ABSTRACT

The addition of weather data generated by BMKG continues to increase, it becomes a heap of data. The study was conducted utilizing weather data for the past few years predicting rain. The technique is done by using a data mining algorithm C4.5 decision tree method. The input data used is a geophysical station climatological data BMKG 1st class Bandung from 2005-2009. The testing process is done by dividing the two data, for the years 2005-2008 are used as training data and the year 2009 is used as the testing data. From the results of the tests performed on the algorithm C4.5 without pruning obtained using only the accuracy of 2.47%, this is due to weather anomalies in the training weather data is used, so the rule does not work well formed. Meanwhile, the C4.5 algorithm using prepruning obtained accuracy of 74.24%, C4.5 decision tree algorithm using the simplified prepruning predict the likelihood of errors in nodes, so the rule is formed can produce better accuracy.

Keywords : *data mining, decision tree, C4.5 algorithm*