OVERVIEW:

- The client is experiencing customer churn, resulting in lost revenue and reduced lifetime value.
- The objective of this analysis was to identify key drivers of churn and enable proactive retention actions.

TOOLS USED:

- Python (Pandas, NumPy, Matplotlib, Seaborn)

KEY METRIC:

- Customer Churn Rate – the primary indicator of revenue leakage and customer disengagement.
- Customer Churn Rate by Price Sensitivity Segment – the most critical indicator of revenue at risk from pricing actions.

KEY FINDING: PRICE SENSITIVITY DRIVES CHURN:

- Our analysis validates Estelle's hypothesis that December-January price changes are the strongest predictor of customer churn, with our advanced model achieving 33%churn detection capability vs. industry benchmarks of ~5%.

ACTIONABLE INSIGHTS FOR SME DIVISION:

1. Price Communication Strategy

- Winter months (Dec-Jan) require proactive customer communication
- Implement early warning system for customers with high price sensitivity scores. Deploy retention campaigns before price changes take effect

2. Customer Segmentation Priorities

- Focus on high-margin, high-consumption customers with tenure >2 years
- Target customers showing declining consumption patterns. Prioritize accounts with multiple contract modifications

3. Revenue Protection Opportunities

- Immediate Impact: 280+ additional customers retained per 10,000 customers

STRATEGIC RECOMMENDATIONS:

1. Immediate Implementation (30 Days)

a. Deploy early warning system for all SME customers before price change.

b. Launch targeted retention campaigns for high-risk segments and customers.

c. Establish customer success team alerts for predictive intervention before churning.

2. Customer Segmentation Focus

a. Target the High-Value Customers: Customers with >$2,500 annual value and tenure >=2 years.

b. Checking Risk Indicators: Declining consumption + multiple contract modifications

c. Price Sensitivity: Proactive communication during winter pricing periods with the customers.

DELIVERABLES:

- **Task_EDA_FINAL FILE.ipynb:** Python file containing all Visuals.
- **Certificate:** From Forage Website.