LFD259 - Kubernetes for Developers

Modality: On Demand

Duration: 35 Hours

About this course:

The course will teach you on the methods of containerizing, hosting, configuring, and deploying applications on a multi-node cluster. You will start off with a simple Python script in which you will have to define application resources and then use the basic techniques of deploying, scaling, and managing the applications through the usage of Kubernetes. You will be trained in and introduced to different features used to deploy an application in a production environment by using network plugins, security and cloud storage.

The learning specifics of this course are vendor-agnostic and distribution-agnostic. Hence, this will give you the margin as well as the opportunity for universal application of the learned skills.

The course will be available to you for an entire year, from the day of purchase, or in the case of preorders, availability, and will be accessible even if you finish the course early. The course hours are approximately 30-35 hours in total. The course has the feature of self-paced so you will be able to complete it at your own ease.

On average, a Kubernetes developer earns $143,493 per annum.

Learning Objectives:

The course has the following learning objectives:

- Containerizing or encapsulating, and deploying a new Python script
- Configuring the deployment of the application through the usage of ConfigMaps, Secrets and SecurityContexts
- Gaining comprehension of multi-container pod design
- Setting and managing of probes for measuring pod health
- Making updates and rolling back an application
- Incorporating services and NetworkPolicies
- Making use of PersistentVolumeClaims for state persistence
- And many other skills

Audience:

This course is suitable for and designed for Kubernetes developers and app developers.

Requirements:

The requirements of this course have been set in such a way that you get to fully reap the benefits of this course. Having prior knowledge of basic Linux command line and file editing skills will be

beneficial for your future learning in this course. Additionally, you must be familiar with using a programming language like Python, Node.js, and Go. It will be helpful to have knowledge of the concepts of Cloud Native application and architectures (similar to which is taught in our free introduction of Kubernetes edX MOOC).

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**