DevOps Foundation

Length: 2 Days

Summary: As organizations are facing new entrants in their respective markets, they need to stay competitive and release new and updated products on a regular basis rather than one or two times a year.

The DevOps Foundation course provides a baseline understanding of key DevOps terminology to ensure everyone is talking the same language and highlights the benefits of DevOps to support organizational success.

The course includes the latest thinking, principles and practices from the DevOps community including real-world case studies from high performing organizations including ING Bank, Ticketmaster, Capital One, Alaska Air, Target, Fannie Mae, Societe Generale, and Disney that engage and inspire learners, leveraging multimedia and interactive exercises that bring the learning experience to life, including the Three Ways as highlighted in the Phoenix Project by Gene Kim and the latest from the State of DevOps report.

Learners will gain an understanding of DevOps, the cultural and professional movement that stresses communication, collaboration, integration, and automation to improve the flow of work between software developers and IT operations professionals.

The course is designed for a broad audience, enabling those on the business side to obtain an understanding of Kubernetes and Containers. Those on the technical side will obtain an understanding as to the business value of DevOps to reduce cost (15-25% overall IT cost reduction) with increased quality (50-70% reduction in change failure rate) and agility (up to 90% reduction in provision and deployment time) to support business objectives in support of digital transformation initiatives.

Unique and exciting exercises will be used to apply the concepts covered in the course and sample documents, templates, tools, and techniques will be provided to use after the class.

Course Objectives: Learning objectives include a practical understanding of:

- DevOps objectives and vocabulary
- Benefits to the business and IT
- Principles and practices including Continuous Integration, Continuous Delivery, testing, security and the Three Ways
- DevOps relationship to Agile, Lean and ITSM
- Improved workflows, communication and feedback loops
- Automation practices including deployment pipelines and DevOps toolchains
- Scaling DevOps for the enterprise
- Critical success factors and key performance indicators
- Real-life examples and results

Who Should Attend: The target audience for the DevOps Foundation course includes Management, Operations, Developers, QA and Testing professionals such as:

- Individuals involved in IT development
- IT operations or IT service management
- Individuals who require an understanding of DevOps principles
- IT professionals working within, or about to enter, an Agile Service Design Environment
- Automation Architect
- Application Developers
- Business Analysts
- Business Managers
- Business Stakeholders
- Change Agents
- Consultants
- DevOps Consultants
- DevOps Engineers
- Infrastructure Architect

- Integration Specialists
- IT Directors
- IT Managers
- IT Operations
- IT Team Leaders
- Lean Coaches
- Network Administrators
- Operations Managers
- Project Managers
- Release Engineers
- Software Developers
- Software Tester/QA
- System Administrators
- Systems Engineers
- System Integrators
- Tool Providers

Prerequisites: Familiarity with IT terminology and IT related work experience are recommended.

COURSE CONTENT

1: EXPLORING DEVOPS
- Defining DevOps
- Why Does DevOps Matter?
- Core DevOps Principles
- The Three Ways
- The First Way
- The Theory of Constraints
- The Second Way
- The Third Way

2: CHAOS ENGINEERING
- Learning Organizations
- Key DevOps Practices
- Continuous Delivery
- Site Reliability & Resilience Engineering

3: DEVSECOPS
- ChatOps
- Kanban

4: BUSINESS AND TECHNOLOGY FRAMEWORKS
- Agile
- ITSM
- Lean
- Safety Culture

5: LEARNING ORGANIZATIONS
- Sociocracy/Holacracy
- Continuous Funding

6: CULTURE, BEHAVIORS & OPERATING MODELS
- Defining Culture
- Behavioral Models

7: ORGANIZATIONAL MATURITY MODELS
- Target Operating Models
- Automation & Architecting DevOps Toolchains

8: CI/CD
- Cloud
- Containers
- Kubernetes

9: DEVOPS TOOLCHAIN
- Measurement, Metrics, and Reporting
- The Importance of Metrics
- Technical Metrics
- Business Metrics

10: MEASURING & REPORTING METRICS
- Sharing, Shadowing and Evolving
- Collaborative Platforms
- Immersive, Experiential Learning
- DevOps Leadership
- Evolving Change