

# Red Hat Certified Specialist in Cloud-native Integration exam

Course code: EX221

The Red Hat Certified Specialist in Cloud-native Integration Exam (EX221) tests your abilities to create and maintain enterprise integration services using Camel with Red Hat® Fuse. An enterprise application developer who becomes a Red Hat Certified Specialist in Cloud-native Integration has demonstrated the skills, knowledge, and abilities needed to create and maintain enterprise integration services based on the Red Hat Fuse framework and application programming interfaces (APIs) for Apache Camel. By passing this exam, you become a Red Hat Certified Specialist in Cloud-native Integration which also counts toward becoming a Red Hat Certified Architect (RHCA®). Objectives listed for this exam are based on the most recent Red Hat product version available.

## Who is the exam for

- Enterprise and Cloud-native Java developers who are familiar with service-oriented architecture (SOA) principles and are responsible for integrating enterprise applications
- Enterprise SOA architects with some Java development experience and knowledge of enterprise integration

## Required skills

- Have familiarity with Java development
- Have taken the Cloud-native Integration with Red Hat Fuse (AD221) course or have equivalent work experience in enterprise integration using Apache Camel
- Have some familiarity working in a Red Hat® Enterprise Linux® environment
- Review the Red Hat Certified Specialist in Cloud-native Integration exam (EX221) objectives
- Take our free assessment
- to find the course that best supports your preparation for this exam.

## Study points for the exam

To help you study, the exam objectives below highlight the task areas you can expect to see covered in the exam.

Red Hat reserves the right to add, modify, and remove exam objectives. Such changes will be made public in advance.

### Create and maintain Camel routes

- Use the Java™ language
- Use the CamelContext XML

### Exchange messages

- Body
- In/out
- Headers
- Attachments

### Consume and produce files

- CSV format
- JSON format
- XML format

### Use EIPs

- Content-based routing
- Wire tap
- Splitter
- Aggregator
- Recipient list

### Use Camel components

- File2
- FTP
- JPA2

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# Red Hat Certified Specialist in Cloud-native Integration exam

- JMS
- Direct
- Rest

## Use Camel Test

- Mock endpoints
- JUnit 4 integration and Camel Test APIs

## Dynamically route messages

- Use conditional routes
- Use data-driven routes

## Handle exceptions

- Catch and handle exceptions
- Use the dead-letter queue

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

## What you need to know

### Preparation

Red Hat encourages you to consider taking Cloud-native Integration with Red Hat Fuse (AD221) course to help prepare.

Attendance in these classes is not required; students can choose to take just the exam.

While attending Red Hat classes can be an important part of your preparation, attending class does not guarantee success on the exam. Previous experience, practice, and native aptitude are also important determinants of success. Many books and other resources on system administration for Red Hat products are available. Red Hat does not endorse any of these materials as preparation guides for exams. Nevertheless, you may find additional reading helpful to deepen your understanding.

### Exam format

This exam is a performance-based evaluation of your Camel development skills and knowledge. You will perform tasks associated with the development and maintenance of enterprise integration patterns using Red Hat Fuse. Performance-based testing means that you must perform tasks similar to those you perform on the job.

Internet access is not provided during this closed exam, and you will not be permitted to bring any hard copy or electronic documentation into the exam. This prohibition includes notes, books, or any other material. However, you are provided with a local copy of the official Fuse documentation. You should familiarize yourself with this documentation when preparing for the exam.

### Scores and reporting

Official scores for exams come exclusively from Red Hat Certification Central. Red Hat does not authorize examiners or training partners to report results to candidates directly. Scores on the exam are usually reported within 3 U.S. business days.

Exam results are reported as total scores. Red Hat does not report performance on individual items, nor will it provide additional information upon request.

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