The Daily Attendance Application Uses The Aes-128 Cryptographic Algorithm (Case Study: Watusomo Village Hall Office, Wonogiri Regency)

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ABSTRACT

Watusomo Village Hall is an office located in the Slogohimo sub-district, Wonogiri Regency, Central Java Province, acting as the spearhead in the regional government system. The problem that often occurs in this village is the poor performance of village employees in village administration services, the reason is that many village employees do not attend on time because many village employees commit fraud in the attendance process. Fraud occurred because the attendance process carried out at the Watusomo Village Hall office was still manual. The aim of this research is to improve the performance of village employees in carrying out village administration service activities and reduce fraud committed by village officials who entrust their absences to their friends. The method used is AES cryptography. AES cryptography is a cryptographic algorithm used to secure data using passwords. The result of this research is a daily attendance application for Watusomo Village Hall office employees which can overcome problems that often occur and also make it easier to make attendance reports. The conclusion of the daily application using the AES-128 algorithm is that the use and utilization of the daily attendance application can make it easier for agencies to carry out employee attendance and can reduce fraud committed by employees who entrust their absences to friends. This web application was designed by the author using the Windows 11 operating system, Visual Studio Code, XAMPP as the web server, PHP as the scripting language, Advanced Encryption Standard (AES) cryptography as the security algorithm, and MySQL as the Database Management System (DBMS).

Keywords: administration, cryptography, application, web server, algorithm