Business Problem Statement: Financial Consumer Complaints Analysis

Consumer complaints provide valuable insights into customer dissatisfaction and potential areas for service improvement. Analyzing these complaints can help **Bank of America** identify trends, address recurring issues, and improve customer service efficiency.

This project will involve **SQL-based data exploration and Power BI visualization** to uncover trends, response patterns, and potential areas of concern in handling customer complaints.

Key Business Questions to Solve:

1. Complaint Trends & Seasonality

✅ Do consumer complaints show any **seasonal patterns** (e.g., more complaints during certain months)?
✅ How have complaint volumes changed over time from **2017 to 2023**?
✅ Are certain states reporting more complaints than others?

2. Product & Issue Analysis

✅ Which **financial products** receive the most complaints?
✅ What are the **most common issues** reported for each product?
✅ Are certain sub-products more prone to complaints?
✅ Which issues escalate frequently (i.e., result in repeated complaints)?

3. Company Response & Resolution Patterns

✅ What percentage of complaints receive a **timely response**?
✅ How are most complaints resolved? (e.g., **Closed with explanation, Closed with monetary relief**?)

4. Untimely Responses & Their Impact

✅ Are there patterns in **untimely responses**?
✅ Do specific complaint types or products tend to have delayed responses?
✅ Are certain states more likely to receive **untimely responses**?

5. Submission Channel & Processing Time

✅ Which submission channels (e.g., **Phone, Email, Online**) generate the most complaints?
✅ Does submission method affect **response time**?
✅ How long does it take, on average, for the **company to respond to a complaint**?

SQL Techniques to Use:

✓ **Basic SQL**: Aggregate functions (COUNT, AVG, MAX, MIN), CASE statements

✓ **Intermediate SQL**: Joins, filtering (WHERE, GROUP BY, HAVING), date functions

✓ **Advanced SQL**:

- **Common Table Expressions (CTEs)**: To segment complaint data by year, product, or response time

- **Window Functions**: To analyze complaint trends over time and calculate response time ranks

- **Subqueries**: To compare timely vs. untimely response rates

- **Joins**: To analyze relationships between product types and issues

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Final Deliverables:

📌 **SQL Queries & Insights**: Answering key business questions
📌 **Power BI Dashboard**: Data visualization of complaint trends and response patterns
📌 **Complaint Resolution Report**: Summary of findings and recommendations for improvement

This project will equip analysts with hands-on experience in **SQL, data-driven decision-making, and business intelligence reporting**, essential for roles in financial analytics and customer service strategy. 🚀

Would you like assistance in structuring the **SQL queries** for this project? 😊