Abstract

In today's world, the growing competition in the market especially after COVID-19 situations has increased the necessity to understand the customers and the market requirements. For this, understanding the needs & purchase patterns of the customers as well as maintaining the stock is a must.

Predictive analysis helps a lot on this. One of the many opportunities it can provide is predicting the next purchase day of the customer. If we know that a customer is likely to make another purchase in 7 days we can build strategies on top of it and come up with lots of tactical actions like, we can omit providing offers to this particular customer since he will be buying the product anyway, send targeted notifications to that customer to buy the product, etc.

This project trains a model on the retail dataset which contains all purchases made for an online retail company based in the UK during an eight-month period and then predicts the next purchase day range of the customers. In this project, various algorithms like Logistic Regression, Gaussian Naïve Bayes, Random Forest Classifier, SVC, Decision Tree Classifier, GB Classifier, K-Neighbour, MLP Classifier, etc, are experimented and their accuracy is considered. Here, Random Forest classifier produces the most stable and accurate results.