Task - 2: Data Visualization & Storytelling (Interview Questions & Answers)

1. What is the importance of data visualization?

Data visualization helps transform complex data into visual formats like charts and graphs, making it easier to identify patterns, trends, and outliers. It communicates insights clearly, supports data-driven decisions, and enhances understanding. Example: In the Superstore dashboard, visualizing 'Sales by Category' helps managers instantly see performance trends.

2. When do you use a pie chart vs bar chart?

Pie Chart: Use when showing parts of a whole with few categories (3–5). Example: Profit distribution by Category. Bar Chart: Use to compare values across different categories. Example: Sales by State or Market. Avoid pie charts with too many slices.

3. How do you make visualizations more engaging?

Use consistent and meaningful colors, add interactive filters and slicers, include KPIs and cards, keep visuals clean, and use tooltips/drill-downs for details. Example: Cards for Total Sales and Profit instantly grab attention.

4. What is data storytelling?

Data storytelling combines data, visuals, and narrative to communicate insights. It explains what is happening (data), why it’s happening (context), and what should be done (actionable insight). Example: Explaining why sales peaked in May 2014 shows context behind trends.

5. How do you avoid misleading visualizations?

Use proper scales, avoid distorted proportions, label clearly, show complete data context, and maintain consistent time intervals. Example: Displaying full-year data prevents misleading impressions.

6. What are best practices in dashboard design?

Keep it simple and focused, maintain visual hierarchy, use consistent colors and fonts, ensure interactivity, and include titles and legends. Example: Superstore dashboard uses slicers for Year and Quarter to enhance analysis.

7. What tools have you used for visualization?

Common tools: Power BI, Tableau, Excel, and Python (Matplotlib/Seaborn). Example answer: I primarily use Power BI for interactive dashboards, integrating data from Excel and SQL, and applying DAX for KPIs.