

Introduction to Power BI

Microsoft Power BI is a self-service business intelligence platform, which includes both desktop and web-based applications for connecting, modeling, and visualizing data.

Power BI integrates tightly with Excel, sharing engines for Power Query, Data Models, and Data Analysis Expressions (DAX).

Why Power BI?

- Connects to nearly any data source.
- Builds relational models across tables.
- Creates powerful calculations using DAX.
- Enables interactive dashboards and rich visualization.
- Widely used in industry for BI workflows.

Power BI vs. Excel

- Uses the same underlying analytics engines.
- Excel focuses on spreadsheets; Power BI adds modeling, visuals, and dashboard capabilities.
- Full Excel models can be imported directly into Power BI.

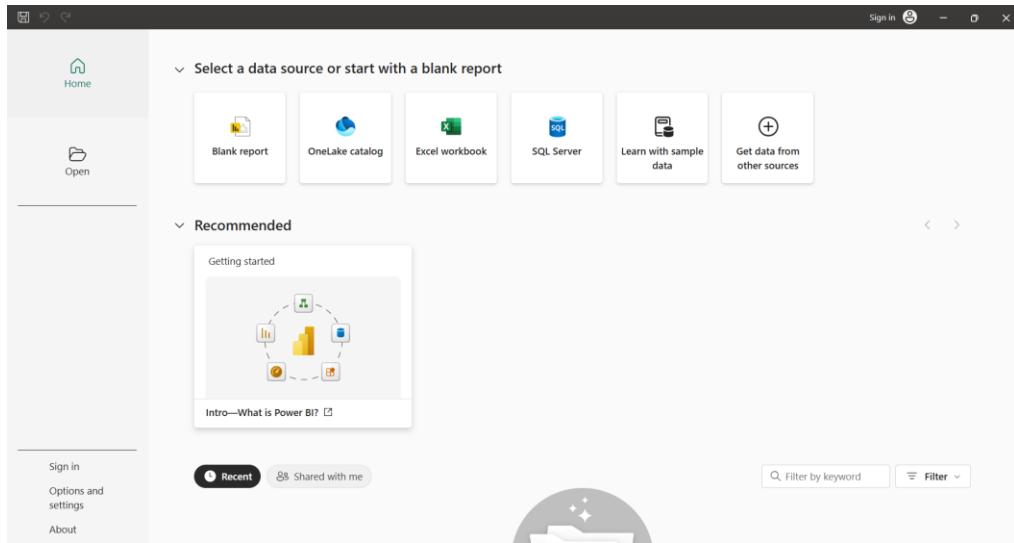
Installing Power BI Desktop

Options include:

- Microsoft Store (automatic updates, no admin rights)
- Manual installer (version control, admin access). visit: powerbi.microsoft.com/downloads
- Microsoft 365 enterprise installations

Note: You do NOT need a Power BI Pro account to use Desktop. (It is for 'Power BI Service')

When you open the Power BI for the first time it looks like:

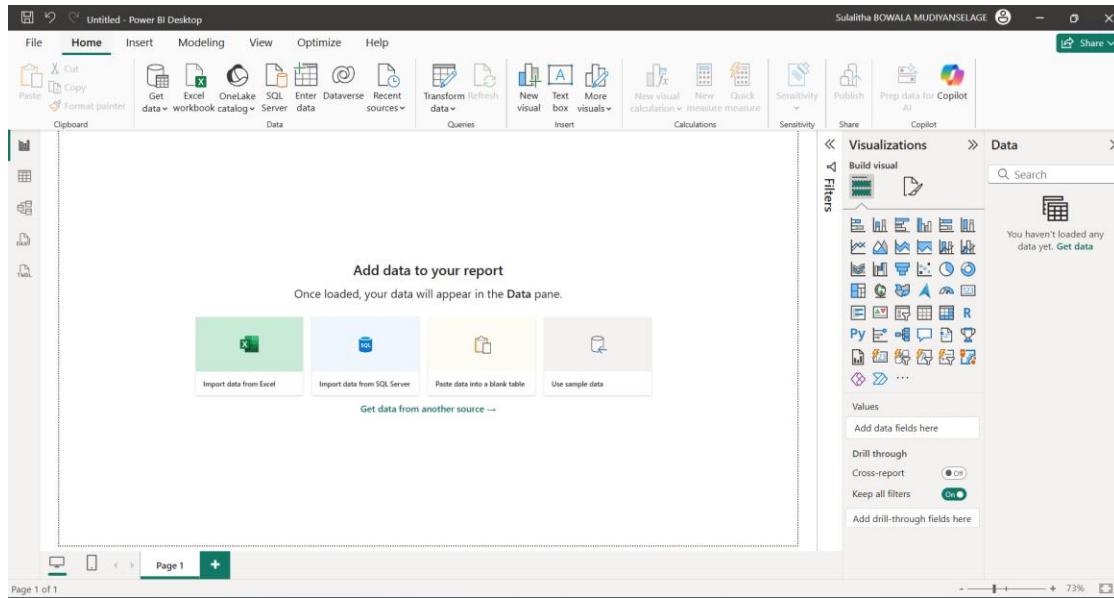


Then go to the options under Options and settings. Recommended Settings:

- Select all available preview features by default (these change with each monthly release)
- Make sure the following options are NOT selected:
 - Update or delete relationships when refreshing data
 - Autodetect new relationships after data is loaded
 - Time Intelligence > Auto date/time
- Select “English (United States)” from the dropdown menu (this will align with the data in course project files)

Note: It may ask to restart Power BI

Once the settings are saved, you may see the Power BI windows:



Then we can go ahead and save the worksheet (e.g., AdventureWorks Report.pbix) in a preferred location.

Power BI Workflow:

Back-end:

- Power Query Editor: Extract, Transform, Load (ETL)

Front-end: (tabs on the left hand side of the above image)

- Data View: View and modify tables.
- Model View: Create table relationships.
- Report View: Build dashboards and visuals.

Helpful Resources:

- Power BI Documentation
- Power BI Blog for monthly updates
- Power BI YouTube channels
- Power BI User Groups

Power BI is updated monthly, so you may notice ongoing changes to settings, options, tools, etc. Reference the links below to stay up-to-date on product updates and new feature releases:

Power BI Desktop: <https://docs.microsoft.com/en-us/power-bi/fundamentals/desktop-latest-update>

Power BI Service: <https://docs.microsoft.com/en-us/power-bi/fundamentals/service-whats-new>

Power Platform: <https://learn.microsoft.com/en-us/dynamics365/release-plans/>