Fast Lane

Kubernetes: Praxiskurs Containerorchestrierung (XAM-KUBE-1)

ID XAM-KUBE-1   **Price** on request   **Duration** 3 days

Who should attend

The training is aimed at developers and administrators as well as architects and decision-makers with a high level of technical interest. The participants must be familiar with the use of application containers under Docker or Podman.

Prerequisites

Knowledge of how containers work and the ability to interact with individual containers on the command line, as well as is the creation of container images from Dockerfiles / Containerfiles in required. We teach these skills in our Docker: Praxiskurs Applikationscontainer (XAM-CONT-1) training. In addition, the course requires the use of the Linux command line and an editor.

Course Objectives

Participants learn how to deploy applications on Kubernetes and administer simple Kubernetes clusters. This includes creating Kubernetes manifests and knowledge about the most important resource types. With this knowledge, participants will be able to roll out applications on Kubernetes, update them, secure them, and make them accessible from inside and outside the cluster.

Course Content

Introduction to Kubernetes

- Kubernetes architecture
- Cluster setup with kubeadm
- Labels and annotations
- Configuration tools and configuration contexts
- Dashboard
- Security
- Role based access control

Pods

- Create, modify, and manage Pods
- Resource configuration

- Startup, readiness and lifeness probes

Storage

- Volumes in Pods
- PersistentVolumes and PersistentVolumeClaims
- StorageClasses
- ConfigMaps and Secrets

Orchestration

- ReplicaSets
- Deployments
- StatefulSets
- DaemonSets
- Jobs
- CronJobs

Access to services

- Services
- Ingress
- DNS

Resource management

- Namespaces
- Limits and quotas
- Autoscaling
- NetworkSecurityPolicies

Introduction to Helm

- Installation of existing applications
- Creating simple custom Helm Charts

Best practices

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Training Centres worldwide

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