

Microsoft Azure DevOps Solutions

Referencia

AZ-400

Duración (horas)

30

Última actualización

4 octubre 2019

Modalidades

Presencial, a medida

Examen

AZ-400

Introducción

This exam is part of requirements for Microsoft Certified Azure DevOps Engineer Expert certification. Azure DevOps professionals combine people, process, and technologies to continuously deliver valuable products and services that meet end user needs and business objectives.

To earn this certification, you must earn either the Azure Administrator Associate or Azure Developer Associate certification and pass the AZ-400 exam.

Objetivos

This exam measures your ability to accomplish the technical tasks listed below:

- Design a DevOps Strategy
- Implement DevOps Development Processes
- Implement Continuous Integration
- Implement Continuous Delivery
- Implement Dependency Management
- Implement Application Infrastructure
- Implement Continuous Feedback

Perfil de los alumnos

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

Requisitos previos

IT Professional or Developer with some knowledge about version control with one of the following tools will be welcome: GitHub, BitBucket, GitLab, Visual Sourcesafe, SVN or TFS.

Metodología

Barcelona Carrer Almogàvers 123, 08018 Barcelona / T. +34 933 041 720 / F. +34 933 041 722

Madrid Plaza de Carlos Trias Bertrán 7, 1ª Planta (Edificio Sollube), 28020 Madrid / T. +34 914 427 703

Active and participatory course through demonstrations, practical exercises and clinical analysis of users of all the theoretical topics taught by the instructor in order to deal with real cases of the related product. The trainer will also use different dynamics that allow group work in the classroom as challenges, evaluation exams and real cases to prepare for the associated Microsoft certification exam, if there is one.

Certificación

Continual evaluation based on group and individual activities. The faculty will give continuous feedback and at the end of the activities to each participant.

During the course the participants will complete an evaluation test that must be passed with more than 75%. They will have one hour available for its realization

Conditions of additional certification services are subject to the terms of the license owner or of the authorized certification authority.

Profesorado

Our team of highly qualified instructors combine training activities with the development of their profession as experts in the field of IT. Professionals certified by the major manufacturers capable of transferring an enjoyable and easy to understand technical concepts more abstract.

Documentación

A copy of the official Microsoft documentation.

Contenidos

Course AZ-400T01: Implementing DevOps Development Processes

1. Getting started with Source Control

- What is Source Control?
- Benefits of Source Control
- Types of source control systems
- Introduction to Azure Repos
- Migrating from TFVC to Git
- Authenticating to your Git Repos

2. Scaling git for enterprise DevOps

- How to structure your git repo
- Git Branching workflows
- Collaborating with Pull Requests
- Why care about GitHooks?
- Fostering Internal Open Source
- Git Version
- Public projects
- Files in Git

3. Implement & Manage Build Infrastructure

- The concept of pipelines in DevOps
- Azure Pipelines
- Evaluate use of Hosted vs Private Agents
- Agent pools
- Pipelines & Concurrency
- Azure DevOps and Open Source projects
- Azure Pipelines YAML vs Visual Designer
- Setup private agents
- Integrate Jenkins with Azure Pipelines
- Integration external source control with Azure Pipelines
- Analyze & Integrate Docker multi-stage builds

4. Managing application config & secrets

- Introduction to Security
- Implement secure & compliant development process
- Rethinking application config data
- Manage secrets, tokens & certificates
- Implement tools for managing security and compliance in a pipeline

5. Implement a mobile DevOps strategy

- Introduction to Mobile DevOps
- Introduction to Visual Studio App Center
- Manage mobile target device sets and distribution groups
- Manage target UI test device sets
- Provision tester devices for deployment
- Create public and private distribution groups

Course AZ-400T02: Implementing Continuous Integration

1. Implementing Continuous Integration in an Azure DevOps Pipeline

- Continuous Integration Overview
- Implementing a Build Strategy

2. Managing Code Quality and Security Policies

- Managing Code Quality
- Managing Security Policies

3. Implementing a Container Build Strategy

- Implementing a Container Build Strategy

Course AZ-400T03: Implementing Continuous Delivery

1. Design a Release Strategy

- Introduction to Continuous Delivery
- Release strategy recommendations
- Building a High-Quality Release pipeline
- Choosing a deployment pattern
- Choosing the right release management tool

2. Set up a Release Management Workflow

- Create a Release Pipeline
- Provision and Configure Environments
- Manage and Modularize Tasks and Templates
- Integrate Secrets with the release pipeline
- Configure Automated Integration and Functional Test Automation
- Automate Inspection of Health

3. Implement an appropriate deployment pattern

- Introduction into Deployment Patterns
- Implement Blue Green Deployment
- Feature Toggles
- Canary Releases
- Dark Launching
- AB Testing
- Progressive Exposure Deployment

Course AZ-400T04: Implementing Dependency Management

1. Designing a Dependency Management Strategy

- Introduction
- Packaging dependencies
- Package management
- Implement a versioning strategy

2. Manage security and compliance

- Introduction
- Package security
- Open source software
- Integrating license and vulnerability scans

Course AZ-400T05: Implementing Application Infrastructure

1. Infrastructure and Configuration Azure Tools

- Infrastructure as Code and Configuration Management
- Create Azure Resources using ARM Templates

- Create Azure Resources using Azure CLI
- Create Azure Resources by using Azure PowerShell
- Additional Automation Tools
- Version Control

2. Azure Deployment Models and Services

- Deployment Models and Options
- Azure Infrastructure-as-a-Service (IaaS) Services
- Azure Automation with DevOps
- Desired State Configuration (DSC)
- Azure Platform-as-a-Service (PaaS) services
- Azure Service Fabric

3. Create and Manage Kubernetes Service Infrastructure

- Azure Kubernetes Service

4. Third Party and Open Source Tools available with Azure

- Chef
- Puppet
- Ansible
- Cloud-init
- Terraform

5. Implement Compliance and Security in your infrastructure

- Security and Compliance Principles with DevOps
- Azure Security Center

Course AZ-400T06: Implementing Continuous Feedback

1. Recommend and design system feedback mechanisms

- The inner loop
- Continuous Experimentation mindset
- Design practices to measure end-user satisfaction
- Design processes to capture and analyze user feedback
- Design process to automate application analytics

2. Implement process for routing system feedback to development teams

- Implement tools to track system usage, feature usage, and flow
- Implement routing for mobile application crash report data
- Develop monitoring and status dashboards
- Integrate and configure ticketing systems

3. Optimize feedback mechanisms

- Site Reliability Engineering

- Analyze telemetry to establish a baseline
- Perform ongoing tuning to reduce meaningless or non-actionable alerts
- Analyze alerts to establish a baseline
- Blameless PostMortems and a Just Culture

Course AZ-400T07: Designing a DevOps Strategy

1. Planning for DevOps

- Transformation Planning
- Project Selection
- Team Structures

2. Planning for Quality and Security

- Planning a Quality Strategy
- Planning Secure Development

3. Migrating and Consolidating Artifacts and Tools

- Migrating and Consolidating Artifacts
- Migrating and Integrating Source Control

Acreditación

Se emitirá Certificado de Asistencia sólo a los alumnos con una asistencia superior al 75% y Diploma aprovechamiento si superan también la prueba de evaluación.