

CN254:

Mirantis Container Cloud (MCC) Bootcamp

Description

In this intense bootcamp, you'll encounter containers for the first time, learn to orchestrate them into scalable, highly available applications orchestrated by Kubernetes, and finally begin deploying production grade Kubernetes clusters through Mirantis Container Cloud. This bundle is ideal for students who are just starting out with containerization and want to leverage the full power of Kubernetes across multiple clusters and teams. Students will leave the workshop with a proof of concept Mirantis Container Cloud deployment on AWS.

Course Prerequisites

- Familiarity with the bash shell
 - Filesystem navigation and manipulation
 - Command line text editors like vim or nano
 - Common tooling like curl, wget and ping

CN100:

Docker Containerization Essentials

- Containerization motivations and implementation
 - Use cases
 - Comparison to virtual machines
- Creating, managing, and auditing containers
 - Container implementation from the Linux kernel
 - Container lifecycle details

- Core container creation, auditing and management CLI
- Best practices in container image design
 - Layered filesystem implementation and performance implications
 - Creating images with Dockerfiles
 - Optimizing image builds with multi-stage builds and image design best practices
- Single-host container networking
 - Docker native networking model
 - Software-defined networks for containers
 - Docker-native single-host service discovery and routing
- Provisioning external storage
 - Docker volume creation and management
 - Best practices and use cases for container-external storage.

CN120:

Kubernetes Application Essentials

- Make effective use of pod architecture
- Deploy workloads as Kubernetes controllers
- Provision configuration at runtime to Kubernetes workloads
- Network pods together across a cluster using native services
- Provision of highly available storage to Kubernetes workloads

- Package an application as a Helm chart

CN211: Mirantis Container Cloud

- Mirantis Container Cloud Architecture
 - Management, regional, managed and attached cluster usage and architecture
 - Installation and setup of management and managed clusters
- MCC User Management
 - Using Keycloak to manage user permissions
 - Integrating LDAP with MCC
 - Managing permissions for multitenancy
- Cluster Logging & Monitoring
 - Stacklight configuration and cluster integration
 - Using Prometheus and Grafana dashboards
 - Customizing Stacklight configurations & third-party integrations
 - Exploring logs with Kibana