Customer Churn Prediction Project Plan

Project Overview

Objective: To predict customer churn and identify key factors influencing customer retention.

Project Phases

1. Data Collection and Preprocessing

- Identify data sources, including the Kaggle dataset and internal systems.

- Develop data extraction and integration scripts.

- Perform data preprocessing, including handling missing values and data quality issues.

2. Feature Engineering

- Create features capturing customer demographics, usage behavior, and historical interactions.

- Implement feature scaling and encoding as needed.

3. Data Exploration and Visualization

- Utilize IBM Cognos for data exploration and visualization.

- Generate insights into churn rates, demographics, and feature distributions.

- Create initial dashboards for monitoring and reporting.

4. Predictive Modeling

- Split the dataset into training and testing sets.

- Select machine learning algorithms (e.g., logistic regression).

- Train and evaluate models using relevant metrics.

- Experiment with model configurations and hyperparameters.

5. Interpreting Model Results

- Analyze model results to understand feature importance.

- Determine influential factors in predicting churn.

6. Actionable Recommendations

- Generate recommendations based on model insights.

- Develop retention strategies and interventions.

7. Reporting and Communication

- Create reports and presentations using IBM Cognos.

- Present findings in an understandable manner for stakeholders.

8. A/B Testing for Intervention Strategies

- Implement A/B tests for retention strategies.

- Measure the impact on churn and retention.

9. Feedback Loop and Continuous Learning

- Establish a feedback loop with the team.

- Gather feedback and make necessary adjustments.

- Continuously monitor the model's performance.

10. Documentation

- Maintain comprehensive project documentation.

- Document data sources, preprocessing, modeling, results, and feedback.

11. Monitoring and Maintenance

- Continuously monitor the model's performance and retrain as needed.

Conclusion

This project document serves as a guide and reference for the successful execution of the Customer Churn Prediction Project. It outlines the steps, responsibilities, and objectives for each phase of the project.