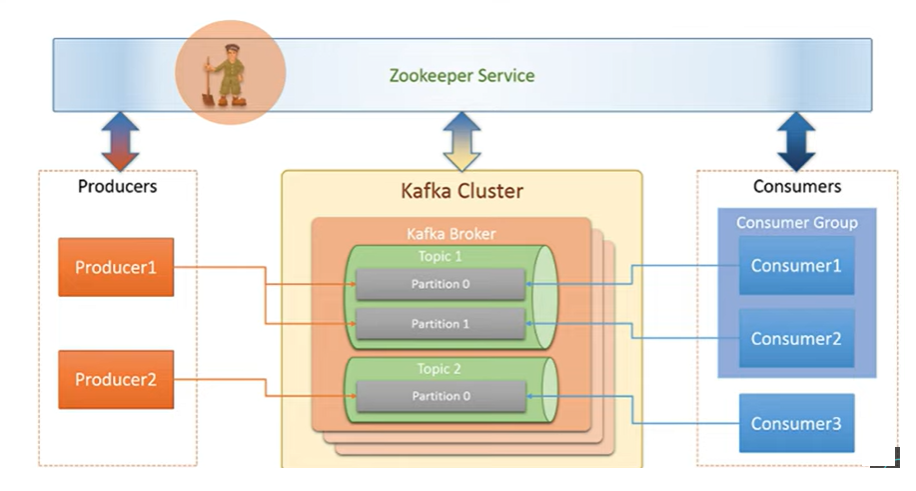
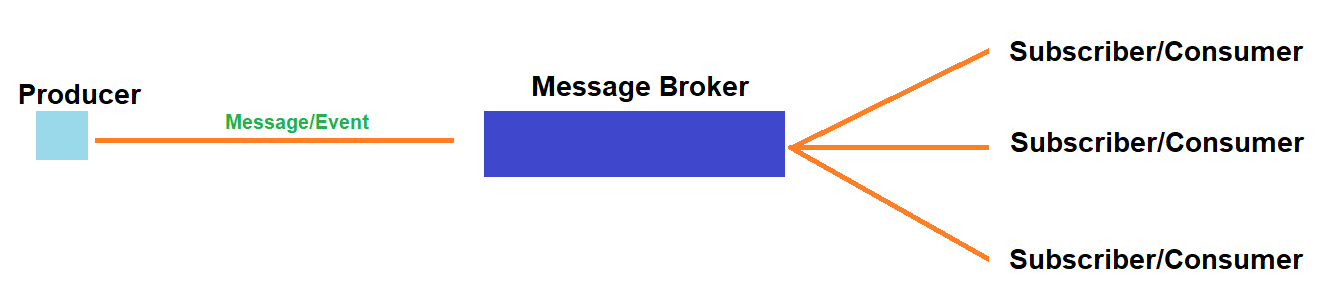
KAFKA



Kafka is distributed open source event streaming platform.

Zookeeper is a prerequisites for Kafka.

Kafka is a pub/sub messaging system.



Major components KFKA.

Producer,Consumer, Broker,Cluster,Topic,Partitions,Offset,Consumer groups,Zookeeper.

**Broker**

Kafka server.

**Cluster**

Collection of kafka services.

**Topic**

Used to To categories different type of messages(category of messages).

Ex:

Order Processing Message - Order-Process-Topic

Email Sending Message - Email-Process-Topic

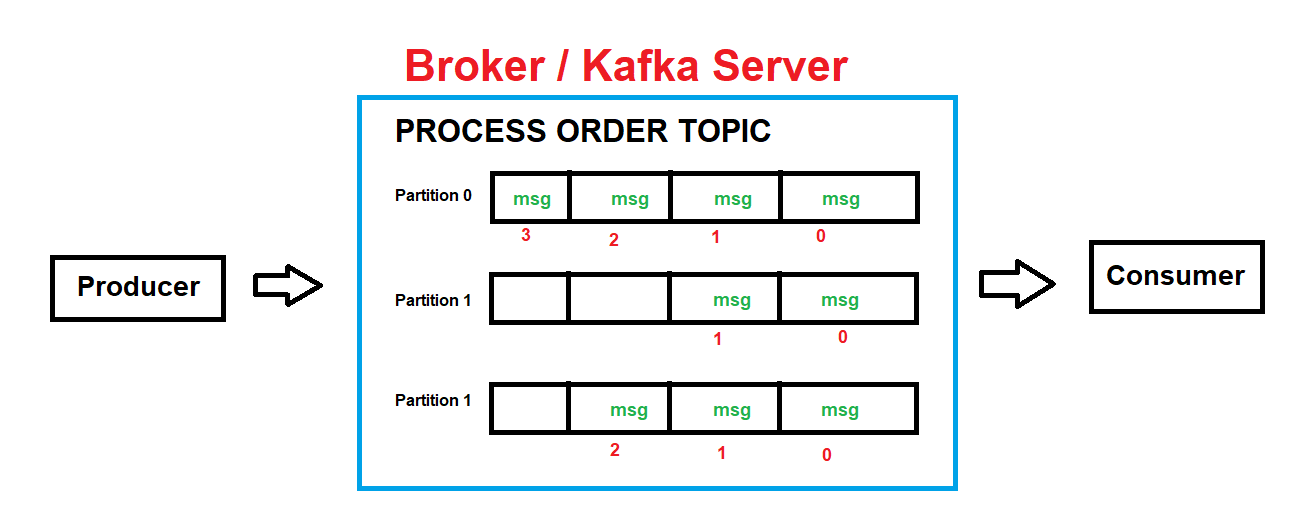
**Partition**

Ithaa wishaala messages tikak topic ekata enwanm eka handle kraganna baaa topic ekata wagema e messages consumerta handle krnnath baa..eka nisa topic eka athule partition kadawla mesaage ewata bedala e e partition wlain consumersta ta data ganna puluwan(Consumers la wadi krnnath puluwan).

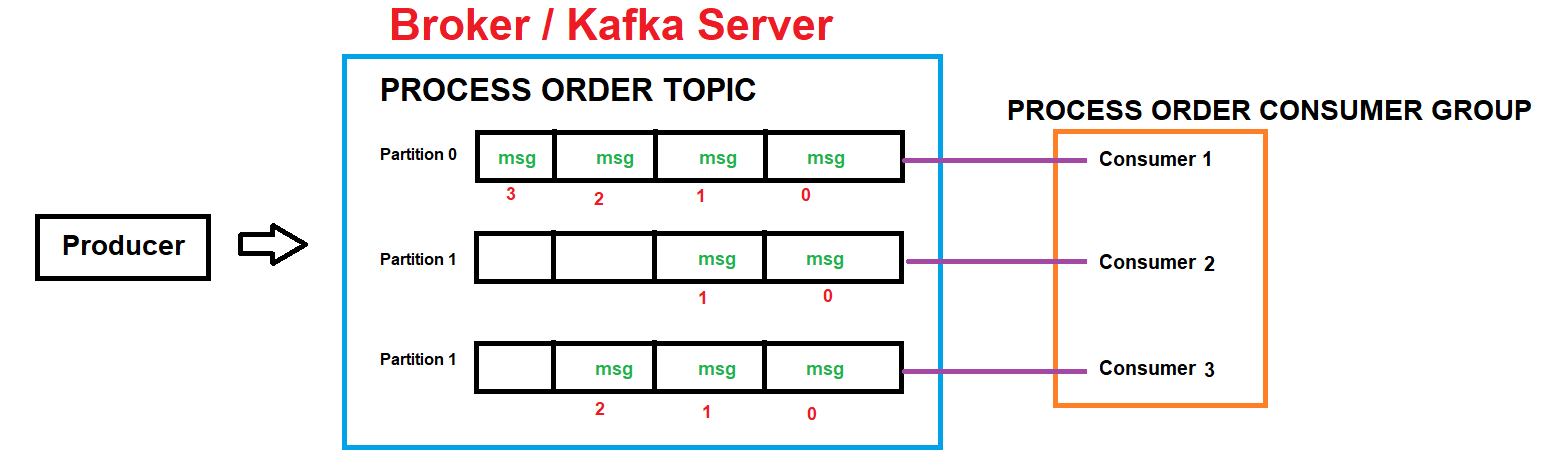
**OffSet**

Partition wlata message watunama e e message ekata number ekak assign wenwa.eka help wenwa consumerta ilata denna one message eka mokadda kiyla tirnwa krnna.Cosumer down wela app weddi ehema consumer ilagata ganna one moan amessage ekadda kiyala tiranaya krana puluwa wenne otnakots thma.

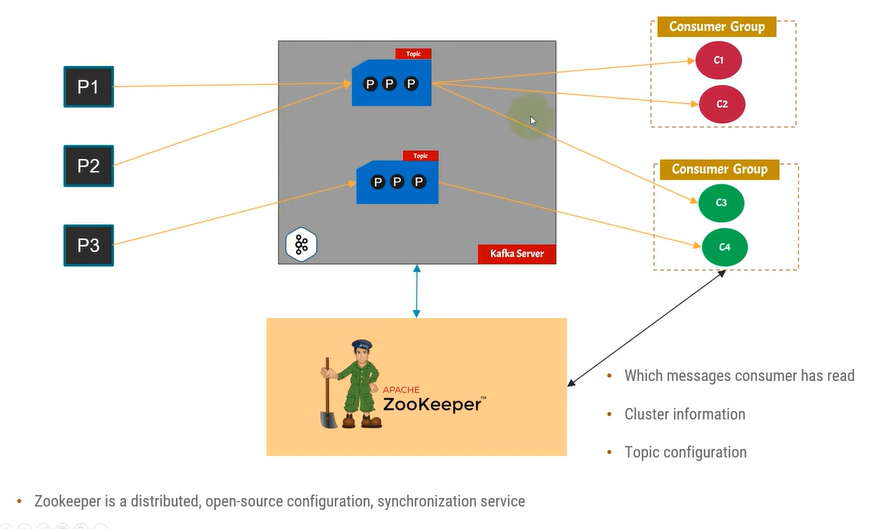
In Kafka, a sequence number is assigned to each message in each partition of a Kafka topic.This sequence number I called Offset.



**Consumer groups**



**Architecture**

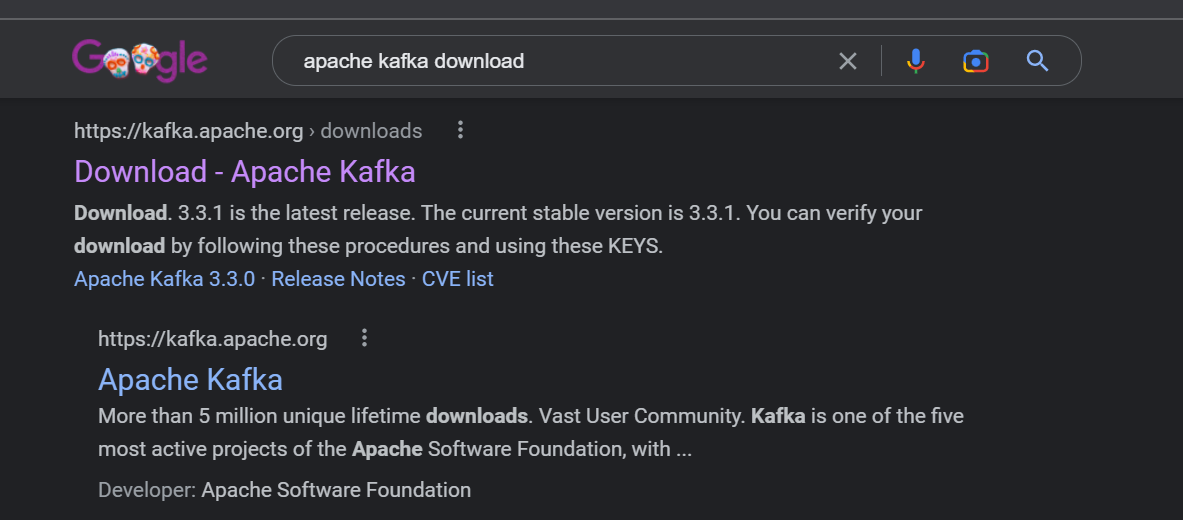


Zookeeper thama configuration handle kranne eka tama…

We have multiple groups topics etc.all the data are store in zookeeper.

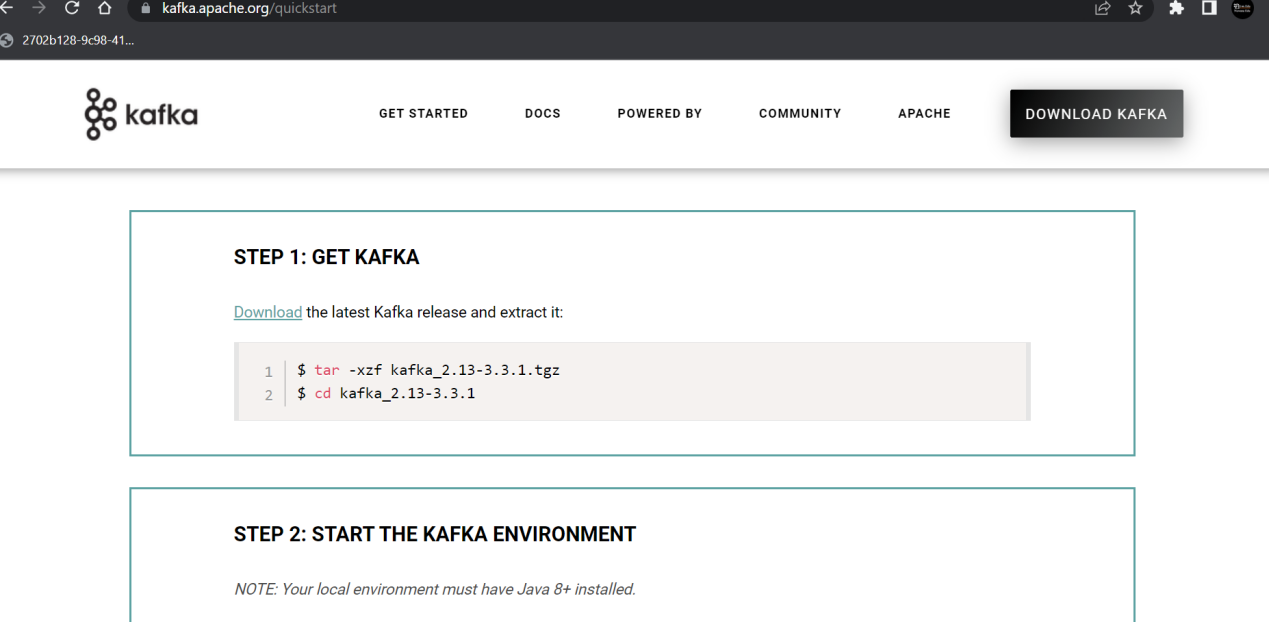
Ex.Consumers la read kala message count tiyagena inna puluwan.Kafka CLustoers wlata informations tiyan innet meke(IPs,CPU,RAM,PArtition etc.).Topic ekak,partition ekak kafka walta add unoth eka zookeeper ta yanwa, zookeeper eka consumerslata kiynwa wagenama consumer deyak akalth eka zookeeper ta ynwa eka kafka walata yanwa.

Install Kafka and Zookeeper

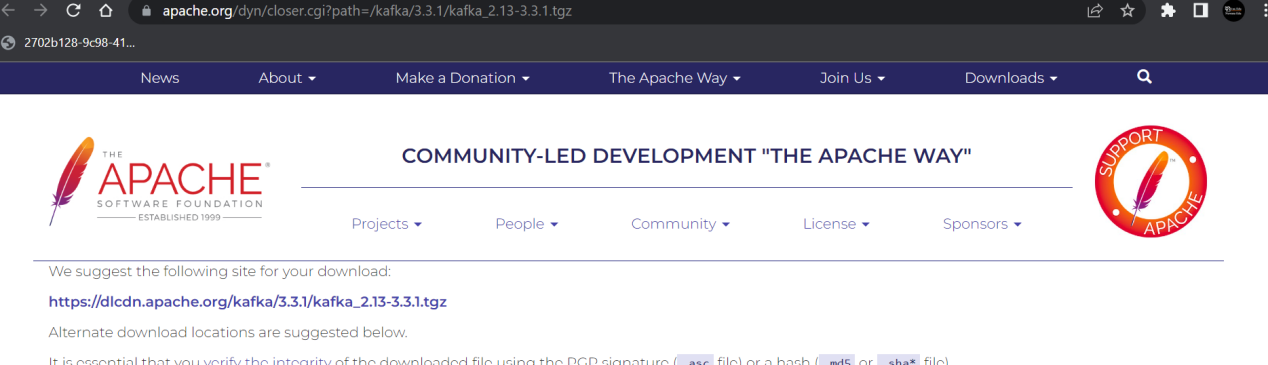


<https://kafka.apache.org/downloads>

GetStart - QuickStart



Download



**01.DOWNLOAD AND EXTRACT**

*Note : Java 8 is needed.*

<https://kafka.apache.org/downloads>

After extracting the file then got to bin folder

(In my machine C:\kafka\_2.13-3.3.1).

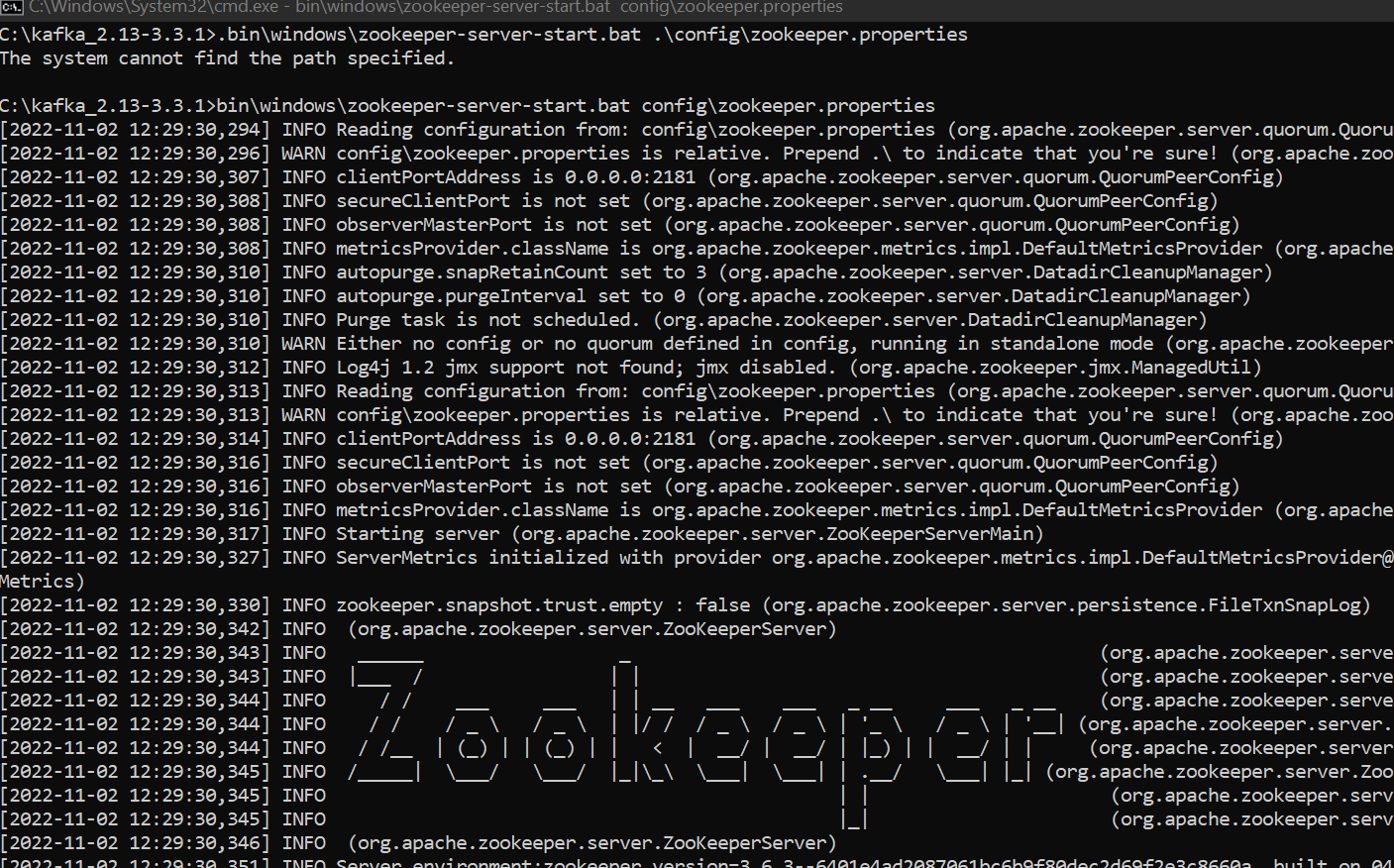
Open CMD and and run bellow command to run zookeeper and kafka.

**02.START THE KAFKA ENVIRONMENT**

*# Start the ZooKeeper service*

Run bellow command in CMD.

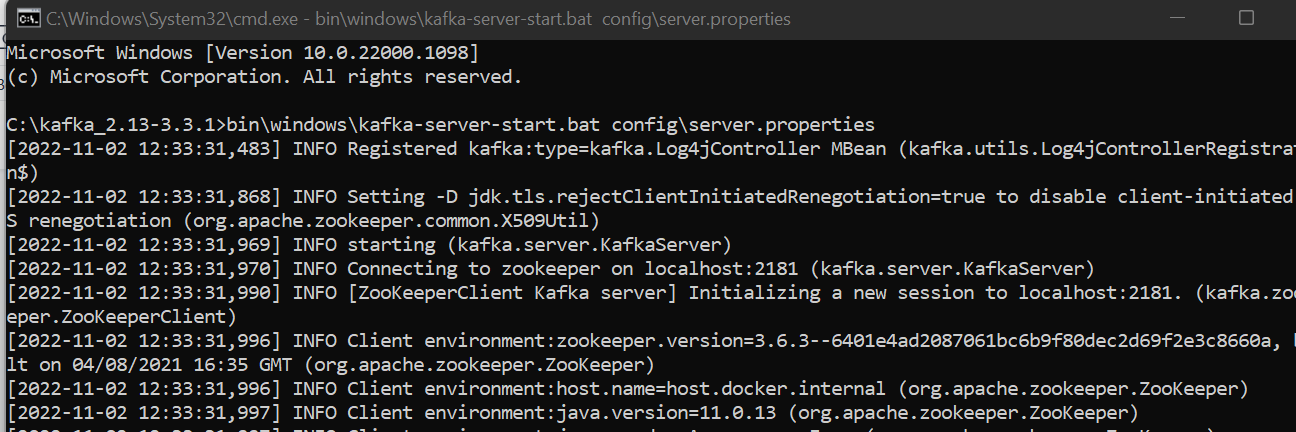
bin\windows\zookeeper-server-start.bat config\zookeeper.properties



*# Start the Kafka broker service*

Run bellow command in CMD.

bin\windows\kafka-server-start.bat config\server.properties



Zookeeper default port : 2181

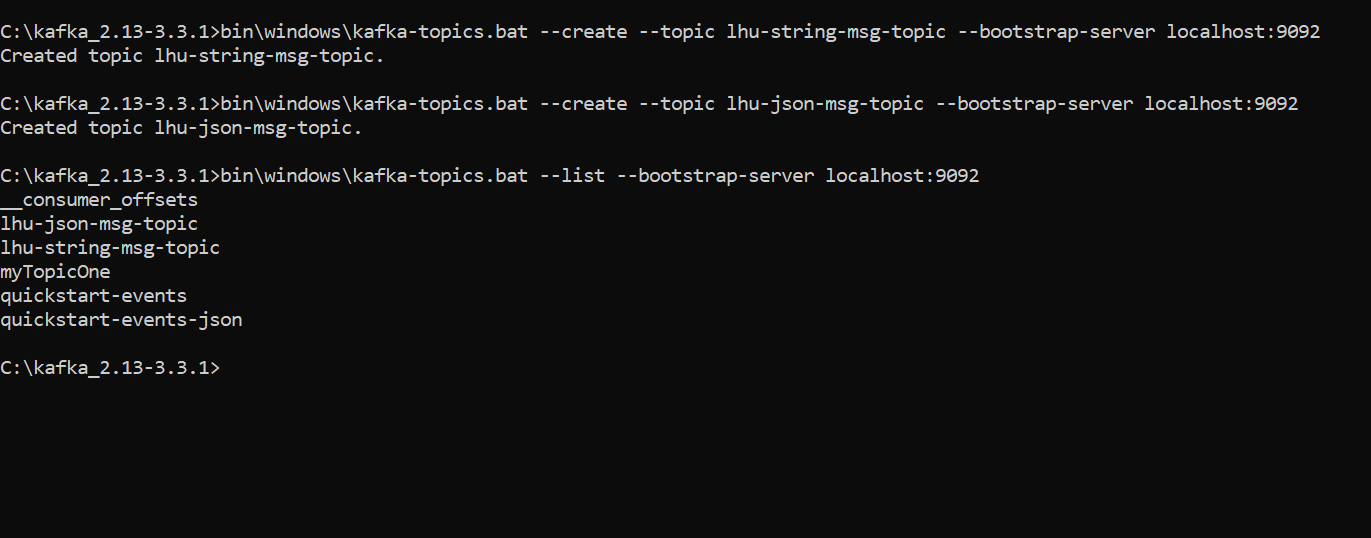
Broker default port : 9091

Kafka default port : 9092

**03. CREATE A TOPIC TO STORE YOUR EVENTS**

bin\windows\kafka-topics.bat --create --topic topicName --bootstrap-server localhost:9092

bin\windows\kafka-topics.bat --list --bootstrap-server localhost:9092



**04.WRITE SOME EVENTS INTO THE TOPIC (ctl+c)**

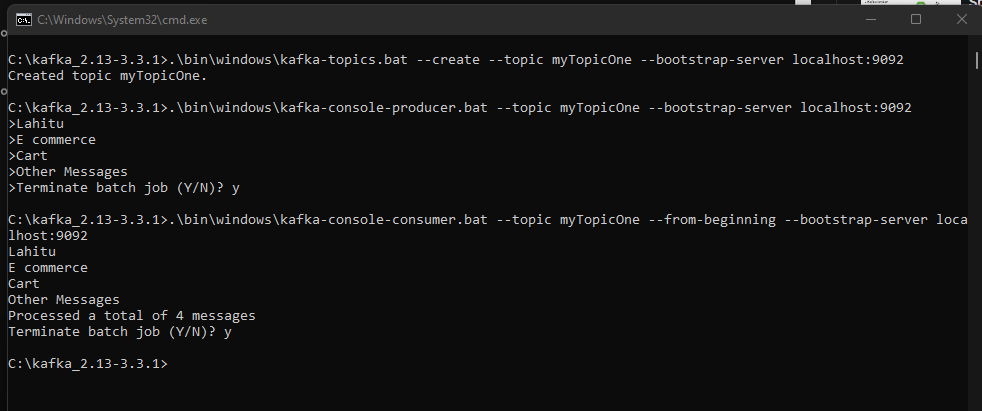
bin\windows\kafka-console-producer.bat --topic topicName --bootstrap-server localhost:9092

**05.READ THE EVENTS**

bin\windows\kafka-console-consumer.bat --topic topicName --from-beginning --bootstrap-server localhost:9092

hello world

topic demo



Code Example -

01.Producer

