# 📑 Customer Churn Analysis – Summary

## 1. Objective

The primary goal of this analysis is to identify factors that contribute to customer churn and provide actionable insights to help reduce churn and improve customer retention.

## 2. Dataset Overview

Includes customer demographics, account information, service subscriptions, and billing details.

Key variables analyzed: Tenure, Contract Type, Monthly Charges, Payment Method, Senior Citizen, Churn status.

## 3. Key Insights

* a. Tenure
* Customers with shorter tenure (new users) are more likely to churn.
* Long-term customers show stronger loyalty.
* b. Contract Type
* Month-to-month contract customers have the highest churn rate.
* One- and two-year contracts reduce churn significantly.
* c. Payment Method
* Customers paying via electronic check churn the most.
* Automatic payments (bank transfer, credit card) show lower churn.
* d. Monthly Charges
* Higher monthly charges are strongly associated with higher churn.
* Customers with lower charges are comparatively more stable.
* e. Customer Demographics
* Senior citizens churn at a higher rate than younger customers.
* f. Services Subscribed
* Customers without online security, technical support, and device protection are more likely to leave.
* Bundled services (internet + phone + streaming) improve retention.

## 4. Data Visualization (examples from analysis)

* Histogram of Tenure vs. Churn → shows new customers churn more.
* Monthly Charges distribution by Churn → churned customers often pay higher charges.
* Contract Type vs. Churn bar plot → month-to-month contracts dominate churned customers.
* Payment Method vs. Churn chart → electronic checks lead to higher churn.

## 5. Conclusion

* High-risk groups: new customers, senior citizens, high monthly charge users, and those on month-to-month contracts.
* Key churn drivers: Contract type, monthly charges, payment method, tenure, and lack of additional services.

## 6. Recommendations

* Promote long-term contracts with discounts.
* Encourage automatic payment methods.
* Offer bundled services and value-added features (security, support).
* Run targeted retention campaigns for senior citizens and new customers.