<https://www.udemy.com/course/introduction-to-kafka-with-spring-boot>

## 1. Install Kafka in WSL

* Download package to /home/dxu/apps
* mkdir kafka and extract kafka\_2.13-3.7.0.tgz to this folder

> tar -xvf ../kafka\_2.13-3.7.0.tgz

* Set cluster id

> cd kafka\_2.13-3.7.0

> KAFKA\_CLUSTER\_ID="$(bin/kafka-storage.sh random-uuid)"

> echo $KAFKA\_CLUSTER\_ID

* Format logs

> bin/kafka-storage.sh format -t $KAFKA\_CLUSTER\_ID -c config/kraft/server.properties



* Start Kafka Server

> bin/kafka-server-start.sh config/kraft/server.properties

* Shut down Kafka Server

> bin/kafka-server-stop.sh

## 2. Send and Receive Message

### 2.1 Receive

> bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic my.first.topic

### 2.2 Send

> bin/kafka-console-producer.sh --bootstrap-server localhost:9092 --topic my.first.topic

> >my first message

## 3. Topic CLI Tools

### 3.1 List Topics

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --list

### 3.2 Create Topic

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --create --topic my.new.topic

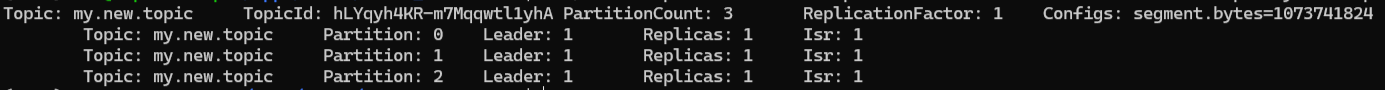
### 3.3 Show Information of a Topic

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --describe --topic my.new.topic



### 3.4 Update a Topic

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --alter --topic my.new.topic --partitions 3

Now if show the topic information again, it shows:  


### 3.5 Delete a Topic

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --delete --topic my.new.topic

## 3. Consumer Group CLI Tools

> bin/kafka-topics.sh --bootstrap-server localhost:9092 --create --topic cg.demo.topic --partitions 5

### 3.1 List Consumer Groups

> bin/kafka-consumer-groups.sh --bootstrap-server localhost:9092 –list

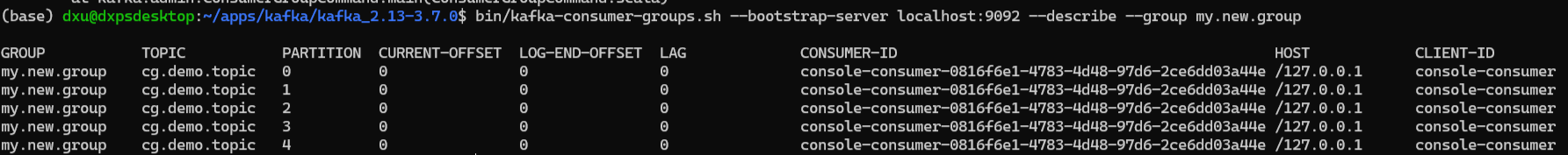
### 3.2 Set Consumer Group for a Topic

> bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic cg.demo.topic --group my.new.group

List consumer groups again to check the new consumer group “my.new.group”

### 3.3 Show Consumer Group Info

> bin/kafka-consumer-groups.sh --bootstrap-server localhost:9092 --describe --group my.new.group



### 3.4 Check Consumer Group State

> bin/kafka-consumer-groups.sh --bootstrap-server localhost:9092 --describe --group my.new.group --state



3.5 Show Members of a Consumer Group

> bin/kafka-consumer-groups.sh --bootstrap-server localhost:9092 --describe --group my.new.group –members



## 4. Coding Kafka with Spring Boot

### 4.1 Consumer

Create microservice “dispatch”. Commit #2

https://github.com/freeever/spring-kafka-intro

Start DispatchApplication

Start Kafka Server at 9092

Send message(s) to Kafka topic “order.created”.

**Result:**

The KafkaListener in the Spring Boot application consumes the message, and print in the console:  


### 4.2 JSON Deserializer and Error Handling