

## **LFD259 - Kubernetes for Developers**

**Modality: Self-Paced Learning**

**Duration: 35 Hours**

**SATV Value:**

**CLC:**

**NATU:**

**SUBSCRIPTION: Learn, Master**

### **About this course:**

This course will teach you how to containerize, host, deploy, and configure an application in a multi-node cluster. Starting with a simple Python script, you will define application resources and use core primitives to build, monitor and troubleshoot scalable applications in Kubernetes. Working with network plugins, security and cloud storage, you will be exposed to many of the features needed to deploy an application in a production environment.

This course is designed to be vendor- and distribution-neutral, so you will be able to apply these concepts universally.

You will have access to the course for a full year from the date of purchase (or availability, for preorders), regardless of how quickly you complete the course. You can expect the course to take 30-35 hours to complete (although the course is self-paced, so you can move as quickly or as slowly as you like).

The average salary of a Kubernetes Developer is **\$143,493** per year.

### **Course Objective:**

In this course you'll learn how to:

- Containerize and deploy a new Python script
- Configure the deployment with ConfigMaps, Secrets and SecurityContexts
- Understand multi-container pod design
- Configure probes for pod health
- Update and roll back an application
- Implement services and NetworkPolicies
- Use PersistentVolumeClaims for state persistence
- And more

### **Audience:**

- Kubernetes Developers
- App Developers

## Prerequisite:

- To get the most out of this course, you should have basic Linux command line and file editing skills and be familiar with using a programming language (such as Python, Node.js, Go). A knowledge of Cloud Native application concepts and architectures (such as is taught in our free Introduction to Kubernetes edX MOOC) is helpful for this course.

## Course Outline:

- **Chapter 1. Course Introduction**
- **Chapter 2. Kubernetes Architecture**
- **Chapter 3. Build**
- **Chapter 4. Design**
- **Chapter 5. Deployment Configuration**
- **Chapter 6. Security**
- **Chapter 7. Exposing Applications**
- **Chapter 8. Troubleshooting**