

DSE 6300 – Kafka

Executed the following statement:

```
$ zookeeper-server start
```

```
JMX enabled by default
Using config: /etc/zookeeper/conf/zoo.cfg
Starting zookeeper ... STARTED
```

I used Zookeeper because **attempting later steps without Zookeeper resulted in errors such as the following:**

```
Missing required argument "[zookeeper]"
```

It was not possible to run kafka-topics or kafka-console-producer etc. commands without zookeeper.

Create topic 'dse' to test, with only one partition and only one replica:

```
$ kafka-server-start
$ /opt/cloudera/parcels/KAFKA/bin/kafka-topics --create --zookeeper
quickstart.cloudera:2181 --replication-factor 1 --partitions 1 --topic dse
```

```
$ /opt/cloudera/parcels/KAFKA/bin/kafka-topics --create --zookeeper quickstart.cloudera:2181 --replica
ns 1 --topic dse
zkclient.ZkEventThread: Starting ZkClient event thread.
zookeeper.ZooKeeper: Client environment:zookeeper.version=3.4.5-cdh5.14.2--1, built on 03/27/2018 20:39

zookeeper.ZooKeeper: Client environment:host.name=quickstart.cloudera
zookeeper.ZooKeeper: Client environment:java.version=1.7.0_67
zookeeper.ZooKeeper: Client environment:java.vendor=Oracle Corporation
zookeeper.ZooKeeper: Client environment:java.home=/usr/java/jdk1.7.0_67-cloudera/jre
zookeeper.ZooKeeper: Client environment:java.class.path=/opt/cloudera/parcels/KAFKA-3.1.1-1.3.1.1.p0.2
./libs/activation-1.1.jar:/opt/cloudera/parcels/KAFKA-3.1.1-1.3.1.1.p0.2/bin/./lib/kafka/bin/./libs/a
/cloudera/parcels/KAFKA-3.1.1-1.3.1.1.p0.2/bin/./lib/kafka/bin/./libs/aopalliance-renpackaged-2.5.0-b3
...
./libs/zkclient-0.10.jar:/opt/cloudera/parcels/KAFKA-3.1.1-1.3.1.1.p0.2/bin/./lib/kafka/bin/./libs/zookee
2.jar:/etc/kafka/conf/sentry-conf
INFO zookeeper.ZooKeeper: Client environment:java.library.path=/usr/java/packages/lib/amd64:/usr/lib64:/lib6
INFO zookeeper.ZooKeeper: Client environment:java.io.tmpdir=/tmp
INFO zookeeper.ZooKeeper: Client environment:java.compiler=<NA>
INFO zookeeper.ZooKeeper: Client environment:os.name=Linux
INFO zookeeper.ZooKeeper: Client environment:os.arch=amd64
INFO zookeeper.ZooKeeper: Client environment:os.version=2.6.32-754.11.1.el6.x86_64
INFO zookeeper.ZooKeeper: Client environment:user.name=cloudera
INFO zookeeper.ZooKeeper: Client environment:user.home=/home/cloudera
INFO zookeeper.ZooKeeper: Client environment:user.dir=/home/cloudera
INFO zookeeper.ZooKeeper: Initiating client connection, connectString=quickstart.cloudera:2181 sessionTimeou
g.I0Itec.zkclient.ZkClient@367e5959
INFO zookeeper.ClientCnxn: Opening socket connection to server quickstart.cloudera/127.0.0.1:2181. Will not
ticate using SASL (unknown error)
INFO zkclient.ZkClient: Waiting for keeper state SyncConnected
INFO zookeeper.ClientCnxn: Socket connection established, initiating session, client: /127.0.0.1:55568, serv
udera/127.0.0.1:2181
INFO zookeeper.ClientCnxn: Session establishment complete on server quickstart.cloudera/127.0.0.1:2181, sess
7be179b, negotiated timeout = 30000
INFO zkclient.ZkClient: zookeeper state changed (SyncConnected)
INFO admin.AdminUtils$: Topic creation {"version":1,"partitions":{"0":[34]}}
$.
INFO zkclient.ZkEventThread: Terminate ZkClient event thread.
INFO zookeeper.ClientCnxn: EventThread shut down
INFO zookeeper.ZooKeeper: Session: 0x169bb3727be179b closed
```

Try listing topics:

```
$ kafka-topics --list --zookeeper quickstart.cloudera:2181
```

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Response: successfully listed topics

```
INFO zkclient.ZkClient: zookeeper state changed (SyncConnected)
dse
test
INFO zkclient.ZkEventThread: Terminate ZkClient event thread.
INFO zookeeper.ZooKeeper: Session: 0x169bb3727be185a closed
INFO zookeeper.ClientCnxn: EventThread shut down
```

Create new producer that generates a message in the topic:

```
$ /opt/cloudera/parcels/KAFFKA/bin/kafka-console-producer --broker-list
quickstart.cloudera:9092 --topic dse
```

```
$ /opt/cloudera/parcels/KAFFKA/bin/kafka-console-producer --broker-list quickstart.cloudera:9092 --topic
producer.ProducerConfig: ProducerConfig values:
384
rs = [quickstart.cloudera:9092]
33554432
sole-producer
e = none
.idle.ms = 540000
nce = false
sses = null
= class org.apache.kafka.common.serialization.ByteArraySerializer
0
60000
equests.per.connection = 5
e = 1048576
e.ms = 300000
s = []
ples = 2
ng.level = INFO
window.ms = 30000
ss = class org.apache.kafka.clients.producer.internals.DefaultPartitioner
bytes = 32768
ff.max.ms = 1000
ff.ms = 50
.ms = 1500

s = 100
g = null
init.cmd = /usr/bin/kinit
in.time.before.relogin = 60000
ervice.name = null
icket.renew.jitter = 0.05
icket.renew.window.factor = 0.8
= GSSAPI
ol = PLAINTEXT
es = 102400
es = null
tocols = [TLSv1.2, TLSv1.1, TLSv1]
entification.algorithm = null
d = null
algorithm = SunX509
cation = null
ssword = null
pe = JKS
TLS
null
om.implementation = null
r.algorithm = PKIX
location = null
password = null
type = JKS
```

...

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```
ssl.truststore.type = JKS
transaction.timeout.ms = 60000
transactional.id = null
value.serializer = class org.apache.kafka.common.serialization.ByteArraySerializer
```

```
INFO utils.AppInfoParser: Kafka version : 1.0.1-kafka-3.1.1
INFO utils.AppInfoParser: Kafka commitId : unknown
```

Enter messages:

```
INFO utils.AppInfoParser: Kafka commitId : unknown
```

```
>first dse test message
>second dse test message>
```

End:

```
INFO producer.KafkaProducer: [Producer clientId=console-producer] Closing the Kafka producer with timeoutMi
4775807 ms.
```

Collect and display in the consumer again:

```
$ kafka-console-consumer --zookeeper quickstart.cloudera:2181 --topic dse --
from-beginning
```

```
9092) with correlation id 0 for 1 topic(s) Set(dse)
19/03/27 14:41:57 INFO producer.SyncProducer: Connected to quickstart.cloudera:9092 for producing
19/03/27 14:41:57 INFO producer.SyncProducer: Disconnecting from quickstart.cloudera:9092
19/03/27 14:41:57 INFO consumer.ConsumerFetcherThread: [ConsumerFetcherThread-console-consumer-91884_quickstart.
cloudera-1553722916115-a0e1452b-0-34]: Starting
19/03/27 14:41:57 INFO consumer.ConsumerFetcherManager: [ConsumerFetcherManager-1553722916152] Added fetcher for
partitions ArrayBuffer([dse-0, initOffset -1 to broker BrokerEndPoint(34,quickstart.cloudera,9092)]) )
first dse test message
second dse test message
```

These messages were retrieved the next day (3/27) because I forgot to do it initially – but they were still there.