Functional Requirements Document (FRD)

Amazon Sales Analysis Dashboard

This Functional Requirements Document outlines the requirements and functionality for the "Amazon Sales Analysis Dashboard". The dashboard is intended to provide interactive analytical insights into sales, profit, customers, categories, and regional performance.

---

2. Dashboard Sections

The dashboard will consist of **three pages**.
 The first page, **Executive Summary**, will present the overall health of the business with high-level KPIs and trends.
 The second page, **Customer Analysis**, will focus on understanding sales performance based on customer behavior and revenue contribution.
 The third page, **Product & Category Insights**, will analyze product-level performance, highlighting top and bottom-performing categories and sub-categories.

---

3. Data Requirements

The dashboard will use fields such as Order Date, Customer Name, Category, Sub-Category, State, Payment Mode, Quantity, Total Sales, Total Cost, and Profit. Additional measures like Profit Margin, Year-to-Date Sales, and Sales Growth will be derived from the dataset to support analytics. The dataset must include transaction-level details to ensure accuracy across time, geography, and customer attributes.

---

4. Filters / Slicers

The dashboard will allow the user to explore data using multiple slicers to adjust the view. These include filters for Date Range, Category, Sub-Category, State, Customer Name, and Payment Mode. The slicers will make the dashboard fully interactive, enabling users to quickly narrow down information for decision-making.

---

5. Visuals / Charts

Different types of visualizations will be used across the three pages. KPI cards will show major business numbers such as Total Sales, Total Profit, Quantity Sold, Profit Margin, and Customer Count. Time-series charts such as line or area graphs will be used to represent

monthly sales and profit trends. Bar and column charts will compare performance by category or state. Donut charts will highlight sales distribution by payment methods. More advanced visuals like decomposition tree, waterfall chart, scatter plot, and treemap will offer deeper exploration of customer and product insights.

6. Interactivity

The dashboard will provide interactive features such as drill-down into lower time levels (year → quarter → month → day), drill-through from summary pages to detailed customer or product pages, cross-filtering where clicking any visual updates related visuals automatically, and interactive tooltips showing additional metrics on hover. Navigation buttons and bookmarks may also be used to improve user accessibility across dashboard pages.

7. Calculations / Measures

Several DAX measures will be used to support insights and KPIs. Key calculations include Total Sales, Total Cost, Total Profit, Profit Margin Percentage, Customer Count, Sales per Order, and Profit per Item. Time-intelligence measures such as Month-to-Date (MTD) Sales, Year-to-Date (YTD) Sales, Previous Year Sales, and Year-over-Year Growth Percentage are included to evaluate performance over time.

8. Export / Reporting Needs

The dashboard should support exporting reports to **PDF** for management review and exporting tabular data to **Excel or CSV** for further offline analysis. The dashboard will also be published to **Power BI Service**, allowing sharing with users over the internet or within a workspace.

9. Notes / Special Instructions

The dashboard should follow a consistent color theme and should be optimized for performance using a star schema and a date dimension table. A mobile-friendly view is also recommended. All calculations should be stored in a dedicated "Measures Table" for organization. Data refresh frequency should be configured to support up-to-date reporting based on business needs.