\_amount

from bookings.bookings;

1. Create a table having ticket\_no, boarding\_no, seat\_number, passenger\_id, passenger\_name.

*Expected output*



ANS : Select BO.ticket\_no, BO.boarding\_no, BO.seat\_no,

T.passenger\_id, T.passenger\_name

From bookings.boarding\_passes as BO

LEFT JOIN bookings.tickets as T

ON BO.ticket\_no = T.ticket\_no;

1. Which seat number is least allocated among all the seats?

Ans: Select seat\_no, count(seat\_no)

from bookings.boarding\_passes

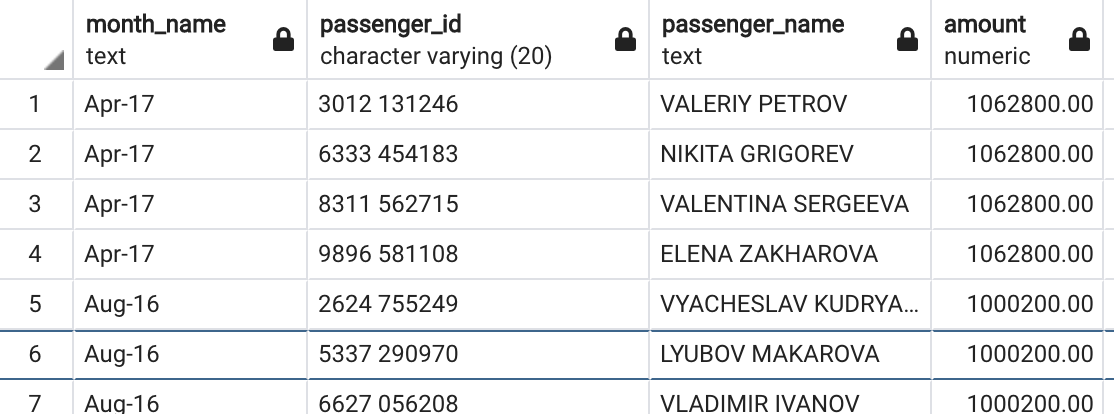
group by 1

order by 2 asc

limit 1;

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

*Expected output*



ANS : Select to\_char(Bo.book\_date, 'Mon-YY') month\_name,

T.passenger\_id, T.passenger\_name, Bo.total\_amount

from bookings.bookings as Bo

LEFT JOIN bookings.tickets as T

on Bo.book\_ref = T.book\_ref

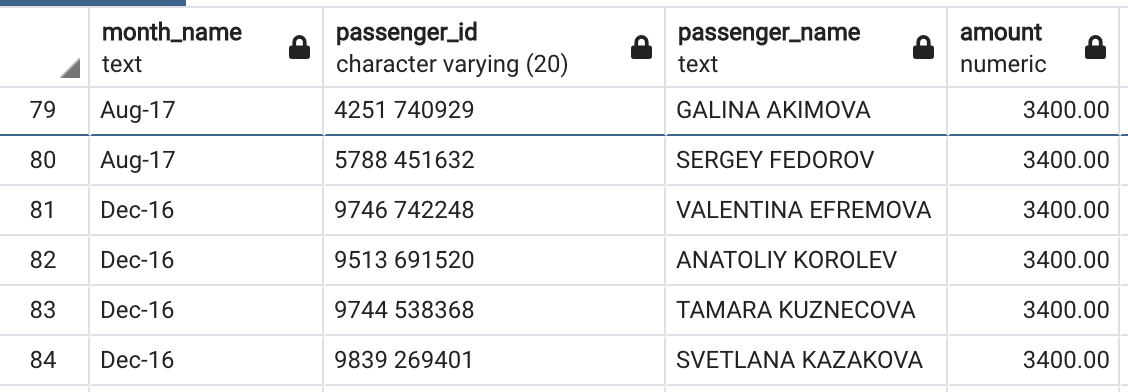
GROUP BY 1, T.passenger\_id, T.passenger\_name,

Bo.total\_amount

Order by 1 ASC, 4 DESC;

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

*Expected output*



ANS: Select to\_char(Bo.book\_date, 'Mon-YY') month\_name,

T.passenger\_id, T.passenger\_name, Bo.total\_amount

from bookings.bookings as Bo

LEFT JOIN bookings.tickets as T

ON Bo.book\_ref = T.book\_ref

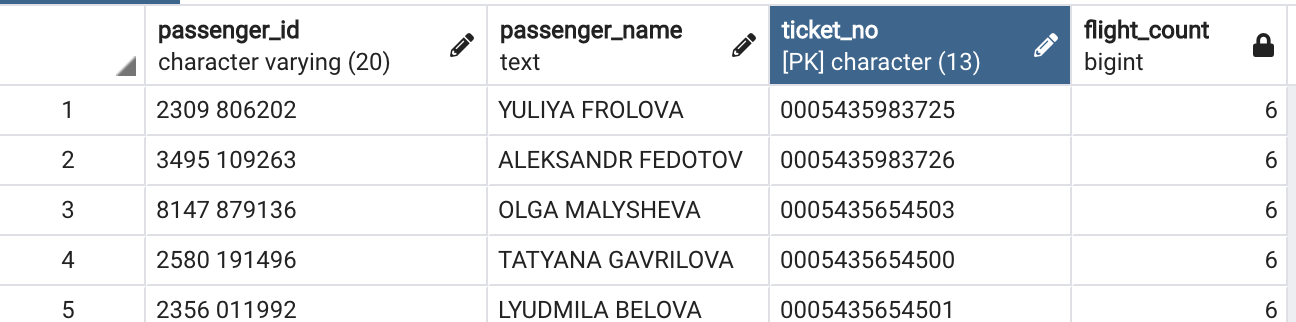
GROUP BY 1, T.passenger\_id, T.passenger\_name,

Bo.total\_amount

Order by 1 ASC, 4 ASC;

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

*Expected output*



**ANS** : Select T.passenger\_id, T.passenger\_name, T.ticket\_no, count(TF.flight\_id) as

flight\_count from bookings.tickets as T

INNER JOIN bookings.ticket\_flights as TF

ON T.ticket\_no = TF.ticket\_no

GROUP BY T.passenger\_id, T.passenger\_name, T.ticket\_no

Having count(TF.flight\_id)>1

order by flight\_count desc;

1. How many tickets are there without boarding passes?

**ANS:** Select count(t.ticket\_no)

from bookings.tickets t

left join bookings.boarding\_passes b on t.ticket\_no = b.ticket\_no

Group By boarding\_no having boarding\_no is null;

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

Ans: Select distinct(flight\_id),flight\_no, aircraft\_code,

Max(scheduled\_arrival - scheduled\_departure) as duration

from bookings.flights

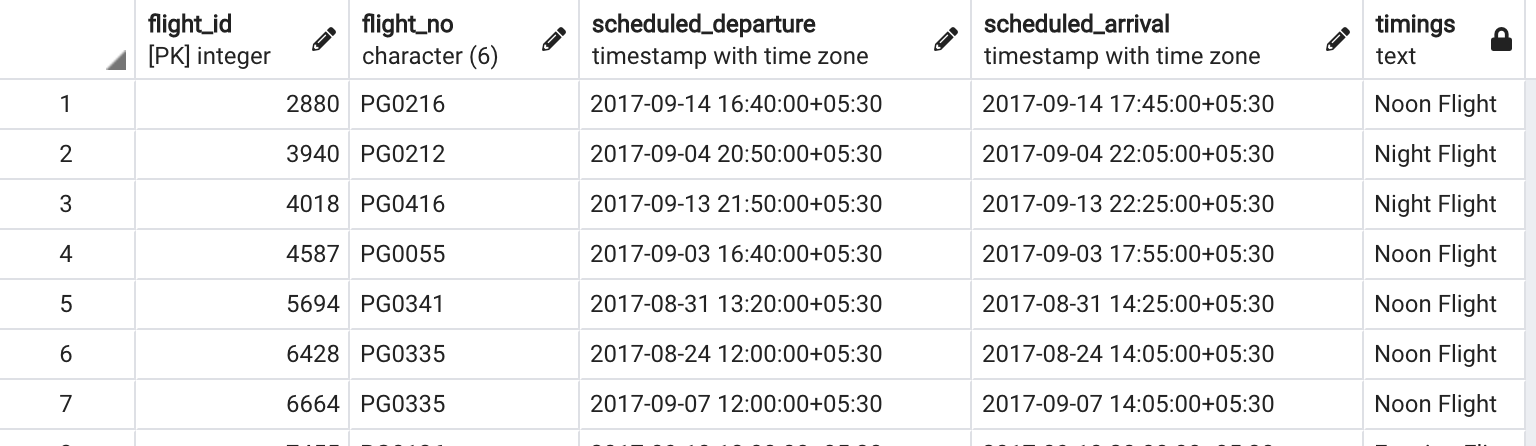
Group by flight\_id

Order by 4 DESC

LIMIT 1;

1. Categorize flights using following logic (using flights table) :
   1. Early morning flights: 2 AM to 6AM
   2. Morning flights: 6 AM to 11 AM
   3. Noon flights: 11 AM to 4 PM
   4. Evening flights: 4 PM to 7 PM
   5. Night flights: 7 PM to 11 PM
   6. Late Night flights: 11 PM to 2 AM

*Expected output*



**Ans :** Select flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival,

CASE when to\_char(scheduled\_departure, 'HH24:MI:SS') between '02:00:00' and '06:00:00'

then 'Early morning flights'

when to\_char(scheduled\_departure, 'HH24:MI:SS') between '06:00:00' and '11:00:00'

then 'Morning flights'

when to\_char(scheduled\_departure, 'HH24:MI:SS') between '11:00:00' and '16:00:00'

then 'Noon flights'

when to\_char(scheduled\_departure, 'HH24:MI:SS') between '16:00:00' and '19:00:00'

then 'Evening flights'

when to\_char(scheduled\_departure, 'HH24:MI:SS') between '19:00:00' and '23:00:00'

then 'Night flights'

when to\_char(scheduled\_departure, 'HH24:MI:SS') between '23:00:00' and '02:00:00'

then 'Late night flights'

END as timings

From bookings.flights;

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

**ANS:** Select \*, to\_char(scheduled\_departure, 'HH24:MI:SS') as timings

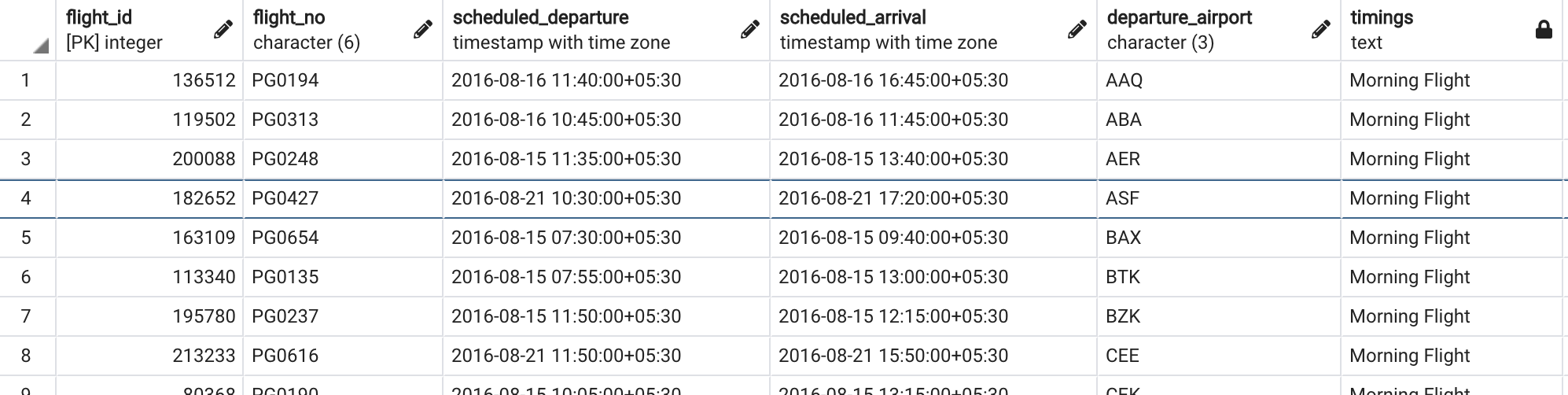
from bookings.flights

where to\_char(scheduled\_departure,'HH24:MI:SS')

between '06:00:00' and '11:00:00';

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

*Expected output*



Ans Select flight\_id, flight\_no, scheduled\_departure, scheduled\_arrival, departure\_airport,

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

from bookings.flights

where to\_char(scheduled\_departure,'HH24:MI:SS')

between '02:00:00' and '06:00:00'

group by flight\_id

order by 2 ASC;