

# Capstone Project: Telecom Churn

# Problem Statement

- In the telecom industry, customers are able to choose from multiple service providers and actively switch from one operator to another.
- In this highly competitive market, the telecommunications industry experiences an average of 15-25% annual churn rate. Given the fact that it costs 5-10 times more to acquire a new customer than to retain an existing one, customer retention has now become even more important than customer acquisition.
- For many incumbent operators, retaining high profitable customers is the number one business goal.
- To reduce customer churn, telecom companies need to predict which customers are at high risk of churn.
- In this project, we will analyse customer-level data of a leading telecom firm, build predictive models to identify customers at high risk of churn and identify the main indicators of churn.

# Business Objectives

- To reduce customer churn, telecom companies need to predict which customers are at high risk of churn.
- Retaining high profitable customers is the main business goal here.

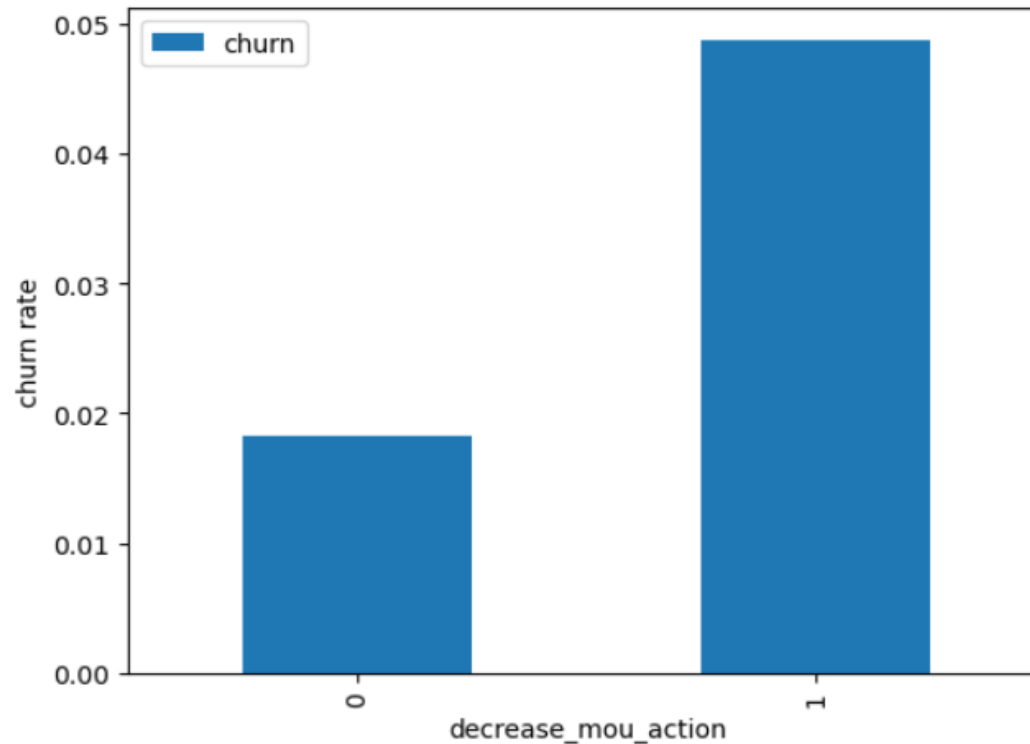
# Solution Methodology

## Steps:-

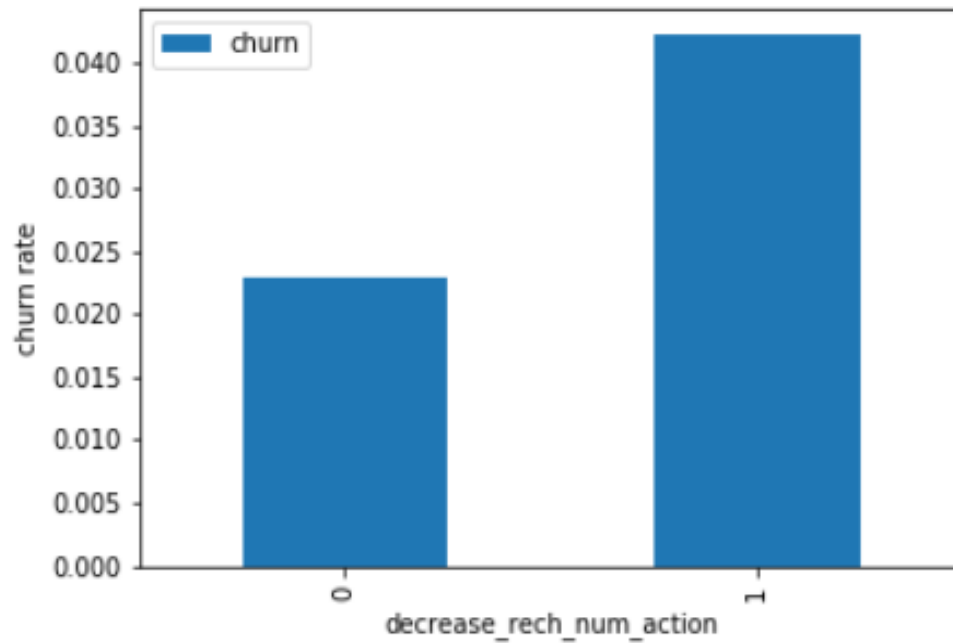
- Reading, understanding and visualising the data
- Preparing the data for modelling
- Building the model
- Evaluate the model

# EDA

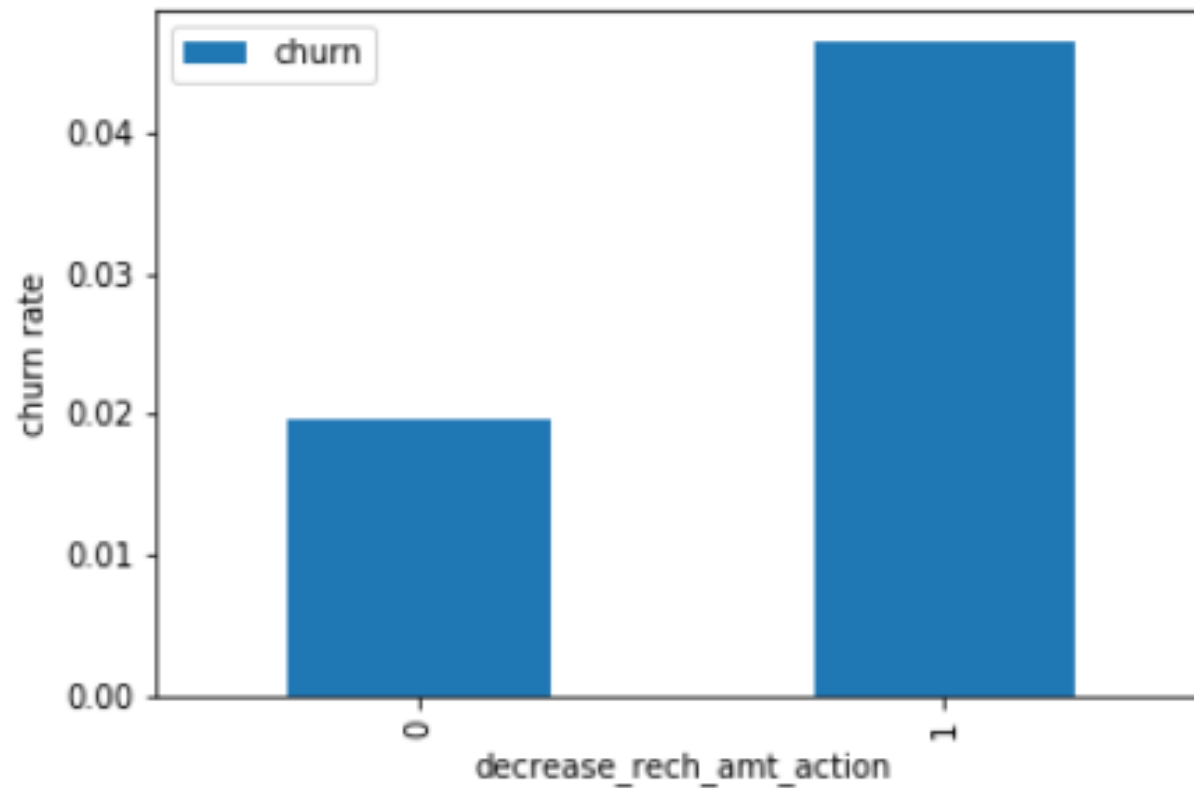
We can see that the churn rate is more for the customers, whose minutes of usage(mou) decreased in the action phase than the good phase.



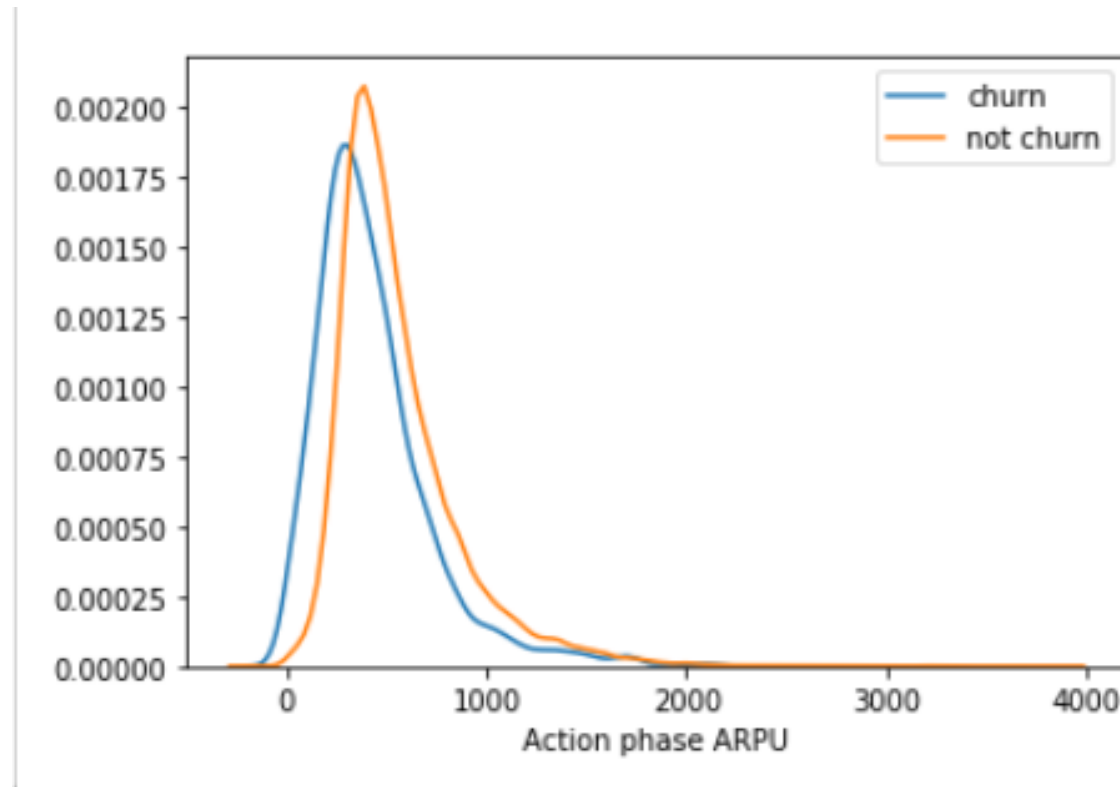
As expected, the churn rate is more for the customers, whose number of recharge in the action phase is lesser than the number in good phase.



The churn rate is more for the customers, whose amount of recharge in the action phase is lesser than the amount in good phase.



Average revenue per user (ARPU) for the churned customers is mostly densed on the 0 to 900. The higher ARPU customers are less likely to be churned.  
ARPU for the not churned customers is mostly densed on the 0 to 1000.





Minutes of usage(MOU) of the churn customers is mostly populated on the 0 to 2500 range. Higher the MOU, lesser the churn probability.

