

# **Containers for Developers and Quality Assurance (LFD254)**

**Modality: Self-Paced Learning**

**Duration:**

Upon completion of this course, you should be able to package and deliver applications as containers, master the art of writing Dockerfiles, and use containers technology for quality assurance to deploy container-based workloads in development, QA and production environments with technologies such as Docker Compose, Kubernetes, GitOps, etc.

## **Course Outline:**

Chapter 1. Course Introduction

Chapter 2. Introduction to Open Container Ecosystem

Chapter 3. Run and Operate Containers

Chapter 4. Building Container Images

Chapter 5. Advanced Image Building and Distribution

Chapter 6. Developing with Alternative Tools - Buildah, Podman, Skopeo

Chapter 7. Container Networking and Storage

Chapter 8. Building and Deploying Microservices Stack with Docker Compose

Chapter 9. Mini Project 1

Chapter 10. Beyond Development - Deploying Containers in Production

Chapter 11. Kubernetes - Pods, Namespaces and ReplicaSets

Chapter 12. Kubernetes - Services, Deployments, Storage

Chapter 13. Mini Project 2

Chapter 14. Kubernetes Native CI/CD