GLOBAL E-COMMERCE SALES DASHBOARD – Power BI Project

1. Project Notes (What I Performed)

- Connected Power BI to Snowflake cloud database and imported 10,000+ global e-commerce sales records.
- Cleaned data using Power Query by removing null values, duplicates, and correcting data types.
- Transformed data by creating Total Sales column and extracting Year, Quarter, and Month from Order Date.
- Created relationships between tables using Star Schema model.
- Developed DAX measures such as Total Sales, Total Profit, Profit %, Total Orders, Total Customers, and Average Sales.
- Created KPI cards to display key metrics like Total Sales (7.45M), Profit (2.61M), Profit % (35%), Orders (10K), and Customers (4K).
- Built visualizations including bar chart (Sales by Category), column chart (Orders by Country), line chart (Sales Trend), donut chart (Payment Method), and product sales table.
- Created interactive slicer filter panel with Country, Payment Method, Year, Quarter, Month, and Age Group.
- Added reset button and close button for filter panel using bookmarks and buttons.
- Designed professional dashboard layout with dark theme, icons, and proper formatting.
- Enabled cross-filtering interaction between visuals for dynamic analysis.

2. Row-Level Security (RLS) Implementation

- Implemented Row-Level Security to restrict data access based on user roles.
- Created roles using Manage Roles option in Power BI Desktop.
- Applied filters based on Country field to restrict data visibility.

- Tested roles using 'View as Role' feature.
- Published dashboard to Power BI Service and assigned users to specific roles.
- Ensured users can only view data related to their assigned country or region.
- Improved dashboard security and data privacy.

3. Project Outcome

- Analyzed overall business performance using Total Sales, Profit, and Customer metrics.
- Identified Electronics as top performing category.
- Analyzed country-wise order distribution to identify strong markets.
- Identified monthly sales trends and seasonal patterns.
- Identified top performing products such as iPhone 14 and Samsung Galaxy S23.
- Analyzed customer payment preferences.
- Developed fully interactive dashboard for business decision making.
- Implemented Row-Level Security to ensure secure and restricted data access.
- Enabled management to make data-driven decisions using interactive visualizations.

4. Final Project Summary

- Developed a complete Global E-Commerce Sales Dashboard using Power BI.
- Performed data cleaning, transformation, modeling, and visualization.
- Created DAX measures and KPI indicators.
- Implemented interactive filter panel using slicers and bookmarks.
- Applied Row-Level Security for secure data access.
- Delivered an interactive and secure dashboard for business performance analysis.