Kubernetes Administration (LFS458)

In this course you will learn about installation of a multi-node Kubernetes cluster using kubeadm, and how to grow a cluster, choosing and implementing cluster networking, and various methods of application lifecycle management, including scaling, updates and roll-backs. The course also covers configuring security both for the cluster as well as containers, managing storage available to containers, monitoring, logging and troubleshooting of containers and the cluster, configuring scheduling and affinity of container deployments, using Helm and Charts to automate application deployment, and understanding Federation for fault-tolerance and higher availability.

Duration: 4 Days

Prerequisites for this course
- Experience with Linux/UNIX systems
- Familiarity with command line tools

Outline for this course

Chapter 1 – Introduction

Chapter 2 – Basics of Kubernetes

Chapter 3 – Installation and Configuration

Chapter 4 – Kubernetes Architecture

Chapter 5 – APIs and Access

Chapter 6 – API Objects

Chapter 7 – Managing State with Deployments

Chapter 8 – Helm

Chapter 9 – Volumes and Data

Chapter 10 – Services

Chapter 11 – Ingress

Chapter 12 – Scheduling

Chapter 13 – Logging and Troubleshooting

Chapter 14 – Custom Resource Definition

Chapter 15 – Security

Chapter 16 – High Availability