IMPLEMENTATION OF THE RABIN-KARP ALGORITHM IN WEB-BASED APPLICATION OF THE INDRAMAYU-INDONESIAN LANGUAGE DICTIONARY

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ABSTRACT

Javanese language is the language used by the Javanese people in Central Java, Yogyakarta and East Java. As time goes by, the use of the Javanese language in everyday life, especially the Javanese themselves, is fading due to the influence of the globalization of foreign languages so that the current generation is unable to master the language of their ancestors, the Javanese. Dictionary is a medium that is used to help someone recognize new words, arranged alphabetically or a theme that contains information about the meaning, usage, or translation of a word, a dictionary can be an effort to prevent the fading of the use of regional languages. There are weaknesses and strengths of each dictionary, both printed and digital, for example, a printed dictionary has more vocabulary but takes time to search for the word you are looking for, while a digital dictionary is more practical and efficient. The Rabin-Karp algorithm is a string search algorithm that uses hashing to find the similarity of the string pattern being searched for. The use of the Rabin-Karp algorithm consists of three processes, namely the distribution of text that has gone through the preprocessing stage of the specified k-grams, the second stage is hashing using the rolling hash method, and the third stage is calculating the level of similarity with the dice's similarity coefficient formula. The results of the research conducted, the value of k-gram is very influential on the results of the word proposal. The larger the gram value used, the smaller the pattern formed, making it more difficult to find a similar pattern if there is a typing error when searching for words, provided that the result of the percentage of similarity values calculated using the Rabin-Karp algorithm is greater than 70%.

***Keywords**: Rabin-Karp, String Matching, Dictionary.*