

# **Power BI Visuals**

## **Assignment Questions**

### **Common Fields Used:**

- Order Date
- Country / Region /
- Market Category / Sub-Category
- Sales Profit
- Quantity
- Customer Name

**Question 1 : Create a Card Visual to show Total Sales.**

**Answer: Card Visual – Total Sales**

#### **Steps:**

1. Open Power BI Desktop
2. Click Get Data → Text/CSV
3. Load Global Superstore dataset
4. Go to Report View
5. Select Card visual from Visualizations pane
6. Drag Sales field into Values
7. Ensure aggregation is Sum
8. Format → Display Units → Millions (optional)

#### **Result:**

- Displays Total Sales of the business

**Question 2 : Create a Donut Chart showing Total Sales by Ship Mode and which ship mode generates the highest sales?**

**Answer: Donut Chart – Total Sales by Ship Mode**

**Steps:**

1. Select Donut Chart visual
2. Drag Ship Mode to Legend
3. Drag Sales to Values
4. Ensure aggregation is Sum
5. Turn on Data Labels for clarity

**Insight:**

- Standard Class generates the highest sales

**Question 3 : Create a Line Chart showing the Sales Trend over time (by Month and Year). Is there any noticeable seasonal pattern in sales?**

**Answer: Line Chart – Sales Trend Over Time**

**Steps:**

1. Select Line Chart
2. Drag Order Date to X-Axis
3. Expand date hierarchy → Year → Month
4. Drag Sales to Y-Axis
5. Set aggregation to Sum
6. Sort by Order Date

**Observation:**

- Sales increase over time

- Seasonal pattern visible with peak sales in year-end months (December)

**Question 4 : Create a Bar Chart to compare Sales by Category.**

**Answer: Bar Chart – Sales by Category**

**Steps:**

1. Select Bar Chart
2. Drag Category to Axis
3. Drag Sales to Values
4. Ensure aggregation is Sum
5. Sort descending by Sales

**Result:**

- Technology has the highest sales

**Question 5 : Create a Matrix Visual to display Sales by Month and Category and identify the month with the highest sales.**

**Answer: Matrix – Sales by Month and Category**

**Steps:**

1. Select Matrix visual
2. Drag Order Date → Month to Rows
3. Drag Category to Columns
4. Drag Sales to Values
5. Enable Totals in formatting

**Insight:**

- December shows the highest sales overall

**Question 6 : Create a Decomposition Tree for Sales Breakdown.****Answer: Decomposition Tree – Sales Breakdown****Steps:**

1. Select Decomposition Tree
2. Drag Sales into Analyze
3. Drag the following into Explain by:
4. Country / Market
5. Category
6. Sub-Category
7. Ship Mode
8. Click the + icon to explore breakdowns

**Purpose:**

- Helps identify key drivers of sales

**Question 7 : Create a Scatter Chart to compare Discount vs. Profit by Sub-Category. Are there any outliers where high discounts resulted in negative profit?****Answer: Scatter Chart – Discount vs Profit****Steps:**

1. Select Scatter Chart

2. Drag Discount to X-Axis
3. Drag Profit to Y-Axis
4. Drag Sub-Category to Details
5. Drag Sales to Size

**Insight:**

- High discounts often lead to negative profit
- Visible outliers confirm loss-making discounts

**Question 8 : Use a Funnel Chart to show the number of orders by Customer Segment.**

**Answer: Funnel Chart – Orders by Customer Segment**

**Steps:**

1. Select Funnel Chart
2. Drag Segment to Group
3. Drag Order ID to Values
4. Set aggregation to Count

**Result:**

- Consumer segment has the highest number of orders

**Question 9 : Use a Waterfall Chart to analyze how Profit changes by Category within the countries.**

**Answer: Waterfall Chart – Profit by Category within Countries**

**Steps:**

1. Select Waterfall Chart
2. Drag Category to Category
3. Drag Profit to Y-Axis
4. Drag Country to Breakdown
5. Ensure Profit aggregation is Sum

**Purpose:**

Shows how each category adds or reduces profit across countries

**Question 10 : Create a Dual-Axis Line Chart to show Total Sales and Profit Over Time (by Month).**

**Answer: Dual-Axis Line Chart – Sales & Profit Over Time**

**Steps:**

1. Select Line Chart
2. Drag Order Date → Month to X-Axis
3. Drag Sales to Y-Axis
4. Drag Profit to Secondary Y-Axis
5. Go to Format → Y-Axis → Secondary Axis → On

**Insight:**

- Sales and profit trends compared together
- Highlights periods of high sales but low profit