Abstract

Information Retrieval is a method which is used for search document, and can be fited for user need of information and documents. By developing the mathematic concept of Information Retrieval method, we can get the improvement of document search application from document collection.

Combination of Information Retrieval and Markov Chain Model can make one new Information Retrieval method, the way of this combination model could be researched and implemented.

Penggunaan step awal pada aplikasi yang menerapkan Model Markov Chain pada Information Retrieval menghasilkan aplikasi dengan performansi yang paling baik, karena dengan meningkatnya ukuran step yang digunakan, maka performansi aplikasi semakin menurun.

At this final task, we implemented the combination of Information Retrieval and Markov Chain Model as mathematic model which is used in the Matrix Formulation calculation. Using the first step for Markov Chain Model in Information Retrieval, application get best performance, because if we set higher step for application, then performance of application will get worse.

IAP and Recall of apllication which implement the Markov Chain Model in Information Retrieval are better than application which implement TFIDF.

The highest Precision Markov Chain Information Retrieval application for ADI document collection is 0,097, and for CRAN document collection is 0,0668. The highest Recall Markov Chain Information Retrieval application for ADI document collection is 1, for CRAN document collection is 0,81. The highest IAP Markov Chain Information Retrieval application for ADI document collection is 0,39, and for CRAN document collection is 0,5969.

Keywords : Information Retrieval, Query expansion, Markov Chain, Precision, Recall, Query.