ASSIGNMENT KAFKA -1

PROBLEM STATEMENT:

Task 1: Create a kafka topic named KeyLessTopic. Inside KeyLessTopic insert following data:

```
{"name":"John", "exp":16}
{"name":"Finn", "exp":20}
{"name":"Cylin", "exp":18}
{"name":"Mark", "exp":2}
{"name":"Akshay", "exp":14}
```

Task 2: Create a console consumer that reads KeyLessTopic from beginning

Task 3: Create a kafka topic named KeyedTopic. Inside KeyedTopic insert following data:

The part before comma(,) should be treated as key and after comma(,) should be treated as value
```
{"name":"John"},{"exp":16}
{"name":"Finn"},{"exp":20}
{"name":"Cylin"},{"exp":18}
{"name":"Mark"},{"exp":2}
{"name":"Akshay"},{"exp":14}
```

Task 4: Create a console consumer that reads KeyedTopic from beginning. The key and value should be separated by '-'

EXPLANATION: TO START WITH THE KAFKA WE NEED TO START THE FOLLOWING:

1)ZOOKEEPER SERVER: TO START ZOOKEEPER WE NEED TO GO INTO ZOOKEEPER BIN FOLDER WHERE THE NECESSARY FILES ARE PRESENT FOR STARTING THE ZOOKEEPER. SO WE NEED TO CHANGE THE DIRECTORY TO "cd $ZOOKEEPER_HOME". THEN GO TO BIN FOLDER "cd bin". THEN ENTER BELOW:-

CODE: zkServer.sh start

2) KAFKA SERVER "BROKER": NOW WE NEED TO CHANGE DIRECTORY TO KAFKA BY "cd $KAFKA_HOME" THEN GO TO BIN FOLDER "cd bin". THEN ENTER BELOW CODE:

CODE: kafka-server-start.sh

3) WE CAN CHECK THE ZOOKEEPER AND KAFKA SERVER RUNNING BY ENTERING:-

CODE: jps

EXPLANATION: AFTER STARING ALL THE NECESSARY SERVERS WE NEED TO:-

1) CREATE A KAFKA TOPIC BY ENTERING FOLLOWING CODE. HERE WE CREATED TOPIC AS "KeyLessTopic". HERE WE ARE ALSO CREATING A REPLICA OF THE TOPIC CREATED.

CODE: kafka-topics.sh --create --topic KeyLessTopic --zookeeper localhost:2181 --partitions 1 --replication-factor 1

2) THEN WE NEED ARE ENTERING SOME DATA INTO IT. SHOW PRODUCERS ARE THE ONE WHICH CREATES A MESSAGE

CODE: kafka-console-producer.sh --broker-list localhost:9092 --topic KeyLessTopic

3) THEN TO READ THE MESSAGE OR TO SEE WHAT WE HAVE ENTERED WE NEED TO CALL THE CONSUMERS. THESE ARE THE ONES WHICH READS THE MESSAGE FROM KAFKA SERVER:-

**CODE: kafka-console-consumer.sh --topic KeyLessTopic --from-beginning \
> --zookeeper localhost:2181 \
> --property print.key=true**

EXPLANATION: FOR THE TOPIC "KeyedTopic" WE DID THE ABOVE STEPS AND DISPLAYED IN THE CONSOLE.

SOLUTION REPORT:
```
[acadgild@localhost kafka_2.12-0.10.1.1]$ cd $ZOOKEEPER_HOME
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost zookeeper-3.4.10]$ ls
bin         docs              NOTICE.txt            zookeeper-3.4.10.jar
build.xml   ivysettings.xml   README_packaging.txt
zookeeper-3.4.10.jar.asc
conf        ivy.xml           README.txt
zookeeper-3.4.10.jar.md5
contrib     lib               recipes
zookeeper-3.4.10.jar.sha1
dist-maven  LICENSE.txt       src
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost zookeeper-3.4.10]$ cd bin
[acadgild@localhost bin]$ zkServer.sh start
ZooKeeper JMX enabled by default
Using config:
/home/acadgild/install/zookeeper/zookeeper-3.4.10/bin/../conf/zoo.cfg
Starting zookeeper ... STARTED
[acadgild@localhost bin]$ jps
3880 Jps
3805 QuorumPeerMain
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost ~]$ cd $KAFKA_HOME
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost kafka_2.12-0.10.1.1]$ cd bin
[acadgild@localhost bin]$ kafka-server-start.sh
USAGE:
/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/kafka-server-start
.sh [-daemon] server.properties [--override property=value]*
[acadgild@localhost bin]$ kafka-server-start.sh
./config/server.properties
[2019-02-27 20:37:47,538] FATAL  (kafka.Kafka$)
```

```
java.io.FileNotFoundException: ./config/server.properties (No such file
or directory)
      at java.io.FileInputStream.open0(Native Method)
      at java.io.FileInputStream.open(FileInputStream.java:195)
      at java.io.FileInputStream.<init>(FileInputStream.java:138)
      at java.io.FileInputStream.<init>(FileInputStream.java:93)
      at org.apache.kafka.common.utils.Utils.loadProps(Utils.java:446)
      at kafka.Kafka$.getPropsFromArgs(Kafka.scala:41)
      at kafka.Kafka$.main(Kafka.scala:57)
      at kafka.Kafka.main(Kafka.scala)
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost bin]$ kafka-server-start.sh
../config/server.properties
[2019-02-27 20:38:33,411] INFO KafkaConfig values:
      advertised.host.name = null
      advertised.listeners = null
      advertised.port = null
      authorizer.class.name =
      auto.create.topics.enable = true
      auto.leader.rebalance.enable = true
      background.threads = 10
      broker.id = 0
      broker.id.generation.enable = true
      broker.rack = null
      compression.type = producer
      connections.max.idle.ms = 600000
      controlled.shutdown.enable = true
      controlled.shutdown.max.retries = 3
      controlled.shutdown.retry.backoff.ms = 5000
      controller.socket.timeout.ms = 30000
      default.replication.factor = 1
      delete.topic.enable = false
      fetch.purgatory.purge.interval.requests = 1000
      group.max.session.timeout.ms = 300000
      group.min.session.timeout.ms = 6000
      host.name =
      inter.broker.protocol.version = 0.10.1-IV2
      leader.imbalance.check.interval.seconds = 300
      leader.imbalance.per.broker.percentage = 10
      listeners = null
      log.cleaner.backoff.ms = 15000
      log.cleaner.dedupe.buffer.size = 134217728
      log.cleaner.delete.retention.ms = 86400000
      log.cleaner.enable = true
      log.cleaner.io.buffer.load.factor = 0.9
      log.cleaner.io.buffer.size = 524288
      log.cleaner.io.max.bytes.per.second = 1.7976931348623157E308
      log.cleaner.min.cleanable.ratio = 0.5
      log.cleaner.min.compaction.lag.ms = 0
      log.cleaner.threads = 1
      log.cleanup.policy = [delete]
      log.dir = /tmp/kafka-logs
      log.dirs = /tmp/kafka-logs
```

```
log.flush.interval.messages = 9223372036854775807
log.flush.interval.ms = null
log.flush.offset.checkpoint.interval.ms = 60000
log.flush.scheduler.interval.ms = 9223372036854775807
log.index.interval.bytes = 4096
log.index.size.max.bytes = 10485760
log.message.format.version = 0.10.1-IV2
log.message.timestamp.difference.max.ms = 9223372036854775807
log.message.timestamp.type = CreateTime
log.preallocate = false
log.retention.bytes = -1
log.retention.check.interval.ms = 300000
log.retention.hours = 168
log.retention.minutes = null
log.retention.ms = null
log.roll.hours = 168
log.roll.jitter.hours = 0
log.roll.jitter.ms = null
log.roll.ms = null
log.segment.bytes = 1073741824
log.segment.delete.delay.ms = 60000
max.connections.per.ip = 2147483647
max.connections.per.ip.overrides =
message.max.bytes = 1000012
metric.reporters = []
metrics.num.samples = 2
metrics.sample.window.ms = 30000
min.insync.replicas = 1
num.io.threads = 8
num.network.threads = 3
num.partitions = 1
num.recovery.threads.per.data.dir = 1
num.replica.fetchers = 1
offset.metadata.max.bytes = 4096
offsets.commit.required.acks = -1
offsets.commit.timeout.ms = 5000
offsets.load.buffer.size = 5242880
offsets.retention.check.interval.ms = 600000
offsets.retention.minutes = 1440
offsets.topic.compression.codec = 0
offsets.topic.num.partitions = 50
offsets.topic.replication.factor = 3
offsets.topic.segment.bytes = 104857600
port = 9092
principal.builder.class = class
org.apache.kafka.common.security.auth.DefaultPrincipalBuilder
producer.purgatory.purge.interval.requests = 1000
queued.max.requests = 500
quota.consumer.default = 9223372036854775807
quota.producer.default = 9223372036854775807
quota.window.num = 11
quota.window.size.seconds = 1
replica.fetch.backoff.ms = 1000
```

```
        replica.fetch.max.bytes = 1048576
        replica.fetch.min.bytes = 1
        replica.fetch.response.max.bytes = 10485760
        replica.fetch.wait.max.ms = 500
        replica.high.watermark.checkpoint.interval.ms = 5000
        replica.lag.time.max.ms = 10000
        replica.socket.receive.buffer.bytes = 65536
        replica.socket.timeout.ms = 30000
        replication.quota.window.num = 11
        replication.quota.window.size.seconds = 1
        request.timeout.ms = 30000
        reserved.broker.max.id = 1000
        sasl.enabled.mechanisms = [GSSAPI]
        sasl.kerberos.kinit.cmd = /usr/bin/kinit
        sasl.kerberos.min.time.before.relogin = 60000
        sasl.kerberos.principal.to.local.rules = [DEFAULT]
        sasl.kerberos.service.name = null
        sasl.kerberos.ticket.renew.jitter = 0.05
        sasl.kerberos.ticket.renew.window.factor = 0.8
        sasl.mechanism.inter.broker.protocol = GSSAPI
        security.inter.broker.protocol = PLAINTEXT
        socket.receive.buffer.bytes = 102400
        socket.request.max.bytes = 104857600
        socket.send.buffer.bytes = 102400
        ssl.cipher.suites = null
        ssl.client.auth = none
        ssl.enabled.protocols = [TLSv1.2, TLSv1.1, TLSv1]
        ssl.endpoint.identification.algorithm = null
        ssl.key.password = null
        ssl.keymanager.algorithm = SunX509
        ssl.keystore.location = null
        ssl.keystore.password = null
        ssl.keystore.type = JKS
        ssl.protocol = TLS
        ssl.provider = null
        ssl.secure.random.implementation = null
        ssl.trustmanager.algorithm = PKIX
        ssl.truststore.location = null
        ssl.truststore.password = null
        ssl.truststore.type = JKS
        unclean.leader.election.enable = true
        zookeeper.connect = localhost:2181
        zookeeper.connection.timeout.ms = 6000
        zookeeper.session.timeout.ms = 6000
        zookeeper.set.acl = false
        zookeeper.sync.time.ms = 2000
 (kafka.server.KafkaConfig)
[2019-02-27 20:38:33,649] INFO starting (kafka.server.KafkaServer)
[2019-02-27 20:38:33,687] INFO [ThrottledRequestReaper-Fetch], Starting
(kafka.server.ClientQuotaManager$ThrottledRequestReaper)
[2019-02-27 20:38:33,690] INFO [ThrottledRequestReaper-Produce], Starting
(kafka.server.ClientQuotaManager$ThrottledRequestReaper)
[2019-02-27 20:38:33,713] INFO Connecting to zookeeper on localhost:2181
```

```
(kafka.server.KafkaServer)
[2019-02-27 20:38:33,744] INFO Starting ZkClient event thread.
(org.I0Itec.zkclient.ZkEventThread)
[2019-02-27 20:38:33,753] INFO Client
environment:zookeeper.version=3.4.8--1, built on 02/06/2016 03:18 GMT
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,753] INFO Client environment:host.name=localhost
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,753] INFO Client environment:java.version=1.8.0_151
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,753] INFO Client environment:java.vendor=Oracle
Corporation (org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,753] INFO Client
environment:java.home=/usr/java/jdk1.8.0_151/jre
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,754] INFO Client
environment:java.class.path=:/home/acadgild/install/kafka/kafka_2.12-0.
10.1.1/bin/../libs/aopalliance-repackaged-2.4.0-b34.jar:/home/acadgild/
install/kafka/kafka_2.12-0.10.1.1/bin/../libs/argparse4j-0.5.0.jar:/hom
e/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/connect-api-0.
10.1.1.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs
/connect-file-0.10.1.1.jar:/home/acadgild/install/kafka/kafka_2.12-0.10
.1.1/bin/../libs/connect-json-0.10.1.1.jar:/home/acadgild/install/kafka
/kafka_2.12-0.10.1.1/bin/../libs/connect-runtime-0.10.1.1.jar:/home/aca
dgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/guava-18.0.jar:/hom
e/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/hk2-api-2.4.0-
b34.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/hk
2-locator-2.4.0-b34.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.
1/bin/../libs/hk2-utils-2.4.0-b34.jar:/home/acadgild/install/kafka/kafk
a_2.12-0.10.1.1/bin/../libs/jackson-annotations-2.6.0.jar:/home/acadgil
d/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jackson-core-2.6.3.jar:
/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jackson-da
tabind-2.6.3.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/.
./libs/jackson-jaxrs-base-2.6.3.jar:/home/acadgild/install/kafka/kafka_
2.12-0.10.1.1/bin/../libs/jackson-jaxrs-json-provider-2.6.3.jar:/home/a
cadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jackson-module-ja
xb-annotations-2.6.3.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1
.1/bin/../libs/javassist-3.18.2-GA.jar:/home/acadgild/install/kafka/kaf
ka_2.12-0.10.1.1/bin/../libs/javax.annotation-api-1.2.jar:/home/acadgil
d/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/javax.inject-1.jar:/hom
e/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/javax.inject-2
.4.0-b34.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../li
bs/javax.servlet-api-3.1.0.jar:/home/acadgild/install/kafka/kafka_2.12-
0.10.1.1/bin/../libs/javax.ws.rs-api-2.0.1.jar:/home/acadgild/install/k
afka/kafka_2.12-0.10.1.1/bin/../libs/jersey-client-2.22.2.jar:/home/aca
dgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jersey-common-2.22.
2.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jers
ey-container-servlet-2.22.2.jar:/home/acadgild/install/kafka/kafka_2.12
-0.10.1.1/bin/../libs/jersey-container-servlet-core-2.22.2.jar:/home/ac
adgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jersey-guava-2.22.
2.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jers
ey-media-jaxb-2.22.2.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1
.1/bin/../libs/jersey-server-2.22.2.jar:/home/acadgild/install/kafka/ka
```

fka_2.12-0.10.1.1/bin/../libs/jetty-continuation-9.2.15.v20160210.jar:/
home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jetty-http-
9.2.15.v20160210.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/b
in/../libs/jetty-io-9.2.15.v20160210.jar:/home/acadgild/install/kafka/k
afka_2.12-0.10.1.1/bin/../libs/jetty-security-9.2.15.v20160210.jar:/hom
e/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jetty-server-9
.2.15.v20160210.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bi
n/../libs/jetty-servlet-9.2.15.v20160210.jar:/home/acadgild/install/kaf
ka/kafka_2.12-0.10.1.1/bin/../libs/jetty-servlets-9.2.15.v20160210.jar:
/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/jetty-util
-9.2.15.v20160210.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/
bin/../libs/jopt-simple-4.9.jar:/home/acadgild/install/kafka/kafka_2.12
-0.10.1.1/bin/../libs/kafka_2.12-0.10.1.1.jar:/home/acadgild/install/ka
fka/kafka_2.12-0.10.1.1/bin/../libs/kafka_2.12-0.10.1.1-sources.jar:/ho
me/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/kafka_2.12-0.
10.1.1-test-sources.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.
1/bin/../libs/kafka-clients-0.10.1.1.jar:/home/acadgild/install/kafka/k
afka_2.12-0.10.1.1/bin/../libs/kafka-log4j-appender-0.10.1.1.jar:/home/
acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/kafka-streams-0.
10.1.1.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs
/kafka-streams-examples-0.10.1.1.jar:/home/acadgild/install/kafka/kafka
_2.12-0.10.1.1/bin/../libs/kafka-tools-0.10.1.1.jar:/home/acadgild/inst
all/kafka/kafka_2.12-0.10.1.1/bin/../libs/log4j-1.2.17.jar:/home/acadgi
ld/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/lz4-1.3.0.jar:/home/ac
adgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/metrics-core-2.2.0
.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/osgi-
resource-locator-1.0.1.jar:/home/acadgild/install/kafka/kafka_2.12-0.10
.1.1/bin/../libs/reflections-0.9.10.jar:/home/acadgild/install/kafka/ka
fka_2.12-0.10.1.1/bin/../libs/rocksdbjni-4.9.0.jar:/home/acadgild/insta
ll/kafka/kafka_2.12-0.10.1.1/bin/../libs/scala-library-2.12.1.jar:/home
/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/scala-parser-co
mbinators_2.12-1.0.4.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1
.1/bin/../libs/slf4j-api-1.7.21.jar:/home/acadgild/install/kafka/kafka_
2.12-0.10.1.1/bin/../libs/slf4j-log4j12-1.7.21.jar:/home/acadgild/insta
ll/kafka/kafka_2.12-0.10.1.1/bin/../libs/snappy-java-1.1.2.6.jar:/home/
acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../libs/validation-api-1
.1.0.Final.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/bin/../
libs/zkclient-0.9.jar:/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/
bin/../libs/zookeeper-3.4.8.jar (org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,755] INFO Client
environment:java.library.path=/usr/java/packages/lib/amd64:/usr/lib64:/
lib64:/lib:/usr/lib (org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,755] INFO Client environment:java.io.tmpdir=/tmp
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,755] INFO Client environment:java.compiler=<NA>
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,755] INFO Client environment:os.name=Linux
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,755] INFO Client environment:os.arch=amd64
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,756] INFO Client
environment:os.version=2.6.32-696.18.7.el6.x86_64
(org.apache.zookeeper.ZooKeeper)

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[2019-02-27 20:38:33,756] INFO Client environment:user.name=acadgild
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,756] INFO Client
environment:user.home=/home/acadgild (org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,756] INFO Client
environment:user.dir=/home/acadgild/install/kafka/kafka_2.12-0.10.1.1/b
in (org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,757] INFO Initiating client connection,
connectString=localhost:2181 sessionTimeout=6000
watcher=org.I0Itec.zkclient.ZkClient@48fa0f47
(org.apache.zookeeper.ZooKeeper)
[2019-02-27 20:38:33,795] INFO Waiting for keeper state SyncConnected
(org.I0Itec.zkclient.ZkClient)
[2019-02-27 20:38:33,816] INFO Opening socket connection to server
localhost/127.0.0.1:2181. Will not attempt to authenticate using SASL
(unknown error) (org.apache.zookeeper.ClientCnxn)
[2019-02-27 20:38:33,825] INFO Socket connection established to
localhost/127.0.0.1:2181, initiating session
(org.apache.zookeeper.ClientCnxn)
[2019-02-27 20:38:33,841] INFO Session establishment complete on server
localhost/127.0.0.1:2181, sessionid = 0x1692f7698e50001, negotiated
timeout = 6000 (org.apache.zookeeper.ClientCnxn)
[2019-02-27 20:38:33,844] INFO zookeeper state changed (SyncConnected)
(org.I0Itec.zkclient.ZkClient)
[2019-02-27 20:38:34,116] INFO Cluster ID = EaSYYzTBTNae1swfmnuZ0g
(kafka.server.KafkaServer)
[2019-02-27 20:38:34,239] INFO Log directory '/tmp/kafka-logs' not found,
creating it. (kafka.log.LogManager)
[2019-02-27 20:38:34,305] INFO Loading logs. (kafka.log.LogManager)
[2019-02-27 20:38:34,372] INFO Logs loading complete in 66 ms.
(kafka.log.LogManager)
[2019-02-27 20:38:34,489] INFO Starting log cleanup with a period of 300000
ms. (kafka.log.LogManager)
[2019-02-27 20:38:34,510] INFO Starting log flusher with a default period
of 9223372036854775807 ms. (kafka.log.LogManager)
[2019-02-27 20:38:34,528] WARN No meta.properties file under dir
/tmp/kafka-logs/meta.properties (kafka.server.BrokerMetadataCheckpoint)
[2019-02-27 20:38:34,702] INFO Awaiting socket connections on
0.0.0.0:9092. (kafka.network.Acceptor)
[2019-02-27 20:38:34,708] INFO [Socket Server on Broker 0], Started 1
acceptor threads (kafka.network.SocketServer)
[2019-02-27 20:38:34,772] INFO [ExpirationReaper-0], Starting
(kafka.server.DelayedOperationPurgatory$ExpiredOperationReaper)
[2019-02-27 20:38:34,777] INFO [ExpirationReaper-0], Starting
(kafka.server.DelayedOperationPurgatory$ExpiredOperationReaper)
[2019-02-27 20:38:34,887] INFO Creating /controller (is it secure? false)
(kafka.utils.ZKCheckedEphemeral)
[2019-02-27 20:38:34,905] INFO Result of znode creation is: OK
(kafka.utils.ZKCheckedEphemeral)
[2019-02-27 20:38:34,907] INFO 0 successfully elected as leader
(kafka.server.ZookeeperLeaderElector)
[2019-02-27 20:38:35,155] INFO [ExpirationReaper-0], Starting
(kafka.server.DelayedOperationPurgatory$ExpiredOperationReaper)
```

```
[2019-02-27 20:38:35,166] INFO [ExpirationReaper-0], Starting
(kafka.server.DelayedOperationPurgatory$ExpiredOperationReaper)
[2019-02-27 20:38:35,182] INFO [ExpirationReaper-0], Starting
(kafka.server.DelayedOperationPurgatory$ExpiredOperationReaper)
[2019-02-27 20:38:35,223] INFO [GroupCoordinator 0]: Starting up.
(kafka.coordinator.GroupCoordinator)
[2019-02-27 20:38:35,232] INFO [GroupCoordinator 0]: Startup complete.
(kafka.coordinator.GroupCoordinator)
[2019-02-27 20:38:35,288] INFO [Group Metadata Manager on Broker 0]:
Removed 0 expired offsets in 52 milliseconds.
(kafka.coordinator.GroupMetadataManager)
[2019-02-27 20:38:35,387] INFO Will not load MX4J, mx4j-tools.jar is not
in the classpath (kafka.utils.Mx4jLoader$)
[2019-02-27 20:38:35,600] INFO Creating /brokers/ids/0 (is it secure?
false) (kafka.utils.ZKCheckedEphemeral)
[2019-02-27 20:38:35,622] INFO Result of znode creation is: OK
(kafka.utils.ZKCheckedEphemeral)
[2019-02-27 20:38:35,637] INFO Registered broker 0 at path /brokers/ids/0
with addresses: PLAINTEXT -> EndPoint(localhost,9092,PLAINTEXT)
(kafka.utils.ZkUtils)
[2019-02-27 20:38:35,638] WARN No meta.properties file under dir
/tmp/kafka-logs/meta.properties (kafka.server.BrokerMetadataCheckpoint)
[2019-02-27 20:38:35,724] INFO New leader is 0
(kafka.server.ZookeeperLeaderElector$LeaderChangeListener)
[2019-02-27 20:38:35,787] INFO Kafka version : 0.10.1.1
(org.apache.kafka.common.utils.AppInfoParser)
[2019-02-27 20:38:35,787] INFO Kafka commitId : f10ef2720b03b247
(org.apache.kafka.common.utils.AppInfoParser)
[2019-02-27 20:38:35,791] INFO [Kafka Server 0], started
(kafka.server.KafkaServer)
[2019-02-27 20:44:16,595] INFO [ReplicaFetcherManager on broker 0] Removed
fetcher for partitions TestTopic-0 (kafka.server.ReplicaFetcherManager)
[2019-02-27 20:44:16,709] INFO Completed load of log TestTopic-0 with 1 log
segments and log end offset 0 in 77 ms (kafka.log.Log)
[2019-02-27 20:44:16,723] INFO Created log for partition [TestTopic,0] in
/tmp/kafka-logs with properties {compression.type -> producer,
message.format.version -> 0.10.1-IV2, file.delete.delay.ms -> 60000,
max.message.bytes -> 1000012, min.compaction.lag.ms -> 0,
message.timestamp.type -> CreateTime, min.insync.replicas -> 1,
segment.jitter.ms -> 0, preallocate -> false, min.cleanable.dirty.ratio ->
0.5, index.interval.bytes -> 4096, unclean.leader.election.enable -> true,
retention.bytes -> -1, delete.retention.ms -> 86400000, cleanup.policy ->
[delete], flush.ms -> 9223372036854775807, segment.ms -> 604800000,
segment.bytes -> 1073741824, retention.ms -> 604800000,
message.timestamp.difference.max.ms -> 9223372036854775807,
segment.index.bytes -> 10485760, flush.messages -> 9223372036854775807}.
(kafka.log.LogManager)
[2019-02-27 20:44:16,724] INFO Partition [TestTopic,0] on broker 0: No
checkpointed highwatermark is found for partition [TestTopic,0]
(kafka.cluster.Partition)
[2019-02-27 20:45:59,566] INFO [ReplicaFetcherManager on broker 0] Removed
fetcher for partitions KeyLessTopic-0
(kafka.server.ReplicaFetcherManager)
```

```
[2019-02-27 20:45:59,586] INFO Completed load of log KeyLessTopic-0 with
1 log segments and log end offset 0 in 5 ms (kafka.log.Log)
[2019-02-27 20:45:59,589] INFO Created log for partition [KeyLessTopic,0]
in /tmp/kafka-logs with properties {compression.type -> producer,
message.format.version -> 0.10.1-IV2, file.delete.delay.ms -> 60000,
max.message.bytes -> 1000012, min.compaction.lag.ms -> 0,
message.timestamp.type -> CreateTime, min.insync.replicas -> 1,
segment.jitter.ms -> 0, preallocate -> false, min.cleanable.dirty.ratio ->
0.5, index.interval.bytes -> 4096, unclean.leader.election.enable -> true,
retention.bytes -> -1, delete.retention.ms -> 86400000, cleanup.policy ->
[delete], flush.ms -> 9223372036854775807, segment.ms -> 604800000,
segment.bytes -> 1073741824, retention.ms -> 604800000,
message.timestamp.difference.max.ms -> 9223372036854775807,
segment.index.bytes -> 10485760, flush.messages -> 9223372036854775807}.
(kafka.log.LogManager)
[2019-02-27 20:45:59,594] INFO Partition [KeyLessTopic,0] on broker 0: No
checkpointed highwatermark is found for partition [KeyLessTopic,0]
(kafka.cluster.Partition)
[2019-02-27 20:48:35,227] INFO [Group Metadata Manager on Broker 0]:
Removed 0 expired offsets in 0 milliseconds.
(kafka.coordinator.GroupMetadataManager)
[2019-02-27 20:58:35,226] INFO [Group Metadata Manager on Broker 0]:
Removed 0 expired offsets in 0 milliseconds.
(kafka.coordinator.GroupMetadataManager)

[acadgild@localhost bin]$ jps
5331 NodeManager
4904 DataNode
11560 ConsoleConsumer
11946 Jps
5084 SecondaryNameNode
5228 ResourceManager
3805 QuorumPeerMain
4013 ZooKeeperMain
11295 ConsoleProducer

[acadgild@localhost bin]$ kafka-topics.sh --create --topic KeyLessTopic
--zookeeper localhost:2181 --partitions 1 --replication-factor 1
Created topic "KeyLessTopic".
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost bin]$ kafka-console-producer.sh --broker-list
localhost:9092 --topic KeyLessTopic
{"name":"John", "exp":16}
{"name":"Finn", "exp":20}
{"name":"Cylin", "exp":18}
{"name":"Mark", "exp":2}
{"name":"Akshay", "exp":14}

[acadgild@localhost bin]$ kafka-console-consumer.sh --topic KeyLessTopic
--from-beginning \
> --zookeeper localhost:2181 \
> --property print.key=true
```

Using the ConsoleConsumer with old consumer is deprecated and will be removed in a future major release. Consider using the new consumer by passing [bootstrap-server] instead of [zookeeper].
null {"name":"John", "exp":16}
null {"name":"Finn", "exp":20}
null {"name":"Cylin", "exp":18}
null {"name":"Mark", "exp":2}
null {"name":"Akshay", "exp":14}

[acadgild@localhost bin]$ kafka-topics.sh --create --topic KeyedTopic --zookeeper localhost:2181 --partitions 1 --replication-factor 1
Created topic "KeyedTopic".
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost bin]$ kafka-console-consumer.sh --topic KeyedTopic --from-beginning --zookeeper localhost:2181 --property print.key=true
Using the ConsoleConsumer with old consumer is deprecated and will be removed in a future major release. Consider using the new consumer by passing [bootstrap-server] instead of [zookeeper].
null {"name":"John"}-{"exp":16}
null {"name":"Finn"}-{"exp":20}
null {"name":"Cylin"}-{"exp":18}
null {"name":"Mark"}-{"exp":2}

OUTPUT:

1) KeyLessTopic Consumer :

```
[acadgild@localhost bin]$ kafka-console-consumer.sh --topic KeyLessTopic --from-
beginning \
> --zookeeper localhost:2181 \
> --property print.key=true
Using the ConsoleConsumer with old consumer is deprecated and will be removed in
 a future major release. Consider using the new consumer by passing [bootstrap-s
erver] instead of [zookeeper].
null    {"name":"John", "exp":16}
null    {"name":"Finn", "exp":20}
null    {"name":"Cylin", "exp":18}
null    {"name":"Mark", "exp":2}
null    {"name":"Akshay", "exp":14}
```


2) KeyedTopic Consumer:

```
[acadgild@localhost bin]$ kafka-console-consumer.sh --topic KeyedTopic --from-be
ginning --zookeeper localhost:2181 --property print.key=true
Using the ConsoleConsumer with old consumer is deprecated and will be removed in
 a future major release. Consider using the new consumer by passing [bootstrap-s
erver] instead of [zookeeper].
null    {"name":"John"}-{"exp":16}
null    {"name":"Finn"}-{
null    {"name":"John"}-{"exp":16}
null    {"name":"Finn"}-{"exp":20}
null    {"name":"Cylin"}-{"exp":18}
null    {"name":"Mark"}-{"exp":2}
```