Among the known methods of data mining are neural networks, ILP, associative rules, Bayes networks, clustering, decision trees and others. This thesis is about decision trees, their implementation, visualization, extraction rules and the comparison of different decision trees and models of classification data in general. An integral part of the data mining process is preprocessing of data, which plays an important role and is also discussed in this thesis. Part of this thesis also concerns the comparison of different

decision tree models such as CART, CHAID, C5.0 (See5) and others on a set of 3 data kinds. Finally, this model's results are compared to its results when data preprocessed by PCA analysis is used.