

## [DO288]: Red Hat OpenShift Development I: Containerizing Applications

Length : 3 days  
Delivery Method : Instructor-led (Classroom)

### Course Overview

In this course, you will learn how to design, build, and deploy containerized software applications on an OpenShift cluster. Whether writing container-native applications or migrating existing applications, this course provides hands-on training to boost developer productivity powered by Red Hat® OpenShift Container Platform.

### Audience Profile

- Software developers interested in adopting containers as a preferred method for deploying applications
- Software architects interested in adopting containers as a preferred method for deploying applications

### At Course Completion

#### Impact on the organization

This course is intended to develop the skills needed to containerize software applications and deploy them to a Red Hat® OpenShift Container Platform cluster. These skills allow you to take advantage of a platform and architecture that fosters DevOps principles in your organization. Red Hat OpenShift Container Platform provides a self-provisioning environment for developers to deploy their applications using DevOps patterns such as continuous integration and deployment. Many language and database runtimes, containerized Red Hat Middleware, and more are provided to reduce the need for custom containerization by the developer, thereby reducing time to market.

#### Impact on the individual

As a result of attending this course, you should be able to containerize applications for deployment on the Red Hat OpenShift Container Platform.

#### You should be able to demonstrate these skills:

- Deploy applications to an OpenShift cluster and manage them with the command line client and the web console.
- Design and build containers for applications for successful deployment to an OpenShift cluster.
- Publish container images to an enterprise registry.
- Build containerized applications using the Source-to-Image facility.
- Create applications using OpenShift templates.
- Extract a service from a monolithic application and deploy it to the cluster as a microservice.

#### AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607  
Main Line: +65 6661 0888 | Fax: +65 6661 0886  
Email: [enquiries@AvantusTraining.com](mailto:enquiries@AvantusTraining.com)  
[www.AvantusTraining.com](http://www.AvantusTraining.com)

- Migrate applications to run on an OpenShift cluster.

## Pre-Requisites

- Have completed the Introduction to Containers, Kubernetes, and Red Hat OpenShift Course(DO180), or have equivalent knowledge.
- Being a Red Hat Certified System Administrator or having earned a higher certification is helpful for navigation and usage of the command line. But is not required

## Course Outline

### Module 1: Deploy and manage applications on an OpenShift cluster

#### Lessons

- Deploy an application to an OpenShift Cluster.

### Module 2: Design containerized applications for OpenShift

#### Lessons

- Build container images with advanced Dockerfile directives.

### Module 3: Publish enterprise container images

#### Lessons

- Create an enterprise registry and allow access to the OpenShift registry.

### Module 4: Build applications

#### Lessons

- Describe the OpenShift build process and implement post-commit build hooks.

### Module 5: Customize Source-to-Image builds

#### Lessons

- Customize an existing S2I base image.

### Module 6: Create applications from OpenShift templates

#### Lessons

- Describe the elements of an OpenShift template and create a multi-container template.

### Module 7: Manage application deployments

#### Lessons

- Monitor application health and select the appropriate deployment strategy.

### Module 8: Migrate applications to OpenShift

#### Lessons

- Integrate external services and migrate applications deployed on Red Hat JBoss Middleware.

#### AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: [enquiries@AvantusTraining.com](mailto:enquiries@AvantusTraining.com)

[www.AvantusTraining.com](http://www.AvantusTraining.com)