



Microsoft DevOps solutions (AZ400)

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Azure AZ400 (40Hrs)

Module 1 Get started on a DevOps transformation journey

- Introduction to DevOps
- Choose the right project
- Describe team structures
- Choose the DevOps tools
- Plan Agile with GitHub Projects and Azure Boards
- Introduction to source control
- Describe types of source control systems
- Work with Azure Repos and GitHub

Module 2 Development 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
- Identify technical debt

Module 3 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 a container build strategy

Module 4 Design and implement a release strategy

- Introduction to continuous delivery
- Create a release pipeline
- Explore release recommendations
- Provision and test environments
- Manage and modularize tasks and templates
- Automate inspection of health

Module 5 Implement a secure continuous deployment using Azure Pipelines

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
- Integrate with identity management systems
- Manage application configuration data

Module 6 Manage infrastructure as code using Azure and DSC

- 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)
- Implement Bicep

Module 7 Implement security and validate code bases for compliance DevOps

Introduction to Secure

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

Module 8 Design and implement a dependency management strategy

- Explore package dependencies
- Understand package management
- Migrate consolidate and secure artifacts
- Implement a versioning strategy
- Introduction to GitHub Packages

Module 9 Implement continuous feedback

- Implement tools to track usage and flow
- Develop monitor and status dashboards
- Share knowledge within teams
- Design processes to automate application analytics
- Manage alerts, Blameless retrospectives and a just culture