Abstract

Tuberculosis , known as TB , is a disease caused by a virus called Mycobacterium tuberculosis , the disease is most dangerous , because it can be deadly and most common in the lungs. In Indonesia alone , an estimated 450,000 each year there are new TB cases with the deaths of around 64,000 people , the prevalence of TB in Indonesia in 2009 was 110 per 100,000 population and TB occur in more than 70 % of reproductive age.

From this case, arises a problem that the lack of human resources , in this case doctors , to deal with the TB disease , although there is no mention of data that handles success rate of TB disease is touched 90 % , human error is very likely to happen let alone brain performance and human concentration will be reduced if work under pressure and to work continuously. From the description , it takes an application to the doctor in order to help his work , one way is to build an Knowledge Based system -based applications.

An Knowledge Based system is a computer program that contains the knowledge of one or more human Knowledge Baseds on a specific field. Application -based Knowledge Based system that will be built will apply methods of case based reasoning. Diagnosis is done can be done in the doctor 's application to menceklis symptoms of TB disease that exist in the application. Of the input will be calculated similaritynya between new cases will be diagnosed using similarity value refers to the previous medical records. Further solutions issued will be calculated so that it will wear Bayes probability outputs a solution that is 1 TB types and probabilities.

This application will be built with the Java programming language and also to store and process data will be used MySQL. This application successfully achieved an accuracy of 90 % , according to the prevalence of physicians in Indonesia in diagnosing TB disease.

Keywords : Tuberculosis Diagnosis , Knowledge Based Systems , Case -Based Reasoning , Similarity Value , Probability Bayes