Course Content

Course Description:

CN220 centers on developing the skills and knowledge needed for Day-1 Kubernetes operations for managing applications. Using best practices as guiding principles, students will engage in topics pertaining to the Kubernetes architecture to make informed decisions for production workloads. Topics include configuring resource availability for applications, implementing advanced scheduling for applications, and administering user roles and permissions for the Kubernetes cluster. Kubernetes Operations and System Integration teams will benefit greatly as they plan and deploy their Kubernetes production environments.

At Course Completion:

Students will learn:

- Kubernetes Architecture
- Managing Application Security
- Releasing updates to Kubernetes workloads
- Scheduling options for Kubernetes workloads
- Managing Kubernetes cluster resources
- Mapping ingress to an application
- Enabling security in the Kubernetes Security Model
- Provisioning networking within the Kubernetes cluster
- Implementing multi-tenancy in a Kubernetes cluster

Prerequisites:

- CN120 (or equivalent) experience
- 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 JSON and YAML notation

Target Student:

- Motivations: Perform core 'day-1' operational tasks on Kubernetes
- Roles: Infrastructure and Integration engineers tasked with day-to-day application workload management; IT professionals looking to expand skills in Kubernetes administration