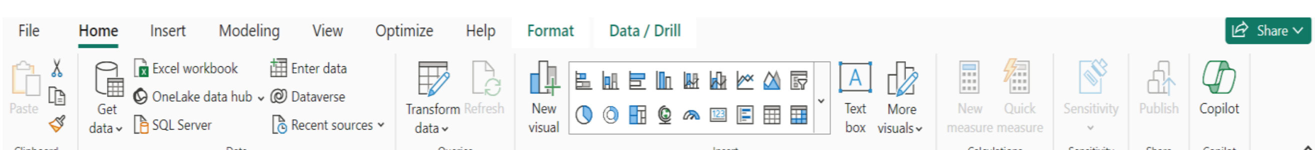
POWER BI DESKTOP

Power BI is a business analytics service by Microsoft. It provides interactive visualizations and business intelligence capabilities with an interface simple enough for end users to create their own reports and dashboards. Power BI is part of the Microsoft Power Platform.

Key features of Power BI include:

- **Data Transformation and Data Modeling: With Power Query, users can clean, transform, and merge data from multiple sources.**
- **Reports and Dashboards: Create interactive reports with a drag-and-drop interface and build dashboards to share insights.**
- **Data Connectivity: Connect to a wide variety of data sources including Excel, SQL Server, Azure, and more.**
- **Custom Visuals: Enhance your reports with custom visuals from the Power BI marketplace.**
- **Natural Language Query: Use natural language to ask questions of your data.**
- **Mobile Access: Access your data and reports from anywhere using Power BI mobile apps.**
- **Integration with Other Microsoft Services: Seamlessly integrates with other Microsoft products like Excel, Azure, and SharePoint.**
- **Power BI is available in several versions including Power BI Desktop, Power BI Pro, and Power BI Premium, each offering different levels of functionality and pricing.**

POWR BI RIBBONS



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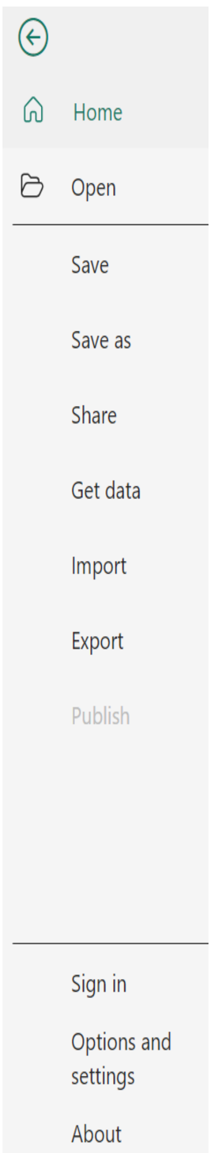
➢ File Tab



Home: This option likely returns you to the main dashboard or starting point of the application.

Open: This allows you to open existing files or projects within the application.

Save: Saves your current work or project.

Save as: This option lets you save the current file or project under a different name or in a different location, essentially creating a new copy.

Share: This might allow you to share your project or data with others, possibly by generating a link or sending the file directly.

Get data: This option likely lets you import or connect to data sources. It may allow you to pull data from external sources like databases, files, or online services into the application.

Import: Similar to "Get data," this may allow you to import files, settings, or data into the application from external sources.

Export: Allows you to save or export your current project or data in a different format, such as exporting reports, data files, or visualizations.

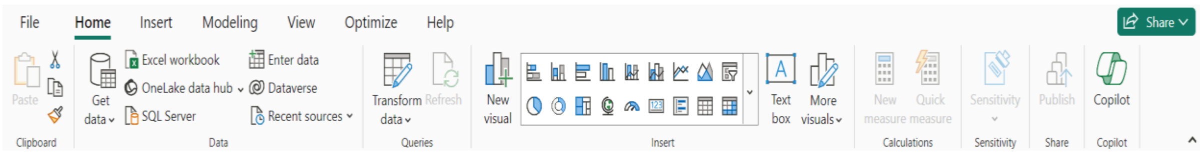
Publish (Grayed Out): This option is currently disabled. When active, it might allow you to publish or make your work available to others, perhaps by deploying it to a server, website, or shared platform.

Sign in: This option allows you to sign in to your account within the application. Signing in might give you access to additional features, personalized settings, or cloud-based services.

Options and settings: This opens the settings menu, where you can configure the application's preferences, user interface, connectivity, and other options.

About: Provides information about the software, including the version number, licensing details, and possibly links to support or documentation.

➤ Home Tab



➤ Clipboard (Paste, Cut, Copy):

- Paste: Inserts copied content.
- Cut: Removes the selected content and copies it to the clipboard.
- Copy: Copies the selected content to the clipboard.

➤ Get Data:

- Get Data: Allows you to connect to various data sources like databases, online services, or local files.
- SQL Server: Provides a quick connection to SQL Server databases.
- One Lake data hub: Likely a connection point for a cloud-based data storage or collaboration hub.
- Excel Workbook: Opens a connection to import data from an Excel file.
- Data verse: Connects to Microsoft Data verse, a service for storing and managing data used by business applications.
- Recent Sources: A list of recently accessed data sources for quick access.

➤ Transform Data:

- This option opens the data transformation editor, allowing you to clean, shape, and transform the data before using it in your visualizations or reports.

➤ Enter Data:

- Allows you to manually enter data directly into the application, useful for small datasets or creating custom tables.

➤ New Visual:

- Provides options to insert new visualizations into your report. The visual types displayed include bar charts, line charts, pie charts, and more.

➤ Text Box:

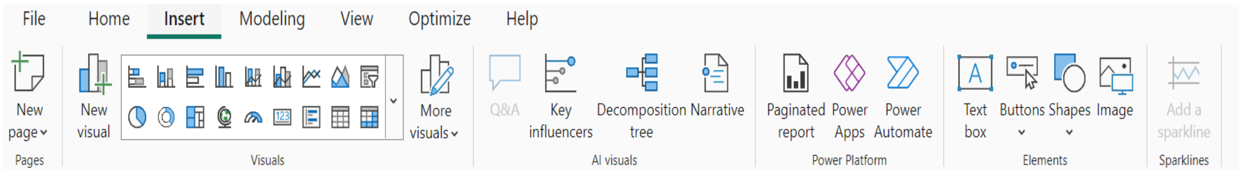
- Adds a text box to your report or visualization, which can be used for annotations or titles.

➤ More Visuals:

- This option lets you explore additional visualization types, possibly by importing custom visuals or accessing a marketplace.

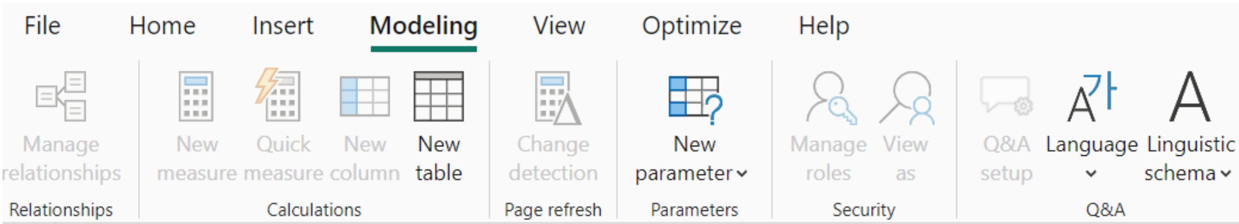
- **Refresh:** Refreshes the data to reflect the most current information from the connected sources.

Insert Tab



- **Visuals:**
  - This section allows you to insert various types of visuals into your Power BI report. The visuals include different types of charts (e.g., bar, line, pie, etc.), tables, matrices, and more specialized visuals like maps and gauges.
  - The "More visuals" option lets you access additional visuals from the Microsoft AppSource or import custom visuals.
- **AI Visuals:**
  - **Key Influencers:** This visual helps to understand the factors influencing a particular metric.
  - **Decomposition Tree**: Allows you to break down a metric into its contributing factors for a detailed analysis.
- **Power Platform:**
  - **Paginated Report:** This feature is used to create paginated reports, which are formatted to fit well on a page when printed or exported.
  - **Power Apps:** Integrate Power Apps into your Power BI reports to add custom applications that can interact with your data.
  - **Power Automate:** Allows you to automate workflows directly from your Power BI report.
- **Elements:**
  - **Text Box:** Insert a text box to add descriptions, annotations, or titles to your report.
  - **Buttons:** Add interactive buttons that can be used for navigation or triggering actions within your report.
  - **Shapes:** Insert shapes like rectangles, circles, and lines to enhance the visual layout of your report.
  - **Image:** Add images to your report for branding or visual enhancement.
- **Sparklines (grayed out):**
  - This option allows adding mini-charts within a table or matrix to show trends over time. It appears to be inactive or unavailable in the current context.

➢ Modeling Tab



➢ Relationalship

- Manage Relationships: Allows you to create and manage relationships between different tables in your data model. This is crucial for defining how different data tables are related and can interact with each other.

➢ Calculations

- **New Measure:** Lets you create a new measure, which is a formula that can perform calculations on your data (e.g., sums, averages). Measures are often used in reports and dashboards.
- **New Column:** Enables you to create a calculated column. This column is added to your data table and can contain values calculated using DAX (Data Analysis Expressions) formulas.
- **New Table:** Allows you to create a new table within your data model. This table can be based on existing data, or you can enter data manually.

➢ Page Refresh

- **Change Detection:** The "Page Refresh" feature is often used in conjunction with "Change Detection" to set up automatic page refreshes in reports that use DirectQuery mode. DirectQuery allows reports to query data directly from the source rather than importing it into Power BI. This is useful for real-time or near-real-time data scenarios.
- **Configuring Refresh Intervals:** With "Page Refresh," you can set the frequency at which the report page refreshes to show the most up-to-date data. For example, you might set the page to refresh every minute if the data source is updated frequently.
- **Manual or Automatic Refresh**: Depending on the setup, you can configure whether the page refreshes automatically at set intervals or whether users need to manually refresh the page.
- **Optimizing Performance**: While setting up page refresh, it’s important to balance the need for real-time data with the performance impact on both the report and the data source. Frequent refreshes can put a load on the data source and may affect performance.

➢ Parameters

- **What-If Parameters:** These parameters enable users to perform "what-if" analysis by adjusting the parameter value and seeing how changes affect calculations or visualizations. For example, you might create a parameter that allows users to change a discount rate and see how it impacts revenue.
- **Numeric, Date, or Text Parameters**: You can create parameters that accept numeric values, dates, or text inputs. These parameters can be used in calculations, filters, or to control other aspects of the report, like dynamic titles or visual properties.

- **Parameter Slicers:** Once a parameter is created, it can be used in a slicer in the report, allowing end-users to select the parameter value directly from the report interface.

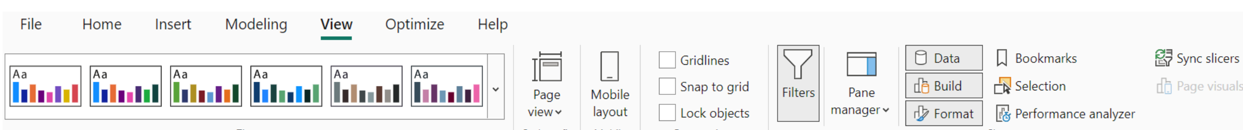
➢ Security

- **Manage Roles:** This option allows you to create and manage roles within your data model. Roles define which data a user can access based on their permissions. This is useful for implementing row-level security (RLS), where different users can see different data based on their assigned role.
- **View As**: This option lets you simulate how the data model will appear to users with different roles. It helps you verify that the security settings are working as expected by allowing you to view the report as if you were a specific user or role.

➢ Q&A

- **Q&A Setup**: This option allows you to configure the Q&A feature in Power BI. Q&A enables users to ask natural language questions about their data, and the system will automatically generate answers in the form of charts, graphs, or tables based on the data model.
- **Language:** This dropdown allows you to select and manage the languages that Q&A can understand. This is important if your data model will be accessed by users who speak different languages or if you want to fine-tune the natural language processing capabilities of Q&A for specific languages.
- **Linguistic Schema:** This option allows you to manage the linguistic schema of your data model, which involves customizing how Q&A interprets different words or phrases in relation to your data. By refining the linguistic schema, you can improve the accuracy and relevance of the answers generated by Q&A

➢ View Tab



1. Themes:

- This section allows you to choose from a variety of pre-defined color themes for your report. Each theme applies a consistent color scheme to all visualizations, ensuring a cohesive look throughout the report.

2. Page View:

- **Scale to Fit:** Adjusts the view of the report page to fit within the current window size. This is useful for seeing the entire page without needing to scroll.
- **Actual Size:** Displays the report page at its actual size, which might require scrolling if the page is larger than the window.

- **Fit to Width:** Adjusts the view so that the width of the report page fits within the window, potentially requiring vertical scrolling.

3. Mobile Layout:

- **Mobile Layout:** This option allows you to design and preview a mobile-friendly version of your report. You can adjust how your visuals will appear on mobile devices, ensuring a good user experience on smaller screens.

4. Page Options:

- **Gridlines:** Toggles the display of gridlines on the report page, which can help in aligning objects more precisely.
- **Snap to Grid:** When enabled, this option ensures that objects on the page snap to the nearest gridline, aiding in precise placement and alignment.
- **Lock Objects:** Prevents objects on the report page from being moved or resized accidentally. This is useful once you've finalized the layout of your report.

5. Filters:

- This option opens or closes the Filters pane, where you can manage the filters applied to your report. Filters control what data is displayed in your visualizations**.**

6. Pane Manager:

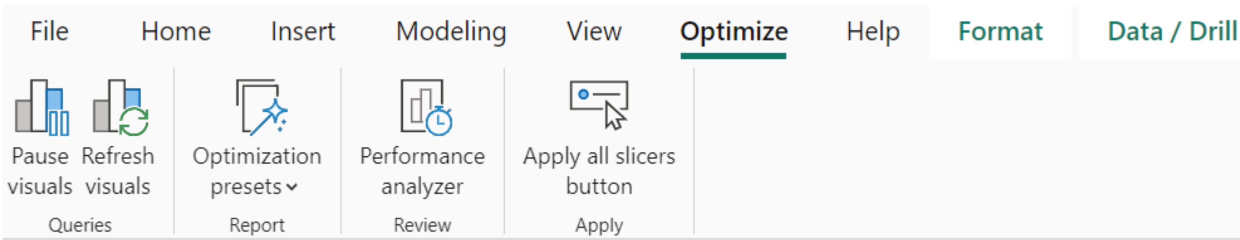
- **Pane Manager:** This dropdown allows you to manage the visibility of different panes (like Filters, Visualizations, Fields) within the Power BI interface, providing a cleaner workspace.

7. Show Panes:

- **Data:** Displays the Data pane, where you can view and manage your data tables and fields.
- **Build:** Opens the Visualizations pane, where you can add and customize different visual elements to your report.
- **Format:** Opens the Format pane, where you can adjust the appearance of your visualizations.
- **Bookmarks:** Manages bookmarks, which are used to capture the current state of a report page, including filters and slicers. Bookmarks can be used to create interactive storytelling or navigation within reports.
- **Selection:** Opens the Selection pane, where you can manage the visibility and layering order of objects on the report page.
- **Performance Analyzer**: This tool helps you analyze the performance of your report by showing the load time for each visual on the page. It's useful for identifying and optimizing slow-running visuals.

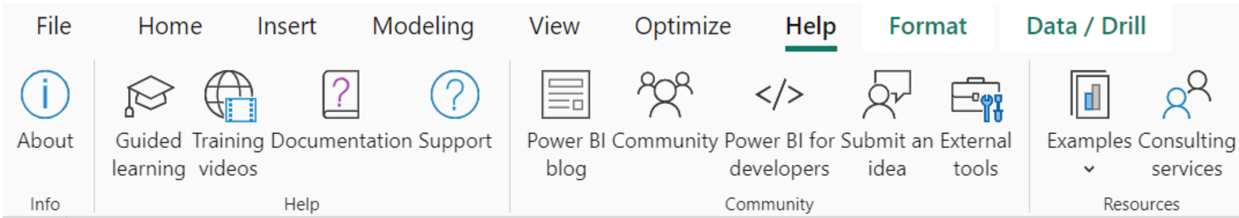
8. **Sync Slicers: Sync Slicers:** This feature allows you to synchronize slicers across different pages of a report. When a user selects a value in a slicer on one page, the same selection can be automatically applied to slicers on other pages.

➢ Optimize Tab



1) **Pause Visuals:**
    - This option allows you to temporarily pause the rendering of visuals in your report. When working with large datasets or complex visuals, pausing can help improve performance while you make changes or updates to the report. Once you're done, you can resume the visuals to see the final results.
2) **Refresh Visuals:**
    - This option refreshes all visuals in the report, ensuring they display the most current data. It is particularly useful after pausing visuals or making changes to the data model or filters, as it updates all visuals with the latest information.
3) **Optimization Presets:**
    - Optimization Presets: This feature allows you to apply predefined settings to optimize the performance of your report. These presets may adjust various aspects of the report, such as query execution, data refresh, or visual rendering, to improve speed and efficiency.
4) **Performance Analyzer:**
    - Performance Analyzer: This tool helps you analyze the performance of your report by providing detailed information about the load time of each visual. You can use this data to identify which visuals are slowing down the report and optimize them accordingly.
5) **Apply All Slicers Button:**
    - Apply All Slicers Button: This feature adds a button to your report that users can click to apply all slicer selections at once. This can improve performance by reducing the number of queries sent to the data source, as all slicer changes are applied simultaneously rather than individually.

➢ Help Tab



- **Guided Learning:** This provides access to structured learning resources, likely offering tutorials or courses to help users understand and master the software.

- **Training Videos:** This option probably offers video tutorials that walk users through various features and functionalities of the software.

- **Documentation:** Links to the official documentation where users can find detailed information about features, how-to guides, and troubleshooting tips.

- **Support:** Provides access to support resources, which could include a knowledge base, FAQs, or direct contact options for customer service.

- **Power BI Community Blog:** A link to the community blog where users can find articles, updates, and discussions about the software.

- **Power BI for Developers:** A section dedicated to developers, providing tools, APIs, and other resources for customizing or extending the software's capabilities.

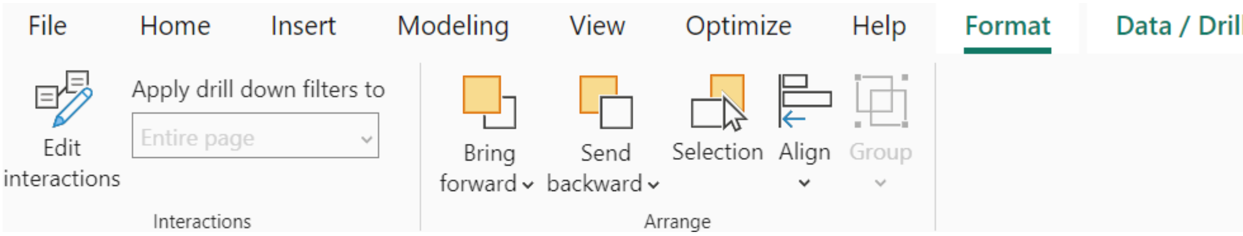
- **Submit an Idea:** Allows users to submit suggestions or ideas for new features or improvements directly to the development team.

- **External Tools:** Provides access to additional tools that can be integrated with the software for extended functionality.

- **Examples:** Likely contains sample data sets, reports, or templates that users can reference or use as a starting point for their own work.

- **Consulting Services:** Offers access to professional consulting services for users who need more personalized help or advanced support.

➢ Format Tab



- **Edit Interactions**: Allows you to customize how visuals on the page interact with each other. For example, when you click on a chart, you can determine how it affects other visuals on the same page.

- **Apply Drill Down Filters To:** This dropdown menu lets you choose where to apply drill-down filters, such as the entire page or just selected visuals. However, it appears to be grayed out in the image, meaning it might not be currently applicable or requires certain conditions to be enabled.

- **Bring Forward:** This option allows you to bring selected elements (like visuals, shapes, or text boxes) closer to the front of the stacking order on the page. This is useful when elements overlap and you want a particular item to be on top.

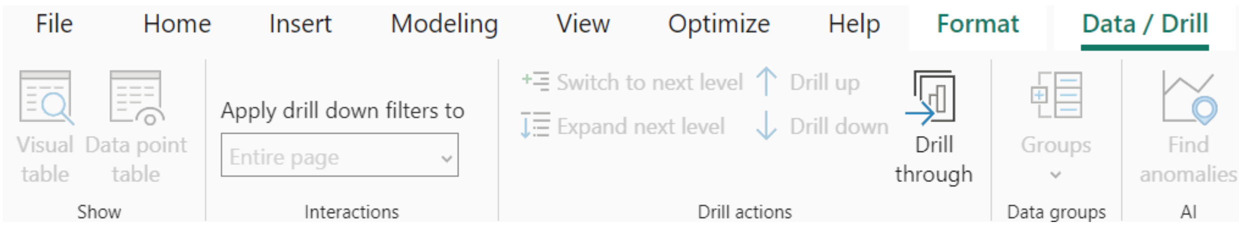
- **Send Backward:** This option does the opposite of "Bring Forward" by sending selected elements further back in the stacking order, allowing other elements to appear in front.

- **Selection:** This is a tool to help you select elements on the page, especially useful when you have multiple overlapping objects and need to select something specific.

- **Align:** Offers options to align selected elements relative to each other or to the page. This can include aligning objects to the left, right, center, top, or bottom.

- **Group:** Although this option is grayed out, it would typically allow you to group multiple selected elements together, so they move and format as a single unit.

➢ Data\Drill Tab



- **Visual Table (grayed out):** This option would display a visual representation of the data in a table format, allowing you to see the underlying data behind the visual elements in your report.

- **Data Point Table (grayed out):** Similar to the Visual Table, this would show a table of data points related to a selected data visual or interaction.

- **Apply Drill Down Filters To:** This dropdown menu allows you to specify where drill-down filters should be applied, such as to the entire page or specific visuals.

- **Switch to Next Level (grayed out):** This feature lets you move to the next hierarchical level of your data. It might be disabled if the data structure doesn't support this action in the current context.

- **Expand Next Level (grayed out):** Similar to "Switch to Next Level," but instead of switching, it expands to show data from the next level in the hierarchy.

- **Drill Up (grayed out):** Allows you to move up one level in your data hierarchy after drilling down.

- **Drill Down (grayed out):** Enables drilling down into more detailed levels of data within a visual, such as going from yearly data to monthly data.

- **Drill Through:** This allows you to navigate to a different page or view within the report to see more detailed information based on the context of the selected data point.

- **Groups:** Provides options to create and manage groups within your data, enabling you to categorize or aggregate data points for easier analysis.

- **Find Anomalies:** A feature that likely uses AI to detect and highlight unusual patterns or outliers in your data, helping you to identify areas that may require further investigation.