

Chapter-22 Creating a Dashboard in Power BI

A **Dashboard** in Power BI is a collection of visualizations (charts, tables, maps, etc.) from one or more reports that are presented in a unified, interactive view. Dashboards are designed to provide a high-level summary of your data and key metrics in a single view, making it easier to monitor and analyze your data at a glance.

Power BI dashboards are often used for real-time monitoring, tracking performance, or making quick decisions based on the insights from the data.

Steps to Create a Dashboard in Power BI



Step 1: Prepare Your Data and Create Reports

Before you can create a dashboard, you need to have **reports** in Power BI. A report is a collection of visuals based on your dataset.

1. **Import Data:** Load your data into Power BI and create reports by adding charts, tables, and other visualizations.
2. **Create Visualizations:** Use different charts (bar, line, pie, etc.) and tables to visualize your data. Each of these visuals will eventually be added to the dashboard.
3. **Design the Report:** Arrange the visuals in a meaningful way to highlight key insights and metrics.

Step 2: Publish Your Report to Power BI Service

Once you have created your report, the next step is to publish it to the Power BI Service.

1. **Save Your Power BI File:** Save your Power BI Desktop file (PBIX).
2. **Publish to Power BI Service:** In Power BI Desktop, click **Publish** on the Home tab. Log into your Power BI account and select a workspace where the report will be stored.

Step 3: Create a New Dashboard

Once your report is published to Power BI Service, you can create a dashboard.

1. **Log into Power BI Service:** Open Power BI Service and log into your account.
2. **Go to the Workspace:** Navigate to the workspace where your report is stored.
3. **Create a New Dashboard:**
 - On the left side, click on **Dashboards**.
 - Click on **Create** in the top-right corner and select **Dashboard**.
 - Give your dashboard a name, and click **Create**.

Step 4: Pin Visuals to the Dashboard

Now, you will add visualizations from your report to the dashboard.

1. **Open Your Report:** From your workspace, open the report that contains the visualizations you want to pin to the dashboard.
2. **Pin Visuals:**
 - Hover over any visualization in your report, and you'll see a **pin icon** (a pushpin).
 - Click the pin icon, and a dialog will appear asking where you want to pin the visual.
 - Choose the dashboard you just created or select an existing one to add the visualization to.
 - Click **Pin**.
3. **Repeat** for other visuals that you want to add to the dashboard.

Step 5: Arrange the Dashboard Layout

Once all your visuals are pinned to the dashboard, you can arrange them to create a cohesive and meaningful layout.

1. **Drag and Drop:** Use drag-and-drop to position visuals where you want them on the dashboard.
2. **Resize:** Resize the visuals to fit the layout and to highlight important information.
3. **Add Titles and Text:** You can also add **Text Boxes** for titles or explanations by clicking the **Text Box** button in the top ribbon.

Step 6: Customize Your Dashboard

You can customize your dashboard further to make it more interactive and user-friendly.

1. **Tile Settings:** You can click the ellipsis (three dots) on each tile to change settings like title, size, or other display options.

2. **Alerts:** Set up **alerts** on KPI visuals or data points to get notified when certain thresholds are met. For example, you can set an alert to notify you when sales drop below a specific amount.
3. **Themes:** Customize the color scheme of your dashboard by applying a theme to make it more visually appealing and aligned with your company's branding.

Step 7: Share and Publish the Dashboard

Once your dashboard is complete, you can share it with others or publish it to your organization.

1. **Share the Dashboard:** Click the **Share** button at the top of the dashboard to invite others to view or collaborate on the dashboard.
 2. **Embed in Website:** You can also **embed** the dashboard in your website or app, allowing external users to view the dashboard without requiring a Power BI account.
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Types of Visuals for Dashboards

A **dashboard** is only effective if it conveys the right insights clearly. Here are some common types of visualizations you can add to your dashboard:

1. **KPI Indicators:** Key Performance Indicators (KPIs) provide a quick overview of how metrics are performing (e.g., sales revenue, profit margin).
 2. **Bar/Column Charts:** Good for showing comparisons across different categories.
 3. **Line Charts:** Useful for showing trends over time.
 4. **Pie Charts:** Display the percentage share of different categories.
 5. **Tables:** Great for displaying detailed data, especially when users need to see precise numbers.
 6. **Maps:** Useful for showing geographical data in a visually intuitive format.
 7. **Cards:** Show important metrics or numbers in a large, easy-to-read format.
 8. **Scatter Plots:** Great for visualizing relationships between two variables.
 9. **Gauge Charts:** Show progress toward a goal, such as a sales target.
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Tips for Creating Effective Dashboards

1. **Keep It Simple:** Avoid clutter. Focus on key metrics that matter most to your audience and business goals.
2. **Use Consistent Colors:** Stick to a consistent color scheme to maintain clarity. Use your company's branding colors if possible.
3. **Limit the Number of Visuals:** Too many visuals can make the dashboard overwhelming. Select only the most impactful visuals.
4. **Focus on Key Metrics:** Highlight KPIs that provide actionable insights and are tied to business goals.
5. **Interactive Elements:** Use slicers, filters, and drill-through functionality to make your dashboard interactive.

6. **Prioritize Readability:** Ensure text, labels, and legends are clear and easy to read.
 7. **Maintain a Logical Flow:** Arrange visuals logically, so users can easily navigate through the dashboard and understand the data story.
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Advanced Features for Dashboards

1. **Real-Time Dashboards:** You can set up real-time dashboards to display the most up-to-date data. Power BI supports real-time data streaming, so you can monitor live metrics, such as sales or website activity, as they happen.
2. **Cross-Filtering:** When you interact with one visualization, it can affect others. For instance, clicking on a bar in a bar chart can filter other visuals on the dashboard to show data only for that specific category.
3. **Dashboard Themes:** You can apply custom themes to your dashboard to change colors, fonts, and layout. This helps in maintaining brand consistency and creating a more visually appealing interface.
4. **Comments and Notes:** Power BI allows you to add comments on your dashboard, which is helpful for collaborative environments where team members can discuss insights directly within the dashboard.