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The format is incorrect.

When you present a paper, you don't need to submit any critique in the same week. Although I graded this critique to give you feedback, the score is not counted into your overall score.

Critique-Secure Coding Practices in Java: Challenges and Vulnerabilities

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February 13, 2019

Please follow the format guidance.

shorten

Summary: This paper conducts an empirical study on Stack Overflow posts related to security coding practice in Java. They aim to understand the developers' concern in Java security code, the challenges for security implementation and the common security vulnerabilities in code practice. In order to better understand these questions, they crawl 22,195 Stack Overflow posts and filter these posts by keyword, characterized the posts manually according to secure concern, program challenges and security vulnerabilities.

Through analyzing the posts, they first categorized the security concern into Java platform security, Java EE security, Spring security, and other security areas, according to the distribution of the posts in a different field through years, they find that the security problem is growing in recent years and the security concern shift to enterprise applications. Secondly, they conclude the programming challenges in five categories (authentication, cryptography, Java EE, access control and security communication). Lastly, they point out the wrong or bad answer accepted in Stack Overflow reflect the security vulnerabilities. Most of the suggestions to SS, SSL/TLS, and password hashing is insecure, which would mislead the developers. After answering the questions, they further provide recommendations to deal with the problem. First of all, developers should conduct security testing to check whether features work as expected and not always following the advice found on Stack Overflow; library designers should design simplified APIs with strong security defenses implemented by default and tool builders can help by creating automatic tools to diagnose security errors, locate buggy code, and suggest security patches or solutions.

Strength: The problem discussed about the posts on StackOverflow