

# Microsoft Azure DevOps Solutions (MOC AZ-400)

## Überblick

Dieser Kurs vermittelt den Teilnehmern die Kenntnisse und Fähigkeiten zur Entwicklung und Umsetzung von DevOps-Prozessen und -praktiken. Die Teilnehmer lernen, wie sie DevOps planen, Quellcodeverwaltung verwenden, Git für ein Unternehmen skalieren, Artefakte konsolidieren, eine Strategie für das Abhängigkeitsmanagement entwerfen, Geheimnisse verwalten, Continuous-Integration-Ansätze und eine Strategie zum Erstellen von Containern implementieren, eine Releasestrategie entwerfen, einen Releaseverwaltungsworkflow einrichten, ein Bereitstellungsmuster implementieren und Feedbackmechanismen optimieren.



Dauer:  
4 Tage



Preis:  
2.150,00 € (2.558,50 € inkl. MwSt.)

## Kursinhalt

Get started on a DevOps transformation journey

- Introduction to DevOps
- Choose the right project
- Describe team structures
- Migrate to DevOps
- Introduction to source control
- Describe types of source control systems
- Work with Azure Repos and GitHub

Work with Git for enterprise DevOps

- Structure your Git Repo
- Manage Git branches and workflows
- Collaborate with pull requests in Azure Repos
- Explore Git hooks
- Plan foster inner source

- Manage Git repositories

## Implement CI with Azure Pipelines and GitHub Actions

- Explore Azure Pipelines
- Manage Azure Pipeline agents and pools
- Describe pipelines and concurrency
- Explore Continuous integration
- Implement a pipeline strategy
- Integrate with Azure Pipelines
- Introduction to GitHub Actions
- Learn continuous integration with GitHub Actions

## Design and implement a release strategy

- Introduction to continuous delivery
- Explore release strategy recommendations
- Build a high-quality release pipeline
- Introduction to deployment patterns
- Implement blue-green deployment and feature toggles
- Implement canary releases and dark launching
- Implement A-B testing and progressive exposure deployment

## Implement a secure continuous deployment using Azure Pipelines

- Create a release pipeline
- Configure and provision environments
- Manage and modularize tasks and templates
- Automate inspection of health
- Manage application configuration data
- Integrate with identity management systems
- Implement application configuration

## Manage infrastructure as code using Azure, DSC, and third-party tools

- Explore infrastructure as code and configuration management
- Create Azure resources using Azure Resource Manager templates
- Create Azure resources by using Azure CLI
- Explore Azure Automation with DevOps
- Implement Desired State Configuration (DSC)
- Introduction to Chef and Puppet
- Implement Ansible
- Implement Terraform

## Implement security and validate code bases for compliance

- Introduction to Secure DevOps
- Implement open-source software
- Software Composition Analysis
- Static analyzers
- OWASP and Dynamic Analyzers
- Security Monitoring and Governance

## Design and implement a dependency management strategy

- Explore package dependencies
- Understand package management
- Migrate, consolidating and secure artifacts
- Implement a versioning strategy

## Create and manage containers using Docker and Kubernetes

- Design a container build strategy
- Implement Docker multi-stage builds
- Implement Azure Kubernetes Service (AKS)
- Explore Kubernetes tooling
- Integrate AKS with Pipelines

## Implement continuous feedback

- Implement tools to track usage and flow
- Implement route for mobile application crash report data
- Develop monitor and status dashboards
- Share knowledge within teams
- Explore SRE and design practices to measure end-user satisfaction
- Design processes to capture and analyze user feedback
- Design processes to automate application analytics
- Manage alerts, Blameless retrospectives and a just culture

## Voraussetzungen

- Verständnis von Cloud Computing-Konzepten, einschließlich PaaS-, SaaS- und IaaS-Implementierungen
- Erfahrung in Bezug auf Azure-Verwaltung und Azure-Entwicklung
- Kenntnisse in Bezug auf Versionskontrolle, agile Softwareentwicklung und die wichtigsten Prinzipien der Softwareentwicklung

## Zielgruppe

Dieser Kurs richtet sich an DevOps Professionals, die DevOps-Prozesse entwerfen und implementieren möchten.

## Termine

### Microsoft Azure DevOps Solutions (MOC AZ-400)

24.06.2024 - 27.06.2024 Osnabrück

19.08.2024 - 22.08.2024 Osnabrück

03.12.2024 - 06.12.2024 Osnabrück

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