Where Technology Means More®

Docker Fundamentals

Course ID: Docker0218

Course Time:
2 Days

Course Description

This two-day class will introduce you to the Docker platform. During this training we will discuss various topics around Docker infrastructure, filesystems and storage, Images, containers, and clustering capabilities. You will also learn the various networking mechanisms available.

Learning Objectives

After this course you should be able to understand:

+ The various tools that leverage Docker to ease application deployment, continuous integration, service discovery, and orchestration
+ The various networking mechanism available in Docker
+ Docker Image Management
+ Containerization and know how to deploy various container based applications

Who Should Attend

+ System Administrators
+ Developers
+ Testers
+ Solution Architects
+ Release Engineers
+ Cloud Professionals

Prerequisites

+ Basic understanding of Linux Fundamentals
+ Basic understanding of Virtualization

Docker Fundamentals

(2 Days)

Course Content

Module 1: Introduction to Docker

+ Docker history
+ Overview of the container architecture
+ Docker features and versions
+ Overview of the Docker architecture

Module 2: Installing Docker on Linux

+ Setting up environment
+ Installing prerequisites
+ Installing Docker

Module 3: Managing Containers

+ Managing the lifecycle of containers
+ Why containers are lightweight
+ How to create, start, and run containers

Module 4: Managing Container Images

+ Overview of Docker images
+ What are images and layers
+ Terminology of Docker images
+ Create and commit images, images vs. containers
+ Learn about Docker registry and Docker hub

Module 5: Building a Docker File

+ What is a Docker file
+ Creating a Docker file
+ Examine the Docker file build process

Module 6: Docker Storage

+ Understanding Docker storage
+ Docker storage types
+ Registry storage
+ Graph storage
+ Volume storage

Module 7: Docker Networking

+ Container network model
+ Native networking drivers
+ Bridge networking driver
+ Overlay networking driver
+ MAC/VLAN networking drive

Module 8: Docker Compose

+ Docker compose
+ Docker compose features
+ Docker compose lifecycle
+ Docker compose terminology
+ Docker compose scaling

Module 9: Docker Swarm

+ Docker swarm
+ Swarm and services
+ Swarm discovery
+ Swarm scheduler

Lab 1 : Installing and configuring Docker

Lab 2 : Managing Docker containers

Lab 3 : Managing container images

Lab 4 : Setting up a persistent Docker registry

Lab 5 : Building a Docker file

Lab 6 : Attaching Docker persistent storage

Lab 7 : Accessing Docker networks

Lab 8 : Docker compose

Lab 9 : Docker swarm

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