THE MINIMAX AGORITHM

FOR NIM GAME

By

Rian Herdiani

10106414

In a computer-based games, a computer designed by applying Artificial Intelligence (AI computer designed by applying Artificial Intelligence (AI) using minimax algorithm. With the concept of tree for search the best evaluation value, so the computer can take the appropriate measures that can provide benefits to the computer and harm the human player when playing.

One game that used as research material is nim game. Because the game does not have any elements of probabilistic and it only played by two people. The implementation use Delphi 7.0 as programming language. In system design, the writer use Unified Modelling Language (UML). In system design, the authors used modeling language Unified Modeling Language (UML). In the phase-in, created Use Case Diagram, Activity Diagram, Class Diagram and Sequence Diagram.

The game is applying Artificial Intelligence (AI) using minimax method that will provide opportunities for the computer to take best step. This research demonstrated that computers can play maximum while against human players, giving the results a victory for the computer. And indicated the steps taken by the computer. And information measures that can be taken human players recommended by the computer.

Key words: Artificial Intelligence, minimax, nim, UML, Use Case Diagram, Activity Diagram, Class Diagram, and Sequence Diagram.