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✓ 100 XP



Describe considerations for data visualization

5 minutes

After you've created a model, you can use it to generate data visualizations that can be included in a report.

There are many kinds of data visualization, some commonly used and some more specialized. Power BI includes an extensive set of built-in visualizations, which can be extended with custom and third-party visualizations. The rest of this unit discusses some common data visualizations but is by no means a complete list.

Tables and text

Product Sales

Name	Quantity	
Bolts	2	\$302.91
Hammer	4	
Nails	1	Revenue
Screwdriver	2	
Screws	2	
Wrench	4	
Total	15	

Tables and text are often the simplest way to communicate data. Tables are useful when numerous related values must be displayed, and individual text values in cards can be a useful way to show important figures or metrics.

Bar and column charts

Revenue by City and Category

Category ● Hardware ● Tools

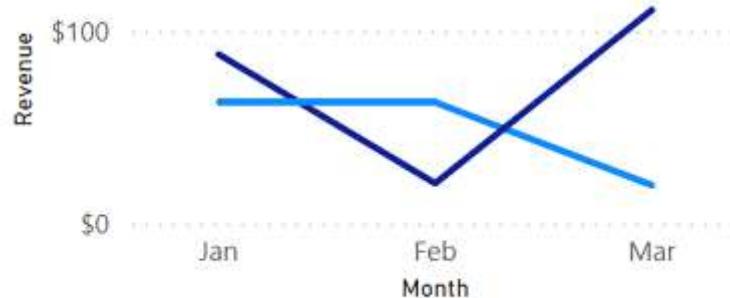


Bar and column charts are a good way to visually compare numeric values for discrete categories.

Line charts

Revenue by Month and Category

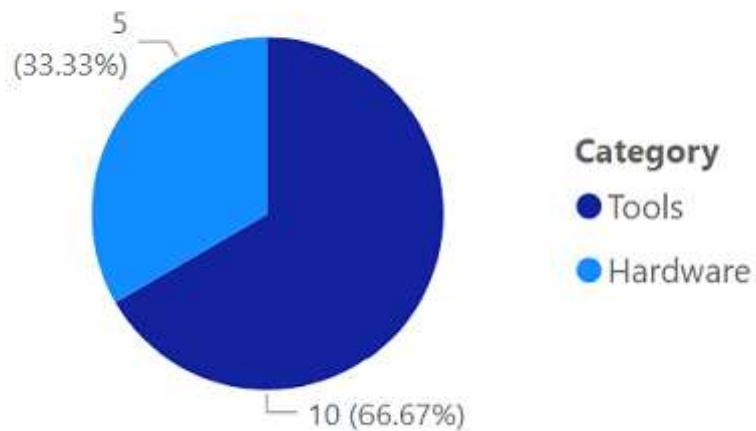
Category ● Hardware ● Tools



Line charts can also be used to compare categorized values and are useful when you need to examine trends, often over time.

Pie charts

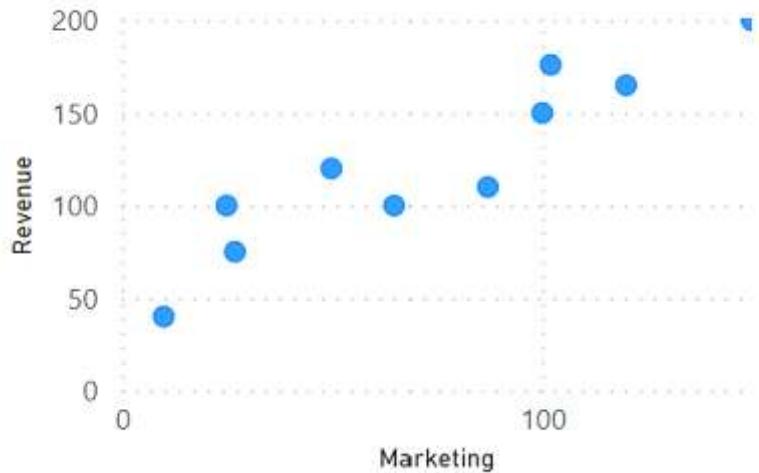
Quantity by Category



Pie charts are often used in business reports to visually compare categorized values as proportions of a total.

Scatter plots

Marketing Spend vs Revenue



Scatter plots are useful when you want to compare two numeric measures and identify a relationship or correlation between them.

Maps

Revenue by City



Maps are a great way to visually compare values for different geographic areas or locations.

Interactive reports in Power BI

The screenshot shows the Power BI Desktop interface with the following elements:

- Top Bar:** Untitled - Power BI Desktop, File, Home, Insert (selected), Modeling, View, Help, Search.
- Insert Tab:** New page, New visual, More visual, Visuals, Q&A, Key influencers, Decomposition tree, Smart narrative, Paginated report, Power Apps, Power Automate (preview), Power Platform, Text, Buttons, Shapes, Image, Add a sparkline, Sparklines.
- Report Content:**
 - Sales Report:** Product Sales table (Hammer: 2, Screwdriver: 3, Wrench: 3, Total: 7) and a pie chart titled "Quantity by Category" showing Hardware (blue) and Tools (dark blue).
 - Quantity by Category:** A bar chart titled "Sales by City and Category" comparing New York, Seattle City, and Los Angeles across Hardware and Tools categories.
 - Revenue by Month:** A line chart showing revenue increasing from \$100 in Jan to \$61.97 in Mar.
 - Revenue by City:** A map of Seattle and surrounding areas with callouts for revenue values like \$100, \$100, and \$61.97.
- Fields Panel:** Displays the Fields pane with sections for Visualizations, Fields, and Values, showing filters applied to Customer, Product, and Time dimensions.
- Page Navigation:** Page 1 of 1.

In Power BI, the visual elements for related data in a report are automatically linked to one another and provide interactivity. For example, selecting an individual category in one

visualization will automatically filter and highlight that category in other related visualizations in the report. In the image above, the city *Seattle* has been selected in the **Sales by City and Category** column chart, and the other visualizations are filtered to reflect values for Seattle only.

Next unit: Exercise – Explore fundamentals of data visualization with Power BI

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