

# Domain Based Case Study

## -Telecom Churn Case Study

By – Ranganath Bijapur

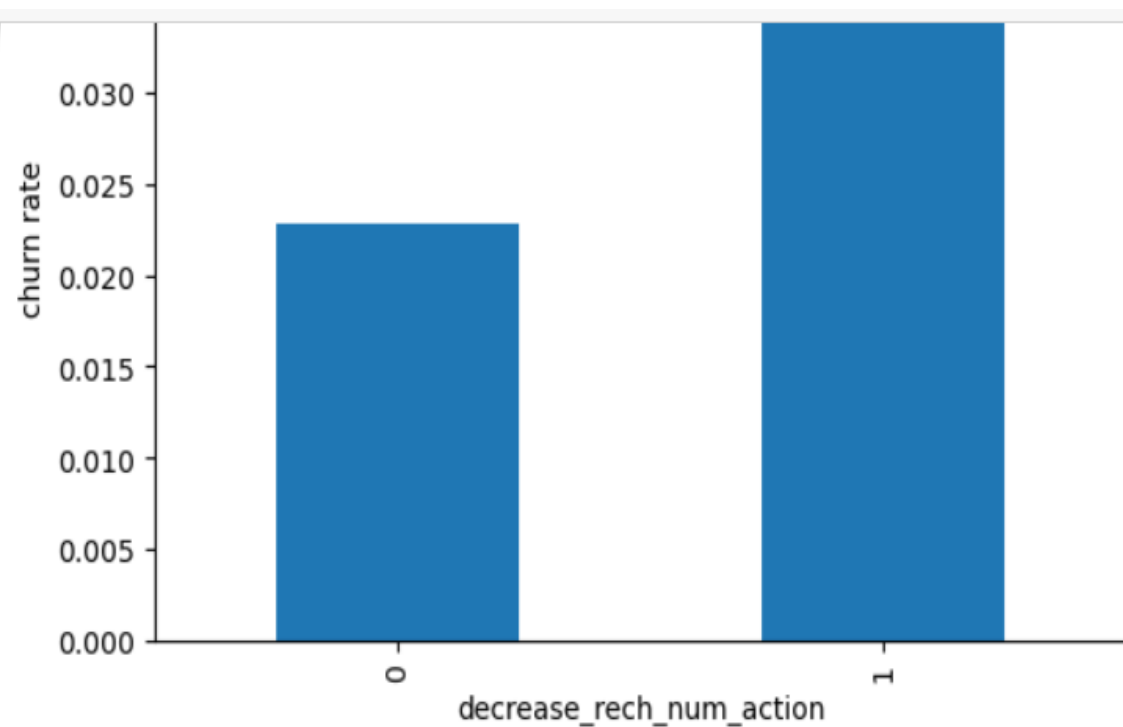
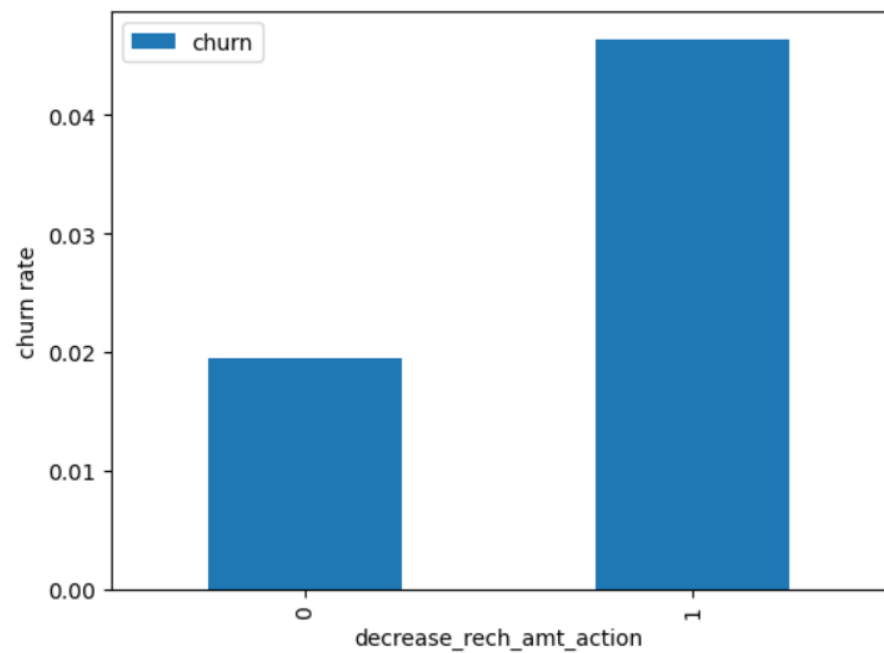
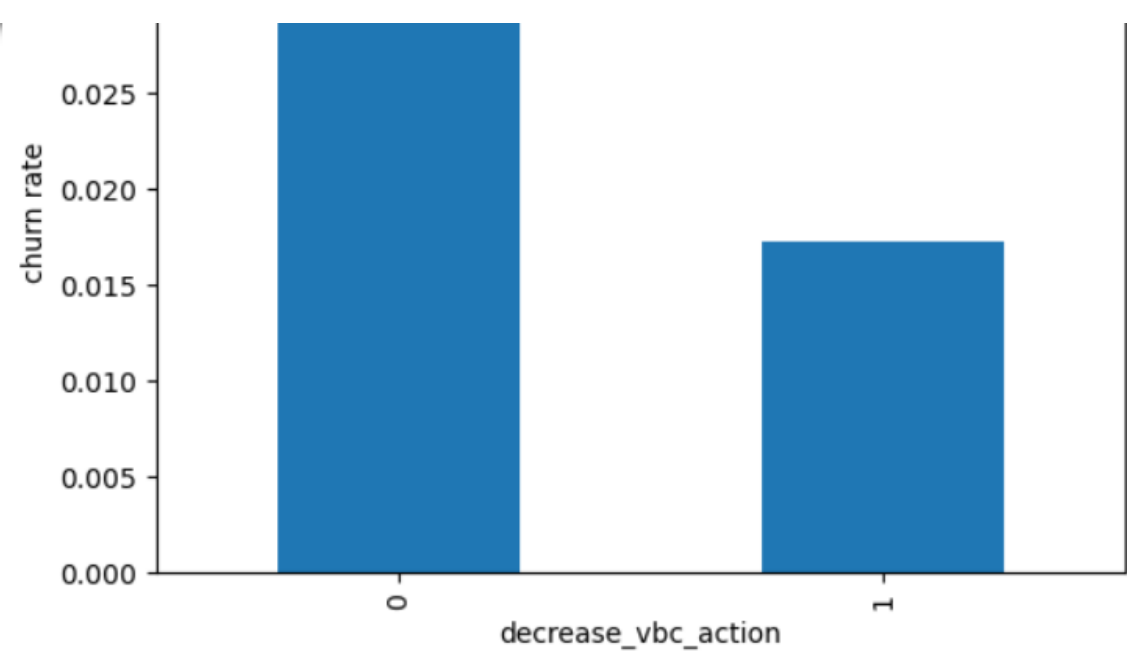
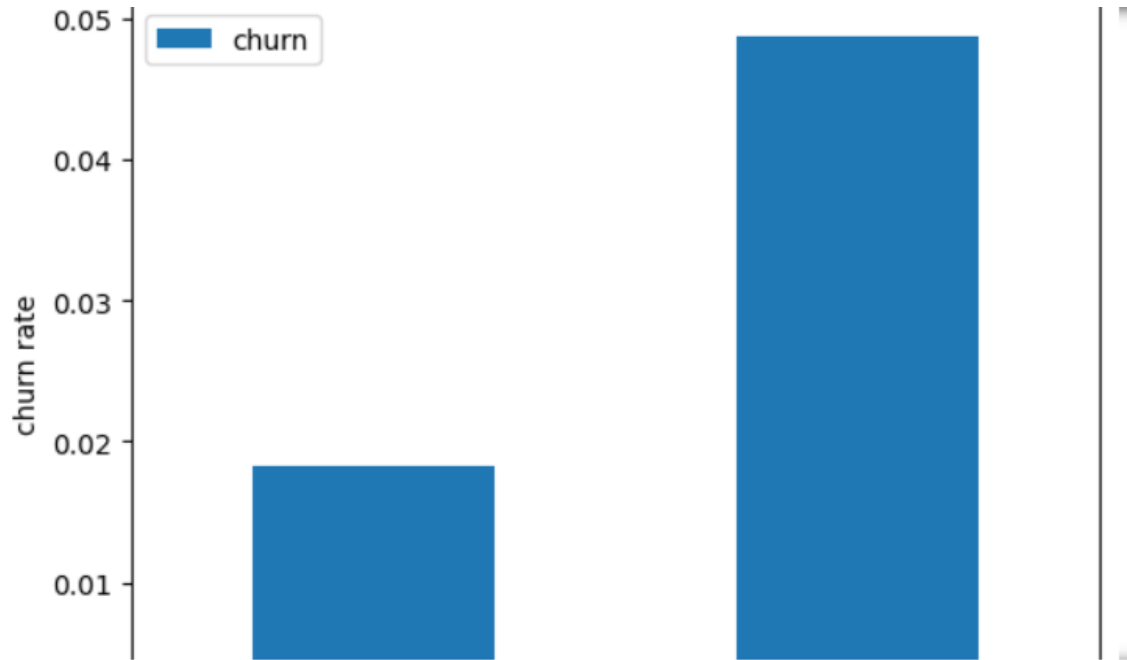
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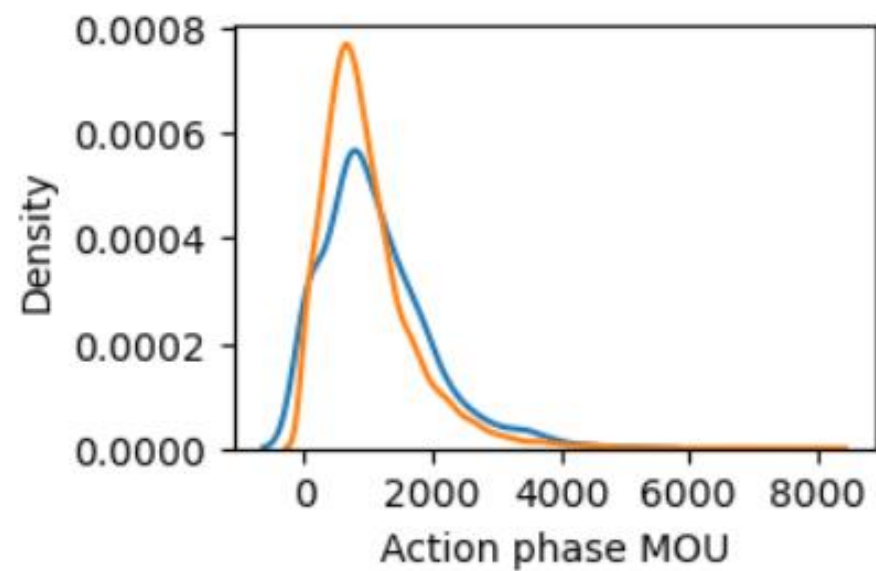
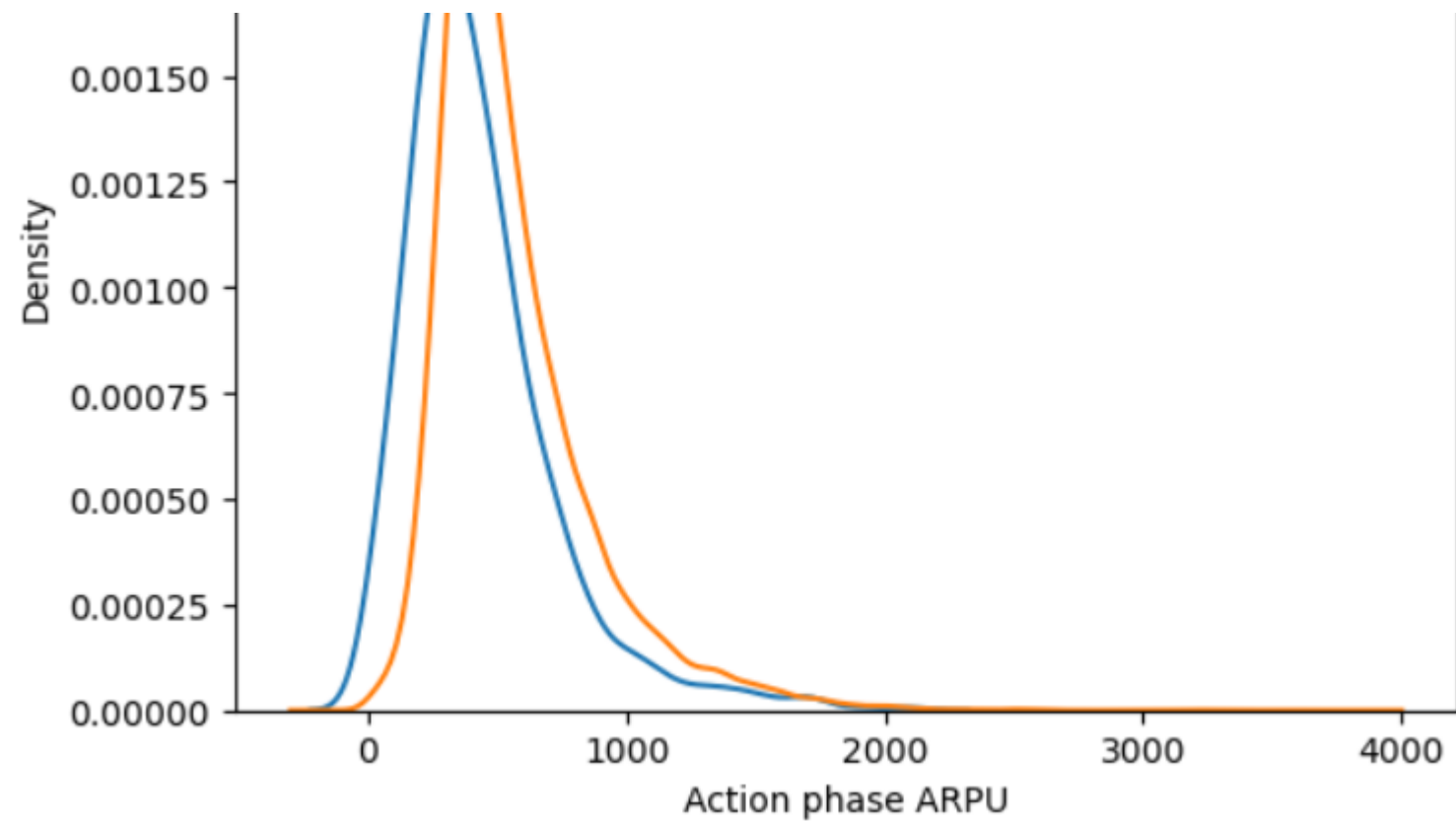
# Problem Statement

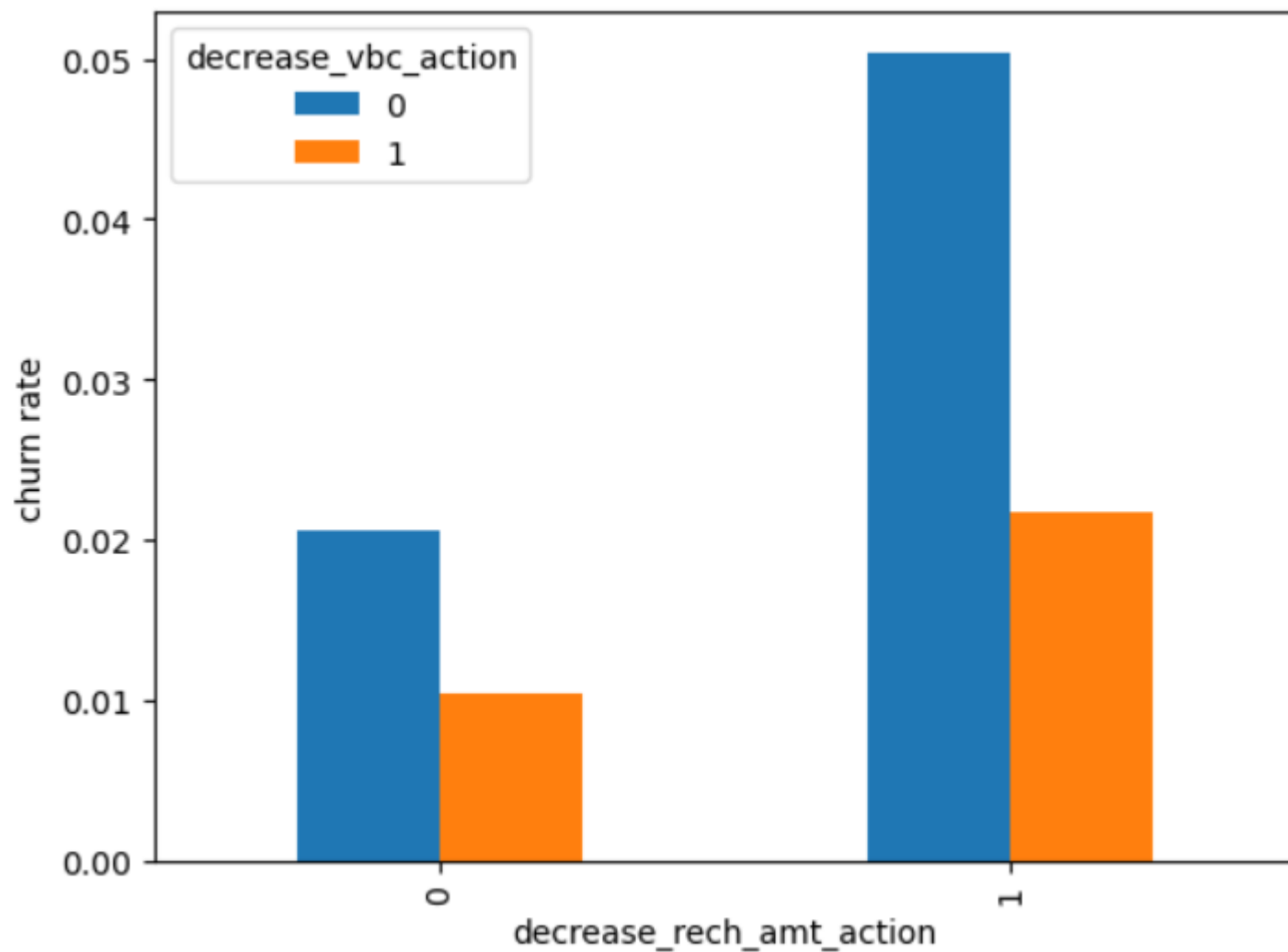
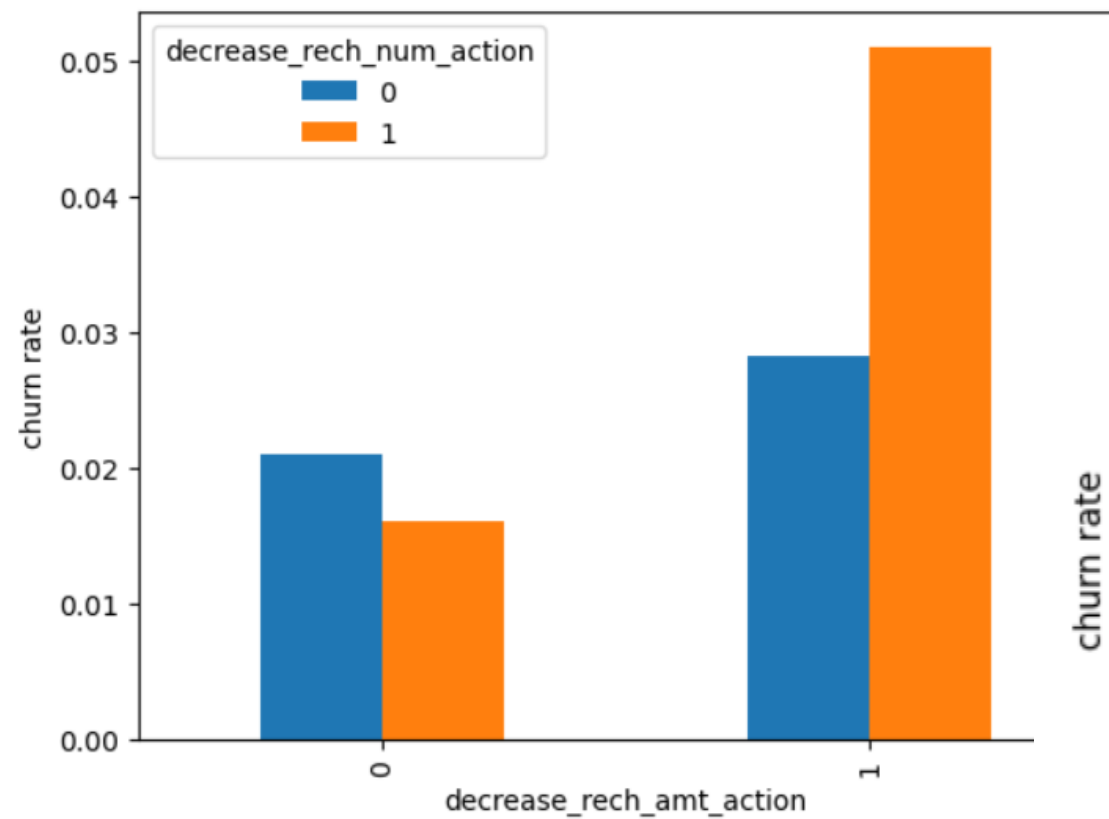
- To reduce customer churn, telecom companies need to predict which customers are at high risk of churn. In this project, we will analyse customer-level data of a leading telecom firm, build predictive models to identify customers at high risk of churn and identify the main indicators of churn.
- Retaining high profitable customers is the main business goal here.

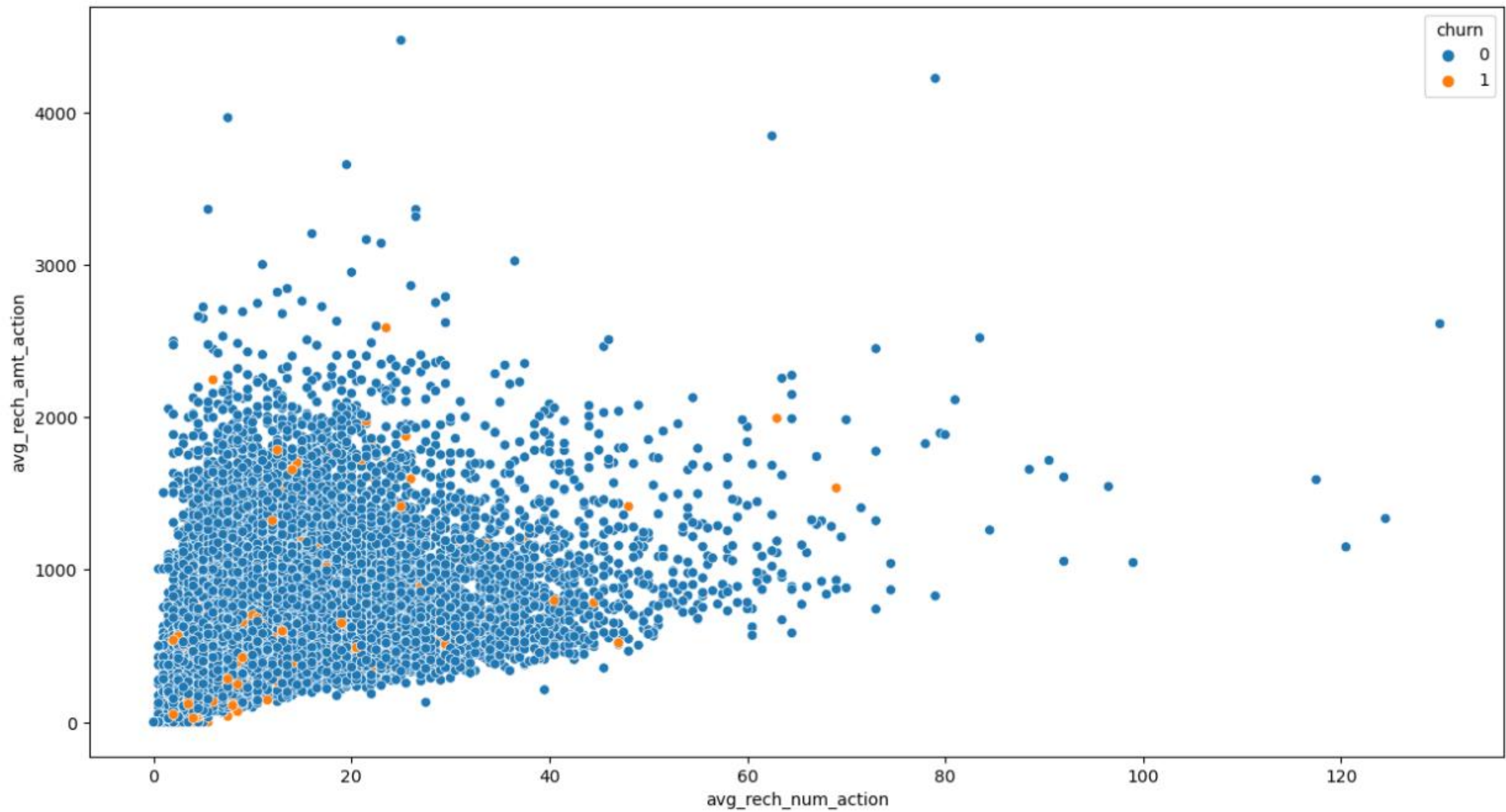
# Steps followed

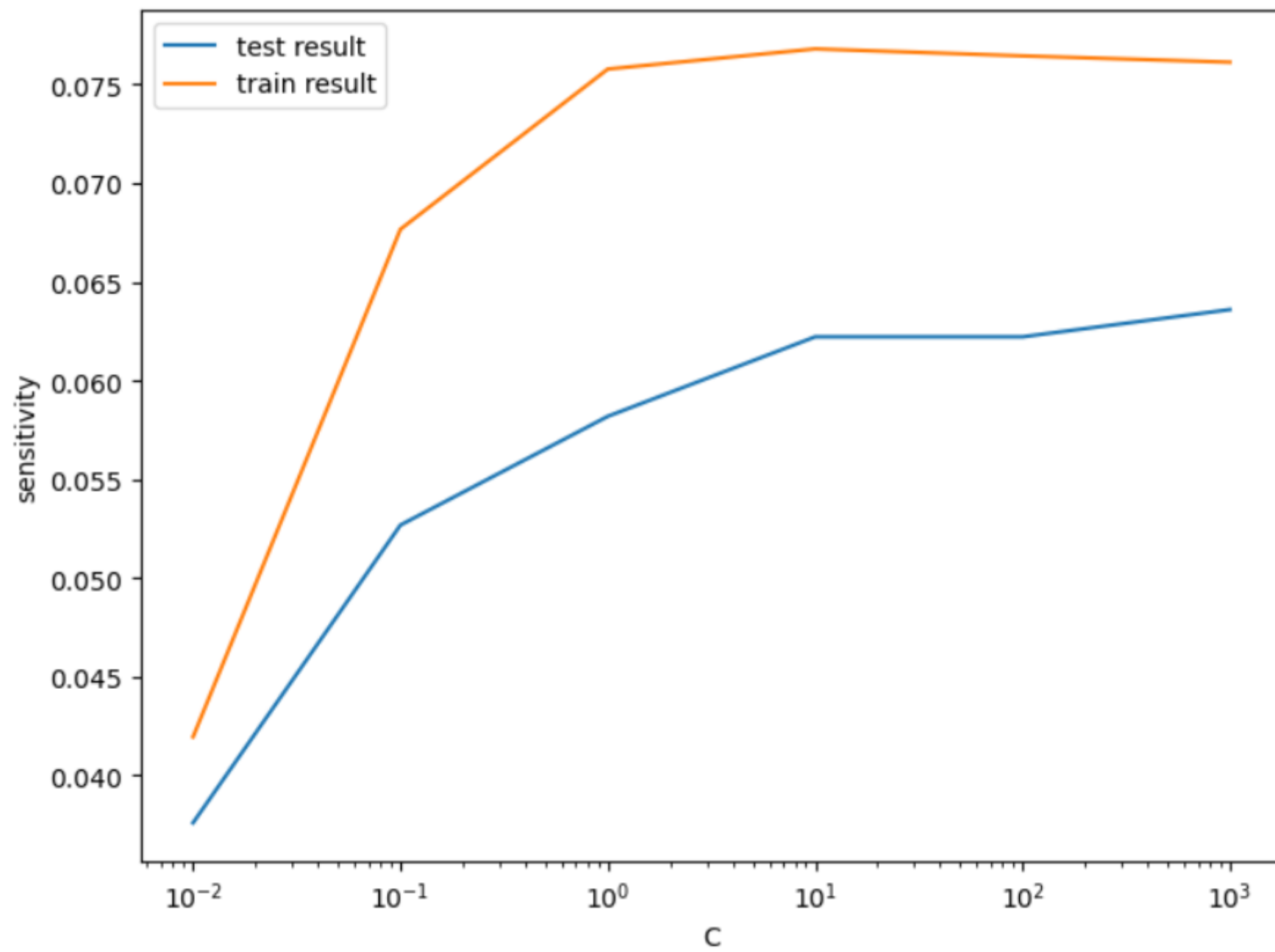
- Reading and understanding the data
- Handling missing values
- EDA – Univariate and Bivariate Analysis
- Train-Test Split
- Model with PCA
- Logistic regression with PCA
- Support Vector Machine(SVM) with PCA
- Business recommendation





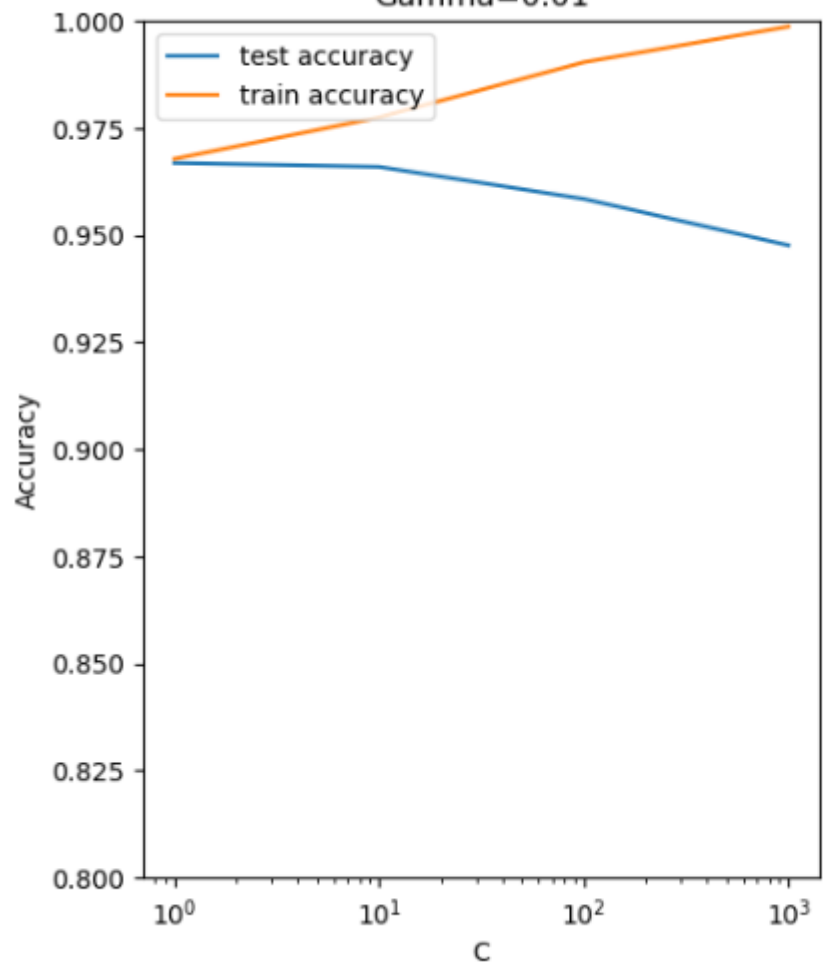




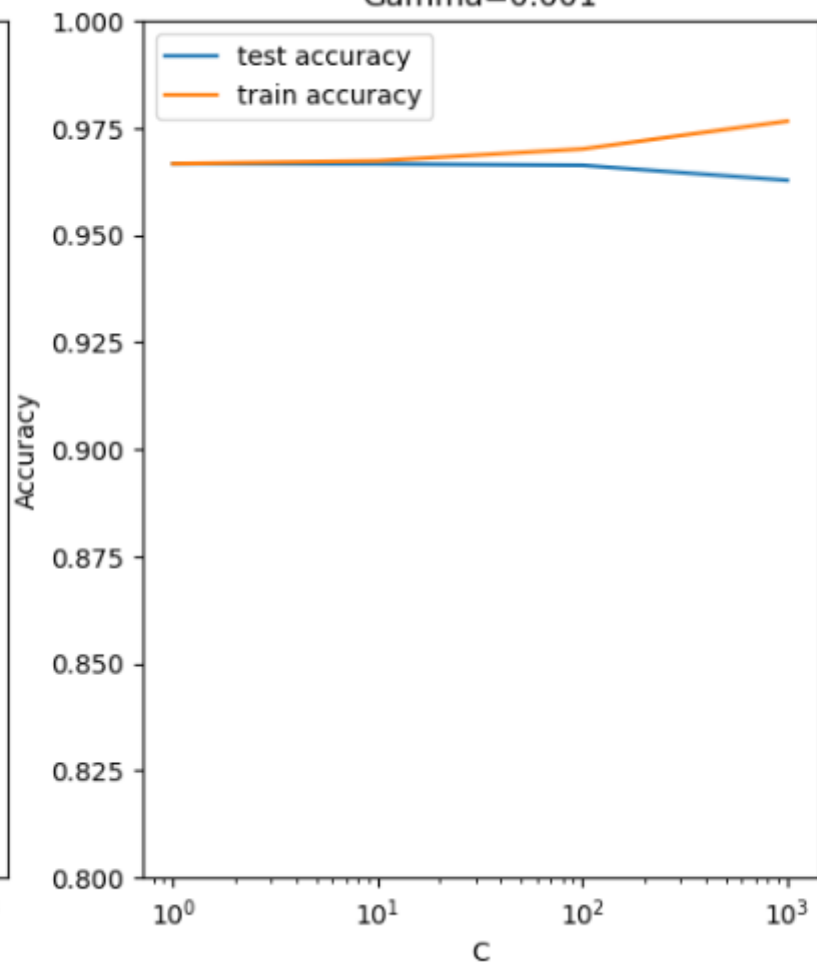




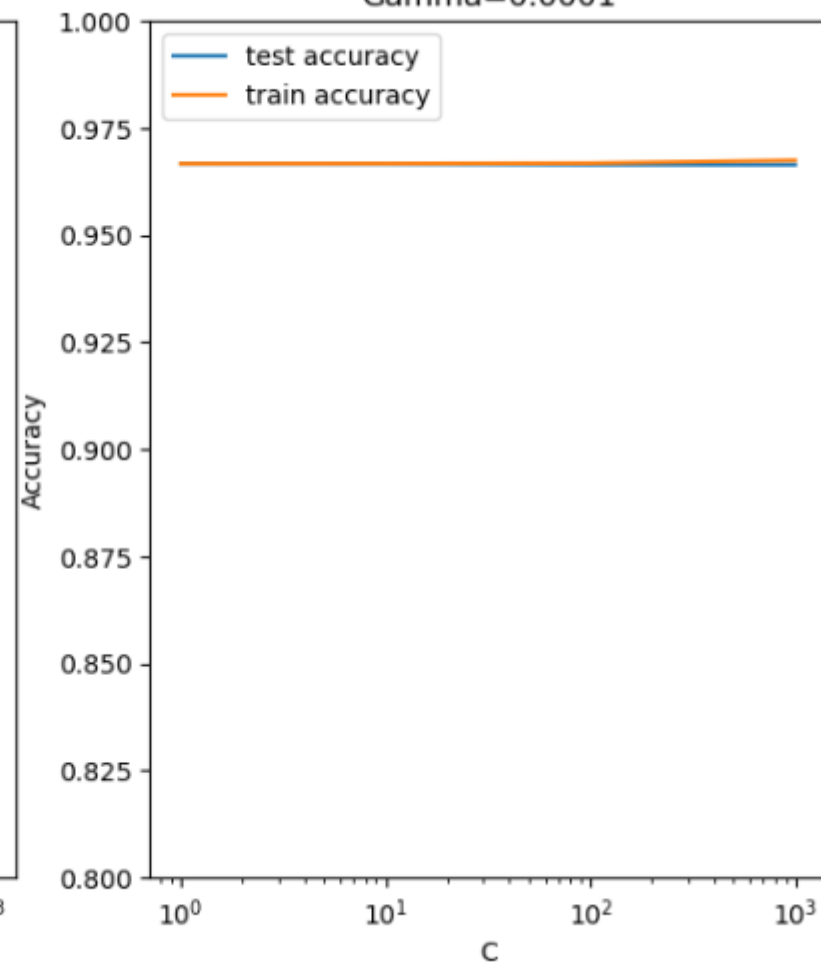
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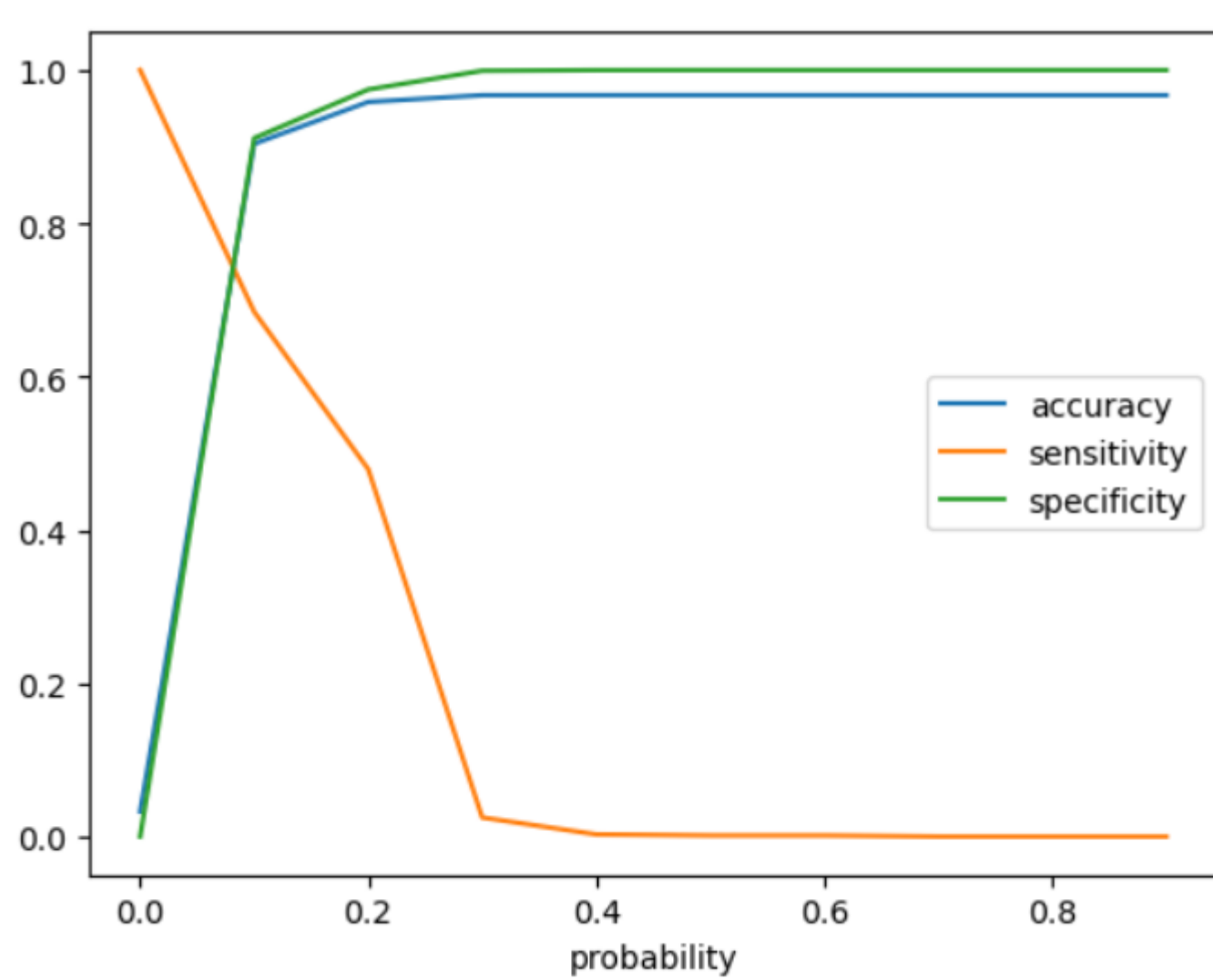


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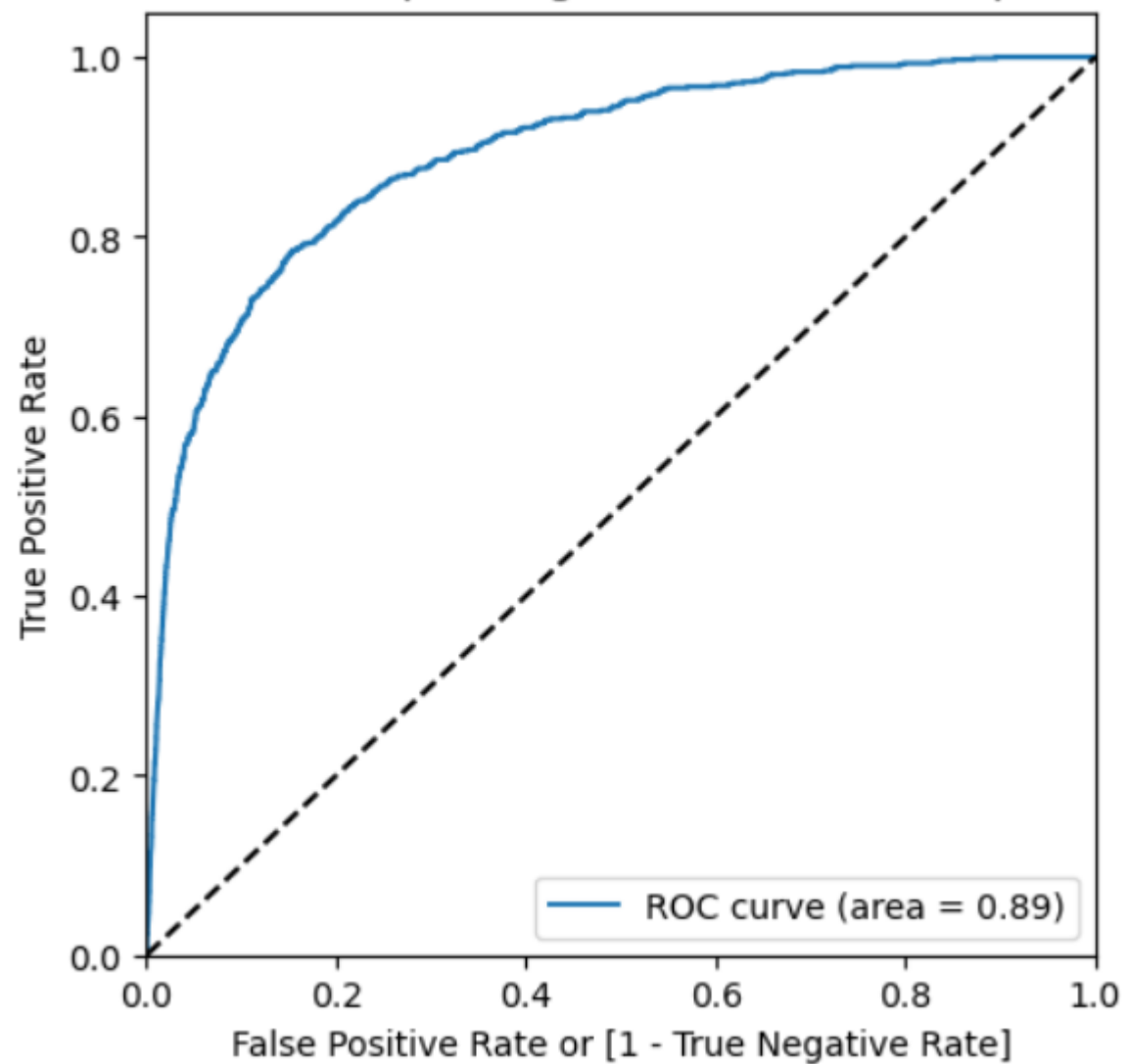


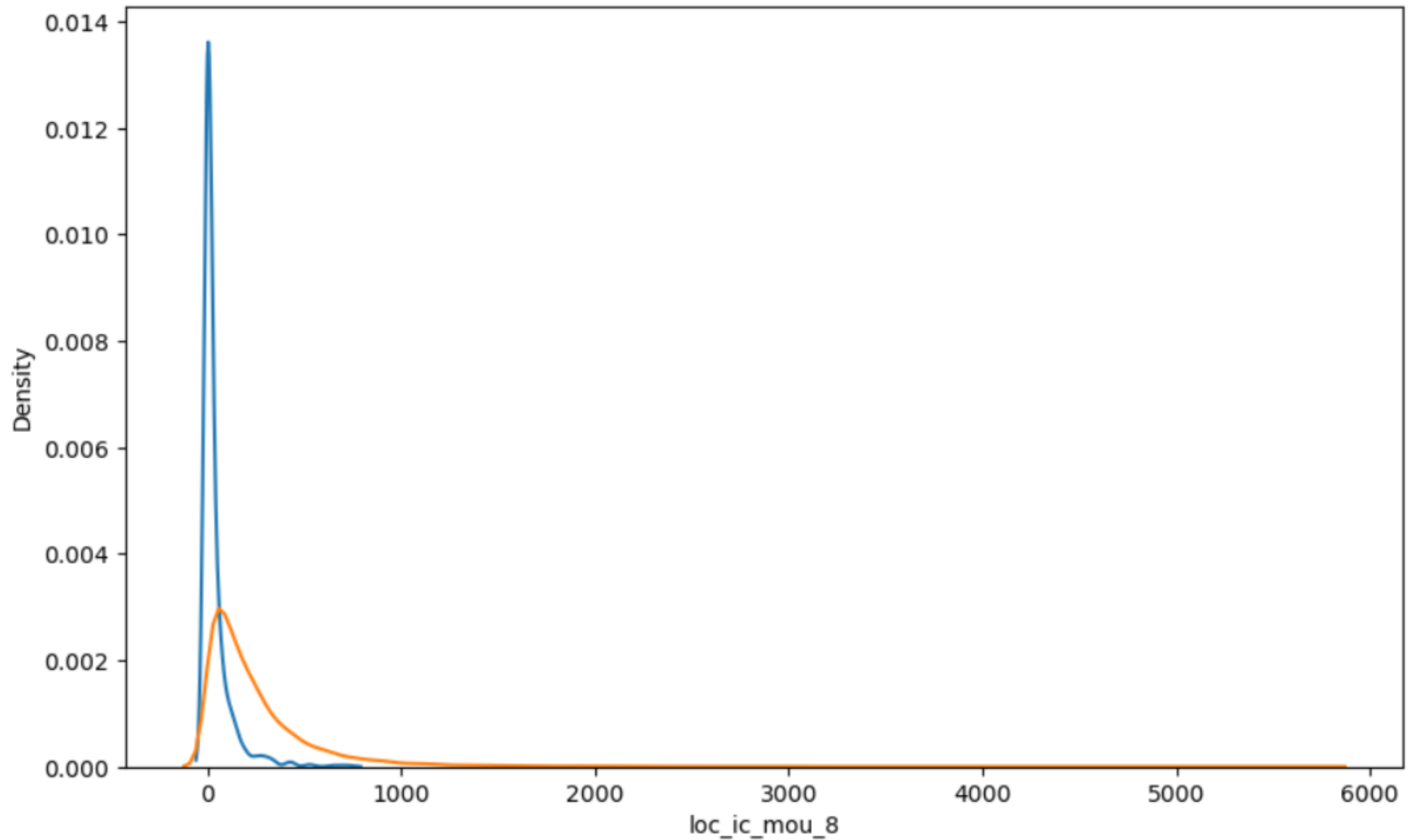
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Receiver operating characteristic example





We can see that for the churn customers the minutes of usage for the month of August is mostly populated on the lower side than the non churn customers.

