Designing and Implementing Microsoft DevOps solutions

CODICE	**AZ-400T00**
DURATA	**4 gg**
PREZZO	**1.590,00 €**
EXAM	

DESCRIZIONE

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.

TARGET

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

PREREQUISTI

Successful learners will have prior knowledge and understanding of:

- Cloud computing concepts, including an understanding of PaaS, SaaS, and IaaS implementations.
- Both Azure administration and Azure development with proven expertise in at least one of these areas.
- Version control, Agile software development, and core software development principles. It would be helpful to have experience in an organization that delivers software.

CONTENUTI

Development for enterprise DevOps

- 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 foster inner source
- Manage and configure repositories
- Identify technical debt

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

Design and implement a release strategy

- Create a release pipeline
- Explore release recommendations
- Provision and test environments
- Manage and modularize tasks and templates
- Automate inspection of health

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

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

Implement security and validate code bases for compliance

- Introduction to Secure DevOps
- Implement open-source software
- Software Composition Analysis
- Security Monitoring and Governance

Design and implement a dependency management strategy

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

Implement continuous feedback

- 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