

# Telco Customer Churn Analysis Report

## 1. Introduction

- Purpose: Analyzing customer churn behavior in the telecom industry.
- Tools Used: Python, Pandas, Matplotlib, Seaborn
- Goal: To uncover patterns in customer churn and improve retention strategies.

## 2. Data Preprocessing

- Handled missing values and converted data types (e.g., TotalCharges as float).
- Converted 'SeniorCitizen' column from numeric to categorical.
- Cleaned and prepared the data for analysis.

## 3. Exploratory Data Analysis (EDA)

- Visualized churn distribution using countplots, pie charts, and histograms.
- Analyzed churn patterns based on factors like contract type, senior citizen status, and payment method.
- Found that month-to-month contract customers tend to churn more.

## 4. Key Insights

- Senior Citizens have different churn rates compared to younger customers.
- Customers without online security or with month-to-month contracts are more likely to churn.
- Key insights to inform better retention strategies.

## 5. Conclusion & Recommendations

- Analysis shows key drivers of churn in the telecom industry.
- Actionable recommendations for improving customer retention strategies.

- Potential for further analysis and model building to predict churn.

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