



PROJECT REPORT
COMPARISON LEARNING VECTOR QUANTIZATION
AND NAIVE BAYES ALGORITHM IN AIRLINE
PASSENGER SATISFACTION

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ABSTRACT

Data is something that is very easy to obtain nowadays. Because data is easily obtained and stored digitally, the data becomes very large. For example, data from airline customer satisfaction which reaches around 130000 data. However, to process that much data, an algorithm is needed. Therefore, here I use the Naive Bayes algorithm and learning vector quantization (LVQ). Both algorithms are algorithms for classifying. This study was conducted to determine whether the two algorithms can be used in classifying airline passenger satisfaction data. I also compared the two algorithms to find out which one is better at classifying the airline satisfaction data. The level of accuracy becomes a parameter to determine a better algorithm.

In completing this research, several steps were carried out. The first step is to get and process the data. In processing the data, data preprocessing is carried out, namely deleting empty data and changing the data so that the program can process it. After that, the classification process is carried out using both algorithms. Each algorithm test was carried out 5 tests with different amounts of training data, namely 90%, 75%, 50%, 25% and 10%. After the test is complete, the accuracy of all tests is calculated. The average accuracy of each test with different training data will be the accuracy value of the algorithm.

From the results of the testing that has been done, there are 5 tests for naive Bayes and also 5 tests for learning vector quantization. The accuracy results obtained are the average Naive Bayes accuracy of 89.076% while the average accuracy of learning vector quantization is 79.39% for the airline's passenger satisfaction data. So it can be concluded that the two algorithms can be used to classify airline passenger satisfaction data and the Naive Bayes algorithm is better than learning vector quantization.

Keyword: naive_bayes, bayesian, learning_vector_quantization, lvq

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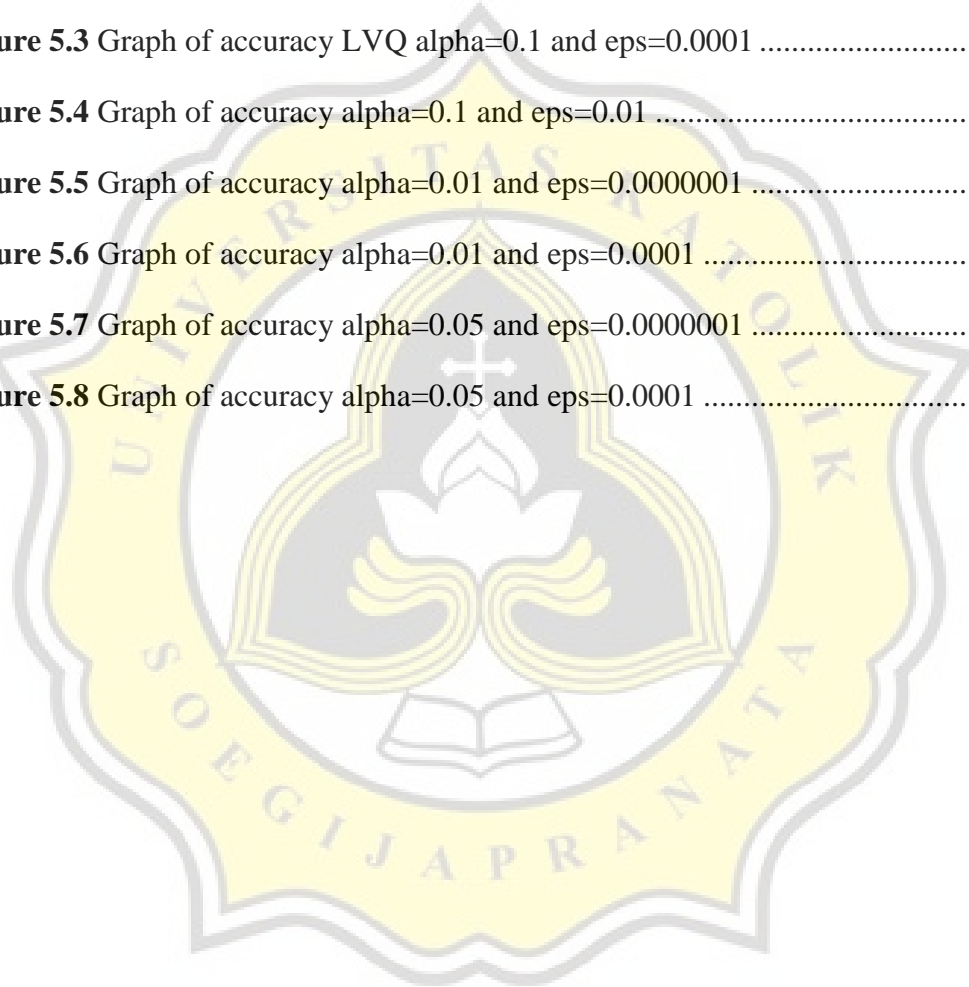
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