

# Camel Integration and Development with Red Hat Fuse on OpenShift

---

**Code:** AD421R  
**URL:** [View Online](#)

---

Camel Integration and Development with Red Hat Fuse (JB421) is a hands-on, lab-based course that gives Java™ developers and architects an understanding of Apache Camel and the enhancements and tools Red Hat offers in support of Camel development.

## Skills Gained

- Routes that define a sequence or flow of processing through one or more processors and endpoints
- Processors that massage, interpret, and modify messages within a Camel flow.
- Components used to create endpoints that interact with the outside world for acquiring and transmitting messages.
- Create basic routes and integration solutions with Camel.
- Combine messages through aggregation.
- Develop tests with Camel test kit and mock components.
- Develop REST services with the REST DSL and Swagger.
- Deploy a route on Karaf, EAP, and Spring Boot, as well as with OpenShift.
- Increase route throughput with parallel processing.

## Who Can Benefit

- Java developers who need to learn how to use Camel, implement enterprise integration patterns (EIPs), and develop integration applications with Camel
- Java architects who need to understand how Apache Camel can be used in software architectures requiring integration between applications

## Prerequisites

- Experience developing and deploying Java EE 7 applications
- Familiarity with relational databases, Java database connectivity, and SQL
- Familiarity with Java development tools such as Maven and Eclipse

- Basic knowledge of Spring Framework

## Course Details

### Introduce Fuse and Camel

- Learn to integrate applications and create simple routes with Camel.

### Create routes

- Develop Camel routes and deploy them on JBoss Enterprise Application Platform and Karaf.

### Transform data

- Convert messages between data formats using implicit and explicit transformation.

### Route with Java Beans

- Create dynamic routes in Camel using Java Beans.

### Implement REST services

- Enable REST support on Camel with Java REST APIs.

### Deploy Camel routes

- Package and deploy camel applications for deployment in different environments.

### Implement transactions

- Provide data integrity in route processing by implementing transactions.

### Implement parallel processing

- Improve route processing throughput using Camel parallel processing mechanisms.

### Red Hat JBoss Fuse Camel development comprehensive review

- Implement three projects that address integration requirements of a real world integration application.