

Automated Testing in DevOps: Strategies and Tools

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Abstract: *Automated testing is a cornerstone of the DevOps methodology, enabling rapid and reliable software delivery. This paper explores the strategies and tools integral to implementing effective automated testing within a DevOps framework. Key strategies include continuous testing, shift-left testing, and test-driven development, among others. The paper also provides an overview of various tools that facilitate automated testing at different stages of the software development lifecycle, from unit testing to performance and security testing. Through case studies and analysis, the paper highlights both the benefits and challenges of automated testing in DevOps, and discusses future trends and advancements in the field.*

Keywords: DevOps, continuous integration(CI) , continuous delivery/deployment(CD),Shift-left testing