Term Deposit Predictability

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Proposal

We are looking to use the data provided by https://www.kaggle.com/prakharrathi25/banking-dataset-marketing-targets. Our goal is to create a model that prioritizes customers of the bank by their likelihood of subscribing to a term deposit. This will allow the business to properly allocate resources towards individuals that are more likely to return a satisfactory response. By increasing the number of customers that subscribe to a bank deposit the bank will be able to generate more loans and thus earn more through interest. If by chance we find out that customers who are more likely to subscribe to a term deposit have also used other profitable bank services, we will be able to have more information pertaining to the bank's funnel.

The Data

The data we have is from a Peruvian bank that offers standard bank services to its customers. This data has some basic demographic data such as age, education, and marital status. In addition, the data contains current loan amounts and their category. All customers have also been given features that shows the marketing campaign directed towards that user.

Method

We will be isolating the different aspects of each customer and using them in different combinations in order to establish correlations between features. From here we will be able to provide the machine learning algorithm with strong indicators of which customers are likely to subscribe to term deposits. We will be testing the individual features with algorithms such as logistic regression and once everything is tweaked, we plan to create the final model with random forests as this is a categorization type model. We plan to subset the data into tiers of customers, this will require exploration of the data which will help us better understand the customer base and the indicators that lean towards a satisfactory response.

Application

Once we have established the tiers for each customer, the marketing segment may be able to better allocate man-hours towards the customers that are most likely to convert. Learning more about the best customer base may alter our thinking about the marketing strategy – adapting to better appeal to the best customers.

Closing Thoughts

This project can be completed in a short period of time and can yield strong results for the marketing team. We will be testing and retesting the data thoroughly and provide easy to understand statistical evidence to the marketing team so that our findings can be used immediately.