Abstract

Al-Quran is the holy book of Muslims as a guide and also a source of law for Muslims. The Quran consists of thousands of verses and each verse has a different topic. To make it easier for Muslims to understand and study the Qur'an, it is necessary to classify the verses of the Qur'an. In this study, a system was built that can classify Al-Quran verses with multiple labels. Multi label means that each verse of the Quran can have more than 1 topic. The model is built using the Ensemble method by combining several Naïve Bayes algorithms. The nave Bayes algorithm was chosen because in previous studies it was able to obtain good performance. This algorithm also has a simple calculation so that it requires a fairly short computation time. The feature extraction stage using TF-IDF is carried out for the weighting of each word in the Al-Quran verse. The preprocessing stage is also carried out to improve performance. To measure the performance of the system that has been built, the calculation of hamming loss is used. Based on the experimental results with several test scenarios, the results obtained are quite good performance, with the lowest hamming loss value of 0.1167. Thus, the use of the ensemble method on the nave Bayes algorithm can improve performance.

Keywords: *Al-Quran, Classification, ensemble method, naïve bayes*