8138 - SARANATHAN COLLEGE OF ENGINEERING

Department of CSE

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DAC Phase-1 Project Submission

Team-6 Customer Churn Prediction

Problem Definition

The project involves using IBM Cognos to predict customer churn and identify factors influencing customer retention. The goal is to help businesses reduce customer attrition by understanding the patterns and reasons behind customers leaving. This project includes defining analysis objectives, collecting customer data, designing relevant visualizations in IBM Cognos, and building a predictive model.

Design Thinking

1. Analysis Objectives:
    i. To forecast revenue for the year and develop strategies to retain high-risk customers.
    ii. To avoid customer attrition and protect the business's revenue stream.
    iii. To reduce acquisition costs by focusing resources on retaining current customers.
    iv. To maximize the value derived from each customer over their lifetime with the business.
    v. To promote data-driven decision-making, allowing businesses to make informed choices regarding customer retention strategies.

2. Data Collection:
    i. The dataset from Telco Company has been used.
    ii. The dataset has been downloaded from Kaggle.
    iii. It includes all the necessary information like customer’s usage behaviour, past activity, etc.

3. Visualization Strategy:
    i. The key metrics and KPIs are identified related to customer churn that are to be visualized. These include churn rate, customer lifetime value, retention rate, and various customer segmentation metrics.
    ii. Column charts from IBM Cognos are used to visualize the insights of the data.

4. Predictive Modelling:
    i. The machine learning algorithm used is Random Forest.
    ii. It is an ensemble learning method that combines multiple decision trees to improve predictive accuracy and makes it easy to understand the factors contributing to churn.
    iii. They are robust and can handle noisy data well.