

Step 1: Data Preprocessing

1. **Load the Data:** Read the dataset into a pandas DataFrame.
2. **Checking the Dataset:** Checking type of data in data set.
3. **Handle Missing Values:** Deal with missing values by either imputing them or removing the rows/columns with excessive missing data. In some cases, missing values have been replaced with 'Not Provided' to avoid loss of data as those columns look like important for current analysis.
4. **Drop Irrelevant Columns:** Remove columns that are not useful for the prediction task, such as Prospect ID, Country, Tags etc.

Step 2: Data Visualization and Exploratory Data Analysis

1. **Univariate Analysis:** To understand each variable better.
2. **Bi-variate Analysis:** To understand relationship between two variables.
3. **Introduction of Dummies :** Dummies introduced for all categorical variables and removed categorical variables as those are already covered under dummies.

Step 3: Model Training

1. **Split the Data:** Split the data into training and testing sets. We have used 70: 30 ratio for splitting the data.
2. **Re-scaling:** Re-scaling the features of train data set by using Min-Max method.
3. **Data division:** Dividing data into X & Y sets for model building.
4. **Train the Model:** Use logistic regression to train the model on the training set. After multiple iteration, achieved a model where p value is lower than 0.05 and VIF is lower than 5.
5. **Evaluate the Model:** Evaluate the model on the testing set using metrics like Confusion metrics, Accuracy, ROC.

Step 4: Assign Lead Scores

1. **Predict Probabilities:** Use the trained model to predict the probability of conversion for each lead.
2. **Scale to 0-100:** Scale these probabilities to a range of 0-100 to assign lead scores.