Analisis Integrasi Sweep di GitHub untuk Penyelesaian Issue yang Ditingkatkan dengan AI

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Abstract
The abstract should state briefly the general aspects of the subject and the main concolusions. The length of abstract should bo no more than 200 word and should be typed be with 10 pts. This study investigates the impact of integrating Sweep, an AI-powered GitHub plugin, into a software development project to automate the resolution of GitHub issues. The research problem addressed is the inefficiency in manually resolving smaller coding tasks and the potential for AI automation to streamline this process. A comprehensive evaluation was conducted across 50 diverse issues spanning syntax errors, logical errors, runtime errors, feature requests, and refactoring tasks. Sweep demonstrated an overall success rate of 92% in resolving the assigned issues, exhibiting excellent proficiency in addressing logical and runtime errors. While the tool showed strong performance in handling syntax and runtime errors, areas for improvement were identified, particularly in the refactoring tasks category. The findings highlight Sweep's potential to streamline the software development process by automating the resolution of smaller issues, though the continued involvement of human developers remains crucial for maintaining code quality and alignment with project requirements. Further research is needed to explore Sweep's long-term implications and potential expansion within the software development ecosystem.

Keywords: AI code generation, Sweep, pull request automation, issue resolution