Web-Based Digital Document Security Application Using AES Algorithm (PT Sawit Jaya Kalimantan)

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ABSTRACT

PT Sawit Jaya Kalimantan is a company in the palm oil sector. PT Sawit Jaya Kalimantan is experiencing problems with the data security system in the form of employee personal documents such as work contract agreements. Data security is one of the most important things that must be done to protect important messages or information from damage and loss and to keep messages and information safe. One of the data security efforts is to use cryptography to manipulate confidential messages or data into a form that is not known to many people with the aim of protecting confidential messages or data from parties who are not entitled to know. This study aims to create a web-based application to secure the company's digital documents for the data encryption and decryption process. The method used to design this business process is the Unified Modeling Language (UML) and waterfall as a system development method using the AES 128 cryptographic algorithm. Testing the application used in this study using Blackbox Testing. Based on the results of the study, the creation of a company's digital document security application using the AES algorithm can secure company documents better.

Keywords: AES, Decryption, Digital Documents, Encryption, Data Security, Cryptography, Web