Project Report

Title : Customer Segmentation Visualization & Advanced Analysis

Goal:

The project aims to analyze customer churn in a telecommunications company and develop predictive models to identify at-risk customers. The ultimate goal is to provide actionable insights and recommendations to reduce churn and improve customer retention.

Analysis:

1. In given dataset total 26.54% of people are churned and & 73.46% people are still using services.
2. In churned customers total 25.46% people are seniorcitizens.
3. According to tenure range, total 55.28% churned people was from 0-12 months range tenure and second most from 13-36 months tenure which is 26.36% and above 37+ months tenure range had very less churned rate which is 19.15%.
4. The most amount of monthly charges are paid by 37+ months tenure group still their churn rate is less compare to others.
5. Those who are using electronic check as payment method have the most amount of churned rate.
6. In case of contract most of the churned customers used month-to-month contract most of the time.
7. Most of the churned customers was not using Online Security, Online Backup, Device protection, Tech support services.

According to above condition we collected data of those customers who are at risk of churn. I made a different file of that customers which is attached in folder.

Key Insight From Your Analysis (Recap)

- **0–12 months customers**
  - Highest churn (~48%)
  - Lower average charges
- **□ 13–36 months customers**
  - Moderate churn (~26%)
  - Increasing charges
- **□ 37+ months customers**
  - Lowest churn (~12%)
  - Highest charges → loyal despite higher cost

This means **early-stage customers are most at risk**.

Recommendations to Reduce Churn & Improve Retention:

1. Strengthen Early-Stage Customer Engagement (0–12 Months)

   Problem: New customers churn the most.
   Solution:

   - Onboarding emails explaining services clearly
   - Welcome discounts for first 3–6 months
   - Proactive support calls in first 30 days

2. **Offer Loyalty Incentives for Long-Term Commitment**

   Problem: Month-to-month customers churn more.
   Solution:

   - Discounts for switching to 1-year or 2-year contracts
   - Bonus data / free add-ons for renewals
   - Early renewal benefits

3. **Personalized Pricing & Plan Optimization**

   Problem: Higher charges may discourage mid-tenure users.
   Solution:

   - Personalized plan suggestions based on usage
   - Bundle services (Internet + Streaming + Security)