Group 2 - Superstore Sales Analysis Project

Category	
1. Project Planning & Management	
Project Proposal	We are analyzing sales data to find trends in product categories and regions to help improve sales performance.
Project Plan (Timeline & Milestones)	The project runs for 4 weeks, covering data cleaning, analysis, forecasting, and visualization we are done of covering data cleaning, analysis
Task Assignment & Roles	We divided tasks based on interest and learning potential Everyone contributes to discussions
Risk Assessment & Mitigation	Risks: Messy data, difficulty with SQL/Python, and time constraints Solution: Team learning sessions, debugging help, and task prioritization
KPIs (Success Metrics)	Success means understanding sales trends, creating useful visualizations, and giving meaningful insights
2. Literature Review	
Feedback & Evaluation	We will get feedback from our lecturer on our analysis and dashboard
Suggested Improvements	Improvements might include better data cleaning, clearer graphs, or deeper insights
Grading Criteria	Our grade depends on correct data analysis, visualization quality, and clear presentation
3. Requirements Gathering	
Stakeholder Analysis	The sales team and managers need insights on which products and regions perform best
User Stories & Use Cases	Example: "As a sales manager, I want to see best-selling products so I can order more of them"
Functional Requirements	The system should provide sales reports, trends, and forecasts
Non-functional Requirements	The system should be fast, easy to use, and visually clear
4. System Analysis & Design	
Problem Statement & Objectives	The company wants to improve sales by understanding customer buying patterns
Use Case Diagram & Descriptions	Shows how users (sales managers) interact with the system to generate reports
Software Architecture	We will use SQL for data storage, Python for analysis, and Tableau for visualization
Database Design & Data Modeling	
ER Diagram	The database has tables for Customers, Products, Orders, and Sales Regions
Logical & Physical Schema	Tables contain order details, sales amounts, and timestamps
Data Flow & System Behavior	
DFD (Data Flow Diagram)	Data is loaded from a CSV file, cleaned, analyzed, and displayed in Tableau
Sequence Diagram	Shows the steps of querying data and generating sales insights
Activity Diagram	Visualizes how users filter and view sales data
State Diagram	Represents different system states like "Loading Data," "Processing Analysis," and "Displaying Results"
Class Diagram	Defines system objects like Customer,Order and Product
UI/UX Design & Prototyping	
Wireframes & Mockups	Simple dashboard design with filters for time, region, and product category
UI/UX Guidelines	We will use a clean layout with simple, readable charts
5. System Deployment & Integration	
Technology Stack	SQL for storing data, Python for processing, Tableau for visualization
Deployment Diagram	Explains how data flows from storage (SQL) to analysis (Python) to visualization (Tableau)
Component Diagram	Shows different project parts like data input, processing, and output
6. Additional Deliverables	
API Documentation	Not needed for this project since we are using a local dataset
Testing & Validation	We will check if calculations are correct and ensure graphs make sense
Deployment Strategy	The final dashboard will be shared as a Tableau file and a PDF report.

Group Members

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