Visualizations in Power BI-I

Calculate[Expression, Filter]

DatesYTD
DatesQTD
DatesMTD

```
CALCULATE(
    [Quantity Sold],
    DATE
```

		fx	DATEADD
Qtr 2	April	fx	DATEDIFF
	May	fx	DATESBETWEEN
	June	fx	DATESINPERIOD
	Total		
Qtr 3	July	fx	DATESMTD
	August	fx	DATESQTD
	September	fx	DATESYTD
	Total		
Qtr 4	October		
	November		

```
1 Total YTD Quantity =
2 CALCULATE(
3     [Quantity Sold],
4     DATESYTD(
5         'Calendar Table'[Date]
6     )
7 )
```
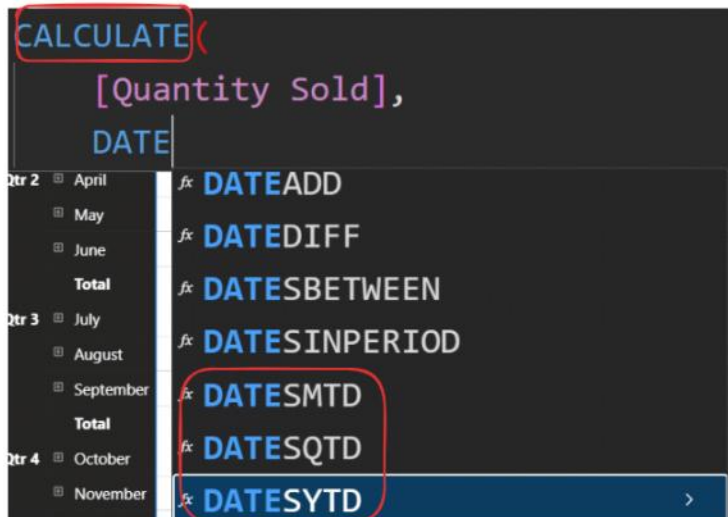
Year	Quarter	Month	Quantity Sold	Total YTD Quantity
2012	Qtr 1	January	501	501
		February	604	1105
		March	824	1929
		Total	**1929**	**1929**
	Qtr 2	April	952	2881
		May	1144	4025
		June	1532	5557
		Total	**3628**	**5557**
	Qtr 3	July	1568	7125
		August	1857	8982
		September	1853	10835
		Total	**5278**	**10835**
	Qtr 4	October	2024	12859
		November	2050	14909
		December	1658	16567
		Total	**5732**	**16567**
	Total		**16567**	**16567**
2013	Qtr 1	January	2216	2216
		February	2005	4221

```
Total QTD Quantity =
CALCULATE(
    [Quantity Sold],
    DATESQTD(
        'Calendar Table'[Date]
    )
)
```

```
Total MTD Quantity =
CALCULATE(
    [Quantity Sold],
    DATESMTD(
        'Calendar Table'[Date]
    )
)
```

Year	Quarter	Month	Quantity Sold	Total YTD Quantity	Total QTD Quantity	Total MTD Quantity
2012	Qtr 1	January	501	501	501	501
		February	604	1105	1105	604
		March	824	1929	1929	824
		Total	**1929**	**1929**	**1929**	**824**
	Qtr 2	April	952	2881	952	952
		May	1144	4025	2096	1144
		June	1532	5557	3628	1532
		Total	**3628**	**5557**	**3628**	**1532**
	Qtr 3	July	1568	7125	1568	1568
		August	1857	8982	3425	1857
		September	1853	10835	5278	1853
		Total	**5278**	**10835**	**5278**	**1853**
	Qtr 4	October	2024	12859	2024	2024
		November	2050	14909	4074	2050
		December	1658	16567	5732	1658
		Total	**5732**	**16567**	**5732**	**1658**
	Total		**16567**	**16567**	**5732**	**1658**
2013	Qtr 1	January	2216	2216	2216	2216
		February	2005	4221	4221	2005

Year	Quarter	Month	Day	Quantity Sold	Total YTD Quantity	Total QTD Quantity	Total MTD Quantity
2012	Qtr 1	January	1	22	22	22	22
			2		22	22	22
			3	46	68	68	68
			4		68	68	68
			5	42	110	110	110
			6		110	110	110
			7		110	110	110
			8		110	110	110
			9		110	110	110
			10		110	110	110
			11	28	138	138	138
			12		138	138	138
			13	34	172	172	172
			14		172	172	172
			15	54	226	226	226
			16	21	247	247	247
			17		247	247	247
			18		247	247	247
			19	82	329	329	329

```
Calendar Table =
CALENDAR(
    "01/01/2012",
    TODAY())
```

→ Rolling Calendar

Calendar(start_date ,end_date)

Max(date of Vehicle Order)

Min(date of Vehicle Order)

```
1 Calendar Table =
2 CALENDAR(
3     MIN(VehicleOrders[OrderDateOnly]),
4     MAX(VehicleOrders[OrderDateOnly]))
```

Date	Year	Month	Day	MonthName	ShortMonthName	DayName	Weekday	ShortDayName	IsWeekend?
01-01-2012	2012	1	1	January	Jan	Sunday	7	Sun	Weekend
02-01-2012	2012	1	2	January	Jan	Monday	1	Mon	Weekday
03-01-2012	2012	1	3	January	Jan	Tuesday	2	Tue	Weekday
04-01-2012	2012	1	4	January	Jan	Wednesday	3	Wed	Weekday
05-01-2012	2012	1	5	January	Jan	Thursday	4	Thu	Weekday
06-01-2012	2012	1	6	January	Jan	Friday	5	Fri	Weekday
07-01-2012	2012	1	7	January	Jan	Saturday	6	Sat	Weekend
08-01-2012	2012	1	8	January	Jan	Sunday	7	Sun	Weekend
09-01-2012	2012	1	9	January	Jan	Monday	1	Mon	Weekday
10-01-2012	2012	1	10	January	Jan	Tuesday	2	Tue	Weekday
11-01-2012	2012	1	11	January	Jan	Wednesday	3	Wed	Weekday

DatesInPeriod() → Running Sum
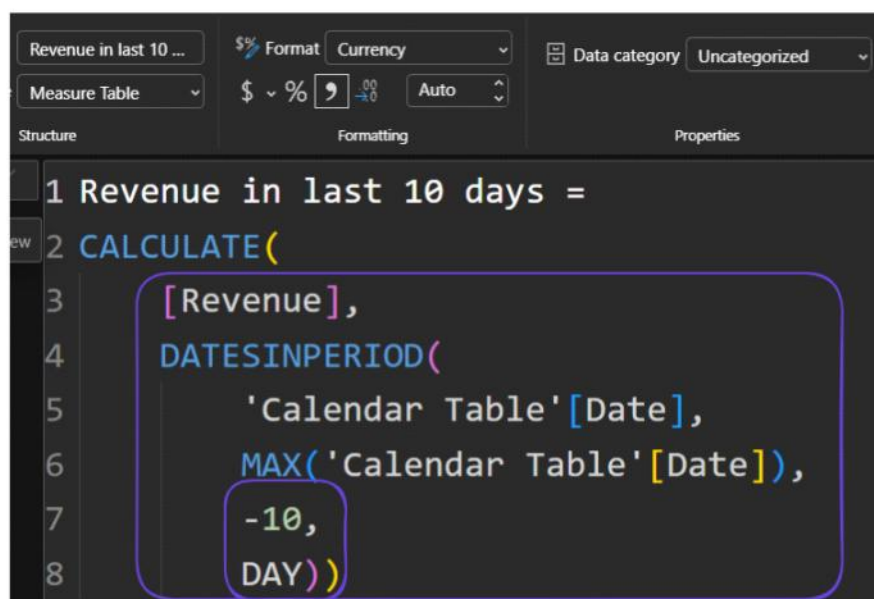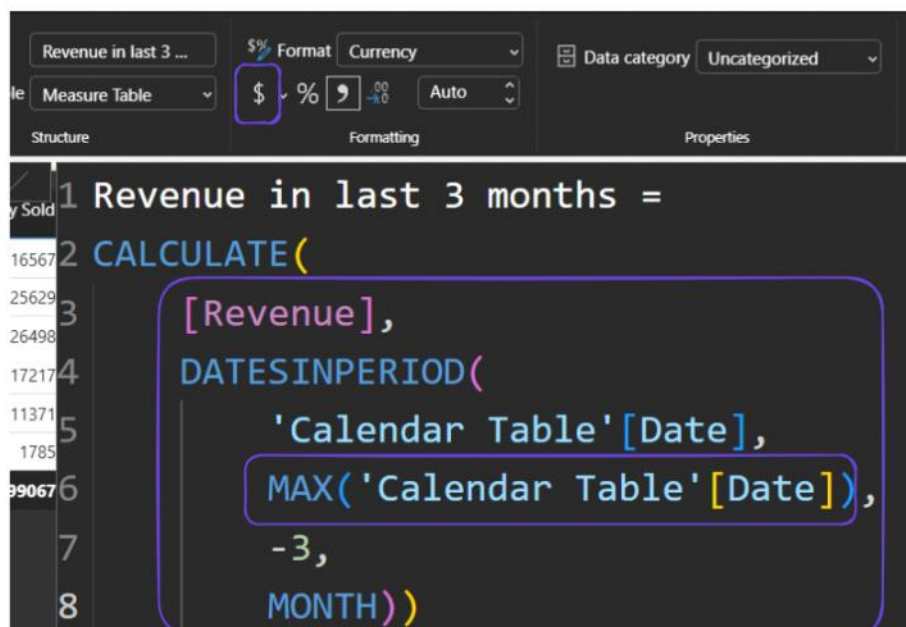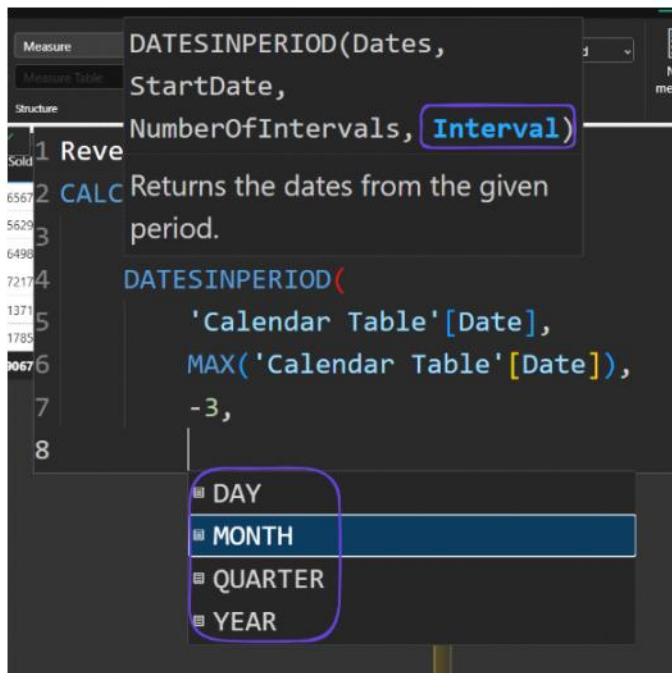
'Jan','Feb','Mar','Apr','May','Jun','July','Aug','Sept','Oct','Nov','Dec'

3 months

```
DATESINPERIOD(Dates,
StartDate,
NumberOfIntervals, Interval)
```

→ Max()

Returns the dates from the given period.

```
DATESINPERIOD(
```

Measure

Measure Table

Structure

1 Reve
2 CALC
3
4
```

```
DATESINPERIOD(Dates,
StartDate,
NumberOfIntervals, Interval)
Returns the dates from the given
period.
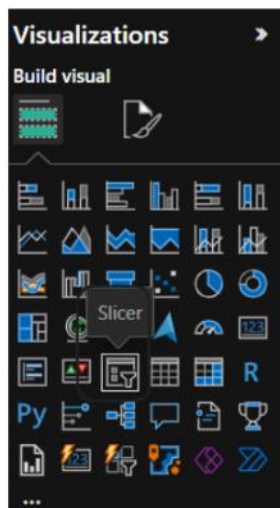
DATESINPERIOD(
    'Calendar Table'[Date],
    MAX('Calendar Table'[Date]),
    -3,
```

- DAY
- MONTH
- QUARTER
- YEAR

Revenue in last 3 ... | Format Currency | Data category Uncategorized
Measure Table | $ % 9 .00 Auto
Structure | Formatting | Properties

```
1 Revenue in last 3 months =
2 CALCULATE(
3     [Revenue],
4     DATESINPERIOD(
5         'Calendar Table'[Date],
6         MAX('Calendar Table'[Date]),
7         -3,
8         MONTH))
```


Revenue in last 10 ... | Format Currency | Data category Uncategorized
Measure Table | $ % 9 .00 Auto
Structure | Formatting | Properties

```
1 Revenue in last 10 days =
2 CALCULATE(
3     [Revenue],
4     DATESINPERIOD(
5         'Calendar Table'[Date],
6         MAX('Calendar Table'[Date]),
7         -10,
8         DAY))
```

Year	Quarter	Month	Day	Revenue	Revenue in last 3 months	Revenue in last 10 days
⊟ 2012	⊟ Qtr 1	⊟ January	1	$2,200.00	$2,200	$2,200
			2		$2,200	$2,200
			3	$4,600.00	$6,800	$6,800
			4		$6,800	$6,800
			5	$4,200.00	$11,000	$11,000
			6		$11,000	$11,000
			7		$11,000	$11,000
			8		$11,000	$11,000
			9		$11,000	$11,000
			10		$11,000	$11,000
			11	$1,237.88	$12,237.88	$10,037.88
			12		$12,237.88	$10,037.88
			13	$3,400.00	$15,637.88	$8,837.88
			14		$15,637.88	$8,837.88
			15	$5,400.00	$21,037.88	$10,037.88
			16	$1,958.88	$22,996.76	$11,996.76

DatesBetween → Find the total revenue between 2nd Qtr 2014 till 4th Qtr 2014

Start Date
End Date

Visualizations

Build visual

Slicer

$2.58M
Revenue

Date
25-04-2013   06-06-2014

DATESBETWEEN(**Dates**, StartDate, EndDate)

Returns the dates between two given dates.

DATESBETWEEN(

DATE(Year, Month, **Day**)

Returns the specified date in datetime format.

DATE(2014,12,31)

```
1 Revenue Between 2nd and 4th Qtr 2014 =
2 CALCULATE(
3     [Revenue],
4     DATESBETWEEN(
5         'Calendar Table'[Date],
6         DATE(2014,04,01),
7         DATE(2014,12,31)))
```

Filter Context

"Images Speaks better than words"

THREE KEY QUESTIONS

> ### 1. What TYPE OF DATA are you working with?
>
> - Geospatial? Time-series? Hierarchical? Financial?

> ### 2. What do you want to COMMUNICATE?
>
> - Comparison? Composition? Relationship? Distribution?

> ### 3. Who is the END USER and what do they need?
>
> - Analyst? Manager? Executive? General public?

DASHBOARD DESIGN FRAMEWORK

1. Define the purpose

2. Choose the right metrics

3. Present the data effectively

4. Eliminate clutter & noise

5. Use layout to focus attention

6. Tell a clear story

Sketching the dashboard .....

Card Visuals - Health of the business

KPI

KPI