Lab 1.2 Data Import & Transformation

Lab Objectives

Time: 20-30 Min

1. Import and clean the **Sales Target** table so that is in a usable format for data modelling.

2. Unpivot column fields to rows and fix data errors in Power Query in the **Sales Target** table

3. Use the column by example utility to create a usable date column.

4. Use the **Group By** option to group the applicable columns in the Target Table.

5. Create dynamic parameters for the order data in the **Sales By Country** table.

Lab steps

1) Impot and clean the sales target table so that is in a usable format for data modelling

- Import Power Cycle Sales Target.xlsx file.

- From the Home Table and utilize the remove rows option to remove unused rows

- From the Transform tab you can select "Use First Row as Headers" to promote the first row to the table header

- Change the data type in the EmployeeID column from test to whole number

^A_C Column1	^A_C Column2	^A_C Column3	^A_C Column4
● Valid 91%	● Valid 83%	● Valid 83%	● Valid 83%
● Error 0%	● Error 0%	● Error 0%	● Error 0%
● Empty 9%	● Empty 17%	● Empty 17%	● Empty 17%
22 distinct, 21 unique	6 distinct, 2 unique	9 distinct, 5 unique	9 distinct, 5 unique
Power Cycle Sales Target	null	null	null
Jul 2017 - Dec 2021	null	null	null
null	null	null	null
null	null	null	null
EmployeeID	Jul17	Aug17	Sep17
112432117	$500,000	$1,500,000	$1,000,000
134219713	N/A	N/A	N/A
139397894	$100,000	$200,000	$300,000

2) Unpivoting the date columns to rows

- Select the Employee column then navigate to the Transform tab and select from the unpivot drop-down unpivot other columns

Replace Values ▼ | Unpivot Columns ▼
- Unpivot Columns
- **Unpivot Other Columns**
- Unpivot Only Selected Columns

Translate all but the currently selected columns into attribute-value pairs.

$^{12}_3$ EmployeeID	^A_C Attribute	$^{ABC}_{123}$ Value
● Valid 100%	● Valid 100%	● Valid 100%
● Error 0%	● Error 0%	● Error 0%
● Empty 0%	● Empty 0%	● Empty 0%
18 distinct, 0 unique	54 distinct, 0 unique	
112432117	Jul17	$500,000
112432117	Aug17	$1,500,000
112432117	Sep17	$1,000,000
112432117	Oct17	$1,000,000
112432117	Nov17	$2,200,000
112432117	Dec17	$1,750,000
112432117	Jan18	$650,000

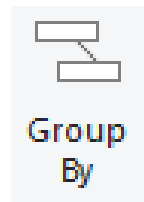|	
▪ Change the Value column to a fixed decimal data type. ▪ From the Transform tab select replace values -> replace errors and replace the errors with "0" ▪ Rename the Value column to Sales Target	
## 3) Column by example ▪ From the Add Column tab select the Column From Example ▪ Select the check box on the Attribute column. ▪ Enter the Month – 1-Year as the example in the Custom column first cell * note that for the AI engine to generate the subsequent values you might need to input 2-3 examples. ▪ Change the custom column data type from text to Date type and rename the column to Date. ▪ Remove the Attribute column.	

4) Create Grouping for Sale Target

- From the Transform tab select Group By

- You will need to group by the date and title the new column name "Sale Target."

- The operation should be set to Max so that the group aggregation is taking the max value for the proposed target value.

Group By

Group By

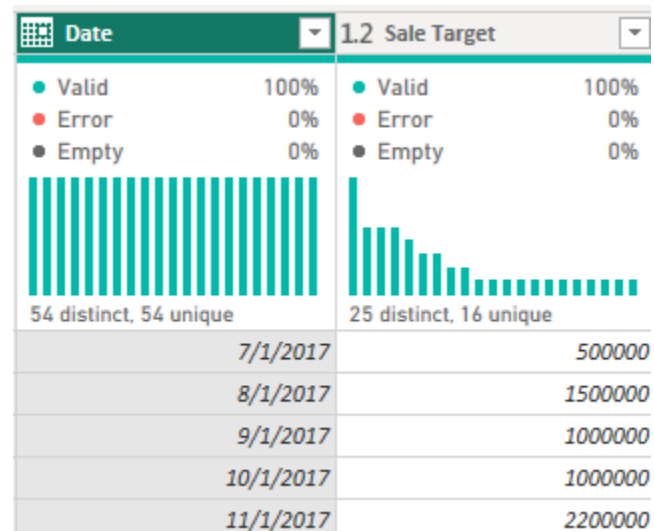Specify the column to group by and the desired output.

⦿ Basic ◯ Advanced

Date		
New column name	**Operation**	**Column**
Sale Target	Max	Sales Target

OK   Cancel

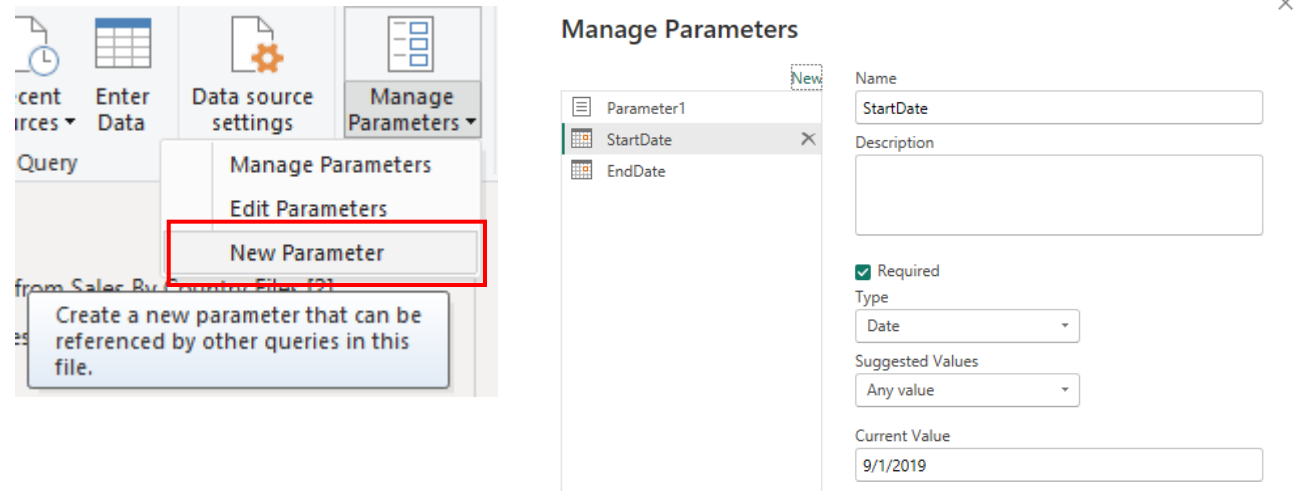| 🎞 **Date** ▾	1.2 **Sale Target** ▾
● Valid — 100%	● Valid — 100%
● Error — 0%	● Error — 0%
● Empty — 0%	● Empty — 0%
54 distinct, 54 unique	25 distinct, 16 unique
7/1/2017	500000
8/1/2017	1500000
9/1/2017	1000000
10/1/2017	1000000
11/1/2017	2200000

5) Create Parameters for Sales order date ▪ From the Home tab select Manage Parameters-> New Parameters ▪ Title the Parameter "StartDate" ▪ For the Type select Date from the dropdown menu and the suggested value should be set to "Any Value" ▪ Set the current value to 9/1/2019 (DD/MM/YYYY) ▪ Repeat the same steps and create a parameter for "End" Date"	
▪ Navigate to the Sales By Country table. ▪ Select the filter from the Order Date column -> Date Filter -> Between ▪ Select the calendar option and select the parameter. ▪ From here you can set the "is or equal to" the start date parameter and end date parameters for the "is before or equal to" option ▪ Set From Date Parameter -> 1/1/2020 ▪ Set To Date Parameter -> 31/12/2021	