
AZ -400T00 Designing and Implementing **Microsoft DevOps solutions**

1. Getting started with Azure DevOps

- 1.1 Introduction to Azure DevOps
- 1.2 Azure DevOps services and components
- 1.3 Azure DevOps organizations and projects
- 1.4 Exercise: Setting up an Azure DevOps organization and project

2. Planning for DevOps

- 2.1 Understanding DevOps culture
- 2.2 Planning for DevOps transformation
- 2.3 Assessing your DevOps maturity
- 2.4 Exercise: Assessing DevOps maturity

3. Getting started with Source Control

- 3.1 Introduction to source control
- 3.2 Azure Repos
- 3.3 Branching and merging strategies
- 3.3 Exercise: Working with Azure Repos

4. Scaling Git for Enterprise DevOps

4.1 Git workflows

4.2 Implementing and managing pull requests

Managing Git repositories

4.3 Exercise: Scaling Git for Enterprise DevOps

5. Implementing and managing build infrastructure

5.1 Azure Pipelines

5.2 Implementing and managing YAML pipelines

5.3 Implementing and managing GitHub Actions

5.4 Exercise: Implementing build infrastructure

6. Implementing Continuous Integration and Continuous Deployment (CI/CD)

6.1 Introduction to CI/CD

6.2 Implementing CI/CD pipelines

6.3 Managing application configuration and secrets

6.4 Exercise: Implementing CI/CD

7. Implementing Application Infrastructure

- 7.1 Infrastructure as Code (IaC) principles
- 7.2 Implementing ARM templates
- 7.3 Infrastructure provisioning with Terraform
- 7.4 Exercise: Implementing application infrastructure

8. Managing Application Configuration and Secrets

- 8.1 Configuration management
- 8.2 Azure Key Vault
- 8.3 Exercise: Managing application configuration and secrets

9. Implementing Continuous Feedback

- 9.1 Introduction to continuous feedback
- 9.2 Implementing Azure Monitor
- 9.3 Implementing Azure Application Insights
- 9.4 Implementing Azure Log Analytics
- 9.5 Implementing Azure DevTest Labs
- 9.6 Exercise: Implementing continuous feedback

10. Securing your DevOps environment

10.1 Security and compliance in DevOps

10.2 Implementing Azure Policy for management groups, subscriptions, and resource groups

10.3 Implementing security and compliance in the pipeline

10.4 Exercise: Securing your DevOps environment

11. Reference Architectures and Best Practices

11.1 Building a real-world DevOps pipeline

11.2 Review of key DevOps practices

11.3 Implementing real-world CI/CD pipelines

11.4 Exercise: Building a real-world DevOps pipeline

12. Preparing for Exam AZ-400

12.1 Overview of the AZ-400 exam

12.2 Study resources and tips

12.3 Practice exam questions

12.4 Course summary and review