

Week 5 Graded Quiz using Teradata

Quiz, 15 questions

14/15 points (93%)

✓ **Congratulations! You passed!**

Next Item



1 / 1
points

1.

Have you completed the week 5 Teradata practice exercises guide?

Answer Yes or No.



Yes



Great! You are ready to take this quiz.



No



1 / 1
points

2.

How many distinct skus have the brand "Polo fas", and are either size "XXL" or "black" in color?



13,623



Correct

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT COUNT(DISTINCT sku)
```

```
FROM skuinfo
```

```
WHERE brand = 'polo fas' AND (color = 'black' OR size = 'XXL');
```



5,224

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84

1 / 1
points

3.

There was one store in the database which had only 11 days in one of its months (in other words, that store/month/year combination only contained 11 days of transaction data). In what city and state was this store located?



Tulsa, OK



Richmond, VA



Little Rock, AR



Atlanta, GA

**Correct**

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT DISTINCT t.store, s.city, s.state
```

```
FROM trnsact t JOIN strinfo s
```

```
ON t.store=s.store
```

```
WHERE t.store IN (SELECT days_in_month.store
```

```
FROM(SELECT EXTRACT(YEAR from saledate) AS sales_year,
```

```
EXTRACT(MONTH from saledate) AS sales_month, store, COUNT  
(DISTINCT saledate) as numdays
```

```
FROM trnsact
```

```
GROUP BY sales_year, sales_month, store
```

```
HAVING numdays=11) as days_in_month)
```

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points

14/15 points (93%)

Which sku number had the greatest increase in total sales revenue from November to December?

☐ 2637537

☒ 3949538

Correct

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT sku,
```

```
sum(case when extract(month from saledate)=11 then amt end) as  
November,
```

```
sum(case when extract(month from saledate)=12 then amt end) as  
December,
```

```
December-November AS sales_bump
```

```
FROM trnsact
```

```
WHERE stype='P'
```

```
GROUP BY sku
```

```
ORDER BY sales_bump DESC;
```

☐ 6966816

☐ 4737469



1 / 1
points

5.

What vendor has the greatest number of distinct skus in the transaction table that do not exist in the skstinfo table? (Remember that vendors are listed as distinct numbers in our data set).

☒ 5715232



Correct

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There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT count(DISTINCT t.sku) as num_skus, si.vendor  
  
FROM trnsact t  
  
LEFT JOIN skstinfo s  
  
ON t.sku=s.sku AND t.store=s.store  
  
JOIN skuinfo si ON t.sku=si.sku  
  
WHERE s.sku IS NULL  
  
GROUP BY si.vendor  
  
ORDER BY num_skus DESC;
```

☐ 9514659

☐ 3313116

☐ 5511283



1 / 1
points

6.

What is the brand of the sku with the greatest standard deviation in sprice?
Only examine skus which have been part of over 100 transactions.



Hart Sch



Correct

There are several possible ways you could write the query to arrive at the correct answer, including with a subquery, such as this:

```
SELECT DISTINCT top10skus.sku, top10skus.sprice_stddev,  
top10skus.num_transactions, si.style, si.color, si.size, si.packsize,  
si.vendor, si.brand
```

```
FROM (SELECT TOP 1 sku, STDDEV_POP(sprice) AS sprice_stddev,  
count(sprice) AS num_transactions
```

```
FROM trnsact WHERE stype='P'
```

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GROUP BY sku

HAVING num_transactions > 100

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ORDER BY sprice_stdev DESC)

AS top10skus

JOIN skuinfo si

ON top10skus.sku = si.sku

ORDER BY top10skus.sprice_stdev DESC;

Or without a subquery, such as this:

```
SELECT TOP 1 t.sku, STDDEV_POP(t.sprice) AS sprice_stdev,  
count(t.sprice) AS num_transactions, si.style, si.color, si.size, si.packsize,  
si.vendor, si.brand
```

FROM trnsact t JOIN skuinfo si

ON t.sku = si.sku

WHERE stype='P'

```
GROUP BY t.sku, si.style, si.color, si.size, si.packsize, si.vendor, si.brand  
HAVING num_transactions > 100
```

ORDER BY sprice_stdev DESC;

- ☐ Clinique
- ☐ Vanity F
- ☐ Polo Fas

1 / 1
points

7.

What is the city and state of the store which had the greatest increase in average daily revenue (as defined in Teradata Week 5 Exercise Guide) from November to December?



Metairie, LA

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There are several possible queries that would arrive at the right answer, one of which is:

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SELECT s.city, s.state, t.store,

SUM(case WHEN EXTRACT(MONTH from saledate) =11 then amt END) as
November,

SUM(case WHEN EXTRACT(MONTH from saledate) =12 then amt END) as
December,

COUNT(DISTINCT (case WHEN EXTRACT(MONTH from saledate) =11
then saledate END)) as Nov_numdays,

COUNT(DISTINCT (case WHEN EXTRACT(MONTH from saledate) =12
then saledate END)) as Dec_numdays, (December/Dec_numdays)-
(November/Nov_numdays) AS dip

FROM trnsact t JOIN strinfo s

ON t.store=s.store

WHERE t.stype='P' AND t.store | | EXTRACT(YEAR from
t.saledate) | | EXTRACT(MONTH from t.saledate) IN (SELECT
store | | EXTRACT(YEAR from saledate) | | EXTRACT(MONTH from saledate)

FROM trnsact

GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from
saledate)

HAVING COUNT(DISTINCT saledate)>= 20)

GROUP BY s.city, s.state, t.store

ORDER BY dip DESC;

- ☐ Little Rock, AK
- ☐ McAllen, TX
- ☐ Tucson, AZ



0 / 1
points

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8. Compare the average daily revenue (as defined in Teradata Week 5 Exercise Guide) of the store with the highest msa_income and the store with the lowest median msa_income (according to the msa_income field). In what city and state were these two stores, and which store had a higher average daily revenue?



The store with the highest median msa_income was in McAllen, TX. It had a higher average daily revenue than the store with the lowest median msa_income, which was in Spanish Fort, AL.



This should not be selected

You might want to use a subquery to examine the details of the maximum and minimum msa_income values at the same time.



The store with the highest median msa_income was in Littleton, CO. It had a higher average daily revenue than the store with the lowest median msa_income, which was in Cincinnati, OH.



The store with the highest median msa_income was in Spanish Fort, AL. It had a lower average daily revenue than the store with the lowest median msa_income, which was in McAllen, TX.



The store with the highest median msa_income was in Cincinnati, OH. It had a lower average daily revenue than the store with the lowest median msa_income, which was in Littleton, CO.



1 / 1
points

9.

Divide the msa_income groups up so that msa_incomes between 1 and 20,000 are labeled 'low', msa_incomes between 20,001 and 30,000 are labeled 'med-low', msa_incomes between 30,001 and 40,000 are labeled 'med-high', and msa_incomes between 40,001 and 60,000 are labeled 'high'. Which of these groups has the highest average daily revenue (as defined in Teradata Week 5 Exercise Guide) per store?



med-high



high



low



Correct

There are several possible queries that would arrive at the right answer, one of which is:

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```

SELECT SUM(revenue_per_store.revenue)/SUM(numdays) AS
avg_group_revenue

CASE WHEN revenue_per_store.msa_income BETWEEN 1 AND 20000
THEN 'low'

WHEN revenue_per_store.msa_income BETWEEN 20001 AND 30000
THEN 'med-low'

WHEN revenue_per_store.msa_income BETWEEN 30001 AND 40000
THEN 'med-high'

WHEN revenue_per_store.msa_income BETWEEN 40001 AND 60000
THEN 'high'

END as income_group

FROM (SELECT m.msa_income, t.store,

CASE when extract(year from t.saledate) = 2005 AND extract(month
from t.saledate) = 8 then 'exclude'

END as exclude_flag, SUM(t.amt) AS revenue, COUNT(DISTINCT
t.saledate) as numdays, EXTRACT(MONTH from t.saledate) as monthID

FROM store_msa m JOIN trnsact t

ON m.store=t.store

WHERE t.type='P' AND exclude_flag IS NULL AND
t.store || EXTRACT(YEAR from t.saledate) || EXTRACT(MONTH from
t.saledate) IN (SELECT store || EXTRACT(YEAR from
saledate) || EXTRACT(MONTH from saledate)

FROM trnsact

GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from
saledate)

HAVING COUNT(DISTINCT saledate)>= 20)

GROUP BY t.store, m.msa_income, monthID, exclude_flag) AS
revenue_per_store

GROUP BY income_group

ORDER BY avg_group_revenue;

```



med-low

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10.

Divide stores up so that stores with msa populations between 1 and 100,000 are labeled 'very small', stores with msa populations between 100,001 and 200,000 are labeled 'small', stores with msa populations between 200,001 and 500,000 are labeled 'med_small', stores with msa populations between 500,001 and 1,000,000 are labeled 'med_large', stores with msa populations between 1,000,001 and 5,000,000 are labeled "large", and stores with msa_population greater than 5,000,000 are labeled "very large". What is the average daily revenue (as defined in Teradata Week 5 Exercise Guide) for a store in a "very large" population msa?

☐ \$24,341

☐ \$16,355

☐ \$6,298

☒ \$25,452


Correct

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT SUM(store_rev. tot_sales)/SUM(store_rev.numdays) AS daily_avg,
CASE WHEN store_rev.msa_pop BETWEEN 1 AND 100000 THEN 'very
small'
```

```
WHEN store_rev.msa_pop BETWEEN 100001 AND 200000 THEN 'small'
```

```
WHEN store_rev.msa_pop BETWEEN 200001 AND 500000 THEN
'med_small'
```

```
WHEN store_rev.msa_pop BETWEEN 500001 AND 1000000 THEN
'med_large'
```

```
WHEN store_rev.msa_pop BETWEEN 1000001 AND 5000000 THEN
'large'
```

```
WHEN store_rev.msa_pop > 5000000 then 'very large'
```

```
END as pop_group
```

```
FROM(SELECT COUNT (DISTINCT t.saledate) as numdays, EXTRACT(YEAR
from t.saledate) as s_year, EXTRACT(MONTH from t.saledate) as
s_month, t.store, sum(t.amt) AS tot_sales,
```

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```

CASE when extract(year from t.saledate) = 2005 AND extract(month
from t.saledate) = 8 then 'exclude'
END as exclude_flag, m.msa_pop

FROM trnsact t JOIN store_msa m

ON m.store=t.store

WHERE t.stype = 'P' AND exclude_flag IS NULL

GROUP BY s_year, s_month, t.store, m.msa_pop

HAVING numdays >= 20) as store_rev

GROUP BY pop_group

ORDER BY daily_avg;

```



1 / 1
points

11.

Which department in which store had the greatest percent increase in average daily sales revenue from November to December, and what city and state was that store located in? Only examine departments whose total sales were at least \$1,000 in both November and December.



Louisvl department, Salina, KS



Correct

There are several possible queries that would arrive at the right answer, one of which is:

```

SELECT s.store, s.city, s.state, d.deptdesc, sum(case when extract(month
from saledate)=11 then amt end) as November,

```

```

COUNT(DISTINCT (case WHEN EXTRACT(MONTH from saledate) ='11'
then saledate END)) as Nov_numdays, sum(case when extract(month
from saledate)=12 then amt end) as December,

```

```

COUNT(DISTINCT (case WHEN EXTRACT(MONTH from saledate) ='12'
then saledate END)) as Dec_numdays, ((December/Dec_numdays)-
(November/Nov_numdays))/(November/Nov_numdays)*100 AS bump

```

```

FROM trnsact t JOIN strinfo s

```

```

ON t.store=s.store JOIN skuinfo si

```

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ON t.sku=si.sku JOIN deptinfo d

ON si.dept=d.dept

14/15 points (93%)

```
WHERE t.stype='P' and t.store | | EXTRACT(YEAR from
t.saledate) | | EXTRACT(MONTH from t.saledate) IN (SELECT
store | | EXTRACT(YEAR from saledate) | | EXTRACT(MONTH from saledate)
```

```
FROM trnsact
```

```
GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from
saledate)
```

```
HAVING COUNT(DISTINCT saledate)>= 20)
```

```
GROUP BY s.store, s.city, s.state, d.deptdesc HAVING November > 1000
AND December > 1000
```

```
ORDER BY bump DESC;
```

- ☐ Jacques department, Jackson, MS
- ☐ Gottex department, Pine Bluff, AR
- ☐ Clinique department, Odessa, TX



1 / 1
points

12.

Which department within a particular store had the greatest decrease in average daily sales revenue from August to September, and in what city and state was that store located?

- ☐ Clinique department, Cincinnati, OH
- ☐ Polomen department, Greenville, SC
- ☐ Polomen department, Knoxville, TN
- ☒ Clinique department, Louisville, KY

**Correct**

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT s.city, s.state, d.deptdesc, t.store,
```

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CASE when extract(year from t.saledate) = 2005 AND extract(month from t.saledate) = 8 then exclude

END as exclude_flag,

SUM(case WHEN EXTRACT(MONTH from saledate) ='8' THEN amt END)
as August,

SUM(case WHEN EXTRACT(MONTH from saledate) ='9' THEN amt END)
as September,

COUNT(DISTINCT (case WHEN EXTRACT(MONTH from saledate) ='8' then
saledate END)) as Aug_numdays, COUNT(DISTINCT (case WHEN
EXTRACT(MONTH from saledate) ='9' then saledate END)) as
Sept_numdays, (August/Aug_numdays)-(September/Sept_numdays) AS
dip

FROM trnsact t JOIN strinfo s

ON t.store=s.store JOIN skuinfo si

ON t.sku=si.sku JOIN deptinfo d

ON si.dept=d.dept WHERE t.stype='P' AND exclude_flag IS NULL AND
t.store || EXTRACT(YEAR from t.saledate) || EXTRACT(MONTH from
t.saledate) IN (SELECT store || EXTRACT(YEAR from
saledate) || EXTRACT(MONTH from saledate)

FROM trnsact

GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from
saledate)

HAVING COUNT(DISTINCT saledate)>= 20)

GROUP BY s.city, s.state, d.deptdesc, t.store, exclude_flag

ORDER BY dip DESC;



1 / 1
points

13.

Identify which department, in which city and state of what store, had the greatest DECREASE in the number of items sold from August to September. How many fewer items did that department sell in September compared to August?



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The R Lauren department in Toledo, OH sold 12,009 fewer items



The Clinique department in Greenville, SC sold 18,553 fewer items



The R Lauren department in Charlotte, NC sold 5,856 fewer items



The Clinique department in Louisville, KY sold 13,491 fewer items

**Correct**

There are several possible queries that could have given you the right answer, one of which is:

```
SELECT s.city, s.state, d.deptdesc, t.store,
```

```
CASE when extract(year from t.saledate) = 2005 AND extract(month
from t.saledate) = 8 then 'exclude'
```

```
END as exclude_flag,
```

```
SUM(case WHEN EXTRACT(MONTH from saledate) = 8 then t.quantity
END) as August,
```

```
SUM(case WHEN EXTRACT(MONTH from saledate) = 9 then t.quantity
END) as September, August-September AS dip
```

```
FROM trnsact t JOIN strinfo s
```

```
ON t.store=s.store JOIN skuinfo si
```

```
ON t.sku=si.sku JOIN deptinfo d
```

```
ON si.dept=d.dept
```

```
WHERE t.stype='P' AND exclude_flag IS NULL AND
```

```
t.store || EXTRACT(YEAR from t.saledate) || EXTRACT(MONTH from
t.saledate) IN
```

```
(SELECT store || EXTRACT(YEAR from saledate) || EXTRACT(MONTH from
saledate)
```

```
FROM trnsact
```

```
GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from
saledate)
```

```
HAVING COUNT(DISTINCT saledate)>= 20)
```

```
GROUP BY s.city, s.state, d.deptdesc, t.store, exclude_flag
```

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14/15 points (93%)

1 / 1
points

14.

For each store, determine the month with the minimum average daily revenue (as defined in Teradata Week 5 Exercise Guide) . For each of the twelve months of the year, count how many stores' minimum average daily revenue was in that month. During which month(s) did over 100 stores have their minimum average daily revenue?



August only

Correct

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT CASE when max_month_table.month_num = 1 then 'January'
when max_month_table.month_num = 2 then 'February' when
max_month_table.month_num = 3 then 'March' when
max_month_table.month_num = 4 then 'April' when
max_month_table.month_num = 5 then 'May' when
max_month_table.month_num = 6 then 'June' when
max_month_table.month_num = 7 then 'July' when
max_month_table.month_num = 8 then 'August' when
max_month_table.month_num = 9 then 'September' when
max_month_table.month_num = 10 then 'October' when
max_month_table.month_num = 11 then 'November' when
max_month_table.month_num = 12 then 'December' END, COUNT(*)
```

```
FROM (SELECT DISTINCT extract(year from saledate) as year_num,
extract(month from saledate) as month_num, CASE when extract(year
from saledate) = 2005 AND extract(month from saledate) = 8 then
'exclude' END as exclude_flag, store, SUM(amt) AS tot_sales, COUNT
(DISTINCT saledate) as numdays, tot_sales/numdays as dailyrev,
ROW_NUMBER () over (PARTITION BY store ORDER BY dailyrev DESC) AS
month_rank
```

```
FROM trnsact
```

```
WHERE stype='P' AND exclude_flag IS NULL AND store | | EXTRACT(YEAR
from saledate) | | EXTRACT(MONTH from saledate) IN (SELECT
store | | EXTRACT(YEAR from saledate) | | EXTRACT(MONTH from saledate)
```

```
FROM trnsact
```

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GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from saledate)

HAVING COUNT(DISTINCT saledate)>= 20)

GROUP BY store, month_num, year_num

HAVING numdays>=20 QUALIFY month_rank=12) as max_month_table

GROUP BY max_month_table.month_num

ORDER BY max_month_table.month_num;

- ☐ January and August
- ☐ January and September
- ☐ August and September



1 / 1
points

15.

Write a query that determines the month in which each store had its maximum number of sku units returned. During which month did the greatest number of stores have their maximum number of sku units returned?



December

Correct

There are several possible queries that would arrive at the right answer, one of which is:

```
SELECT CASE when max_month_table.month_num = 1 then 'January'
when max_month_table.month_num = 2 then 'February' when
max_month_table.month_num = 3 then 'March' when
max_month_table.month_num = 4 then 'April' when
max_month_table.month_num = 5 then 'May' when
max_month_table.month_num = 6 then 'June' when
max_month_table.month_num = 7 then 'July' when
max_month_table.month_num = 8 then 'August' when
max_month_table.month_num = 9 then 'September' when
max_month_table.month_num = 10 then 'October' when
max_month_table.month_num = 11 then 'November' when
max_month_table.month_num = 12 then 'December' END, COUNT(*)
```

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```
FROM (SELECT DISTINCT extract(year from saledate) as year_num,  
extract(month from saledate) as month_num, CASE when extract(year  
from saledate) = 2004 AND extract(month from saledate) = 8 then  
'exclude' END as exclude_flag, store, SUM(quantity) AS tot_returns,  
ROW_NUMBER () over (PARTITION BY store ORDER BY tot_returns DESC)  
AS month_rank
```

```
FROM trnsact
```

```
WHERE stype='R' AND exclude_flag IS NULL AND store | | EXTRACT(YEAR  
from saledate) | | EXTRACT(MONTH from saledate) IN (SELECT  
store | | EXTRACT(YEAR from saledate) | | EXTRACT(MONTH from saledate)
```

```
FROM trnsact
```

```
GROUP BY store, EXTRACT(YEAR from saledate), EXTRACT(MONTH from  
saledate)
```

```
HAVING COUNT(DISTINCT saledate)>= 20)
```

```
GROUP BY store, month_num, year_num QUALIFY month_rank=1) as  
max_month_table
```

```
GROUP BY max_month_table.month_num
```

```
ORDER BY max_month_table.month_num
```

- ☐ January
- ☐ September
- ☐ March



