Survey on Implementation of Market Basket Analysis using Hadoop Framework

Volume 134

Number 10

Year of Publication: 2016

Authors:

Rupali S. Vairagade, Tejas Shah, Tejas Chavan, Rohan Bhatt

Abstract

Market Basket Analysis is a technique to identify items likely to be purchased together. A predictive market basket analysis is used to identify sets of products/services purchased or events that occur generally in sequence. The basic approach is to find the associated pairs of items in a store when there are transaction data sets. Hence, our proposed system performing ‘Market Basket Analysis’ will help the retailers to make better decisions throughout the entire company which will help in increasing the profits and effectiveness of the organization. Also, by controlling the order of products and marketing visits or the transactions of the customers could be increased. The system will take the large transactional data sets from the retailers and find the associations between different items from the item sets. These associations of the items purchased frequently and the items that are purchased together will be presented in graphical formats such as tables, pie-charts, bar graphs etc. There are different functionalities or patterns providing for performing analysis such as weekend-weekday sales analysis, month-end sales analysis analysis on different customer profiles etc. The system will be built in ‘Apache SPARK’
framework using Scala and processed on Amazon AWS and the data will be stored at its HDFS on the cluster.

References


Index Terms

Computer Science Information Systems

Keywords
Hadoop Distributed File System, Customer relationship management, Big Data, Interactive Data Mining.