Power BI - Advanced DAX - p2 - Lecture 21

ASSIGNMENT: CALCULATE

1. Create a new measure named Bike Returns to calculate the total quantity of bikes returned.

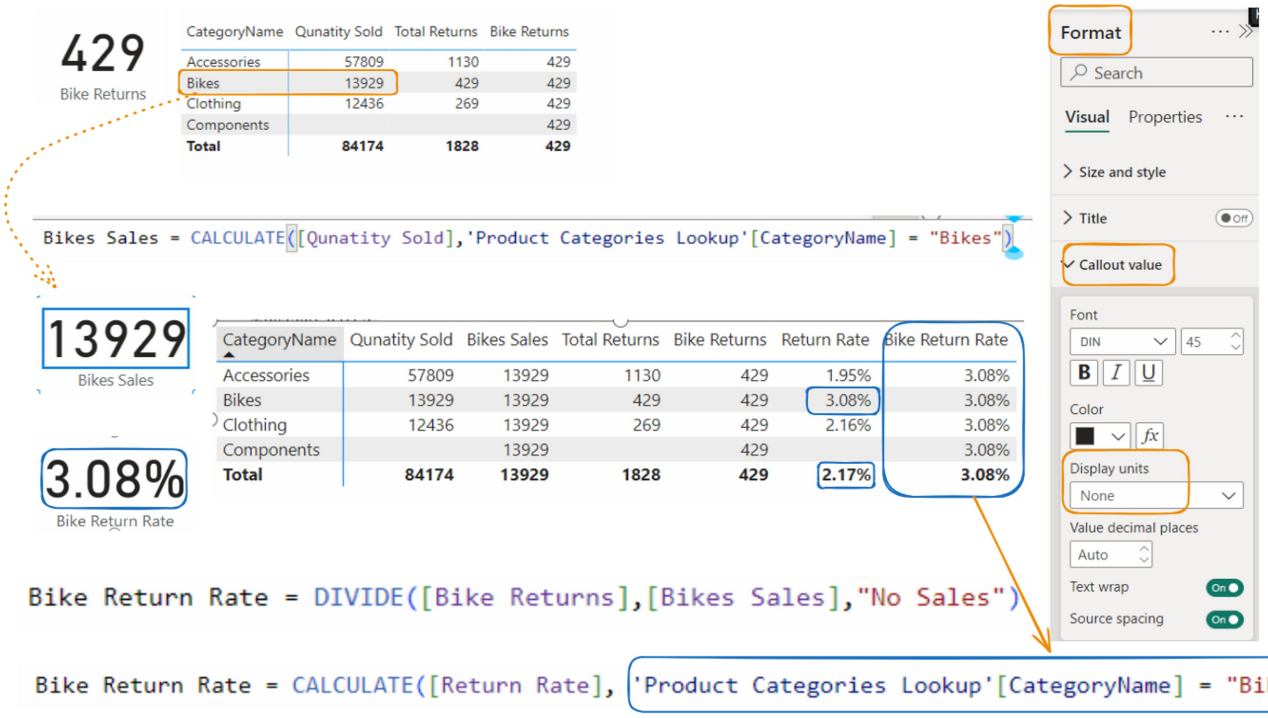
2. Create a matrix to show Bike Returns (values) by Start of Month (rows). What do you notice about the volume of bike returns over time?

3. Create a new measure named Bike Sales to calculate the total quantity of bikes sold, and add it to the matrix. What do you notice?

4. Create a new measure named Bike Return Rate using either CALCULATE or DIVIDE, and add it to the matrix

5. How would you respond to the Product VP's concerns about rising bike returns?

```
Bike Returns = CALCULATE([Total Returns],'Product Categories Lookup'[CategoryName] = "Bikes")
```




```
Bike Return Rate = DIVIDE([Bike Returns],[Bikes Sales],"No Sales")
```

```
Bike Return Rate = CALCULATE([Return Rate], 'Product Categories Lookup'[CategoryName] = "Bikes")
```

Start of Year	Bike Returns		
01-01-2020	**86**	**2630**	**3.27%**
01-01-2020	4	184	2.17%
01-02-2020	4	165	2.42%
01-03-2020	9	198	4.55%
01-04-2020	14	204	6.86%
01-05-2020	11	206	5.34%
01-06-2020	4	212	1.89%
01-07-2020	3	247	1.21%
01-08-2020	6	278	2.16%
01-09-2020	2	196	1.02%
01-10-2020	11	223	4.93%
01-11-2020	5	191	2.62%
01-12-2020	13	326	3.99%
01-01-2021	**172**	**5610**	**3.07%**
01-01-2021	8	242	3.31%
01-02-2021	8	267	3.00%
01-03-2021	8	266	3.01%
01-04-2021	5	290	1.72%
01-05-2021	10	329	3.04%
01-06-2021	8	312	2.56%
01-07-2021	12	506	2.37%
01-08-2021	14	485	2.89%
01-09-2021	22	575	3.83%
01-10-2021	26	612	4.25%
01-11-2021	25	688	3.63%
01-12-2021	26	1038	2.50%
01-01-2022	**171**	**5689**	**3.01%**
01-01-2022	14	766	1.83%
01-02-2022	22	806	2.73%
01-03-2022	27	888	3.04%
01-04-2022	38	956	3.97%
01-05-2022	36	1116	3.23%
01-06-2022	34	1157	2.94%
Total	**429**	**13929**	**3.08%**

Over a period of time, as the sales increases, return also increases. And there is nothing to worry as overall the return is less than 5%.

Coffee Shop - $10 - coffee
- $5 - Biscuits
- $50 - Breakfast
- $15 - Cookies

ALL

Total Expense = 10 + 5 + 50 + 15 = $80

% coffee spent = 10 / 80 = 1/8 = 12.5%

ALL

ALL() :-
Returns all rows in a table, or all values in a column, ignoring any filters that have been applied.

=ALL(Table or Column, [Column2], [Column3],...)

The table or column that you want to clear filters on
Examples:
- Transactions
- Products[Category]

Additional columns that you want to clear filters on (optional)
- Cannot specify columns if your first parameter is a table
- All columns must include the table name and come from the same table

Examples:
- 'Customer Lookup'[City], 'Customer Lookup'[Country]
- Products[Product Name]

PRO TIP:
Instead of adding filter context, the ALL function removes it. This is often used in "% of Total" calculations, when the denominator needs to remain fixed regardless of filter context.

```
All Orders =
    CALCULATE(
        [Total Orders],
        ALL(
            'Sales Data'))
```

```
% of All Orders =
    DIVIDE(
        [Total Orders],
        [All Orders])
```

```
Overall Average Price =
    CALCULATE(
        [Average Retail Price],
        ALL(
            'Product Lookup'))
```

CategoryName	Weekend Orders	Total Orders	All Orders	% of All Orders	Average Retail Price	Overall Average Price
		1	25,165	0.00%		$714.44
Accessories	4,913	16,983	25,165	67.49%	$34.26	$714.44
Bikes	3,995	13,929	25,165	55.35%	$1,541.38	$714.44
Clothing	1,962	6,976	25,165	27.72%	$50.68	$714.44
Components			25,165		$432.19	$714.44
Total	**7,214**	**25,165**	**25,165**	**100.00%**	**$714.44**	**$714.44**

'Product Lookup'[Product Price]

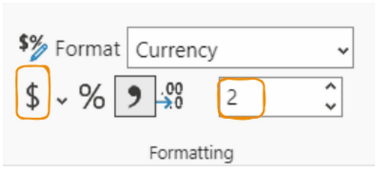
```
All Order = CALCULATE([Total Orders],ALL('Sales Data'))
```

Accessories	57809	16983	25164
Bikes	13929	13929	25164
Clothing	12436	6976	25164
Components			25164
Total	**84174**	**25164**	**25164**

```
Average Retail Price = AVERAGE('Product Lookup'[ProductPrice])
```

$714.44

Average Retail Price




```
Overall Retail Price = CALCULATE([Average Retail Price],ALL('Sales Data'))
```

Expression

Filter - we use ALL to clear the filter.