



Teleco Customer Churn Analysis

A Data-Driven Analysis of Customer Churn
for a Teleco Company



The problem

Company

A Telecom Company in California in Q2 2022.

Context

It costs more to acquire new customers than it does to retain existing customers.

'Churn' Metric helps to understand the reason behind the churn and to take effective initiatives to deal with the churn percentage.

Problem statement

Find out a Data Driven business scope to predict future Customer Churn.



Reasons for Churn:

- **Attitude of Service Provider / Support Person.**
- **Competitors Offers and Services**



Scope of Solution

Contract Type

Month to Month Contract type Customers tend to Churn most.

Tenure in Months:

Most of the Customers Churns at the first one or two months after they joined the company.

Those who tend to stay, continue enjoying the service for more than 60 months.

Services:

Phone Service and Internet Service are the contributing Services for churn.



Solution

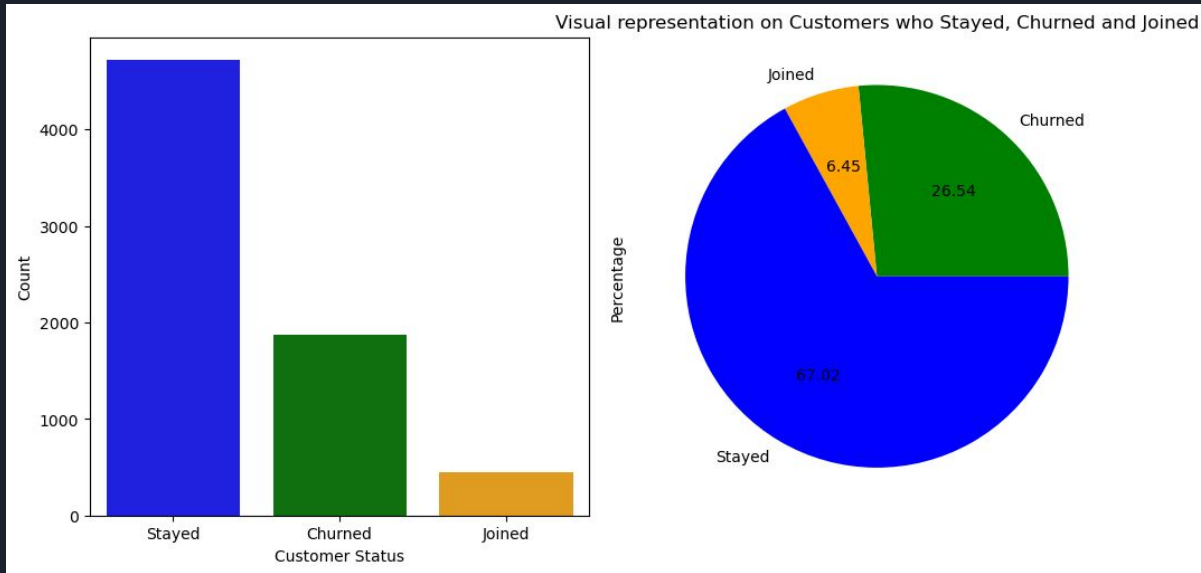
- **Emphasize on Customer Service.**
- **Offer more lucrative Services and Products compared to the competitors.**



Constraints within Solution Space

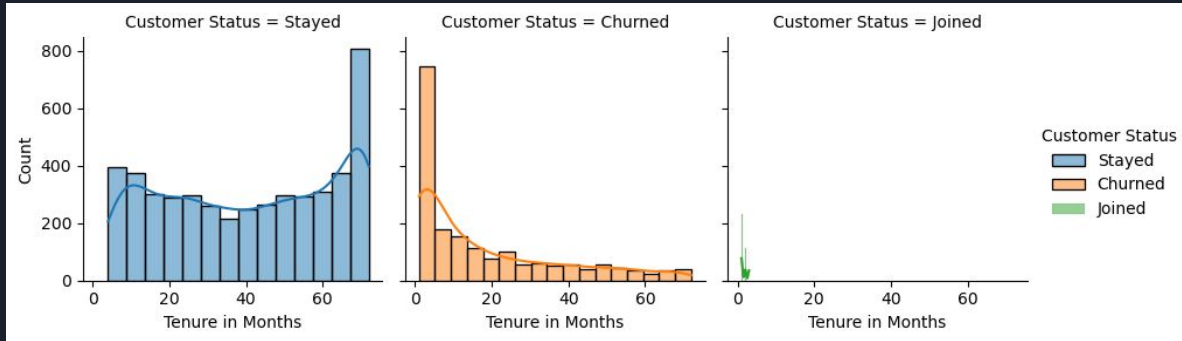
- More than 25% missing entries in the Churn Status and Churn Reason record.
- There are interrelated variables in the dataset.
- The number of categorical features introduce high dimensionality after encoding.

Analysis of the Churn Attribute

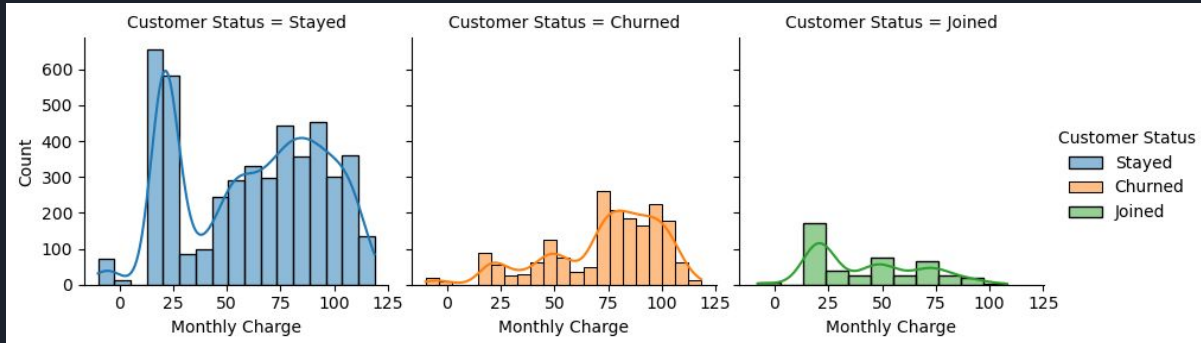


- 26.54% of the Customers Churned on Q2 2022.

Analysis of the Churn Attribute



- Majority of the Customers tend to leave in the first few months after joining.



- Customers who pay more as monthly charges intend to stay more, those who intend to pay less tend to churn

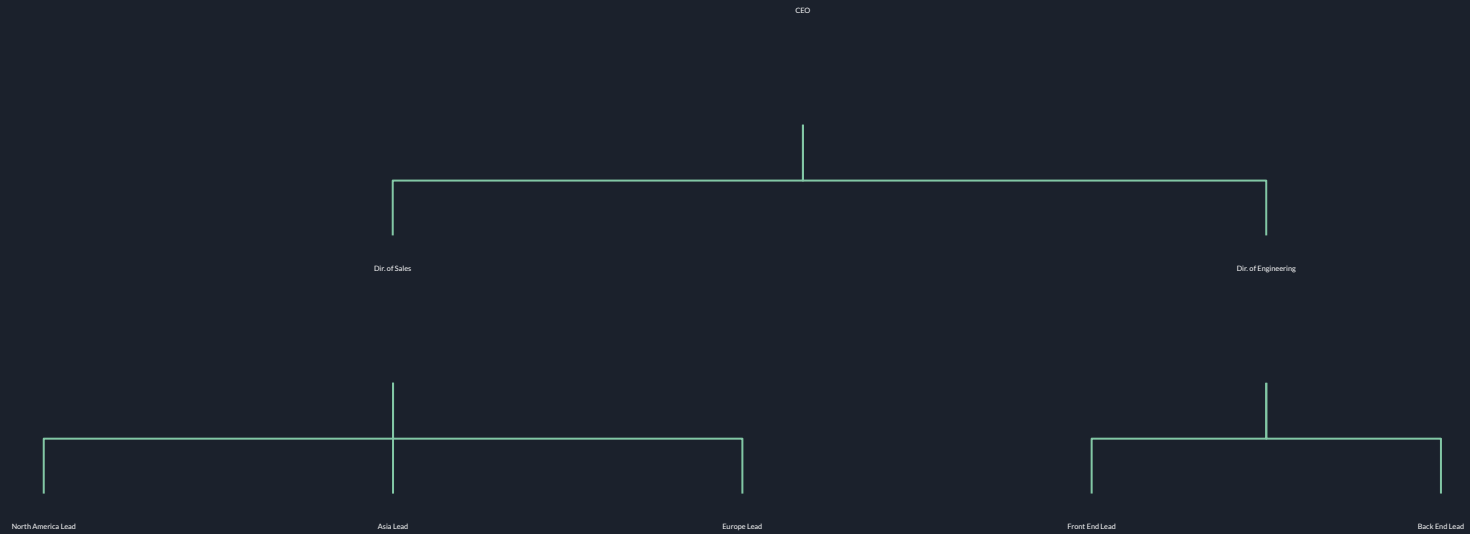


ML Approach on the Churn Prediction

- Logistic Regression and Random Forest Classifier Approach(~88% accuracy) seemed as best fit for this Dataset.
- The Consideration on Performance Metric of the models should be emphasized on F1 score (Precision and Recall), since this business analysis is aimed to target the customers who tend to churn.



Stakeholders



Questions?





Thank You