Bank Customer Churn Analysis (SQL Report)

Dataset: Bank_Churn_Dataset.csv | Tool: MySQL | Author: Sofiyan

Objective

The objective of this analysis is to explore a bank customer churn dataset using SQL. The goal is to identify customer segments with higher churn (Exited = 1) and summarize insights that can help the bank reduce customer exits.

DDL & DML Work

DDL: Created the database and the table *Customer_Details* using CREATE TABLE. Defined columns such as CreditScore, Geography, Gender, Age, Balance, NumOfProducts, IsActiveMember, and Exited.
DML: Loaded the dataset into MySQL using LOAD DATA INFILE and performed analysis using SELECT queries with GROUP BY, aggregate functions (COUNT, SUM), and CASE expressions for segmentation.

Key Findings (Query Outputs)

Metric	Result
Total customers	10,000
Exited customers (churned)	2,037
Retained customers (not exited)	7,963
Churn by Geography (highest)	Germany: 32.44%
Churn by Gender (higher)	Female: 25.07% (Male: 16.46%)
Churn by Activity (higher)	Inactive: 26.85% (Active: 14.27%)
Churn by NumOfProducts (highest)	4 products: 100% | 3 products: 82.71%
Churn by NumOfProducts (lowest)	2 products: 7.58%
Balance type (counts)	Non-zero balance: 1537 exited | Zero balance: 500 exited

Segment Insights (Simple Interpretation)

• Germany is the highest churn region. This suggests region-specific service or competition issues.

• Female customers have a higher churn rate compared to male customers.

• Inactive members churn much more than active members, so engagement is a key factor.

• Customers with 3 or 4 products have extremely high churn. This may indicate dissatisfaction with pricing, support, or complexity.

• Non-zero balance customers churn more in absolute count, meaning the bank may lose valuable customers who keep money in accounts.

Recommendations (Actions to Reduce Churn)

• Start urgent retention programs for Germany customers (special offers, dedicated support).

• Re-engage inactive customers using reminders, app notifications, relationship manager calls, and loyalty benefits.

• Reduce extra charges and improve customer experience (example: free ATM usage, fewer service fees).

• Investigate why 3–4 product customers are leaving and simplify product bundles or provide better support.

• Offer retention incentives for customers with non-zero balance to prevent financial loss.

Conclusion

This SQL analysis identifies high-risk churn segments across geography, gender, activity, product usage, and balance. The results show that churn is not evenly distributed across customers. By focusing on high-risk segments and improving service quality, engagement, and fee structure, the bank can reduce churn and retain valuable customers.

Note

The dataset does not directly provide the reasons for churn, so the analysis focuses on observable patterns. Further investigation (customer feedback, complaints, service usage logs) is recommended to confirm root causes.