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What's Next

Learning never exhausts the mind.

– Leonardo da Vinci

The last chapter! When we were writing this book, we were wondering what a good last chapter for it would be. We strongly believe that learning never ends! That being said, we came to the conclusion that a good last chapter would be related to some suggestions about training and the next steps you could take to keep learning and deepening your knowledge even further—we hope you enjoy the options we introduce here.

In particular, we'll look at the following areas:

- Red Hat training
- Online learning platforms
- Free training and references

Red Hat training

It is evident the benefits that any organization gets from training and enablement. In a nutshell, training is capable of increasing productivity, reducing waste, standardizing processes, and boosting inner motivation. **International Data Corporation (IDC)** research from 2020 in

five different countries and companies with more than 11,000 employees on average found the following benefits from taking training provided by Red Hat:

- **Development-operations** (**DevOps**) teams experienced 44% higher productivity.
- 34% more efficient **information technology** (**IT**) infrastructure teams compared to those that had not taken the training.
- Teams deploy new IT resources 59% faster.
- New employees achieve full productivity 76% faster.

However, there is a large set of different training and resources available on the market, for *every pocket*! For this reason, we brought here some suggestions about where to look for enablement and educate you and your team on OpenShift. Combine the references you find in this chapter with the personas you saw in ***Chapter 4***, *OpenShift Personas and Skillset*, and you will likely have a successful and great OpenShift adoption!

You will find the following in this chapter:

- A list of suggested training resources
- References on the internet where you can look for documentation, tutorials, and posts about OpenShift
- A list of certifications that will help you and your team to establish as experts with OpenShift

REFERENCE

Check out the complete IDC research mentioned previously at **https://red.ht/IDCTraining**.

Training and certifications

This book is intended to be a comprehensive reference for OpenShift, and we covered some important topics around architecture, deploy-

ment, operations, and multi-cluster tools. However, we can confidently say that OpenShift is a world of different cultures! As such, although this book will help you in your journey, we strongly recommend that you also educate yourself through training. In this section, you will find some skill paths we suggest for professionals that want to go even deeper with their OpenShift knowledge.

Skills paths

We bring to you here three different suggested skills paths:

- **DevOps transformation**: For DevOps and **site reliability engineering (SRE)** engineers that are looking into working with DevOps and Agile practices and tools on top of OpenShift. As we have seen in *Chapter 4*, *OpenShift Personas and Skillset*, this role usually works with automation and processes, so in this skills path, you will find courses that address people, processes, and technology related to DevOps.
- **Kubernetes**: This is a path for those who want to have more in-depth information about Kubernetes itself. As OpenShift runs on top of Kubernetes, the training covered in this path is also valuable for OpenShift; however, it is agnostic and not focused on any distribution of Kubernetes, such as OpenShift and others.
- **OpenShift**: Training that covers both sides of OpenShift usage, development, and administration. In this section, you will see a list of training and certifications suggested for each profile.

Check out the following sections for more information on each skill path.

DevOps transformation

In this section, we suggest training that will take you through aspects related to people, processes, and technology.

DevOps Culture and Practice Enablement

We know that DevOps has been adopted for quite some time and almost everywhere; however, from our personal experience, there are several companies that unfortunately don't realize the benefits of its adoption. This is mostly due to the cultural change that these companies often forget to implement: cultural shift is the most challenging thing about DevOps—by far, from our perspective. If you feel that you and your team need a cultural refreshment, this course is for you. It follows a practical approach with 5-day immersive training that we recommend you take with your teammates to experience near-real-world delivery using agile methodologies and DevOps practices. Here's a course overview:

Course name	DevOps Culture and Practice Enablement—TL500
Vendor	Red Hat (paid)
Duration	5 days (classroom or on-site)
Pre-requisites	Familiarity with agile is helpful, but not required.
More information	`https://www.redhat.com/en/services/training/do500-devops-culture-and-practice-enablement`

Open Practices for your DevOps Journey

While the previous training is focused on culture, this one is focused on processes. It takes students through the discovery, planning, and delivery of projects driven by DevOps practices. Here's an overview of the course:

Course name	Open Practices for your DevOps Journey—TL250
Vendor	Red Hat (paid)
Duration	4 days (classroom, virtual, or on-site)
Pre-requisites	None
More information	`https://www.redhat.com/en/services/training/red-hat-training-open-practices-your-devops-journey-do250`

Red Hat DevOps Pipelines and Processes: CI/CD with Jenkins, Git, and Test Driven Development

To close the loop of people (culture), processes, and technology, this training will build technical skills for DevOps teams around **continuous integration/continuous delivery (CI/CD)** technologies using Git, Jenkins, and **test-driven development (TDD)**. It is a practical training

course that uses sample applications to learn how to use the technologies listed. Have a look at an overview of the course here:

Course name	Red Hat DevOps Pipelines and Processes: CI/CD with Jenkins, Git, and Test Driven Development—DO400
Vendor	Red Hat (paid)
Duration	4 days (classroom, virtual, on-site, or on-demand)
Pre-requisites	Familiarity with software development is required.
More information	`https://www.redhat.com/en/services/training/do400-red-hat-devops-pipelines-and-processes-with-jenkins-git-and-test-driven-development`

Kubernetes

You will easily find a huge collection of training courses about Kubernetes on the market, paid and free ones. We outlined here some good references so that you can go deeper into Kubernetes itself.

Kubernetes Basics

The first we want to indicate is a tutorial from the official **kubernetes.io** portal. In this tutorial, you will be guided through some basic lessons such as Kubernetes cluster creating using **minikube**, application deployment, scaling, and updates. It uses interactive environments so that you can exercise the lessons step by step interactively with a practical approach. Here's an overview of the course:

Course name	Kubernetes Basics
Vendor	`kubernetes.io` (free)
Duration	2-4 hours (on-demand)
Pre-requisites	None
More information	`https://kubernetes.io/docs/tutorials/kubernetes-basics/`

Another great practical reference is a project named *Kube by Example,* which we will give more details about next.

Kube by Example

This project contains several practical examples to help you learn more about Kubernetes. You have access to lessons about basic concepts such as what is a pod, deployment, service, namespace, and so

on, but also learning paths related to application development and more. Have a look at an overview of the course here:

Course name	Kube by Example
Vendor	Red Hat (free)
Duration	1-4 hours each lesson (on-demand)
Pre-requisites	None
More information	`https://kubebyexample.com/`

Certifications

There are three official Kubernetes certifications, each one focused on validating a different set of skills, as you can see in the following table:

	Certified Kubernetes Administrator (CKA)	Certified Kubernetes Application Developer (CKAD)	Certified Kubernetes Security Specialist (CKS)
Description	Focused on administration tasks, such as installation, configuration, and management of production-grade clusters.	This exam looks to validate the examinees' skills related to the design, build, and deployment of cloud-native applications on Kubernetes.	Exam dedicated to security aspects of the development of applications and management using Kubernetes.
Recommended for	System/cloud/platform administrators; DevOps/SRE engineers	Application developers and DevOps/SRE engineers	Security engineers
Exam duration	2 hours	2 hours	2 hours
More information	`https://training.linuxfoundation.org/certification/certified-kubernetes-administrator-cka/`	`https://training.linuxfoundation.org/certification/certified-kubernetes-application-developer-ckad/`	`https://training.linuxfoundation.org/certification/certified-kubernetes-security-specialist/`

OpenShift

Red Hat has many great training courses and certifications you can take to get in-depth practical knowledge about OpenShift. The following diagram shows training and certifications recommended by Red Hat that will give a comprehensive in-depth knowledge of Linux, containers, and OpenShift administration and development:
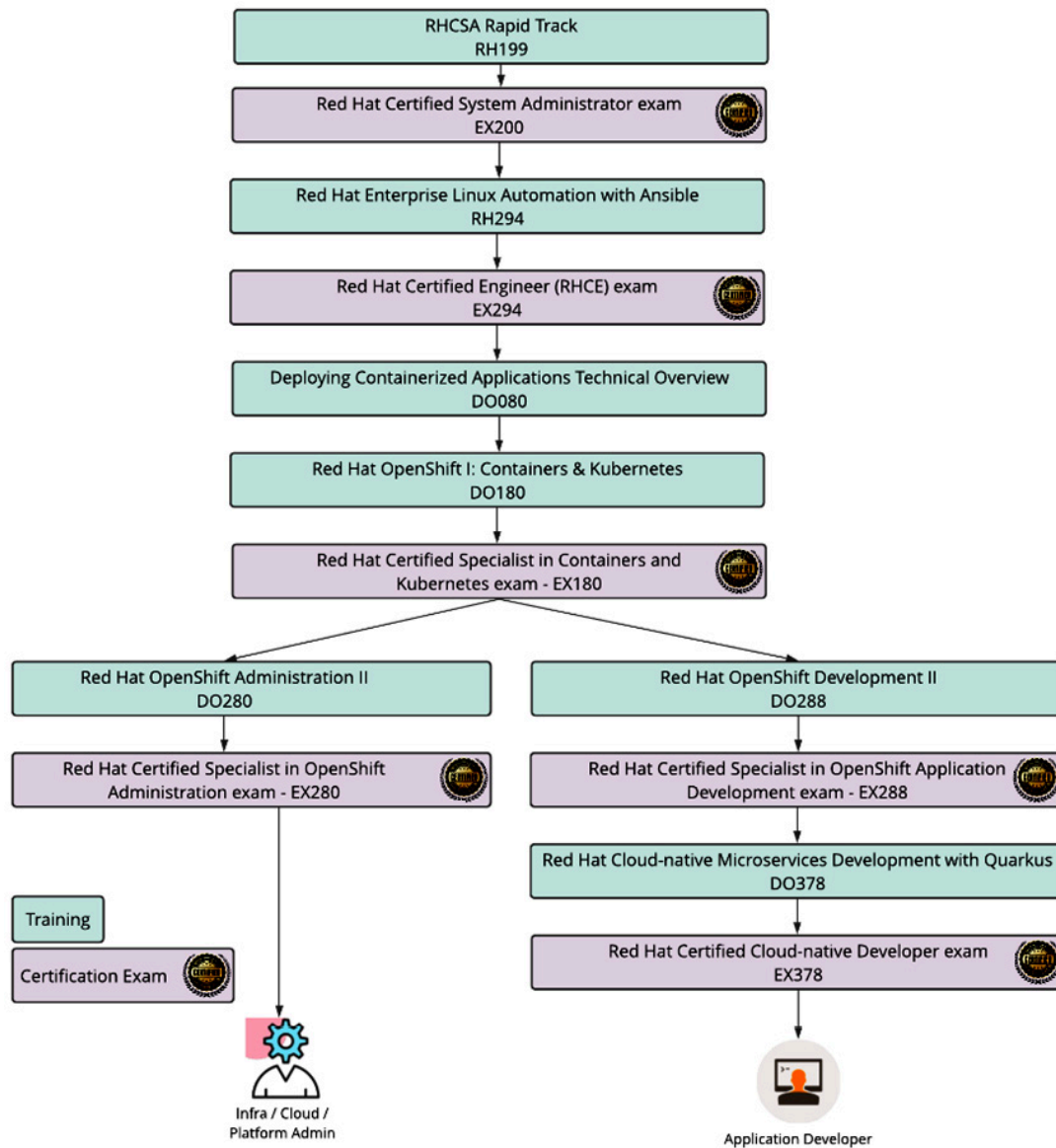
Figure 15.1 – OpenShift training and certifications

Refer to this site for more details about the training courses and certifications: **https://www.redhat.com/en/services/training/all-courses-exams**

Red Hat Learning Subscription (7-day free trial)

If you are interested in taking the mentioned OpenShift skill path, a good option is **Red Hat Learning Subscription** (**RHLS**)! With that, you can get access to hundreds of online courses with practical labs. Some options include only courses, while others also include certifications. Find more information at this website:

https://www.redhat.com/en/services/training/learning-subscription.

You may also refer to online learning platforms to learn more; see the next section for some suggestions.

Online learning platforms

We couldn't forget to also mention some of the online learning platforms out there. Today, there is an enormous amount of good resources on online learning platforms; you can find a small list of them here:

- *A Cloud Guru*: **https://acloudguru.com/browse-training**
- *Pluralsight*: **https://www.pluralsight.com/**
- *Cloud Academy*: **https://cloudacademy.com/search/**
- *Whizlabs*: **https://www.whizlabs.com/**

If you are looking for more free training, check out the ideas presented next.

Free training and references

What if my pocket is empty and I can't afford to pay for training? We didn't forget you either! Next, we'll see some of the options to learn OpenShift for free.

OpenShift Container Platform Demo and Workshop Guide

A great free reference is the *OpenShift Container Platform Demo and Workshop Guide* page. Here, you will find some video recordings of demos and also links for lab documentation, and more. You will find a wide variety of demos about cluster installation, **artificial intelli-**

gence (AI)/machine learning (ML), application development, GitOps, and security. You can find more information here:

Reference	OpenShift Container Platform Demo and Workshop Guide
Vendor	Red Hat (free)
Duration	Miscellaneous (on-demand)
Pre-requisites	Familiarity with OpenShift is helpful.
More information	`https://demo.openshift.com`

OpenShift 4 101 Workshop

The Red Hat Services team made a great job of documenting fantastic workshops about Red Hat products. One of them is the OpenShift 4 101 workshop, which is excellent training for OpenShift and covers application development, deployment and management, CI/CD pipeline, and others. Here's further information on this:

Reference	OpenShift 4 101
Vendor	Red Hat (free)
Duration	Miscellaneous (on-demand)
Pre-requisites	Familiarity with OpenShift is helpful. Access to an OpenShift cluster is required.
More information	`https://redhatgov.io/workshops/openshift_4_101/`

Open Demos

A good source of technical information is webinars and demos. On the *Open Demos* page, you can find a schedule of the next free webinar that anyone can attend. More information is available here:

Reference	Open Demos
Vendor	Red Hat (free)
Duration	Miscellaneous (on-demand)
Pre-requisites	Familiarity with OpenShift is helpful.
More information	`https://redhatdemos.com/`

Red Hat Developer portal

The Red Hat Developer portal also contains a great number of good and free references, from free tutorials to a developer sandbox. Find out more here:

Reference	Red Hat Developer portal
Vendor	Red Hat (free)
Duration	Miscellaneous (on-demand)
Pre-requisites	Familiarity with OpenShift is helpful.
More information	`https://developers.redhat.com/products/openshift/getting-started`

YouTube and Twitch

You will find great content on *YouTube* and *Twitch*. The Red Hat product management team, for instance, runs a *What's New in OpenShift* session each quarter, detailing the main innovations the next version will introduce. This is a great source of information about what is coming next in the product. Find out more here:

Reference	YouTube and Twitch
Vendor	Red Hat (free)
Duration	Miscellaneous (on-demand)
Pre-requisites	Familiarity with OpenShift is helpful.
More information	`https://www.youtube.com/c/redhat, https://mobb.ninja/` `https://www.twitch.tv/redhatopenshift`

Blogs

Blogs are great references to be up to date and also find some great demos and labs. The following are great blogs about OpenShift:

- **https://cloud.redhat.com/blog**
- **https://developers.redhat.com**

Product documentation

Always refer to the OpenShift documentation to learn about its features and clear any doubts. The official documentation can be found at the following website: **https://docs.openshift.com**.

Summary

We have seen in this chapter a list of suggested training, skill paths, and certifications to get a deeper knowledge of OpenShift. We also brought to you some free references, if you don't want to (or can't!) pay for training. If you are interested in establishing yourself as a **subject-matter expert (SME)** in it, we encourage you to consider them.

Final words

Congratulations—you reached the end of this book! We made it! We really hope you now feel more prepared and confident about working with OpenShift in the cloud, on-premises, and even both—from one cluster to many! Thanks for being our partner during the course of this book, and we look forward to meeting you anytime soon!

Our sincere message of thanks and, as we said, learning is constant and the sources of information are many. To achieve your goals without getting lost or straying along the path of so many opportunities, we leave some tips here:

- Look at the technology options available today.
- Research those that have seen the most adoption and absorption in terms of ease of use, learning, and documentation, as well as employment and career opportunities.
- Choose the way forward and stay focused.
- Emerging technologies can be a good path, but they are often risky. If you want to adopt new technologies, don't forget to take into account the path and plan you created, as this will help you to continue understanding where you are and where you want to go.
- Write down your findings—they will surely help you very soon.
- During your studies, set aside leisure time with family and friends.
- Exercise regularly—a healthy mind also comes from a healthy body.

"Mens sana in corpore sano." – Decimus Iunius Iuvenalis

As the Kubernetes and OpenShift ecosystem continues to evolve each day, check the OpenShift website and blog for the latest features and keep yourself informed about updates and roadmaps. If the company where you work is assisted by a Red Hat account team, reach out to them frequently. Red Hat has a great team to assist customers, and they are continuously looking to make their customers comfortable and satisfied with their products, so don't hesitate to use them as your ally.

Now, it is time to say goodbye—or better: see you out there! If you have questions or ideas for improvement, or just want to say hello, reach out to us on our social networks, GitHub, or the *Packt Community* platform. Thank you again and we hope you enjoyed the *OpenShift Multi-Cluster Management Handbook*!