# Project 2 proposal

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**Machine learning to solve: Telecon Customer Churn Prediction**

The project aims to upgrade an old project I made for a competition on Telecon Customer Churn Prediction! In this competition, the task is to build predictive models that can accurately predict whether a Telecon customer will churn or not based on historical customer data.

## Competition Description

Customer churn is a critical issue for telecommunication companies. Losing customers to churn can lead to significant revenue loss and impact the company's growth. Therefore, it is essential to predict potential churners accurately and take proactive measures to retain them. In this project I can work with historical customer data, and my goal is to develop machine learning models that can predict customer churn effectively.

## Dataset

The dataset consists of various customer attributes, such as customer demographics, subscription details, service usage, and billing information. The target variable is the "Churn" column, which indicates whether the customer churned (1) or not (0).

## Evaluation

Model will be evaluated based on the Area Under the Receiver Operating Characteristic Curve (AUC). The AUC is a commonly used metric to evaluate the performance of binary classification models, and it measures the trade-off between the true positive rate (sensitivity) and the false positive rate (1-specificity).

AUC will be the first metric, but I will show, for each model, even the Accuracy metric.

## Current Benchmark

The current benchmark is an AUC score of 0.73154, that is my previous best score on test data, and I want to beat it in this Project.