



Foundations of DevOps

Course Overview

Organizations today are seeking ways to improve the efficiency of both their software development efforts and operations while still meeting quality objectives. Competitive pressures and customer demands continue to reduce software product release schedules, driving the pursuit of faster software releases, which in turn requires even more efficient testing capabilities. Agile development adoption is driving the need for increased value delivery efficiency. In this performance driven environment, software development, testing, and operations must evolve to meet iteration and release delivery goals while continuing to meet organizational quality objectives.

DevOps is the combination of development, testing, and operations and includes continuous integration, automated testing, continuous delivery, and rapid deployment practices. Because DevOps practices require confidence that changes made to the code base will function as expected, automated testing is an essential ingredient that is integrated in the process in every step and relied upon for enforcement of quality gates and to ensure overall delivery quality. This course will teach you how to avoid the common mistakes of DevOps implementations and to leverage DevOps best practices including:

- Test automation
- Automate everything
- Incremental build and delivery
- Continuous improvement
- Frequent code commits
- Infrastructure as code
- Fix the build(!) prioritization
- Repeatable, reliable processes
- Collaboration and communication
- Operations in DevOps

Upon completion of the course, students will be able to recognize positive and negative patterns of software build, test, and deployment in their organization that relate to DevOps. Key concepts that will be introduced and discussed include:

- Test strategy and implementation within a CI/CD context
- Automated quality gates
- Managing configuration
- Continuous integration and delivery
- Automated deployments
- Operations management of infrastructure and data
- Organizational impacts of DevOps implementation

Bring your specific issues and problems to the training course for discussion as well.

NEW! Foundations of DevOps is now accredited to meet certification training requirements established by the International Consortium for Agile (ICAgile). Participants completing the course are eligible to receive The ICAgile Certified Professional in Foundations of DevOps (ICP-FDO) designation.



Who Should Attend

This course is appropriate for experienced software test professionals, operations engineers, software developers, project managers, and business owners.

No specific prerequisites are assumed; however, attendees are expected to have some experience with software builds, deployments, and automated testing.

Course Structure

Foundations of DevOps is a 2-day course consisting of lecture, in-class exercises and quizzes

2-Day DevOps Course Outline

1. DevOps Mindset
 - What is DevOps?
 - Business value and benefits of DevOps
 - DevOps vs traditional approaches
 - DevOps principles
2. Configuration Management
 - Version control
 - Dependency management
 - Managing configuration
3. Continuous Integration
 - Role of CI in DevOps
 - CI principles and practices
 - Build automation
 - Quality assurance
 - Continuous feedback
 - Distributed teams
4. Continuous Delivery
 - CD philosophy and mindset
 - CD principles
 - Delivery pipeline
 - Automated deployment
 - CD practices
 - Pipeline support
 - CD in different delivery models
5. Test Strategy
 - Testing types
 - Test planning
 - Automated testing
6. Operations
 - Managing infrastructure
 - Virtualization and cloud
 - Scaling infrastructure
 - Continuous monitoring
 - Managing databases
7. Organizational DevOps
 - DevOps within an agile context
 - Cultural challenges
 - Addressing governance and policy requirements

Class Daily Schedule

Sign-In/Registration 7:30-8:30 a.m.

Morning Session 8:30 a.m.-12:00 p.m.

Lunch 12:00-1:00 p.m.

Afternoon Session 1:00-5:00 p.m.

Times represent the typical daily schedule and do not include morning and afternoon breaks typically included. Please confirm your schedule at registration.

Contact Us for More Information:

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