Business Requirements Document (BRD) for Sales Data Analysis:

# Introduction:

The purpose of this document is to outline the business requirements for analyzing sales data. The analysis aims to provide insights into total sales, profit, quantity, year-over-year growth, and performance by state and segment. Visualizations such as sparklines, arrows indicating growth trends, and a bee graph will be used to present the data effectively.

# Scope:

The analysis will focus on sales data, including total sales, profit, and quantity. The analysis will cover a specific time period and provide insights at the monthly and state levels. It will also compare year-over-year growth and segment performance.

# Objectives:

1. Determine the total sales, profit, and quantity for the current year (CY).
2. Calculate year-over-year (YOY) growth for sales, profit, and quantity.
3. Visualize sales, profit, and quantity trends using sparklines, highlighting maximum and minimum values.
4. Compare sales and profit by state using a bee graph.
5. Provide a dropdown menu to select specific measures (sales, profit, or quantity) for monthly analysis by segment.
6. Identify states performing above and below the average sales and profit.

# Assumptions:

1. The sales data is accurate and up-to-date.
2. The database includes information on sales, profit, quantity, states, and segments.
3. The data is properly structured and formatted for analysis in Tableau.
4. All required calculations and aggregations are feasible with the available data.

# Limitations:

1. The analysis is based on historical sales data and may not reflect future performance accurately.
2. The accuracy of the analysis depends on the quality of the data and any potential data discrepancies.
3. External factors, such as market conditions or promotions, may influence sales and profit variations.
4. The analysis does not consider factors outside the provided dataset that may affect sales and profit.

# Functional Requirements:

## 6.1 KPI - Total CY Sales:

* Calculate the total sales for the current year.
* Display the value prominently on the dashboard.

## 6.2 KPI - YOY Sales Growth:

* Calculate the year-over-year growth in sales.
* Display an up arrow if the growth is positive; otherwise, display a down arrow.

## 6.3 Sparkline - CY Sales by Months:

* Show a sparkline chart representing sales data over the months of the current year.
* Highlight the maximum and minimum sales values with pointers.

## 6.4 KPI - Total CY Profit:

* Calculate the total profit for the current year.
* Display the value prominently on the dashboard.

## 6.5 KPI - YOY Profit Growth:

* Calculate the year-over-year growth in profit.
* Display an up arrow if the growth is positive; otherwise, display a down arrow.

## 6.6 Sparkline - CY Profit by Months:

* Show a sparkline chart representing profit data over the months of the current year.
* Highlight the maximum and minimum profit values with pointers.

## 6.7 KPI - Total CY Quantity:

* Calculate the total quantity sold for the current year.
* Display the value prominently on the dashboard.

## 6.8 KPI - YOY Quantity Growth:

* Calculate the year-over-year growth in quantity.
* Display an up arrow if the growth is positive; otherwise, display a down arrow.

## 6.9 Sparkline - CY Quantity by Months:

* Show a sparkline chart representing quantity data over the months of the current year.
* Highlight the maximum and minimum quantity values with pointers.

## 6.10 Bee Graph - CY Sales and Profit by States:

* Create a bee graph to compare sales and profit by states.
* The width of the bee graph represents the sales, and the height represents the profit.

## 6.11 Monthly Measures by Segment:

* Provide a dropdown menu to select specific measures (sales, profit, or quantity) for analysis by segment.
* Display the selected measure for each segment on a line chart or bar graph.

## 6.12 States Above and Below Average Sales:

* Calculate the average overall sales.
* Identify states with sales above and below the average.
* Highlight these states on a map or a separate visualization.

## 6.13 States Above and Below Average Profit:

* Calculate the average overall profit.
* Identify states with profit above and below the average.
* Highlight these states on a map or a separate visualization.

# Non-Functional Requirements:

1. The dashboard should have an intuitive and user-friendly interface.
2. The visualizations should be interactive, allowing users to explore the data by filtering and selecting specific elements.
3. The performance of the analysis should be efficient, even with large datasets.
4. The dashboard should be responsive and accessible across different devices and screen sizes.
5. Deliverables:
6. Interactive dashboard with visualizations for total sales, profit, quantity, year-over-year growth, sparklines, bee graph, and segment analysis.
7. User documentation explaining how to navigate and interact with the dashboard.
8. Technical documentation detailing the data sources, calculations, and methodologies used.

## Timeline:

1. The estimated timeline for completing this project is as follows:
2. Data Gathering and Preparation: 1 week
3. Analysis and Visualization Development: 2 weeks
4. Testing and Refinement: 1 week
5. Documentation and Finalization: 1 week
6. Note: The timeline may vary based on the complexity of the dataset and any additional requirements or changes identified during the development process.

# Stakeholders:

Sales and Marketing Managers

Business Analysts

Executive Management Team

# Approval:

The undersigned stakeholders acknowledge that they have reviewed and approved this Business Requirements Document.