**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**?)  
✅ Is there a correlation between the **type of issue and the likelihood of receiving 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

**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? 😊