

Azure DevOps Engineer Learning Pathway

www.aka.ms/pathways

Getting Started

Gain 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

- [Get started with Windows PowerShell](#)
- [Get started with Azure DevOps](#)
- [DevOps at Microsoft](#)
- [Want to get Started learning GitHub and DevOps?](#)
- [Threat Modelling Security Fundamentals](#)
- [Secure your infrastructure with threat modelling\)](#)
- [Explore DevOps Technology](#)
- [Intro to data protection and privacy regulations](#)

Microsoft Certified: **Azure Administrator** or Microsoft Certified: **Azure Developer** are prerequisites for this certification.

Check out the Administrator and Developer Pathways for more information on this training and certification

[Azure DevOps Documentation](#)

Microsoft Learn

Continuous Integration

- [Key concepts for new Azure Pipelines users](#)
- [Pipeline Tasks | Pipeline Agents](#)
- [Run quality tests in your build pipeline by using Azure Pipelines](#)
- [Quickstart: trigger a pipeline run from GitHub Actions](#)
- [Run functional tests in Azure Pipelines](#)
- [Overview of testing with Azure DevOps](#)
- [Create test plans and test suites](#)
- [Release approvals and gates overview](#)
- [Manage build dependencies with Azure Artifacts](#)
- **Azure Artifacts:** [Feeds](#) | [Views](#)
- [Semantic Versioning \(SemVer\)](#)
- [Use a PowerShell script to customize your pipeline](#)
- [Desired State Configuration \(DSC\)](#)
- [Azure Pipelines: Agents | Triggers](#)
- [Configure infrastructure in Azure Pipelines](#)

Continuous Delivery

- [Infrastructure as code](#)
- [Create a release pipeline in Azure Pipelines](#)
- [Deployment Jobs](#)
- [Migrate from Jenkins to Azure Pipelines](#)
- [Automate deployments with Release Management](#)
- [What is Azure Pipelines?](#)
- [CI/CD Deployment: Classic pipelines](#)
- [Deploy applications with Azure DevOps](#)

- [Deploy applications with Azure DevOps](#)
- [Third Party DevOps solutions](#)
- [Azure Automation State Configuration overview](#)
- [Exercise: Hotfix Changes using releases](#)

Site Reliability Engineering (SRE)

- [SRE principles and practices: virtuous cycles](#)
- **Azure Monitor:** [Action Groups](#) | [Schema](#)
- [Health monitoring](#)
- [Service Fabric health monitoring](#)

Communication & Collaboration

- [About dashboards/ charts/reports/widgets](#)
- [DevOps Dashboards | Adding a Chart](#)
- [Azure DevOps Reporting](#)
- [Azure Boards documentation](#)
- [Azure Boards & GitHub](#)
- [Link GitHub commits, pull requests, and issues to work items](#)
- [Tutorial: Follow a user story, bug, issue, or other work item or pull request](#)
- [AbRelease artifacts and artifact sources](#)
- [Integrate with service hooks](#)
- [Create a service hook for Azure DevOps with Microsoft Teams](#)
- [Create a service hook for Azure DevOps with Slack](#)
- [Integrate third-party services](#)
- [Webhooks](#)

Instrumentation and monitoring

- [Use monitoring and analytics to gain operational insights](#)

- [Designing your Azure Monitor Logs deployment](#)
- [Roles, permissions, and security](#)
- [What is Distributed Tracing?](#)
- [Unify monitoring solutions in Azure](#)
- [Identify performance bottlenecks](#)
- [Monitoring solutions in Azure Monitor](#)
- [Analyse alerts to establish a baseline](#)
- [Analyse and understand mobile application use](#)

Security/Compliance

- [Identity and access | Managed Identities](#)
- [Azure Active Directory groups](#)
- [Service Endpoints](#)
- [What is Azure Key Vault?](#)
- [Azure Key Vault – Overview](#)
- [Configure and manage secrets in Key Vault](#)
- [Key Vault certificates](#)
- [Using secrets from Key Vault in a pipeline](#)
- [Scanning Open-Source Libraries](#)
- [Protect your cloud workloads](#)
- [Understand Security Considerations for Application Lifecycle Management Solution](#)
- [Identity and access | Managed Identities](#)
- [Azure Active Directory groups](#)
- [Service Endpoints](#)
- [Protect your cloud workloads](#)

Role based Certification

AZ-400: DevOps Engineer

Skills Measured

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

Self Study:

- [Getting started on a DevOps transformation journey](#)
- [Development for enterprise DevOps](#)
- [Implement CI with Azure Pipelines and GitHub Actions](#)
- [Design and implement a release strategy](#)
- [Implement a secure continuous deployment using Azure Pipelines](#)
- [Manage Infrastructure as code using Azure and DSC](#)
- [Design and implement a dependency management strategy](#)
- [Implement continuous feedback](#)
- [Implement security and validate code for compliance](#)

[Practice Assessment](#)
[Exam Page](#)
[Course Page](#)
[Exam Study Guide](#)