**Mini Project:**

Predicting Customer Churn using Machine Learning

The mini project could involve the following steps:

1. Download a dataset of customer information from a subscription-based service (e.g., telecommunications, streaming service) with a target variable of customer churn.
2. Preprocess the dataset by removing irrelevant columns, handling missing values, and converting categorical variables to numerical values.
3. Split the dataset into training and testing sets.
4. Train several machine learning models, such as logistic regression, decision tree, random forest, and support vector machine, to predict customer churn based on the available features.
5. Evaluate the performance of each model on the testing set using metrics such as accuracy, precision, recall, and F1 score.
6. Select the best-performing model and use it to predict customer churn on a new dataset.
7. Analyze the results and discuss the limitations of the approach and possible extensions.