



Telco Customer Churn Analysis — Project Summary

◆ Objective

The goal of this project is to analyze customer data from a telecom company and identify **factors that lead to customer churn**.

By understanding churn patterns, businesses can take actions to improve retention and reduce revenue loss.

◆ Dataset Overview

- **Total customers:** 7043
 - **Features:** 21
 - **Target variable:** Churn (Yes/No)
 - Includes:
 - Demographics (gender, senior citizen, dependents)
 - Account info (tenure, contract type, payment method)
 - Services (internet, security, streaming, support)
 - Charges (monthly & total)
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◆ Key Findings & Insights



Customer Demographics

- Around **26.5% customers churned**.
- **Senior citizens** show higher churn compared to younger customers.
- Customers with **partners or dependents** tend to stay longer.



Insight:

Older customers and those without family ties may require targeted retention strategies.



Tenure Impact

- Customers with **low tenure (1–2 months)** have the highest churn.
- Long-term customers are far more loyal.

👉 Insight:

The first few months are critical. Onboarding and early engagement programs are essential.

Contract Type

- **Month-to-month contracts** have the highest churn rate.
- **1-year and 2-year contracts** retain customers better.

👉 Insight:

Encouraging customers to move to long-term plans reduces churn significantly.

Services & Features

Customers are more likely to churn if they:

- Use **Fiber optic internet**
- Do NOT have:
 - Online security
 - Tech support
 - Device protection
 - Online backup

👉 Insight:

Value-added services increase retention.

Bundled service packages can reduce churn.

Payment Method

- Customers paying via **Electronic Check** churn the most.

👉 Insight:

Auto-pay methods (credit card/bank transfer) show better retention.

Offer incentives for switching payment methods.

Charges

- Customers with **higher monthly charges** churn more.
- Customers with **higher total charges** (long-term users) churn less.

👉 Insight:
High monthly cost without perceived value leads to churn.



Overall Conclusion

Customer churn is mainly influenced by:

- Contract type
- Tenure
- Service quality/features
- Payment method
- Monthly charges

Retention strategies should focus on:

- Early customer engagement
 - Bundled services
 - Long-term contracts
 - Support & security features
 - Auto-payment incentives
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Business Recommendations

1. Offer discounts for long-term contracts
2. Improve onboarding for new customers
3. Bundle security + tech support services
4. Target high-risk customers (month-to-month users)
5. Promote auto-payment methods
6. Provide loyalty rewards after 3–6 months