

Modern Excel Analyst in a Day

Lab 02A

Mapping Learning to Power BI – Import to Power BI Desktop

Overview

The estimated time to complete this lab is 20 minutes.

In this lab, you will complete the following tasks:

1. Import from Excel to Power BI Desktop: Customers & Quotes queries & tables
2. Edit imported Queries to Include a Dates table
3. Close Power Query & Load the Dates table to the Data Model

NOTE: This lab has been created based on the sales activities of the *fictitious* Wi-Fi company called SureWi which has been provided by P3 Adaptive <https://p3adaptive.com/>. The data is property of P3 Adaptive and has been shared with the purpose of demonstrating Excel and Power BI functionality with industry sample data. Any use of this data must include this attribution to P3 Adaptive.

Exercise 1: Import from Excel to Power BI Desktop: Customers & Quotes queries and tables

In this exercise, you will launch Power BI Desktop and import the Customers & Quotes queries and tables from Excel to Power BI Desktop.

Task 1: Launch Power BI Desktop

In this task, you will launch Power BI Desktop and save the new PBIX file.

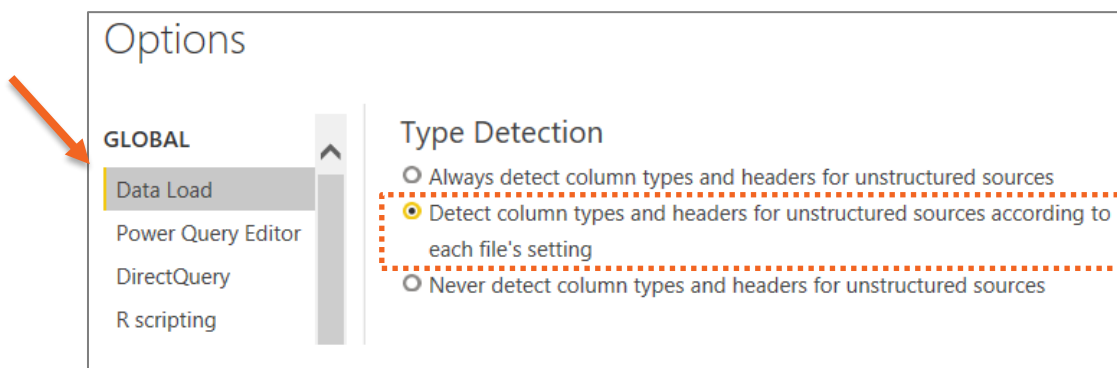
1. Launch Power BI Desktop.



2. If applicable, use the "x" in the upper right-hand corner to close the Welcome window.

Task 2: Verify Settings

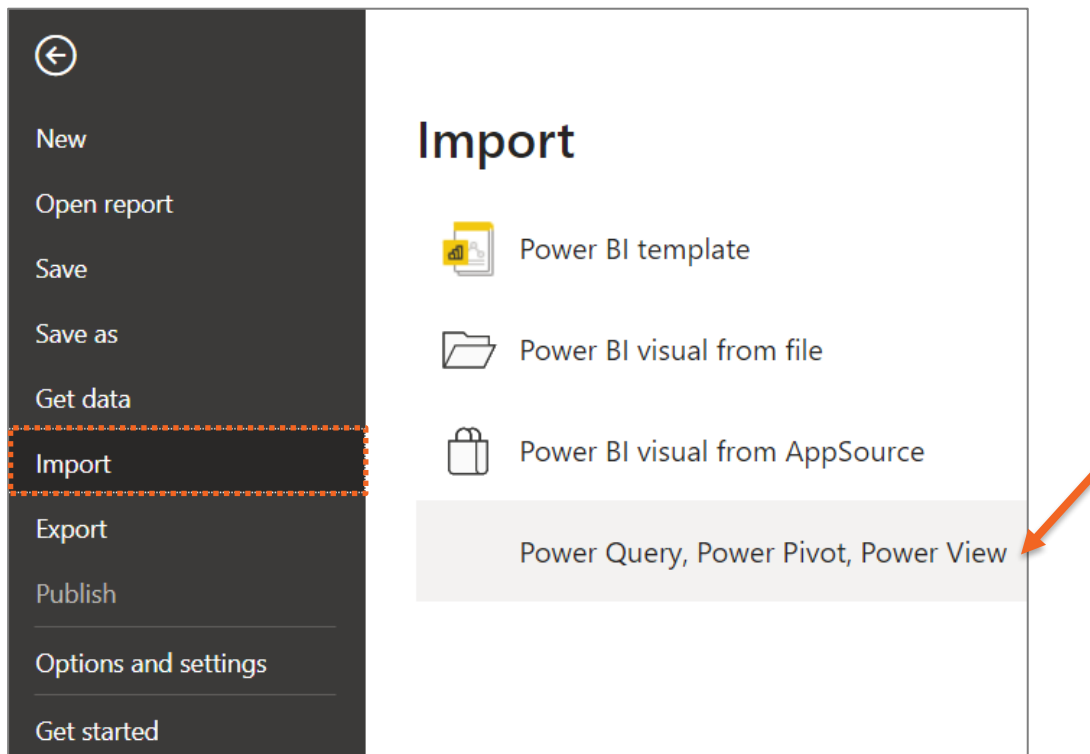
3. In the Main power BI Ribbon, navigation to File > Options and settings > Options.
4. In the Global section, select Data Load and in the Type Detection section, validate the radio button option for Detect column type and headers for unstructured sources according to each file's settings is selected.



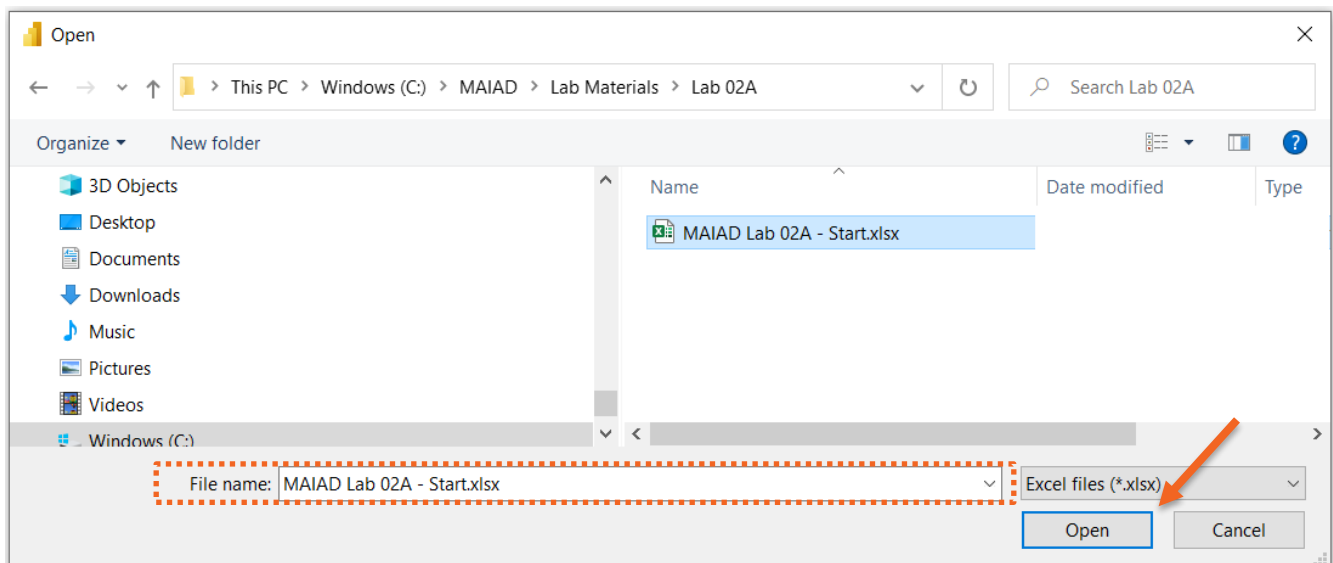
Task 3: Import Power Query, Power Pivot, Power View

In this task, you will navigate and open the starting XLSX file then start the import process.

5. Select **File** > **Import** > **Power Query, Power Pivot, Power View**

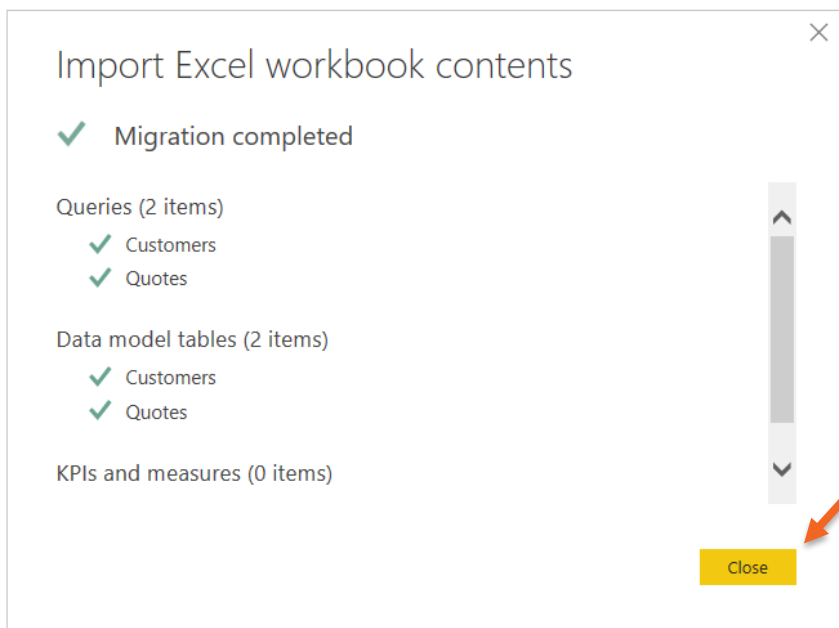


6. Navigate to the <**CourseFolder**>\<**Attendee**>\<**Lab Materials**>\<**Lab 02A**> folder.
7. Select the file "**MAIAD Lab 02A – Start.xlsx**" and choose **Open**.



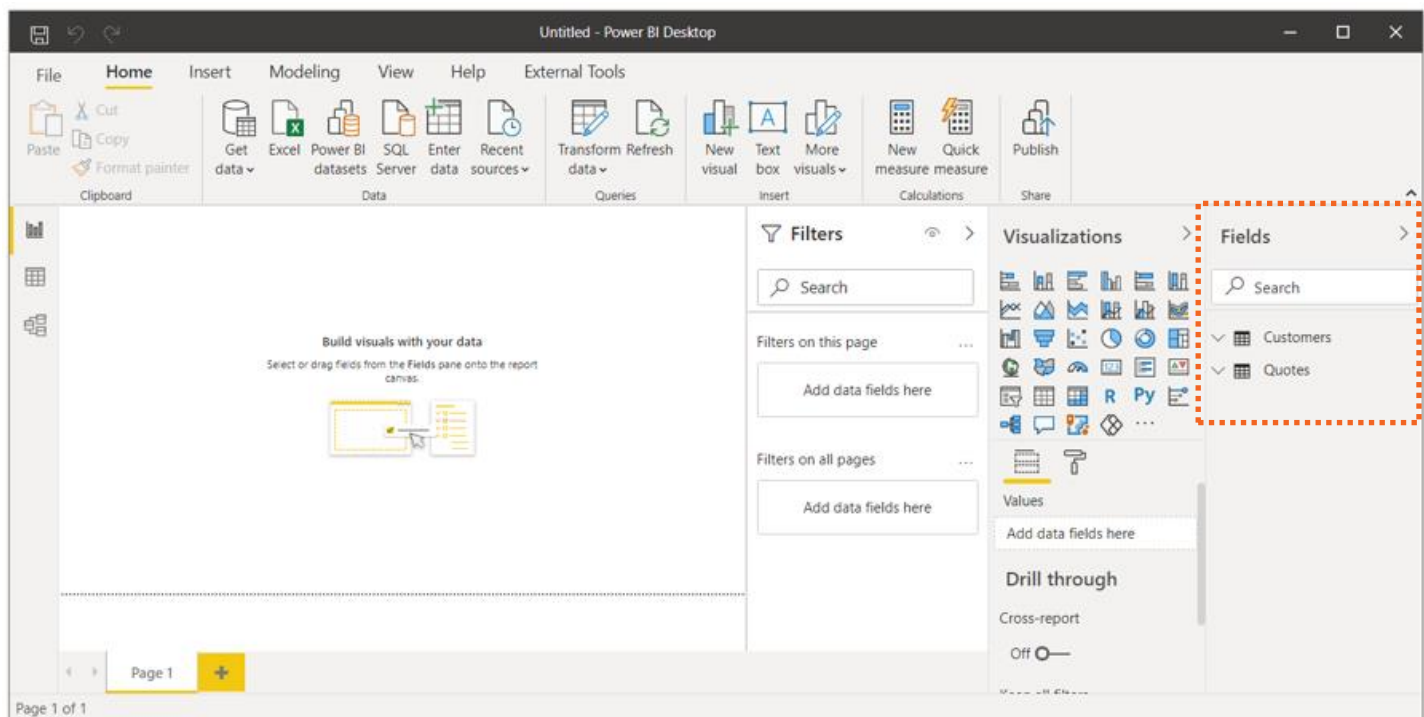
8. Select the **Start** button to begin the import.
9. View the Import Excel workbook contents report.

10. Then select the Close button.



Note: When importing from Excel to Power BI Desktop, it is a one-way transition. Any Queries, Data Model tables, KPIs and measures will be imported into Power BI Desktop. Any subsequent imports with the same file name will overwrite the existing PBIX.

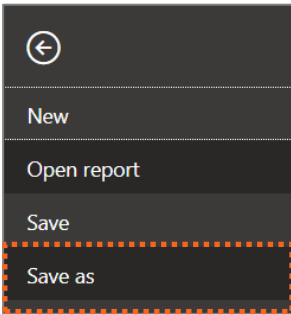
11. Notice that the Customers and Quotes tables are available in the Fields list.



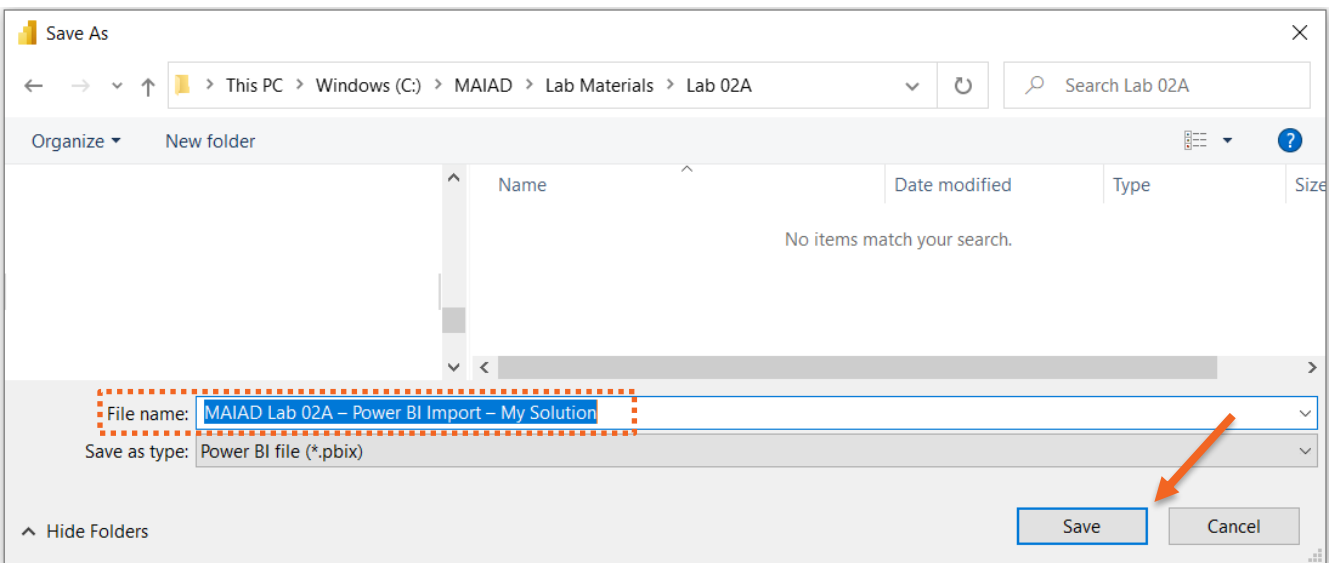
Task 4: Save the PBIX file

In this task, you will save the file with a new file name.

12. Select **File** > **Save as**.



13. Save the file as **"MAIAD Lab 02A – Power BI Import – My Solution.pbix"**.



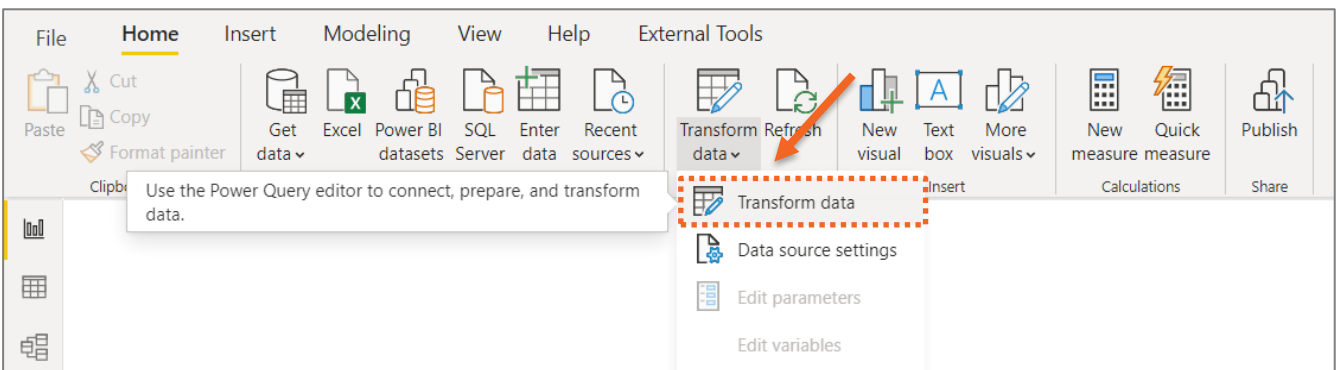
Exercise 2: Edit imported Queries to Include a Dates table

In this exercise, you will launch the Power Query Editor from BI Desktop and edit the imported Queries to add a new Dates query and table to the Data Model.

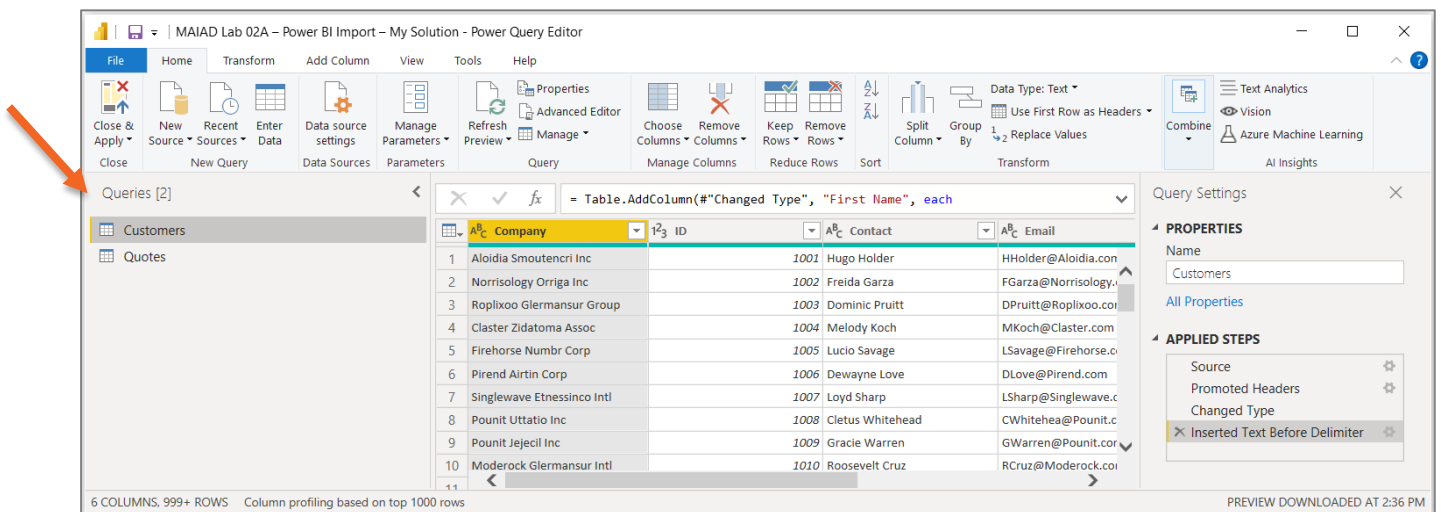
Task 1: Launch Power Query from Power BI Desktop

In this task, you will launch Power Query from Power BI Desktop and edit the existing queries to add a new Dates table.

14. From the Home ribbon, select Transform data > Transform data option.



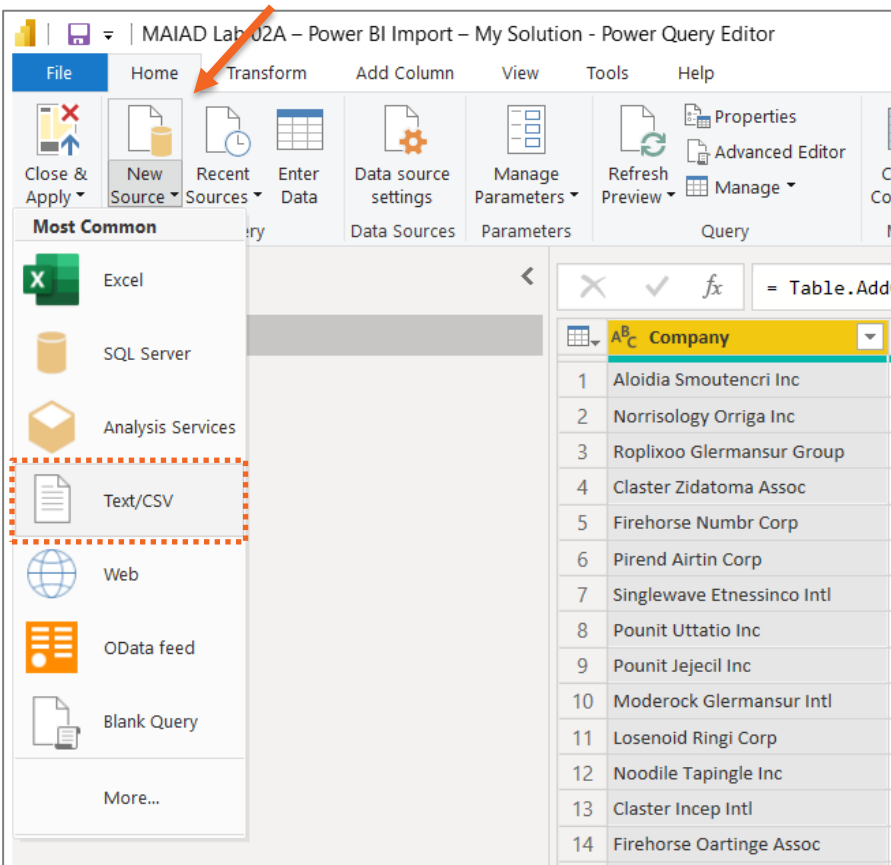
Note: This will launch Power Query from Power BI Desktop – notice it looks very similar to Power Query in Excel and both the Customers and Quotes queries have been imported with their transformation.



Task 2: New Source – Add a Dates table

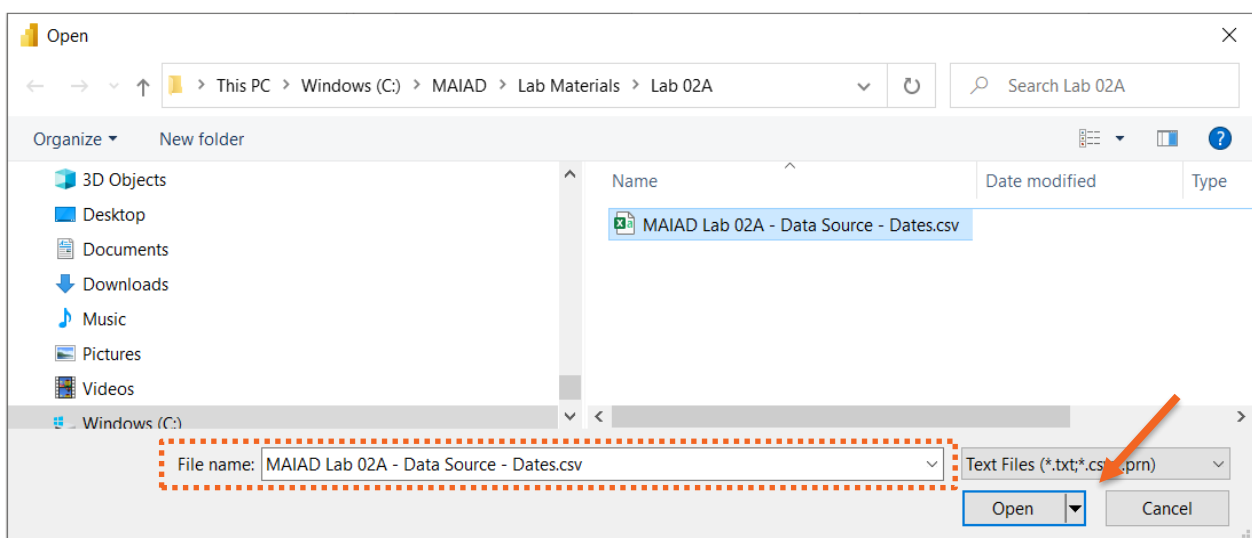
In this task, you will add a Dates table to the existing Queries and Load the new query and table to the Data Model.

15. From the Power Query Editor Home ribbon, select New Source > Text/CSV option.

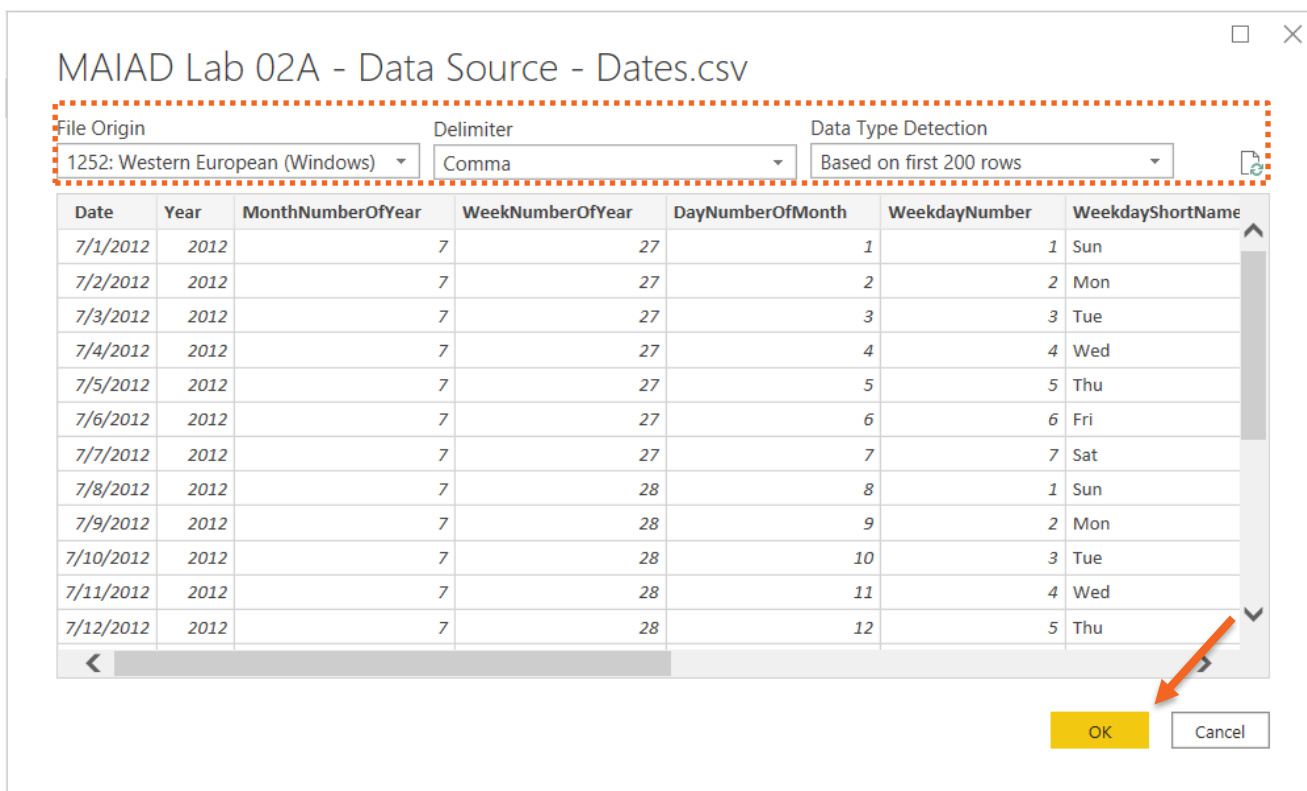


16. Navigate to the <CourseFolder>\Attendee\Lab Materials\Lab 02A\ folder.

17. Select the file “MAIAD Lab 02A - Data Source – Dates.csv” and choose Open.



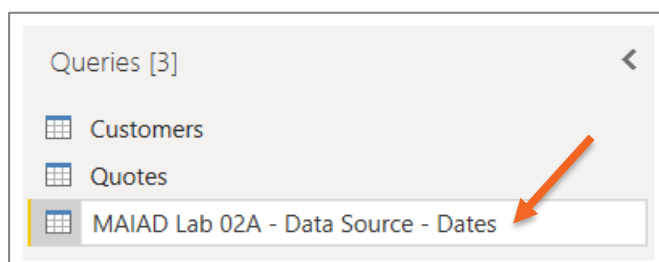
18. Accept the default File Origin, Delimiter, and Data Type Detection options. Then select the OK button.



Task 3: Rename Query

In this task, you will add a rename the Query to use a user-friendly noun name versus the default file name.

19. Double-click in the Queries Pane on “MAIAD Lab 02A – Data Source – Dates” to rename the default Query name.



20. Rename from “MAIAD Lab 02A – Data Source – Dates” to just “Dates”.

Task 4: Perform a Data Type Transformation

In this task, you will add a change the default data type for the [Year] column of the #“Dates” query.

21. In the Preview area, click on the “123” data type icon of the [Year] column and change the data type from a Whole Number to Text.

Note: Column data types drive different functionality in Power BI – for example, a Whole Number will default to aggregate. It would not make sense that we would ever SUM the [Year] column so by changing to a Text data type, we prevent this default aggregation in Power BI.

The screenshot shows the Power Query Editor interface. The ribbon includes File, Home, Transform, Add Column, View, Tools, and Help. The 'Transform' tab is active, showing options like Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties, Advanced Editor, Manage, Choose Columns, Remove Columns, Keep Rows, and Remove Rows. The 'Queries [3]' pane on the left lists 'Customers', 'Quotes', and 'Dates'. The 'Dates' query is selected. The preview area shows a table with 14 rows of dates from 7/1/2012 to 7/14/2012. The 'Year' column is highlighted, and its data type is currently '123 Whole Number'. A dropdown menu is open, showing various data types. The 'Text' option, marked with 'A B C', is highlighted with a dashed orange border. The formula bar at the top shows '= Table.TransformColumnTypes("#Promoted'.

	Date	123 Year
1	7/1/2012	1.2 Decimal Number
2	7/2/2012	\$ Fixed decimal number
3	7/3/2012	123 Whole Number
4	7/4/2012	% Percentage
5	7/5/2012	Date/Time
6	7/6/2012	Date
7	7/7/2012	Time
8	7/8/2012	Date/Time/Timezone
9	7/9/2012	Duration
10	7/10/2012	A B C Text
11	7/11/2012	True/False
12	7/12/2012	Binary
13	7/13/2012	Using Locale...
14	7/14/2012	

22. Select the Replace current button from the Change Column Type window.

Note: Since we are on the Change Type in the Applied Steps, this message confirms that we want to change the [Year] to the Text data type in this existing step. The Add new step would change the [Year] to the Text data type but add as a NEW step in the Applied Steps.

The screenshot displays the Power BI interface. A data table is visible with columns: Date, Year, MonthNumberOfYear, WeekNumberOfYear, DayNumberOfMonth, and WeekdayNumber. The 'Year' column is selected. A dialog box titled 'Change Column Type' is open, asking: 'The selected column has an existing type conversion. Would you like to replace the existing conversion, or preserve the existing conversion and add the new conversion as a separate step?'. The 'Replace current' button is highlighted with a red arrow. The 'APPLIED STEPS' pane on the right shows a list of steps: 'Source', 'Promoted Headers', and 'Changed Type'.

	Date	¹ ₂ Year	¹ ₂ MonthNumberOfYear	¹ ₂ WeekNumberOfYear	¹ ₂ DayNumberOfMonth	¹ ₂ WeekdayNumber
1	7/1/2012	2012	7	27	1	
2	7/2/2012	2012	7	27	2	
3	7/3/2012	2012	7	27	3	
4	7/4/2012	2012	7	27	4	
5	7/5/2012	2012	7	27	5	
6	7/6/2012				6	
7	7/7/2012				7	
8	7/8/2012				8	
9	7/9/2012				9	
10	7/10/2012				10	
11	7/11/2012				11	
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13	7/13/2012				13	
14	7/14/2012				14	
15	7/15/2012				15	

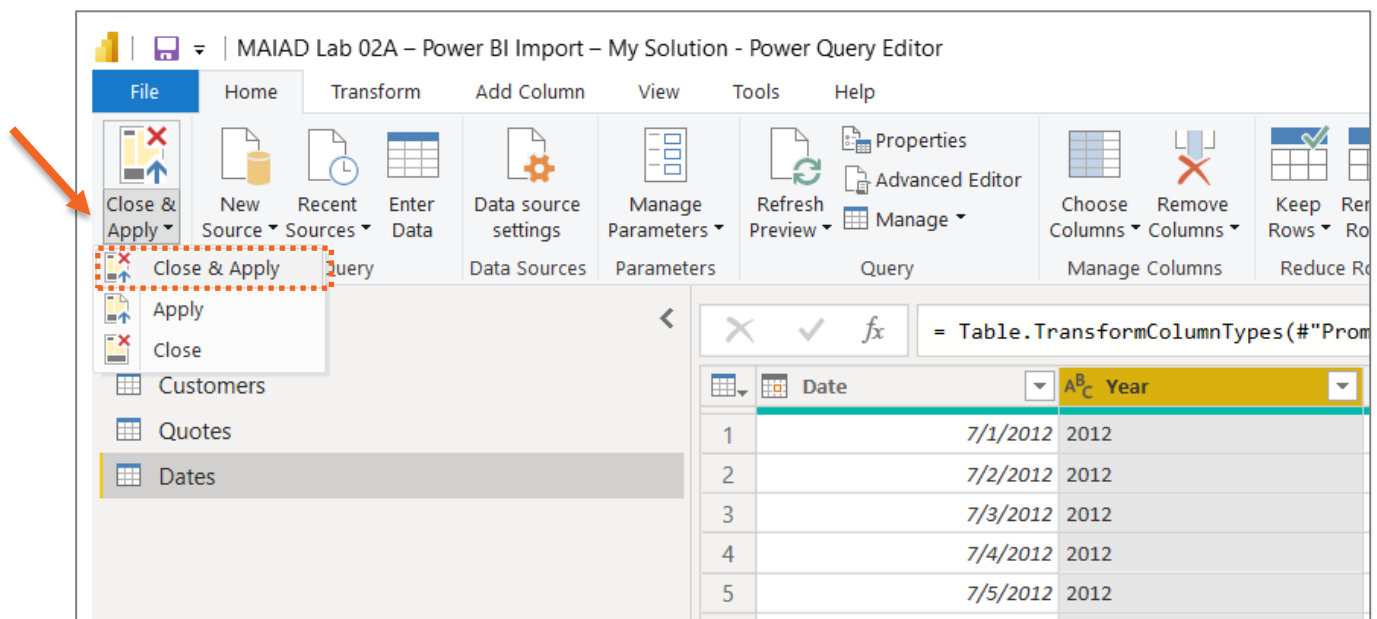
Exercise 3: Close Power Query & Load Dates table to the Data Model

In this exercise, you will Close & Apply the Power Query Editor changes and Load the Dates table to the Data Model.

Task 1: Close & Apply

In this task, you will use the Close & Apply button to save the Dates query in the Power Query Editor and Load the Dates table to the Data Model.

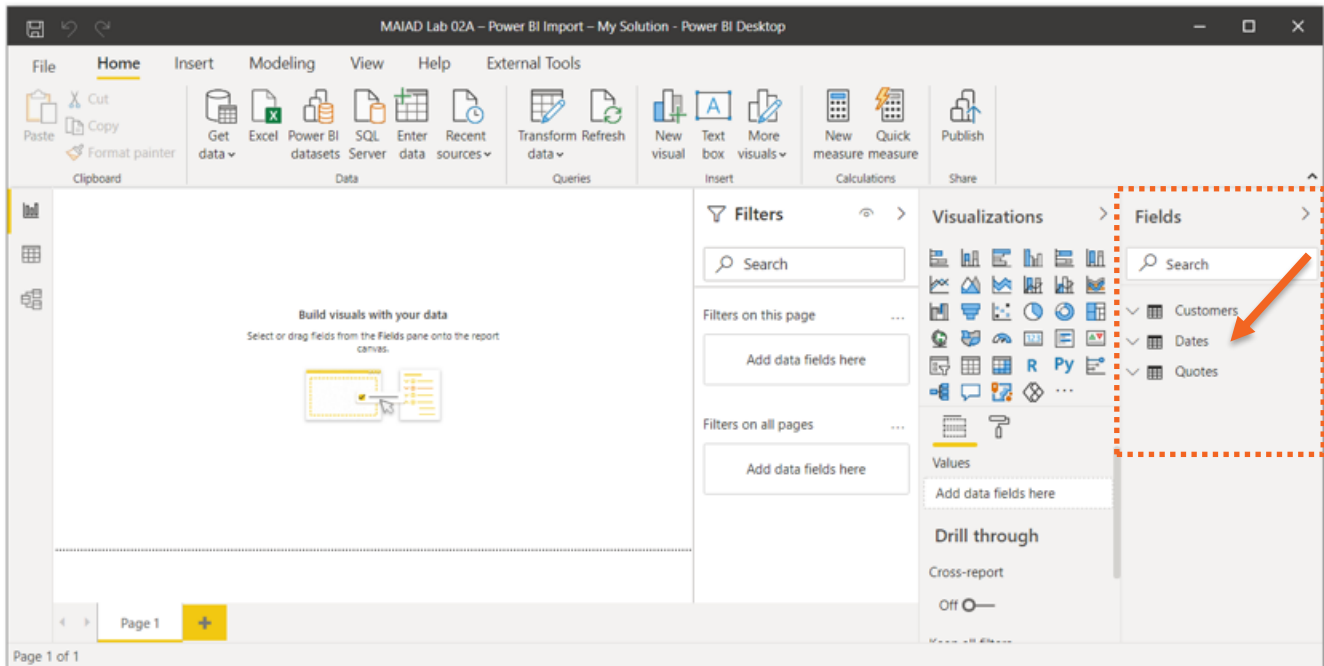
23. From the Power Query Editor Home ribbon, select Close & Apply button > Close & Apply option to load the new Dates table to the Data Model.



Task 2: View the Dates table in the Fields list

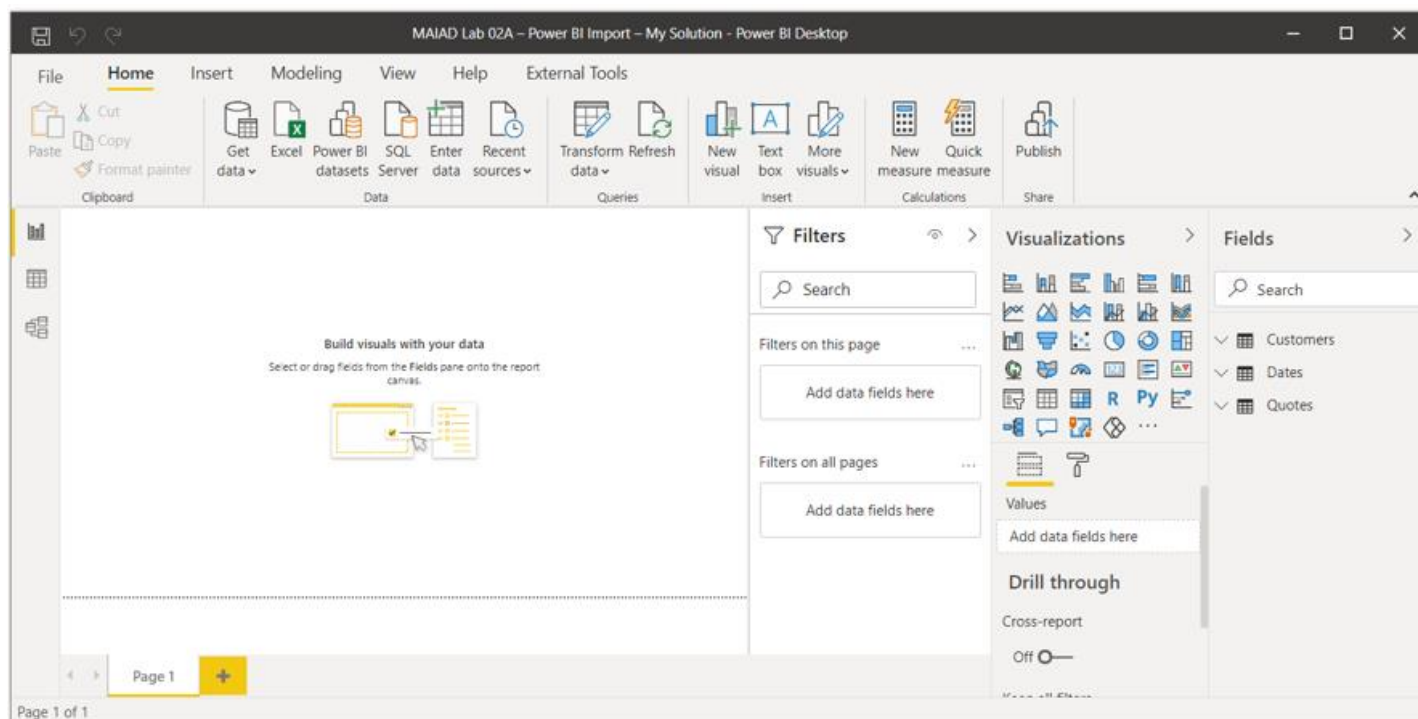
In this task, you will observe that the new Dates table is now also available in the Fields list.

24. From the Fields list, notice the new Dates table is now available.



Summary

In this lab, you started with an existing Excel file that contained Power Query data connections to an Excel and CSV file from the previous Lab. You launched the Power BI Desktop application and imported the existing Power Connections from Excel to Power BI Desktop and saved as a PBIX file. Then you used the Transform data button to launch the Power Query Editor from within Power BI Desktop to load a new Dates query from a CSV data source and used the Preview area to perform a data type transformation of the [Year] column. Lastly, you used the Closed & Apply option to add the Dates query as a new table to the Data Model.



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