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Learning Style: On Demand

Technology: Linux Foundation

Difficulty: Intermediate

Course Duration: 10 Hours

LFS258 - Kubernetes Fundamentals



This course provides a comprehensive insight of Kubernetes covering everything from essentials to advanced-level containerized application deployment and resource manipulation.

About this Course:

Many Data Centers had standardized the use of Kubernetes for developing & operating scalable containerized applications. This results in the growing need for Kubernetes Engineers sharing proficiency in working with diversified Linux distributions. On average, a Kubernetes Engineer earns \$122,444 annually. This course provides conceptual knowledge and understanding of Kubernetes Operations and helps professionals learn the art of developing distributed applications.

Through this course, professionals get to know the fundamentals of Kubernetes High-Level Architecture and help professionals develop and deploy complex applications. This course covers the core concepts of Kubernetes Fundamentals such as ReplicaSet, Pods, Services, and Deployments. Professionals also learn the basic applications of the Container Management Platform.

Course Objectives:

The core objective of this course is to help professionals develop a better understanding and sound knowledge of the following key concepts:

- Kubernetes Architecture & Deployment
- Principles, Pods, Services, & ReplicaSet of Kubernetes
- Applications of Container Management Platform
- Managing Application Infrastructure
- Essentials of Kubernetes High-Level Architecture
- Understanding the Basics of Developing Complex Applications
- Designing & Developing Fault-Tolerant & Scalable Distributed Applications
- The Fundamentals of Kubernetes Secretes, Configmaps, and Cluster

Audience:

This course is tailored for the following group of professionals and interested candidates:

- System Administrators & Programmers
- Professionals who want to gain knowledge about the Kubernetes

Prerequisites:

Professionals planning to enroll in the LFS258 (Kubernetes Fundamentals) course must comply with the following prerequisites:

- Conceptual Understanding of Linux Command Line Fundamentals
- Practical Know-how of Linux Containers such as Dockers

Course Outline:

- **Chapter 1. Course Introduction**
- **Chapter 2. Basics of Kubernetes**
- **Chapter 3. Installation and Configuration**
- **Chapter 4. Kubernetes Architecture**
- **Chapter 5. APIs and Access**
- **Chapter 6. OPI Objects**
- **Chapter 7. Managing State with Deployments**
- **Chapter 8. Services**
- **Chapter 9. Volumes and Data**
- **Chapter 10. Ingress**
- **Chapter 11. Scheduling**
- **Chapter 12. Logging and Troubleshooting**
- **Chapter 13. Custom Resource Definitions**
- **Chapter 14. Kubernetes Federations**
- **Chapter 15. Helm**
- **Chapter 16. Security**