GALILEU

Red Hat Application Development II: Implementing Microservice Architectures (DO283)

Red Hat

- **Nível:**
- **Duração:** 27h

Sobre o curso

Develop microservice-based applications in Java EE with MicroProfile and OpenShift

Building on Red Hat Application Development I: Programming in Java EE (JB183), the introductory course for Java EE application development, Red Hat Application Development II: Implementing Microservice Architectures (JB283) emphasizes learning architectural principles and implementing microservices in Java EE, primarily based on MicroProfile with WildFly Swarm and OpenShift.

You will build on Java EE application development fundamentals and focus on how to develop, monitor, test, and deploy modern microservices applications. Many enterprises are looking for a way to take advantage of cloud-native architectures, but many do not know the best way to go about it. These enterprises have monolithic applications written in Java Enterprise Edition (JEE).

This course is based on Red Hat® Enterprise Application Platform 7.4 and Wildfly Swarm 2018.3.3.

Teste previamente os seus conhecimentos, ou os da sua equipa, em:

- Red Hat Satellite
- Ansible
- RH JBoss Enterprise Application Platform
- RH Gluster Storage
- RH OpenShift
- RH OpenStack Platform
- RH Enterprise Linux 7
- RH Fuse
- RH Camel
- RH AMQ
- RH Ceph Storage
- RH Identify Management

- RH Enterprise Linux 8

[Aceda aqui ao diagnóstico!](#)

Destinatários

This course is designed for Java developers.

Pré-requisitos

- Attend Red Hat Application Development I: Programming in Java EE (JB183) or demonstrate equivalent experience
- Be proficient in using an integrated development environment such as Red Hat® Developer Studio or Eclipse
- Experience with Maven is recommended, but not required

Programa

- Describe microservice architectures
- Deploy microservice-based applications
- Implement a microservice with MicroProfile
- Test microservices
- Inject configuration data into a microservice
- Create application health checks
- Implement fault tolerance
- Develop an API gateway
- Secure microservices with JWT
- Monitor microservices

Note: Course outline is subject to change with technology advances and as the nature of the underlying job evolves.

Describe microservice architectures

Describe components and patterns of microservice-based application architectures.

Deploy microservice-based applications

Deploy portions of the course case study applications on an OpenShift cluster.

Implement a microservice with MicroProfile

Describe the specifications in MicroProfile, implement a microservice with some of the specifications, and deploy it to an OpenShift cluster.

Test microservices

Implement unit and integration tests for microservices.

Inject configuration data into a microservice

Inject configuration data from an external source into a microservice.

Create application health checks

Create a health check for a microservice.

Implement fault tolerance

Implement fault tolerance in a microservice architecture.

Develop an API gateway

Describe the API gateway pattern and develop an API gateway for a series of microservices.

Secure microservices with JWT

Secure a microservice using the JSON Web Token specification.

Monitor microservices

Monitor the operation of a microservice using metrics, distributed tracing, and log aggregation.

Note: Course outline is subject to change with technology advances and as the nature of the underlying job evolves.