

# Customer Churn Prediction

## **Objective :**

Customer churn prediction is a crucial task for businesses across various industries, including telecommunications, subscription services, e-commerce, and more. It involves identifying customers who are likely to stop using a product or service in the near future.

## **Analysis Approach :**

In this document, we've outlined our approach to solving the problem of customer churn prediction using data analytics. We've defined the problem, identified key challenges, and laid out a design thinking approach that involves empathizing with users, defining objectives, ideating potential solutions, prototyping, testing, implementing, and iterating.

Our ultimate goal is to develop a reliable tool that provides actionable insights for reducing customer churn and improving business outcomes. By following this structured approach, we aim to create a valuable asset for businesses seeking to retain and grow their customer base.

## **Insights and Deployment :**

### **Understanding Customer Behavior:**

Insights and prediction models allow businesses to gain a deep understanding of customer behavior. By analyzing historical data, companies can identify patterns and trends associated with churn. For example, they can determine the specific actions or events that often precede a customer leaving, such as reduced activity, declining usage, or complaints. This knowledge helps in developing targeted strategies to prevent churn.

### **Early Warning Systems:**

Prediction models can serve as early warning systems by identifying customers who are at risk of churning. By analyzing various customer attributes and behavior, these models can flag customers who exhibit characteristics similar to past churners. This enables businesses to intervene proactively and address their concerns before they decide to leave.

### **Personalized Customer Engagement:**

Insights from these models can help businesses personalize their interactions with customers. By segmenting customers based on their behavior and preferences, companies can deliver tailored marketing messages, promotions, and support, which are more likely to resonate with each customer. This personalized approach can enhance customer satisfaction and loyalty.

**Churn Drivers Analysis:**

Insights and prediction models can identify the underlying causes of churn. Businesses can conduct in-depth analysis to understand why customers are leaving. It could be due to factors like poor customer service, product quality issues, pricing, or competition. Once the root causes are known, businesses can take corrective actions to address these issues.