Telecom Customer Retention

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PROBLEM STATEMENT

- The telecom industry faces a major challenge in retaining customers due to increasing competition and frequent service issues.
- Service disruptions and unaddressed network risks lead to customer dissatisfaction and churn.
- There is a strong need to proactively predict potential risks and retain customers before they choose to leave.

Project Description

- This **project** aims to utilize Machine Learning to predict customer churn and network-related risks in the telecom sector.
- By analyzing large volumes of customer and network data, we aim to identify early warning signs of dissatisfaction.
- The model helps telecom companies to reduce downtime, mitigate service interruptions, and improve customer satisfaction.
- Our solution allows for proactive risk mitigation, ensuring a seamless and reliable service experience.

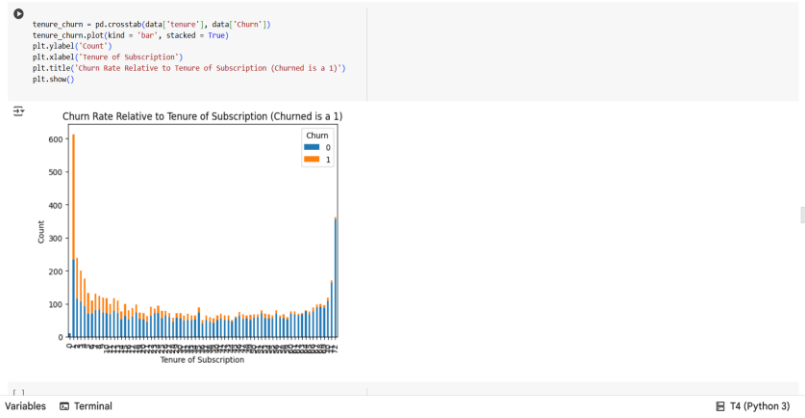
WHO ARE THE END USERS?

- **Telecom Service Providers:** To identify at-risk customers and prevent churn.
- **Network Management Teams:** To predict and fix network issues before customers are affected.
- **Data Science Teams:** To continuously optimize churn prediction and risk analysis.
- **Business Strategists:** To design better retention strategies based on prediction insights.

TOOLS & TECHNOLOGY

- Programming Language: Python
- Environment: Google Colab
- Libraries & Tools: Pandas, NumPy – Data manipulation
- Matplotlib, Seaborn – Data visualization
- Scikit-learn – ML model building and evaluation
- Machine Learning Techniques: Logistic Regression ,Decision Trees ,Random Forest .
- Model Evaluation (Accuracy, Precision, Recall, F1-score)

RESULTS



[PROJECT DEMO LINK (CLICK HERE)]

Thank you