Advanced Automated Software Testing: Frameworks for Refined Practice

Izzat Alsmadi (Yarmouk University, Jordan)

Software testing is needed to assess the quality of developed software. However, it consumes a critical amount of time and resources, often delaying the software release date and increasing the overall cost. The answer to this problem is effective test automation, which is expected to meet the need for effective software testing while reducing the amount of required time and resources.

Advanced Automated Software Testing: Frameworks for Refined Practice discusses the current state of test automation practices, as it includes chapters related to software test automation and its validity and applicability in different domains. This book demonstrates how test automation can be used in different domains and in the different tasks and stages of software testing, making it a useful reference for researchers, students, and software engineers.

Topics Covered:

- GUI Test Automation
- Model-Based Testing of Distributed Functions
- Runtime Verification
- Software Quality Methodologies
- Speech Recognition Systems
- System Maintenance
- Test Case Prioritization
- Testing E-Learning Websites
- Testing E-Services
- Testing for Software Security

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Izzat Mahmoud Alsmadi is an Assistant Professor in the Department of Computer Information Systems at Yarmouk University in Jordan. He obtained his Ph.D degree in Software Engineering from NDSU (USA). His second Master's is in Software Engineering from NDSU (USA) and his first Master's is in CIS from University of Phoenix (USA). He had B.sc degree in Telecommunication Engineering from Mutah University in Jordan. Before joining Yarmouk University he worked for several years in several companies and institutions in Jordan, USA, and UAE. His research interests include: software engineering, software testing, e-learning, software metrics, and formal methods.
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How Much Automation can be Done in Testing?
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On the Application of Automated Software Testing Techniques to the Development and Maintenance of Speech Recognition Systems
Bolanos Daniel (University of Colorado at Boulder, USA)

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Runtime Verification of Distributed Programs
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