**Target Marketing-Bank**

There are two main approaches to enterprise marketing: (1) mass campaigns, targeting several general customers, or (2) directed marketing, targeting a specific set of customers. In this competitive world, the mass campaign strategy is not very productive. Nevertheless, there are challenges to direct marketing: finding potential customers is not very easy, although data mining (DM) techniques are providing some assistance in that regard.

The given dataset is from a Portuguese banking institution and was used in their direct marketing campaign to sell term deposits to their customers. You can think of it as cross-selling. The campaign was mostly based on phone calls and the dataset stores general information about customers, details of contacts made with t

hem and the output variable y which indicates whether a term deposit was subscribed

to by the customer or not.

Application Area- Banking, Business

Data Mining Task - Classification Model-Built Decision Tree and Random Forest Model

Number of Instances- 45,211

Number of Attributes- 17

Target Marketing Model Steps;-

1. Initially, the dataset was divided into Train and Test data.
2. After excluding the target variable from both training and testing dataset, I performed

one-hot encoding to transform categorical data into numerical data for further analysis.

3) After building a Decision Tree Classification Model and performing hyperparameter

tuning and Model tuning, I was able to achieve accuracy of 81%.

4) After building a Random Forest Model and performed hyperparameter tuning, used

Randomized search and cross validation, I was able to achieve accuracy of 86%.

More details about which parameters are used and what are the results is added in the

presentation.