**Intelligent Customer Retention: Using Machine Learning for Enhanced Prediction of Telecom Customer Churn**

**Define problem /problem understanding**

In this milestone, we will see the define Problem & Program understanding

* literature survey
* specify the business problem
* Business requirements
* Social or business import

**Literature Survey**

* As the data is increasing daily due to digitization in the banking sector, people want to apply for loans through the internet.
* Machine Learning (ML), as a typical method for information investigation, has gotten more consideration increasingly.
* Individuals of various businesses are utilizing ML calculations to take care of the issues dependent on their industry information.
* Telecom companies often use customer churn as a key business metrics to predict the number of customers that will leave a telecom service provider.
* A machine learning model can be used to identify the probable churn customers and then makes the necessary business decisions.

**Specify business Problem**

* Customer churn is a major problem & one of the most important Concerns for large companies.
* Due to the direct effect on the revenues of the Companies, especially in the telecom field, companies are seeking to develop means to predict Potential Customer to churn.
* Increased importance of marketing Strategies and Conscious behavior of customers in the recent year
* A machine learning model can be used to identify the probable churn Customers & then makes the necessary business decision.

**Business Requirements**

* The business requirements for a machine learning model to predict whether the customer will churn or not on customer information
* To minimize the number of false positives (customer that predicted as loyal but churn) and false negatives (customer predicted to be churn which could have stayed loyal).
* Provide an explanation for the model's decision, for better decision making in order to gain more profitability.

**Social or Business Impact**

* Social Impact: Proposed model can help improve the overall customer experience and service quality
  + Companies can also make better decisions about how to retain their customers
  + Business Model/ Impact: This product can generate revenue using a product based model, where the system can be sold as a product to the telecom companies.
  + This product can also be used for subscription based model.