## CUSTOMER CHURN PREDICTION SYSTEM

## **Problem Definition:**

Customer churn prediction is a process that involves using data analysis and machine learning techniques to forecast when and why customers are likely to stop using a product or service. It's essential for businesses to identify and prevent customer churn because retaining existing customers is often more cost-effective than acquiring new ones.

## **Design Thinking:**

1.Empathize: Understand the needs and pain points of the business: Gather insights into why customers are churning, such as poor customer service, pricing issues, or product dissatisfaction.

- 2.Define: Develop a concise problem statement that outlines the objective of the churn prediction system and the key metrics to be used.
- 3.Ideate: Brainstorm solutions: Encourage cross-functional teams to generate ideas for predicting churn. Consider both traditional statistical models and machine learning approaches.Prioritize ideas: Use criteria like feasibility, potential impact, and cost-effectiveness to rank and select the most promising ideas.
- 4.Test: Implement the churn prediction system: Develop a full-scale system based on the prototype, integrating it with relevant data sources and existing business processes. Continuously monitor the system's performance and refine it based on real-world data and feedback.

- 5.Implement: Roll out the system: Deploy the churn prediction system to production and provide training to relevant personnel. Create action plans: Develop strategies and actions to be taken when the system predicts a customer is at risk of churning.
- 6.Evaluate: Define key performance indicators (KPIs) to assess the system's impact on reducing customer churn.Gather feedback: Collect feedback from customer service teams and customers to make iterative improvements.
- 7.Iterate: Continuously update and refine the churn prediction system based on the data and feedback collected. Adapt to changing customer behavior and market conditions to maintain the system's effectiveness.