
Docker with Kubernetes Administration Eğitimi

Eğitim Hakkında

Docker with Kubernetes Administration eğitimine sahip bu Docker, katılımcılara kurumsal ve bulut ortamlarında Docker ve Kubernetes'i nasıl kullanacaklarını öğretir. İlk olarak katılımcılar; konteyner oluşturma, konteyner yönetimi ve Docker hub ile etkileşim gibi Docker'ın temel özelliklerini öğrenirler.

Neler Öğreneceksiniz

Kapsayıcılar oluşturmayı ve yönetmeyi,

Özel görüntüler oluşturmak ve yönetmek için Dockerfile kullanmayı,

Konteyner hizmetlerini güvenli bir şekilde dünyaya açmayı,

Kalıcı verileri yönetmek için Docker Volumes kullanmayı,

Çoklu kapsayıcı uygulamaları oluşturmak için Docker Compose'u kullanmayı,

Güvenli Docker kurulumları ve kapsayıcılarını,

Kubernetes'in temel kavramlarını ve mimarisini anlamayı.

Eğitim İçeriği

Container Theology Overview

Instructor – Docker Demo

Application Management Landscape

Application Isolation

Resource Measurement and Control

Container Security

OverlayFS Overview

Container Security

Open Container Initiative

Docker Alternatives

Docker Ecosystem

Docker Ecosystem (cont.)

Container Concepts runC

Container Concepts Systemd

Installing Docker

Installing Docker

Docker Architecture

Starting the Docker Daemon

Docker Daemon Configuration

Docker Control Socket
Enabling TLS for Docker
Validating Docker Install

Managing Containers

Creating a New Container
Listing Containers
Managing Container Resources
Running Commands in an Existing Container
Interacting with a Running Container
Stopping, Starting, and Removing Containers
Copying files in/out of Containers
Inspecting and Updating Containers
Docker Output Filtering & Formatting

Managing Images

Docker Images
Listing and Removing Images
Searching for Images
Downloading Images
Uploading Images
Export/Import Images
Save/Load Images
Committing Changes

Creating Images with DOCKERFILE

Dockerfile
Caching
docker image build
Dockerfile Instructions
ENV and WORKDIR
Running Commands
Getting Files into the Image
Defining Container Executable
HEALTHCHECK
Best Practices
Multi-Stage builds with Dockerfile

Docker Volumes

Volume Concepts
The docker volume Command
Creating and Using Internal Volumes
Internal Volume Drivers
Removing Volumes
Creating and Using External Volumes
SELinux Considerations
Mapping Devices

Docker Compose/SWARM

Writing YAML Files

- Concepts
- Compose CLI
- Defining a Service Set
- Compose Versions
- Docker Engine Swarm Mode
- Docker Swarm Terms
- Docker Swarm Command Overview
- Creating a Swarm
- Creating Services
- Creating Secrets
- Stack Files
- Stack Command
- Swarm Placements
- Swarm Resource Limits & Reservations
- Swarm Networking
- Swarm Networking Troubleshooting

Docker Networking

- Overview
- Data-Link Layer Details
- Network Layer Details
- Hostnames and DNS
- Service Reachability
- Container to Container Communication
- Container to Container: Links (deprecated)
- Container to Container: Private Network
- Managing Private Networks
- Remote Host to Container

Docker Logging

- Docker Logging
- Docker Logging with json-file and journald
- Docker Logging with syslog
- Docker Logging with Graylog or Logstash
- Docker Logging with Fluentd
- Docker Logging with Amazon or Google
- Docker Logging with Splunk

Kubernetes Core Concepts

- CKA Objectives Covered
- Kubernetes Architecture
- Cluster Communication
- Objects
- Object Properties
- Labels & Selectors
- Annotations
- Object Management
- Object Management (cont.)
- Image Fundamentals

Container Fundamentals
Pod Fundamentals
Working with Pods

Installation

CKA Objectives Covered
Installing HA Control Plane (DEMO)

Application Lifecycle Management

CKA Objectives Covered
Pod Lifecycle
Container Lifecycle
Init Containers
Container: command and args
Container: Defining Environment
ReplicaSet
Deployments
Working with Deployments
Deployment Rollouts

Networking

CKA Objectives Covered
Network Overview
Service Discovery & CoreDNS
Container Network Interface (CNI)
Services
Ingress Objects
Storage
CKA Objectives Covered

Storage

Volume Types
Volume Types
Static Volumes (DEMO)
ConfigMaps
ConfigMaps
Secrets

Scheduling

CKA Objectives Covered
Controlling and Tracking Resources
Scheduler Operation
DaemonSet
Node Affinity & Anti-affinity
Pod Affinity & Anti-affinity
Taints & Tolerations

Jobs and CronJobs

Jobs
CronJobs

Linux Containers

Application Management Landscape

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