Red Hat Certified Technologist in OpenShift Exam (EX180)

ID EX180   **Price** CHF 540.—(excl. VAT)   **Duration** 1 day

Who should attend

- Administrators, architects, software developers, and anyone responsible for creating, managing, or using containers, including those who want to demonstrate their understanding of the key concepts and processes underlying the use of containers in modern software.
- 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.

Prerequisites

- Have taken Red Hat OpenShift Administration I: Operating a Production Cluster (DO180)
- Take our free assessment to find the course that best supports your preparation for this exam.

Red Hat encourages you to consider taking Red Hat OpenShift I: Containers & Kubernetes (DO180) to help prepare. Attendance in these classes is not required; students can choose to take just the exam.

While attending Red Hat classes can be an important part of your preparation, attending class does not guarantee success on the exam. Previous experience, practice, and native aptitude are also important determinants of success. Many books and other resources on system administration for Red Hat products are available. Red Hat does not endorse any of these materials as preparation guides for exams. Nevertheless, you may find additional reading helpful to deepen your understanding.

Course Content

To help you prepare, the exam objectives below highlight the task areas you can expect to see covered in the exam.

You should be able to demonstrate these skills and abilities:

Implement images using Podman

- Understand and use FROM (the concept of a base image) instruction.
- Understand and use RUN instruction.
- Understand and use ADD instruction.
- Understand and use COPY instruction.
- Understand the difference between ADD and COPY instructions.
- Understand and use WORKDIR and USER instructions.
- Understand security-related topics.
- Understand the differences and applicability of CMD vs. ENTRYPOINT instructions.
- Understand ENTRYPOINT instruction with param.
- Understand when and how to expose ports from a Docker file.
- Understand and use environment variables inside images.
- Understand ENV instruction.
- Understand container volume.
- Mount a host directory as a data volume.
- Understand security and permissions requirements related to this approach.
- Understand lifecycle and cleanup requirements of this approach.

Manage images

- Understand private registry security.
- Interact with many different registries.
- Understand and use image tags.
- Push and pull images from and to registries.
- Back up an image with its layers and meta data vs. backup a container state.

Run containers locally using Podman

- Get container logs.
- Listen to container events on the container host.
- Use Podman inspect.

Basic OpenShift knowledge

Creating applications in OpenShift

- Create, manage and delete projects from a template, from source code, and from an image.
- Customize catalog template parameters.

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- Specifying environment parameters.
- Expose public applications.

Troubleshoot applications in OpenShift

- Understand the description of application resources.
- Get application logs.
- Inspect running applications.
- Connecting to containers running in a pod.
- Copy resources to/from containers running in a pod.

As with all Red Hat performance-based exams, configurations must persist after reboot without intervention.

Exam format

The Red Hat Certified Specialist in Containers and Kubernetes Exam is a hands-on, practical exam that requires you to undertake real-world tasks. Internet access is not provided during the exam, and you will not be permitted to bring any hard copy or electronic documentation into the exam. This prohibition includes notes, books, or any other materials. For most exams, the documentation that ships with the product is available during the exam.

Scores and reporting

Official scores for exams come exclusively from Red Hat Certification Central. Red Hat does not authorize examiners or training partners to report results to candidates directly. Scores on the exam are usually reported within 3 U.S. business days.

Exam results are reported as total scores. Red Hat does not report performance on individual items, nor will it provide additional information upon request.

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