Question 1: Create a Card Visual to show Total Sales

Answer:

A **Card Visual** in Power BI is a simple yet powerful visual that displays a **single aggregated value**, such as total sales, total profit, or total orders. It is commonly used to highlight **Key Performance Indicators (KPIs)** on dashboards.
In this question, the Card Visual is used to represent **Total Sales**, which gives an instant overview of the organization's revenue performance. It helps decision-makers quickly understand how the business is performing without analyzing detailed tables or charts.

Steps to Create:

1. Open Power BI Desktop
2. Load the **Global Superstore** dataset
3. Select **Card Visual** from the Visualizations pane
4. Drag the **Sales** field into the *Values* section
5. Format the card (currency symbol, title, font size)

Business Importance:

- Provides a **quick snapshot** of revenue
- Useful for executive dashboards
- Helps track business growth at a glance

Question 2: Donut Chart – Total Sales by Ship Mode

Answer:

A **Donut Chart** is a variation of a pie chart that shows how different categories contribute to a total value. It is ideal for analyzing **percentage-wise contribution**.
In this visual, Total Sales are broken down by **Ship Mode** to understand which shipping method contributes the most to overall revenue.

Steps:

1. Insert **Donut Chart**
2. Drag **Ship Mode** to *Legend*
3. Drag **Sales** to *Values*
4. Enable data labels and percentages

Analysis & Insight:

The chart shows that **Standard Class shipping contributes the highest sales**, indicating it is the most commonly used and cost-effective shipping method.
Business Use:

- Helps optimize logistics strategy
- Supports decisions on shipping cost and delivery planning

Question 3: Line Chart – Sales Trend Over Time

Answer:

A **Line Chart** is used to analyze trends and patterns over time. It helps identify growth, decline, or seasonality in data.
In this case, the Line Chart displays **Sales over time (monthly/yearly)** to understand how sales performance changes across different periods.

Steps:

1. Insert **Line Chart**
2. X-axis → Order Date (Month & Year)
3. Y-axis → Sales
4. Format axis and labels

Observation:

Sales show an **overall upward trend**, with noticeable peaks during year-end months, suggesting seasonal demand and festive sales periods.

Business Value:

- Helps forecast future sales
- Supports strategic planning and budgeting

Question 4: Bar Chart – Sales by Category

Answer:

A **Bar Chart** is used to compare values across multiple categories. It is effective for ranking and comparison.
This chart compares **Total Sales across Product Categories** such as Technology, Furniture, and Office Supplies.

Steps:

1. Insert **Bar Chart**
2. Axis → Category
3. Values → Sales

Analysis:

The **Technology category generates the highest sales**, indicating strong demand for tech products.
Business Importance:

- Helps identify top-performing product categories
- Guides inventory and marketing strategies

Question 5: Matrix – Monthly Sales by Category

Answer:

A **Matrix Visual** displays data in a tabular format with rows and columns, allowing multi-level analysis.
Here, it shows **Sales by Month and Category**, enabling comparison across time and product types.

Steps:

1. Insert **Matrix Visual**
2. Rows → Month
3. Columns → Category
4. Values → Sales

Insight:

Sales are highest during **November and December**, especially in the Technology category.

Business Use:

- Helps track monthly performance
- Supports seasonal planning

Question 6: Decomposition Tree – Sales Breakdown

Answer:

A **Decomposition Tree** is an advanced visual used to analyze data by breaking it down into multiple dimensions.
It helps identify **key factors contributing to total sales**, such as Category, Region, and Segment.

Steps:

1. Insert **Decomposition Tree**
2. Analyze → Sales
3. Explain by → Category, Region, Segment

Insight:

Technology products sold to the Consumer segment contribute the most to total sales.
Business Value:

- Identifies growth drivers
- Supports strategic decision-making

Question 7: Scatter Chart – Discount vs Profit

Answer:

A **Scatter Chart** analyzes the relationship between two numerical variables.
This chart shows how **Discount levels impact Profit**, helping identify loss-making discount strategies.

Steps:

1. Insert **Scatter Chart**
2. X-axis → Discount
3. Y-axis → Profit
4. Details → Sub-Category

Observation:
Higher discounts often result in **lower or negative profit**, especially for certain sub-categories.

Business Insight:

- Helps optimize pricing strategy
- Prevents unnecessary losses

Question 8: Funnel Chart – Orders by Customer Segment

Answer:

A **Funnel Chart** represents data distribution across categories.
It shows the number of orders placed by different **Customer Segments**.

Steps:

1. Insert **Funnel Chart**
2. Category → Segment
3. Values → Order Count

Insight:
The **Consumer segment dominates total orders**, indicating it is the largest customer base.

Business Use:

- Helps target key customer segments
- Improves marketing focus

Question 9: Waterfall Chart – Profit Contribution

Answer:

A **Waterfall Chart** shows how individual components contribute to the final value.
Here, it illustrates **profit contribution by category and country**.

Insight:
Technology contributes positively to profit, while Furniture shows mixed results.

Question 10: Dual Axis Line Chart – Sales vs Profit

Answer:

A **Dual Axis Line Chart** compares two related metrics over time.
This chart compares **Sales and Profit trends**, highlighting periods where profit does not increase despite high sales.

Insight:
Some months show high sales but low profit, indicating high costs or heavy discounts.

Note :
This Power BI visuals assignment demonstrates how different visualizations help transform raw data into meaningful business insights, supporting data-driven decision-making.