📊 Executive Summary: Customer Churn Analysis

This exploratory data analysis (EDA) was conducted to understand patterns behind customer churn in a telecom company. Key trends were visualized using charts and graphs, offering actionable insights for improving customer retention.

🔍 Key Findings:

1. **Overall Churn Rate**

   - Approximately **26.54%** of customers have churned, as identified through pie chart analysis.

2. **Demographic Influence**

   - **Senior Citizens** are more likely to churn compared to non-senior customers.

   - Binary indicators (e.g., 0/1) were mapped to No/Yes for clearer interpretation in charts.

3. **Customer Tenure**

   - Customers with **short tenures (1–2 months)** show a significantly higher churn rate.

   - Those with **longer tenures** tend to remain loyal.

4. **Contract Type Matters**

   - Customers on **month-to-month contracts** are far more likely to churn.

   - Churn is much lower among customers with **1-year or 2-year contracts**.

5. **Service Usage Patterns**

   - Non-churning customers typically use:

     - **Phone Service**

     - **DSL Internet**

     - **Online Security**

   - In contrast, churn is higher among customers who **don't use or lack access** to:

- ■ Online Backup
- ■ Tech Support
- ■ Streaming TV

6. **Payment Method**

    ○ Customers using **Electronic Checks** as a payment method exhibit a higher churn rate compared to other payment modes.

✅ Conclusion & Recommendations:

- **Retention campaigns** should target new customers early, especially those in the first few months of service.

- Promote **long-term contracts** with incentives to reduce churn.

- Enhance usage and accessibility of key services (like Tech Support and Online Security).

- Investigate further why electronic check users are more prone to churn—this may indicate billing issues or dissatisfaction.