DAX DAIRY

How to calculate hierarchical ranking

PWP

Scenario

Need to calculate Dynamic Ranking for the date hierarchy, rank need to be calculated based on total sales with in the hierarchy

Year	TOTAL SALES	RANK 2
⊞ 2020	691,607.62	1
⊞ 2022	635,126.20	2
⊞ 2021	603,287.88	3
⊞ 2023	367,179.16	4
Total	**2,297**	

Year	TOTAL SALES	RANK 2
⊟ **2020**	**691,607.62**	**1**
⊞ Qtr 4	192,686.96	1
⊞ Qtr 1	185,536.40	2
⊞ Qtr 3	167.170.97	3
⊞ Qtr 2		
⊟ **2022**		
⊞ Qtr 4		
⊞ Qtr 3		
⊞ Qtr 1		
⊞ Qtr 2		
⊟ **2021**		

Year	TOTAL SALES	RANK 2
⊟ **2020**	**691,607.62**	**1**
⊟ **Qtr 4**	**192,686.96**	**1**
⊞ December	76,184.29	1
⊞ November	60,134.96	2
⊞ October	56,367.71	3
⊟ **Qtr 1**		
⊞ March		
⊞ February		
⊞ January		

Year	TOTAL SALES	RANK 2
⊟ **2020**	**691,607.62**	**1**
⊟ **Qtr 4**	**192,686.96**	**1**
⊟ **December**	**76,184.29**	**1**
26	18,973.96	1
4	14,687.11	2
18	6,211.40	3
8	4,424.91	4

Step 1

Need to establish proper relationship between the date dimension table and sales fact table.
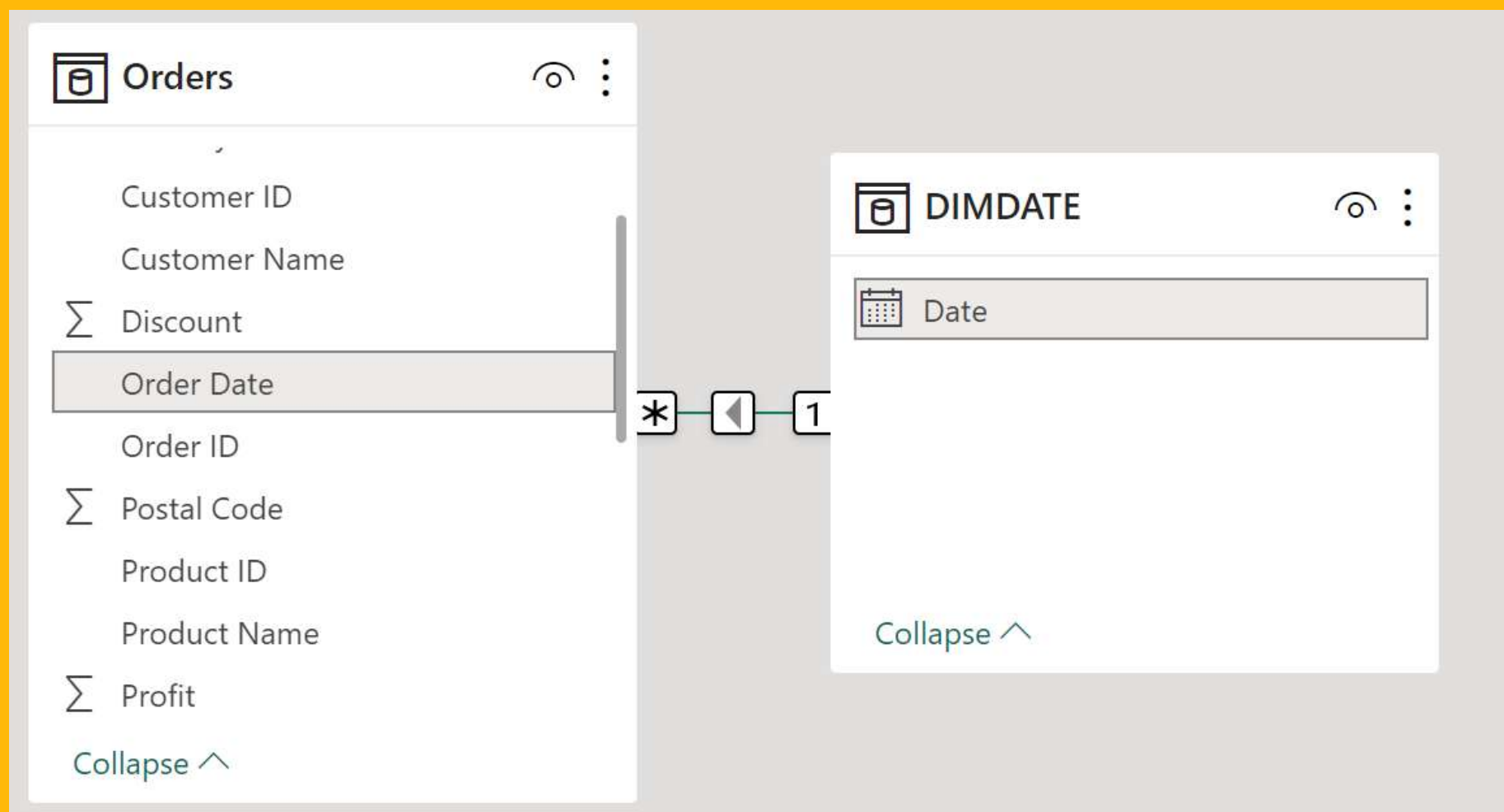
Create Hierarchical Rank measure

Dax: HIERARCHICAL RANK =

```
VAR _RYEAR=RANK(DENSE,ALLSELECTED
(DIMDATE[Date].[Year]),ORDERBY([TOTAL
SALES],DESC))
VAR _RQUARTER=RANK(DENSE,ALLSELECTED(
DIMDATE[Date].[Quarter],DIMDATE[Date].
[QuarterNo]),ORDERBY([TOTAL SALES],DESC))
VAR _RMONTH=RANK(DENSE,ALLSELECTED(
DIMDATE[Date].[Month],DIMDATE[Date].
[MonthNo]),ORDERBY([TOTAL SALES],DESC))
VAR _RDAY=RANK(DENSE,ALLSELECTED(
DIMDATE[Date].[Day]),ORDERBY([TOTAL
SALES],DESC))
RETURN IF(ISINSCOPE(DIMDATE[Date].
[Day]),_RDAY,IF(ISINSCOPE(DIMDATE[Date].
[Month]),_RMONTH,IF(ISINSCOPE(DIMDATE[Date
].[Quarter]),_RQUARTER,_RYEAR)))
```

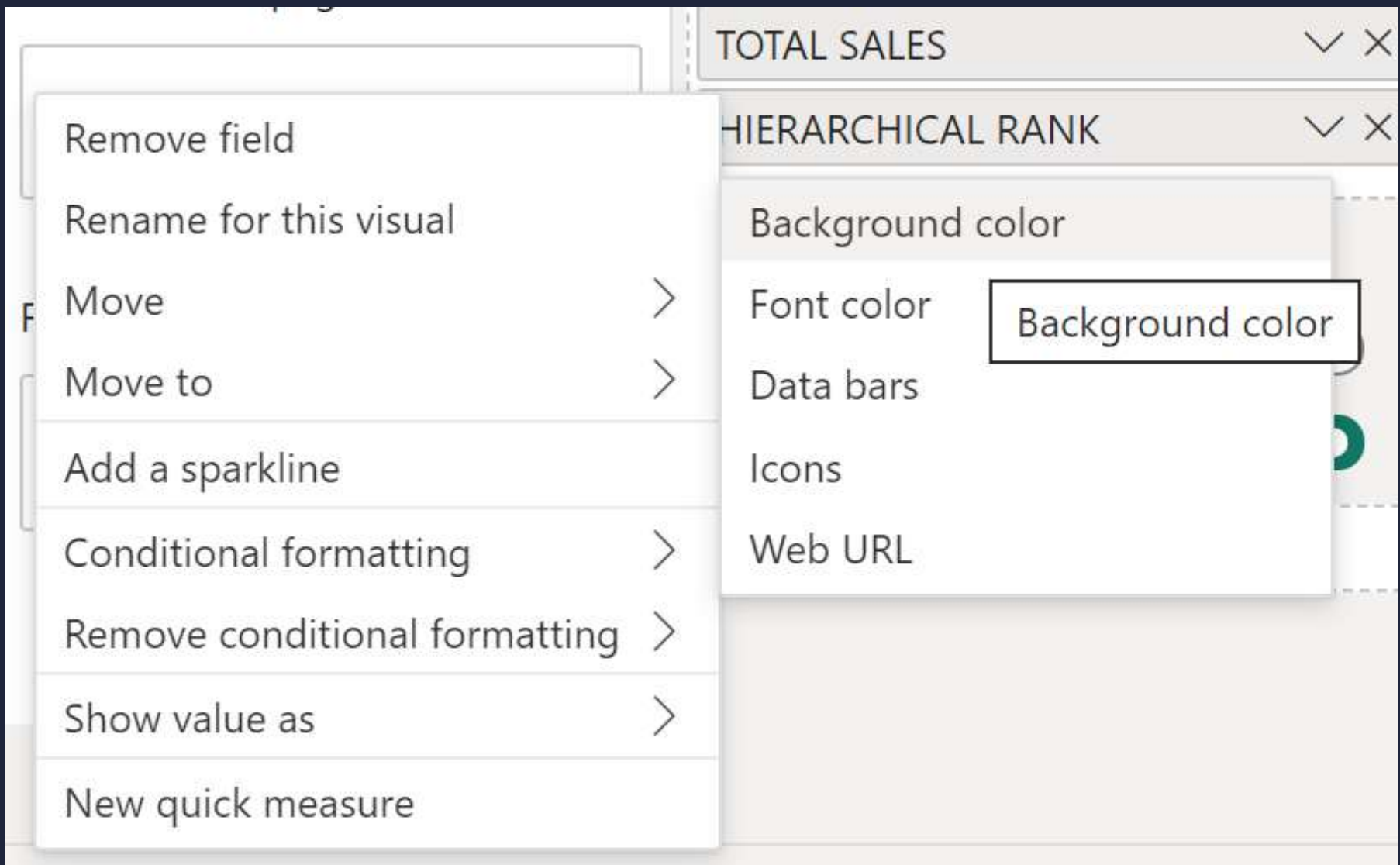**NOTE: Hierarchy logic order need to be from bottom**

△ PWP

Step 3

Take a matrix visual with date hierarchy from data dimension table as rows, total sales and Hierarchical rank measure as values

Step 4

To conditionally format the background color of the rank use color measure

RANK COL =
IF(ISINSCOPE(DIMDATE[Date].[Day]),"LIGHT PINK",IF(ISINSCOPE(DIMDATE[Date].[Month]),"LIGHT YELLOW",IF(ISINSCOPE(DIMDATE[Date].[Quarter]),"LIGHT GREEN","LIGHT BLUE")))

NOTE: Hierarchy logic order need to be from bottom

TOTAL SALES ⌄ ✕

Remove field

Rename for this visual

HIERARCHICAL RANK ⌄ ✕

Move >

Background color

Move to >

Font color

Background color

Add a sparkline

Data bars

Conditional formatting >

Icons

Remove conditional formatting >

Web URL

Show value as >

New quick measure

Background color - HIERARCHIC

Format style

Field value ⌄

What field should we base this on?

RANK COL ⌄

Output

Desired output with Dynamic Ranking for the date hierarchy based on total sales (Ranking with in the hierarchy)

Year	TOTAL SALES	HIERARCHICAL RANK
⊟ 2020	691,607.62	1
⊟ Qtr 4	192,686.96	1
⊞ December	76,184.29	1
⊞ November	60,134.96	2
⊞ October	56,367.71	3
⊟ Qtr 1	185,536.40	2
⊞ March	86,169.03	1
⊞ February	58,509.06	2
⊞ January	40,858.31	3
⊟ Qtr 3	167,170.97	3
⊞ August	61,365.69	1
⊞ September	55,055.36	2
⊞ July	50,749.92	3
⊟ Qtr 2	146,213.29	4
⊞ May	62,653.16	1
⊞ June	47,723.18	2
⊞ April	35,836.95	3
⊟ 2022	635,126.20	2
⊟ Qtr 4	188,214.43	1

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