

# Database connections

DATA CONNECTIONS IN POWER BI



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# Databases in Power BI

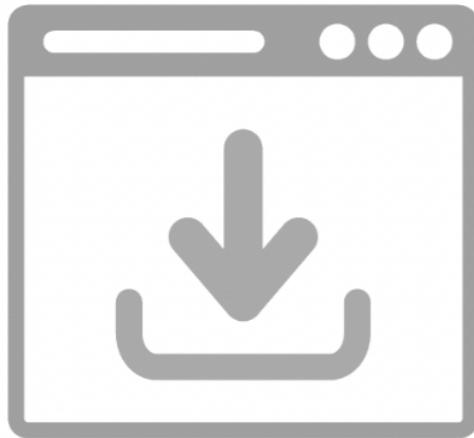
- More than 35 different databases supported
- Power BI connects to local and cloud-based databases
- Databases are a type of data source
- Datasets are a collection of the data source and data itself



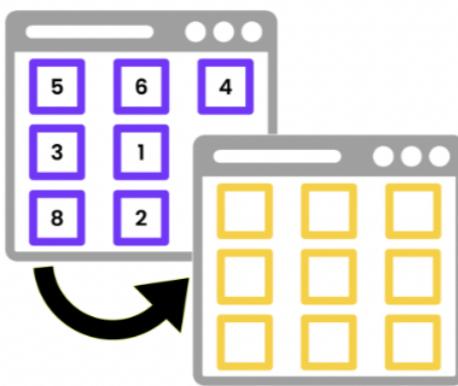
Google BigQuery



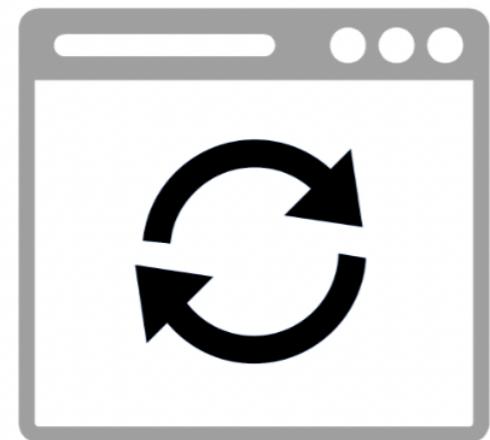
# Storage modes



DATA IMPORT



DIRECTQUERY



LIVE CONNECTION

- Data sources, such as databases, can have multiple connection types - also referred to as storage modes
- There are 3 main connection types:
  - Import
  - DirectQuery
  - Live
- Import storage mode is the default option
- DirectQuery storage mode not as widely available as Import
- Live storage mode not as commonly used

# Storage modes: Pros and cons

Storage Mode	Pros	Cons
<b>Import</b>	<ul style="list-style-type: none"><li>• Fastest possible connection</li><li>• Full Power Query transformations</li><li>• Full set of DAX functions available</li></ul>	<ul style="list-style-type: none"><li>• Power BI file size limitations</li><li>• Regular refreshes required</li><li>• Time consuming refreshes</li></ul>
<b>DirectQuery</b>	<ul style="list-style-type: none"><li>• Supports use of large scale datasets</li><li>• Reports and dashboard “near real-time”</li></ul>	<ul style="list-style-type: none"><li>• Any Power BI features have to be in native queries understood by data source</li><li>• Quick Insights not supported</li></ul>
<b>Live</b>	<ul style="list-style-type: none"><li>• Supports use of large scale datasets</li><li>• Refresh frequency unlimited</li></ul>	<ul style="list-style-type: none"><li>• No Power Query</li><li>• Slower connection type</li></ul>

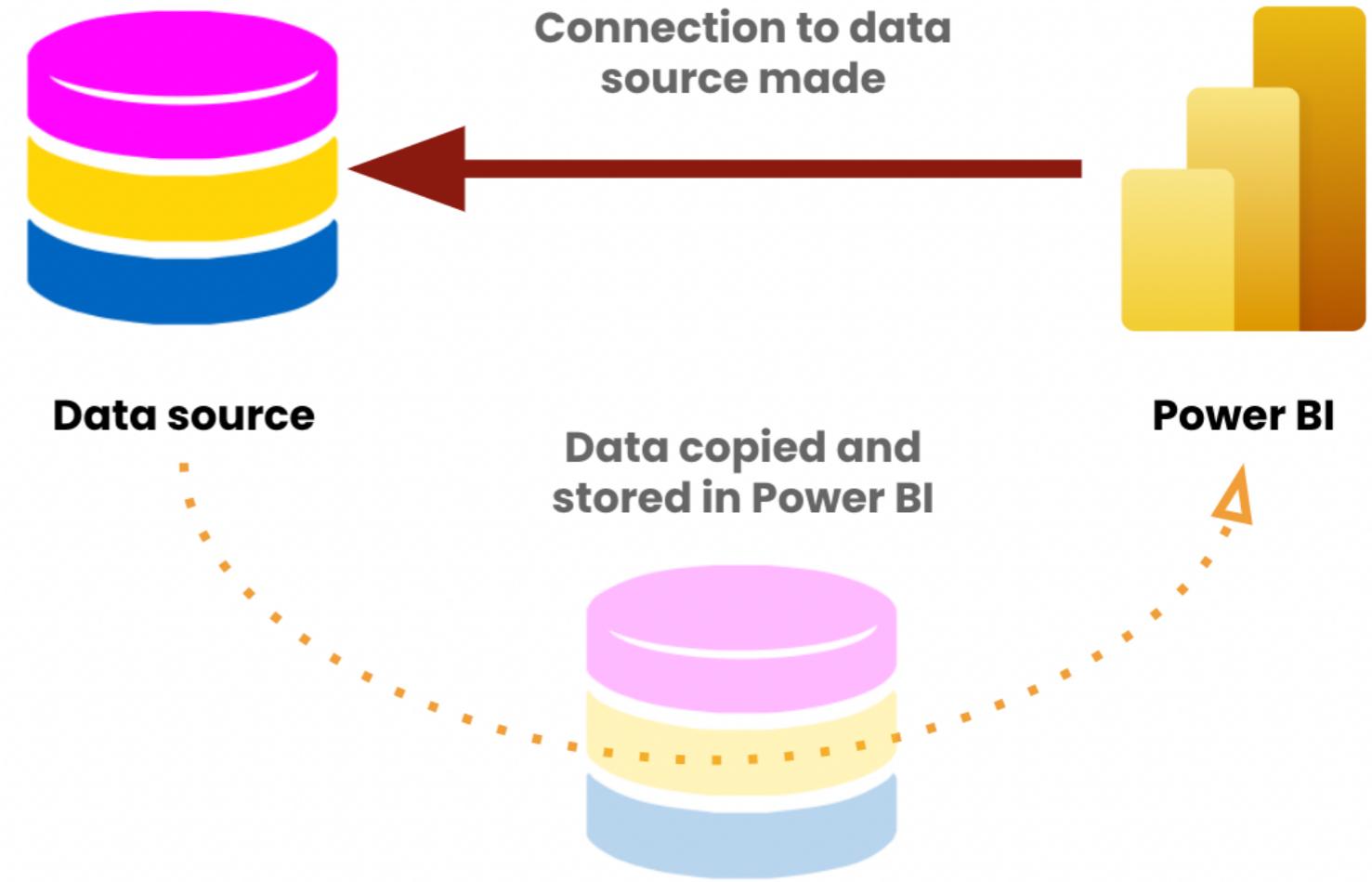
# Import mode

- Default setting that brings in data from data source



# Import mode

- Default setting that brings in data from data source
- Can transform and manipulate data
- Access to full capabilities of Power BI



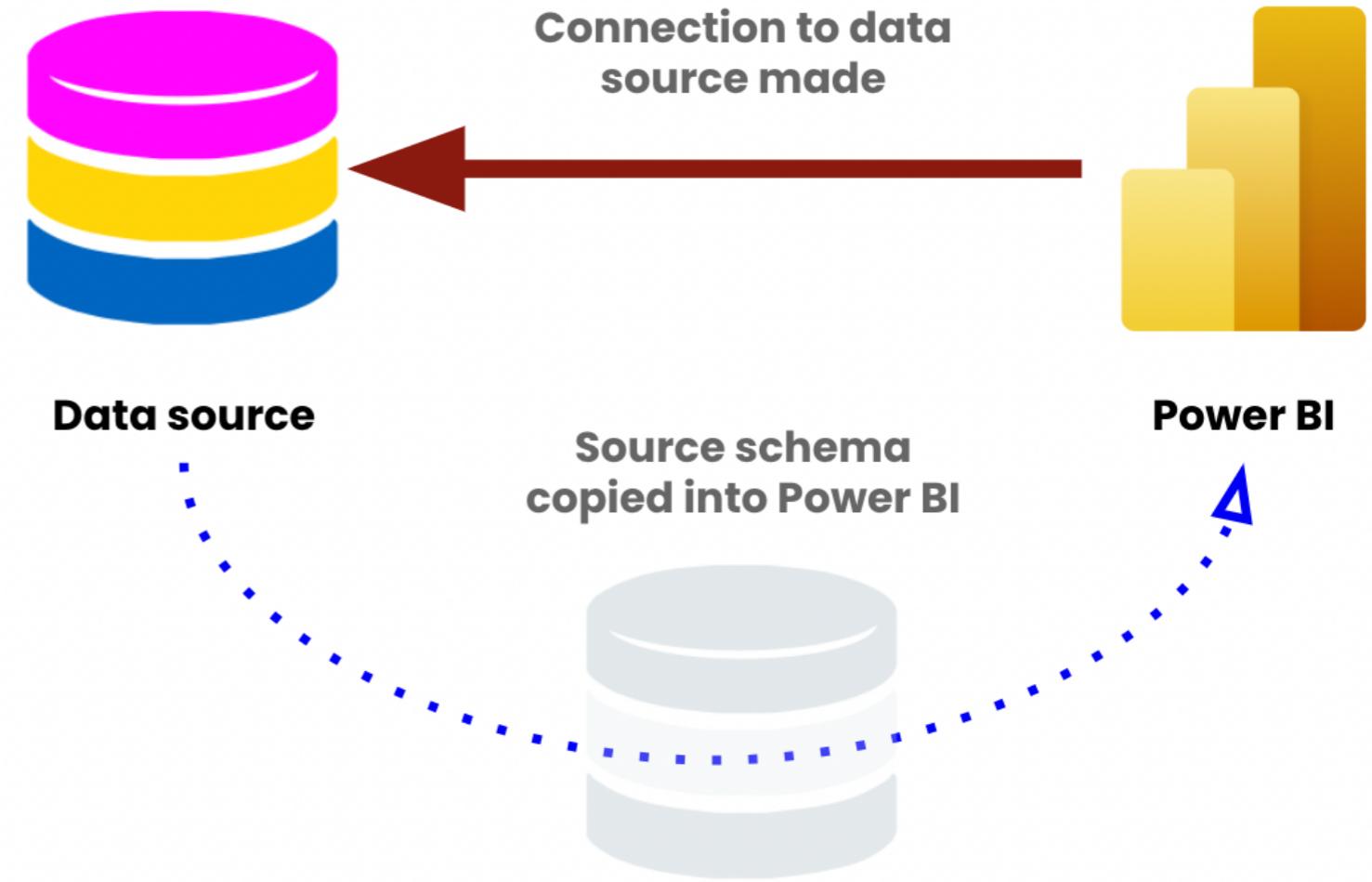
# DirectQuery mode

- Available for certain data sources



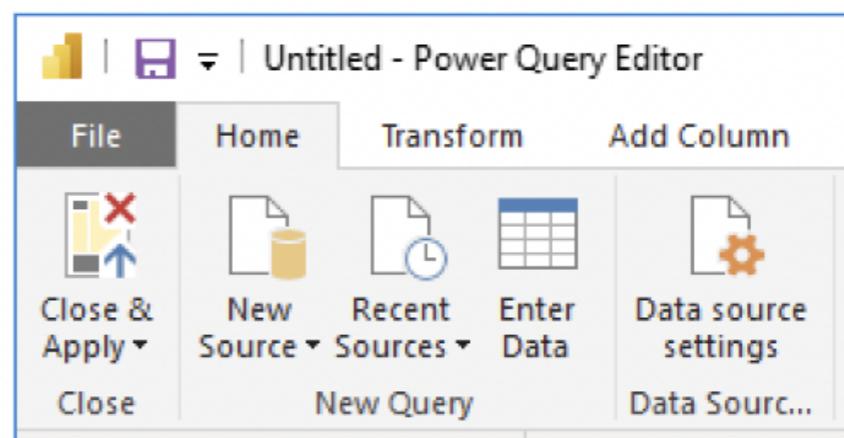
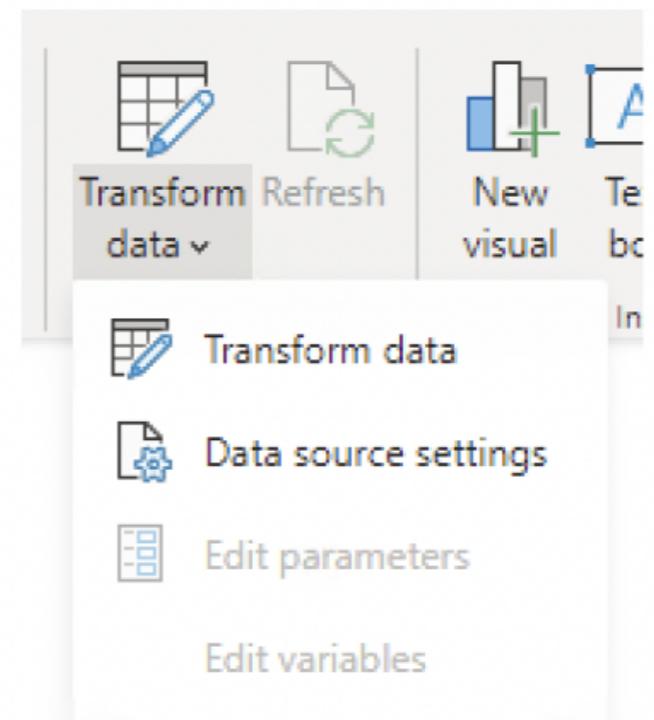
# DirectQuery mode

- Available for certain data sources
- Power BI queries data source when required
- Allows for reduced size of data connections



# Changing data connections

- Data sources are fluid and can change regularly
- Data connections can be amended after being made
- Users can alter a data connection using a number of options in Power BI Desktop
- A refresh button is available for quick updates



# **Let's practice!**

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# Exploring connections

DATA CONNECTIONS IN POWER BI



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# **Let's practice!**

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