Table of Contents

[Get or connect to data 2](#_Toc205102578)

[Identify and connect to data sources or a shared semantic model 2](#_Toc205102579)

[Connect to a semantic model 4](#_Toc205102580)

[Change data source settings, including credentials and privacy levels 4](#_Toc205102581)

[Choose between DirectQuery and Import 6](#_Toc205102582)

[Create and modify parameters 7](#_Toc205102583)

[Profile and clean the data 8](#_Toc205102584)

[Evaluate data, including data statistics and column properties 8](#_Toc205102585)

[Resolve inconsistencies, unexpected or null values, and data quality issues 10](#_Toc205102586)

[Resolve data import errors 13](#_Toc205102587)

[Transform and load the data 17](#_Toc205102588)

[Select appropriate column data types 17](#_Toc205102589)

[Create and transform columns 17](#_Toc205102590)

[Group and aggregate rows 17](#_Toc205102591)

[Pivot, unpivot, and transpose data (x) 20](#_Toc205102592)

[Convert semi-structured (JSON file) data to a table(x) 20](#_Toc205102593)

[Create fact tables and dimension tables 20](#_Toc205102594)

[Identify when to use reference or duplicate queries and the resulting impact 20](#_Toc205102595)

[Reference : 21](#_Toc205102596)

[Duplicate : 21](#_Toc205102597)

[Merge and append queries 22](#_Toc205102598)

[Identify and create appropriate keys for relationships 22](#_Toc205102599)

[Configure data loading for queries 22](#_Toc205102600)

A screenshot of a data

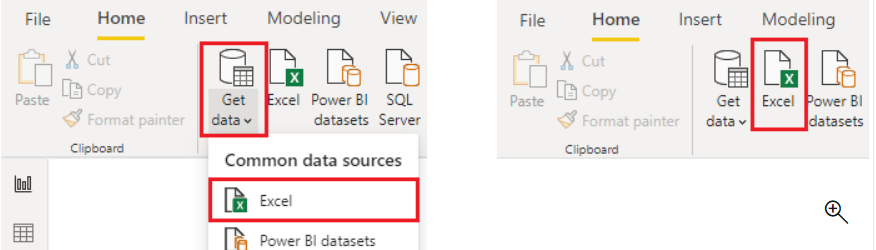
AI-generated content may be incorrect.

# Get or connect to data

## Identify and connect to data sources or a shared semantic model

You can connect easily to a data source thanks to the connector with Power Bi.

It exists several connectors, in our case we will use excel in local .



A screenshot of a computer

AI-generated content may be incorrect.

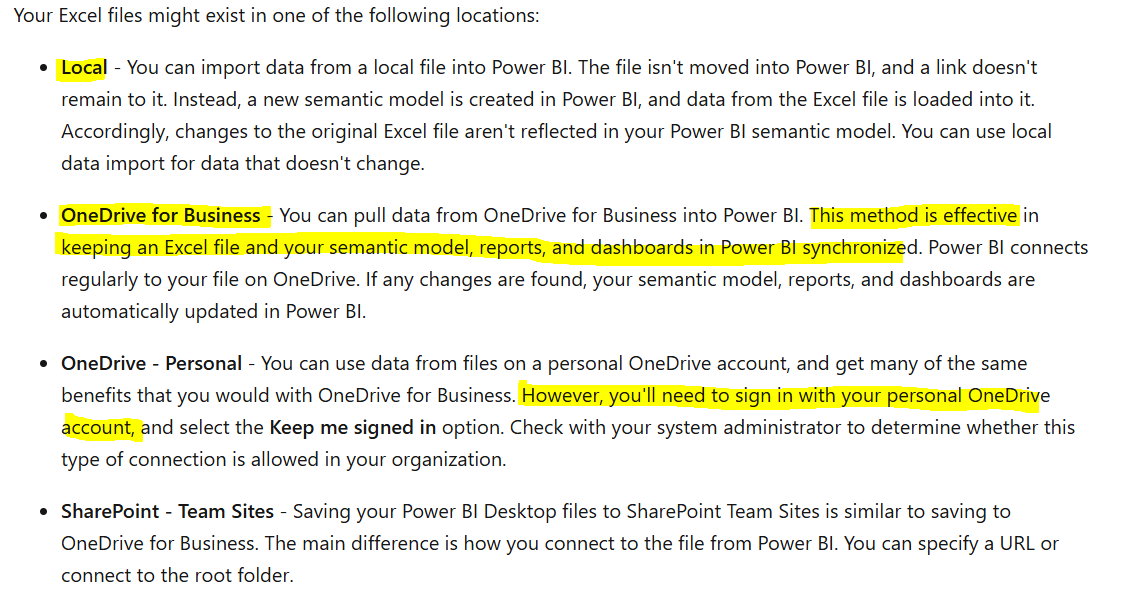
A screenshot of a computer

AI-generated content may be incorrect.

Now you can select the **Load** button to automatically load your data into the Power BI model or select the **Transform Data** button to launch the Power Query Editor, where you can review and clean your data before loading it into the Power BI model.

We often recommend that you transform data, but that process will be discussed later in this module. For this example, you can select **Load**.

Excel files might be in several locations, but the best is Onedrive for Business.



## Connect to a semantic model

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

## Change data source settings, including credentials and privacy levels

To change data source settings you should just go to power query and select source settings .

A screenshot of a computer

AI-generated content may be incorrect.

After you can change source or simply edit permissions.

A screenshot of a computer

AI-generated content may be incorrect.

Change source:

A screenshot of a computer

AI-generated content may be incorrect.

Edit permissions:

A screenshot of a computer

AI-generated content may be incorrect.

## Choose between DirectQuery and Import

A white background with black text

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

## Create and modify parameters

You can create parameters to connect to the semantic model more easily and thanks to that create dynamic report.

Go to new parameter.

A screenshot of a computer

AI-generated content may be incorrect.

It will appear in the queries:

A screenshot of a computer

AI-generated content may be incorrect.

You can change it but before you should add it directly in the query editor , right click on the query (FactCmp..) => Advanced editor

A screenshot of a computer

AI-generated content may be incorrect.

Add **&Year**

A screenshot of a computer

AI-generated content may be incorrect.

You can do that for SQL queries etc..

You can create multiple parameters list .

See : <https://learn.microsoft.com/en-us/training/modules/get-data/3b-parameters> dynamic reports second part

# Profile and clean the data

## Evaluate data, including data statistics and column properties

You can do that analysis on the data source thanks to view, column profile distribution and quality .

A screenshot of a computer

AI-generated content may be incorrect.

The issue is that it is limited to 1000 rows but you can change this easily with

A screenshot of a computer

AI-generated content may be incorrect.

Click on it and entire dataset will appear.

## Resolve inconsistencies, unexpected or null values, and data quality issues

You can remove blank value just unselect from the column .

A screenshot of a computer

AI-generated content may be incorrect.

See result

A screenshot of a computer

AI-generated content may be incorrect.

You can replace value

If you have some errors in your dataset

A screenshot of a phone

AI-generated content may be incorrect.

Use replace by right click on the column and replace sales with nothing

NA replace by null

And filter without null value and change the type of the column

A screenshot of a computer

AI-generated content may be incorrect.

## Resolve data import errors

A close-up of a computer screen

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer error

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

# Transform and load the data

## Select appropriate column data types

You can select the appropriate column data type in function of need .

A screenshot of a computer

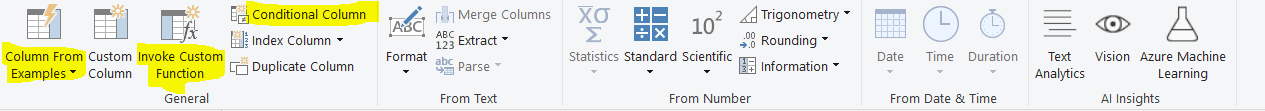
AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

## Create and transform columns

You can create custom column or example column



## Group and aggregate rows

You can group and aggregate data , it will reduce the size of your dataset improve performance.

For example we can group by day if we need just the data concerning sales by day : A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

You choose order date as base value :

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

You have the data aggregated with less row , you divide the size of the dataset and number of rows



## Pivot, unpivot, and transpose data

A screenshot of a computer

AI-generated content may be incorrect.

Unpivot converts column to row

Pivot converts row to column

Transpose example :

## Convert semi-structured (JSON file) data to a table

## Create fact tables and dimension tables

See model data

## Identify when to use reference or duplicate queries and the resulting impact

You can use reference when you want that the change on the source will impact your new table created as reference but if you want to isolate the source between them use duplicate.

A screenshot of a computer

AI-generated content may be incorrect.

### Reference :

When you use reference table all change in the source will impact the reference see :

A screenshot of a computer

AI-generated content may be incorrect.

I changed order date type to date , it has been automatically impact the second table

A screenshot of a computer

AI-generated content may be incorrect.

Be careful if you duplicate the reference the duplicate of the reference stays impacted by the first source.

### Duplicate :

Duplicates create a copy of the query copied without impacting the other , you keep also the steps and everything

A screenshot of a computer

AI-generated content may be incorrect.

## Merge and append queries

A screenshot of a computer

AI-generated content may be incorrect.

You will merge if you have for example a common key

And append if you have the same columns

You can create new table for both if you click on ... as new

A screenshot of a computer

AI-generated content may be incorrect.

## Identify and create appropriate keys for relationships

See model data

## Configure data loading for queries

You can easily choose which query will load or not .

It will avoid that some data load and refresh if not needed .

A screenshot of a computer

AI-generated content may be incorrect.