**Problem set 2:**

**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**

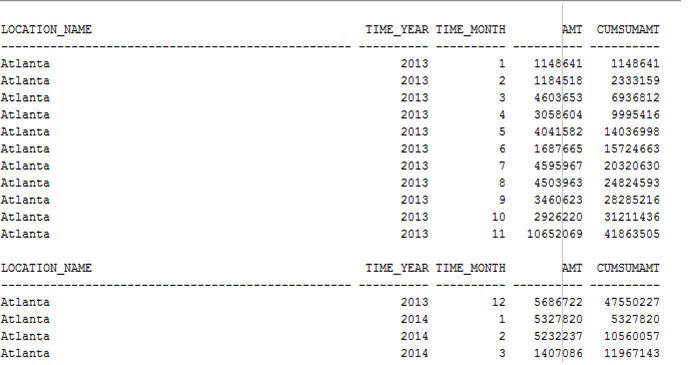
**AND W\_TIME\_D.Time\_id = W\_JOB\_F.Contract\_date**

**GROUP BY Location\_Name**

**,Time\_Year**

**,Time\_Month;**

**Result:388 rows**

****

**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**

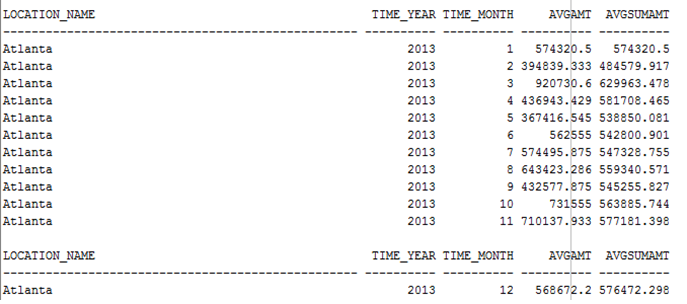
**WHERE W\_JOB\_F.Location\_ID = W\_LOCATION\_D.Location\_ID**

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

**GROUP BY Location\_Name**

**,Time\_Year**

**,Time\_Month;**



**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**

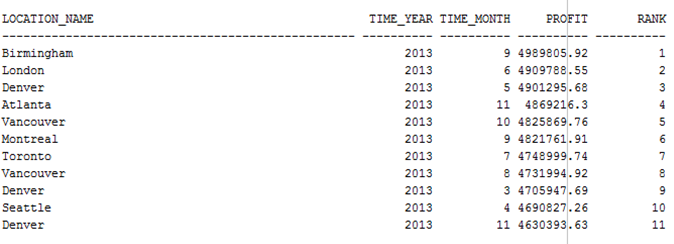
**WHERE BQ2.Job\_id = BQ3.Job\_id**

**GROUP BY BQ2.Location\_Name**

**,BQ2.Time\_Year**

**,BQ2.Time\_Month;**

**Result: (312 rows)**



**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**

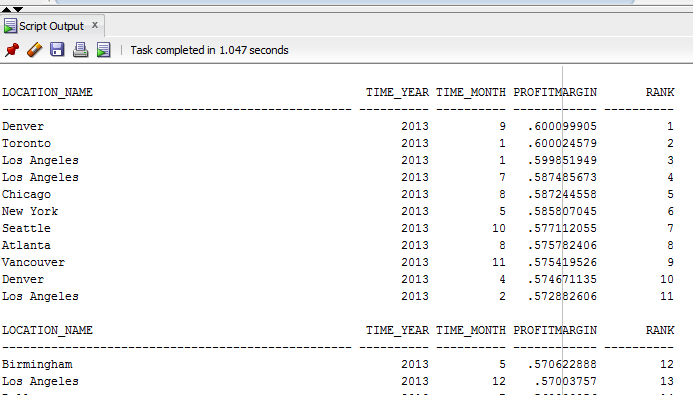
**FROM BQ2**

**,BQ3**

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

**GROUP BY BQ2.Location\_Name**

**,BQ2.Time\_Year**

**,BQ2.Time\_Month;**

**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**

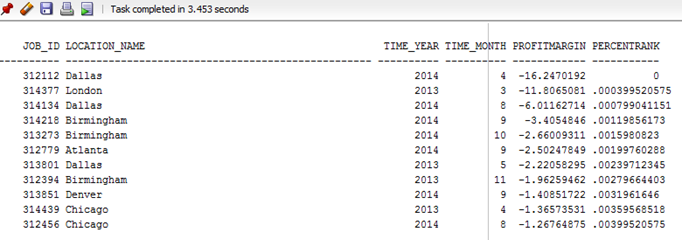
**GROUP BY BQ2.Job\_Id**

**,BQ2.Location\_Name**

**,BQ2.Time\_Year**

**,BQ2.Time\_Month;**

**Result: (2504 rows)**

**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**

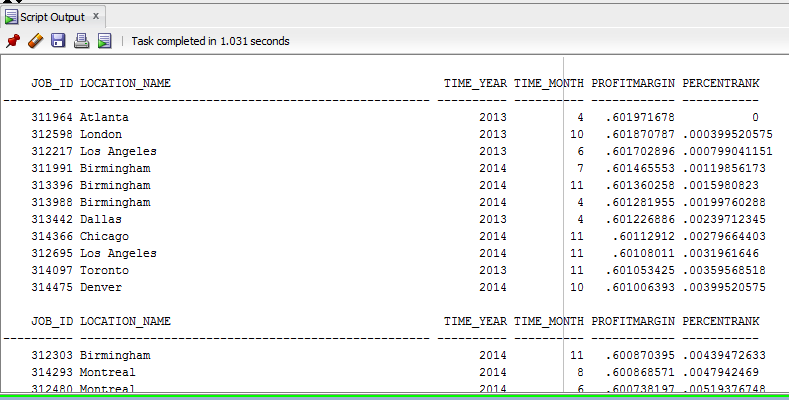
**,BQ2.Location\_Name**

**,BQ2.Time\_Year**

**,BQ2.Time\_Month**

**)**

**WHERE PercentRank < 0.05;**

**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**

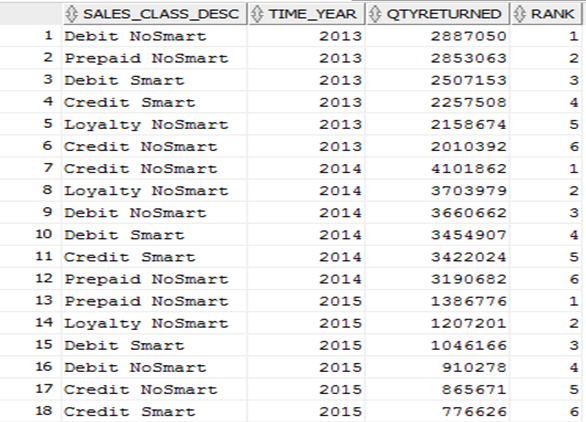
**WHERE quantity\_shipped - invoice\_quantity > 0**

**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;**



**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**

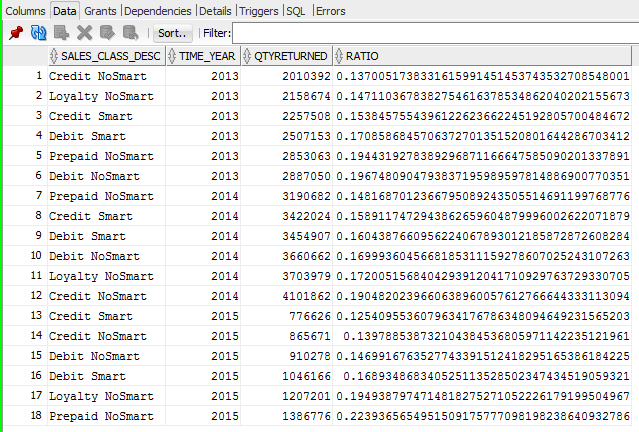
**AND W\_INVOICELINE\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id**

**GROUP BY Sales\_Class\_Desc**

**,Time\_Year**

**ORDER BY Time\_Year**

**,QTYRETURNED;**

**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**

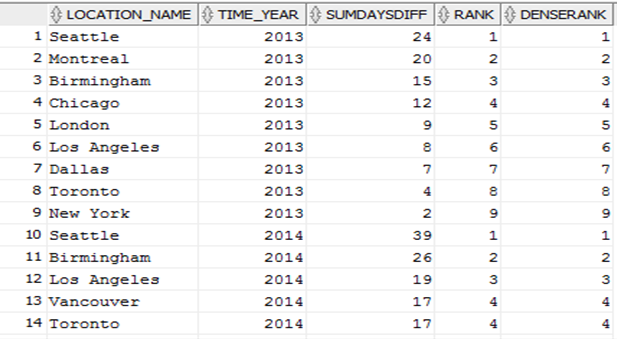
**,W\_Time\_D**

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

**GROUP BY Location\_Name**

**,W\_Time\_D.Time\_Year;**

Result: (27 rows)



**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;**

Result: 27 rows

