

# Containers, Kubernetes, and Red Hat OpenShift Administration II (DO285)

- **Formato do curso:** Presencial e Live Training
- **Preço:** 2700€
- **Duração:** 34 horas

## Learn to build and manage Linux containers and configure and manage an OpenShift cluster

Containers, Kubernetes, and Red Hat OpenShift Administration II (DO285) helps you build core knowledge in building and managing Linux® containers and Red Hat® OpenShift® Container Platform. This hands-on, lab-based course shows you how to deploy sample applications to either a local container runtime or an OpenShift cluster, as well as how to configure and manage OpenShift clusters. If you're a developer, administrator or site reliability engineer, you will benefit from learning these skills.

This course is based on Red Hat OpenShift Container Platform 4.2 and combines the content from [Red Hat OpenShift I: Containers & Kubernetes \(DO180\)](#) and [Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster \(DO280\)](#).

## Learn to:

- Learn about container and OpenShift architecture.
- Manage containers and container images.
- Create custom container images.
- Deploy and troubleshoot applications on OpenShift.
- Configure authentication using local users.
- Control access to projects using role-based access control.
- Configure service and container networking.
- Configure pod scheduling using labels and selectors.
- Limit compute resource usage.
- Scale a cluster.
- Monitor cluster events and alerts.

## Destinatários

- System and software architects interested in understanding features and functionality of an OpenShift cluster
- System administrators who want to learn about the initial establishment of a cluster

- Cluster operators responsible for the ongoing maintenance of a cluster
  - Site reliability engineers interested in the ongoing maintenance and troubleshooting of a cluster
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## Pré-requisitos

Become a Red Hat Certified System Administrator (RHCSA), or demonstrate equivalent Red Hat Enterprise Linux system administration experience

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## Objetivos

### for on the organization

This course provides the gateway to organizational and digital transformation by providing an understanding of the potential of a container-based architecture. Containers and Red Hat OpenShift have quickly become the de facto solution for agile development and application deployment.

This course is intended to develop the skills needed to install, configure, and manage the Red Hat OpenShift Container Platform to deploy containerized applications that are highly available, resilient, and scalable. Red Hat OpenShift Container Platform enables rapid application development and deployment, as well as portability of an application across environments. The platform also offers simplified application scaling, administration, and maintenance of adapted or cloud-native applications.

### for the individual

After completing this course, you should be able to demonstrate the skills to create and manage local containers using Podman, establish a new OpenShift cluster, perform initial configuration of the cluster, and manage the cluster on a day-to-day basis. One major focus of the course is troubleshooting common problems that will be encountered beyond day one.

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## Programa

### Introduction to container technology

- Describe how applications run in containers orchestrated by Red Hat OpenShift Container Platform.

### Create containerized services

- Provision a service using container technology.

### Manage containers

- Modify prebuilt container images to create and manage containerized services.

### Manage container images

- Manage the life cycle of a container image from creation to deletion.

### **Create custom container images**

- Design and code a Dockerfile to build a custom container image.

### **Deploy containerized applications on OpenShift**

- Use OpenShift Container Platform to deploy single container applications.

### **Deploy multicontainer applications**

- Deploy applications that are containerized using multiple container images.

### **Explore Red Hat OpenShift Container Platform**

- Describe the architecture of OpenShift Container Platform.

### **Verify a cluster**

- Review installation methods and verify the functionality of a newly installed cluster.

### **Configure authentication**

- Use an identity provider to configure authentication.

### **Control access to OpenShift resources**

- Define and apply role-based access controls and protect sensitive information with secrets.

### **Configure OpenShift networking components**

- Identify the components of OpenShift Container Platform software-defined networking and configure some of the components.

### **Control pod scheduling**

- Control the nodes on which a pod runs.

### **Scale an OpenShift cluster**

- Control the size of an OpenShift cluster.

### **Perform cluster updates**

- Describe how to perform a cluster update.

### **Manage a cluster with the web console**

- Use the web console to manage a Red Hat OpenShift cluster.

### **Execute a comprehensive review**

- Verify, manage, and troubleshoot an OpenShift cluster for enterprise use.