Training: The Linux Foundation
LFS261 DevOps and SRE Fundamentals: Implementing Continuous Delivery

TRAINING GOALS:

This course will teach you the skills to deploy software with confidence, agility and high reliability using modern practices such as Continuous Integration (CI) and Continuous Delivery (CD).

What You'll Learn

This course introduces the fundamentals of CI/CD within an open container ecosystem, and takes a project-based approach to help you understand and implement key practices. Key learnings include the role played by Docker and Kubernetes, using Git for revision control, how to install and configure Jenkins as a CI platform, enforcing development workflows as code reviews, application packaging and distribution with Docker and Docker Registry using Spinnaker to set up multi-cloud deployment pipelines, how to safely release software and much more.

Who Is It For

This course is for developers who would like to learn how to deliver software safer, faster and reliably; for quality analysts who would like to set up automated testing, leverage disposable environments, and integrate it with CI tools; for operations engineers, system administrators, DevOps/SRE practitioners responsible for deploying software and managing production environments; and build and release engineers who would like to learn how to deploy software safely and continuously.

CONSPECT:

- Continuous Delivery Concept
- Setup: Creating the Learning Environment
- Basics of Container Operations with Docker
- Revision Control with Git
- Setting Up Continuous Integration with Jenkins
- Pipeline-as-a-Code with Jenkins file
- Using Docker to Simplify CI pipelines
- Packaging Applications with Docker
- Continuous Delivery to Dev with Docker Compose
- Continuous Automated Testing
- Running Apps at Scale with Kubernetes

- Continuous Deployment with Spinnaker

REQUIREMENTS:

To make the most out of this course, you will need to have:

- Basic Linux and system administration knowledge
- Understanding of software delivery process

Lab info

- To successfully complete the lab exercises in this course, access to a Linux server or Linux desktop/laptop is required. Access to a public cloud provider, or VirtualBox on your machine is also needed. Detailed instructions to set up your lab environment are provided in the course.
- If using a cloud provider like GCP or AWS, you should be able to complete the lab exercises using the free tier or credits provided to you. However, you may incur charges if you exceed the credits initially allocated by the cloud provider, or if the cloud provider's terms and conditions change.

Difficulty level

CERTIFICATE:

The participants will obtain certificates signed by The Linux Foundation.

TRAINER:

Certified The Linux Foundation Trainer.

ADDITIONAL INFORMATION:

- Online, Self Paced
- 25-30 Hours of Course Material
- Hands-on Labs & Assignments1
- Video Content
- 12 Months of Access to Online Course
- Digital Badge

- Discussion forums