GROUP BY vs PARTITION BY Review
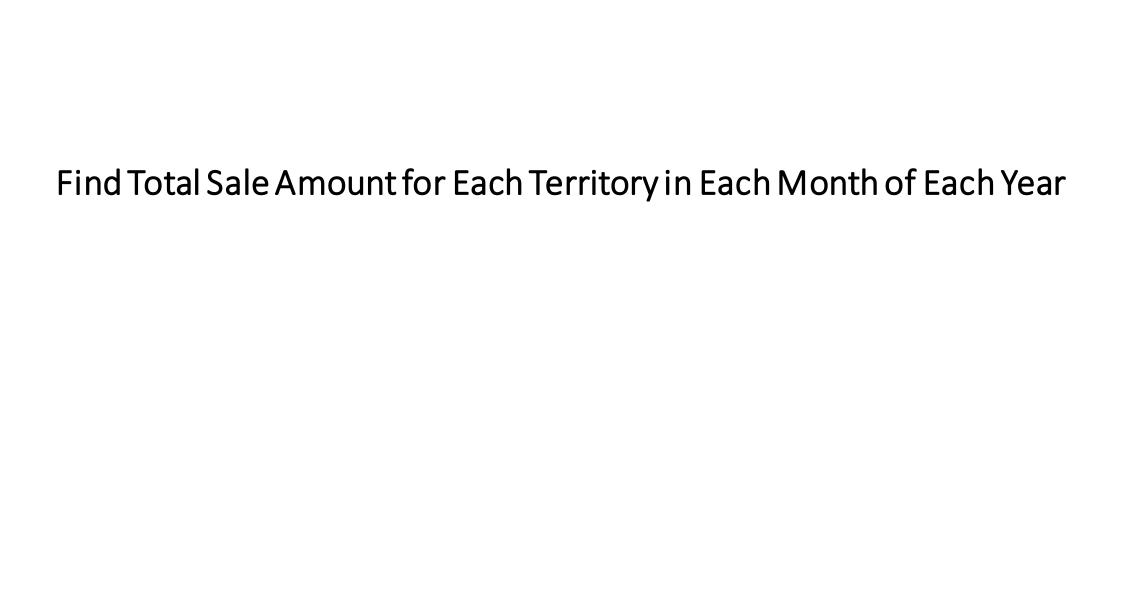
Comparison Between GROUP BY and PARTITION BY
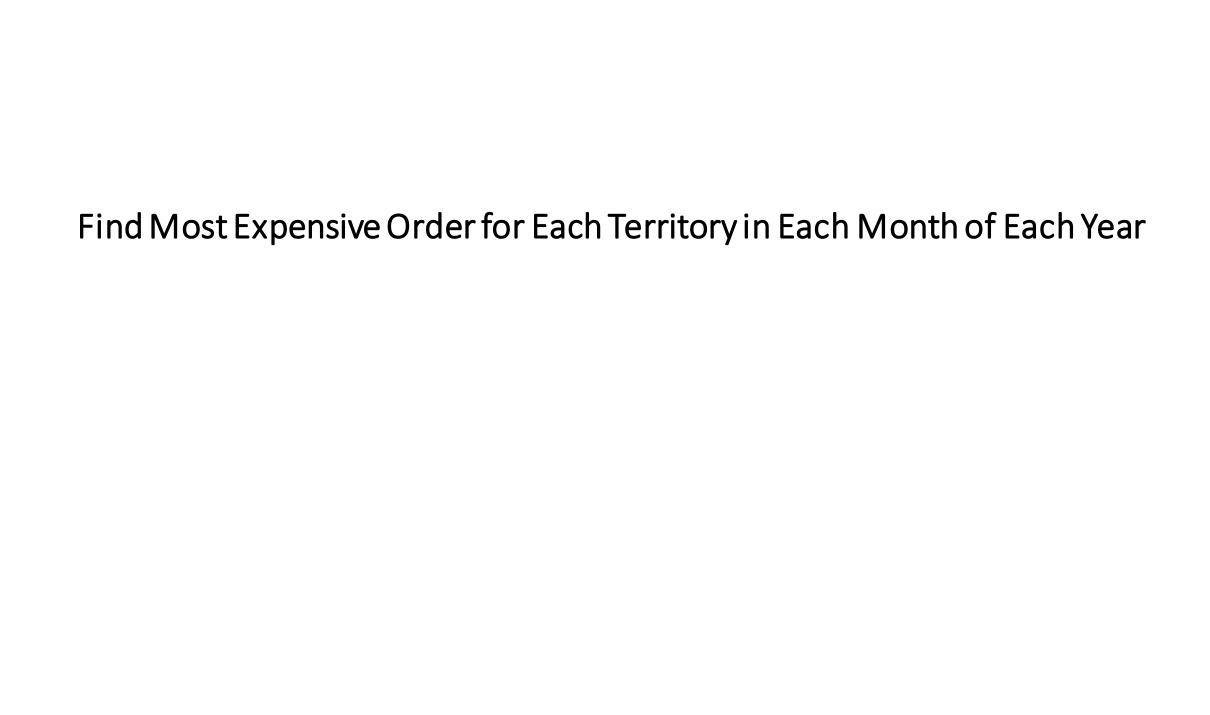
	GROUP BY	PARTITION BY
Used in SELECT	Yes	Yes
Must be Used Together with OVER	No	Yes
Organize Data into Groups	Yes	Yes
Aggregate Data	Yes	No
Reduce the Number of Returned Rows	Yes	No
Can be Based on Multiple Columns	Yes	Yes

Find Total Sale Amount for Each Territory in Each Month of Each Year

Returned Data

OrderYear	OrderMonth	TerritoryID	TotalSale
2006	9	4	1203725
2008	5	4	1125079
2006	8	4	1113024
2008	6	4	1111357
2007	9	4	1078203
2007	12	4	1041334
2007	7	4	1037913
2008	4	4	1002150
2007	5	4	992669
2007	8	4	969486

GROUP BY, PARTITION BY, or Both?

Find Most Expensive Order for Each Territory in Each Month of Each Year

Returned Data

OrderYear	OrderMonth	TerritoryID	MostExpensive	Ranking
2007	7	4	187488	1
2007	10	4	182019	1
2006	7	6	170513	1
2006	8	7	166537	1
2006	9	2	165029	1
2006	9	4	158057	1
2007	8	3	145454	1
2005	11	5	142312	1
2007	8	7	140042	1
2007	11	7	137721	1

GROUP BY, PARTITION BY, or Both?

Find the Top Performing Territory of Each Month in Each Year and its Total Sale Amount. The Top Performing Territory had the Highest Total Sale Amount.

Returned Data

OrderYear	OrderMonth	TerritoryID	TotalSale	Ranking
2006	9	4	1203725	1
2008	5	4	1125079	1
2006	8	4	1113024	1
2008	6	4	1111357	1
2007	9	4	1078203	1
2007	12	4	1041334	1
2007	7	4	1037913	1
2008	4	4	1002150	1
2007	5	4	992669	1
2007	8	4	969486	1

GROUP BY, PARTITION BY, or Both?