# Upstream Filtering

Average Price = CALCULATE(AVERAGE(Cars[Price]),'Sales Data')

//Price is in a table upstream and Sales Data is my main database

# DATE FUNCTIONS

## Previous Year Sales

Previous Year Sales =

CALCULATE(

[Total Sales],

SAMEPERIODLASTYEAR(Dates[Date]))

## Previous Qtr

Previous QTR Sales =

CALCULATE([Total Sales],PREVIOUSQUARTER(Dates[Date]))

## YTD Sales where 1st Qtr is July

YTD Sales =

TOTALYTD([Total Sales],Dates[Date],"30/6") //”30/6” is the end of the Financial Year date (31/12 if omitted)

## Weekday Sales

Weekend Sales =

// Excluding Weekends

CALCULATE([Total Sales],Dates[Day Number] in {1,7})

Weekday Sales =

// Excluding Weekends

CALCULATE([Total Sales],Dates[Day Number] in {2,3,4,5,6})

// In function is building an array to choose from, like an OR

## Sales within the last period like days or weeks

//First Calculate the number of days from today in a column

Days from Today = DATEDIFF(Dates[Date],TODAY(),DAY)

// Then you can add If functions to check the range of the days from today

Today = IF([Days from Today]>01,"Today","Other Dates")

Yesterday = IF([Days from Today]=1,"Yesterday","Other Days")

Last Week = IF(AND([Days from Today]<=7,[Days from Today]>=1),"Last Week","Other Dates")

This Year = IF(AND([Date]>=DATE(year(today()),1,1),[Date]<=DATE(YEAR(TODAY()),12,31)),"Current Year","Other Dates")

// Then create the following column to be used as a filter for use in the Power BI report

Date Filter =

 IF([Days from Today] = 0,"Today",

    IF([Days from Today] = 0,"Today",

    IF([Days from Today] = 1,"Yesterday",

    IF(AND([Days from Today] <=7,[Days from Today] >=1),"Last Week",

    IF(and([Date]>=DATE(YEAR(today()),MONTH(today())-1,1),[Date]<=EOMONTH(today(),-1)),"Last Month",

    IF(and([Date]>=DATE(YEAR(today()),MONTH(today()),1),[Date]<=EOMONTH(today(),0)),"This Month",

    IF(AND([Date]>=DATE(year(today()),1,1),[Date]<=DATE(YEAR(TODAY()),12,31)),"Current Year",

    "Other Dates")))))))

# Related reference

Total Sales = SUMX('Sales Data',[Units]\*RELATED(Cars[Price]))

# Updating Headings based on Slicer selections

Selected Make = "Sales for "&SELECTEDVALUE('Sales Data'[Make],"All Makes")

## Multiple Selections:

Units Title = "Sales for "&

IF(not(ISFILTERED('Sales Data'[Client Name])),"All Clients",IF(ISFILTERED('Sales Data'[Client Name]),CONCATENATEX(VALUES('Sales Data'[Client Name]),'Sales Data'[Client Name],", ")))

# % of Total

// This formula returns the total Sales and ignores the filters (Calculate) so that the following formula can use it.

Total Sales for All =

// Sales for everyone

if (ISBLANK([Total Sales]),

blank(),

CALCULATE(

[Total Sales],

ALL(Staff[Name]

)))

Percent of Total = [Total Sales]/[Total Sales for All]

# Using Variables

Qtr =

var MyMonth = month([Date])

Return

IF(MyMonth>=10,"Qtr 2",

IF(MyMonth>=7,"Qtr 1",

IF(MyMonth>=4,"Qtr 4",

if(MyMonth>=1,"Qtr 3"))))

# 2 Ways of Filtering Results

//Method1: Using the Calculate Function

Weekend Sales =

// Excluding Weekends

CALCULATE([Total Sales],Dates[Day Number] in {1,7})

//Method2: Adding Filters in brackets after a Measure

Weekend Sales2 =

[Total Sales](Dates[Day Number] in {1,7})

# OR

//The OR function only supports 2 logical tests OR(Locical1,Logical2), below are ways to overcome that limitation.

OR 1 = IF([Make]="Ford" || [Make]="Holden" || [Make] = "Jeep","USA","JPN")

OR 2 = IF([Make] in {"Ford","Holden","Jeep"},"USA","JPN")

# AND

//The OR function only supports 2 logical tests AND(Locical1,Logical2), below are ways to overcome that limitation.

AND example = IF([Make]="Ford" && [Colour]="Red" && [Year] = "2020","Good","Bad")

# ALL

Use the ALL function to override filters applied via the Filters Panel or by interacting with other visuals on the page.

Andrews Record Count = COUNTROWS(FILTER(ALL('Sales Data'),'Sales Data'[Salesperson] = "Andrews"))

All Sales = SUMX(ALL('Sales Data'),'Sales Data'[Sales])

# Create Tables

## New table with unique Makes in first Column

Make Targets = DISTINCT('Sales Data'[Make])

## New Date Table

Dates = CALENDARAUTO(6) [//the](file:///\\the) 6 indicates the 6th month is the start of the financial year

### Add Columns

Year = YEAR([Date]) //Remember to set to “Don’t summarize” in Column tools

Month = FORMAT([Date],"mmm")

Month Order = MONTH([Date]) //Used for the Month order in visuals

Week Day = WEEKDAY([Date])

Day = DAY([Date])

Qtr = IF(MONTH([Date])>=10,"Qtr 2",

IF(MONTH([Date])>=7,"Qtr 1",

IF(MONTH([Date])>=4,"Qtr 4",

"Qtr 3")))

FY = IF(MONTH([Date])>=7,[Year]&" - "&[Year]+1,[Year]-1&" - "&[Year])

## A Table with Andrews only data

Andrews Table = FILTER('Sales Data','Sales Data'[Salesperson] = "Andrews")

// Since the Filter function returns a table, it can be used in conjunction with other functions like SUMX, AVERAGEX, COUNTX, COUNTROWS etc

## Counting

=COUNT()

=COUNTROWS() // to count the number of records

=DISTINCTCOUNT() // counts each value in a column once and only once