Product Requirements and Specification Document

Project Name

ShopLens - E-commerce Sales Overview

Description

Develop a Tableau dashboard to analyze e-commerce sales data, providing insights into top products, sales by region, and customer segments. The dashboard must include interactive charts and filters for product categories.

1. Objectives

- Enable business users to visualize and analyze e-commerce sales data.
- Identify top-performing products, key regions, and customer segments.
- Provide interactive filtering for deeper insights.

2. Stakeholders

Role	Responsibility
Product Manager	Requirements, prioritization
Data Analyst	Data preparation, validation
Tableau Developer	Dashboard implementation
Business Users	End-users, feedback

3. Functional Requirements

ID	Requirement
FR1	Display total sales, order count, and average order value (KPIs).
FR2	Show top 10 products by sales volume and revenue.
FR3	Visualize sales distribution by region (map or bar chart).
FR4	Segment sales by customer type (e.g., new vs. returning).
FR5	Provide interactive filters for product categories and date range.
FR6	Enable drill-down from summary to detailed product or region view.
FR7	Allow export of dashboard views to PDF/Excel.

4. Non-Functional Requirements

ID	Requirement
NFR1	Dashboard loads within 5 seconds.
NFR2	Responsive layout for desktop and tablet.
NFR3	Data refreshes daily (automated).
NFR4	Access restricted to authorized users.

5. Data Requirements

Data Entity	Fields (Examples)
Product	Product ID, Name, Category, Price
Sales	Order ID, Date, Product ID, Quantity, Revenue
Customer	Customer ID, Segment (New/Returning), Region
Region	Region ID, Name, Country

- **Data Source:** E-commerce transactional database (CSV/SQL extract)
- **Data Volume:** Up to 100,000 records

6. Dashboard Specifications

Layout

Section	Visualization Type	Description
KPIs	Numeric Cards	Total Sales, Orders, Avg. Order Value
Top Products	Horizontal Bar Chart	Top 10 by sales/revenue
Sales by Region	Map or Stacked Bar Chart	Sales distribution by region
Customer Segments	Pie/Donut Chart	Sales by customer type
Filters	Dropdowns/Sliders	Product Category, Date Range

Interactivity

- Clickable charts for drill-down
- Dynamic filtering updates all visualizations
- Export options for current view

7. User Stories

ID	As a…	I want to…	So that…
US1	Business User	View top products and sales by region	Identify sales opportunities

US2	Analyst	Filter data by category and date	Analyze trends and seasonality
US3	Manager	Export dashboard views	Share insights with stakeholders

8. Acceptance Criteria

- Dashboard displays all required KPIs and charts.
- Filters update all visualizations in real-time.
- Drill-down functionality is operational.
- Data refreshes daily and is accurate.
- Export to PDF/Excel works as expected.
- Access is restricted to authorized users.

9. Technology Stack

Component	Technology
Dashboard	Tableau
Data Source	CSV/SQL Extract
Hosting	Tableau Server/Cloud

10. Milestones & Timeline

Milestone	Target Date
Data Preparation	Week 1
Initial Dashboard Draft	Week 2
Stakeholder Review	Week 3
Final Dashboard Delivery	Week 4

11. Risks & Mitigations

Risk	Mitigation
Data quality issues	Data validation, cleansing
Performance bottlenecks	Optimize queries, limit data
Access/security concerns	Implement user authentication

12. Out of Scope

- Integration with external BI tools

- Real-time data streaming
- Mobile-specific optimization

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13. Appendix

Sample Data Structure:

```
OrderID,OrderDate,ProductID,ProductName,Category,CustomerID,CustomerSegment,Regi
1001,2024-01-01,501,"Widget A","Electronics",C100,"New","North",2,200
```

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