

Course Description



Course: CAAS201v4.5 SUSE CaaS Platform Administration



Training Level:

- ❑ Intermediate

Duration:

- ❑ 2 days

Course Overview

This two day course is designed for system administrators, DevOps, system engineers and others who need an introduction to Containers, Kubernetes and specifically SUSE CaaS Platform.

The course begins with an introduction to containers and container orchestration. Students will then learn about and explore Kubernetes, including launching applications, configuring networking, storage and security, and using Helm to deploy applications. The course includes comprehensive presentation content to introduce new concepts and processes and extensive hands-on experience.

Key Objectives

Attendees will be taught the following concepts and skills:

- ❑ Containers and Orchestration Concepts
- ❑ An Introduction to SUSE CaaS Platform
- ❑ The Basics of Kubernetes
- ❑ Kubernetes Cluster Administration
- ❑ Networking, Storage and Security for CaaS Platform
- ❑ Helm and Helm Charts

Audience

This course is designed for system administrators and others who want to be introduced to Kubernetes and SUSE CaaS Platform.

Prerequisites

Attendees should have familiarity with the Command Line, Linux System Administration skills and attention to details. SUSE Certified Administrator (SCA) in Enterprise Linux or SUSE Certified Linux Engineer (SCE) in Enterprise Linux certification or level of experience recommended.



Course Outline

- ❑ Section 1: Course Introduction
 - ❑ Understand the Course
- ❑ Section 2: Introduction to Containers and Container Orchestration
 - ❑ Understand Container Concepts
 - ❑ Understand a Microservice Architecture
 - ❑ Understand Kubernetes
 - ❑ Understand SUSE CaaS Platform
- ❑ Section 3: Introduction to Kubernetes Administration
 - ❑ Understand Basic Kubernetes Commands
 - ❑ Work with Namespaces
 - ❑ Work with Labels and Selectors
 - ❑ Understand Kubernetes Manifests
 - ❑ Understand Multi-pod Deployment
 - ❑ Work with Deployments
 - ❑ Configure Networking for Applications
 - ❑ Scale Out Applications
 - ❑ Use Environment Variables with Applications
 - ❑ Work with Secrets in Kubernetes
- ❑ Section 4: Introduction to Kustomize
 - ❑ Understand Kustomize Concepts
 - ❑ Manage Applications with Kustomize
- ❑ Section 5: Introduction to Helm
 - ❑ Understand Basic Helm Concepts
 - ❑ Manage Applications with Helm
- ❑ Section 6: Introduction to Ingress Networking in Kubernetes
 - ❑ Work with the Nginx Ingress Controller
- ❑ Section 7: Introduction to Storage in Kubernetes
 - ❑ Understand Kubernetes Storage Concepts
 - ❑ Work with Persistent Storage in Storage Classes
- ❑ Section 8: Introduction to Resource Usage Control in Kubernetes
 - ❑ Understand How to Control Resource Usage in Kubernetes
 - ❑ Work with LimitRanges
 - ❑ Work with Resource Quotas
- ❑ Section 9: Introduction to Security In Kubernetes
 - ❑ Understand Role Based Access Controls
 - ❑ Perform User Authentication in CaaS Platform
 - ❑ Configure RBAC in Kubernetes

SUSE Training

Information about SUSE Training can be found at:

<https://training.suse.com>



Contact suse-training@suse.com with any questions.

