

Developing Event-Driven Applications with Apache Kafka and Red Hat AMQ Streams

Duration: 3 Days Course Code: AD482 Version: 1.8

Overview:

Develop, scale, and troubleshoot event-driven microservice applications.

Learn to use Kafka and AMQ Streams to design, develop, and test event-driven applications. Event-driven microservices scale globally, store and stream process data, and provide low-latency feedback to customers.

With event-driven applications using Kafka and AMQ Streams, organizations can expect to be able to globally scale their applications, store and stream process data, and provide feedback to customers with extremely low latency.

Students will understand the architecture of Kafka and AMQ Streams and will be able to identify proper use cases for event-driven applications. In addition to learning the fundamental principles and features of Kafka and AMQ Streams, Students will learn how to design, develop, and test event-driven applications.

This course is for application developers and is based on Red Hat AMQ Streams 1.8 and Red Hat OpenShift Container Platform 4.6.

Note : Starting January 1, 2026, Red Hat introduces RHLS-Course — a flexible subscription model now included with this catalog offering. This replaces the previous direct virtual class enrollment from Global Knowledge.

When you purchase this item, you'll receive an RHLS subscription at the course level, giving you the freedom to choose the schedule that works best and self-enroll in your selected class.

Your RHLS subscription includes:

- One live, instructor-led virtual session
- 12 months of self-paced learning access
- One certification exam with a free retake

Onsite Classroom-based sessions and closed course options remain unchanged.

Updated Jan2026

Target Audience:

Application developers with microservice development experience.

Objectives:

- After this course participants should be able to:
- Describe the basics of Kafka and its architecture.
- Develop applications with the Kafka Streams API.
- Integrate applications with Kafka Connect.
- Capture data change with Debezium.
- Troubleshoot common application streaming issues.

Prerequisites:

- Experience with microservice application development and design, such as Red Hat Cloud-native Microservices Development with Quarkus (DO378) or equivalent experience.

■ OpenShift experience is recommended, but not required.

Take Red Hat free assessment to gauge whether this offering is the best fit for your skills [Red Hat Skills Assessment](#)

- DO378 - Red Hat Cloud-native Microservices Development with Quarkus

Testing and Certification

- Red Hat Certified Specialist in Event-Driven Application Development exam (EX482)

Follow-on-Courses:

None

Content:

Designing Event-Driven Applications	Building Applications with the Streams API	Integrating Data Systems with Kafka Connect
Describe the principles of event-driven applications.	Leverage the Streams API to create data streaming applications.	Connect data systems and react to data changes using Kafka Connect and Debezium.
Introducing Kafka and AMQ Streams Concepts	Creating Asynchronous Services with Event Collaboration	Troubleshooting AMQ Streams Applications
Build applications with basic read-and-write messaging capabilities.	Create and migrate to asynchronous services using the event collaboration pattern.	Handle common problems in Kafka and AMQ Streams applications.

Additional Information:

Official course book provided to participants

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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