

DEPARTMENT OF OPERATING SYSTEMS

Intro to DevOps

Lab 02 – Container management

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Introduction

In this lab we will explore the difference between docker and podman and learn how to manage container.

Tasks

1. Connect to the workstation VM inside RH Academy lab environment.
2. By using **podman search** find latest nginx container image from docker hub.
3. Find the documentation explaining the use of that image.
4. List running containers on the system by using **podman ps**.
5. Pull the image you found by using **podman pull**.
6. Find more information about the container image by using **podman image inspect**.
7. Create a container instance from that image in the background and map it to a host port 80 by using **podman run**. Are you encountering any issues?
8. Create an instance of that container in the background and map it to a host port 8080. Name this container web8080. Are you encountering any issues?
9. List running containers.
10. Stop the first container you created by using **podman stop**.
11. Try creating another container instance named web8080. Are you encountering any issues? How can you resolve this issue?
12. Inspect the details of web8080 container by using **podman inspect**.
13. List all the images you have downloaded by using **podman images** command.
14. Export the nginx image by using **podman image save** or **podman export**. What is the difference between these two commands?
15. Find the command which you can use while creating a container image, manually modifying and then saving that as a new image.
16. Find and use the command you can use to change the contents of the default web page of web8080 container without terminating it.
17. Answer the following questions:
 - a. Do containers lose their state when they are terminated and are container tools changing that behaviour?
 - b. Do you need to pull the container image before creating a container?
 - c. Which command can you use to import a podman image?
 - d. Does podman support restart of container images?

Additional reading

- <https://docs.podman.io/en/v4.4/Commands.html>