Training: The Linux Foundation
LFS267 Jenkins Essentials

THE LINUX FOUNDATION AUTHORIZED TRAINING PARTNER

TRAINING GOALS:

This course discusses various usability and administrative aspects of Jenkins. Upon course completion, you will have a solid understanding of containerized installation, distributed builds in Kubernetes clusters, advanced security features, multi-branch pipelines, and GitOps with Jenkins concepts.

This course is designed for DevOps engineers, Quality Assurance personnel, SREs as well as software developers and architects who want to gain expertise with Jenkins CI/CD. Before enrolling, students should have a basic knowledge of Jenkins and be familiar with Kubernetes and Docker.

In this course, you will learn how to set up Jenkins in a Kubernetes cluster, automate Jenkins installation using IaC concepts, set up a highly available Jenkins server, scale Jenkins infrastructure by leveraging static and dynamic build agents, automate various routine Jenkins tasks using CLI and RestAPI, organize Jenkins jobs and implement fine-grained security controls, set up effective CI/CD feedback loops, set up complex multi-branch pipelines simulating real-life scenarios, and automate pull request workflow using GitOps principles.

After completing this course, you will be able to scale a Jenkins CI/CD server using containerized and cloud-based solutions, use Jenkins multi-branch pipelines to enable pipeline creation at the repository level, and use Infrastructure as Code (IaC) and GitOps principles with Jenkins. These skills will prepare you for SRE, DevOps, and release engineer roles.

CONSPECT:

- **Chapter 1. Course Introduction**
- **Chapter 2. Running Jenkins on Kubernetes**
- **Chapter 3. Jenkins High Availability on Traditional Platforms**
- **Chapter 4. Scaling Jenkins Infrastructure with Dynamic Build Agents**
- **Chapter 5. Jenkins CLI and Rest API**
- **Chapter 6. Implementing Feedback Loops**
- **Chapter 7. Securing Jenkins Jobs**
- **Chapter 8. Jenkins Pipelines**
- **Chapter 9. Managing Artifacts**
- **Chapter 10. Taking It Further**

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REQUIREMENTS:

Before taking this course, you should be familiar with:

- Basic knowledge of Jenkins – We recommend the Introduction to Jenkins (LFS167) edX course
- Basic knowledge of Kubernetes (pods, namespaces, volumes, Role Based Access Control (RBAC)) – We recommend Introduction to Kubernetes (LFS158) edX course
- Basic knowledge of concepts of building and using Docker images

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by The Linux Foundation

TRAINER:

The Linux Foundation Certified Trainer

ADDITIONAL INFORMATION:

Online, Self Paced
20-25 Hours of Course Material
Hands-on Labs & Assignments1
No Video Content
12 Months of Access to Online Course
Digital Badge
Discussion forums

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