

Data Connections in Power BI

Data Source: The original location from which data is retrieved, such as a database, Excel file, web service, or data lake.

Dataset: A structured collection of processed data in tabular form used for analysis and reporting in Power BI.

Power BI Desktop: A Windows application used to load, transform, model, and visualize data before publishing to Power BI Service.

Power BI Service: A cloud-based SaaS version of Power BI that enables organizations to share, manage, and collaborate on reports and dashboards.

Dataverse: A cloud-based data storage space in the Microsoft ecosystem, available as a connection option in Power BI Desktop.

Storage Mode: The method by which Power BI connects to and retrieves data from a source; the three main options are Import, DirectQuery, and Live.

Import Mode: The default storage mode that copies data from the source into Power BI, providing access to the full set of Power BI capabilities.

DirectQuery Mode: A storage mode in which Power BI queries the data source in real time rather than storing a local copy, reducing the data model size.

Live Connection: A storage mode that connects Power BI directly to an external analytical engine such as Analysis Services, with no local data copy.

Data Gateway: A software bridge that allows Power BI Service to connect to on-premises data sources for scheduled refreshes and live queries.

Scheduled Refresh: An automated process in Power BI Service that updates an imported dataset at defined time intervals to keep reports current.

Incremental Refresh: A feature that refreshes only new or changed rows rather than the entire dataset, reducing refresh duration and system resource usage.

Parameter: A user-defined variable in Power Query Editor that enables dynamic data connections, filtering, or incremental refresh configuration.

Power Query Editor: The data transformation tool in Power BI where M Language scripts and parameters are created and managed.

M Language: The functional, case-sensitive programming language used in Power Query Editor to define and manipulate data import steps.

Row-Level Security (RLS): A feature that restricts data access at the row level for different users or groups, using DAX filter rules defined in Power BI Desktop.

Workspace: A collaborative area in Power BI Service where teams organize, share, and manage reports, dashboards, and datasets.

ODBC: A standard interface (Open Database Connectivity) that allows Power BI to connect to a wide range of database systems that support the protocol.

Data Lake: A storage repository that gathers raw data from multiple sources and retains it until it is needed for analysis.

DAX (Data Analysis Expressions): The formula language used in Power BI to define measures, calculated columns, and row-level security rules.