

IMPLEMENTATION OF ROLE-BASED ACCESS CONTROL IN A WEBSITE-BASED MEDICINE STOCK MANAGEMENT INFORMATION SYSTEM

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ABSTRACT

Role- Based Access Control (RBAC) is an access control mechanism that restricts user privileges based on assigned roles within an information system. The implementation of this mechanism is essential for drug inventory management systems in pharmacies, particularly at Apotek Pratama dr. Moris, which previously relied on manual stock recording. This condition led to frequent data inconsistencies, delays in monitoring expired drugs, difficulties in report preparation, and the absence of clear access restrictions for each user. This study focuses on the development of a web-based drug inventory management information system that applies RBAC as the main mechanism for user security and authorization. The system was developed using the Waterfall method, which includes requirement analysis, system design, implementation, and testing. The system was built using the Laravel 11 framework, MySQL database, and the Laravel Spatie Permission package for managing roles and permissions. The results show that the implementation of RBAC effectively restricts user access according to their roles, enhances data security, and improves the accuracy and efficiency of drug inventory management compared to the previous manual system.

Keywords: pharmacy, data security, drug inventory management, RBAC, information system