DevOps Foundation

Devops

- **Nível:** Entrada
- **Duração:** 18h

Sobre o curso

Learn about DevOps to support organizational efforts in reducing costs while increasing agility, quality and customer service; leverage case studies, real-world success stories, and metrics to demonstrate business success in this foundation-level course to support digital transformation.

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 and DevOps Institute Upskilling reports.

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 microservices 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.

This course positions learners to successfully complete the DevOps Foundation examination. The exam is included in this course: participants must redeem the exam voucher and schedule their exam within 90 days of the beginning of the course.

Included:

- Sixteen (18) hours of instructor-led training and exercise facilitation
- Learner Manual (excellent post-class reference)

- Participation in unique exercises designed to apply concepts
- Sample documents, templates, tools and techniques
- Exam Voucher

Certification Exam

Web-based, open book examination, consisting of 40 multiple-choice questions with a 60 minute duration. Successful passing (65% score) leads to the **DevOps Foundation Certificate**. The certification is governed and maintained by the DevOps Institute.

Benefits for Individuals

- **Understand:**
  - Common DevOps concepts and terminology
  - Benefits to the business and IT
  - 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
- **Demonstrate:**
  - Entry-level of DevOps knowledge

Benefits for Organizations

- Shorter development cycles, faster innovation
- Reduced deployment failures, rollbacks, and time to recover
- Improved communication and collaboration
- Increased efficiencies
- Reduced costs and IT headcount

Destinatários

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
- The following IT roles: Automation Architects, Application Developers, Business Analysts, Business Managers, Business Stakeholders, Change Agents, Consultants, DevOps Consultants, DevOps Engineers, Infrastructure Architects, Integration Specialists, IT Directors, IT Managers, IT Operations, IT Team Leaders, Lean Coaches, Network Administrators, Operations Managers, Project Managers, Release Engineers, Software Developers, Software Testers/QA, System Administrators, Systems Engineers, System

Integrators, Tool Providers

Objetivos

The learning objectives for DevOps Foundation include an 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

Pré-requisitos

- Familiarity with IT terminology and IT related work experience are recommended.

Programa

- Exploring DevOps
- Core DevOps Principles
- Key DevOps Practices
- Business and Technology Frameworks
- Culture, Behaviors & Operating Models
- Automation & Architecting DevOps Toolchains
- Measurement, Metrics, and Reporting
- Sharing, Shadowing and Evolving

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
- Chaos Engineering
- Learning Organizations

Key DevOps Practices

- Continuous Delivery
- Site Reliability & Resilience Engineering
- DevSecOps
- ChatOps
- Kanban

Business and Technology Frameworks

- Agile
- ITSM
- Lean
- Safety Culture
- Learning Organizations
- Sociocracy/Holacracy
- Continuous Funding

Culture, Behaviors & Operating Models

- Defining Culture
- Behavioral Models
- Organizational maturity models
- Target Operating Models

Automation & Architecting DevOps Toolchains

- CI/CD
- Cloud
- Containers
- Kubernetes
- DevOps Toolchain

Measurement, Metrics, and Reporting

- The Importance of Metrics
- Technical Metrics
- Business Metrics
- Measuring & Reporting Metrics

Sharing, Shadowing and Evolving

- Collaborative Platforms

- Immersive, Experiential Learning
- DevOps Leadership
- Evolving Change