Abstract

Thyroid is a gland located in the neck and functions to produce thyroid hormons that regulate the body's metabolism. Thyroid disease is a disorder caused by a deformity or function of the thyroid gland. Diagnosis of thyroid disease is difficult, because the symptoms of thyroid disease vary widely, so a system that can predict thyroid disease is needed. *CART* Algorithm is a classification method that handles a lot of data and variables. *CART* generates a classification *tree* if the response variable is categorical and generates a regression *tree* if the response variable is continuous. The principle of the Pobon classification method is to sort all observations into two groups of observations and to sort the groups into the next two groups of observations, until the minimum number of observations is obtained for each of the following groups of observations. In this final project, thyroid disease is predicted using the *CART* algorithm. The measurement of system performance is done by using split percentage technique with accuracy *value* and F1-score obtained is quite good, reaching more than 98% and it shows that the model produced by *CART* algorithm to detect thyroid disease has a high probability to predict correctly.

Keywords: Thyroid, Prediction, Algorithm, *CART*, *Tree*