**Module 4 Analytic Queries (Capstone Project)**

1. **AQ1**

SELECT Location\_Name,Time\_Year,Time\_Month,SUM(Quantity\_Ordered\*Unit\_Price) AS AMT,

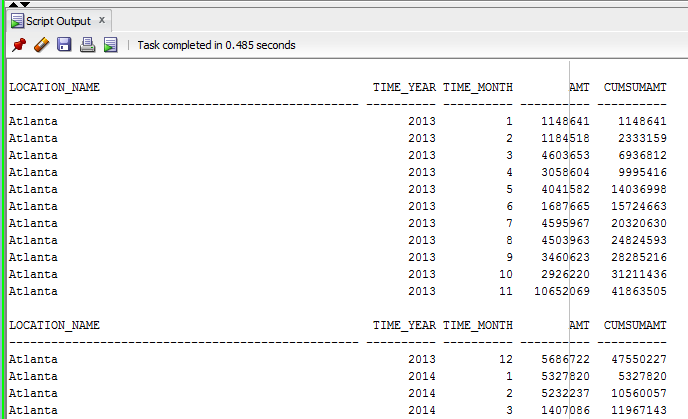
SUM(SUM(Quantity\_Ordered\*Unit\_Price)) OVER (Partition by Location\_Name,Time\_Year Order By Time\_Month ROWS UNBOUNDED PRECEDING) AS CUMSUMAMT

FROM W\_JOB\_F,W\_LOCATION\_D,W\_TIME\_D

WHERE W\_JOB\_F.Location\_ID = W\_LOCATION\_D.Location\_ID

AND W\_TIME\_D.Time\_id = W\_JOB\_F.Contract\_date

GROUP BY Location\_Name,Time\_Year,Time\_Month; (388 rows)



1. **AQ2**

SELECT Location\_Name,Time\_Year,Time\_Month,AVG(Quantity\_Ordered\*Unit\_Price) AS AVGAMT,

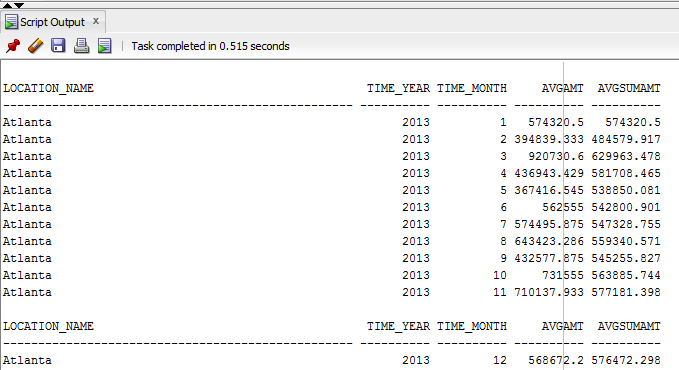
AVG(AVG(Quantity\_Ordered\*Unit\_Price)) OVER (Partition by Location\_Name Order By Time\_Year,Time\_Month ROWS 11 PRECEDING) AS AVGSUMAMT

FROM W\_JOB\_F,W\_LOCATION\_D,W\_TIME\_D

WHERE W\_JOB\_F.Location\_ID = W\_LOCATION\_D.Location\_ID

AND W\_TIME\_D.Time\_id = W\_JOB\_F.Contract\_date

GROUP BY Location\_Name,Time\_Year,Time\_Month;



1. **AQ3**

Select BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month,SUM(SUMINVAMT - TOTALCOST) AS Profit,

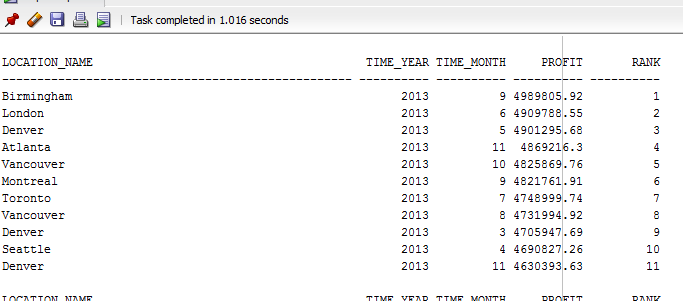
RANK() OVER(Partition By BQ2.Time\_Year Order by SUM(SUMINVAMT - TOTALCOST) DESC) AS Rank

FROM BQ2,BQ3

WHERE BQ2.Job\_id = BQ3.Job\_id

GROUP BY BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month;

(312 rows)

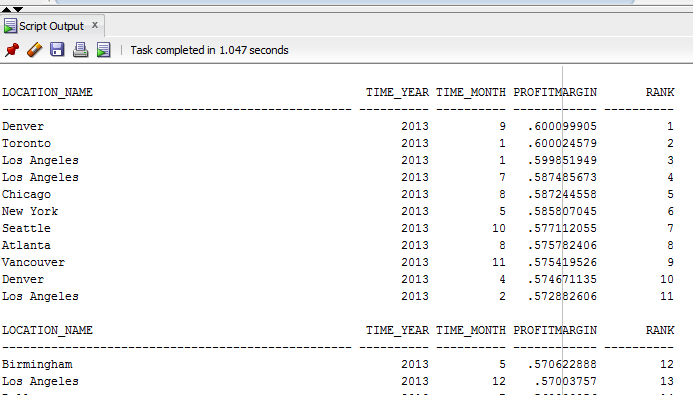


1. **AQ4**

Select BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month,SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) AS ProfitMargin,

RANK() OVER(Partition By BQ2.Time\_Year Order by SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) DESC) AS Rank FROM BQ2,BQ3

WHERE BQ2.Job\_id = BQ3.Job\_id GROUP BY BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month;



1. **AQ5**

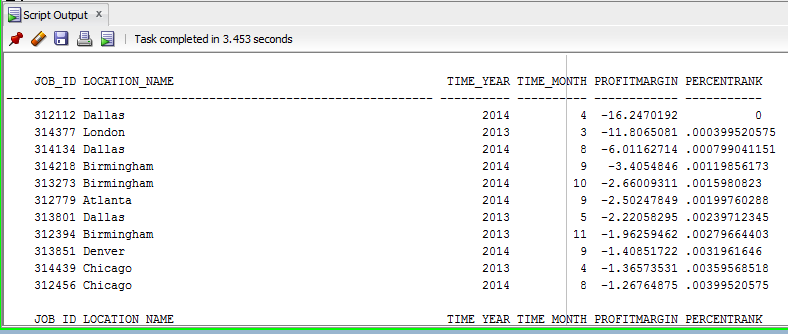
Select BQ2.Job\_Id,BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month,SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) AS ProfitMargin,

PERCENT\_RANK() OVER(Order by SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) DESC) AS PercentRank

FROM BQ2,BQ3

WHERE BQ2.Job\_id = BQ3.Job\_id

GROUP BY BQ2.Job\_Id,BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month; (2504 rows)



1. **AQ6**

Select \*

FROM

(

Select BQ2.Job\_Id,BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month,SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) AS ProfitMargin,

PERCENT\_RANK() OVER(Order by SUM(SUMINVAMT - TOTALCOST)/SUM(SUMINVAMT) DESC) AS PercentRank

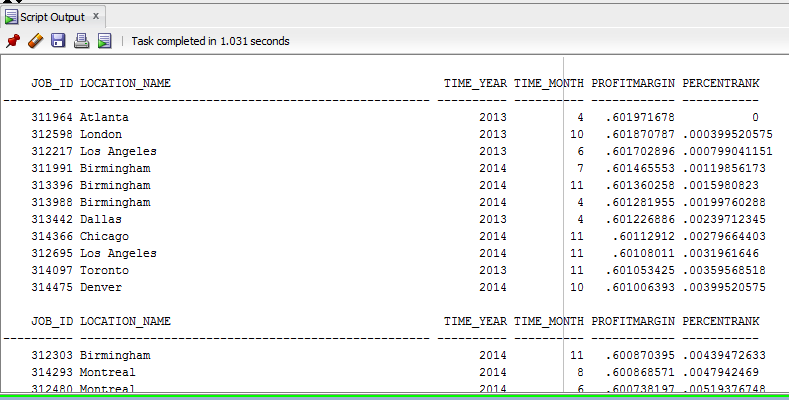
FROM BQ2,BQ3

WHERE BQ2.Job\_id = BQ3.Job\_id

GROUP BY BQ2.Job\_Id,BQ2.Location\_Name,BQ2.Time\_Year,BQ2.Time\_Month

)

WHERE PercentRank < 0.05;



1. **AQ7**

SELECT Sales\_Class\_Desc,Time\_Year,

SUM ( Quantity\_shipped - Invoice\_Quantity ) as QTYRETURNED,

RANK() OVER(Partition By Time\_Year Order By SUM ( Quantity\_shipped - Invoice\_Quantity ) DESC) AS Rank

FROM W\_INVOICELINE\_F,W\_Sales\_Class\_D,W\_TIME\_D

WHERE quantity\_shipped - invoice\_quantity > 0

AND W\_INVOICELINE\_F.INVOICE\_SENT\_DATE = W\_TIME\_D.TIME\_ID

AND W\_INVOICELINE\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id

GROUP BY Sales\_Class\_Desc,Time\_Year;



1. **AQ8**

SELECT Sales\_Class\_Desc,Time\_Year,

SUM ( Quantity\_shipped - Invoice\_Quantity ) as QTYRETURNED,

RATIO\_TO\_REPORT(SUM ( Quantity\_shipped - Invoice\_Quantity ))OVER(Partition By Time\_Year) AS Ratio

FROM W\_INVOICELINE\_F,W\_Sales\_Class\_D,W\_TIME\_D

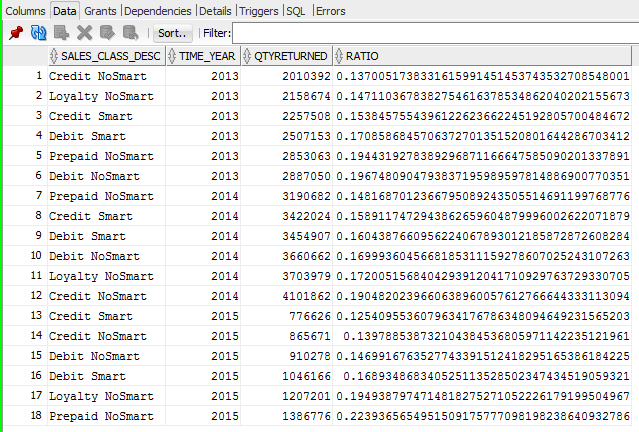
WHERE quantity\_shipped - invoice\_quantity > 0

AND W\_INVOICELINE\_F.INVOICE\_SENT\_DATE = W\_TIME\_D.TIME\_ID

AND W\_INVOICELINE\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id

GROUP BY Sales\_Class\_Desc,Time\_Year

ORDER BY Time\_Year,QTYRETURNED;



1. **AQ9**

SELECT Location\_Name,W\_Time\_D.Time\_Year,SUM(DAYSDIFF) AS SUMDAYSDIFF,

RANK() OVER(Partition By W\_Time\_D.Time\_Year Order By SUM(DAYSDIFF) DESC) AS Rank,

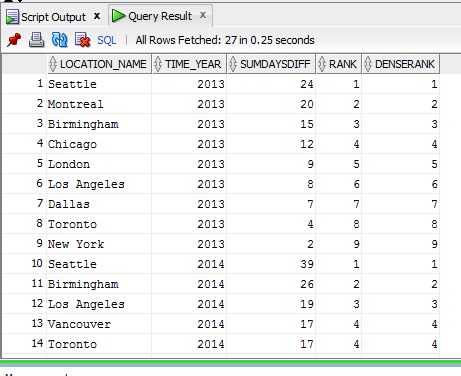
DENSE\_RANK() OVER(Partition By W\_Time\_D.Time\_Year Order By SUM(DAYSDIFF) DESC) AS DenseRank

FROM BQ6,W\_Time\_D

WHERE W\_Time\_D.Time\_Id = BQ6.Date\_Ship\_By

GROUP BY Location\_Name,W\_Time\_D.Time\_Year;

(27 rows)



1. **AQ10**

SELECT Location\_Name,W\_Time\_D.Time\_Year,SUM(DAYSDIFF) AS SUMDAYSDIFF,Count(\*) AS NoofJobs,

SUM(Quantity\_Ordered - SumShipQty) / SUM(Quantity\_Ordered) AS Delay\_Rate,

RANK() OVER(Partition By W\_Time\_D.Time\_Year Order By SUM(Quantity\_Ordered - SumShipQty) / SUM(Quantity\_Ordered) DESC) AS Rank

FROM BQ5,W\_Time\_D

WHERE W\_Time\_D.Time\_Id = BQ5.Date\_Promised

GROUP BY Location\_Name,W\_Time\_D.Time\_Year;

(27 rows)

