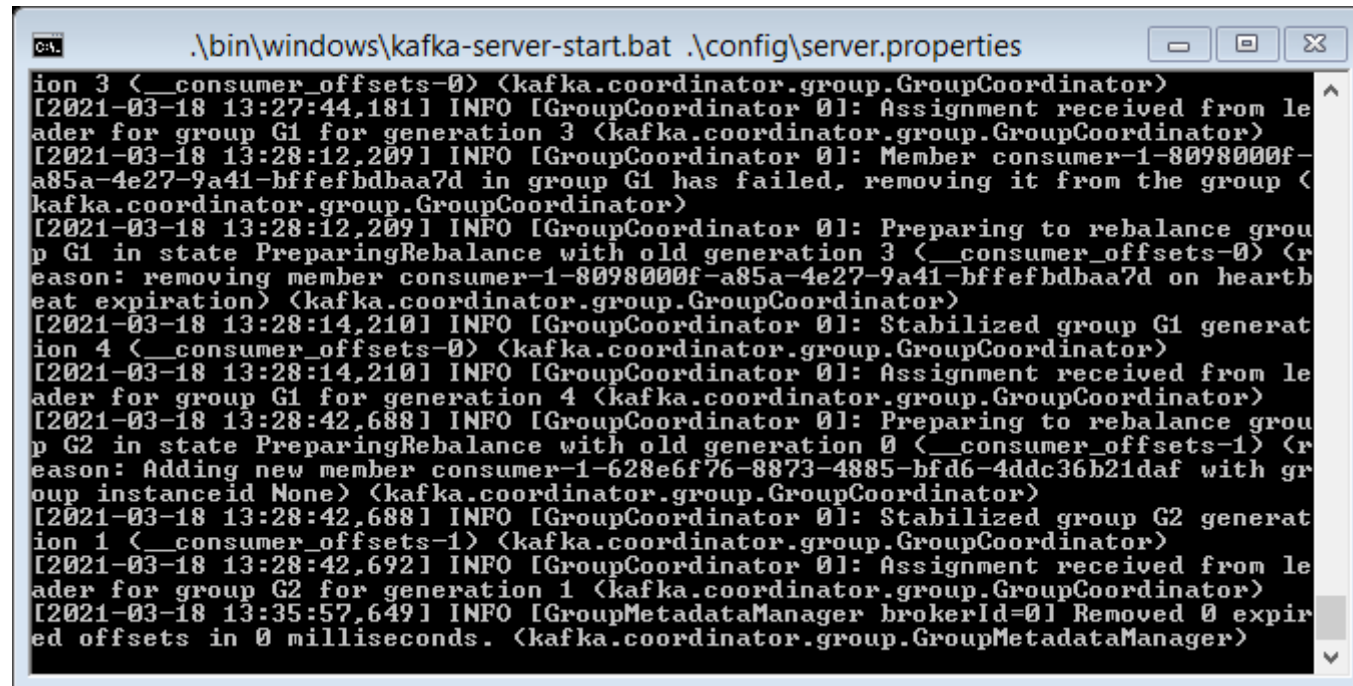


# Starting Zookeeper

```
Administrator: C:\Windows\system32\cmd.exe - zkserver
002
2021-03-18 13:20:40,869 [myid:1] - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:2181:NIOServerCxn@1008] - Closed socket connection for client /127.0.0.1:53159 which had sessionid 0x17843d2892e0002
2021-03-18 13:21:10,179 [myid:1] - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:2181:NIOServerCxnFactory@192] - Accepted socket connection from /0:0:0:0:0:0:1:53164
2021-03-18 13:21:10,181 [myid:1] - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:2181:ZooKeeperServer@898] - Client attempting to establish new session at /0:0:0:0:0:0:1:53164
2021-03-18 13:21:10,238 [myid:1] - INFO [SyncThread:0:ZooKeeperServer@643] - Established session 0x17843d2892e0003 with negotiated timeout 30000 for client /0:0:0:0:0:0:1:53164
2021-03-18 13:21:10,540 [myid:1] - INFO [ProcessThread(sid:0 cport:2181)::PrepRequestProcessor@651] - Got user-level KeeperException when processing sessionid:0x17843d2892e0003 type:setData cxid:0x4 zxid:0xf9 txntype:-1 reqpath:n/a Error Path:/config/topics/KeerthyRaa Error:KeeperErrorCode = NoNode for /config/topics/KeerthyRaa
2021-03-18 13:21:10,647 [myid:1] - INFO [ProcessThread(sid:0 cport:2181)::PrepRequestProcessor@489] - Processed session termination for sessionid: 0x17843d2892e0003
2021-03-18 13:21:10,681 [myid:1] - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:2181:NIOServerCxn@1008] - Closed socket connection for client /0:0:0:0:0:0:1:53164 which had sessionid 0x17843d2892e0003
```

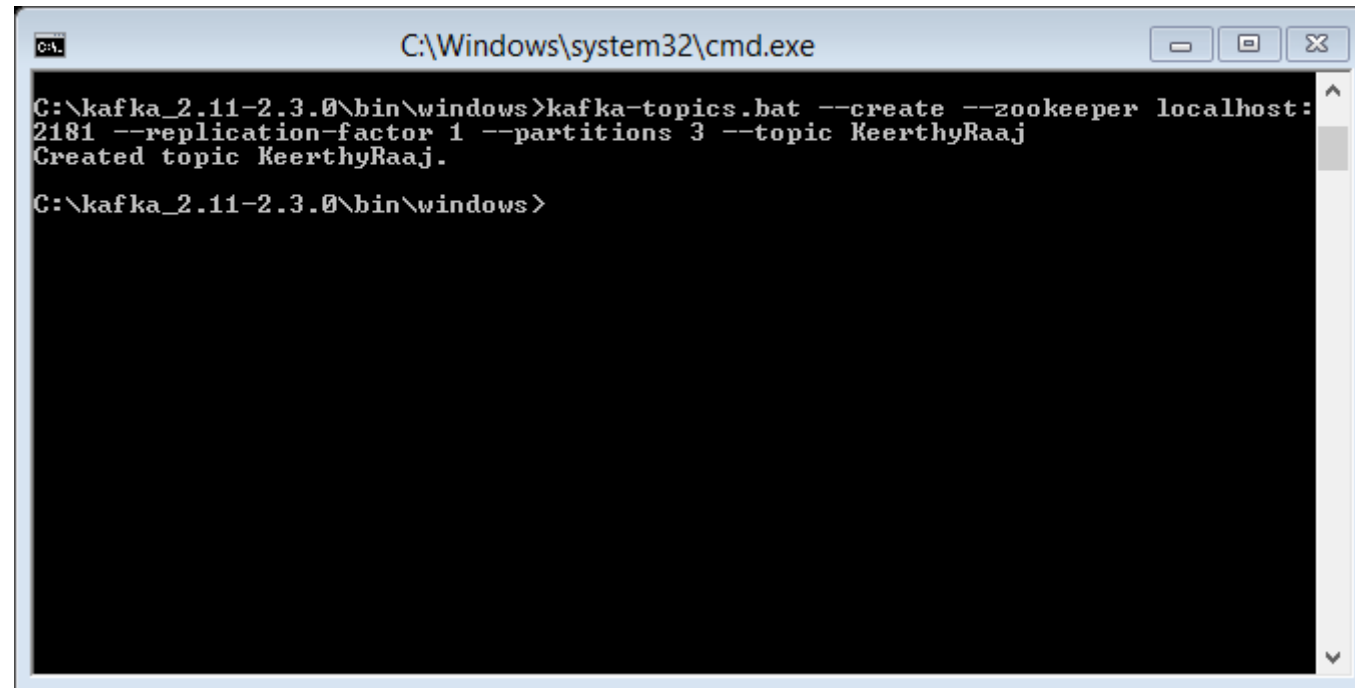
# Starting Kafka Server



A screenshot of a Windows command prompt window titled ".\bin\windows\kafka-server-start.bat .\config\server.properties". The window displays a series of log messages from the Kafka server. The logs show the GroupCoordinator for group G1 receiving an assignment for generation 3, then a member failing and being removed, leading to a rebalance. Subsequently, group G2 is prepared for a rebalance, a new member is added, and the group is stabilized for generation 1. The logs also show the GroupMetadataManager removing expired offsets.

```
ion 3 (__consumer_offsets-0) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:27:44,181] INFO [GroupCoordinator 0]: Assignment received from le
ader for group G1 for generation 3 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:12,209] INFO [GroupCoordinator 0]: Member consumer-1-8098000f-
a85a-4e27-9a41-bffefbdbaa7d in group G1 has failed, removing it from the group (
kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:12,209] INFO [GroupCoordinator 0]: Preparing to rebalance grou
p G1 in state PreparingRebalance with old generation 3 (__consumer_offsets-0) (r
eason: removing member consumer-1-8098000f-a85a-4e27-9a41-bffefbdbaa7d on hearth
eat expiration) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:14,210] INFO [GroupCoordinator 0]: Stabilized group G1 generat
ion 4 (__consumer_offsets-0) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:14,210] INFO [GroupCoordinator 0]: Assignment received from le
ader for group G1 for generation 4 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:42,688] INFO [GroupCoordinator 0]: Preparing to rebalance grou
p G2 in state PreparingRebalance with old generation 0 (__consumer_offsets-1) (r
eason: Adding new member consumer-1-628e6f76-8873-4885-bfd6-4ddc36b21daf with gr
oup instanceid None) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:42,688] INFO [GroupCoordinator 0]: Stabilized group G2 generat
ion 1 (__consumer_offsets-1) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:28:42,692] INFO [GroupCoordinator 0]: Assignment received from le
ader for group G2 for generation 1 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 13:35:57,649] INFO [GroupMetadataManager brokerId=0] Removed 0 expir
ed offsets in 0 milliseconds. (kafka.coordinator.group.GroupMetadataManager)
```

# Creating Topic

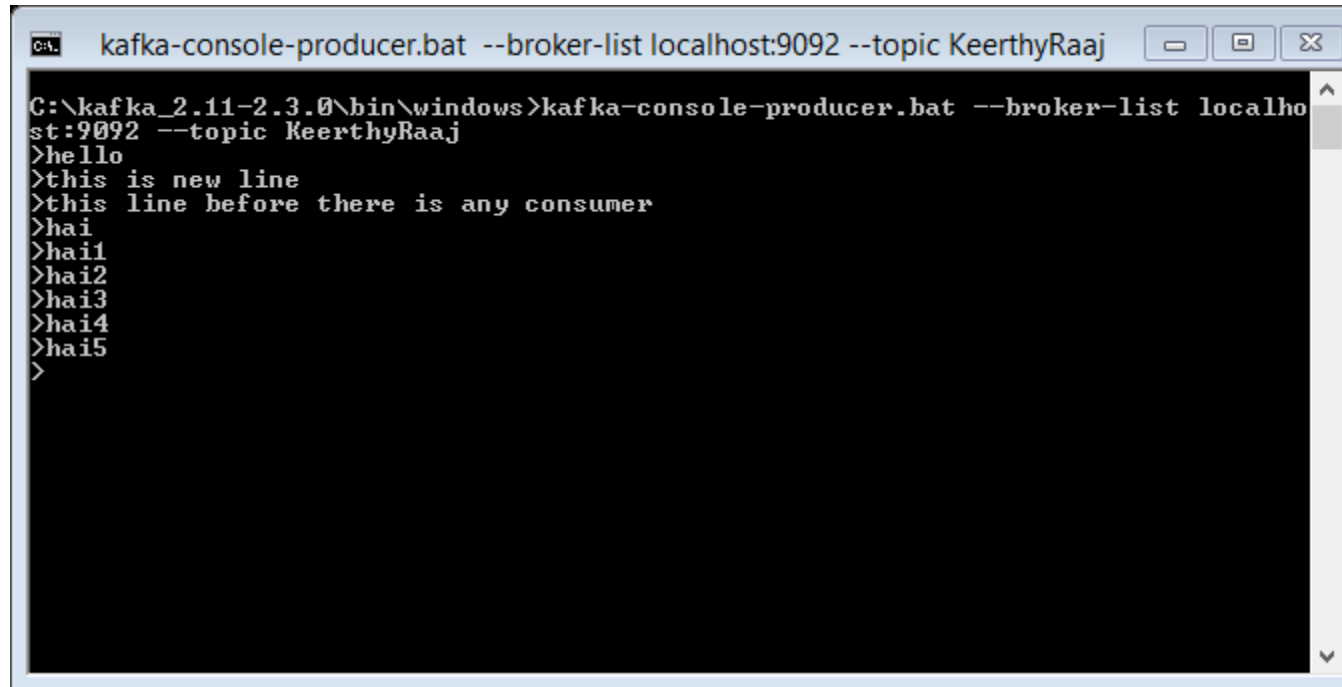


```
C:\Windows\system32\cmd.exe

C:\kafka_2.11-2.3.0\bin\windows>kafka-topics.bat --create --zookeeper localhost:2181 --replication-factor 1 --partitions 3 --topic KeerthyRaaJ
Created topic KeerthyRaaJ.

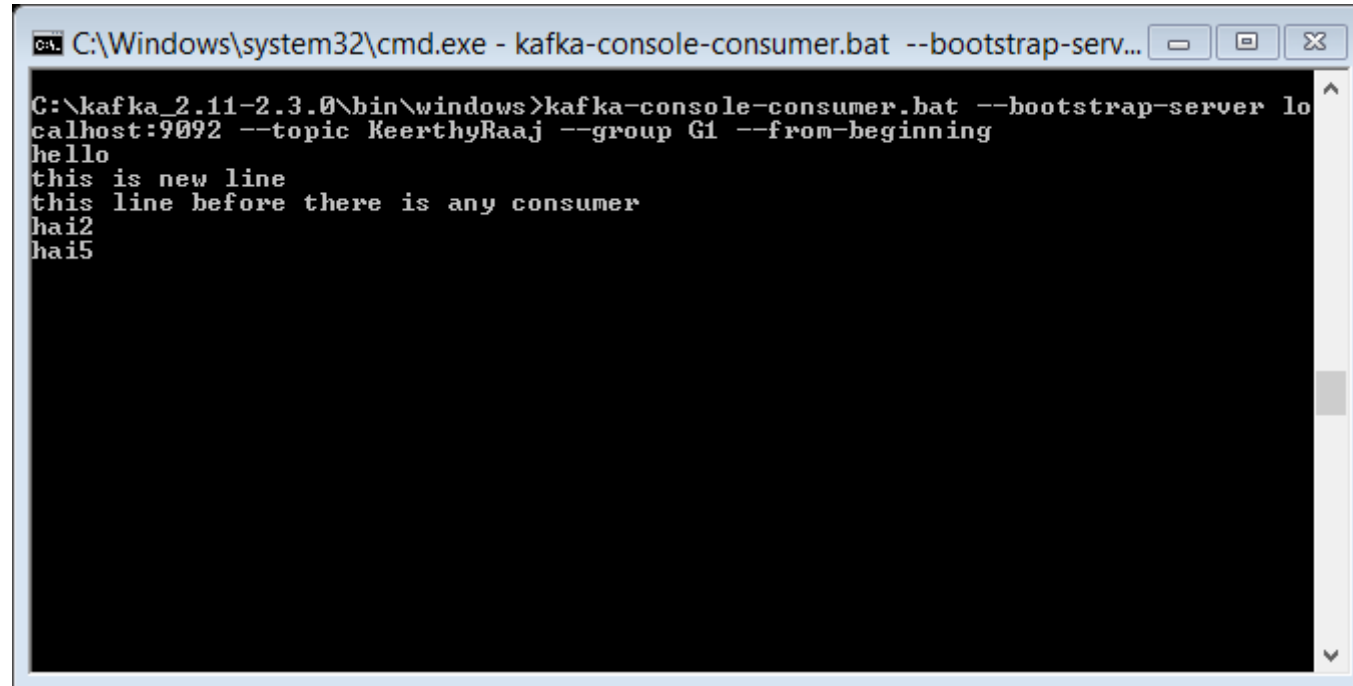
C:\kafka_2.11-2.3.0\bin\windows>
```

# Creating Producer



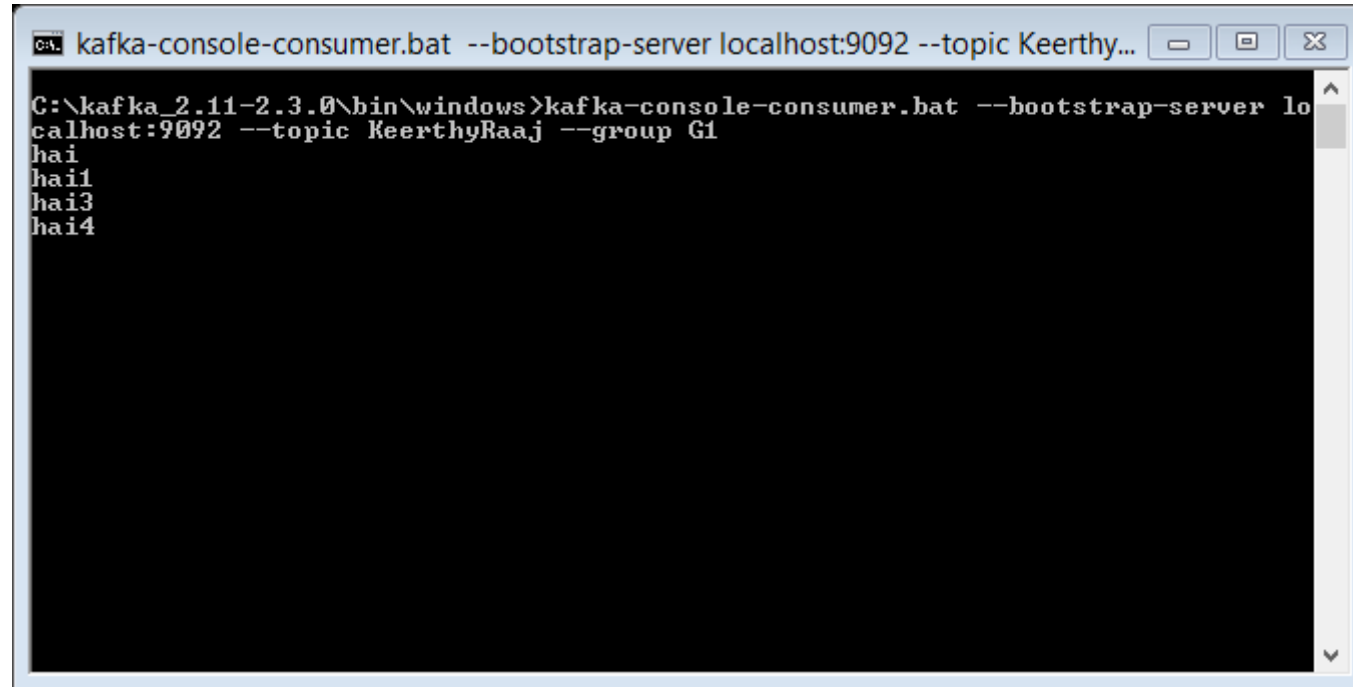
```
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-producer.bat --broker-list localhost:9092 --topic KeerthyRaaj
>hello
>this is new line
>this line before there is any consumer
>hai
>hai1
>hai2
>hai3
>hai4
>hai5
>
```

# Group-1 Consumer-1



```
C:\Windows\system32\cmd.exe - kafka-console-consumer.bat --bootstrap-serv...  
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server lo  
calhost:9092 --topic KeerthyRaaJ --group G1 --from-beginning  
hello  
this is new line  
this line before there is any consumer  
hai2  
hai5
```

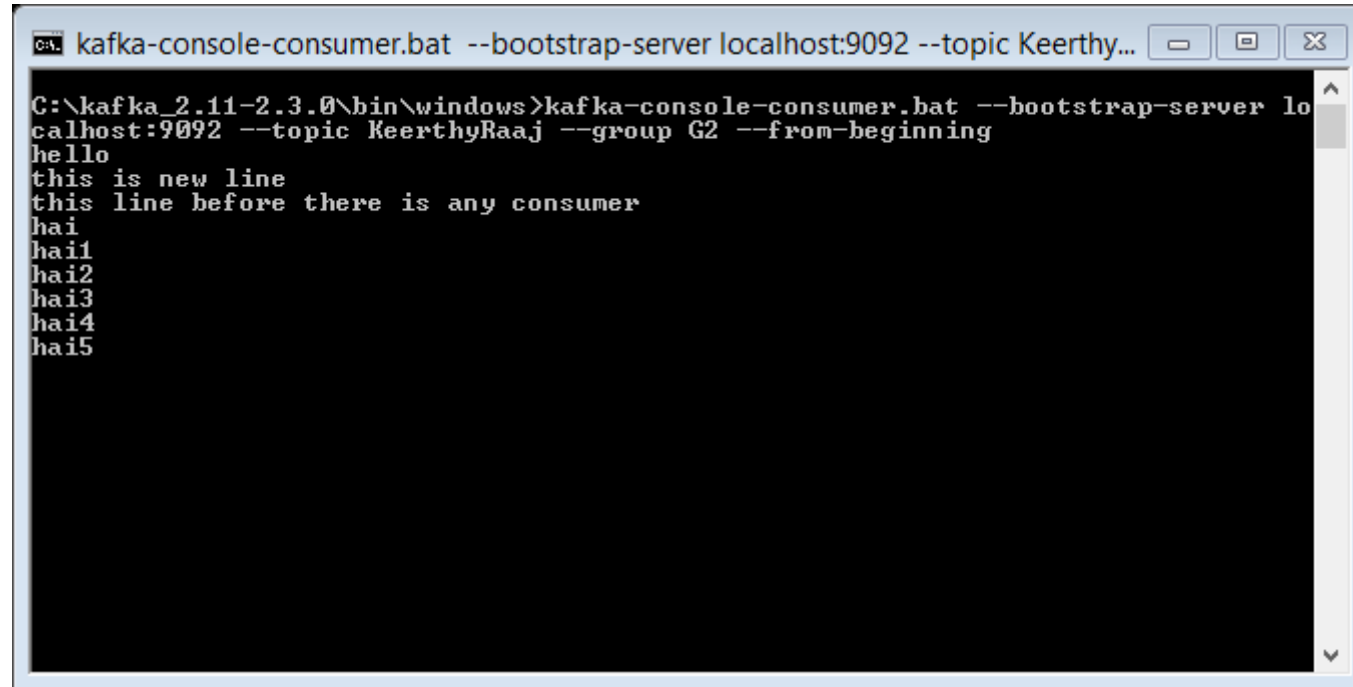
# Group-1 Consumer-2



A screenshot of a Windows command prompt window. The title bar shows the command: `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Keerthy...`. The command prompt shows the following text:

```
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server lo  
calhost:9092 --topic KeerthyRaaJ --group G1  
hai  
hai1  
hai3  
hai4
```

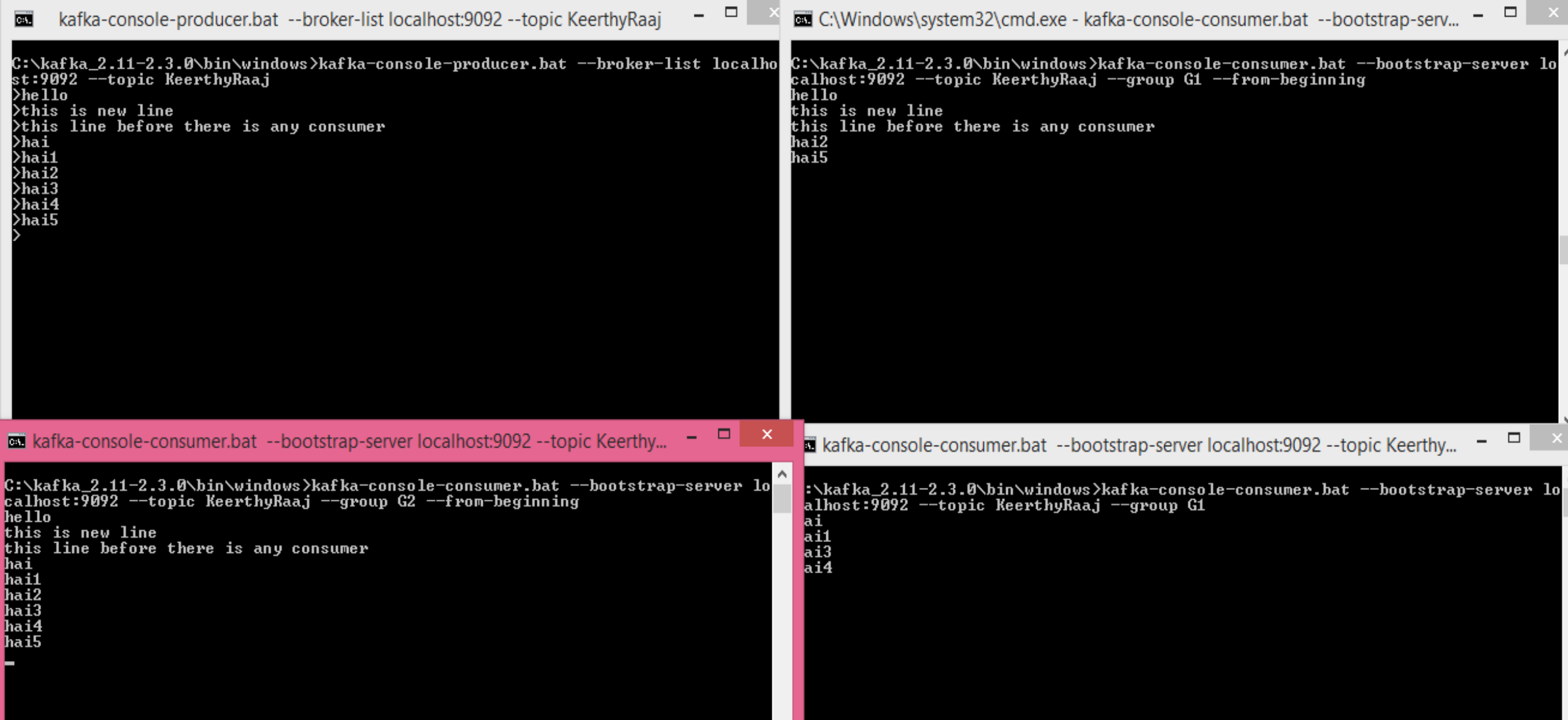
# Group-2 Consumer-1



A screenshot of a Windows command prompt window. The title bar shows the command: `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Keerthy...`. The command prompt shows the following text:

```
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server lo
calhost:9092 --topic KeerthyRaaJ --group G2 --from-beginning
hello
this is new line
this line before there is any consumer
hai
hai1
hai2
hai3
hai4
hai5
```

# The messages are being shared by 3 consumers



```
kafka-console-producer.bat --broker-list localhost:9092 --topic KeerthyRaaJ
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-producer.bat --broker-list localhost:9092 --topic KeerthyRaaJ
>hello
>this is new line
>this line before there is any consumer
>hai
>hai1
>hai2
>hai3
>hai4
>hai5
>

C:\Windows\system32\cmd.exe - kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G1 --from-beginning
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G1 --from-beginning
hello
this is new line
this line before there is any consumer
hai2
hai5

kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G2 --from-beginning
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G2 --from-beginning
hello
this is new line
this line before there is any consumer
hai
hai1
hai2
hai3
hai4
hai5

kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G1
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic KeerthyRaaJ --group G1
ai
ai1
ai3
ai4
```



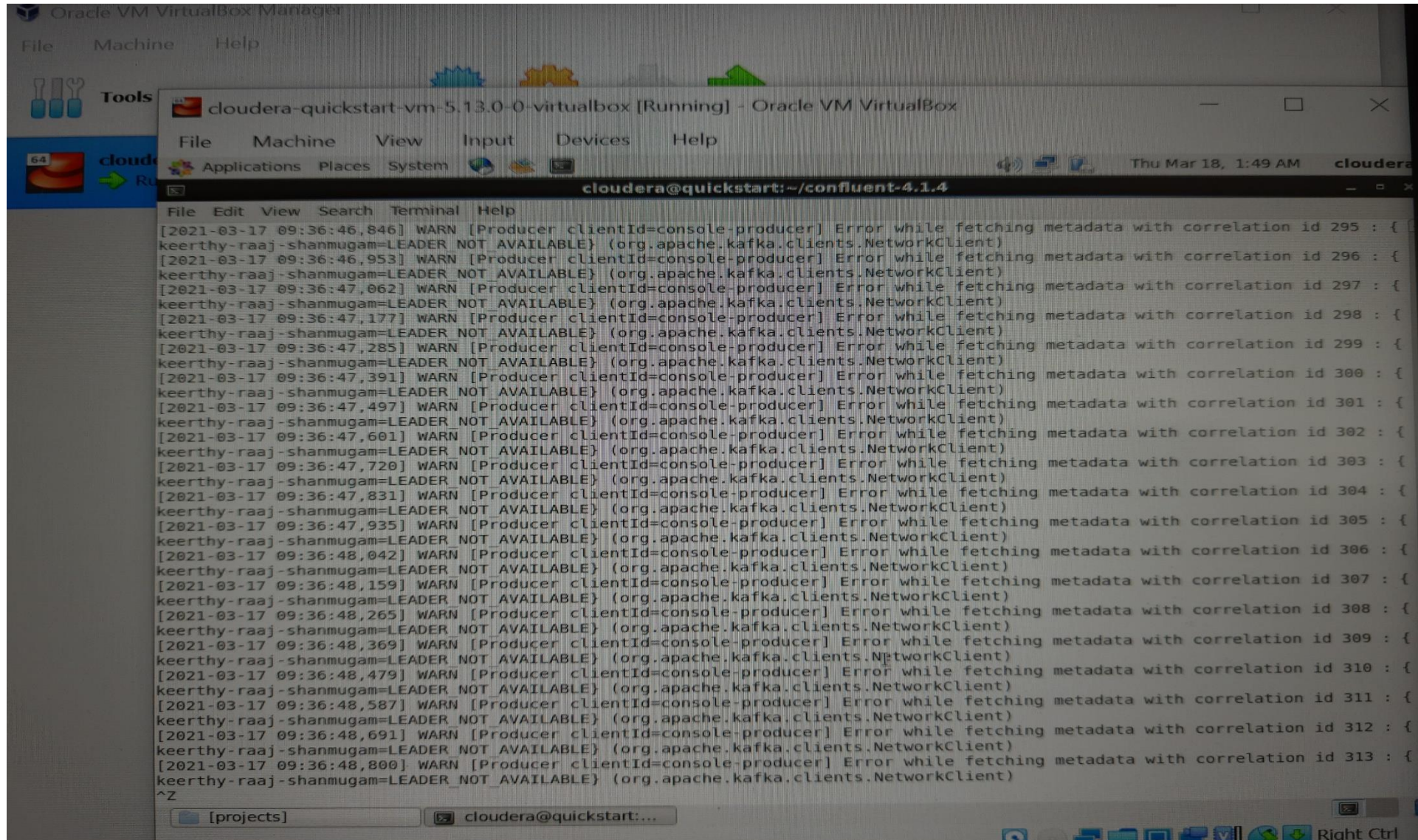
# Used Windows Environment instead of Cloudera

Initially, I used Cloudera. Also, successfully installed both Zookeeper and Apache Kafka but it threwed Error while creating Producer and Consumer. I Couldn't resolve the Error.

**Error:** [2021-03-17 09:36:48,800] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 313 : {keerthy-raaj-shanmugam=LEADER\_NOT\_AVAILABLE}  
(org.apache.kafka.clients.NetworkClient)

Finally, I used Windows 10 Environment for implementing this Apache Kafka In Class Lab exercise. And I also didn't download Kafka from CONFLUENT website.

# ERROR



The screenshot shows a terminal window titled "cloudera-quickstart-vm-5.13.0-0-virtualbox [Running] - Oracle VM VirtualBox". The terminal prompt is "cloudera@quickstart:~/confluent-4.1.4". The output consists of a series of warning messages from the Kafka producer, indicating that the leader is not available for multiple topics. The messages are as follows:

```
[2021-03-17 09:36:46,846] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 295 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:46,953] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 296 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,062] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 297 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,177] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 298 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,285] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 299 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,391] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 300 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,497] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 301 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,601] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 302 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,720] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 303 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,831] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 304 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:47,935] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 305 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,042] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 306 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,159] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 307 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,265] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 308 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,369] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 309 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,479] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 310 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,587] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 311 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,691] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 312 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
[2021-03-17 09:36:48,800] WARN [Producer clientId=console-producer] Error while fetching metadata with correlation id 313 : {
  "topic": "keerthy-raaj-shanmugam=LEADER NOT AVAILABLE", "error": "org.apache.kafka.clients.NetworkClient"
}
^Z
```

The terminal window also shows a taskbar at the bottom with a "Right Ctrl" button and a status bar with the text "[projects] cloudera@quickstart:..."