

1. What are the different charts supported in Power BI?

Ans: Different charts supported in Power BI are:

1. Column & Bar Chart
2. Line Chart
3. Pie Chart
4. Scatter Plot
5. Matrices
6. Tables
7. Maps
8. Gauges
9. Cards

2. When to use which chart, explain with one example.

Ans: Use cases of each type of chart,

1. **Bar & Column charts:** (2 or more categories) used for comparison across categories.

Ex: We want to compare the revenue generated by different products.

2. **Line chart:** To analyze trends over a period of time.

Ex: We can use a line chart to plot the revenue trend over a quarter, a month or over a year.

3. **Pie chart:** Useful for proportions within a whole.

Ex: We can use a pie chart to visualize the percentage of revenue generated by each type of product out of the overall revenue.

4. **Scatter Plot:** Used to identify relationships between 2 variables.

Ex: We can visualize whether there is a relationship between the amount spent per customer and their age.

5. **Matrices:** They are like Pivot tables. They display data across multiple dimensions. You can drill-down, summarize and also apply conditional formatting.

Ex: We can create a matrix table to summarize revenue generated per product across multiple countries.

6. **Tables:** They present data in a grid-like format. Ideal for detailed information. You can sort, filter and apply conditional formatting.
Ex: We can use a page with a detailed customer table as a drill through destination. If we want to see all the details about the customers according to our criteria we can drill-through and access that data.
 7. **Map Visualization:** Used for geographical data. They help you visualize information across different regions or locations making it easy to see patterns, trends and outliers.
Ex: We can directly show and label the countries where revenue is generated on a map.
 8. **Gauges:** Gauges are useful for displaying progress towards a goal or a target. They provide a quick visual of how close you are reaching a key metric like sales targets or budget goals.
Ex: We can visualize how our quarterly progress towards reaching our revenue target.
 9. Cards highlight a single data point such as total revenue or average sales. They are simple, clear and perfect for emphasizing important metrics in your reports.
Ex: We can use cards to display KPIs like Total Revenue, highest sales etc.
3. What is the difference between matrix visual and table visual.

Ans: Tables: Used to view detailed breakdown of data in a tabular format.

Ex: A customer table will display all the information like Id, name, products bought, country, city etc.

Matrix: Groups and summarizes data in a tabular format. It performs similar to Pivot tables from Excel.

Ex: A matrix showcasing the breakdown of revenue grouped by different products per country.