**EECS 116**

**1. [10 pts] For each airport, return its IATA code and number of lounges. You don’t need to return an airport if it doesn’t have any lounge.**

**a) [7pts] SQL**

**b) [3pts] Results**

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Trial

SELECT A.IATA\_code, COUNT(L.lid)

FROM cs122a.airport A join cs122a.lounge L on A.IATA\_code= L.airport\_IATA\_code

GROUP BY A.IATA\_code;

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*For Questions 2 through 4, we use two types of flight duration (as a number in seconds):*

*● projected\_flight\_duration = projected\_arrival\_datetime projected\_*

*departure\_datetime*

*● actual\_flight\_duration = actual\_arrival\_datetime actual\_*

*departure\_datetime*

*The “-”*

*operation can be implemented by using the timestampdiff() function.*

**2. [10pts] Among all the flights, find the flight number and actual duration of the latest flight**

**based on projected departure datetimes.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT flight\_number, timestampdiff(minute,actual\_departure\_datetime,actual\_arrival\_datetime)

FROM cs122a.flight

where actual\_arrival\_datetime = (select max(actual\_arrival\_datetime)

from cs122a.flight);

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**3. [10 pts] Among all the flights, return the maximum absolute difference between a flight’s**

**projected duration and its actual duration.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT flight\_number,

(max(timestampdiff(minute,actual\_departure\_datetime,actual\_arrival\_datetime) - timestampdiff(minute,projected\_departure\_datetime,projected\_arrival\_datetime))) as difference

FROM cs122a.flight;

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**4. [10 pts] For each flight number, return its flight number, minimum and maximal absolute difference between its projected duration and actual duration. For example, if there are two instances of a flight number ‘UC9049’ and their duration differences are 100 and 200 seconds,**

**respectively, then its maximum duration difference for ‘UC9049’ is 200 seconds.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT flight\_number,

max(abs(timestampdiff(second,actual\_departure\_datetime,actual\_arrival\_datetime) -

timestampdiff(second,projected\_departure\_datetime,projected\_arrival\_datetime) )) as max\_dif,

min( abs(timestampdiff(second,actual\_departure\_datetime,actual\_arrival\_datetime) -

timestampdiff(second,projected\_departure\_datetime,projected\_arrival\_datetime)) ) as min\_dif

FROM cs122a.flight

Group by flight\_number;

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**5. [10 pts] Return the employee id and number of flights for the pilots with the maximum**

**number of flight instances that they operated.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT P.pid, Count(P.pid)

FROM cs122a.pilot\_operates\_flight P

Group by P.pid

limit 1;

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**6. [10 pts] Find the ids and average menu price of lounges whose average menu price is greater than the overall average menu price.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT lid, avg(price) AS AvgPrice

FROM cs122a.dish D

GROUP BY lid

HAVING AvgPrice > (SELECT AVG(price)

FROM cs122a.dish D

)

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**7. [10 pts] For each dish order with at least two different dishes, return its order id, name, and quantity of each dish in the order.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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Select \*

FROM dishorder\_contains\_dish

Where oid in (

SELECT oid

FROM DishOrder\_Contains\_Dish

GROUP BY oid

HAVING COUNT(\*) >= 2)

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**8. [10 pts] Return the customer ids along with their total prices for all their flight reservations. Make sure to include customers without any flight reservation. Sort the final result by customer id.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT A.cid, email, SUM(C.purchased\_price)

FROM cs122a.customer A left join cs122a.customer\_reserves\_flight C on A.cid = C.cid

Group by A.cid;

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**9. [10 pts] For each airport, return its IATA\_code and count of orders received by all its**

**lounges. Include an airport on the list only if it has at least one lounge. Sort the results by**

**IATA\_code.**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT IATA\_code, Sum(T.Countqual)

FROM cs122a.airport A join (SELECT airport\_IATA\_code, C.lid, Count(quantity) as Countqual

FROM cs122a.dishorder\_contains\_dish C join cs122a.lounge D on C.lid = D.lid

Group by (C.lid)) as T

on A.IATA\_code = T.airport\_IATA\_code

Group by A.IATA\_code;

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**10. [10pts] For each lounge, return its id, IATA\_code, number of dishes, lowest dish price,**

**highest dish price, and average dish price. The id and IATA\_code of a lounge should be returned even if there are no dishes served at the lounge. Sort the results by the lounge name id .**

**a) [7 pts] SQL**

**b) [3 pts] Results**

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SELECT L.lid, max(price), min(price), avg(price), Count(D.name)

FROM cs122a.lounge L left join cs122a.dish D on L.lid = D.lid

Group by(L.lid) ;

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