**Assignment 4 Part 2:**  **Analytic Functions**

## Query 1: Ranking within the entire result

SELECT name,

SUM(ExtCost) AS Sum\_Extended\_Cost,

RANK() OVER ( ORDER BY SUM(Extcost) DESC ) AS Sum\_ExtendedCost\_Rank

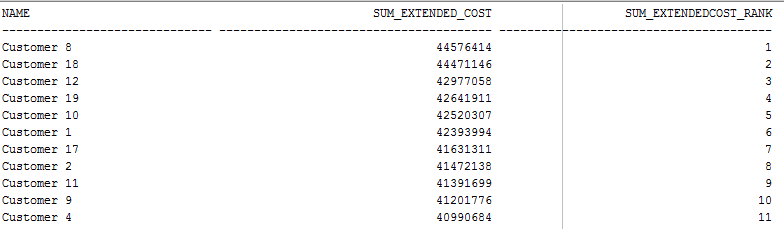
FROM mmannino.cust\_vendor\_dim c, mmannino.inventory\_fact i

WHERE i.CUSTVENDORKEY = c.CUSTVENDORKEY

AND Transtypekey = 5

GROUP BY c.name;

**Output :**



**Query 2: Ranking within a partition**

SELECT name,state,

SUM(ExtCost) AS Sum\_Extended\_Cost,

RANK() OVER (PARTITION BY state ORDER BY SUM(Extcost) DESC) AS SalesRank

FROM mmannino.cust\_vendor\_dim c, mmannino.inventory\_fact i

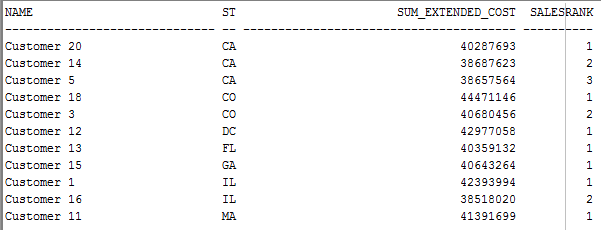
WHERE i.CUSTVENDORKEY = c.CUSTVENDORKEY

AND Transtypekey = 5

GROUP BY c.name, c. state

ORDER BY c.state;

**Output:**



## Query 3: Ranking and dense ranking within the entire result

SELECT name,COUNT(\*) AS RowCount,

RANK() OVER (ORDER BY COUNT(\*) DESC) CountRank,

DENSE\_RANK() OVER (ORDER BY COUNT(\*) DESC) CountDenseRank

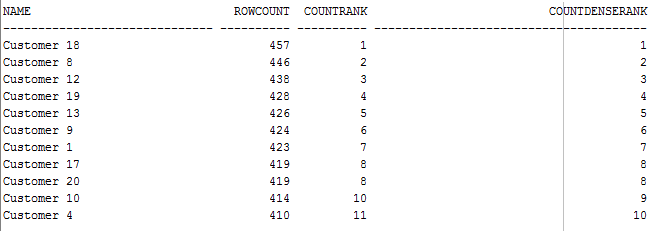
FROM mmannino.cust\_vendor\_dim c, mmannino.inventory\_fact i

WHERE i.CUSTVENDORKEY = c.CUSTVENDORKEY

AND Transtypekey = 5

Group BY c.name;

**Output :**



## Query 4: Cumulative extended costs for the entire result

SELECT zip,calyear,calmonth,

SUM(ExtCost) AS Sum\_Extended\_Cost,

SUM(SUM(ExtCost)) OVER

(ORDER BY zip,calyear,calmonth

ROWS UNBOUNDED PRECEDING ) AS CumSum\_ExtendedCost

FROM mmannino.cust\_vendor\_dim c, mmannino.date\_dim d,mmannino.inventory\_fact i

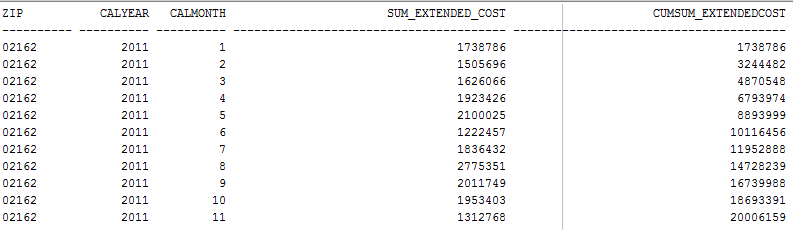
WHERE c.custvendorkey = i.custvendorkey

AND d.datekey = i.datekey

AND Transtypekey = 5

GROUP BY c.zip,d.calyear,d.calmonth;

**Output:**



## Query 5: Cumulative extended costs for a partition

SELECT zip,calyear,calmonth,

SUM(ExtCost) AS Sum\_Extended\_Cost,

SUM(SUM(ExtCost)) OVER

(PARTITION BY zip,calyear ORDER BY zip,calyear,calmonth

ROWS UNBOUNDED PRECEDING ) AS CumSum\_ExtendedCost

FROM mmannino.cust\_vendor\_dim c, mmannino.date\_dim d,mmannino.inventory\_fact i

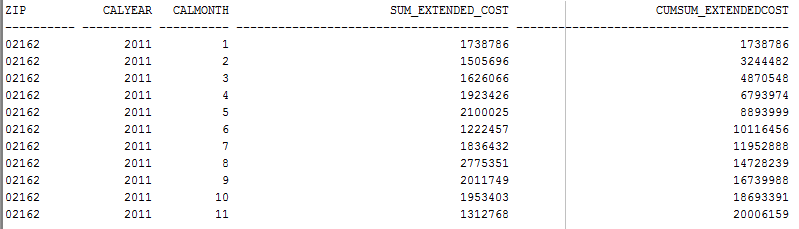
WHERE c.custvendorkey = i.custvendorkey

AND d.datekey = i.datekey

AND Transtypekey = 5

GROUP BY c.zip,d.calyear,d.calmonth;

**Output :**



## Query 6: Ratio to report applied to the entire result

SELECT seconditemid,

SUM(ExtCost) AS Sum\_Extended\_Cost,

To\_Char(RATIO\_TO\_REPORT(SUM(ExtCost))

OVER ()) AS SumExtendedCost\_Ratio

FROM mmannino.item\_master\_dim im, mmannino.inventory\_fact i

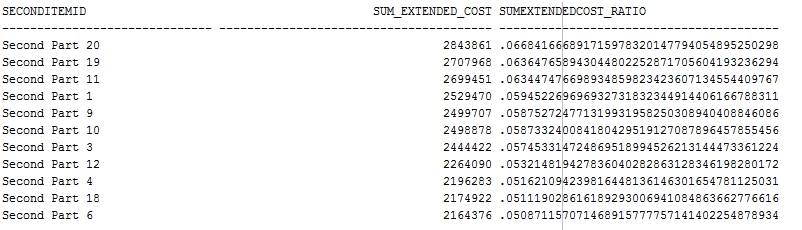
WHERE im.itemmasterkey = i.itemmasterkey

AND Transtypekey = 1

GROUP BY im.seconditemid

ORDER BY SUM(Extcost) DESC;

**Output:**



## Query 7: Ratio to report applied to a partition

SELECT calyear,seconditemid,

SUM(ExtCost) AS Sum\_Extended\_Cost,

To\_Char (RATIO\_TO\_REPORT(SUM(ExtCost))

OVER (PARTITION BY calyear)) AS SumExtendedCost\_Ratio

FROM mmannino.date\_dim d,mmannino.item\_master\_dim im, mmannino.inventory\_fact i

WHERE d.datekey = i.datekey

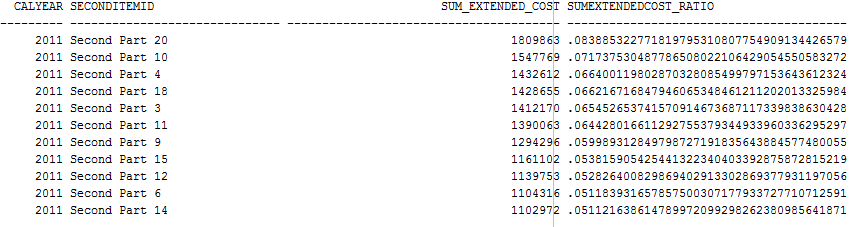
AND im.itemmasterkey = i.itemmasterkey

AND Transtypekey = 1

GROUP BY d.calyear,im.seconditemid

ORDER BY d.CALYEAR ASC, SUM(Extcost) DESC;

**Output:**



## Query 8: Cumulative distribution functions for carrying cost of all branch plants

SELECT bpname,CompanyKey, CarryingCost,

RANK() OVER (ORDER BY CarryingCost) As Rank\_CarryingCost,

PERCENT\_RANK()

OVER (ORDER BY CarryingCost) As PercentRank\_CarryingCost,

ROW\_NUMBER()

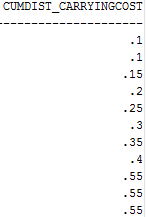
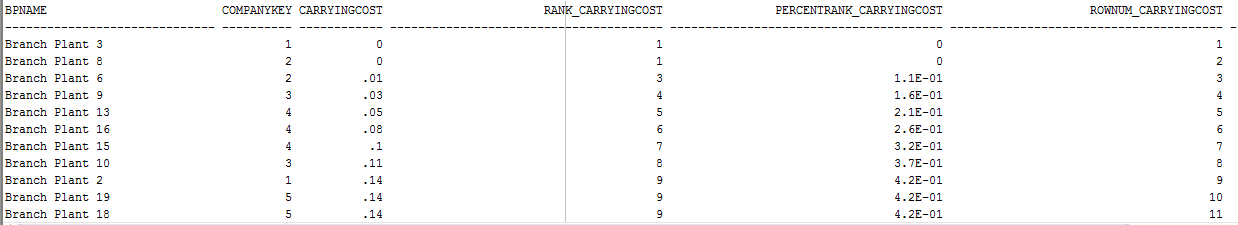
OVER (ORDER BY CarryingCost) As RowNum\_CarryingCost,

CUME\_DIST()

OVER (ORDER BY CarryingCost ASC) As CumDist\_CarryingCost

FROM MMANNINO.branch\_plant\_dim;

**Output:**



## Query 9: Determine worst performing plants

SELECT bpname,CompanyKey, CarryingCost, CumDist\_CarryingCost

FROM ( SELECT bpname,CompanyKey, CarryingCost,

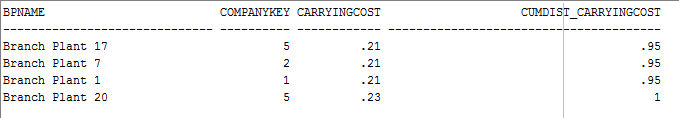
CUME\_DIST()

OVER (ORDER BY CarryingCost ASC) As CumDist\_CarryingCost

FROM MMANNINO.branch\_plant\_dim )

WHERE CumDist\_CarryingCost >= 0.85;

**Output :**



## Query 10: Cumulative distribution of extended cost for Colorado inventory

SELECT DISTINCT Extcost,

To\_Char(CUME\_DIST() OVER (ORDER BY Extcost))

As CumDist\_ExtCost

FROM mmannino.cust\_vendor\_dim c, mmannino.inventory\_fact i

WHERE c.custvendorkey = i.custvendorkey

AND c.state = 'CO'

ORDER BY Extcost;

**Output :**

