1. `Summarize (sum, min, and count) store sales for USA and UK in 2014 by store zip and month. Only include groups with more than one row.

First, a view is created:

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| --- |
| CREATE VIEW Store\_Sales AS  SELECT salesno,salesunits,salesdollar,salescost,custid,itemid,Sales.storeid,TimeDim.timeno,timeday,timemonth,timequarter,timeyear,timedayofweek,timefiscalyear,divid,storemanager,storestreet,storecity,storestate,storezip,storenation FROM Sales  FULL OUTER JOIN TimeDim  ON Sales.TimeNo=TimeDim.TimeNo  FULL OUTER JOIN Store  ON Sales.StoreId=Store.StoreId  WHERE  Sales.TimeNo = TimeDim.TimeNo AND  Sales.StoreId = Store.StoreId |

Next the following query is used to

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| --- |
| select storenation,StoreZip,timemonth,sum(SalesDollar),min(SalesDollar),count(SalesDollar)  from store\_sales  group by timeyear,storenation,StoreZip,timemonth  having (storenation = 'USA' OR storenation = 'UK')  AND timeyear = 2014  AND count(SalesDollar)>1; |

1. Summarize (sum, min, and count) store sales for UK and Canada in 2015 by store zip code and month. Generate all possible subtotals by zip code and month. Only include groups with more than one row.

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| --- |
| SELECT StoreZip,timemonth,SUM(SalesDollar),MIN(SalesDollar),COUNT(SalesDollar)  FROM store\_sales  GROUP BY CUBE (timeyear,storenation,StoreZip,timemonth)  HAVING (storenation = 'UK' OR storenation = 'Canada')  AND timeyear = 2016  AND COUNT(SalesDollar)>1; |

1. Summarize sum of store sales for USA and Canada in 2016 by store zip and month. Generate subtotals by store zip and month and month cannot be NULL.

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| --- |
| SELECT StoreZip,timemonth,SUM(SalesDollar),MIN(SalesDollar),COUNT(SalesDollar)  FROM (  SELECT StoreZip,timemonth,SalesDollar  FROM store\_sales  WHERE (storenation = 'USA'  OR storenation = 'Canada')  AND timeyear = 2016 ) AS temp1  GROUP BY GROUPING SETS ((StoreZip,timemonth),timemonth); |

1. Summarize sum of store sales for USA and UK in 2016 by store zip and month. Generate subtotals for store zip, month and grand total without the combination for store zip and month.

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| --- |
| SELECT StoreZip,timemonth,SUM(SalesDollar),MIN(SalesDollar),COUNT(SalesDollar)  FROM (  SELECT StoreZip,timemonth,SalesDollar  FROM store\_sales  WHERE (storenation = 'USA'  OR storenation = 'UK')  AND timeyear = 2016 ) AS temp1  GROUP BY GROUPING SETS (StoreZip,timemonth,()); |

1. Summarize (SUM, COUNT, and MIN) store sales for USA and Canada between 2016 and 2017 by year and month. Generate subtotals for year and month as well as for the years alone.

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| --- |
| SELECT timeyear,timemonth,SUM(SalesDollar),MIN(SalesDollar),COUNT(SalesDollar)  FROM (  SELECT timeyear,timemonth,SalesDollar  FROM store\_sales  WHERE (storenation = 'USA'  OR storenation = 'Canada')  AND (timeyear = 2016 OR timeyear = 2017)) AS temp1  GROUP BY GROUPING SETS ((timeyear,timemonth),timeyear); |

1. Display cumulative sum of dollar sales by zip code and year with no partitioning.

|  |
| --- |
| SELECT storezip,timeyear, SUM(SalesDollar),  SUM(SUM(SalesDollar)) OVER (ORDER BY storezip, timeyear) AS CummulativeSales  FROM store\_sales  GROUP BY storezip,timeyear; |

1. Display cumulative sum of dollar sales by zip code and year partitioned by store zip.

|  |
| --- |
| SELECT storezip,timeyear, SUM(SalesDollar),  SUM(SUM(SalesDollar)) OVER (PARTITION BY storezip)  FROM store\_sales  GROUP BY storezip,timeyear; |

1. Display Moving average of sum of sales by zip code and year. Centered physical window of 3 rows with no partitioning.

|  |
| --- |
| SELECT storezip,timeyear,salesdollar,  AVG(SalesDollar) OVER (ORDER BY storezip,timeyear) ROWS BETWEEN 1 PRECEDING AND 1 FOLLOWING AS avg\_SalesDollar  FROM store\_sales; |

1. Display moving average of sum of dollar sales by year. Centered logical window of 3 years partitioned by store zip.
2. Rank customers by descending sum of dollar sales. Partition ranking on customer state.
3. Rank items by ascending item price
4. Use the 4 different Rank functions to rank customers by descending sum of unit sales.
5. Create a view to display all the item, time, and sales data for Connex product sales, cost, and units from 2014 to 2016