

# ***SECURITY TESTING OF DAMAI VILLAGE DIGITAL LIBRARY APPLICATION ON AUTHENTICATION SIDE USING SQL INJECTION, SESSION HIJACKING, AND BRUTE-FORCE ATTACKS***

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## **Abstract**

*The Damai Village Digital Library serves as a key aspect in providing information access; however, the authentication security has not been thoroughly examined. This research identifies vulnerabilities in the login form, including the lack of strong password indicators and inadequate special character sanitization. Security testing is conducted against SQL Injection, Session Hijacking, and Brute Force attacks by comparing manual results with the OWASP standard. Results indicate successful Brute Force attacks, emphasizing the need for strengthening authentication security. The use of OWASP ZAP provides additional insights. Conclusions underscore the necessity to enhance login and session mechanisms, with recommendations such as the implementation of session tokens and CAPTCHA. This research offers a deeper understanding of security vulnerabilities in digital library applications, highlighting the importance of a combination of manual and automated testing.*

**Keywords:** *Digital Library, Application Security, Authentication, SQL Injection, Session Hijacking, Brute Force, OWASP ZAP.*