AUTOMATED CODE VIOLATION FIXING SYSTEM

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Abstract

Automation is an ongoing trend in the software industry. People favor test automation over manual testing primarily due to the reduction of human intervention and also because automation has proven to be profitable as a long-term investment. However, the initial cost of test automation is high. One reason for this is the lack of technical expertise required for automation within the industry which results in time, money and effort being invested to train human resources for this purpose. Software companies are highly concerned with finding means of resolving this issue.

The proposed solution addresses this issue by introducing an automated approach for the manual process of code violation fixing in codebases, which can be used with minimum technical expertise for non-technical individuals. The proposed system can be used to reduce the time, cost, and complexity of the program and increase the code quality, readability, and maintainability of codebases. Overall accuracy of the solution has been determined to be 87.33%.

Keywords:

Automation, Code Violations, Natural Language Processing, Code smells, Static code analysis, Code Refactoring

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