National University of Computer and Emerging Sciences

Database Project Proposal
Electronics Inventory Management Dashboard

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Introduction

"Electronics Inventory Management Dashboard". This project will utilize Power BI for data visualization and SQL for backend data management. The objective is to effectively manage and analyze inventory levels, sales performance, and supplier information within the electronics sector, enabling data-driven decisions for retail businesses.

1. ## Sales Overview Dashboard:

Display total sales, number of transactions, and average order value for electronic products (e.g., smartphones, laptops).

2. ## Inventory Levels:

Visualize current stock levels for each electronic product, highlighting low-stock items for timely restocking.

3. ## Sales by Product Category:

Analyze sales distribution across categories such as smartphones, laptops, headphones, and smartwatches.

4. ## Top-Selling Products:

Identify best-selling electronic products within a specified period, with filters for category, region, and time.

5. ## Customer Demographics:

Analyze customer age, gender, and location to tailor marketing strategies for electronic products.

6. ## Sales by Region:

Track sales performance across different regions or cities to optimize inventory allocation and promotional campaigns.

7. ## Monthly Sales Trend:

Display a line chart showing sales trends over time, with the ability to drill down into daily, weekly, or monthly data.

8. ## Supplier Performance Dashboard:

Analyze supplier contributions by products supplied, sales volume, revenue generated, and quality metrics (returns and warranty claims). Identifies top-performing suppliers and potential quality issues.

9. ## Sales Forecasting:

Use historical sales data to create forecasts for upcoming months or quarters, aiding in inventory planning.

10. ## Customer Segmentation:

Segment customers based on purchasing behavior related to electronics, enabling targeted marketing campaigns.

11. Sales Discount Performance Metrics:
Provide an analysis of how discounts impact order volume by displaying the discount percentage alongside the count of orders for each discount level

12. Seasonal Sales Analysis:
Understand sales patterns based on seasons or events (e.g., back-to-school sales, holiday promotions).

13. Sales Channel Analysis:
Compare sales performance between online and in-store channels for electronic products.

14. Best-Selling Categories
Rank product categories by total units sold to identify market demand trends. Directs inventory procurement and category-level sales strategies.

15. Warranty and Return Tracking:
Monitor warranty claims and product returns to assess product performance and customer satisfaction.