



PeopleCert DevOps Fundamentals

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Trainer Information v1.0



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1. About PeopleCert

PeopleCert is a global leader in the assessment and certification of professional skills, partnering with multi-national organizations and government bodies to develop and deliver market leading exams worldwide. With a global presence in over 200 countries, over 2000 Accredited Training partners and a comprehensive portfolio of over 500 certification exams, PeopleCert offers web and paper-based exams in 25 languages and is considered a leader in global certification.

PeopleCert's commitment to quality and integrity can be felt throughout the organization. PeopleCert boasts about its state-of-the-art infrastructure and compliance to the strictest regulations in the market.



PeopleCert is accredited by the Hellenic Accreditation Body (ESYD) according to the following standards:

- ISO 17024 Certification of Persons

PeopleCert is certified by Lloyds Register (UK) according to the following standards:

- ISO 9001 Quality Management
- ISO 10002 Customer Satisfaction & Complaints Handling
- ISO 14001 Environmental Management
- ISO 27001 Information Security
- ISO 23988 Use of IT in the Delivery of Assessments
- ISO 22301 Business Continuity

2. Introduction to DevOps

DevOps (a clipped compound of "development" and "operations") is a software development methodology 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 cheaper fashion. The DevOps approach to work covers three critical success factors: cultural shift, improvement of practices and processes, and leverage of automation technologies.

Due to the proven success of the DevOps approach to work, **DevOps** oriented roles have become a sought-after resource across industries by a constantly growing number of organizations, who need DevOps-savvy people to make the cultural shift, work comfortably in a DevOps environment, and manage an array of technology and tools—referred to collectively as "toolchain"—for process, including but not limited to, coding, building, testing, packaging, releasing, configuring and monitoring.

It's in this continuously evolving context, that PeopleCert designed a suite of DevOps qualifications that

reflects the market need to close the skills-gap that many organizations are facing and support the realization of their business objectives and to improve communication, standardization, collaboration and automation for the delivery of quality software products better, faster and with a lower cost.

To reflect the need of this evolving work approach, the PeopleCert DevOps qualification has been structured as follows:

- **PeopleCert DevOps Fundamentals** (14-18 training hours) – Candidates gain practical guidance on how to deliver effective DevOps through 15 essential practices, especially in relation to well-established ITSM practices.
- **PeopleCert DevOps Leadership** (14-18 training hours) – Candidates get guidance on how to lead the implementation of DevOps practices and how to achieve a cultural shift for better collaboration and communication.
- **PeopleCert DevOps Engineering** (coming soon) – Candidates will gain practical guidance on automation tools use and how these tools support DevOps culture and practices.

3. PeopleCert DevOps Fundamentals Certification

The **PeopleCert DevOps Fundamentals** certification covers the fundamental **knowledge** required for a candidate to build their knowledge and skills regarding DevOps principles and practices. In addition, the **PeopleCert DevOps Leadership** certification (which is the next level of the qualification) covers more advanced skills, practices and knowledge about DevOps.

The body of knowledge underlying these skills are presented in the official courseware provided by PeopleCert to accredited ATOs. The primary purpose of the syllabus is to provide a basis for accreditation of people involved with DevOps. It documents the learning outcomes related to the qualification and describes the requirements a candidate is expected to meet to demonstrate that these learning outcomes have been achieved at the specific qualification level.

4. Purpose of the Fundamentals (Foundation level) Qualification

The purpose of this foundation level qualification is to confirm that a candidate has sufficient knowledge, understanding and application of fundamental DevOps skills and are be able to work effectively with, or as a member of, a DevOps environment. The **PeopleCert DevOps Fundamentals** qualification is also a pre-requisite for the **PeopleCert DevOps Leadership** qualification.

5. Target Group/Audience

This certification is the **first (Fundamentals) level** of the **PeopleCert DevOps** qualification scheme provided by PeopleCert and is aimed at anyone who wishes to become an efficient member of a DevOps environment and requires candidates to have and demonstrate a solid **knowledge** and **understanding** of DevOps terms, principles, tools and practices, as well as demonstrate their **application** skills of how to use tools efficiently and effectively. The certification can also cater for candidates seeking personal certification.

This certification will provide the **fundamental** level of knowledge to its holders and will certify that they

have a solid understanding of DevOps using various tools.

This **Advanced/Leadership** level of skills and knowledge is covered in the next level of the **PeopleCert DevOps** qualification scheme.

6. Learning Objectives

During the **Fundamentals** level course, candidates will be introduced to basic concepts, terms, principles and tools used for DevOps as well as why DevOps is needed in modern enterprises, Scrum methodology, people and culture implications as well as the practices, processes, automation and technology used for adapting DevOps within an organization.

Holders of the **PeopleCert DevOps Fundamentals** certification, will be able to demonstrate their knowledge, understanding and application of:

- 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

Through the above learning objectives, candidates will demonstrate relevant knowledge skills in the following areas:

Main Topics

Introduction to DevOps	Agile Project Management
The Urgency for DevOps	Scrum
Key DevOps Principles & Concepts	IT service Management (ITSM)
The Full Stack – People & Culture	Virtualization
The Full Stack – Processes & Practices	
The Full Stack – Technology & Automation	

7. PeopleCert DevOps Fundamentals Agenda

The **PeopleCert DevOps Fundamentals** course can be offered as either a 2-day (14 hours) or a 30day (18 hours) course, to fit the training organization's needs and customer demand. It can also be combined with **PeopleCert DevOps Leadership** course to offer a comprehensive 5-day course (with exams), if needed. Exams at the end of each course can be either Web-based (classroom or online proctored) or Paper-based (classroom).

Two-day course agenda:

Day 1

- ⑩ Introduction: What is DevOps?
- ⑩ Module 1: The Urgency For DevOps
- ⑩ Module 2: Key DevOps Principles & Concepts
- ⑩ Module 3: The Full Stack – People & Culture Layer

Day 2

- ⑩ Module 4: The Full Stack – Processes & Practices Layer
- ⑩ Module 5: The Full Stack – Technology & Automation Layer
- ⑩ Wrap Up & Review

Three-day course agenda:

Day 1

- ⑩ Introduction: What is DevOps?
- ⑩ Module 1: The Urgency For DevOps
- ⑩ Module 2: Key DevOps Principles & Concepts
- ⑩ Begin Module 3: The Full Stack – People & Culture Layer

Day 2

- ⑩ Continue Module 3
- ⑩ Module 4: The Full Stack – Processes & Practices Layer
- ⑩ Begin Module 5: The Full Stack – Technology & Automation Layer

Day 3

- ⑩ Continue Module 5
- ⑩ Wrap Up & Review

8. Examination

The **PeopleCert DevOps Fundamentals** Certification Exam is designed to validate a candidate's knowledge and understanding of DevOps basics as detailed above as well as how to be able to apply this knowledge through tools and practices in a modern enterprise.

The **Fundamentals** exam focuses on the following **two (2)** categories in the cognitive domain of **Bloom's taxonomy**¹ which is a reference for different levels of learning:

- **Knowledge**
- **Comprehension**

For this examination, there **are no** formal entry criteria or training requirements.

In order to be eligible for the **PeopleCert DevOps Fundamentals** level examination a candidate must be able to demonstrate knowledge and understanding of basic DevOps terms, principles, processes, practices and tools and it is recommended that the candidate has received **Accredited Training** by a PeopleCert accredited training partner.

The following table details the examination format for the **Fundamentals** exam:

Delivery	Computer (web proctored or classroom)
Type	40 Multiple Choice Questions (MCQ) <i>Each question is awarded one (1) mark</i>
Duration	1 hour (60 minutes) <i>For non-native speakers or candidates with a disability, an additional 30 minutes of extra time is allowed.</i>
Pass Mark	70% (28 marks out of 40)
Invigilator / Supervisor / Proctor	Yes <i>Physical or Online Proctoring</i>
Open Book	No <i>No materials are allowed in the examination room</i>
Prerequisites	None
Distinction	N/A
Certification validity	Perpetual

The tests are derived from a regularly updated question test bank (QTB) based on the test specification detailed below. Questions are used interchangeably among test sets. The overall difficulty level of each test is the same with any other test. A candidate is never assigned the same test in the case of multiple examination attempts.

Only Multiple-Choice Questions (MCQs) are used in this examination, including the following MCQ question types:

- Single answer **Standard** MCQs
- Single answer **List** MCQs - max five (5) per exam form
- Single answer **Missing** Word(s) MCQs - max five (5) per exam form
- Single answer **Negative** MCQs - max four (4) per exam form

¹ The Bloom's taxonomy defines **six (6)** levels of learning in the **cognitive** domain (know, comprehend, apply, analyze, evaluate, create), which are both sequential and cumulative and move from the simple to the complex. In order to achieve the 6th level of learning, it must be ensured that the previous five levels have been mastered.

The **PeopleCert DevOps Fundamentals** examination will consist of **six (6)** sections with the following structure:

Category	Description	Exam (%)
1.0	Introduction to DevOps	5.0%
2.0	The Urgency for DevOps	10.0%
3.0	Key DevOps Principles & Concepts	15.0%
4.0	The Full Stack – People & Culture	20.0%
5.0	The Full Stack – Processes & Practices	30.0%
6.0	The Full Stack – Technology & Automation	20.0%
Total		100.0%

9. Training Material

PeopleCert offers vanilla courseware material (ready to use) for the **PeopleCert DevOps Fundamentals** course, that comprises of **student** and **trainer** material.

Student Material:

Description
Student Study Guide
Glossary
Syllabus document
Bibliography
Sample paper(s) with Answers

Trainer Material:

Description
Trainer Presentation, with Notes
Trainer Information Material (this document)
Glossary
Syllabus document
Bibliography
Sample paper(s) with Answers

10. Trainer Accreditation

The below criteria apply for all **PeopleCert DevOps trainers**:

- Have a 3 years' demonstrated experience, credentials and subject matter expertise on the topic.
- Have successfully passed the appropriate certification for the specific course.
- Hold the **PeopleCert DevOps Fundamentals Certificate**, or comparable level certificate from other providers, for trainers to be approved for the **PeopleCert DevOps Leadership** course.
- Have at least one (1) year of proven training experience
- Have familiarized with the Train-The-Trainer requirements.

11. Trainer Preparation

In order to deliver a **PeopleCert DevOps Fundamentals** course, after being accredited, trainers must prepare by familiarizing themselves with the provided material. It is important to go through both the trainer and student material in order to know exactly what is included into the course. Trainers should be comfortable with delivering the provided trainer slide deck in the allocated time. Going through the presentation several times will assist trainer readiness to deliver the course. In addition, trainers must be familiar with the certification details including the breadth and depth of the syllabus, the exam requirements and have a solid understanding and readiness to handle the provide sample exam. Trainers are advised to complete the sample test on their own, go over the answers, study the student material, and use the recommended reading list below to be fully aware about sources, material etc. that are readily available to them.

Any feedback on the quality of the training or certification material should be communicated to PeopleCert directly @: customerservice@peoplecert.org with the text '**PeopleCert DevOps content**' in the subject line.

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