

DevOps Fundamentals

Duration 2 days

COURSE DESCRIPTION

DevOps (a clipped compound of "development" and "operations") is a software development approach to work that combines software development (Dev) with information technology operations (Ops). The goal of DevOps is to shorten the systems development life cycle while delivering software releases frequently, in close alignment with business objectives in a faster, better, and cost-efficient way.

The DevOps approach to work is based on three critical success factors: cultural shift, improvement of practices and processes, and leverage of automation technologies.

These new and updated hands-on qualifications are designed around those organizations using well-established IT Service Management practices to provide them with guidance on the ideal processes, tools and culture integration with DevOps.

In the DevOps Fundamentals course, candidates will gain practical guidance on how to deliver effective DevOps through 15 essential practices, especially relating to well-established ITSM frameworks.

COURSE OBJECTIVES

On completion of this course, the following learning outcomes will be achieved:

- History and need of DevOps
- Key concepts of DevOps
- Business value of DevOps
- Concepts underlying C.A.L.M.S., The Three Ways, continuous delivery, and the scope of the full stack
- DevOps culture, transformational leadership and DevOps structure and teaming
- Evolution of the DevOps Practices and the 15 essential practices of DevOps
- Agile project management and Scrum methodology
- Key concepts of cloud technology and virtualization, automation for deployment pipeline, and architecting for continuous delivery

COURSE OUTLINE

Introduction to DevOps

- History of DevOps
- Understanding the Full Stack

The Urgency for DevOps

- Business Value of DevOps
- Drivers for Change
- Goals for DevOps

Key DevOps Principles & Concepts

- Understanding C.A.L.M.S.
- The Three Ways
- Theory of Constraints
- Continuous Integration/Delivery
- Continuous Testing and Deployment

Full Stack – People & Culture

- Characteristics of Collaboration

- Transformational Leadership
- Organizational Models for DevOps
- Transiting to a Product & Platform Teams

Full Stack – Processes & Practices

- Adapting ITIL for DevOps
- Principles of Lean Thinking
- Understanding Agile
- The 15 Essential Practices for DevOps

Full Stack – Technology & Automation

- Understanding Automation
- Deployment Pipeline Automation
- Tools for DevOps Toolchain
- Emergence of Cloud
- Cloud Deployment and Service Models and
- Architecting for Continuous Delivery
- Containerization and Microservices

Course Review and Exam Preparation**CERTIFICATION**

Participants who successfully complete the course and pass the examination will be recognized as certified with DevOps Fundamentals issued by Peoplecert. Delegates who do not attain a passing score for the examination would be awarded a course attendance certificate only.

EXAMINATION FORMAT

- 40 Multiple Choice Questions
- 1 mark per correct answer
- 28 marks required to pass (out of 40 available) – 70%
- One-hour duration
- Closed book

PREREQUISITES

There are no prerequisites to attending the DevOps Fundamentals course or for sitting for the DevOps Fundamentals certification examination. Familiarity with IT terminology and IT related work experience is advantageous.

WHO SHOULD ATTEND

The target audience for this course and qualification include Management, Operations, Developers, QA and Testing professionals including:

- Professionals and leaders in Software or Applications Development
- IT Operations
- IT Service Management
- Business analysts, project and product managers
- Anyone aspiring to gain knowledge of DevOps principles.