

RAN201v2.5 Rancher 2.5 Administration

Course Summary

Description

This two day course is designed for system administrators responsible for deploying and administering multiple Kubernetes cluster distributions with Rancher Server.

The course begins with an introduction to Rancher Server and its architecture. Students will then learn how to access the Rancher Server's graphical user interface, including Rancher Cluster Manager as well as Rancher Cluster Explorer. In the course an existing Kubernetes cluster will be registered and a new RKE cluster will be provisioned with Rancher Server and then many Kubernetes cluster administrative activities will be introduced. The course also covers Kubernetes cluster management for infrastructure and hosted Kubernetes provider's deployments in the public clouds.

The course includes presentation about the provisioning and administration capabilities of Rancher Server and extensive hands-on experience with lab exercises.

This course prepares students for the SCA in Rancher Administration exam (once released).

Objectives

At the end of this course, students will be able to:

- An introduction to Rancher Server
- Rancher Cluster Manager and Cluster Explorer
- Managing Workloads and Applications
- Logging and Monitoring
- Security Scans
- Variety of Shell Based Actions with Rancher
- Backing up Downstream Clusters and Rancher Server

Topics

- Course Introduction
- Introduction to Rancher
- Rancher Cluster Manager
- Rancher Cluster Explorer
- Rancher Logging, Monitoring, and Security Scanning
- Rancher Shell Access
- Backup and Restore With Rancher

Audience

This course is designed for system administrators and other persons responsible for provisioning and administering Kubernetes clusters with Rancher.

Prerequisites

Basic understanding on Kubernetes objects and resources would be beneficial. Having some linux command line experience is helpful.

Duration

Two days

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Course Outline

- I. *Course Introduction*
 - A. Understand the Course
- II. *Introduction to Rancher*
 - A. Company vs Product
 - B. Explore Rancher Architecture
 - C. Access Rancher UI
 - D. Navigate in Global Clusters View
 - E. Understand the Rancher API
- III. *Rancher Cluster Manager*
 - A. Understand the Multi-Cluster Management UI
 - B. Manage Node and Cluster Drivers
 - C. View Cluster and Node Agents
 - D. Register an Existing RKE Cluster
 - E. Provision an RKE Cluster on Existing Nodes
 - F. Provision an RKE Cluster on AWS Infrastructure Provider
 - G. Provision an EKS Cluster on AWS
 - H. Understand Projects and Namespaces
 - I. Manage Users, Groups, and Roles
 - J. Understand RKE Templates
- IV. *Rancher Cluster Explorer*
 - A. Understand Cluster Explorer Ideology
 - B. Manage Clusters
 - C. Deploy Workloads
 - D. Understand Apps and Marketplace
 - E. Install Applications with Helm
- V. *Rancher Logging, Monitoring, and Security Scanning*
 - A. Understand Rancher Logging
 - B. Deploy Monitoring Stack
 - C. Manage CIS Scans
- VI. *Rancher Shell Access*
 - A. Access the Cluster Nodes with SSH
 - B. Access a Downstream Cluster with kubectl
 - C. Introduce Rancher CLI
- VII. *Backup and Restore With Rancher*
 - A. Understand Rancher Backup Requirements
 - B. Create Downstream Cluster Snapshots
 - C. Upgrade Downstream Clusters
 - D. Restore Downstream Clusters
 - E. Backup and Restore the Rancher Server