### ◀ Takaisin välilehdelle

✓ Tehty: Käy oppitunti läpi loppuun asti

# Importing data

Choosing to **import data**, which is the most common option and default behavior, means that Power BI will physically extract rows of data from the selected source and store it in an in-memory storage engine within Power BI.

**Power BI Desktop** uses a special method for storing data, known as **xVelocity**, which is an in-memory technology that not only increases the performance of your query results but can also highly compress the amount of space taken up by your Power BI solution. In *some* cases, the compression that takes place can even lower the required disk space by up to one-tenth of the original data source size. This data compression occurs automatically, meaning there is no required configuration step you must do to receive this benefit. The *xVelocity* engine uses a local unseen instance of **SQL Server Analysis Services** (**SSAS**) to provide these inmemory capabilities.

There are consequences to using the **Import** option within Power BI that you should also consider. These consequences will be discussed later, but as you read on, consider the following:

- How does data that has been imported into Power BI get updated?
- What if I need a dashboard to show near real-time analytics?
- How much data can really be imported into an in-memory storage system?

To get started with Power BI Desktop, the first step is to **connect to data**. There are many different data sources you can connect to from Power BI Desktop.

To connect to data:

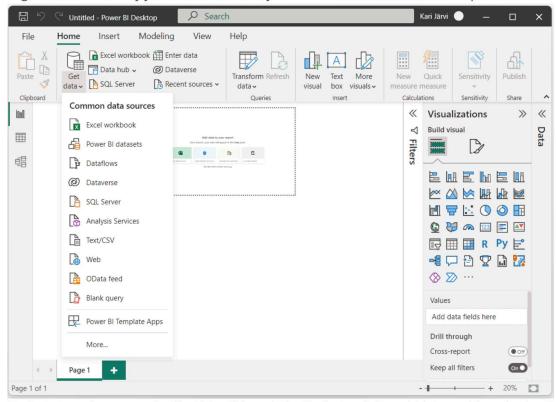
- 1. To get started, open Power BI Desktop.
- 2. From the Home ribbon, select Get Data > More.
- 3. The **Get Data** window appears, showing the many categories to which Power BI Desktop can connect. When you select a data type, you may be prompted for information.
- 4. After you connect to one or more data sources, you may want to transform the data so it's useful for you.

## Excel as a source

Believe it or not, **Excel** continues to be the most popular application in the world and, as such, you should expect that at some point, you will be using it as a data source:

1. In **Power BI Desktop** under the **Home** ribbon, click **Get data** button. Selecting the down arrow next to the button will show you the most common data connectors, but selecting the center of the button will launch the full list of all available connectors.

Regardless of which way you select the button, you will find Excel workbook at the top of both lists.



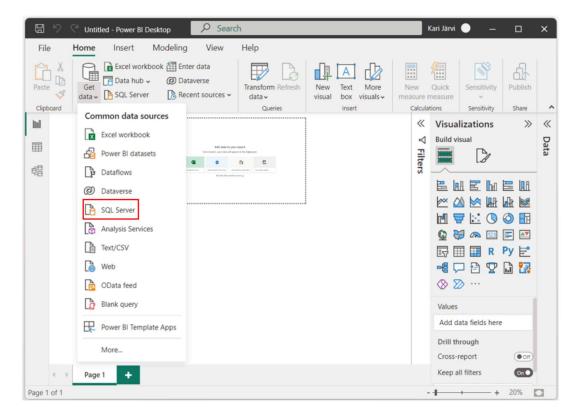
- 2. Navigate to and open an .xlsx file. This will launch the Navigator dialog, which is used for selecting the objects in the Excel workbook you wish to take data from:
- 3. Selecting **Load** will immediately take the data from the selected spreadsheets and import them as separate tables into your Power BI data model. (In Exercise 2 loading Excel workbook is described.)

Choosing **Transform Data** will launch an entirely new window called the **Power Query Editor**, which allows you to apply data cleansing business rules or transforms to your data prior to importing it. You will learn much more about the Power Query Editor in *Lesson 3*.

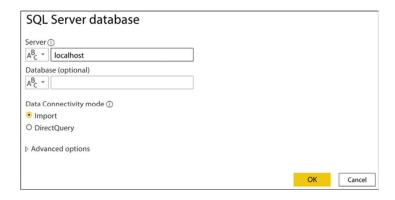
## SQL Server as a source

Another common source designed for relational databases is Microsoft SQL Server:

- 1. To connect to SQL Server, select the **Get data** button again, but this time choose **SQL Server**.
- 2. On your first use of SQL Server, you are asked to choose the type of **Data Connectivity mode** you would like. As mentioned previously, **Import** is the default mode, but you can optionally select **DirectQuery**. DirectQuery will be discussed in greater detail later in this chapter. Expanding the **Advanced** options provides a way to insert a SQL statement that may be used as your source.



The following screenshot shows that you must provide the server, but the database is optional and can be selected later. For the following example, the **Server** name property is the only property populated before clicking **OK**:



3. Next, you will be prompted, as shown in the following screenshot, to provide the credentials you are using to connect to the database server you provided on the previous screen:



4. Click **Connect** after providing the proper credentials. You may be prompted with a warning stating that Power BI is only able to access the data source using an unencrypted connection. Click **OK** if you encounter this to launch the same **Navigator** dialog that you may remember from when you connected to Excel. Here, you will select the tables, views, or functions within your SQL Server database that you wish to import into your Power BI solution. Once again, the final step in this dialog allows you to choose to either **Load** or **Transform Data**.

#### Dataverse as a source

Microsoft Dataverse is becoming an increasingly popular data source to use within Power BI. Dataverse lets you securely store and manage data that's used by business applications. Data within Dataverse is stored within a set of tables. A table is a set of rows (formerly referred to as records) and columns (formerly referred to as fields/attributes). Each column in the table is designed to store a certain type of data, for example, name, age, salary, and so on. Dataverse includes a base set of standard tables that cover typical scenarios, but you can also create custom tables specific to your organization and populate them with data by using Power Query. App makers can then use Power Apps to build rich applications that use this data.

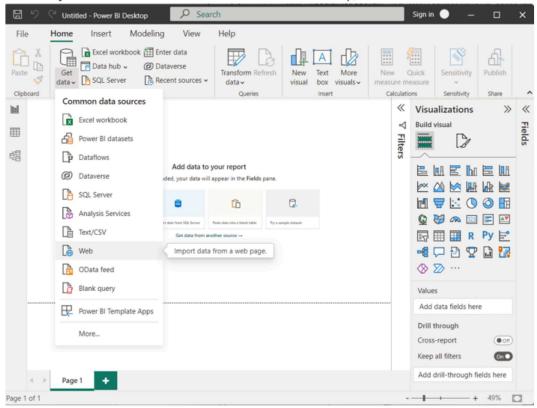
Standard and custom tables within Dataverse provide a secure and cloud-based storage option for your data. Tables let you create a business-focused definition of your organization's data for use within apps.

- 1. To connect to **Dataverse**, select the **Get data** button and choose **Dataverse**.
- 2. Next, you will be prompted to sign in with your organization's Azure Active Directory account. After providing your account details you will click **Connect**.
- 3. This will yet again bring you to the **Navigator** dialog where you can choose from your Dynamics 365 or Power Platform Dataverse database that you have permission to access. After choosing a database, you can then choose which tables you wish to bring into Power BI from this same screen.

#### Web as a source

One pleasant surprise to many Power BI developers is the availability of a web connector. Using this connection type allows you to source data from files that are stored on a website, or even data that has been embedded into an HTML table on a web page. Using this type of connector can often be helpful when you would like to supplement your internal corporate data sources with information that can be publicly found on the internet.

1. Now that you understand the scenario within Power BI Desktop, select the **Get data** button and choose **Web** as your source.

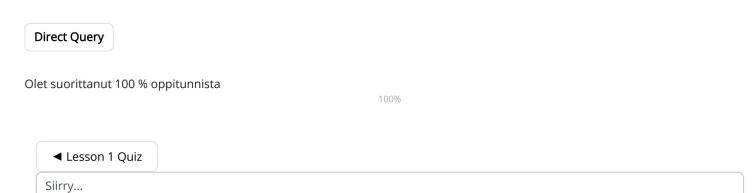


You will then be prompted to provide the URL where the data can be found. Once you provide the URL, click OK:



- 2. Next, you will likely be prompted with an **Access Web content** dialog box. This is important when you are using a data source that requires someone to log in to access it. If the data source does not require a login to find the data, you can simply select **Anonymous access**, which is the default, and then click **Connect**.
- 3. Notice on the next screen that Power BI Desktop recognizes the URL you provided as a tab-delimited file. This can now easily be added to any existing data model you have designed by selecting **Load**.

Click link to watch a video about connecting to Access database..



Olet kirjautunut nimellä Janne Bragge. (Kirjaudu ulos)

<u>PowerBI</u>

Suomi (fi)

Deutsch (de)

English (en)

<u>Français (fr)</u>

Suomi (fi)

Svenska (sv)

Hanki mobiilisovellus



Exercise 2 - Importing data ▶