Wash Rinse Repeat – Workflow – discussion only

1. Power Query Editor
    a. Get data
    b. Model - transform - (ETL) - manipulate
    c. Rename: Make things friendly for the PBI Report Writer tool - Field List
    d. Date table
        i. You only want to see the data from specific date (the first day tracking this data) and forward for the next X number of years.
        ii. convert your list into a table.

2. Report Writer tool - creating ways to filter model
    a. Configure table and column properties to ensure organization in your table structure.

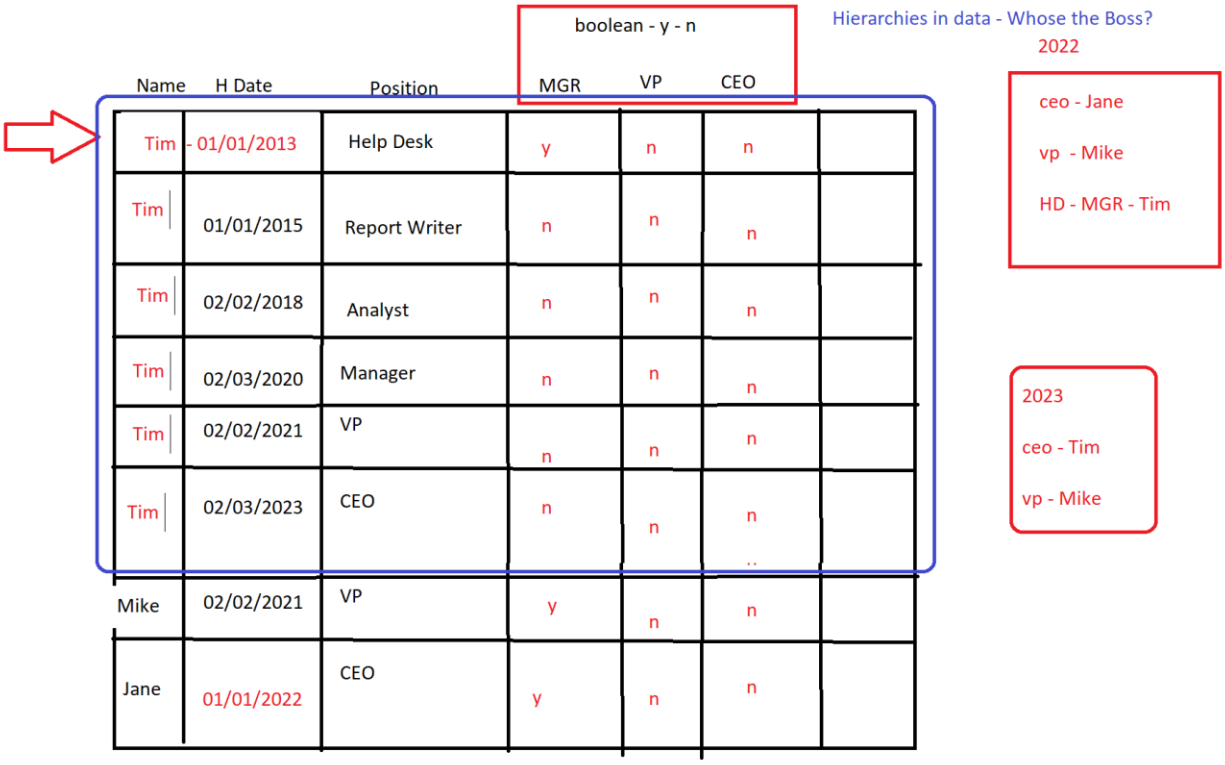
    Things we can do: See Introduction to create a data-driven story with Power BI reports - Training | Microsoft Learn

    b. CALCULATE function (DAX) - DAX | Microsoft Learn
    c. Time Intelligence; Measures
        i. TOTALYTD()
    d. Slicer
        i. Slicers in Power BI - Power BI | Microsoft Learn
    e. Filter
        i. Filters and highlighting in Power BI reports - Power BI | Microsoft Learn
    f. USERELATIONSHIP function (DAX) - DAX | Microsoft Learn
        i. Manage Relationships - can be inactive or active. Only one active relationship can exist between tables, which is discussed in a future module.
    g. Hierarchies – Drill up – drill down - ranking
        i. Create and manage hierarchies in Analysis Services tabular models | Microsoft Learn
        ii. Create Hierarchy in Power BI (tutorialgateway.org)
        iii. How to Create a Hierarchy in Power BI (Explained Simply) (spreadsheeto.com)
    h. Row-level security (RLS) with Power BI - Power BI | Microsoft Learn
        i. Add role in report – add users to role in service.
    i. Apply conditional table formatting in Power BI - Power BI | Microsoft Learn
    j. Use grouping and binning in Power BI Desktop - Power BI | Microsoft Learn
    k. Set up drillthrough in Power BI reports - Power BI | Microsoft Learn
3. Best practices to optimize Q&A - Power BI | Microsoft Learn
    a. Add synonyms that can be used to identify the column when you are using the Q&A feature.
4. Find Insights in your reports - Power BI | Microsoft Learn
5. space

Areas where settings affect visuals

1. PL-300-Microsoft-Power-BI-Data-Analyst/01-prepare-data-with-power-query-in-power-bi-desktop.md at Main · MicrosoftLearning/PL-300-Microsoft-Power-BI-Data-Analyst · GitHub
    a. Gets data and creates base queries
    b. The following report-level settings have been disabled in the starter file:
        i. Data Load > Import relationships from data sources on first load
        ii. Data Load > Autodetect new relationships after data is loaded
2. PL-300-Microsoft-Power-BI-Data-Analyst/02-load-data-with-power-query-in-power-bi-desktop.md at Main · MicrosoftLearning/PL-300-Microsoft-Power-BI-Data-Analyst · GitHub
    a. Rename all queries – shows in Report writer Field list.
    b. Note: You may recall in the Prepare Data in Power BI Desktop lab that a small percentage of FactResellerSales rows had missing TotalProductCost values. The DimProduct column has been included to retrieve the product standard cost column to assist fixing the missing values. (Task 7)
    c. Changes to data types – decimals
    d. Task 8 Targets query: Produce a date column.
        i. The date will be derived from the Year and MonthNumber columns. You'll create the column by using the Columns From Examples feature.
    e. Task 10: Update the Product query by merging the ColorFormats query
    f. Disable ColorFormat query load.
3. PL-300-Microsoft-Power-BI-Data-Analyst/03-configure-data-model-in-power-bi-desktop.md at Main · MicrosoftLearning/PL-300-Microsoft-Power-BI-Data-Analyst · GitHub
    a. Task 2: The issue is that the table is based on fields from different tables. The expectation is that each product category displays the sales for that category. However, because there isn't a model relationship between these tables, the Sales table isn't filtered. (has a "before and after" test – see the visual, change it, see difference)
        i. You'll now add a relationship to propagate filters between the tables.
        ii. The cardinality was automatically detected, because Power BI understands that the ProductKey column from the Product table contains unique values. One-to-many relationships are the most common cardinality, and all relationship you create in this lab will be this type.
        iii. Single filter direction means that filters propagate from the "one side" to the "many side". In this case, it means filters applied to the Product table will propagate to the Sales table, but not in the opposite direction.
        iv. Active relationships propagate filters. It's possible to mark a relationship as inactive so filters don't propagate. Inactive relationships can exist when there are multiple relationship paths between tables. In this case, model calculations can use special functions to activate them. (USERELATIONSHIP)
    b. Create Product hierarchy (Ex2 - Task 1)
    c. Create Regions hierarchy (Task 2)
    d. Create Resellers hierarchy (Task 3)
    e. Descriptions can be applied to tables, columns, hierarchies, or measures. In the Fields pane, description text is revealed in a tooltip when a report author hovers their cursor over the field. (Task 4 Sales table)

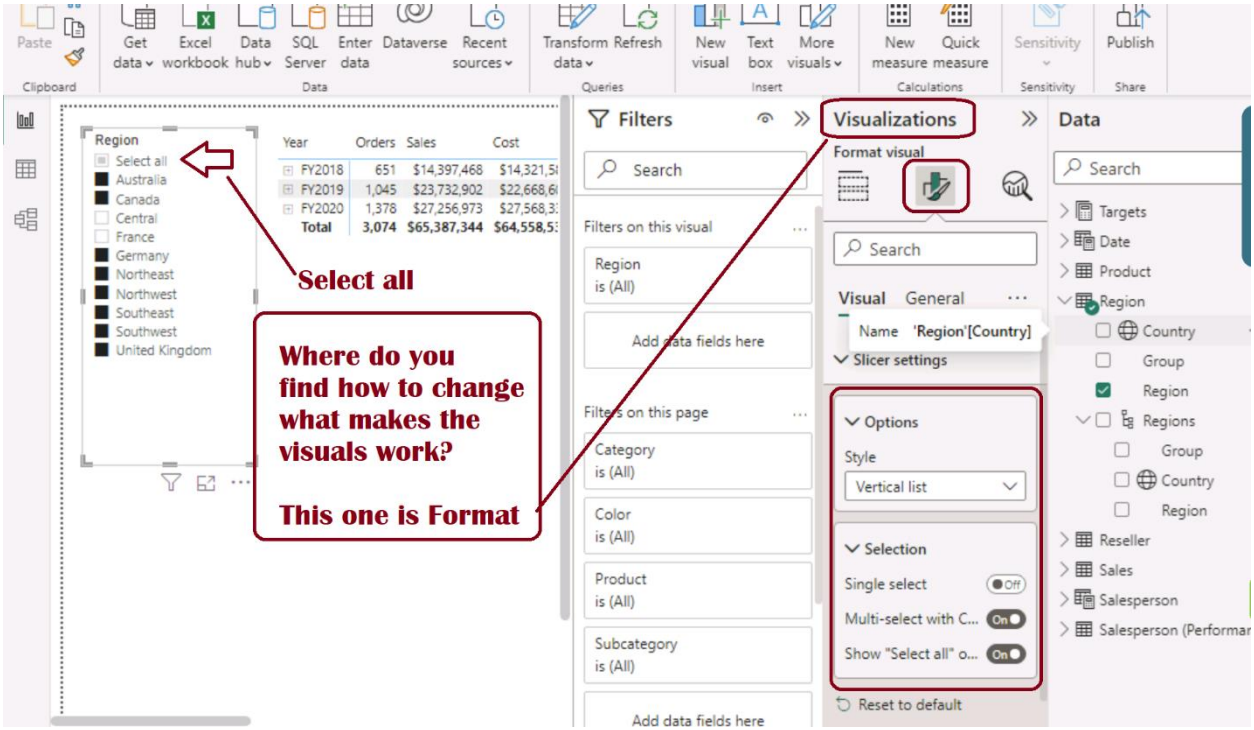
   f. By default, numeric columns will summarize by summing values together.
      i. This default behavior isn't suitable for a column like Unit Price, which represents a rate.
      ii. Setting the default summarization to average will produce a meaningful result.
   g. Hide columns, and format column values using Bulk Updates (Task 5)
   h. Ex 3 Review
      i. The Targets | TargetMonth field delivers a similar hierarchy. These hierarchies weren't created by you. They were created automatically. There's a problem, however. The Adventure Works financial year commences on July 1 of each year. But, in these automatically created date hierarchies, the date hierarchy year commences on January 1 of each year.
      ii. Time Intelligence - turn off this automatic behavior.
   i. Ex 4: create two quick measures to calculate profit and profit margin
   j. Step 13 - Verify that the measures produce reasonable results that are correctly formatted.
   k. Task 2: create a many-to-many relationship between the Salesperson table and the Sales table.
      i. The issue now relates to the fact that there are two possible filter propagation paths between the Salesperson and Sales tables. This ambiguity is internally resolved, based on a "least number of tables" assessment.
4. PL-300-Microsoft-Power-BI-Data-Analyst/04-create-dax-calculations-in-power-bi-desktop.md at Main · MicrosoftLearning/PL-300-Microsoft-Power-BI-Data-Analyst · GitHub
   a. Create two calculated tables.
      i. Salesperson table
      ii. Date table
   b. Note: Calculated tables are defined by using a DAX formula that returns a table.
   c. It's important to understand that calculated tables increase the size of the data model because they materialize and store values.
   d. They're recomputed whenever formula dependencies are refreshed, as will be the case for this data model when new (future) date values are loaded into tables.
   e. Ex 2 – Create more measures
   f. The DISTINCTCOUNT() function used in the Orders measure will count orders only once (ignoring duplicates).
   g. The COUNTROWS() function used in the Order Lines measure operates over a table.
   h. The HASONEVALUE() function tests whether a single value in the Salesperson column is filtered. When true, the expression returns the sum of target amounts (for just that salesperson). When false, BLANK is returned.
   i.
5. End list



Basic things to exercise (fields to visuals)

1. date table
2. hierarchy
3. import color, months by name
    a. add number column for sorting purpose
4. measure
5. relation
6. filters
7. CONTROL COLORS

Finds Places to Edit How Things Work or Behave – sometimes Power Bi Desktop Report GUI; sometimes DAX or M in Power Query Editor


Region
Select all
Australia
Canada
Central
France
Germany
Northeast
Northwest
Southeast
Southwest
United Kingdom
Year Orders Sales Cost
FY2018 651 $14,397,468
FY2019 1,045 $23,732,902
FY2020 1,378 $27,256,973
Total 3,074 $65,387,344
Select all
Where do you find how to change what makes the visuals work?
This one is Format
Filters
Search
Filters on this visual
Region is (All)
Add data fields here
Filters on this page
Category is (All)
Color is (All)
Product is (All)
Subcategory is (All)
Add data fields here
Visualizations
Format visual
Search
Visual General
Name 'Region'[Country]
Slicer settings
Options
Style
Vertical list
Selection
Single select
Multi-select with C...
Show "Select all" o...
Reset to default
Data
Search
Targets
Date
Product
Region
Country
Group
Region
Regions
Group
Country
Region
Reseller
Sales
Salesperson
Salesperson (Performar