

Reduction Processing Time in Rule-Based Expert System Using Rete Algorithm

Tin Ma Ma

*University of Computer Studies, Yangon
tinmama1992@gmail.com*

Abstract

Nowadays, many Rule-Based Expert Systems have been proposed and almost all of them assume “IF-THEN” rules. The process of matching rules is performed by the data-driven approach, Forward Chaining method, in the Rule-Based Expert System. As the rules and data grow, the time complexity of Forward Chaining method is exponential. Because of this exponential complexity, the system will perform quite slowly. So reducing the processing time plays the important role in Forward Chaining method. The Rete algorithm provides for reducing the processing time. This algorithm drops the time complexity of Forward Chaining to linear rather than exponential. It can improve the performance of the system. This paper applies a Rule-Based Expert System for helping to choose the specific doctors according to the diseases. By applying this system in android phones, the users can be easily found the specific doctors in time.