Training: The Linux Foundation
LFS262 Implementing DevSecOps

TRAINING GOALS:

DevSecOps practices are an extension to standard DevOps practices, focusing on automating security and incorporating it as part of the process, which includes Continuous Delivery, Infrastructure-as-Code (IaC), and observability. Use of DevSecOps results not only in delivering safer code faster, but also facilitates early feedback to developers, helping them build more reliable software. This course explores implementing DevSecOps practices into the software delivery pipeline using open source software.

This course is designed for software developers, site reliability engineers, and DevOps practitioners looking to speed up delivery of more secure code. To make the most of this course, learners must have working knowledge of Linux operating systems and the command line interface, Git, Docker, and Kubernetes. They must also know how to build CI/CD pipelines, write Infrastructure-as-Code (IaC), run Ansible Playbooks, and understand observability concepts such as log management and monitoring.

This course begins by laying the foundation of DevSecOps, explaining the principles, practices, cultural aspects and tooling landscape. It then goes on to show you how to incorporate various practices into the Continuous Delivery pipeline: perform Software Composition Analysis (SCA) and add it to the Continuous Integration pipeline, perform static code analysis and project gating using SAST tools, scan container images for vulnerability, perform Dynamic Application Software Testing (DAST) on a live environment, set up a centralized vulnerability management system to provide visibility and alerting, set up and use a web application firewall (WAF), and build a cloud native DevSecOps pipeline. You will also use IaC effectively to enforce compliance, collect logs, analyze events to provide detection and monitoring of security issues, and learn to address cloud and container related risks. In order to make adoption of DevSecOps practices frictionless, this course focuses on usage of mostly open source software, at the same time providing enough flexibility to plug in a commercial alternative to match the implementation environment.

This course prepares you with real life professional skills to implement DevSecOps practices into the software development and delivery processes.

CONSPECT:

- **Chapter 1. Course Introduction**
- **Chapter 2. Introduction to DevSecOps**
- **Chapter 3. Securing Stage 0**
- **Chapter 4. Secrets Management**
- **Chapter 5. Building a DevOps Pipeline**

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- **Chapter 6. Securing the Supply Chain with SCA**
- **Chapter 7. Static Application Security Testing (SAST)**
- **Chapter 8. Auditing Container Images**
- **Chapter 9. Dynamic Application Security Testing DAST**
- **Chapter 10. Adding Observability with Vulnerability Management System**
- **Chapter 11. System Security Auditing with IaC**
- **Chapter 12. Securing Web Applications with WAF**
- **Chapter 13. Monitoring and Alerting with SIEM**
- **Chapter 14. Cloud Native DevSecOps**
- **Chapter 15. Securing a Container Orchestration Engine (Kubernetes)**

REQUIREMENTS:

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

- Have working knowledge of Linux operating systems and the command line interface, Git, Docker, and Kubernetes.
- Know how to build CI/CD pipelines, write Infrastructure-as-Code (IaC), run Ansible Playbooks, and understand observability concepts such as log management and monitoring.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by The Linux Foundation

TRAINER:

The Linux Foundation Certified Trainer

ADDITIONAL INFORMATION:

Online, Self Paced
35-40 Hours of Course Material
Hands-on Labs & Assignments1
Video Content
12 Months of Access to Online Course
Digital Badge

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Discussion forums

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