

Customer Churn Analysis 📊

I conducted an in-depth exploratory data analysis on a telecom customer churn dataset to identify key factors driving customer attrition.

Key Findings:

- **26.54%** of customers have **churned**, as seen in the churn distribution pie chart.
- Customers with **month-to-month contracts**, **electronic check payments**, and **fiber optic internet** show significantly higher churn rates.
- A **comparatively greater percentage of senior citizens** have churned, indicating a need for tailored customer retention efforts.
- Customers without **internet services** or with limited service usage tend to churn more often.
- The majority of customers who **do not churn** tend to have:
 - **PhoneService**
 - **InternetService** (especially **DSL**)
 - **OnlineSecurity**
- Higher churn is observed when services like **OnlineBackup**, **TechSupport**, and **StreamingTV** are **not used** or **unavailable**.
- Long-term contracts (1–2 years) and consistent service usage correlate with better customer retention.

These insights are critical for businesses to **design smarter retention strategies** and **enhance customer satisfaction**.

Tools Used: Python, Pandas, Seaborn, Matplotlib