# **CUSTOMER PURCHASE PREDICTION**

## **PREFACE:-**

We took a dataset and created a model to predict whether the given customer will purchase the product being offered or not.

We used Logistic regression which is discussed in our class to make the prediction.

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#### 1.Import modules:

Numpy

**Pandas** 

Scikit learn

- 2.Preprocessing
- 3. Training/Results (No Feature Engineering)
- 4. Training/Results (Feature Engineering)

#### **INTRODUCTION:-**

Here we predicted the Response variable (Purchase) based on the Explanatory variable (Gender, Age, Estimated Salary) using Logistic Regression Model.

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# Import Libraries:-

To prepare the model we imported these libraries.

- ➤ Numpy
- Pandas
- > Scikit learn
  - →train test split
  - →StandardScaler
  - → Logistic Regression

#### Read CSV File:-

We uploaded the file in the jupyter notebook and read it by using pandas.

# Preprocessing:-

We dropped user ID column Because there is no use of it to predict the model and converted the categorical data into the numerical data in the Gender column. Divided the data into response variable and explanatory variable. Converted the trained data into Standard Scalar data.

### Train Data:-

We trained the data using train\_test\_split with 70% training data and 30% testing data. We trained the data in two ways:

- -No Feature Engineering
- -Feature Engineering

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## DataSet:-

https://www.kaggle.com/datasets/denisadutca/customer-behaviour

## Conclusion:-

Finally We created model with the score of 80.833% in no Feature Engineering model and 85% in Feature Engineering model.

#### **4** REFERENCE:-

- ✓ <a href="https://www.youtube.com/watch?v=baRbSngFH">https://www.youtube.com/watch?v=baRbSngFH</a>
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