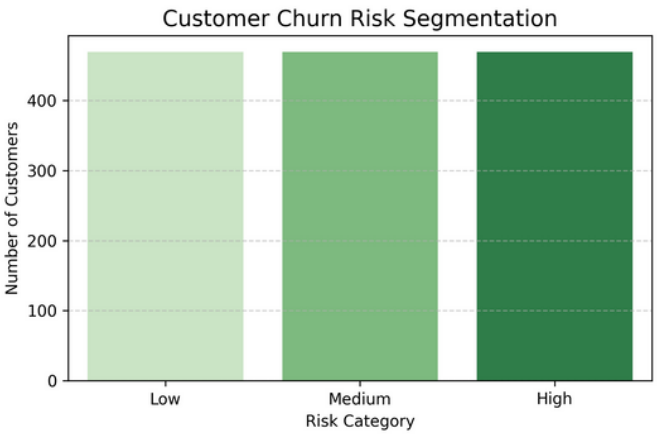


# CUSTOMER CHURN ANALYSIS & PREDICTION

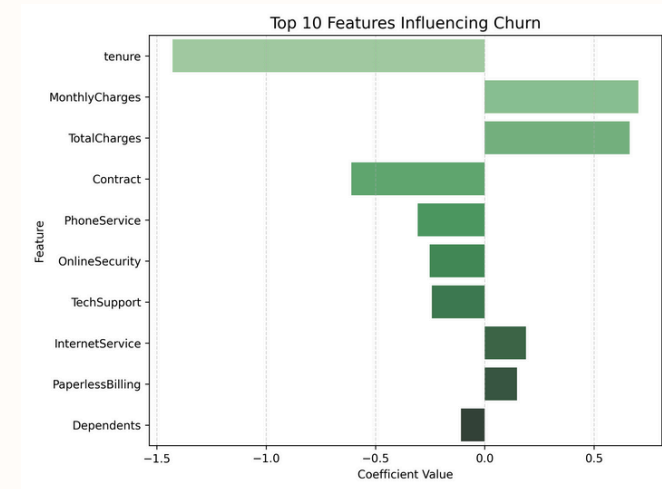
TELCO DATASET | LOGISTIC REGRESSION | RISK-BASED SEGMENTATION



## CUSTOMER CHURN RISK SEGMENTATION

- Insight:**
- Approximately 30–35% of customers fall under the high churn risk segment.
  - High-risk customers typically have short tenure, are on month-to-month contracts, and use electronic check payments.
  - This segment represents critical revenue leakage if not targeted for retention.

- Business Action:**
- Launch loyalty offers or discounts specifically for this group.
  - Prioritize outreach to high-risk customers to reduce potential churn.



## TOP 10 FEATURE IMPORTANCE

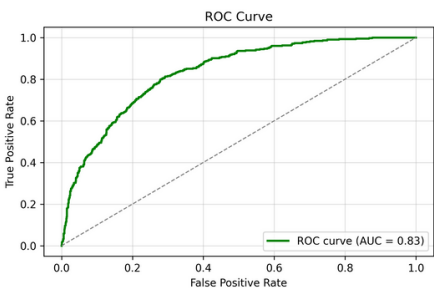
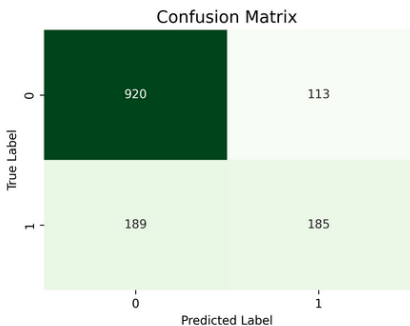
- Insight:**
- Contract type, tenure, and monthly charges are the strongest predictors of churn.
  - Month-to-month contract users are far more likely to leave than those on 1- or 2-year contracts.
  - Lower tenure and higher charges correlate strongly with dissatisfaction.

- Business Action:**
- Promote long-term contracts to new and low-tenure users.
  - Use targeted pricing strategies for high-charge customers.

## Top Category to Predict Churn Rate

- Tenure
- Monthly Charges
- Contract Type

## CONFUSION MATRIX & ROC CURVE



## SUMMARY OF STRATEGIC TAKEAWAYS

Insight	Business Impact
High churn risk in short-tenure users	Focused loyalty campaigns
Contract type drives churn	Encourage long-term subscriptions
Monthly charges impact satisfaction	Tailor pricing models
Model is reliable (AUC ~0.85)	Can be safely used for internal alerts