

ABSTRACT

**THE IMPLEMENTATION OF KNUTH MORRIS PRATT ALGORITHM FOR
SEARCHING MEDICAL RECORD DATA AT TELAGA DEWA
HEALTH CENTER OF BENGKULU CITY**

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A medical record is a collection of information that covers a patient's medical history, including diagnoses, treatment, and other records. When a patient comes for a check-up, medical staff need to search the patient's relevant medical records to provide proper and efficient treatment. However, with the increasing number of patients and large amount of medical record data, manual searching becomes inefficient and time-consuming. In this situation, the implementation of String-matching algorithms is able to perform the process of searching a string consisting of a pattern against the characters in the text being searched. One of the String-matching algorithms is Knuth-Morris-Pratt. The approach used in this research is exact string matching, because this approach is used to match words precisely involving text character structures. The system implementation uses PHP programming language with MySQL database and the method used in this research is Waterfall method. The conclusion of the results explains that Knuth-Morris-Pratt Algorithm is successfully applied for searching medical record data by checking from left to right so as to find string matches effectively and efficiently.

Keywords: *String Matching, Knuth-Morris-Pratt, Medical Records.*

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