

## DevOps Fundamentals DASA + examen

**Cursusduur: 2 Dagen    Cursuscode: DEVOPS**

### Beschrijving:

200 keer sneller software deployment, 30 keer hogere deployment frequentie en een change succesrate die 60 keer hoger ligt. Dit zijn de feiten! Organisaties als Netflix, Spotify en Facebook transformeren IT zeer succesvol door DevOps principes te implementeren. Je hoeft echter niet een hot internet- of een giga organisatie te zijn om DevOps te implementeren. Ook grote en kleine, jonge en oude bedrijven hebben hebben de transitie gemaakt en zijn zeer succesvol op dit vlak.

DevOps fundamentals training is het begin van de 'DevOps-reis' voor elke organisatie. Verbeterde workflows en snellere deployment start met kennis van de fundamentele DevOps concepten door iedereen die betrokken is in agile e/o DevOps teams.

Deze 2-daagse DASA DevOps Fundamentals cursus biedt een uitgebreide introductie in Agile DevOps principes, waarin de essentiële competenties worden behandeld die zijn gedefinieerd door de DevOps Agile Skills Association (DASA). In deze cursus leer je de DevOps vocabulaire, principes en practices. M.b.v. key DevOps concepten en terminologie, real-life case studies, voorbeelden, groepsdiscussies en oefeningen krijg je een fundamenteel begrip van DevOps.

### Doelgroep:

Professionals die betrokken zijn bij IT-ontwikkelingen, IT-operations of IT-servicemanagement

Professionals die te maken hebben met DevOps en continuous delivery, zoals: DevOps engineers, Product owners, Integration specialisten, Operations managers, Incident & Changemanagers, System administrators, Network administrators, Businessmanagers, Automation architecten en Enterprise architecten

### Doelstelling:

- Na afloop van de cursus zijn de cursisten bekend met de volgende aspecten van DevOps:
- Explain the drivers responsible for the emergence of DevOps.
- Define and discuss the key concepts and principles of DevOps.
- List and explain the business benefits of DevOps and continuous delivery.
- Know how teams can translate DevOps principles into tangible practices.
- Learn about modern operations in a DevOps context.
- Explain the concepts of test automation, infrastructure automation, and build and deployment automation.
- Describe how DevOps relates to Lean and Agile methodologies.
- Get insight into the various organizational DevOps models
- Identify how Cloud and Delivery pipeline automation optimize and accelerate the ways of working.
- Discuss the critical success factors for DevOps transformation.

### Vereiste kennis en vaardigheden:

- Bekendheid met agile, scrum, lean en ITSM is een pre

### Examens en certificering

Het examen is inclusief. U krijgt aan het einde van de training een voucher waarmee u het examen op elke gewenste tijd kunt maken, mits u een camera in uw laptop heeft. Het is een zgn web-proctored examen.

#### Examenspecs:

- Gesloten boek
- Web-Based
- 40 multiple choice vragen
- Passing Score: 65%
- Examenduur: 60 minuten

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### Vervolg cursussen:

- DASADEV-P, DASA DevOps Enable & Scale
  - DASADEV-PO, DASA DevOps Product Owner
  - DASADEV-C, DASA DevOps Coach
  - LITF, Lean IT Foundation
  - SCRUM-M, Scrum Master
  - SCRUM-PO, Scrum Product Owner
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## Cursusinhoud:

In de training komen de volgende onderwerpen aan de orde:

### DevOps Evolution

- Explain the Wall of Confusion between Dev and Ops?
- List and discuss the various problems that IT organizations face due to Wall of Confusion.
- Discuss the brief history of DevOps movement since its germination
- Explain how DevOps helps foster a culture of high-performance IT.
- Business Benefits of DevOps
- Why companies need to radically rethink their IT strategy considering the digital world?
- List and discuss the various reasons of adopting DevOps.
- List the example statistics to better understand how DevOps practices impact IT and organizational performance.
- Discuss the role of Antifragility in the DevOps world.

### DASA DevOps Principles

- Explain briefly the six DASA DevOps principles.
- List and discuss the various characteristics of each DASA principle.

### Goals and Measurement

- Discuss the role of values, goals, metrics, and compliance for an effective governance.
- What is the importance of setting clear goals basis the vision in the successful adoption of DevOps?
- How to create a vision based on DASA principles and set clear goals?
- What is Survivorship Bias?
- Explain the need of taking required actions based on measurements to improve?
- What are Performance Metrics and Performance Predictors? How these differ from one another?
- List the top practices correlated to Performance Metrics to make improvements.

### From Roles to T-shape DevOps Profiles

- Explain the meaning of "No Role Silo in a DevOps Team."
- What is T-shape?
- DASA DevOps Competence Model
- What is DASA DevOps Competence Model?
- Discuss the DASA DevOps Skill Areas.
- Discuss the DASA DevOps Knowledge Areas.

### Organizational Models

- Why change the organization?
- Explain the need to move from Project to Product.
- Why taking DevOps "Literally" is not at all a solution?
- Explain the practical approach to the organizational model.
- Discuss the differences between DevOps Business System and Platform Teams.

### Team Autonomy

- What is autonomy of teams?
- List and discuss the various criteria for autonomous teams.
- Discuss Daniel's Pink aspects of motivation.

### DevOps at Scale

- Why is scaling inevitable?
- How to mitigate scale?
- List the various scaling models/frameworks.

### ITSM

- What is the difference between products and services?
- List and discuss the various types of work.
- Discuss ITIL4.
- How DevOps relates to ITSM processes?

### Lean

- Explain Lean.
- Discuss Lean principles.
- List and discuss the various types of waste? (TIMWOODS)
- Discuss different facts about waste.
- What is Value Stream Mapping (VSM)?
- How to improve the flow of work?
- Explain Lean Startup.
- What is a Minimal Viable Product (MVP)?
- Explain the role of including the MVP in an Agile process.

### Agile

- How are traditional organizations different from Agile organizations?
- What is Agile?
- Explain the Agile focus on satisfying the customers' needs.
- Discuss Agile Manifesto.
- How is Agile an umbrella for several methods and frameworks?
- What is Scrum and Scrum Framework?
- List and discuss some advantages of working Agile.

### Continuous Delivery and Automation

- Define Continuous Delivery.
- How is Continuous Delivery different from Continuous Integration and Continuous Deployment?
- Discuss the various benefits of automating Continuous Delivery.
- Explain "Cycle Time Reduction" as the primary goal of Continuous Delivery.
- List and discuss the various Continuous Delivery base principles and focus topics.
- Discuss "Continuous Delivery Implies: Software has to Flow."
- Explain automated build, automated test, automated deployment, and automated provisioning.
- Discuss the importance of having everything as code.
- How automation changes the focus towards engineering tasks?
- Explain the role of Continuous Delivery in enabling DevOps team performance.
- Explain the different types of feedback.
- Explain the importance of failing fast in a smart way.
- Summarize the automation approach to Continuous Delivery.

### Modern Infrastructure and Cloud

- Discuss the emergence of Cloud Computing.
- List and discuss the National Institute of Standardization (NIST) Cloud Principles.
- Explain the different types of Cloud services.
- What are the services DevOps Business System teams require?
- What is Continuous Delivery for Platform Products and Teams?
- Why do DevOps organizations adopt Cloud principles?
- Discuss DevOps Platform teams as a "Cloud" service provider.
- What are the different types of Clouds to operate?
- Explain the concept of pets and cattle in the context of software development.
- What is Desired State Configuration to automate environments?
- Explain automated provisioning with mutable and immutable infrastructure.

### Operations

- Discuss the modern ways of doing Operations.
- Discuss monitoring at multiple levels.
- How to optimize monitoring for DevOps?
- Explain logging with stakeholders and usage examples.

- Explain the importance of DASA DevOps Competence Quickscan™.
- Introduce the various DASA DevOps certifications.

#### Culture and Behavior

- What is culture?
- Explain DevOps Culture.
- List and discuss the typical cultural aspects of a DevOps team.
- How to grow a culture?
- What context to provide to facilitate growth areas for teams?
- Discuss “Ron Westrum: The Three Typologies of Organizational Culture.”
- What is behavior?
- List the various elements of a DevOps culture.

#### Explain team building and collaboration

- What is a team?
- What is Visual Management.
- Explain the role of collaboration as a success factor of a team.
- List the various example team activities for effective collaboration.
- Explain continuous improvement and problem-solving.
- What is Kaizen?
- Explain structured problem-solving.
- Explain courage and experimentation.
- Discuss the role of “Courage to Act” as a key behaviour of a DevOps team.
- Explain courage and experimentation.
- Why courageous behavior requires safety?
- Explain the role of experimentation meetups as key tool of courage.
- Explain leadership and feedback.
- Discuss leadership in a DevOps Environment.
- Explain the differences between Mission Command and Central Command of leadership.
- What are the various barriers of effective collaboration
- Explain the style leadership requires.
- How to build a DevOps culture?

#### Architecture

- What is the ultimate aim of IT architecture?
- Explain the importance of building qualities.
- Relate Complexity and Quality.
- Discuss Conway’s Law and Organizations’ Architecture.
- What are Smaller Services?
- Explain Microservices Architecture (MSA).
- Why is MSA a faster, cheaper, better approach to software development?
- List and discuss the common characteristics of MSA.
- What is the need to move from legacy to smaller services?

#### The Next Steps

- Where to start?
- Map the context.
- Assemble the team.
- Train the team.
- Do the DASA Competence Scan.
- Focus on the cultural elements.
- Improve the flow of work.

#### Tips voor het examen

#### Voorbeeldexamen

## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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