

Practical Test Automation Overview with Real Case Study

Description:

Automation is considered as a process to guide and help in planning, designing, creating, running, updating, modifying, and maintaining test cases both manual and automated. Automated testing is essential for performing thorough and fast testing. This is more important than ever before given the need to accelerate software development and reduce the time to market in the fast changing business environment.

Automation is used to replace or supplement manual testing with a suite of test programs. Benefits to product developers include increased software quality, improved time to market, repeatable test procedures, and reduced testing costs. Manual testing never goes away, but these efforts could now be focused on more rigorous tests. Automated testing has its own advantages and disadvantages and involves lots of challenges. If not planned carefully, it may lead to poor quality of testing. Thus, many key factors need to be considered before adopting automation and even during the automation process.

Some international big companies such as Microsoft have put huge efforts to drive and improve automation system, processes, design, result and coverage. A lot of lessons, best practices, tools and strategy can provide valuable reference in this front. This 2-days training uses a lot of real world example and best practice to go through almost all the main points of test automation. It takes you through Different realms of Software Testing & Automatist automation. The course not only gives the knowledge and reference about HOW-TO design, plan, manage and implement a good automation framework and system, but also provides useful info that is necessary to avoid pitfalls of test automation.

Course Outlines

Automation Strategy

1. Purpose / Objectives of automation
2. Automation who owns what
3. Breakdown of the process into major deliverables
4. Important components of the major deliverables
5. Risk management

Automation Process

1. Automation Requirement Analysis
2. Automation Test Planning
3. Automation environment set up
4. Test Tool Selection
5. Test Estimation
6. Automation Review

Automation Test Planning

1. Overall approach
2. Resource allocation
3. Level of coverage
4. Test Tool Selection
5. Test Estimation
6. Check-in gate
7. Setting expectations

Test Automation Design

1. Test Automation Standards
2. Automation Framework and infrastructure
3. Automation harness
4. Configurations and deployment
5. Case study and best practice

Writing automation scripts

1. Scripting language
2. Pre, post setting
3. Write good and effective autotests
4. Linking bugs and test passes
5. Commenting and history
6. Logging
7. Debugging

Test Automation Management

1. System design and requirement
2. Source code management
3. Run schedule
4. Build quality control
5. Version controls
6. Code coverage
7. Results
8. Monitoring and reporting
9. Maintenance and re-use

Challenges and solutions

1. Virtual technologies
2. UI automation
3. TDD
4. Under Agile project management
5. Performance testing
6. Globalization and localization testing

Future of Test Automation

1. Integrated development environment

2. Growing development in automation front
3. Support “cloud”
4. Beyond automating test cases