Abstract

Very rapid growth of data, it will only lead to grave data or "data tombs" are not useful because the data is not used for useful applications. The accumulation of data growth, it will only create the conditions "of a data rich but poor of information". To over come these problems, data mining is the solution.With data mining, you can mine information from cemetery data and making *knowledge*. *Knowledge* can be used by decision-makers, for example, just in a retail company. *Knowledge* gained can be used for any type of data analysisis most often used in the world of marketing is the method of market basket analysis.The result of the analysis is in the form of patterns or rules about the shopping habits of consumers. Such information maybe material to consider in determining corporate policy.To get the patterns or rules, it takes the algorithm to find frequent patterns.

In this final project to discover patterns such rules with CT-Pro algorithm uses two important analytical values are *minimum support* and minimum *confidence*. Any rules can obtained from the data transactions made by consumers in shopping habits. CT-PRO algorithm has three stages: (1) finding the *frequent item*s, (2) Make *CFP-Tree* data structure, (3) Conducting mining frequent patterns.

Based onthe test results obtained *knowledge* consists of items purchased with your purchased item also its support and *confidence* value that can later be used by the company. In addition, also obtained accuracy of any *knowledge* gained.

Key words: *association, support, confidence, CFP-Tree, CT-Pro*