

# Telecom Customer Churn Analysis

---

## Description:

This project analyzes customer churn in a telecom company to understand factors that influence customers' decisions to leave. Using various features related to customer demographics, account information, and service subscriptions, we aim to uncover patterns and trends associated with higher churn rates. The analysis focuses on visualizing the distribution of churn across different categories, examining payment methods, service usage, and subscription choices, to identify key drivers of customer retention or loss.

---

## Top Questions:

1. **What factors are most strongly associated with customer churn?**
  2. **How does the churn rate vary across different payment methods?**
  3. **Are certain services (e.g., streaming, security features) correlated with higher or lower churn?**
  4. **Is there a noticeable difference in churn between customers with automatic payments and those with manual payments?**
  5. **What demographic factors (e.g., tenure, service type) are linked to higher churn rates?**
  6. **How can the company improve its retention strategy based on these insights?**
- 

## Key Learnings:

1. **Payment Method Impact:** Customers with automatic payment methods (bank transfer and credit card) tend to have lower churn rates, suggesting that convenience and reliability of payments may contribute to retention.
  2. **Service-Specific Patterns:** Optional services like Online Security, Online Backup, and Tech Support seem to be associated with lower churn rates, indicating these services may enhance customer satisfaction.
  3. **High Churn in Certain Categories:** Customers using the "Electronic Check" payment method and those with Fiber Optic internet services have noticeably higher churn rates.
  4. **Importance of Service Bundling:** Customers who subscribe to multiple optional services (e.g., Online Security, StreamingTV) often exhibit higher loyalty, suggesting potential for upselling bundles to improve retention.
  5. **Potential Upsell Opportunities:** Focusing on promoting automatic payment methods and bundling optional services may reduce churn rates.
-

**Summary:**

This analysis provides insights into the behavior of telecom customers and highlights key drivers of churn. Automatic payment methods and the use of additional services like security or backup are associated with lower churn rates, suggesting areas for targeted retention efforts. The analysis recommends strategies to reduce churn, such as incentivizing automatic payments and offering bundled services. With these insights, the telecom company can tailor its offerings and customer experience to improve retention, resulting in a more stable customer base.