

Lab 04 - Kafka

Lab 04

Guide

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Overview

Tmux session with every needed program running.

```
(0) - 0: 9 windows (attached)
(1) |> 0: vim (1 panes) "ip-172-31-83-245"
(2) |> 1: zookeeper* (1 panes) "ip-172-31-83-245"
(3) |> 2: kafka (1 panes) "ip-172-31-83-245"
(4) |> 3: topics (1 panes) "ip-172-31-83-245"
(5) |> 4: producer (1 panes) "ip-172-31-83-245"
(6) |> 5: consumer-with-history (1 panes) "ip-172-31-83-245"
(7) |> 6: consumer-without-history (1 panes) "ip-172-31-83-245"
(8) |> 7: python-consumer- (1 panes) "ip-172-31-83-245"
(9) |> 8: python-producer (1 panes) "ip-172-31-83-245"
```

Kafka

1. Topics:

```
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-topics.sh --create --zookeeper
localhost:2181 --replication-factor 1 --partitions 1 --topic sample-topic
Created topic sample-topic.
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-topics.sh --list --zookeeper localhost:2181
__consumer_offsets
sample-topic
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-topics.sh --delete --zookeeper localhost:2181 --topic sample-topic
Topic sample-topic is marked for deletion.
Note: This will have no impact if delete.topic.enable is not set to true.
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-topics.sh --create --zookeeper localhost:2181 --replication-factor 1 --partitions 1 --topic sample-topic
Created topic sample-topic.
```

2. Producers

```
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-console-producer.sh --broker-list localhost:9092 --topic sample-topic config/zookeeper.properties
>Hello World from producer on sample-topic
>Second Message on sample-topic
```

3. Consumers with history:

```
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic sample-topic --from-beginning
Hello World from producer on sample-topic
Second Message on sample-topic
Hello, World!
This is Kafka-Python
^CProcessed a total of 4 messages

ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic sample-topic --from-beginning
Hello World from producer on sample-topic
Second Message on sample-topic
Hello, World!
This is Kafka-Python
|
```

4. Consumer without history:

```
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic sample-topic
Hello World from producer on sample-topic
Second Message on sample-topic
Hello, World!
This is Kafka-Python
^CProcessed a total of 4 messages
ubuntu@ip-172-31-83-245:~/kafka_2.12-2.8.0$ ./bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic sample-topic
|
```

5. Python Consumer

```
ubuntu@ip-172-31-83-245:~$ python2 kafka-consumer-localhost.py
ConsumerRecord(topic='sample-topic', partition=0, offset=1, timestamp=1635292633772, timestamp_type=0, key=None, value='Second Message on sample-topic', checksum=1384076656, serialized_key_size=-1, serialized_value_size=30)
ConsumerRecord(topic='sample-topic', partition=0, offset=2, timestamp=1635292725483, timestamp_type=0, key=None, value='Hello, World!', checksum=1385836785, serialized_key_size=-1, serialized_value_size=13)
ConsumerRecord(topic='sample-topic', partition=0, offset=3, timestamp=1635292725483, timestamp_type=0, key='message-three', value='This is Kafka-Python', checksum=474121668, serialized_key_size=13, serialized_value_size=20)
```

6. Python Producer

```
ubuntu@ip-172-31-83-245:~$ python2 kafka-producer-localhost.py
Sent Message: 'Hello, World!'
```