

## Abstract

*Expert system is one of Artificial Intelligent discipline branch that capable to imitate how expert solve the problem in a specific domain of knowledge both in making decision and take a conclusion. The purpose of building expert systems is to transfer knowledge from expert into computer and then transfer it again to others.*

*Ripple Down Rule is an approach to building knowledge base incrementally. RDR is an knowledge acquisition technique that allowed user to insert knowledge quickly and easy without knowledge engineer support. The intention of RDR is to get simple and gradually development from a knowledge-based system while it is in routine use. Two important modules from this method are knowledge inference and knowledge acquisition, where both each other connected in building knowledge base.*

*This final task use case study that is diagnose of health problems. Knowledge saved into knowledge base in the form of binary tree. Knowledge acquisition into system influence the knowledge based development. The sequence of knowledge acquisition will influence knowledge inference process to decide the result of system output. Knowledge which have been saved cannot be vanished or changed, since the sequence of inference that have been formed will be in disorder.*

**Keywords:** *expert system, ripple down rule, knowledge inference, knowledge acquisition*