Docker -Beyond the Basics

Duration: 0 Days Course Code: DOCK7300

Overview:

Docker is an open-source platform that enables application developers, network and system administrators, and others to access and deploy the latest, updated images into their respective environments. An in-depth understanding of Docker ensures the availability of up-to-date software applications for quality assurance and production environments. This series of courses covers some advanced Docker skills for managing images, working with the Dockerfile, and managing volumes. This series also covers the advanced networking techniques in Docker.

Target Audience:

Technical managers, operations staff, application developers, network administrators, system administrators, and anyone interested in learning about advanced Docker features. A prior knowledge of Docker is assumed.

Objectives:

- Docker Configuration and Management
- Working with Docker Machine, Security, and APIs

Content:

Docker Configuration and Management

- Describe the various steps to create an account on Docker Hub
- Define the process of creating a Docker image from an existing container
- Apply the Docker push command to push the image to the registry
- Use the Docker history command to find all the intermediate image layers
- Distinguish between the Docker commands when performing image maintenance
- Recall the components and the steps in building Docker images
- Summarize the different approaches to building Docker images
- Use Docker commands to run an interactive shell
- Create a Dockerfile that layers on the server and the site content in a single build
- Create Docker images using a Dockerfile
- Install the fedora-dockerfiles package to get the Dockerfiles
- Create a Docker container that just runs Firefox
- Run an application that requires running multiple services simultaneously
- Run Docker inspect to examine volume configuration
- Describe the methods and the attributes to gain access to volumes
- Analyze how a deployed web server is configured and built
- Describe where to get files to create and write the map
- List the steps to run the container server
- Use the worker to bridge multiple servers together with volumes
- List the Docker network-related command line options
- Describe how Docker configures DNS with containers and virtual files
- Describe how the communication between two containers is governed at the operating system level
- Recognize whether a container can communicate to the outside world
- Describe how to configure containers to accept incoming connections
- Describe how to use Pipework for Docker container network configuration
- Use Docker to create and layer an image

Working with Docker Machine, Security, and APIs

- Describe how Docker handles IPv4 and IPv6 addressing
- Use NDP proxying to connect Docker containers to the Internet via IPv6
- Describe how Docker uses switched and routed network environments
- Set up SELinux on CentOS/RHEL/Fedora systems
- Describe how to allow a nonprivileged volume access to host files from a container
- Describe how Linux divides the privileges of the root user
- Share a namespace between two or more containers
- Create a Docker image with a preinstalled Riak
- Create an SSHd service in a Docker container
- Create a Docker container for MongoDB
- Use Shippable to perform CI/CD and then deploy it on Red Hat's OpenShift
- Use Drone to configure projects to automatically build, test, and deploy
- Use Docker with OpenShift Origin to configure Platform-as-a-Service
- Describe how OpenShift triggers the Docker build and how to supply to the Docker context to build images
- Use the Docker Trusted Registry Accounts API
- Use the Docker Trusted Registry Teams API
- Use the Docker Trusted Registry Accounts Repositories API
- Use the Docker User Owned Repository Access API
- Use the Docker Organization Owned Repository Access API
- Use the Docker Organization Owned Repository Namespace API
- Describe how the Docker machine creates Docker hosts on your computer or data center
- Use the Docker machine to create, use, and manage a Docker host inside of VirtualBox
- Use the Docker machine to use the same interface to create hosts in local, virtual, or cloud platforms
- Distinguish between the different drivers on the Docker machine and describe the tasks they perform
- Describe the Docker Machine commands and how they are used
- Use Docker to create a complex deployment using IP addressing, security, and DTR APIs

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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