**DAB402: Assessment 1**

Public/Business Problem/Product Formulation

**Title**: Mortgage Loan Approval

**Group Number: 1**

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**B**anking sector is the lifeline of any modern-day financial system. It plays a major role in the functioning of an economy. The strength of an economy depends on the efficiency of financial system. For buying anything people are influenced by loans, in a current economic device, banks are to be taken into consideration no longer as seller in money however as leaders as improvement. They play an important role in mobilization of deposits and disbursement of credit score to numerous sectors of the financial system. The banking device presentation of the economic health of country.

The role of data science is to help in improvement in customer’s understanding, risk and fraud to maintain and grow more profitable customer base. There are various departments in the banking sector. We are mainly targeting mortgage approval in banking sector. For lenders and financial institutions, accuracy and predictability are key drivers of success.

Mortgage is a loan wherein real property serves because the collateral. It is usually used with specific prime duration and interest price in keeping with the agreement of the loan mortgage made between parties. The loan is a settlement that makes the home loan paintings. There are many kinds of loan which are extensively used inside the international as an example Fixed rate loan (FRM), Adjustable charge mortgage (ARM), Equity mortgage, Budget mortgage, and many more. But there are only two basic types of mortgage loan which is Fixed rate mortgage (FRM) and Adjustable rate mortgage (ARM). FRM also known as conventional mortgage, means interest rate and periodic of payment does not change entire life of the loan and for ARM, interest rate can be changed depending to situation of the economy.

The cause that we use mortgage approval as our project is that, now a days every person needs a loan to fulfill their need and dreams. So, some customers that are eligible for home loan gets rejected whereas some of them who are not fulfilling loan approval condition’s get the loan.

So, we want to make a model that will do aa fair decision like the customers who met with all conditions will get a loan approval and some of the factor for those are: they should have their own capital in their account, checking for their credit score and payment for credit card. From customers point of view, it is fair for those customers who got rejected after fulfilling all conditions and its beneficial for those customers, who already had another loan, that they should wait for next loan. So, that first they clear the old one and then apply for another loan.

Mortgage loan is beneficial for customer such as whenever they want to settle in their life and want to own their house they do not have to worry about the money they can take the mortgage loan from bank they have account with or with new bank by completing the several requirements. We considered this perfect for them as they can take short term or long-term loan, also they will be cost effective such as they have fix rate or deals.

For bank professional this is beneficial in different ways such as they can have large share rates due to flexibility and high rate of closing loans. Banks can promote other financial products in order to maximize the revenue of their bank which can include the saving checking account credit card etc.

Our business problem is which applicant will be selected for approve loan for them and which will be rejected?

We will provide the solution hypothetically that on the basis of data we have how that factor play role and how we will randomly pick the applicant file which will be selected or rejected.

We will also use tools and analytics to provide solution.