# Red Hat Certified Specialist in Containers exam

Course code: EX188

The Red Hat Certified Specialist in Containers exam (EX188) tests your skills and knowledge of the fundamentals of containers, including the ability to find, customize, run, and manage containerized services in stand-alone environments. By passing this exam, you become a Red Hat Certified Specialist in Containers, which also counts towards earning a Red Hat Certified Architect (RHCA®). Objectives listed for this exam are based on the most recent Red Hat product version available.

#### Who is the exam for

- 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.

#### Required skills

- Have taken Red Hat OpenShift Developer I: Introduction to Containers with Podman (D0188) or have comparable work experience
- Some experience in the use of a Linux terminal session, issuing operating system commands, and familiarity with shell scripting is benficial. A Red Hat Certified System Administrator (RHCSA) certification is recommended but not required.
- Review the exam objectives

### Stidy points for the exam

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 Containerfile.
- 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 the lifecycle and cleanup requirements of this approach.

### Manage images

- Understand private registry security.
- Interact with many different registries.
- Understand and use image tags

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- 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

# Run containers locally using Podman

- Get container logs.
- Listen to container events on the container host.
- Use Podman inspect.
- Specifying environment parameters.
- Expose public applications.
- Get application logs.
- Inspect running applications.

### Run multi-container applications with Podman

- Create application stacks
- Understand container dependencies
- Working with environment variables
- Working with secrets
- Working with volumes
- Working with configuration

### Troubleshoot containerized applications

- Understand the description of application resources
- Get application logs
- Inspect running applications
- Connecting to running containers

As with all Red Hat performance-based exams, configurations must persist after reboot without intervention. During the exam you may be required to work with one or more pre-written applications. You will not be required to modify application code however in some cases you may need to utilize supplied documentation in order to produce a new deployment of a given application.

### What you need to know

## Preparation

Red Hat encourages you to consider taking Red Hat OpenShift Developer I: Introduction to Containers with Podman (D0188) to help you prepare for this exam. 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.

#### Exam format

Red Hat Certified Specialist in Containers 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

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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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