Kód kurzu: DO180

Learn to build and manage containers for deployment on a Kubernetes and Red Hat OpenShift clusterIntroduction to Containers, Kubernetes, and Red Hat OpenShift (DO180) helps you build core knowledge in managing containers through hands-on experience with containers, Kubernetes, and the Red Hat® OpenShift® Container Platform. These skills are needed for multiple roles, including developers, administrators, and site reliability engineers.This course is based on Red Hat OpenShift Container Platform 4.10.

## Pro koho je kurz určen
- Developers who wish to containerize software applications
- Administrators who are new to container technology and container orchestration
- Architects who are considering using container technologies in software architectures
- Site reliability engineers who are considering using Kubernetes and Red Hat OpenShift

## Co Vás naučíme
- Container and OpenShift architecture
- Creating containerized services
- Managing containers and container images
- Creating custom container images
- Deploying containerized applications on OpenShift
- Deploying multi-container applications

## Požadované vstupní znalosti
- Experience in the use of a Linux terminal session, issuing operating system commands, and familiarity with shell scripting. A Red Hat Certified System Administrator (RHCSA) certification is recommended but not required.
- Some experience with web application architectures and their corresponding technologies.

## Studijní materiály
Studijní materiál Red Hat

## Osnova kurzu
### Introducing container technology

Describe how software can run in containers orchestrated by Red Hat OpenShift Container Platform.
### Creating containerized services

Provision a service using container technology.
### Managing containers

Modify pre-build container images to create and manage containerized services.
### Managing container images

Manage the life cycle of a container image from creation to deletion.
### Creating custom container images

Design and code a Container file to build a custom container image.
### Deploying containerized applications on OpenShift

Deploy single container applications on OpenShift Container Platform.
### Deploying multi-container applications

Deploy applications that are containerized using multiple container images.
### Troubleshooting containerized applications

Troubleshoot a containerized application deployed on OpenShift.

Comprehensive review of introduction to container, Kubernetes, and Red Hat OpenShift

Demonstrate how to containerize a software application, test it with Podman, and deploy it on an OpenShift cluster.

## Co musíte vědět

### Impact on the organization

Containers and OpenShift have quickly become the de facto solution for agile development and application deployment. Administrators and developers are seeking additional ways to improve application time-to-market and improve maintainability.
A container-based architecture, orchestrated with Kubernetes and OpenShift, improves application reliability, scalability, decreases developer overhead, and facilitates continuous integration and continuous deployment. DO180 is the starting point for OpenShift curriculum within GLS and provides the necessary foundation before advancing to OpenShift development or administration.
This course provides the gateway to organizational and digital transformation by providing a comprehensive look at the potential of DevOps using a container-based architecture.
Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

### Impact on the individual

As a result of attending this course, students should gain the skills needed to perform basic tasks in Red Hat OpenShift Container Platform (OCP). This includes the ability to:
- Create containerized services using Podman.
- Manage containers and container images.
- Create custom container images.
- Deploy containerized applications on OpenShift.
- Deploy multi-container applications.

## GOPAS®