Kubernetes Administration

Category: Infrastructure & IT Operations | **Vendor:** SUSE

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

In this vendor agnostic course, you'll learn the installation, configuration and administration of a production-grade Kubernetes cluster.

About This Course

In this vendor agnostic course, you'll learn the installation, configuration and administration of a production-grade Kubernetes cluster.

Who Should Attend

This course is designed for system administrators and others who want to administer Kubernetes.

Prerequisites & Entry Requirements

General 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.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Topics Include:Installation of a multi-node Kubernetes cluster using kubeadm, and how to grow a cluster.Choosing and implementing cluster networking.Various methods of application lifecycle management, including scaling, updates and roll-backs.Configuring security both for the cluster as well as containers.Managing storage available to containers.Learn monitoring, logging and troubleshooting of containers and the cluster.Configure scheduling and affinity of container deployments.Use Helm and Charts to automate application deployment.Understand Federation for fault-tolerance and higher availability.

Detailed Course Outline

Introduction

- Linux Foundation
- Linux Foundation Training
- Linux Foundation Certifications
- Laboratory Exercises, Solutions and Resources
- Distribution Details
- Labs

Basics of Kubernetes

- Define Kubernetes
- Cluster Structure
- Adoption
- Project Governance and CNCF
- Labs

Installation and Configuration

- Getting Started With Kubernetes
- Minikube
- kubeadm
- More Installation Tools
- Labs

Kubernetes Architecture

- Kubernetes Architecture
- Networking
- Other Cluster Systems
- Labs

APIs and Access

- API Access
- Annotations
- Working with A Simple Pod
- kubectl and API
- Swagger and OpenAPI
- Labs

API Objects

- API Objects
- The v1 Group
- API Resources
- RBAC APIs
- Labs

Managing State With Deployments

- Deployment Overview
- Managing Deployment States
- Deployments and Replica Sets
- DaemonSets
- Labels
- Labs

Services

- Overview
- Accessing Services
- DNS
- Labs

Volumes and Data

- Volumes Overview
- Volumes
- Persistent Volumes
- Passing Data To Pods
- ConfigMaps
- Labs

Ingress

- Overview
- Ingress Controller
- Ingress Rules
- Labs

Scheduling

- Overview
- Scheduler Settings
- Policies
- Affinity Rules
- Taints and Tolerations
- Labs

Logging and Troubleshooting

- Overview
- Troubleshooting Flow
- Basic Start Sequence
- Monitoring
- Logging
- Troubleshooting Resources
- Labs

Custom Resource Definition

- Overview
- Custom Resource Definitions
- Aggregated APIs
- Labs

Kubernetes Federation

- Overview
- Federated Resources
- Labs

Helm

- Overview
- Helm
- Using Helm
- Labs

Security

- Overview
- Accessing the API
- Authentication and Authorization
- Admission Controller
- Pod Policies
- Network Policies
- Labs

Skills You Will Learn:

Attendees will be taught the following concepts and skills:

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

Additional Course Details

Nexus Humans Kubernetes Administration training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Kubernetes Administration course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Kubernetes Administration?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 4-day Kubernetes Administration course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Kubernetes Administration training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Kubernetes Administration?

Yes, we provide corporate training, dedicated training, and closed classes for Kubernetes Administration. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Kubernetes Administration, Container and Application Platforms, KUB201

Q: Why choose Nexus Human for Kubernetes Administration?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Kubernetes Administration training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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