

DAB303 – Marketing Analytics– Project 1: Churn Analysis

Introduction

The purpose of the lab is to perform analysis of the customer base of an e-commerce site, determine the characteristics of the individuals who have stopped using the service (known as “customer churn”), and devise strategies to target similar individuals within the dataset and prevent them from changing.

Data:

The provided dataset to be made available during the lab contains all the information needed for the project.

Tasks:

1. **Download and load data file** – as described below:

- Download the dataset (in .csv file format) from Blackboard.
- An additional .xlsx file contains the data dictionary, with descriptions of what each column entails?

2. **Use Python Tools for developing the desired model:**

- Import the dataset as a Pandas Dataframe.
- Perform analysis to determine the customer churn characteristics. Your analysis should include at least the following:
 - o Cleaning the data (as needed),
 - o X-Y Scatter plots on appropriate variable pairs, and
 - o Correlation testing.

You may use additional techniques which may not be listed above, provided that you can submit a rationale for why the technique is useful and an indication of what you hope to achieve.

3. **Further Implementation:**

- Design and implement Decision Trees.
- Design and implement Logistics Regression Model.

Note: When splitting the data into a train set and a test set, use `test_size = 0.20`.

4. **Report** – In a separate word document:

- Record your observations with respect to the customers who have already churned and use it to identify the groups of people most likely to churn next.
- Then, devise a high-level marketing strategy to entice these individuals to continue using the service.

Submission – Deliverables

Submission will be done via Blackboard, and it will be group submission, including:

- One file per group (in .zip format):
 - o Jupyter Notebook/lab file (.ipynb)
 - o Exported Jupyter notebook in html (.html)
 - o Report (.pdf) and presentation (.pptx)