

Training: Red Hat  
EX283 Red Hat Certified Enterprise Microservices Developer exam

## FORM OF TRAINING

## MATERIALS

## PRICE

## DURATION

Traditional

Exam

450 EUR

1 day

## LOCATIONS

Krakow - 5 Tatarska Street, II floor, hours: 9:00 am - 4:00 pm

Warsaw - 17 Bielska Street, hours: 9:00 am - 4:00 pm

## TRAINING GOALS:

The Red Hat Certified Enterprise Microservices Developer exam (EX283) tests your skills and knowledge to develop reliable, performant JEE applications in a microservices-style environment. The exam focuses on using the Microprofile APIs to develop microservices enterprise Java applications.

If you are a current Red Hat Certified Enterprise Application Developer (RHCEAD), you will become a Red Hat Certified Enterprise Microservices Developer by passing this exam.

If you are a current Red Hat Certified JBoss Developer (RHCJD), you will become a Red Hat Certified Specialist in Enterprise Microservices Development by passing this exam. Anyone can take this exam, but you must be either an RHCEAD or an RHCJD in order to become a Red Hat Certified Enterprise Microservices Developer.

This exam is based on Eclipse MicroProfile 1.3.

## CONSPECT:

You should be able to accomplish the tasks below without assistance. While explicitly addressing Microprofile and microservices, the skills and abilities demonstrated in this exam are also applicable to a wide range of advanced enterprise Java developments:

- Provide and obtain configuration properties through several environment-aware sources both internal and external to the application and made available through dependency injection or lookup using Configuration for Microprofile
  - Externalize data into configured values
  - Inject configured values into beans using the @Inject and the @ConfigProperty qualifier
  - Access or create a certain configuration
  - Understand default and custom ConfigSource and ConfigSource ordering
  - Understand and implement converters

- Separate execution logic from business logic using Microprofile Fault Tolerance
  - Understand the relationship to MicroProfile Config
  - Understand async vs. sync execution type and know the default
  - Use @Timeout
  - Understand retry policies and apply using @Retry
  - Understand and define fallback
  - Understand and apply CircuitBreaker and Bulkhead
  - Understand and set up fault tolerance configuration
- Probe the state of a computing node from another machine using MicroProfile Health Check
  - Understand and implement the Health Check interface and Health Check Response
  - Construct human-friendly Health Check Response
  - Understand protocol and wireformat
- Export monitoring data to management agents using Microprofile Metrics
  - Understand difference with Health Check
  - Understand and use three sets of sub-resource (scopes): base, vendor, and application
  - Understand tags (labels), metric registry, and @Metric
  - Understand metadata and why it is best practice
  - Expose metrics via REST API
  - Know required metrics
  - Understand application metrics programming model
- MicroProfile Interoperable JWT RBAC: OpenID Connect (OIDC)-based JSON Web Tokens (JWTs) for role-based access control (RBAC) of microservice endpoints
  - Understand security tokens in RESTful services and token-based authentication
  - Use JWT bearer tokens to protect services
  - Mark a JAX-RS application as requiring MP-JWT access control
  - Map MP-JWT tokens to Java EE Container APIs

As with all Red Hat performance-based exams, configurations must persist after reboot without intervention.

## REQUIREMENTS:

Exam candidates should:

- Attend Red Hat Application Development II: Implementing Microservice Architectures (JB283)
- Pass Red Hat Certified Enterprise Application Developer Exam (EX183) or have equivalent industry JEE experience
- Be familiar with using Red Hat® JBoss® Developer Studio in a Red Hat® Enterprise Linux

environment

- Have a solid background with JEE, including a knowledge and understanding of the core Java concepts and APIs. For example, exceptions, annotations, and the collections API are all required during the exam
- Some familiarity with Openshift is beneficial

## Difficulty level



## TRAINER:

Red Hat Certified Instructor.

## ADDITIONAL INFORMATION:

Recommended training:

- JB283 Red Hat Application Development II: Implementing Microservice Architectures.