

AZ-400T00: Designing and Implementing Microsoft DevOps solutions Course

Course Duration: 32 Hours

Course code: AZ-400T00

1. Course Overview

The **AZ-400T00: Designing and Implementing Microsoft DevOps Solutions** course equips professionals with the skills to combine people, processes, and technologies to deliver high-value products and services that meet business objectives. You'll learn how to design DevOps strategies, implement DevOps processes, automate workflows, and improve application development lifecycle efficiency using Microsoft Azure tools and services. This training covers everything from source control to continuous integration, delivery, monitoring, and feedback.

2. What you'll learn?

By the end of this course, you will be able to:

- Plan and implement a DevOps strategy tailored to business needs.
- Manage source control with Azure Repos and GitHub.
- Implement continuous integration (CI) and continuous delivery (CD) pipelines.
- Build dependency management and security controls into your workflow.
- Integrate testing into DevOps practices.
- Set up monitoring, logging, and feedback mechanisms.
- Automate infrastructure deployment using Infrastructure as Code (IaC).

3. Target Audience

This course is ideal for:

- DevOps professionals responsible for combining development and operations.

- Developers and IT professionals transitioning to DevOps roles.
- Solutions architects working with Azure DevOps solutions.
- Project managers overseeing DevOps projects.
- System administrators looking to automate and streamline operations.

4. Pre-Requisites

Learners should have:

- Fundamental knowledge of Azure, Azure DevOps, and Git.
- Experience working with development processes such as Agile.
- Understanding of software version control and CI/CD concepts.
- Experience with either Azure administration (AZ-104) or Azure development (AZ-204) is recommended.

5. Course content

Module 1: Planning for DevOps

- Transformation planning
- Project selection and team structures

Module 2: Version Control

- Introduction to source control
- Working with Git in Azure Repos and GitHub

Module 3: Continuous Integration

- Azure Pipelines setup
- Build strategies and integration of testing

Module 4: Continuous Delivery

- Release pipeline design
- Deployment patterns and blue-green deployments

Module 5: Dependency Management

- Package management with Azure Artifacts
- Secure and manage dependencies

Module 6: Application Infrastructure

- Infrastructure as Code with ARM templates and Bicep
- Configuration management tools integration

Module 7: Continuous Feedback

- Monitoring and logging strategies
- Feedback loops and performance optimization