Lab 5 Advanced Calculate Function and DAX Patterns

Objectives

Time: 30 Minutes

1. Create a DAX measure that produces the percent of the total for each Reseller Country using the combination of the CALCULATE, DIVIDE, and ALL function

2. Create a DAX measure that produces the running sales total for 2019 using the CALCULATE, FILTER, and ALL function

3. Create a DAX measure that will show sales by ship day in comparison to the order date using the CALCULATE and USERELATIONSHIP function

4. Create a DAX measure that filters the total by reseller sales for North America (Canada and the United States only) including the % of total sales for North America.

Lab steps

1) Create a DAX pattern measure that produces a % to total for the reseller country

- From the Home tab navigate to the New Measure
- Place the following measure into a Matrix Table Visual

Formula	Format
`% to total = DIVIDE([Total Sales],CALCULATE([Total Sales],ALL(Reseller[ResellerCountry])))`	Currency

ResellerCountry	Total Sales	% to total
Australia	$1,313,979	1.69%
Canada	$13,892,239	17.82%
France	$4,487,628	5.76%
Germany	$1,798,223	2.31%
United Kingdom	$3,830,859	4.91%
United States	$52,638,085	67.52%
Total	**$77,961,013**	**100.00%**

2) Create a DAX measure that computes the total by reseller sales for Canada and the United States only (North American sales).

- Place a new table visual onto the existing matrix table to show the DAX measure.

Formula	Format

```
North American Sales =
CALCULATE (
    [Total Sales],
    FILTER (
        Reseller,
        Reseller[ResellerCountry] = "Canada"
            || Reseller[ResellerCountry] = "United States"
    )
)
```

Text

```
North America Sales % to total =
DIVIDE (
    [North American Sales],
    CALCULATE ( [Total Sales], ALL ( Reseller[ResellerCountry] ) )
)
```

Percentage

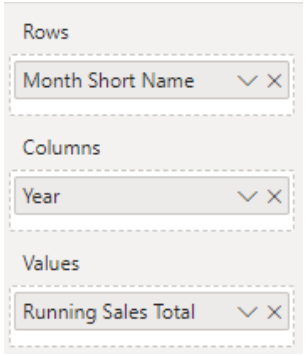
North America Sales

ResellerCountry	Total Sales	% to total	North America Sales	North America Sales % to total
Australia	$1,313,979	1.69%		
Canada	$13,892,239	17.82%	$13,892,239	17.82%
France	$4,487,628	5.76%		
Germany	$1,798,223	2.31%		
United Kingdom	$3,830,859	4.91%		
United States	$52,638,085	67.52%	$52,638,085	67.52%
Total	**$77,961,013**	**100.00%**	**$66,530,324**	**85.34%**

3) Create a DAX pattern measure that produces the Running sales total for the year 2019

- Place a new matrix table visual onto the report canvas to show the DAX measure.
- Place a Line chart visual onto the report canvas to show the DAX measure trend for the Running Sales Total

Formula	Format
`Running Sales Total = CALCULATE([Total Sales], FILTER(ALL( Cal_tbl[Date]), Cal_tbl[Date]<=MAX(Cal_tbl[Date]) ) )`	Currency

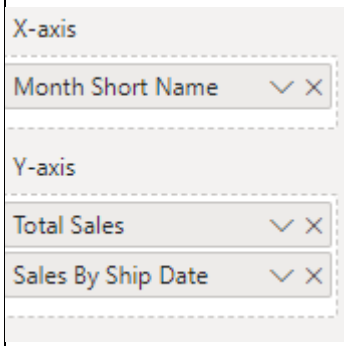


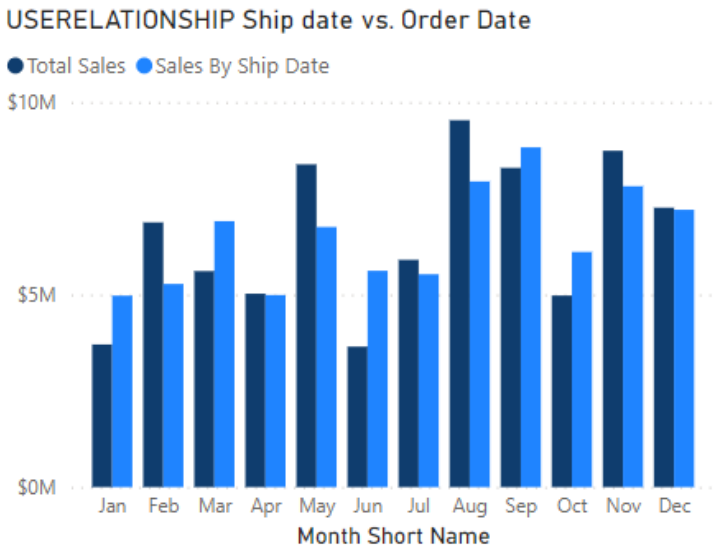
Month Short Name	2017	2018	2019	2020	Total
Jan		$8,796,524	$34,440,288	$67,258,314	**$67,258,314**
Feb		$10,697,168	$36,802,220	$69,872,918	**$69,872,918**
Mar		$12,152,355	$38,344,776	$72,486,352	**$72,486,352**
Apr		$13,038,859	$40,266,463	$74,702,364	**$74,702,364**
May		$15,309,484	$43,122,564	$77,961,013	**$77,961,013**
Jun		$16,987,688	$45,094,101	$77,961,013	**$77,961,013**
Jul	$489,272	$19,532,228	$47,965,140	$77,961,013	**$77,961,013**
Aug	$2,032,155	$23,153,033	$52,333,170	$77,961,013	**$77,961,013**
Sep	$3,199,199	$26,045,219	$56,568,422	$77,961,013	**$77,961,013**
Oct	$4,047,575	$27,906,371	$58,836,374	$77,961,013	**$77,961,013**
Nov	$6,375,987	$30,931,364	$62,221,862	$77,961,013	**$77,961,013**
Dec	$8,080,177	$33,100,854	$65,608,558	$77,961,013	**$77,961,013**
Total	**$8,080,177**	**$33,100,854**	**$65,608,558**	**$77,961,013**	$77,961,013

4) Create a DAX measure that will show sales by ship day in comparison to order date

- Place a new column chart visual onto the report canvas to show the DAX measure.

Formula	Format
`Sales By Ship Date = CALCULATE([Total Sales],USERELATIONSHIP(Cal_tbl[Date],'Sales By Country Files'[ShipDate]))`	Currency





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