Red Hat Cloud-native Microservices Development with Quarkus and exam

Course code: DO379

The Red Hat Certified Cloud-Native Developer exam (EX378) tests your skills and knowledge with regard to coding the server side of Kubernetes-native Java applications using the Quarkus framework. The exam focuses on the basic skills required to create a complete microservice using a persistent data store.By passing this exam, you become a Red Hat Certified Cloud-Native Developer, which also counts toward earning a Red Hat Certified Architect (RHCA®) certification This exam is based on Red Hat® OpenShift® Container Platform 4.12.. This exam is based on Red Hat Build of Quarkus v2.13.By passing this exam, you become a Red Hat Certified Cloud-Native Developer, which also counts toward earning a Red Hat Certified Architect (RHCA®)certification.

Affiliate	Duration	Course price	ITB
Praha	5	2 841 €	0
Bratislava	5	2 841 €	0

The prices are without VAT.

Course terms

Date	Duration	Course price	Type	Course language	Location
23.09.2024	5	2 841 €	Online	CZ/SK	Virtual Training Red Hat
21.10.2024	5	2 841 €	Presence	CZ/SK	Praha - Knowledge Factory
28.10.2024	5	2 841 €	Online	EN	Virtual Training Red Hat
17.03.2025	5	2 841 €	Presence	CZ/SK	Praha - Knowledge Factory

The prices are without VAT.

Who is the course for

These audiences may be interested in becoming a Red Hat Certified Cloud-Native Developer:
- Java developers who are implementing microservices using Quarkus and Kubernetes
- Red Hat Certified professionals who wish to pursue Red Hat Certified Architect (RHCA) certification

What we teach you
- Deploy microservice applications on Red Hat® OpenShift Container Platform.
- Build a microservice application with Quarkus.
- Implement unit and integration tests for microservices.
- Use the config specification to inject data into a microservice.
- Secure a microservice using OAuth.
- Implement health checks, tracing and monitoring of microservices.
- Build reactive and asynchronous applications using Quarkus.

Required skills
- Experience with Java application development or Red Hat Application Development I: Programming in Java EE (JB183)
- Be proficient in using an IDE such as Visual Studio Code
- Recommended, but not required: experience with Maven and version control.
- Recommended, but not required: experience with OpenShift or Introduction to OpenShift Applications (DO101)
- Take our free assessment
- to gauge whether this offering is the best fit for your skills.

Course outline

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Introducing the Red Hat Build of Quarkus

Describe the components and patterns of microservice-based application architectures and the features of the Red Hat Build of Quarkus.

Developing Cloud-native Microservices with Quarkus

Implement microservices based applications by using the Red Hat Build of Quarkus runtime and associated developer tooling.

Testing Quarkus Microservices

Implement unit and integration tests for microservices.

Developing Reactive and Asynchronous Microservices

Describe the features of reactive architectures and implement reactive services by using Quarkus.

ISecuring Quarkus Microservices

Secure microservice communications by applying origin validation, requests authentication and authorization.

Implementing Quarkus Microservices on the Red Hat OpenShift Container Platform

Develop and deploy cloud-native applications on the Red Hat OpenShift Container Platform.

Implementing Fault Tolerance in Microservices

Implement fault tolerance in a microservice architecture.

Monitoring Quarkus Microservices

Monitor the operation of a microservice by using logging, metrics and distributed tracing.

What you need to know

Impact on the organization

- Organizations are striving to make the move from monolithic applications to applications based on microservices, as well as how to reorganize their development paradigm to reap the benefits of microservice development in a DevOps economy. With Quarkus, developers can more quickly build, test, and deploy their applications, improving application time to market.
- Organizations are also invested in the familiarity of Java™ programming frameworks as well as the stability and benefits Red Hat OpenShift Container Platform. This course teaches developers how to leverage microservice application development with Quarkus for streamlined deployment on OpenShift clusters.

Impact on the individual

As a result of attending this course, you will understand how to develop, monitor, test, and deploy microservice-based applications using Quarkus and Red Hat OpenShift.

You should be able to demonstrate these skills:

- Design a microservices-based architecture for an enterprise application.
- Quickly build and test microservices with Quarkus and deploy on to OpenShift Container Platform.
- Implement fault tolerance and health checks for microservices.
- Secure microservices to prevent unauthorized access.
- Monitor and trace microservices.

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