

Business Problem: Customer Churn Analysis

Overview

Customer churn is one of the most critical challenges faced by businesses, particularly in highly competitive industries such as telecommunications, banking, and subscription-based services. Churn occurs when customers discontinue their relationship with a company, leading to revenue loss and increased costs for acquiring new customers. Since retaining an existing customer is significantly cheaper than acquiring a new one, understanding the factors driving churn is crucial for business sustainability.

Problem Statement

The objective of this project is to perform an in-depth **Exploratory Data Analysis (EDA)** on customer data to identify the main drivers of churn. The dataset contains customer demographics, service usage details, and contract information. By analyzing these features, the project aims to uncover trends, highlight high-risk customer segments, and provide actionable insights that can help businesses improve their retention strategies.

Business Impact

- High customer churn directly reduces revenue and profitability.
 - Identifying churn drivers allows companies to take proactive measures, such as offering loyalty programs, personalized services, or pricing adjustments.
 - Improved customer retention enhances **Customer Lifetime Value (CLV)** and strengthens long-term business growth.
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Project Goals

1. Analyze churn distribution across different customer groups.
 2. Identify key demographic and service-related features that influence churn.
 3. Create clear and insightful visualizations to communicate patterns in churn behavior.
 4. Derive business-focused insights that can inform retention strategies.
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Conclusion

Through Exploratory Data Analysis, this project highlights how businesses can move from raw data to actionable intelligence. The findings can guide decision-makers in reducing churn, enhancing customer satisfaction, and improving overall profitability.