VILLAGE BOOKKEEPING DATA SECURITY APPLICATION USING AES-128 CRYPTOGRAPHY ALGORITHM
(Case Study of Pir Trans Sosa V Village Office, Padang Lawas Regency)

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ABSTRACT

The Pir Trans Sosa V Village Office is the village government center located in Pir Trans Sosa V Village, Huta Raja Tinggi Sub-district, Padang Lawas Regency, North Sumatra. The Pir Trans Sosa V Village Office has a data accounting information system for conducting village fund bookkeeping in document form. However, the security of the village accounting data is still done manually by storing documents in digital archives on a computer folder without any security measures. This action makes the data vulnerable to theft or data manipulation, resulting in inaccurate data being released. Village accounting data is crucial for the Pir Trans Sosa V Village Office, as any fraud would cause significant and catastrophic losses. Therefore, research is being conducted to develop an application to secure the village accounting data using the Advanced Encryption Standard (AES) 128 method. AES is useful for providing a high level of security based on a complex secret key to protect the confidentiality of the secured data. Hence, the AES 128 method is required to secure the content of the accounting data and prevent data theft or manipulation.

Keywords: Data Security Application, Accounting Data, AES Algorithm