**Customer Conversion Prediction**

Using the given dataset, I have developed a model that will predict, whether the customer will buy the insurance or not

**Data JAR**

**Data Clean**

First, we have imported the required packages and read the dataset. After that we have checked the null values for our dataset and checked that is there any negative column and checked for the empty space in our dataset.

After that we have that our data in right format and dropped the duplicates. Using IQR method we have handled the outlier

**EDA (Exploratory Data Analysis)**

Using line chart and bar chart, I have did the EDA and saw the order in the data and checked for any skewness in the data

**Encode**

I have label encoded the categorical columns, named job, marital, education qualification, call type, month, previous outcome and target variable, so that our model can predict the target variable

**Split**

Using train\_test\_split method, I have split the test data 20% and train data 80%

**Scale**

Scaling is not mandatory for decision tree algorithm, so I haven’t scaled the data

**Task JAR**

It is a supervised, classification problem, since we are predicting the categorical column, it is a classification problem

**Model JAR**

I have used, Decision Tree Algorithm, Random Forest Algorithm and Xtreme Gradient Boosting (XGB Classifier) Algorithm, to fit and train the model, and Decision Tree Algorithm and Random Forest Algorithm, was overfitting in training, so using cross Val score and Randomized Search CV, i have adjusted the overfitting

**LOSS JAR**

Using mean squared error, i have calculated the loss jar

**Learning JAR**

Using Cross Val Score and Randomized Search CV i have hyper tuned the parameter

**Evaluation Metric JAR**

Using F1 Score I have evaluated the model