

DevOps Foundation

3 Days (21 Hours) / Exam voucher included

A 3-day DevOps Foundation course and certification accredited by PeopleCert/DevOps Institute



- Learn how to **implement effective DevOps** by gaining knowledge of the DevOps core vocabulary, principles, practices, and automation
- Receive guidance on how to work with **DevOps practices** and how to achieve **better collaboration and communication**
- Be prepared to take your DevOps Foundation certification on day 3

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DevOps is the process of delivering applications or software in a fast and reliable manner. It bridges the gap between the development and operation departments.

The advantages of DevOps include enhanced communication, teamwork, and the integration of processes and tools across the IT lifecycle; automation of software delivery and infrastructure updates; and the adoption of agile, lean methodologies, IT service management (ITSM), along with the continuous evolution of DevOps practices.

COURSE & LEARNING OBJECTIVES

- Understand the DevOps **culture, terms, principles, tools and practices**
- Learn how to use tools efficiently and effectively within a DevOps environment to achieve business goals, using a **full-stack approach**
- Recognize the importance of **communication, collaboration, integration, and automation** within a DevOps environment
- **Improve the workflow** between software developers and IT operations professionals and support organizations in their digital transformation journey
- Through cases, exercises, and group discussions, learn how the DevOps movement supports your organization to reduce costs, while increasing agility and output quality

Throughout the course, there will be presentations to understand the core principles, group discussions, exercises, and quizzes to better understand and learn to apply DevOps.

COURSE OUTLINE

- **Module 1 - Exploring DevOps**
 - A short history of DevOps
 - What is DevOps, and what is it not?
 - Why DevOps is important today?
 - The business perspective or why the business is driving DevOps
 - The IT perspective or why IT is driving DevOps
- **Module 2 - Core DevOps Principles and Concepts**
 - The Three Ways: Flow, Feedback and Continuous Experimentation & Learning
 - The theory of constraints
 - Chaos engineering
 - Learning organizations
- **Module 3 - Key DevOps Practices**
 - Continuous testing, integration, delivery, and deployment
 - Site reliability & resilience engineering
 - Discovering DevSecOps, ChatOps and Kanban
- **Module 4- Business and Technology Frameworks**
 - How DevOps integrated with other frameworks such as Agile, ITSM and Lean
 - The safety culture in DevOps
 - Learning organizations or the importance to have a commitment to learning
 - Continuous funding vs traditional funding
- **Module 5 - Cultures, Behaviours and Operating Models**
 - What is organizational culture?
 - How DevOps helps to overcome cultural debt

- Characteristics of a DevOps culture
- Cultural change and change acceptance
- Behavioral and organizational models
- **Module 6 - Automation and Architecting DevOps Toolchains**
 - CI/CD
 - Infrastructure as Code
 - Cloud
 - Containers & microservices
 - Machine learning
 - DevOps Toolchains
- **Module 7 - Measurement, Metrics and Reporting**
 - The importance of measurement
 - DevOps metrics: speed/throughput/tempo, quality, stability, culture
 - Change lead/cycle times
 - Value Driven Metrics
- **Module 8 - Sharing, Shadowing and Evolving**
 - DevOps in the Enterprise
 - DevOps Roles
 - DevOps Leadership
 - Organizational considerations
 - Getting started with DevOps
 - Challenges, Risks and critical success factors

During the course, there will also be an exam preparation with the quizzes and the sample papers provided by the certification bodies. Participants will be invited to prepare one sample paper as homework. Correction will be done and debriefed in class the next morning.

Participants will take their online exam in the class on the afternoon of day 3. If you are unsuccessful on your first attempt, a second chance is included in your registration fee.

Who should attend ?

PeopleCert/DevOps Institute DevOps Qualifications are designed for professionals in Software or Applications Development, IT Operations, IT Service Management, as well as business analysts, project and product managers, and anyone aspiring to gain knowledge of DevOps principles.

The **Foundation level** of the PeopleCert/DevOps Institute DevOps qualification scheme is aimed at **anyone who wishes to become an efficient member of a DevOps environment**. If you're looking for a higher-level certification, you can visit our DevOps Leadership page.

PREREQUISITES

There are no formal prerequisites to attend this course.

However, we recommend some knowledge of IT terms and a work experience in an IT environment.

ABOUT THE EXAMINATION

The DevOps® Foundation certification from the DevOps Institute is the first step in your must-have training and certification path. This certification will test and validate your knowledge of the fundamental vocabulary, principles, and practices of DevOps.

Deliver	Computer-based exam
Type	40 Multiple Choice Questions (MCQ)
Duration	1 hour (60 minutes) + extra time for non-native speakers or candidates with a disability
Pass Mark	65%
Open Book	Yes
Validity	3 years from the date of issue of your certificat

TRAINING DOCUMENTATION

Participants will receive a **digital version of the handbook** with quizzes, activities, videos and case studies for each module. It has been designed to reinforce learning and add value to your course experience. **The learner kit** also includes mock exams with answers and rationales, as well as additional resources that you can explore further to enhance your learning and understanding.