

Customer Churn Analysis Dashboard Documentation

A. Dataset name :

Telco Customer Churn Dataset

B. Problem statement :

To analyze customer churn behavior and identify patterns based on customer tenure, internet services, contract type, and monthly charges, helping businesses understand factors contributing to customer attrition.

C. Data description :

The dataset contains customer-level information including demographic details, service subscriptions, billing details, tenure, and churn status. Key fields include Customer ID, Tenure, Internet Service, Contract Type, Monthly Charges, Total Charges, and Churn indicator.

D. Visualization used :

1. Churn Distribution (Bar Chart) -

Used to show the overall count of customers who have churned versus those who have retained, giving a high-level view of customer attrition.

2. Churn by Contract Type (Stacked Bar Chart) -

Displays churn behavior across different contract types (Month-to-Month, One Year, Two Year) to understand how contract duration impacts churn.

3. Churn by Internet Service (Stacked Bar Chart)

Analyzes churn across various internet service types to identify services associated with higher customer loss.

4. Churn by Customer Tenure Group (Histogram) -

Groups customers based on tenure duration to examine how churn changes as customer relationship length increases.

5. Monthly Charges Range vs Churn (Histogram) -

Shows the distribution of churned and retained customers across different monthly charge ranges to assess pricing impact on churn.

E. Dashboard summary :

The dashboard provides a clear overview of customer churn patterns across different service and billing dimensions. It highlights how churn varies with tenure duration, contract type, internet service usage, and monthly charges, enabling quick identification of high-risk customer segments.

F. Tools and techniques used :

- Tableau Desktop
 - Data binning (Tenure & Monthly Charges)
 - Aggregations (COUNT, distributions)
 - Stacked and distribution-based visualizations
 - Dashboard layout and formatting
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G. Conclusion :

The analysis shows that customer churn is higher among customers with shorter tenure, month-to-month contracts, and specific internet service types. Customers with higher monthly charges also show greater churn tendency, indicating the need for targeted retention strategies focused on pricing, contract duration, and service experience.
