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Assignment 1: Customer Churn Prediction for Tele Company

Business Understanding:

The first step involves meeting with stakeholders to understand the business impact of customer churn, clarifying what defines a "churned" customer, and setting specific objectives, such as reducing churn by a certain percentage within the next three months. This step is essential for a clear understanding of the problem and aligns the project with business goals.

Data Understanding:

Next, I would explore the dataset provided, analyzing columns like customer demographics, account details, services used, and churn status. This helps identify any patterns or correlations, such as whether service issues are linked to higher churn rates.

Data Preparation

Data cleaning and preprocessing would follow, involving tasks like handling missing values and filtering out irrelevant data. This step ensures the data is both high-quality and complete, ready for model training.

Modeling

I would then select appropriate algorithms, such as logistic regression, decision trees, or more advanced models, to predict the likelihood of customer churn. The model would be trained on the dataset to identify customers at risk of leaving.

Evaluation

Once the model is trained, I would evaluate its performance using metrics such as accuracy and precision to ensure it meets business requirements. Based on the results, I would refine the model as needed to improve prediction quality.

Deployment

Finally, working with the engineering team, I would deploy the model in production. A monitoring process would be set up to enable real-time identification of customers at risk of churn, allowing the business to respond proactively.