INTEGRATING COMPRESSION TECHNIQUE FOR ASSOCIATION RULE MINING

Submitted by: SHUBHAM SINGH

140370702552 Semester: IV, M.E. (Computer Engineering)

Guided by: **MRS. SUMITRA MENARIA** Asst. Prof. CSE Dept. Parul Institute of Engineering & Technology, P.O: Limda, Ta.:Waghodia, Dist.: Vadodara

A **Thesis** Submitted to Gujarat Technological University In Partial Fulfillment of the Requirements for The Degree of Master of Engineering In **Computer Engineering**

October – 2016



Computer Science and Engineering Department, Parul Institute of Engineering & Technology P.O: Limda, Ta.:Waghodia, Dist.: Vadodara

Integrating Compression Technique For Association Rule Mining

Submitted By

Shubham Singh

Supervised By

Mrs.SumitraMenaria

Assistant professor

ParulInstitute of Engineering and Technology,

Limda, Waghodia, Vadodara

ABSTRACT

Data Reduction in the field of process becomes a challenging issue in the data mining. Everyone wants that there data must be processed quickly in order to get the result. There are various methods that can allow the large data to be processed quickly or in lesser amount of time. In order to do so, one of the method which is widely used in most of the fields is, "Data Compression" which can easily made availability of the required space. Data mining has many useful applications in recent years because it can help users to discover the interesting knowledge in large databases. If the Data is already pre-processed then data compression over such type of data can easily be done in quick succession of time, Here we analyze the methods simple Apriori, and the Partition Apriori over compressed database using the mining merge transaction compression technique, existing compression algorithms are not appropriate for mining due to lack of consistency of maintaining the compressed database. Two different approaches were proposed in which, first we need to compress databases by applying K-mediod while merging the transaction tables and then perform the data mining process that can promises to increased up the processing time in large databases by using the compression techniques. In this research an approach called Mining Merged Transactions with the Quantification Table is used by applying k-mediod merge compression. The Partition Apriori is used to find the frequent item sets in the database then the compressed database is maintained in the future as this table relationship of transactions is used to merge related transactions and builds a quantification table to prune the candidate item sets.