

Day - 1

- **Introducing Containers**
 - Introduction
 - The Rise of the Virtual Machine
 - The Ugly Virtual Machine
 - What Are Containers?
 - Containers Under the Hood
 - Docker
 - The Future of Docker and Containers
- **Installing Ubuntu Linux and CentOS Linux**
 - Module Intro
 - Downloading Ubuntu
 - Creating a VM to Install Ubuntu
 - Downloading CentOS
 - Creating a VM to Install CentOS
 - Installing CentOS

Day - 2

- **Installing and Updating Docker.**
 - Module Intro
 - Installing Docker on Ubuntu
 - Installing Docker on CentOS
 - Updating Docker
 - Granting Docker Control to Non-root Users
 - Configuring Docker to Communicate Over the Network
 - Playing Around with Our First Docker Container
 - Wrap-up
- **Major Docker Components**
 - Module Intro
 - The High Level Picture
 - The Docker Engine
 - Docker Images
 - Docker Containers
 - Docker Hub
 - Wrap-up

Day - 3

- **A Closer Look at Images and Containers.**

- Module Intro
- Image Layers
- Union Mounts
- Where Images Are Stored
- Copying Images to Other Hosts
- The Top Writeable Layer of Containers
- One Process per Container
- Commands for Working with Containers

- **Container Management**

- Module Intro
- Starting and Stopping Containers
- PID 1 and Containers
- Deleting Containers
- Looking Inside of Containers
- Low-level Container Info
- Getting a Shell in a Container
- Wrap-up

Day - 4

- **Building from a Dockerfile**

- Module Intro
- Introducing the Dockerfile
- Creating a Dockerfile
- Building an Image from a Dockerfile
- Inspecting a Dockerfile from Docker Hub
- Wrap-up

- **Working with Registries**

- Module Intro
- Creating a Public Repo on Docker Hub
- Using Our Public Repo on Docker Hub
- Introduction to Private Registries
- Building a Private Registry
- Using a Private Registry
- Docker Hub Enterprise
- Wrap-up

- **Diving Deeper with Dockerfile**

- Module Intro
- The Build Cache
- Dockerfile and Layers
- Building a Web Server Dockerfile
- Launching the Web Server Container
- Reducing the Number of Layers in an Image
- The CMD Instruction
- The ENTRYPOINT Instruction
- The ENV Instruction
- Volumes and the VOLUME Instruction
- Module Recap

- **Docker Networking**

- Module Intro
- The docker0 Bridge
- Virtual Ethernet Interfaces
- Network Configuration Files
- Exposing Ports
- Viewing Exposed Ports
- Linking Containers
- Wrap-up

- **Troubleshooting**

- Module Intro
- Docker Daemon Logging
- Container Logging
- Planning Image Builds
- Intermediate Images
- The docker0 Bridge
- IPTables
- Wrap-up

- **Lightning Fast Recap**

- Module Intro
- Recapping Some of What We've Learned