**Power BI Dashboard Documentation for Global-Superstore Analysis**

**Introduction:** The "Global-Superstore" dataset provides comprehensive sales data, including information on product categories, customer segments, and sales trends over time. This documentation outlines the steps taken to create the Power BI dashboard, including any custom calculations and transformations applied to derive key metrics.

**Steps to Create the Dashboard**

**1. Import the Dataset**

* Open Power BI Desktop.
* Import the "Global-Superstore" dataset by selecting Home > Get Data > Excel.
* Load the dataset into Power BI.

**2. Data Cleaning and Transformation**

* In the Power Query Editor, inspect the dataset for any missing values or inconsistencies.
* Convert the 'Order Date' column to the datetime format:
  + Select the 'Order Date' column.
  + Change the data type to Date/Time.

**3. Create Custom Columns**

* **Year-Month Column:**
  + Create a custom column to extract the year and month from the 'Order Date'.
  + Year-Month = FORMAT([Order Date], "YYYY-MM")
* **Profit Margin Calculation:**
  + Add a new calculated column to compute the profit margin.
  + Profit Margin = [Profit] / [Sales]

**4. Define Key Metrics**

* **Total Sales Revenue:**
  + Create a measure for total sales.
  + Total Sales Revenue = SUM('Global-Superstore'[Sales])
* **Sales by Product Category:**
  + Create a measure for sales by category.
  + Sales by Category = SUMMARIZE('Global-Superstore', 'Global-Superstore'[Category], "Sales", SUM('Global-Superstore'[Sales]))
* **Top Selling Products:**
  + Create a table to display the top 10 selling products.
  + Use the 'Product Name' column and sort by the 'Sales' measure.
* **Sales Trend Over Time:**
  + Create a line chart with 'Order Date' on the x-axis and the 'Sales' measure on the y-axis.
* **Monthly Sales Comparison:**
  + Create a bar chart with 'Year-Month' on the x-axis and the 'Sales' measure on the y-axis.

**5. Create Visualizations**

* **Total Sales Revenue:**
  + Create a card visualization to display the total sales revenue.
* **Sales by Product Category:**
  + Create a bar chart to display sales by product category.
* **Top Selling Products:**
  + Create a table visualization to display the top 10 selling products.
* **Sales Trend Over Time:**
  + Create a line chart to show the sales trend over time.
* **Monthly Sales Comparison:**
  + Create a bar chart to compare monthly sales.

**6. Add Interactive Features**

* **Slicers:**
  + Add slicers for 'Category', 'Sub-Category', and 'Region' to allow users to filter the data.
* **Drill-through:**
  + Enable drill-through on product details for deeper insights into individual products.
* **Filtering and Highlighting:**
  + Implement cross-filtering between visualizations to allow for dynamic interaction.

**7. Design and Formatting**

* **Layout:**
  + Arrange the visualizations in a logical and intuitive layout.
  + Ensure that the dashboard is clean and not overcrowded.
* **Titles and Labels:**
  + Add clear titles and labels to each visualization.
  + Include axis labels where necessary.
* **Colors and Themes:**
  + Use a consistent color theme to enhance the visual appeal of the dashboard.
  + Apply conditional formatting to highlight key insights.

**8. Performance Optimization**

* **Data Model Optimization:**
  + Remove any unnecessary columns to reduce the size of the data model.
  + Ensure that relationships between tables are correctly defined.
* **DAX Optimization:**
  + Use efficient DAX calculations to improve performance.
  + Avoid complex calculations in visualizations that can slow down the dashboard.

**Conclusion**

This Power BI dashboard provides valuable insights into the sales performance of the Global-Superstore. By leveraging these insights, the store can optimize its operations, improve inventory management, and enhance customer satisfaction. Future analyses can build on these findings to further refine business strategies and drive growth.