Mini Project 2

(2019-2020)

On

Customer Churn Prediction

Synopsis

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ABOUT THE PROJECT

- In this project we will trying to predict the customer churn(responses) by the help of machine learning technology. The objective of the project is to reducing customer churn by identifying the potential churn customer and take proactive actions to make them stay.

MOTIVATION

- Defined loosely, churn is the process by which customers cease doing business with a company. Preventing a loss in profits is one clear motivation for reducing churn, but other subtleties may underlie a company's quest to quell it. Most strikingly, the cost of customer acquisition usually starkly outweighs that of customer retention, so stamping out churn also compels from a more subtle financial perspective.

- While churn presents an obvious difficulty to businesses, its remedy is not always immediately clear. In many cases, and without descriptive data, companies are at a loss as to what drives it. Luckily, machine learning provides effective

methods for identifying churn's underlying factors and proscriptive tools for addressing it.

SYSTEM REQUIREMENTS

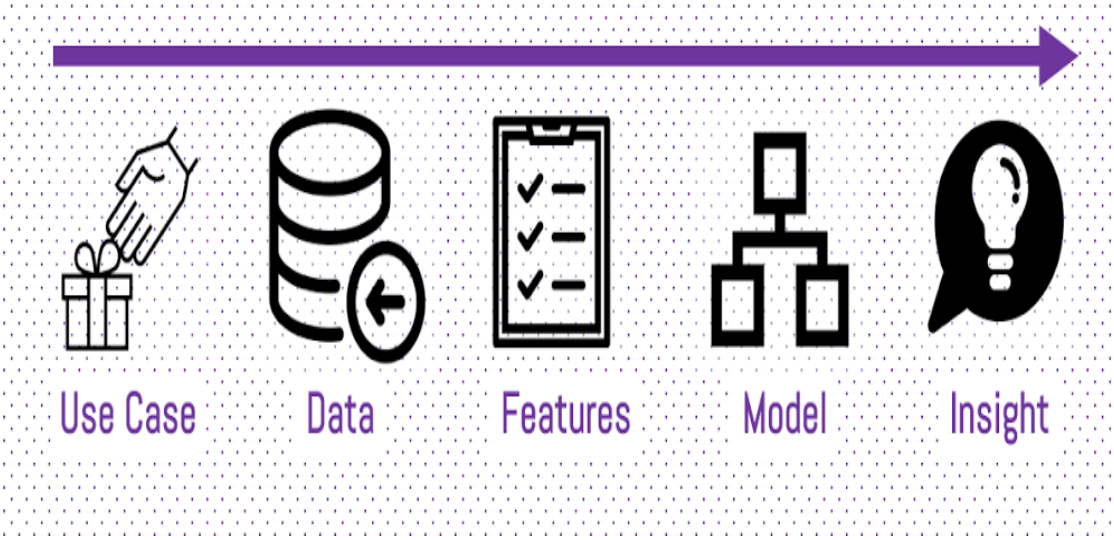
- Hardware Requirement**:** laptop
- Software Requirement**:** Anaconda – Jupyter, Python3

DATASET DESCRIPTION

- The data given is in the form of a comma-separated values files with customer id and their corresponding gender. The training dataset is a csv file of type customer id, churn, gender where the customer id is a unique integer identifying the customer, churn is either 'Yes' or 'No'. Similarly, the test dataset is a csv file of type customer id, gender.

- The data set contains different types of features or columns. the features like customer id, gender, customer services , churn, etc. these features help to identify the customer churn. in our data set, there are 21 columns and approximately 7000 rows.

PROCESS DIAGRAM



Fig

CONCLUSION

- nowadays the subscription-based companies face some problems related to customer responses. so our aim is to solve this problem with the help of the Past data set and choose the best model which will give an accurate result. the whole process will be done by the machine learning technology.
- In this project, we tried to show the basic way of classifying churn into Yes or No categories using Logistic Regression as a baseline and how language models are related and can produce better results.