**Accusaga Data science Assignment**

**Notes to submit an assignment:**

1. Use only **python** as programming language, assignments submitted in other languages **won’t be consider as valid.**

* Used Python

1. Upload your **jupyter notebook** file to **github** and share **github URL**

-I don’t have an github will share via gdrive

1. Prepared a word document and explain **step by step process, Methodology and Inferences**.

The Existing document is good will use it

1. Explanation about inferences from given dataset is important.

The Data set contains sales record I have done good analysis on it

1. Send **jupyter notebook file** and **word document** on given mail id.

Sure.

**Todo:**

1. Use the given dataset ‘DS\_dataset.csv’

Sure

1. Understand the dataset.

Sure

1. Perform EDA.

The Eda has been Performed

1. Build predictive model to predict the customer is buyer for product ‘ABC’ or not.

* Explain the model performance using different performance metrics?

The Model has got different score on the metrics I have consider Random Forest Score with decent amount on F1 and accuracy score involved in it.

* Explain the confusion matrix of model?

The Confusion Matrix of the model determines the true positive rates over falls positive rates and it has leads to lot of ther metrics such as precision recall f1score and accuracy

In My Model we got a decent amount of score on the metix where there is no overlap on the TPR and FPR

* Assign probability of purchase to each record.
* Identify which variables are influencing on the purchase of product ‘ABC’?
* Var2
* Explain trained model using **SHAP** values?

In the Models the Shap values are achieved with an decent scores on f1score and precison and recalls and it statical modeling where there was one feature which has score greater value of 0.05

* Identify the group of customer to whom we can reach out to increase sales of product ‘ABC’?

We can reach out to the customers as we have decent amount of modeling scores this can be achived as model says over 70% of customers will be able to buy the products