



CN110: Docker Swarm Application Essentials

Duration: 1 Day

Course description

In this course, you'll learn what a containerized application looks like when orchestrated by Docker Swarm. We'll cover scheduling workloads across a cluster, networking stateless and stateful applications, provisioning dynamic configuration and persistent storage, and scaling highly available applications in this course intended to set a strong foundation in orchestration for all technical roles.

Course Objectives

- Setting up and configuring a Swarm
 - Operational priorities of container orchestration
 - Containerized application architecture
 - Swarm scheduling workflow & task model
 - Automatic failure mitigation
 - Swarm installation & advanced customization
- Deploying workloads on Swarm
 - Defining workloads as services
 - Scaling workloads
 - Container scheduling control





- Rolling application updates and rollback
- Application healthchecks
- Application troubleshooting
- Deploying applications as Stacks
- Networking Swarm workloads
 - Swarm service discovery and routing implementation
 - Routing strategies for stateful and stateless workloads
 - Swarm ingress traffic
- Provisioning dynamic configuration
 - Application configuration design
 - Environment variable management
 - Configuration file management
 - Provisioning sensitive information
- Provisioning persistent storage
 - Storage backend architecture patterns
 - NFS backed Swarms
- Monitoring Swarm
 - What to monitor in production-grade Swarms
 - Potential Swarm failure modes & mitigations
 - Swarm workload monitoring