

Project Title:

Comprehensive Sales Performance Analysis for Strategic Decision

Role: Data Analyst

Objective:

To conduct a thorough analysis of historical sales data, extracting actionable insights to understand product, customer, and geographical performance, and to identify key trends over time. This analysis aims to support strategic decision-making in areas such as inventory management, marketing strategy, customer relationship management, and financial forecasting, ultimately driving business growth and efficiency.

Your Analytical Tasks:

As the Data Analyst, your primary responsibility for this project is to address the following key questions. For each task, you will need to:

1. **Write and execute the necessary SQL query** to extract the relevant data.
2. **Create clear and informative visualizations** using Plotly, Matplotlib, Seaborn to represent your findings.

Here are the specific questions you need to answer:

Task 1: What is the total sales revenue for each product category?

Task 2: Which are the top 10 best-selling products?

Task 3: What is the average sale quantity and average total sale value per customer city?

Task 4: How have total sales revenue and quantity sold trended over time (annually)?

Task 5: Who are the top 10 customers by total revenue generated?

Task 6: What is the average price of products in each category?

Task 7: What is the top-selling product (by revenue) within each product category?

Reflecting on Your Analysis & Communicating Insights:

Once you have completed all seven analytical tasks (writing the queries and creating the visualizations), it's time to reflect on your findings and prepare for stakeholder communication.

From this entire analysis, what key insights did you gain? Based on your observations from these seven tasks, what critical information would you present to your client, and what recommendations would you make to help them achieve their business objectives?

Concluding Your Project:

After articulating your key findings and client recommendations, you'll summarize your entire project.

To conclude this project, how would you precisely summarize the overarching value and actionable intelligence derived from performing these seven analytical tasks? What is the core message about the impact of this data analysis on the business?