

# **LFS254 - Containers for Developers and Quality Assurance**

**Modality:** On Demand

**Duration:** 40 Hours

## ***About this course:***

Now, containers are turning into a practical solution for installing applications. This is because they are easy to configure, and are reasonable in cost. Containers prove as handy for every kind of group, be it be the Developers, Quality Assurance Engineers, or Operations Engineers. This 40-hour course has been designed for these groups to learn on the method of operations of Docker.

Thee course will start with discussing the foundational concepts of Docker. In the entire course, the Developer will be taught on the processes of effectively deploying or installing application in production. The Developer will work using their IDE, from which they will commit the code to GitHub platform. After this step, when the codes will be committed, test cases will be activated. If the test cases activate successfully, the application will be sent off to the staging environment. Afterwards, the Developers will be taught on the method of expanding the procedure of deployment of the application in production.

On average, a DevOps Engineer earns \$133,378 per annum.

## ***Audience:***

This course has been designed for and is suitable for DevOps engineers and App developers.

## ***Requirements:***

The course has some important requirements that needs to bee fulfilled before starting it. You should be having a proper access to a personal computer with Linux, Mac, or Windows operating systems installed. You should have sound knowledge of command line, as well as knowledge of functions of Docker, Git and GitHub. You need to have the essential fundamental knowledge of Cloud. Lastly, you should have fundamental knowledge of the working of Python.

## ***Course Outline:***

- **Chapter 1. Course Introduction**
- **Chapter 2. Installing Docker**
- **Chapter 3. Docker Essentials for Developers and Quality Assurance**
- **Chapter 4. Becoming Familiar with Sample Applications**
- **Chapter 5. Deploying A Sample Multi-Application with Docker Compose**
- **Chapter 6. Setting Up the Development Environment**
- **Chapter 7. CI/CD and Jenkins Overview**
- **Chapter 8. Docker Containers as Jenkins Agents**
- **Chapter 9. The CI/CD Pipeline with Jenkins**

- **Chapter 10. Service Discovery, Reverse Proxy, and Load Balancing**
- **Chapter 11. Basics of Container Orchestration**
- **Chapter 12. Docker Swarm**
- **Chapter 13. The End-to-End Application Workflow with Containers**
- **Chapter 14. Microservices**