

# **IMPLEMENTATION OF AES IN A WEB-BASED STOCK MONITORING SYSTEM**

**(CASE STUDY: Blessed Plastic and Cake Ingredients Shop)**

## **ABSTRACT**

*This research focuses on the Berkah Plastic and Cake Ingredients Shop, a business selling cake, bread and plastic ingredients on Jl. Ranuwisastro RT 03 RW 04, Bantasari, Karangjengkol, Kesugihan. In facing tight competition in the culinary industry, this shop needs an update to their stock monitoring system. Even though the existing system is a crucial aspect in daily operations, the main shortcoming lies in data security which is vulnerable to cyber threats. This research identifies data insecurity as a major issue with potential risks to the integrity and confidentiality of transaction data. As a solution, this research plans to implement the Advanced Encryption Standard (AES) to increase the system security layer. By using AES, it is hoped that it can encrypt transaction data efficiently, maintain confidentiality and reduce potential risks. The results resulting from this research are the development of a web-based stock monitoring system with the ability to encrypt and decrypt sales report data using AES, presenting a safe and efficient technical solution to meet the needs of the Blessed Plastic and Cake Ingredients Shop.*

*Keywords: Advanced Encryption Standard, stock monitoring system, web, PHP, MySQL,*

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