Abstract

Association rule mining forms the core of data mining and it is termed as one of the well-researched techniques of data mining. It aims to extract interesting correlations, frequent patterns, associations or casual structures among sets of items in the transaction databases or other data repositories. Hence, Association rule mining is imperative to mine patterns and then generate rules from these obtained patterns. This paper provides the preliminaries of basic concepts about Itemset mining and survey the list of existing tree structure algorithms. These algorithms include various tasks such as fast query processing, optimizing memory space and reducing tree construction time. For mining maximal frequent pattern various algorithms used which optimization the search space for pruning.

References

- M. Kubat, A. Hafez, V. V. Raghavan, J. R. Lekkala, W. K. Chen, "Item-set trees
for targeted association querying”, Knowledge and Data Engineering, IEEE Transactions on

- A. Hafez, J. Deogun, V. V. Raghavan, "The Item-Set Tree: A Data Structure for

- R. Agrawal, T. Imielinski and A. Swami, "Mining Association Rules between Sets

- P. Fournier-Viger, C. W. Wu, V. S. Tseng, "Mining Top-K Association

- P. Fournier-Viger, V. S. Tseng, "Mining Top-K Non-Redundant Association

- S. Dandu, B. L. Deekshatulu, "Improved Algorithm for Frequent Itemsets Mining
Based on Apriori and FP-Tree", Global Journal of Computer Science and Technology,

- C. K. Leung, Q. I. Khan, Z. Li, T. Hoque "CanTree: a canonical-order tree for

- D. Burdick, M. Calimlim, J. Flannick, J. Gehrke, T. Yiu, "MAFIA: A Maximal
Frequent Itemset Algorithm", IEEE transactions on knowledge and data engineering, vol. 17, no. 11, November 2005.

- K. Gouda, M. J. Zaki, "GenMax: An Efficient Algorithm for Mining Maximal

- C. I. Ezeife, Y. Su, "Mining incremental association rules with generalized
FP-tree", 15th Conference of the Canadian Society for Computational Studies of

- M. J. Zaki, K. Gouda, "Fast vertical mining using diffsets", Proc. of the Ninth
ACM SIGKDD International Conference on Knowledge Discovery and Data Mining - ACM

- J. Pei, J. Han, H. Lu, S. Nishio, S. Tang, D. Yang, "H-Mine: Fast and

- J. H. Chang, W. S. Lee, "Finding Recent Frequent Itemsets Adaptively over
Online Data Streams", Proceedings of the Ninth ACM SIGKDD International Conference

- S. Kotsiantis, D. Kanellopoulos, "Association Rules Mining: A Recent
Overview", GESTS International Transactions on Computer Science and Engineering,

- F. M. Christian, N. C. Chauhan, N. B. Prajapati, "A Comparative Study of
Frequent Pattern Recognition Techniques from Stream Data", International Journal of

Sequential Rules Common to Several Sequences", Volume 25(1), Pp. 63-76 , Elsevier
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**Index Terms**

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Association rule mining  Itemset mining  Itemset tree  MEIT  maximal frequent pattern