Docker Course | Docker Training | Online

Brief Container History and Docker Overview

Containerization vs. Virtualization
Docker what is it?
Docker Architecture
Image concept
Docker Hub and Registry
Persistence and volumes
Containers and Infrastructures
Automation of Infrastructure as a Service (IaaS) Infrastructure at CaaS (Container as a Service)
CaaS solutions: Docker Compose, Docker Swarm and Kubernetes
Architecture of Kubernetes
Node, pod and container
Docker Toolbox
Provision and Configure its Docker Development Environment with the Vagrant Solution
Build and launch your Docker box with the Vagrantfile file

Start containers and build images

Docker CLI
Start your first Docker container
Start containers, expose ports, and attach volumes
Build your first Docker image: the Dockerfile file
Main Dockerfile Commands
Copy files to the Docker image
Launch JAR files from a Docker image
Docker and Maven
Docker and Gradle
Push the image into the Docker Hub

Networking and persistence storage with Docker

Docker network type: Bridge, Host, and None
Network orders, docker network
Connect a container to the network
Expose port and port mapping
Practical Workshop: Start the Payara server and expose its ports
Storage persist
Commands for Docker Volume Management

Creating / deleting a volume
Docker volume
Practical workshop: Implementation of docker volumes

Multi-container applications

Introduction to Docker Compose
Scenarios for implementation
Compose Docker File
Main Docker Commands Composed
Presentation and Architecture of Docker Swarm and Kubernetes
Cluster, Pod, Cluster, Node and Kubelet concept
Multi Container Application with Docker Compose
Docker Swarm cluster configuration

Container monitoring

Log display, docker log command
Inspect a container, inspect docker order
Stats on a container, docker stats command