

Bank Churn Predictions

Introduction

Today, we live in a digital era and businesses have been saturated by a high supply and demand for services. This has forced companies to transform themselves towards a customer-centric approach, and consequently actions must be taken to take companies a step ahead. Part of this transformation required a reinvention of traditional marketing methods, and this is where Machine Learning comes in to play a transcendental role in the commercial strategy.

Churn is one of the biggest problems that business face since it is much more costly to attract new customers than to retain existing ones. Hence, strategies must be created to proactively predict and prevent churn, while at the same time enabling customer loyalty.

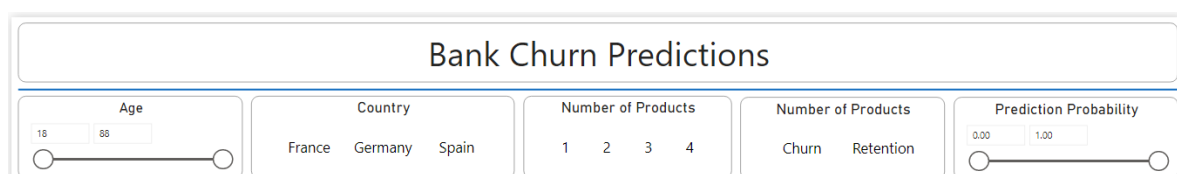
With the help of Machine Learning techniques, we can predict the customer's propensity to abandonment based on the customer's history. To achieve this objective, it is necessary to investigate the reasons that may lead to abandonment: behaviors, personal preferences, and other types of characteristics can be analyzed in the process of building a model.

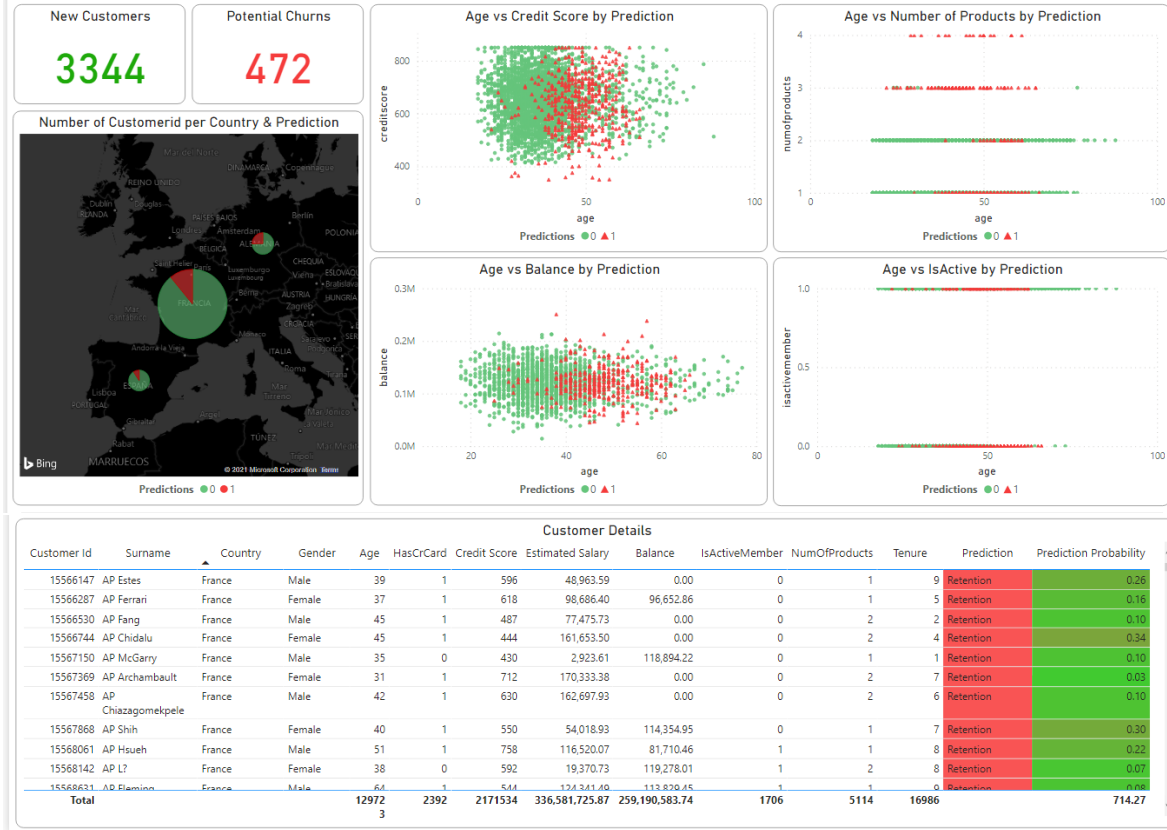
Objective

Our goal is to provide the bank insights of the business situation, in particular how many new customers they have, many potential churns may happen, the variables affecting the people that belongs to this group and customer details where they can see each case and churn probability.

We are going to use Python in order to preprocess our data and apply 3 machine learning algorithms: Decision Trees, Random Forest and Extreme Gradient Boost in order to get the churn probability of each customer. Then use Power BI to deploy our model and get insights about the bank customers.

Dashboard





Conclusion

We live in an increasingly globalized society, in which we talk about the consumption and generation of data per second. The information obtained means that we are adding more and more reliable data in terms of customer knowledge and this will allow us to analyze all the necessary information to create appropriate strategies for bussineses.

By analyzing the data we can have a better understanding of the customer and will allow us to answer questions such as which segment is most prone to churn, what general causes cause customer abandonment, at what point in the lifecycle does churn occur, and so on.

With the help of machine learning techniques we will be able to learn from all this information and past behavior of our customers, in order to help us build predictive retention models. Through these analytics, we can even discover new customer profiles. All this information will provide us with enough data to even know which customers we should let go because their profitability is not good or they are not a good target for the company.