Confluent Certified Developer for Apache Kafka Certification Examination

Introduction

This examination is based upon the most critical job activities that a Confluent Developer performs. The skills and knowledge certified by this examination represent a level of expertise where a Certified Developer can publish data to and subscribe to data from an Apache Kafka® cluster. The individual taking this exam should understand the role of Kafka in the modern data distribution pipeline and be able to discuss core Kafka architectural concepts.

The test specification is intended to address the knowledge and skill areas that demonstrate proficiency as a Confluent Developer. The basic knowledge and skills required at this level should include all of the following areas and objective components below. The knowledge level can be defined as having:

Product Knowledge:

- A minimum of 6-12 months hands-on experience using Confluent products.
- Conceptual knowledge of building applications
- Understanding of network technologies as they relate to Confluent products
- Understanding of Kafka Producer applications
- Understanding of Kafka Consumer applications
- Understanding of Kafka Streams applications
- Capable of Developing KSQL queries
- Define Avro schemas for message data formats and register them in the Schema Registry
- Ability to Integrate Kafka with external data systems using Kafka Connect

General IT Knowledge:

- Attendees should be familiar with developing in Java, Python, and/or using RESTful interfaces (you will not be expected to code in the exam)
- Working knowledge of Linux/Unix
- Understanding of network technologies
- In-depth knowledge of at least 1 programming language (Ex. Java, C#, Python, Go)
- Knowledge of the principles of distributed systems technology, fault tolerance and high availability
- Practical experience with stream processing, using a technology like Kafka Streams, Java Streams, Spark Streaming, etc.

These training courses or other equivalent methodologies may assist in exam preparation:

- Developing with Confluent (3-day Instructor led-training class)
  https://www.confluent.io/training/confluent-developer-training/

- https://www.confluent.io/resources/

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The skills and knowledge measured by this examination are derived from current course content and from an understanding of the jobs of current Confluent Developers.

Note: This examination blueprint includes weighting, test objectives, and example content. Example topics and concepts are included to clarify the test objectives; they should not be construed as a comprehensive listing of all of the content of this examination.

The table below lists the domains measured by this examination and the extent to which they are represented.

Domain	% Of Examination
1.0 Application Design	40 %
2.0 Development	30 %
3.0 Deployment/Testing/Monitoring	30 %
Total	100.00%

Response Limits

The examinee selects, from four (4) or more response options, the option(s) that best completes the statement or answers the question. Distracters or wrong answers are response options that examinees with incomplete knowledge or skill would likely choose but are generally plausible responses fitting into the content area defined by the test objective.

Test item formats used in this examination are (see sample question below):

Multiple-choice: The examinee selects one option that best answers the question or completes a statement. The option can be embedded in a graphic where the examinee "points and clicks" on their selection choice to complete the test item.

Multiple-response: The examinee selects more than one option that best answers the question or completes a statement.

Sample Directions: Read the statement or question and from the response options, select only the option(s) that represent the most correct or best answer(s) given the information.

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Sample Question:

Which of the following secure communications is supported between the Confluent REST proxy and REST clients?

    a. SSL (HTTPS)
      b. MD5
      c. SCRAM
      d. Kerberos

Content Limits

Domain 1.0   Application Design – 40% of exam

Content may include the following:

Using Kafka's command line tools
pub/sub and streaming, and overall Apache Kafka architecture and design
Apache Kafka API, configuration and metrics
Metadata design
Systems metrics

Domain 2.0 Development – 30% of exam

Content may include the following:

Programmatically Accessing Kafka
Writing a Producer in Java
Using the REST API to Write a Producer
Writing a Consumer in Java
Using the REST API to Write a Consumer

Domain 3.0   Deployment/Testing – 30% of exam

Content may include the following:

Recognize & implement secure procedures for deployment & testing
Monitor and troubleshoot clients
Tune clients as necessary (e.g. performance, throughput, latency)
Developing and testing Kafka Streams applications
Developing and testing Confluent KSQL applications