

VULNERABILITY ANALYSIS ON THE SDN 50 BENGKALIS WEBSITE USING THE VAPT (Vulnerability Assessment & Penetration Testing) METHOD

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ABSTRACT

The research entitled Vulnerability Analysis on the Sdn 50 Bengkalis Website Using the VAPT Method aims to analyze security vulnerabilities on the SDN 50 Bengkalis website using the VAPT (Vulnerability Assessment & Penetration Testing) method. This method involves the use of tools such as OWASP ZAP, Nikto, and Nmap to identify security holes that may be exploited by irresponsible parties. The results of the study show that the SDN 50 Bengkalis website using the OWASP ZAP tool found 2 SQL Injection vulnerabilities on 2 different endpoints/parameters, as well as 1 Vulnerable JavaScript Library vulnerability. The focus of this research focuses on SQL Injectin vulnerabilities. The original contribution in this research is to mitigate to prevent irresponsible cyber attacks, therefore researchers make improvements to the source code such as the use of query builders to prevent SQL Injection. By conducting this analysis and improvements, the website is guaranteed safe from SQL Injection attacks, so that sensitive student and staff data is guaranteed safe and does not damage the school's reputation.

Keyword: Website Security, VAPT, OWASP ZAP, Nikto, Nmap, SQL Injection, Mitigasi