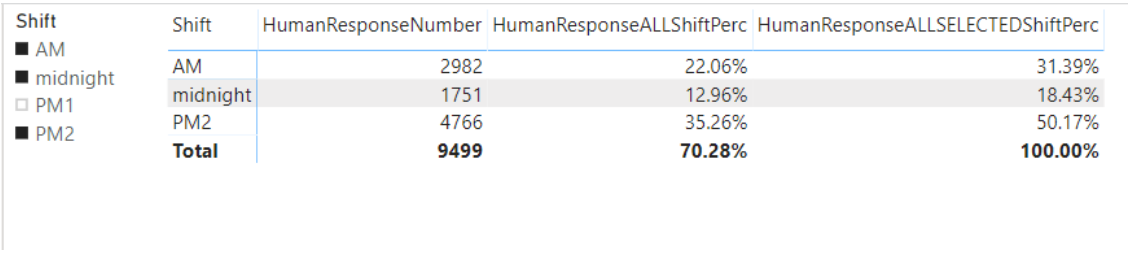
Weekly Exercise 6-P1-DAX-Visualization

1. DAX

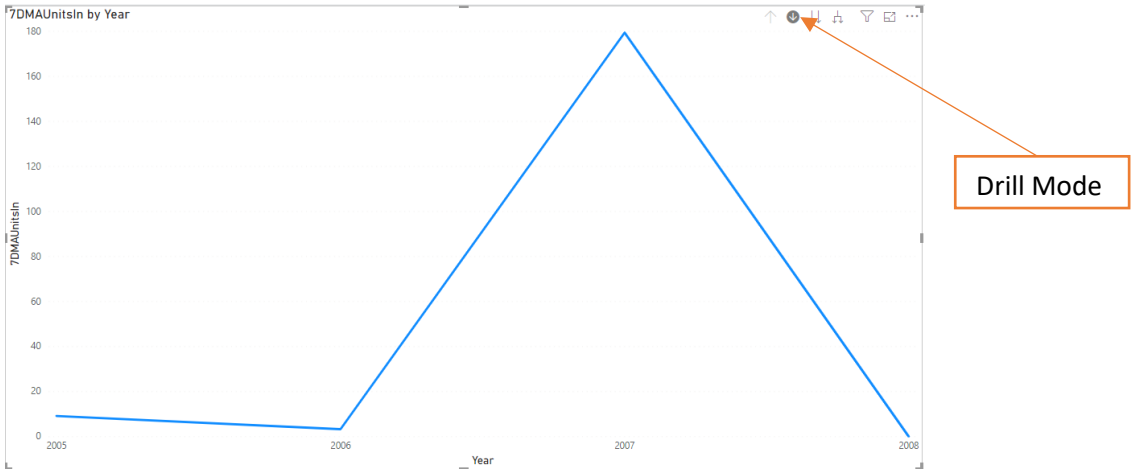
1. Create a Power BI file and name it WE6-DAX-YourLastName-YourFirstName.pbix
2. In the Query Editor window, from the SQL Server at misbi.cbe.wwu.edu\multi, import the following tables from the database AdventureWorksDW2012:
   - ✓ DimDate
   - ✓ DimProduct
   - ✓ DimProductCategory
   - ✓ DimProductSubcategory
   - ✓ FactCallCenter
   - ✓ FactProductInventory
3. Click Close & Apply button to load the data into the Power BI. On the Model tab, check table relationships have been established
4. Create the following in FactCallCenter
   - ✓ a new measure HumanResponseNumber that is the sum of Calls – AutomaticResponses (HINT: SUMX)
   - ✓ a new measure HumanResponseAllPerc that is the percentage of HumanResponseNumber from a shift over the HumanResponseNumber in all shifts (HINT: the denominator is calculated with the CALCULATE function) a new measure
   - ✓ HumanResponseAllSELECTEDPerc that is the percentage of HumanResponseNumber from a shift over the HumanResponseNumber in selected shifts (HINT: the denominator is calculated with the CALCULATE function)
   - ✓ On a report page named Shift Perc, create a slicer for Shift and a matrix table that include the columns as shown below (make sure you understand why HumanResponseALLShiftPerc and HumanResponseALLSELECTEDShiftPerc show different values and which one is correct):



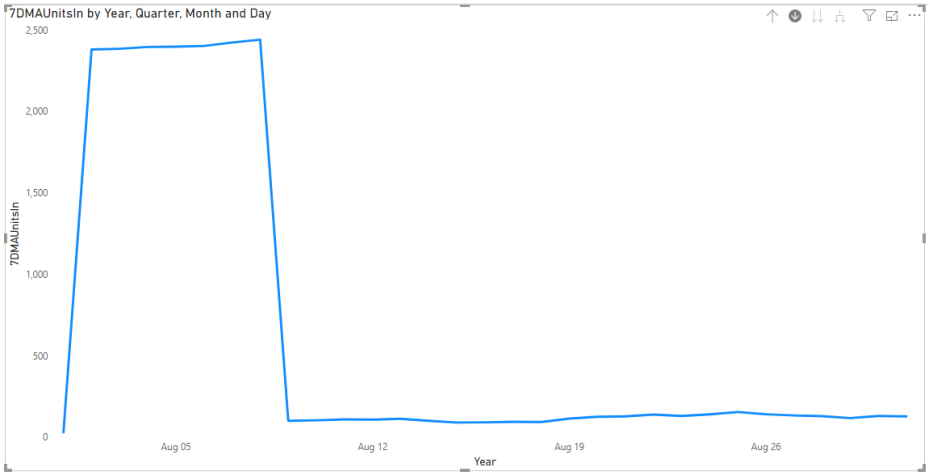
Shift	HumanResponseNumber	HumanResponseALLShiftPerc	HumanResponseALLSELECTEDShiftPerc
AM	2982	22.06%	31.39%
midnight	1751	12.96%	18.43%
PM2	4766	35.26%	50.17%
Total	**9499**	**70.28%**	**100.00%**

5. Create the following in FactProductInventory
   - ✓ a new measure TotalUnitsIn that is the sum of UnitsIn
   - ✓ a new measure 7DMAUnitsIn. In the formula, use DimDate[FullDateAlternateKey].[Date] for all the date column parameters
   - ✓ On a new report page named 7Day Moving Average, create a line chart that uses in the Axis field the Date Hierarchy (select Year, Quarter, Month, and Day) under

FullDateAlternateKey in DimDate table and 7DMAUnitsIn in the Values field. The initial chart looks like the following:



With the Drill Mode is turned on, click the line point corresponding to a year, you can drill down to different quarter, then month, then day. The following is the chart that is on the Day level:



6. Save WE6-DAX-YourLastName-YourFirstName.pbix and submit it to Canvas

2. Dashboard

The purpose of the exercise is for practicing creating dashboard and pin reports from various sources to the dashboard: a Power BI report, an Excel Power View, and a Power BI Desktop application

1. Click this link to the introduction of PowerBI Dashboard
2. Complete this tutorial to create a dashboard (this will add one chart on the dashboard. See the final dashboard image on the second page of this exercise). Notes on the tutorial:
   - The Success message mentioned in step 8 won't show. Just ignore it
   - Name your new dashboard as WE6-P1-PowerBI-Dashboard-YourLastName-YourFirstName

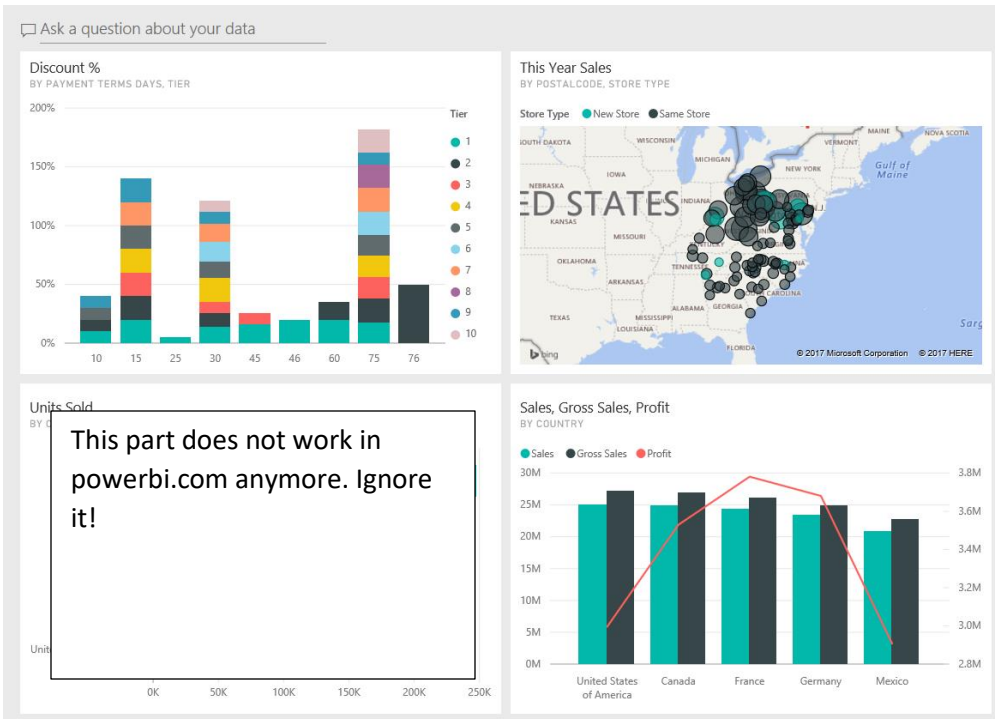
- Pin the map of This Year Sales By Postal Code, Store Type from Retail Analysis Samples report to the dashboard. To get the Retail Analysis Samples, follow the following steps:
  - ✓ Click Get Data at the left bottom corner of your PowerBI Online site
  - ✓ Click Samples on the Get Data screen
  - ✓ There are 8 sample packages on the next screen
  - ✓ Click each of the samples, then click Connect
  - ✓ In My Workspace, there are 4 tabs: Dashboards, Reports, Workbooks, and Datasets. Click each tab to see the content
  - ✓ The Retail Analysis Samples report should be listed on the Reports tab

~~3. Create a Power View in an Excel workbook and pin the Power View to the dashboard (You may need to use the Internet Explorer browse to pin the Power View sheet to the dashboard if your other browsers do not support the Microsoft Silver Light plug-in)~~

- ~~Download the Excel file "Financial Sample.xlsx" from Canvas. Rename the Excel file as "Financial Sample-YourLastName-YourFirstName.xlsx"~~
- ~~Import this Excel workbook to your workplace in app.powerbi.com~~
- ~~In powerbi.com, create a Power View called Units Sold by Product in Countries~~
  - ~~✓ This Power View contains a bar chart that shows Units Sold by Country and Product~~
  - ~~✓ This chart should let user to drill down from Country to Product – Country and product form a hierarchy for the Y axis~~
- ~~Pin the Power View to your dashboard WE6-P1-PowerBI-Dashboard-YourLastName-YourFirstName~~
- ~~You can click the chart in the dashboard to view the original report~~

4. Create a report in Power BI desktop and pin the report to the dashboard
   - Load the Excel file "Financial Sample-YourLastName-YourFirstName.xlsx" to the Power BI desktop and create a report as the image below
   - Save the project as WE6-P1-FinancialReport-YourLastName-YourFirstName.pbix.
   - Import this Power BI desktop project into Power BI Service
     - ✓ In your PowerBI account, Get Data
     - ✓ Navigate to where you saved "WE6-P1-FinancialReport-YourLastName-YourFirstName.pbix" and import it
     - ✓ After it is imported into your account, the dataset is stored in My Workspace->Dataset and the report is stored in My Workspace -> Reports
     - ✓ Pin the combination chart of Sales, Gross Sales and Profit by Country to the dashboard "WE6-P1-PowerBI-Dashboard-YourLastName-YourFirstName"
     - ✓ You can click the chart to view the original report

5. The final dashboard should look like the following:



6. Share this Dashboard with chenx@wwu.edu with a message of "MIS422-WE6-P1-PowerBI dashboard exercise"