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Sign up

Cloud Native training with AKS

3 days (21 hours)

Presentation

This course is designed for system administrators, or developers, who want to learn more about Microsoft Azure Cloud and its managed service Kubernetes.

In this three-day session, you'll learn how to build and run an Azure Kubernetes Service (AKS) in production.

After integrating AKS on basic Azure services, you'll learn best practices, operating, monitoring and troubleshooting your AKS cluster.

Our Kubernetes with Azure: Cloud Native training course will teach you the latest stable version of the tool, AKS 2025-01-06 as of the date of the article.

Objectives

- Understanding cloud-native solutions and architectures
- Leveraging Azure services for scalability and resilience
- Learn how to automate and secure deployments

Target audience

- Digital project manager
- System administrator
- Developer

Prerequisites

- Basic knowledge of the Cloud and Azure tools
- Knowledge of Kubernetes
- Basic knowledge of system administration
- An Azure account

Kubernetes with Azure: Cloud Native training program

Introduction and basic concepts

- Understanding Cloud Native concepts and objectives
- Overview of Azure services for native cloud applications
- Azure governance and policies

Basic managed services

- Identity management with AAD and AAD B2C
- Storage accounts: Blob, Tables and Queues
- Networking: Virtual networks, load balancers and firewalls
- Managing secrets with Azure Key Vault
- Azure Security Center

Container orchestration with Azure Kubernetes Services (AKS)

- Fundamental concepts of Kubernetes for AKS
- Container images with Azure Container Registry (ACR)
- Understanding scaling options with VMSS and ACI
- Configuring authentication and security
- Configuring data volumes and networks
- Learn best practices for cluster operations
- Get information on Kubernetes resources from the Azure portal

Monitoring and logging

- Collect and analyze with Azure Monitor and Azure Log Analytics
- Detect critical situations and automate response or alerts
- Integration with third-party systems
- Calculate SLAs and manage expenses with cost management

Introduction to Azure DevOps

- Continuous integration (CI) pipeline
- Continuous delivery pipeline (CD)

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire is used to check skills have been correctly acquired.

Sanction

A certificate will be issued to each trainee who completes the course.