

## [JB501]: Building Advanced Red Hat Enterprise Applications

Length : 4 Days  
Delivery Method : Instructor-led (Classroom)

### Course Overview

The course is based on a case study. Several Red Hat Middleware products are utilized in the solution including Red Hat JBoss Data Grid, Red Hat JBoss Enterprise Application Platform, Red Hat JBoss BPM Suite, Red Hat JBoss Fuse, and Red Hat JBoss A-MQ. The student will use Java™ EE 6, Java Persistence API (JPA), business processes, business rules, Camel routes, caching, and queuing in the integrations. Each step of the way, students participate in architectural discussions regarding the design, as they work toward a final solution. Students are expected to have prior knowledge and basic skills in the products utilized.

### Audience Profile

This course is intended for enterprise Java developers.

### At Course Completion

- Camel routes
- JMS queues
- OSGi deployment
- Caching
- Data grid remote querying
- Business Central projects
- Business process development
- Business rules development
- JAX-RS and JAX-WS web services
- Java EE 6 topics: JPA, CDI, EJB, JSF
- Automated testing with JUnit, Arquillian, and Selenium

### Pre-Requisites

This course requires attaining certification, completing the following courses, or the equivalent experience listed:

- Red Hat Certified JBoss Developer (RHCJD), completion of JBoss Enterprise Application Development (JB225), or experience writing enterprise applications using Java EE 6 specifications, frameworks, and APIs
- Certificate of Expertise in Persistence, completion of JBoss Development: Persistence with Hibernate (JB297), or experience writing Java entities with JPA and Red Hat JBoss Hibernate

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- Certificate of Expertise in Camel Development, completion of Camel Development with Red Hat JBoss Fuse (JB421), or experience writing Camel routes in Java
- Completion of Red Hat JBoss A-MQ Development and Deployment (JB437) or experience writing applications that use the JMS API
- Completion of Red Hat JBoss Data Grid Development (JB453), or experience writing applications that use caching frameworks and middleware
- Certificate of Expertise in Business Process Design, completion of Developing Workflow Applications with Red Hat JBoss BPM Suite (JB427), or experience designing business processes using BPMN2
- Certificate of Expertise in Business Rules, completion of Implementing Red Hat JBoss BRMS (JB465), or experience writing business rules in a business rules language, preferably Drools

## Course Outline

This course is based on a case study in which the student integrates front- and back-office applications. The case study is based on a fictional airline application called JBTravel.

### Module 1: Describe the architectural framework and requirements

### Module 2: Describe the components and their interaction

### Module 3: Code and test the portion of the application

#### Lessons

- Orders meals for a flight
- Provides flight status to the customer
- Generates a flight control report for administrators
- Assigns a pilot to a flight
- Assigns a departure gate to a flight
- Registers the performance of a plane safety check
- Calculates fuel needed and places the order

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