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The Assessment of the State of Automated Testing in Blockchain-based Systems: A Review
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Abstract
Blockchain technology has recently gained popularity and has been used in numerous fields, including financial services, insurance, government systems, healthcare, and the Internet of Things (IoT). As blockchain technology advances, the list continues to grow. Several issues have emerged due to the diverse implementations of blockchain technology, including blockchain adoption issues, transactional privacy concerns, and Smart Contract issues. Previous research had developed a testing framework for the blockchain- based application, but their focus is on unit testing and does not include the test automation component or validation of the framework. Thus, this paper aims to examine the existing testing practices and techniques in blockchain-based systems. The findings of the paper review will be used as a guideline to create a framework for automated testing for Blockchain-based systems. © 2023 ACM.

Author Keywords
Automated testing; Blockchain; Software testing

Index Keywords
Automation, Blockchain, Internet of things; Automated testing, Block-chain, Financial service, Government systems, Privacy concerns, Software testings, Technology advances, Test Automation, Testing framework, Unit testing; Software testing

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