

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

Duration: 3 Days Course Code: AD482 Version: 1.8 Delivery Method: Virtual Learning

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

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

Application developers with microservice development experience.

Objectives:

- After this course participants should be able to:
 - Integrate applications with Kafka Connect.
 - Describe the basics of Kafka and its architecture.
 - Capture data change with Debezium.
 - Develop applications with the Kafka Streams API.
 - 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 00 20 (0) 2 2269 1982 or 16142

training@globalknowledge.com.eg

www.globalknowledge.com/en-eg/

Global Knowledge, 16 Moustafa Refaat St. Block 1137, Sheraton Buildings, Heliopolis, Cairo