A comparative analysis and performance evaluation of web application protection techniques against injection attacks

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Abstract: Nowadays, most animation activities are based on internet-enabled applications. But, the majority of web developers have ignored the privacy and security aspects of each application, turning them into attractive targets for security issues and therefore increasing the attacker’s concerning. Structured query language injection attack (SQLIA) is the prevalent and dominant type of severe web application attacks. This paper provides a comparative study for web application protection techniques and evaluates their performance against SQLIA by conducting a detailed review of various SQLIA previously detected and prevented by protection techniques, a summary and analysis of a critical review of the defensive techniques that were done to address such attack, performance comparison of the different protective approaches through an evaluation using performance metrics to identify efficient and high-performance techniques. Finally, the paper highlights and focuses on the critical and vital directions or protection approaches that require more studies by future research.

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