Course Introduction

Introduction to Containers

* Container Concepts
* What is Docker?
* Docker Hands-On
* Basic Commands
* Basic Commands Hands-On
* Running Containers
* Running Containers Hands-On
* Building Containers
* Building Containers Hands-On

Persisting Data

* Containers are Ephemerous and Stateless
* Docker Volumes Concepts
* Using Docker Volumes Hands-On

Container Registries

* Container Registries Concepts
* Push/Pull Images from Docker Hub
* Push/Pull Images from Docker Hub Hands-On

Kubernetes Concepts

* Kubernetes Concepts
* Kubernetes API
* Using Kubectl Hands-On
* The Declarative Way vs the Imperative Way
* The Imperative Way Hands-On

Namespaces

* Namespaces Concepts
* Namespaces Hands-On

Nodes

* Master Node Concepts
* Worker Nodes Concepts
* Nodes Hands-On

Pods

* Pod Concepts
* The Pod Lifecycle
* Defining and Running Pods
* Pod Hands-On
* Init Containers
* Init Containers Hands-On

Selectors

* Selector Concepts
* Selector Hands-On

Multi Container Pods

* Common Patterns for Running More then One Container in a Pod
* Multi Container Pods Networking Concepts
* Multi Containers Pods Hands-On

Workloads

* Introduction to Workloads
* ReplicaSet Concepts
* ReplicaSet Hands-On
* Deployment Concepts
* Deployment Hands-On
* DaemonSet Concepts
* DaemonSet Hands-On
* Job Concepts
* Job Hands-On
* CronJob Concepts
* CronJob Hands-On

Updates

* Rolling Updates Concepts
* Rolling Updates Hands-On

Services

* What are services?
* ClusterIP Concepts
* ClusterIP Hands-On
* NodePort Concepts
* NodePort Hands-On
* Load Balancer Concepts
* Load Balancer on Docker Desktop Hands-On

Storage & Persistence

* Storage & Persistence Concepts
* The Static Way
* The Static Way Hands-On
* The Dynamic Way

Application Settings

* ConfigMaps Concepts
* ConfigMaps Hands-On
* Secrets Concepts
* Secrets Hands-On