Docker Administration with Linux Fundamentals

Duration: 3 Days

Skill Level: Beginners on container technology

Hands-On Format: This hands-on class is approximately 80/20 lab to lecture ratio, combining engaging lecture, demos, group activities and discussions with comprehensive machine-based practical programming labs and project work.

Module 1 – Linux Fundamentals

What is Linux
Basic Linux Commands
Understanding Linux File System Structure
Creating Files and Directories
Copying Files and Directories
Basics of VIM Editor
Managing Users
Understand Linux File System Permissions
Changing Permissions
Managing Services
Installing and Updating Software Packages with YUM

Module 2 - Installation of Docker

Introduction to Docker
Docker Architecture
Docker Components: Docker Client, Docker Host and Docker Registry
Installation of Docker

Module 3 – Docker Client Operations

Running a Container
Container Lifecycle
Managing Containers
Executing Commands in Running Containers

Module 4 – Building Custom Images and Docker Registry

Creating Docker Images using Docker Commit
Building a Dockerfile
Tagging an Image
Pull and Push Images
Creating Private Registries

Module 5 – Container Deep Dive

Cgroups
Namespaces
Container Resource Limits

KOENIG
step forward

Module 6 – Storage & Container Networking

Storage Overview
Creating and Managing Volumes
Using Bind Mounts
Using tmpfs
Overview of Container Networking
Managing Network Bridges