Jai Guru!

Problem Definition

Identify the reasons for the customers’ drop-out

Context

The customers use the application to make the submissions. While some may be successful in making the submissions, there might be some customers who start interacting with the application to make the submissions, but drop out midway. In such cases, we would like to know the reason behind the customer’s dropout. Hence, it is important to analyze the interactions of the customers with the application. For a human, it can be time consuming and also error-prone.

Hence, a machine learning model is built that can analyze these interactions and categorize them as good and bad agents. Good agents are the ones who have made a successful submission and bad agents are the ones who have dropped out midway for some reason. Each of these groups will have certain characteristics which can be analyzed further. For example, analyzing the bad agents group’s characteristics further, will help us to know the exact reason for the dropout.

Many customers abandon an application before completing submissions. To understand why, we need to analyze user interactions. Analyzing this data manually is time-consuming and prone to error. Therefore, we will build a machine learning model to categorize the customers as either successful (“Good agents”) or unsuccessful (“Bad agents”). By comparing these groups, we aim to identify the root causes of dropouts.

Approach

1. Analyze the data to understand why customers are dropping out
2. Understand the characteristics of the customers with successful submissions and of those who dropped out using a machine learning model
3. Analyze the pain points in the submission and the issues of the customers who dropped out to identify the exact reason for their dropout

Solution

1. Collect user behavior data such as pages visited, time spent on pages, error messages, demographic information
2. Preprocess the data to handle missing values, inconsistent data
3. Build a machine learning model, such as a clustering model, to categorize the data into two categories or groups, say Bad agents and Good agents
4. Identify the characteristics of the Bad agents category in particular to know the reason why they did not have a successful submission.
5. Identify the errors that the bad agents have encountered during the submission process
6. Result: Root cause or exact reason

Collect user behavior data

Preprocess data

Build a machine learning model

Identify the characteristics of bad agents in particular

Identify the error encountered during the submission process

Result: Exact reason for drop-out