



Information Technology

Advanced Test Automation and DevOps Integration

Course Introduction

This course focuses on leveraging automation and DevOps practices to enhance testing processes in systems design. It provides managers with advanced knowledge and skills to implement and manage automated testing solutions within a DevOps framework.

Target Audience

1. Test Automation Engineer
2. DevOps Engineer
3. QA Engineer
4. Software Development Engineer in Test (SDET)
5. CI/CD Engineer
6. IT Operations Manager
7. Software Architect
8. Cloud Engineer
9. Site Reliability Engineer (SRE)
10. IT Project Manager

Learning Objectives

- Understand the principles of test automation and its role in DevOps
- Develop skills to design and implement effective test automation strategies
- Learn to integrate automated testing into CI/CD pipelines
- Gain insights into managing and scaling test automation in large projects
- Master techniques for measuring and improving the ROI of test automation

Course Outline

- **Day 01**

- Foundations of Test Automation in DevOps**

- Principles of test automation and DevOps integration
 - Test automation frameworks and tools
 - Challenges and benefits of test automation in complex systems
 - Case study: Successful test automation implementations

- **Day 02**

- Designing Test Automation Strategies**

- Selecting appropriate tests for automation
 - Creating maintainable and scalable automated test suites
 - Test data management in automated environments

- **Day 03**

- Continuous Testing in CI/CD Pipelines**

- Integrating automated tests into CI/CD workflows
 - Shift-left testing approaches in DevOps
 - Performance and security testing in CI/CD
 - Hands-on exercise: Setting up a continuous testing pipeline

- **Day 04**

- Managing and Scaling Test Automation**

- Building and leading test automation teams
 - Managing test environments and infrastructure
 - Scaling test automation for large-scale projects
 - Group discussion: Overcoming challenges in test automation adoption

- **Day 05**

- Measuring Success and Continuous Improvement**

- Metrics for evaluating test automation effectiveness
 - Cost-benefit analysis of test automation initiatives
 - Continuous improvement in automated testing processes
 - Action planning: Developing a test automation roadmap

Confirmed Sessions

FROM	TO	DURATION	FEE\$	LOCATION
May 4, 2025	May 8, 2025	5 days	4250.00 \$	KSA - Riyadh
July 7, 2025	July 11, 2025	5 days	4250.00 \$	UAE - Dubai
Aug. 31, 2025	Sept. 4, 2025	5 days	2150.00 \$	Virtual - Online
Nov. 17, 2025	Nov. 21, 2025	5 days	5950.00 \$	USA - Los Angeles