

DevOps for Managers and Leaders (2 Days)

This two-day DevOps workshop is loaded with practical real-world information. From the foremost agile development training company, comes a course to move the dial on your organizations' DevOps journey. You will leave this course loaded with knowledge on the available people, processes, culture, and tools for DevOps, ready to select what's right for your company and to roadmap the journey for your organization. The class provides two DevOps implementation case studies, a 30-60-90 roadmap to implementing DevOps in your organization, DevOps organizational maturity assessment, as well as, patterns and best practices to enable you to confidently lead a DevOps implementation. This class demystifies the fundamental shift from focusing only on the tools or scripting to using DevOps for measurably higher performance from organizations of all sizes for solving business problems in a timely manner.

As part of DevOps management, you should be aware of how to confidently design a DevOps roadmap for your organization, understand the various key components, and communicate your DevOps progress. DevOps Management also requires you to understand that automation is a key to success and how to create a culture that supports technology-enabled business.

This Training course for a DevOps Manager and leader continue to be in high demand. The topics covered in the course are:

- DevOps journey
- Cultural alignment
- Continuous Integration & Delivery
- Continuous Integration Tools
- Monitoring
- Measurement
- Automation Scripting
- Agile
- Building Tools
- Configuration Management
- Continuous Code Quality
- DevOps DBA
- Servers
- Cloud Computing & Virtualization
- Best Practices

PREREQUISITES

A desire to learn how to successfully implement DevOps in your organization.

AUDIENCE

This workshop will be particularly useful for leaders implementing or considering DevOps for their organization including the following:

- Anyone in an IT Leadership role
- CIOs / CTOs
- Lead System Administrators
- Software Reliability Engineers
- ScrumMasters
- Software Managers and Team Leads
- IT Project & Program Managers
- Product Owners and Managers

WHAT YOU WILL LEARN

After completing this course, the student should be able to:

- Confidently design a DevOps roadmap for your organization.
- Understand the various key components.
- Communication and evangelization of your DevOps progress.
- How automation is key to success
- Understand the key components; tools, processes, and people required
- Apply the knowledge to improve reliability of build & release processes
- Become literate in the vernacular of DevOps
- Learn the metrics and analytics that provide understanding of your organizational maturity
- Monitor your team and application lifecycle management effectiveness
- Understand how to create a culture that supports technology-enabled business
- Apply technology, people and process to shift left
- Map out the workforce strategy required for organizational success
- Compare other organizational journeys in DevOps to understand options and approaches

Outline of DevOps for Managers & Leaders Training

CHAPTER 1. Devops Journey

- Why DevOps?
- What is DevOps?
- History behind DevOps
- Cross functional teams
- Key components of successful DevOps
- DevOps vocabulary
- DevOps goals
- Driving business outcomes with DevOps

CHAPTER 2. Cultural Alignment & Workforce Strategy

- Leading the charge to DevOps
- Core values and mission
- Communication
- Collaboration
- Value stream mapping
- Behavioral patterns
- Culture assessment

CHAPTER 3. Continuous Integration & Delivery.

- What does continuous delivery mean?
- What is continuous integration?
- Project methodologies
- Measuring your organization maturity
- Tool selection
- IT organization structure
- Business continuity
- Supportability and sustainability

Case Study 1: Global Financial Services

CHAPTER 4. CI Tools

- Challenges solved by CI tools
- Introduction to Jenkins
- Introduction to Hudson
- Introduction to Cruise
- Introduction to SaltStack
- Comparison

CHAPTER 5. Monitoring

- What to monitor?
- How to monitor?
- Why to monitor?
- Application Performance Monitoring
- Infrastructure monitoring
- Monitoring across the stack

CHAPTER 6. Measurement

- What to measure?
- How to measure?
- Why to measure?
- Choosing the right metrics
- What are your key performance indicators?
- Actionable insight
- Software quality
- Top 5 metrics

CHAPTER 7. Automation scripting

- Why automate?
- Goals for scripting
- Error handling
- Logging
- Automating versioned builds
- Automating continuous integration tests
- Automated cleanup
- Introduction to Shell scripting
- Introduction to Python
- Introduction to Ruby
- Introduction to Perl

Case study 2. Enterprise Telecommunications

CHAPTER 8. Agile

- History of Agile
- Managing sprints
- Maintaining the backlog
- Working with story points
- Distributed agile
- Kaizen
- Kanban

CHAPTER 9. Building Tools

- Build tool history
- Repeatability
- Notification
- Continuous build
- Build tool basics

CHAPTER 10. Configuration Management

- Why is configuration management key to DevOps success?
- What is configuration management
- Terminology
- Automation tool comparison
- Configuration management tools
- Setting up the environment
- Deployment
- Cloud integration

CHAPTER 11. Continuous Code Quality

- What is continuous code quality?
- Continuous Testing
- Seven Axes of Quality
- Potential Bugs
- Test-Driven Development
- Behavior-Driven Development
- What is Sonar Qube
- SonarQube - Benefits

Case study 3. Federated Global Products

CHAPTER 12. DevOps DBA

- DBA role in DevOps
- Why are DBAs often left out of the conversation?
- Database management with DevOps
- Push button CI for database
- Managing databases with configuration management
- Database self-service
- Database configuration as code
- Pay to Play or Open Source
- Data as an asset
- Big Data
- NOSQL

CHAPTER 13. Best Practices

- Who are the folks using the various solutions?
- DevOps implementation checklist
- Gap assessment survey
- Best practices
- Patterns
- Anti-patterns

CHAPTER 14. DevOps Action Plan

Appendix A. Cloud Computing & Virtualization

- What defines a cloud?
- Elasticity
- History of cloud
- Benefits of cloud
- Public, Private, or Hybrid?
- Governance in cloud
- Cloud deployment
- Introduction to AWS
- Introduction to Azure
- Introduction to SoftLayer
- Why virtualization?
- Virtual machines
- Virtualization with Citrix

Appendix B. Servers

- Introduction to application servers
- WebSphere
- Tomcat
- Web servers
- Tracing and logging
- Servlet containers
- Fixpack automation
- Dependencies
- Cluster considerations
- High availability