AD221

Cloud-native Integration with Red Hat Fuse and Apache Camel

Duration: 4 Days

Course description

Red Hat Fuse, based on the Apache Camel project, is a lightweight, flexible integration platform that enables rapid integration of cloud-native applications, both on-premise and in the cloud.

Camel development is organized around:

- Routes that define a sequence or flow of processing.
- Processors that transform, interpret, and modify messages within a Camel route.
- Components that enable the creation of endpoints that interact with the outside world for acquiring and transmitting data.

Cloud-native Integration with Red Hat Fuse (AD221) emphasizes learning architectural patterns and implementing integration services based on Apache Camel and OpenShift. Camel and Red Hat Fuse enable developers to create complex integrations in a simple and maintainable format. You will learn how to use the most common integration components in Camel and develop, test, and deploy integration focused applications on OpenShift. This course is based on Red Hat Fuse 7.10 and OpenShift 4.

Outline for this course

Introduction to Red Hat Fuse and Camel

Describe the architecture of Red Hat Fuse and Camel and how they are used to integrate applications.

Create Camel routes

Implement Camel routes and develop custom processors

Implement enterprise integration patterns

Describe the most commonly used enterprise integration patterns and implement them using Camel components.

Create tests for routes and error handling

Develop reliable routes by creating unit tests and mocks, and by handling errors.

Integrate services using asynchronous messaging

Integrate microservices using Apache Kafka and ActiveMQ (JMS)

Implement transactions

Provide data integrity in route processing by implementing transactions.

Build and consume REST services

Implement and consume REST services with Camel.

Integrate cloud-native services

Deploy cloud-native microservices based on Camel Routes and Camel K components to an OpenShift cluster