Updated 04/11/2024

Sign up

AKS (Azure Kubernetes Service) training
2 days (14 hours)

Presentation

Use Azure Kubernetes Service, the Kubernetes system managed by Azure Cloud Platform. Backed by Microsoft resources, AKS manages all the heavy operations required to run a Kubernetes cluster in production.

What's more, the service offers many advanced and innovative features, such as VirtualNodes Bursting. The aim of this training course is to teach you how to use AKS for administration. We'll focus on all its exclusive features.

This course is mainly a hands-on training on AKS. Each participant will have access to a real Azure account to handle all the resources presented in the program.

At the end of this course, you'll know how to deploy your Kubernetes clusters on the Azure cloud.

Objectives

- Deployment of an AKS cluster adapted to production missions
- Strengthening the security of a cluster and associated Azure resources
- Deploy microservices applications with all related services (storage, input, network) tailored to the needs of the application
- Take advantage of AKS's exclusive features to improve application reliability, and optimize costs and use of resources

Target audience

Users with initial experience of Kubernetes who want to deploy production-level applications on Azure Kubernetes services.

Prerequisites

- Knowledge of Kubernetes concepts (cluster components and K8S objects)
- Knowledge of Docker and containerization

Technical requirements

- Having an Azure account
- Docker and Docker compose installed

AKS training program

Reminders

- Microservices
- Docker
- Kubernetes

Getting started with AKS

- Overview of Azure concepts
- AKS cluster and classic Kubernetes
- Azure Container Registry (ACR)
- Creating an AKS cluster
- End-to-end application deployment on AKS

Cluster operations

- Deploying a customized AKS cluster
- Upgrading Kubernetes
- Identity and authorization management
- Networking
- Storage
- Monitoring

Advanced concepts (can be adapted to suit your needs)

- Scaling and VirtualNode
- HTTPS Ingress L7
- Cluster availability and replication
- AKS management with Terraform
- Best security practices (pod identity, encryption, etc.)

Companies concerned

This training 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, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

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