



CN120: Kubernetes Application Essentials

Course ID #: 7000-451-ZZ-Z

Hours: 14

Course Content

Course Description:

Whether your focus is on developing containerized applications or managing a container-centric infrastructure, CN120 introduces Kubernetes container orchestration for everyone involved in the software development life cycle. Through a real-world approach for design and deployment considerations, students can expect to learn about the foundational Kubernetes components required for application workloads. Specifically, students will examine Kubernetes architecture, explore how Kubernetes objects work together for running an application, and learn how Kubernetes makes use of compute, networking, and storage resources.

At Course Completion:

Students will be able to:

- 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 highly available storage to Kubernetes workloads
- Package an application as a Helm chart

Prerequisites:

- Motivations: General technical audiences & IT professionals
- Roles: Architect basic applications for Kubernetes

Target Student:

- CN100 course or equivalent experience / knowledge
- Familiarity with the Bash shell
- Filesystem navigation and manipulation
- Command line text editors like vim or nano
- Common tooling like curl, wget and ping
- Familiarity with YAML and JSON notation