AZ-400 - Designing and Implementing Microsoft DevOps solutions

Microsoft - Microsoft Azure - Virtualizzazione e Cloud

Durata:	Lingue:	Certificazione:
4 Giorni	**Italiano**	**Microsoft Certified: Azure DevOps Engineer Expert**

Descrizione del corso

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. The training path is preparatory to the Exam AZ-400: Microsoft Azure DevOps Solutions valid for Microsoft Certified: Azure DevOps Engineer Expert To obtain the Azure DevOps Engineer certification, you must have the Azure Administrator Associate certification or the Azure Developer Associate certification

Programma

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: Getting Started with Source Control

- 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: Managing Technical Debt

- 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: Working with Git for Enterprise DevOps

- Introduction to continuous delivery
- Explore release strategy recommendations
- Build a high-quality release pipeline
- 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

Module 5: Implement a secure continuous deployment using Azure Pipelines

- Create a release pipeline
- Provision and test environments
- Manage and modularize tasks and templates

- Automate inspection of health
- Manage application configuration data
- Integrate with identity management systems
- Implement application configuration

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

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

Module 8: Implementing Continuous Integration with GitHub Actions

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

Module 9: Designing and Implementing a Dependency Management Strategy

- 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