Dynamic Memory Efficient Frequent Pattern Growth for Data Excavation

Abstract

Advancements in information technology increase the data volume of many domains into manyfold. Dynamic Memory Efficient Frequent Pattern (DMEFP) technique introduces new methods to represent data and redundant frequent patterns. Introduction of Repeat Pattern Table (RPT) and new node type ‘Tree Pattern Node’ (TPN) in frequent pattern tree softens the data mining process to be performed in a modern way. DMEFP technique comprises new rules to aggregate pattern nodes and RPT. Computational resources are used sagely in DMEFP technique for data mining. Reduced resource consumption helps to parse large amount of data in short time durations without much complexity.

References

2. Jeff Heaton. Comparing dataset characteristics that favor the Apriori, Eclat or FP-Growth
frequent itemset mining algorithms. IEEE April 2016
5. Chunlai Zhang, Xudong Zhang, Panbo Tian. An Approximate Approach to Frequent Itemset Mining, Data Science in Cyberspace (DSC). IEEE June 2017
8. Sagar Bhise1, Prof. Sweta Kale, Efficient Algorithms to find Frequent Itemset Using Data Mining, International Research Journal of Engineering and Technology (IRJET) JUNE 2017
11. Data Mining Algorithms In R/Frequent Pattern Mining/The FP-Growth Algorithm. https://en.wikibooks.org/wiki/Data_Mining_Algorithms_In_R/Frequent_Pattern_Mining/The_FP-Growth_Algorithm
12. Mahito Sugiyama, Karsten M. Borgwardt, Significant Pattern Mining on Continuous Variables. Cornell University Library 2017

Index Terms

Computer Science
Circuits and Systems

Keywords
Information Technology, Data Mining, FP-Growth, Frequent Pattern Tree, Memory efficient data mining