

MICROSOFT OFFICIAL CURRICULUM

Microsoft

DevOps Engineer Expert

AZ-400

As a DevOps engineer, you're a developer or infrastructure administrator who also has subject matter expertise in working with people, processes, and products to enable continuous delivery of value in organizations.

Software Dev

Advanced

Azure, Azure Devops, Azure Kubernetes Service, Azure Container Instances, Azure Automation

DURATION

4 days

LEVEL

Advanced

FORMAT

Virtual, On-site, or Hybrid

CERTIFICATION

Microsoft Certified: DevOps Engineer Expert

AUDIENCE PROFILE

Built for these roles

Students in this course are interested in designing and implementing DevOps processes or in passing the Microsoft Azure DevOps Solutions certification exam.

OVERVIEW

Executive overview

This course provides the knowledge and skills to design and implement DevOps processes and practices. Students will learn how to plan for DevOps, use source control, scale Git for an enterprise, consolidate artifacts, design a dependency management strategy, manage secrets, implement continuous integration, implement a container build strategy, design a release strategy, set up a release management workflow, implement a deployment pattern, and optimize feedback mechanisms

PROGRAM OUTCOMES

Capabilities your teams will gain

- Design and implement processes and communications
- Design and implement a source control strategy
- Design and implement build and release pipelines
- Develop a security and compliance plan

TRAINING PROVIDER


VNode ITeS


MICROSOFT CERTIFIED TRAINER

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DLF Cyber City, Gurugram

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ENTERPRISE CUSTOMIZATION

Enterprise customization

Tailor this program to your organization's priorities: Builds current Microsoft credential readiness for DevOps Engineer Expert using the official Microsoft Learn skill outline.

Customization options

- Align labs to your Microsoft tenant and workload scenarios
- Add readiness checks and exam preparation reviews
- Extend delivery with role-specific implementation workshops

CURRICULUM

Curriculum roadmap

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MODULE 1

AZ-400: Development for Enterprise DevOps

Learn Git features and DevOps practices that help organizations build better software together.

- Introduction to DevOps
- Plan Agile with GitHub Projects and Azure Boards
- Design and implement branch strategies and workflows
- Collaborate with pull requests in Azure Repos
- Explore Git hooks
- Plan to foster inner source
- Manage and configure repositories
- Identify technical debt

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MODULE 2

AZ-400: Implement CI with Azure Pipelines and GitHub Actions

AZ-400: Implement CI with Azure Pipelines and GitHub Actions

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

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MODULE 3

AZ-400: Design and implement a release strategy

Learn advanced release strategy design and implementation through comprehensive continuous delivery frameworks, deployment orchestration, and automated quality assurance methodologies

- Create a Release Pipeline
- Explore release strategy recommendations
- Configure and Provision Environments
- Manage and Modularize Tasks and Templates
- Automate inspection of health

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MODULE 4

AZ-400: Implement a secure continuous deployment using Azure Pipelines

AZ-400: 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

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MODULE 5

AZ-400: Manage infrastructure as code using Azure and DSC

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- Explore Infrastructure as Code and configuration management
- Create Azure Resources by using Azure Resource Manager templates
- Create Azure Resources Using Azure CLI
- Explore Azure Automation with DevOps
- Implement Desired State Configuration (DSC)
- Implement Bicep

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MODULE 6

AZ-400: Implement security and validate code bases for compliance

AZ-400: Implement security and validate code bases for compliance - Learn DevSecOps practices, secure pipeline implementation, open-source software security, software composition analysis, and comprehensive security monitoring with Microsoft Defender for Cloud, Azure Policy, and GitHub Advanced Security.

- Introduction to Secure DevOps
- Implement open-source software
- Software Composition Analysis
- Security monitoring and governance

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MODULE 7

AZ-400: Design and implement a dependency management strategy

Learn how to design and implement a comprehensive dependency management strategy for DevOps. Explore package dependencies, package management, artifact security, versioning strategies, and GitHub Packages integration for efficient software development.

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

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MODULE 8

AZ-400: Implement continuous feedback

Learn to implement continuous feedback practices in DevOps using Azure Application Insights, monitoring dashboards, team knowledge sharing, automated analytics, and blameless retrospectives to create a culture of continuous improvement.

- 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

PRIVATE DELIVERY

Plan a private cohort for your team

Scope delivery format, role mix, and rollout timeline with our solutions team.

Plan Private Delivery

Book advisory call

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