**Connectors in Power BI**

**Introduction**

Integrating and analyzing information from various sources is crucial to creating insightful business analytics and reports. Power BI connectors play an important role by connecting these data sources to Power BI. In this reading, you’ll explore some examples of Power BI connectors and discover how they can be used to generate insights.

**Adventure Works and Power BI data connectors**

Adventure Works’ various departments each generate substantial volumes of data, all of which are sourced through a wide variety of different management systems. The primary challenge in this context is integrating this diverse, department-specific data into a unified format for comprehensive analysis and reporting.

The business analytics team at Adventure Works is tasked with devising a solution to connect these varied data sources to create insightful reports to help stakeholders make informed decisions. Let’s learn more about connectors and how Adventure Works can use them.

**Power BI data connectors**

Power BI data connectors are the interfaces or tools used in Power BI to connect to various data sources. They enable users to import data into Power BI from various external sources, such as databases, online services, and local files. These connectors simplify the data ingestion process and ensure that Power BI can interact with different data sources effectively.

Some of the most common Power BI data connectors are outlined in the table below:

| **SQL Server** | **Connects to Microsoft SQL Server databases, allowing users to import data from SQL databases into Power BI.** |
| --- | --- |
| **Excel** | Enables the import of data from Excel files. This is particularly useful for businesses that store data in Excel spreadsheets. |
| **SharePoint** | Provides connectivity to SharePoint lists, enabling users to use SharePoint data for their analytics and reports in Power BI. |
| **Azure SQL Database** | Connects to Azure's cloud-based SQL database, allowing users to access and analyze data stored in Azure. |
| **Google Analytics** | Allows users to import data from Google Analytics, which is useful for analyzing website traffic and other digital analytics data. |
| **Salesforce** | Connects to Salesforce to allow the import of sales and customer data into Power BI for more detailed analysis. |
| **Dynamics 365** | Connecting to Microsoft Dynamics 365 CRM enables users to create reports and analyze data from Dynamics 365 applications. |
| **MySQL Database** | Connects to MySQL databases, a popular open-source database, especially used in web applications. |
| **Oracle Database** | Allows connections to Oracle databases widely used in enterprise environments. |
| **CSV Files** | Enables users to import data from CSV (Comma Separated Values) files, a common format for exporting and sharing data. |

These connectors are integral to Power BI. They enable Power BI users to work with diverse data sources for analysis and business intelligence. You can visit [Microsoft Learn](https://learn.microsoft.com/en-us/power-query/connectors/azure-sql-database) to discover more about the available connectors for Power BI.

**Office 365 Power BI data connectors**

The Office 365 Power BI data connector specifically allows you to connect to data sources within the Office 365 ecosystem. Some examples of Office 365 Power BI data connectors include:

* SharePoint Online
* Excel Online
* OneDrive for Business
* and Exchange Online services.

You can use the data connector to extract data from these sources directly into Power BI for analysis and visualization. Once connected, you can create interactive reports, dashboards, and visualizations using the data from Office 365. This enables you to gain insights and make data-driven decisions based on the information stored within your Office 365 environment.

**Adventure Works and Power BI connectors**

There are many different types of connectors that Adventure Works can make use of to ingest data, depending on where the data is sourced from. Explore these different types of connectors below.

**Excel Online connector**

Adventure Works maintains various Excel workbooks containing important business data, including sales forecasts, financial reports, and marketing campaign analytics.

Adventure Works can connect directly to its Excel workbooks stored in OneDrive for Business or SharePoint Online using the Excel Online data connector.

The company can extract data from specific worksheets or ranges, perform data modeling and transformations within Power BI, and create dynamic visualizations and reports based on the latest Excel data.

You can visit the [Microsoft Learn article on Excel connectors for Power BI](https://learn.microsoft.com/en-us/power-query/connectors/excel) to learn more.

**SharePoint Online connector**

Adventure Works uses SharePoint Online to manage its product inventory, sales data, and customer information.

With the SharePoint Online data connector in Power BI, Adventure Works can easily connect to its SharePoint lists and libraries, extract relevant data, and visualize it in Power BI dashboards and reports.

The company can also monitor key performance indicators (KPIs) in real-time such as product sales, inventory levels, and customer satisfaction metrics.

Visit Microsoft Learn to explore the process steps for [connecting a SharePoint Online list](https://learn.microsoft.com/en-us/power-query/connectors/sharepoint-online-list#connect-to-a-sharepoint-online-list-from-power-query-online) from Power BI.

**Azure SQL connector**

Adventure Works has implemented Azure SQL Database as its primary data storage solution. It uses this solution to store transactional data, customer information, and other critical business data.

By leveraging the Azure SQL Connector, Adventure Works can visualize key metrics such as total sales revenue, sales quantity, average order value, and regional sales distribution.

It can also slice and dice the data based on various dimensions like product category, sales channel, and customer segments to identify top-selling products, high-value customers, and emerging market trends.

Microsoft Learn provides a comprehensive guide to [connecting Azure SQL database](https://learn.microsoft.com/en-us/power-query/connectors/azure-sql-database) from Power BI.

**Exchange Online connector**

Adventure Works uses the Exchange Online data connector to extract data related to email activities, such as email volume, response times, resolution rates, and email traffic patterns.

The company creates a real-time email performance dashboard in Power BI, which provides visualizations and metrics to track these data sources and overall email system performance. This helps Adventure Works identify bottle necks or issues affecting their customer communication and support processes.

You can visit Microsoft Learn to explore how [Power BI connects to Exchange Servers](https://learn.microsoft.com/en-us/power-query/connectors/microsoft-exchange).

**Conclusion**

Power BI connectors are essential for combining data like sales numbers, customer feedback, and financial stats from different places. Whether it's pulling info from Excel, SharePoint, Azure Database, Dynamics CRM, or Exchange Server, these connectors ensure everything can be imported into Power BI to work smoothly.