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### Overview

The Docker platform provides an integrated suite of capabilities for an infrastructure agnostic CaaS model. With this solution, IT operations teams are able to secure, provision and manage both infrastructure resources and base app content while developers are able to build and deploy their apps in a self- service manner.

### What You Will Learn

You will learn how Docker achieves agility, portability, and control for developers and IT operations team across all stages of the app lifecycle. From these core tenets, Containers as a Service (CaaS) emerges as the construct by which these new apps are built better and faster.

### Prerequisite

Students should attend ONLC's Docker Fundamentals class or have equivalent skills.

## COURSE OUTLINE

### Getting Started

- Installation
- Production Cycle
- What is Docker EE Architecture?
- How to install Docker EE on Windows Server 2016?
- Test the installation
- Procedure to install UCP and DTR
- Swarm and add nodes

### Install UCP

- Install UCP
- Upload the license
- Verify the CA

### Swarm

- Swarm components
- Clustering front
- Orchestration front
- What is the best number of managers?
- Best practices

### Install DTR

- Verify logging from CLI from both nodes
- Verify DTR installation from UCP Web UI

### Services

- Replicated vs global services
- Scaling a service
- Service port publishing

Port publishing modes

### **Deploy an app from the UI**

Deploy Single Service

Deploy multi Service

### **Run a python example**

Add nodes

Containerizing an app

Process of containerizing an app

Some differences in networking between Windows and Linux

To resolve this localhost issue

Deploy the app on the swarm manager

Accessing your cluster

Recap

### **Java Example 1**

Java Base images

### **Stack**

How to write YAML file?

Top-level keys

Version

Networks

Services

Secrets

Deploy it

Install Docker-compose

### **Java Example 2**

### **.Net Examples**

Containerizing an app

Open the app in Visual Studio and run it from there

Extra resources for .net tools

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## **XDOCED ONLINE**

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