**Software Requirements Specifications:**

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4. **Introduction:**
   1. **Purpose:**

Past few months there has been decreased in the customers in the bank, since bank has initiated so many good policies and give various opportunity to the customer so that they can attracted towards bank. But by doing so many things there has been slightly decreased in the outcomes of the net worth of the bank.

The purpose of this document is to understand the concepts of problems and solutions for both stakeholders whether it is for developer as well as for user also.

So after facing these problems bank has finally taken decision that we must go for the solutions to get rid out of this problem, and that’s why we have came up this solutions which not only solve its problems but also increased it net worth.

* 1. **Intended Audience:**

This Model can be used by only those users who have little bit understanding of data and how to understand those data and also those who know to read the graphs and charts as well because to understand the trends one must have knowledge about graphs and charts.

So basically this model will be used by some specific employers of the bank who is responsible for PR related issues etc.

* 1. **Scope:**

This product will help to find a good solutions for churning problems in a bank. Since it uses the past banking data so the accuracy is more accurate rather than a general one, This product will investigate the entire threshold for providing a new and a unique solution for a given problems. The scope of the product is not limited but a wider range perspective so anyone can generalize the limitless idea of this product

* 1. **Definitions and Acronyms:**

df :- Variable to store imported data.

df.info :- Data Information.

X :- Variable that stores Independent attributes.

Y :- Variable that stores Dependent attribute.

le1 :- Object that stores LabelEncoded values.

ct :- Object that call OneHotEncoded.

Sc :- Object that call StandardScaler.

Xtr :- X training data.

Xts :- X testing data.

Ytr :- Y traning data.

Yts :- Y testing data.

Model :- object that call LogisticRegession.

Ypred :- Predicted values.

Model3 :- Object of DecisionTreeClassifier.

Model4 :- Object of RandomForestClassifier.

1. **Overall Description:**
   1. **Users Need:**

Requirements of users is only to get a good service from the bank and at the same time employers also required to get as many customers as they want and give them good opportunity so that they get attracted towards their bank.

Since bank is facing churning problems so getting good customers is very difficult for the bank, that’s why bank requires accurate solutions, so that’s the need of bank.

And by using this solutions bank also get huge amount of customers and get the most out of it.

* 1. **Assumptions and Dependencies:**

We are not giving guarantee to solve every problems that bank encounters in their daily basis. There are several problems that are related to some external features which this model would not understand so be cautious about it.

Problems related to infrastructures, employee hiring, software problems, and so on which has to be deal by others ways.

1. **System Requirements:**
   1. **Functional Requirements:**
2. Importing libraries.
3. Importing Datasets.
4. Data Explorations.
5. Data Cleaning.
6. Feature Engineering.
7. Pre processing.
8. Applying ML Algorithm.
9. Performance Analysis.
   1. **Non-Functional Requirements:**
10. Security
11. Performance
12. User Friendly
13. Maintainability
14. Durability
15. Sustainability