Lesson 5 Using External Data by using Power Query

Excel includes a whole range of analyzed tools you can use to generate useful heights from your data. Excel 2016 includes Power Query, a versatile tool you use to manage external data sources effectively. Unlike other versions Power Query was a separate aadd-in it is included in the Excel 2016 version.

Tip

You don't need to enable the Data Analysis add-ins to use Power Query, but they work best together.

You can create data connections to any different sources:

- Files. The sources include Excel workbooks,CSV files,XML files,and text files.
- Ddatabase. These sources include Microsoft SQL Server, Access,SQL Server, Analysis Services,Oracle,IBM DB2, MySQL, PostgreeSQL,Sybase, and Teradata databases
- Microsoft Azure. These sources include AzureSQL,Database,Azure Marketplace,Azure HDinsight,Azure Blob Storage, and Azure table Storage.
- Other Sources. These sources include the web,Microsoft SharePoint Lists,Hadoop files (HDFS),Facebook,Salesforce and other sources with available Open database Connectivity (ODBC) drivers.

Creating a query involves identifying the type of data source in which you ant to connect, selecting the software from among that type's choices, and providing any necessary credentials to access the data source. Some systems require you to log on to an account to access your data, for example After you define your data connection, you can specify which elements of the data source you want to bring in. Many Excel files and databases contain multiple tables, so you caan select which of them to bring in.

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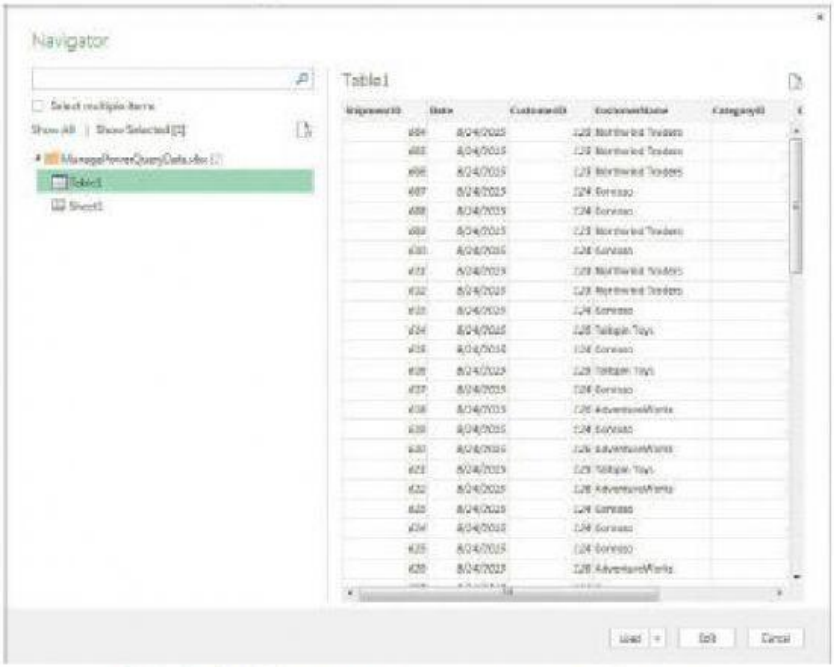
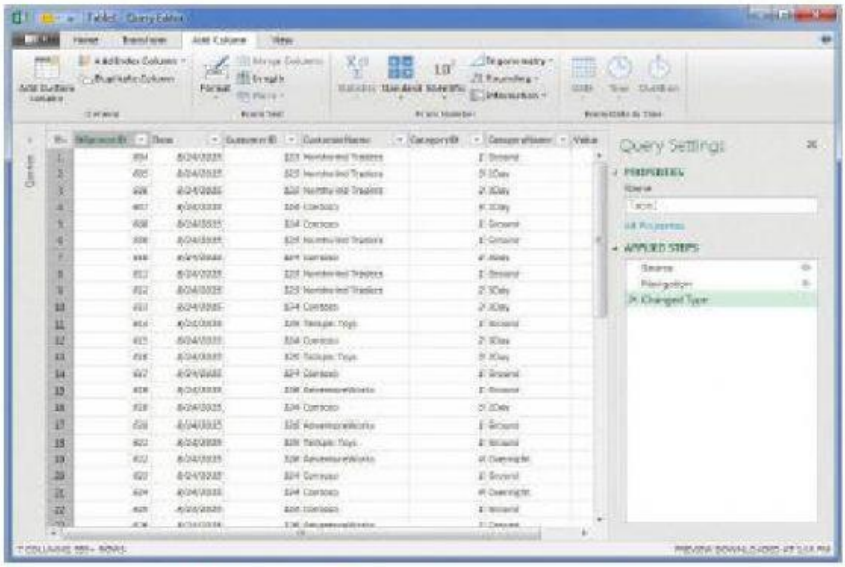


Select the file element you want to use as your query data source

After your query data appears in an Excel table, you can work with it as you would any other data. You can unlock more powerful tools by turning on the Data Analysis add-ins and adding the Excel table to the data Model. When the Excel table is part of the Data Model, you can define relationships between it any other tables to enhance your analysis.

Some data sources are poorly designed and don't include an index field, which contains a unique values for each row. If that's, the case, you can add an index, starting at the value of your choice and increasing in the increment you want to provide the tool you need to create relationships between tables.



Add an index column so each row contains a unique value

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As with other Excel workbook objects, you can edit your queries after you create them. You can select which columns to include in or exclude from your results, change the query's name, edit or undo a change and even delete your query to generate the result you want.

To create a Query

1. In the **Excel** workbook, on the data tab of the ribbon, in the **Get & Transform**, group, click **New Query**, and then use the tools on the list to identify the data source to which you want to connect.
2. In the **Import** data dialog box, click the data source you want to query, and then click Open.
3. In the **Navigator**, click the data source you want to query.

Or

Select the **Select Multiple Items** check box, and then click the data sources you want to query.

4. Select the items you want to include in your query.
5. Click **Load**.

To add query data to the Data Model

1. In the Excel workbook, click any cell in the Excel table that contains the query data.
2. On the **Power Pivot** tab in the Table group, click Add to **Data Model.**

To add an index column to a query.

1. In the **Excel** workbook, click any cell in the **Excel** table that contains the query data.
2. On the **Query** tool tab of the ribbon, in the Edit group, click **Edit**.
3. In the **Query Editor**, on the **Add Column** tab of the ribbon, in the **General** group, click **Add Index Column**.

Or

Click the Add Index Column arrow (not the button itself) and then use the tools in the list to

Define the starting point for your Index.

4. In the **Query Editor**, on the **Home** tab of the ribbon. In the Close group, click **Close & Lead.**

To choose columns to include in your query results:

1. In the **Excel** workbook, click any cell in the **Excel** table that contains the query data.
2. On the **Query** tool tab, click **Edit**.
3. In the Query **Editor**, on the **Home** tab, in the **Manage Column** group, click **Choose Columns**.

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4. In the **Choose Column**, task pane, select boxes next to the columns you work to keep in your **query** results.
5. Click **OK**.

To remove a column from your query results

1. Open the query in the **Query Editor**.
2. Click a cell in the column you want to remove.
3. In the **Manage Columns** group, click **Remove Columns**.

To change the data type of a column.

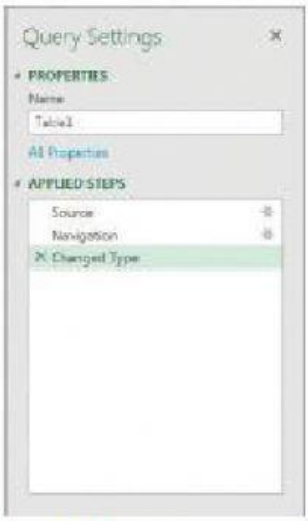
1. Open the query in the **Query Editor**.
2. Click a cell in the column you want to edit.
3. On the **Home** tab, in the **Transform** group, click **Data Type,** and then click the **New Data Type** for the column.

To change the name of a query.

1. Display the query in the **Query Editor.**
2. If necessary, on the **View** tab of the ribbon, in the **Show** group, click **Query Settings** to display the **Query Settings** task pane.
3. In the **Query Settings** task pane, in the **Name** box, enter a new name for the query.

To undo a change to a query.

1. Display the query in the **Query Editor**.
2. If necessary. Click **Query Settings** to display the **Query** *Settings* task pane.



Use the Query Settings task pane to rename and edit queries

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3. In the **Applied Steps** list, point to the change you want to delete and then click the delete button that appears to the left of the change.
4. If necessary, in the Delete Step, confirmation dialog box, click Delete to finish deleting the change.

To edit a change to a query.

1. Display the query in the **Query Editor**.
2. If necessary, click **Query Settings** to display the **Query Settings** task pane.
3. In the **Applied Steps** list, point to the change you want to edit, and then click the actions button (it looks like a gear or cog) that appears in the right of the change.
4. In the dialog box that appears, edit the properties of the change.
5. Click **Ok**.

To close a query and return to Excel.

1. In the **Query Editor**, on the **Home** tab, in the Close group, click **Close** & **Load**
2. If necessary, in the dialog box that appears, click **Keep** in your changes.

To delete a query.

1. In the **Excel** workbook, click any cell in the **Excel** table that contains the query data.
2. On the **Query** tool tab. In the **Edit** group, click **Delete**.
3. In the **Delete Query**, dialog box that appears, click **Delete**.

Questions.

1. **How do you create a query?**

2. **How do you add an Index column to a query?**

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3. **How do you edit, close and delete a query?**

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