IMPLEMENTATION OF ACADEMIC INFORMATION SYSTEM DATABASE SECURITY USING VIGENERE CIPHER AND AES 128 ALGORITHM

(Case Study: MAN 5 Sleman)

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ABSTRACT

The development of computer and telecommunications technology has now progressed very rapidly, so data security is needed to safeguard information stored in digital form. There are many problems in information system security, such as data being lost, data being intercepted, even though the user has used data security in the form of a password. Madrasah Aliyah Negeri (MAN) 5 Sleman processes academic data still using a simple computerized system. The data security system at MAN 5 is still vulnerable to the threat of data leaks and infiltration, because there is no security for the database in the academic information system at MAN 5 Sleman. Therefore, the author attempts to design and implement a data security system using cryptographic techniques using the Vigenere Chiper Algorithm and Advanced Encryption Standard (AES). This system is expected to be able to secure the academic information system database at MAN 5 Sleman.

Keywords*: Security, Database, Vigenere, AES*