

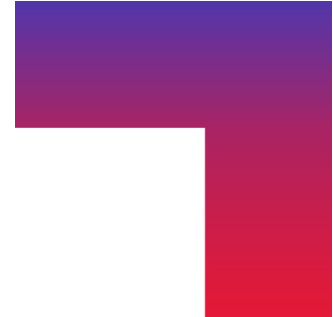
T3 - Introduction to Power BI



Power Bites #2

9/11/2023

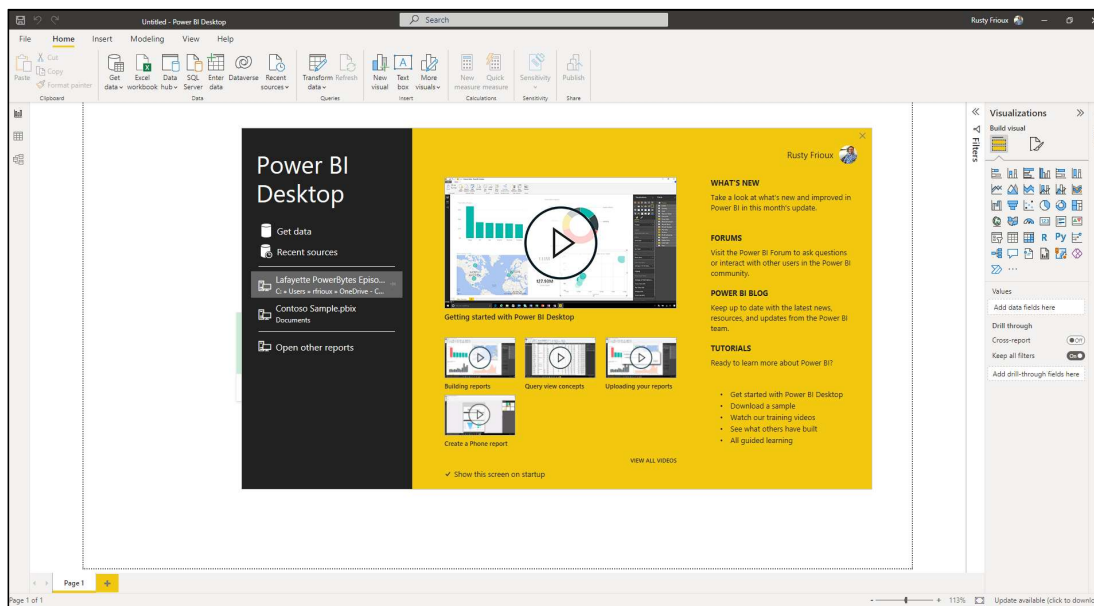
Rusty Frioux



Step 1: Import and filter your data using Power Query

Step 1A: Open PowerBI Desktop

- This can be downloaded from the CGI Federal Software Center from your CGI Federal Laptop



Step 1B: Choose “Get Data” and select the CSV file

- Choose “Get Data” from the toolbar, then the “Text / CSV File” option.
- Select “Sales – Mediumv2.csv” (Provided with the exercise) and load.
- Choose “Get Data” from the toolbar, then the “XLSX” option.
- Select “ProductHierarchy.xlsx” (Provided with the exercise)
- Select all three tables: Product, Product Category, and Product Subcategory and load.

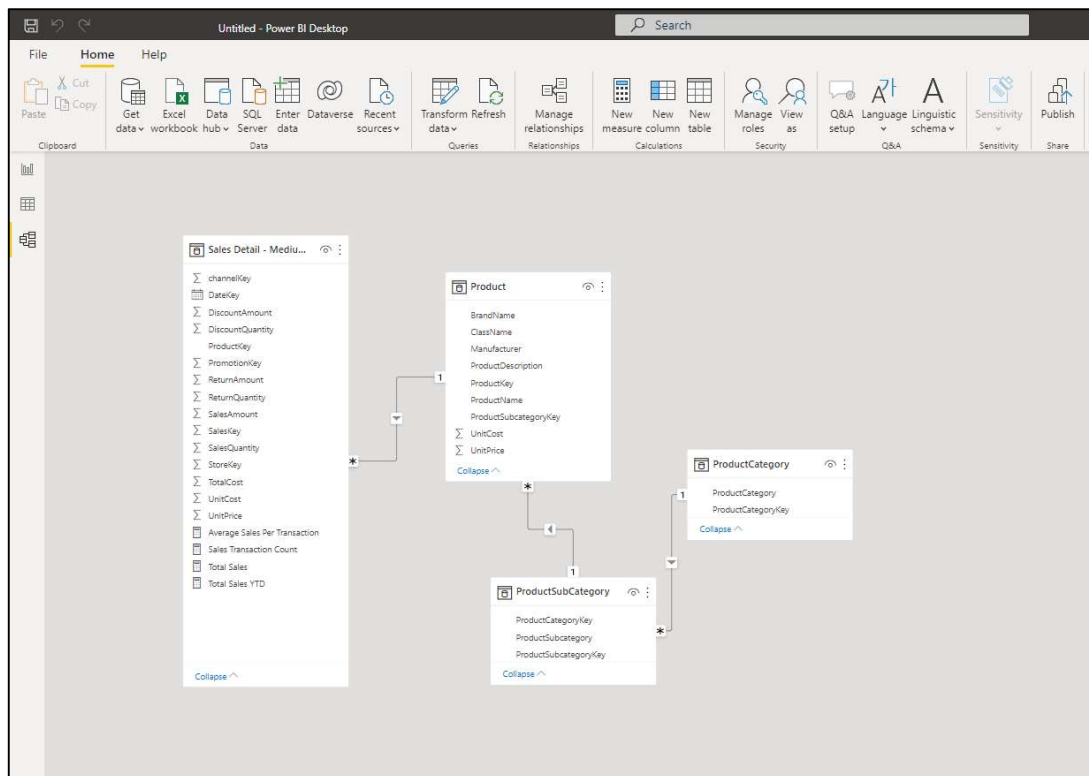
Step 2: Create a Data Relationship

Step 2A: Create your joins

- Select the Model view from the left navigation bar.
- Ensure that the 1 : Many relationship between Product and Sales using Product Key is present.
- Ensure that the 1 : Many relationship between Product and Product Subcategory using ProductSubCategoryKey
- Ensure that the 1 : Many relationship between Product Subcategory and Product Category using ProductCategoryKey

Step 2B: Create Average Sales measures

- Go to the Report view from the left navigation bar.
- Right click on the Sales Detail table listing and select "Add Measure."
- Create the following measures using the formula bar:
 - Sales Transaction Count = `COUNTROWS('Sales Detail - Mediumv2')` using the formula bar
 - Total Sales = `sum('Sales Detail - Mediumv2'[SalesAmount])`
 - Average Sales Per Transaction = `[Total Sales]/Sales Detail - Mediumv2'[Sales Transaction Count]`



Step 3: Create our Report

Step 3A: Create an Average Sale Prices Chart table

- Go to the Report Tab

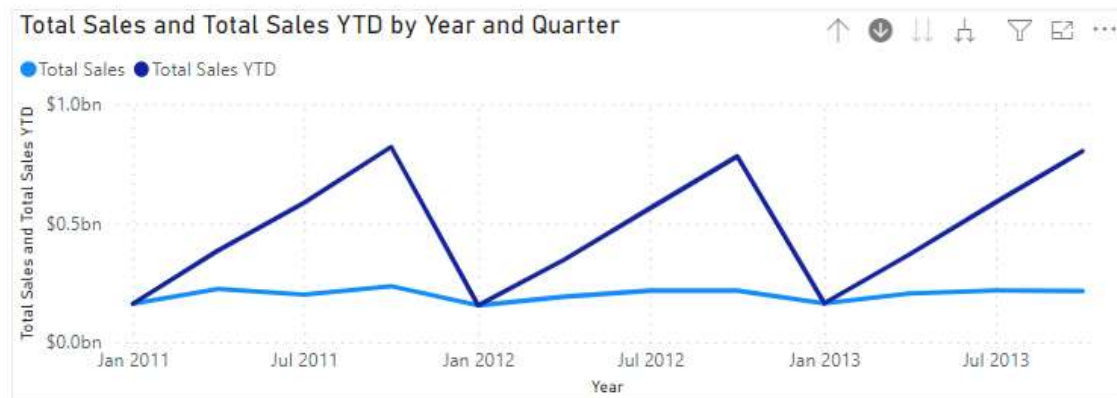
- Add a Matrix visual to the report canvas.
- Drag Total Sales, Sales Transaction Count, and Average Sales per transaction onto the visual. They should appear in the “values” property window of the visual.
- Drag Product \ ProductName into the rows property window of the matrix visual.
- Drag ProductSubCategory \ ProductSubCategory into the matrix visual rows property.
- Drag ProductCategory \ ProductCategory into the matrix visual rows property.
- Ensure you can drill into the table using the product hierarchy.

Step 3B: Create a Sales Amount over Time line chart with drilldown

- Create a matrix visual
- Add Total Sales to the values property.
- Drag the DateKey hierarchy into the “rows” property and explore the pivot table.
- Convert the matrix to a line chart visual.
- Use the pitchfork arrow to expand the date hierarchy.

Step 3C: Add a YTD calculation

- Right click on the SalesDetail table
- Select “New Quick Measure”
- Select the following:
 - Calculation = “Year to Date Total”
 - Base Value = “Total Sales”
 - Date = “DateKey”



ProductCategory	Total Sales	Sales Transaction Count	Average Sales Per Transaction
Audio	\$151,614,372.38	110915	\$1,366.942
Cell phones	\$892,233,195.54	395080	\$2,258.3608
TV and Video	\$1,360,121,110.99	289098	\$4,704.7061
Total	\$2,403,968,678.91	795093	\$3,023.5063

Step 4: Publish to PowerBI

Step 4A: Log into the PowerBI Service and go to My Workspace

- <https://app.powerbigov.us>

Step 4B: From Power BI Desktop, choose File / Publish, then “My Workspace”

Step 4C: Confirm that the file is visible in PowerBI