Abstract : Customer churn analysis is the process of predicting customers who tend to cancel the service (subscription) they receive for various reasons, especially in sectors such as telecommunications, finance and insurance, and determining the necessary operational steps to prevent this cancellation.

Example: Banking Sector

The Problem is based on the domain of the Banking sector where the bank wants to predict the Churn of a customer depending upon the previous data of the customer. By churn it is meant that the bank wants to predict if a customer would be a defaulter in the next quarter depending upon its previous credit history.

**Problem Definition:**

The main problem is to predict if a customer would be credit defaulter or not depending upon the previous data of the customer. A Bank wants to take care of customer retention for its product: savings accounts. The bank wants you to identify customers likely to churn balances below the minimum balance. You have the customers information such as age, gender, demographics along with their transactions with the bank.

**Design Thinking**:

Analaysis Objectives:1.Identifying at Risk Customer, Predictive Accuracy, ROI measurements, Model validation, Continuous Monitoring, Feed back Loop.

Data Collection: Identify the data source ,Data collection ,Labelling Churn, Time period, Data Privacy and Security, EDA, Data Documentation, Data Updates.

Visualization Strategy: EDA, Churn Distribution, Feature Analysis, Time series Analysis, Dashboard Creation, Monitoring.

Predictive Models: Model selection, Model Training, Model Evaluation, Deployment, Monitoring and Maintenance.

2.Predictive Accuracy