IMPLEMENTATION OF BUMIJO ADMINISTRATIVE VILLAGE ARCHIVE SECURITY USING AES-128 WEB-BASED

(Case Study of Bumijo Village)

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ABSTRAcT

Bumijo Village is situated in the Jetis District of Yogyakarta City and is crucial in serving the community as a center for community services. However, Bumijo Village faces several challenges in ensuring security, particularly in archive management. An inadequate security system is in place to protect essential archives and files, which increases the risk of data breaches and theft. This study aims to design and develop a web-based archive security application that utilizes the Advanced Encryption Standard (AES) 128-bit algorithm for data encryption. The research method employed is the system development method, which encompasses needs analysis, design, implementation, and testing stages. The study results are an archive security application that can carry out the encryption and file description process using the AES 128-bit algorithm. The encrypted data is stored in a MySQL database to facilitate access and management. It is anticipated that implementing the AES 128-bit algorithm will enhance the security measures in place for storing Bumijo Village archives.

Keywords*: archive security, AES 128, encryption, description*