Capstone Project Proposal - Churn Prediction

Prepared for: Springboard

Foundation of data science

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# EXECUTIVE SUMMARY

## Abstract

Churn prediction aims to detect customers intended to leave a service provider. Retaining one customer can cost an organization from 5 to 10 times than gaining a new one especially at times when the market is in state of saturation and fierce competition. Predictive models can provide correct identification of possible churners in the near future in order to provide a suitable retention solution.

## Data acquisition and preparation

The first step in predictive modelling is the acquisition and preparation of data. Having the correct data, is as important as having the correct method.

As an employee in a telecom company, i managed to get approval upon acquiring and use of the company data without any limitations regarding to size or type(after anonymising or encrypting any sensitive information).

This data can include different types of information like usage, profiling, revenue, segmentation, complaints, service requests, etc.

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## Solution approach

1. Extract at least 1 year of churners data and identify all required fields for the prediction model
2. Exclude a representative sample of churners to test the accuracy of the model after finishing
3. Extract new information and knowledge from the data to help in churners segmentation (e.g. Churners leaving the country should be excluded)
4. Identify patterns which led to churn (e.g. analysing usage behaviour and number of complaints)
5. Build the model by defining the exact criteria and behaviour that could lead to churn and segment the output (e.g. low, medium and high probability churner)
6. Test the model against the excluded sample to determine accuracy percentage

## Project output

* **R code** used in wrangling, analysis and model building
* **Project report** including problem definition and detailed solution approach and model components
* Possibly **Slide deck** for Springboard presentation

company name