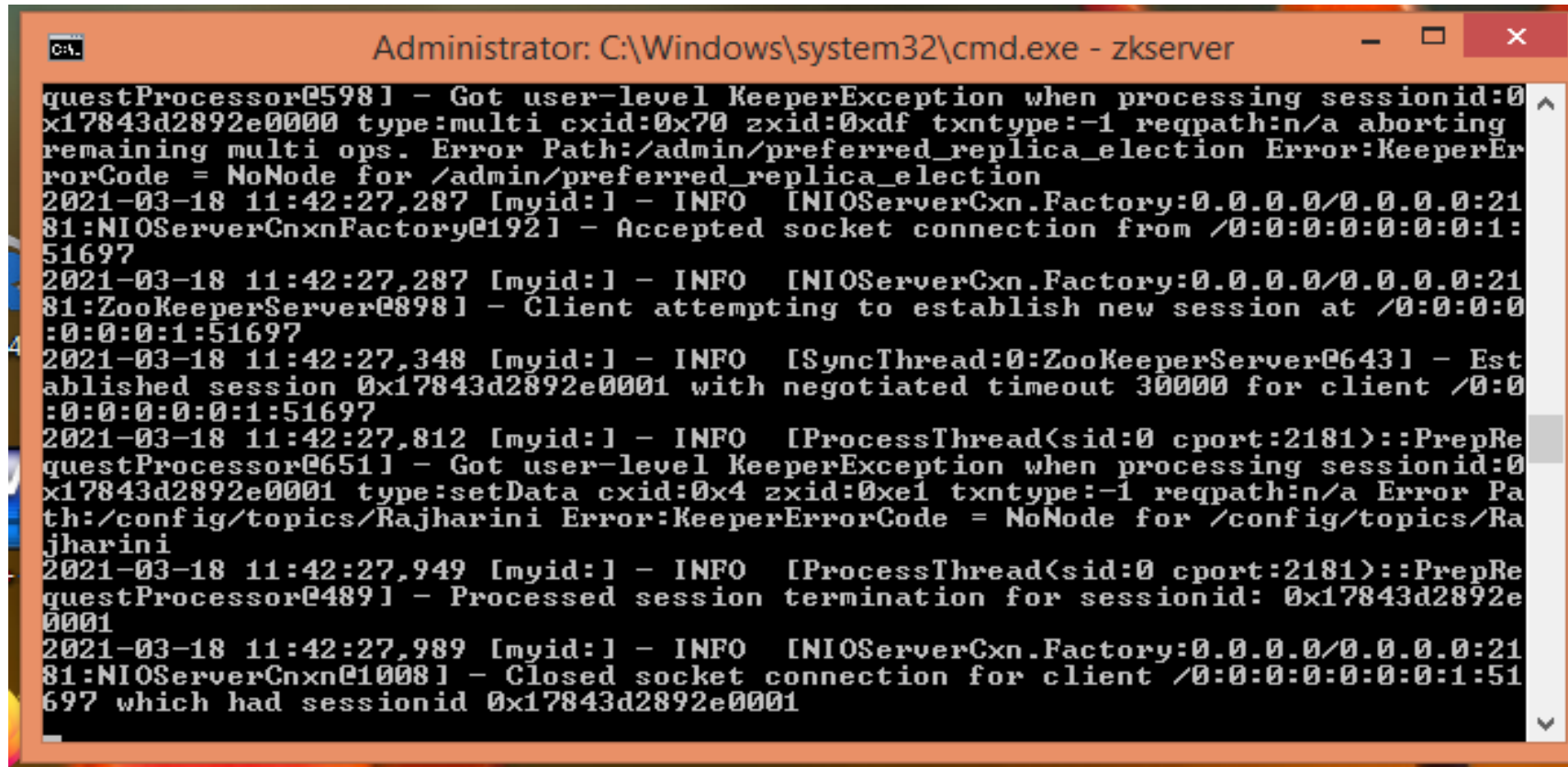


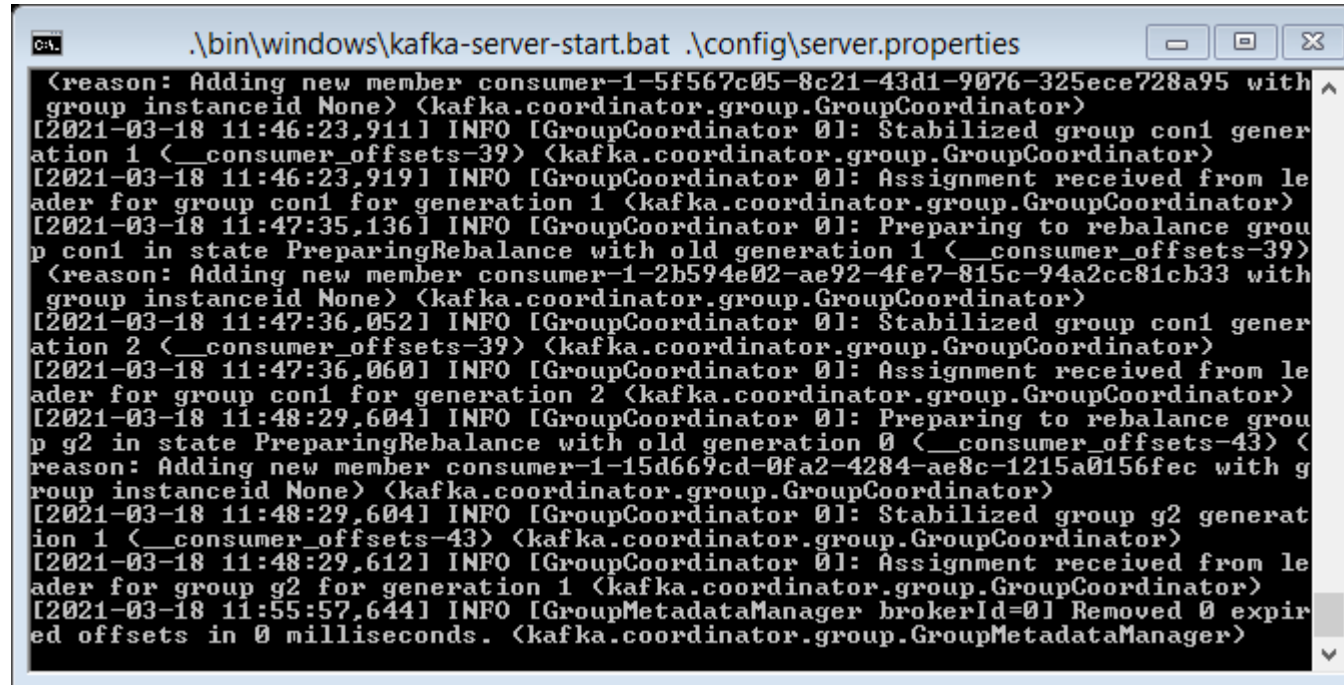
ZOOKEEPER



```
Administrator: C:\Windows\system32\cmd.exe - zkserver

questProcessor@5981 - Got user-level KeeperException when processing sessionid:0
x17843d2892e0000 type:multi cxid:0x70 zxid:0xdf txntype:-1 reqpath:n/a aborting
remaining multi ops. Error Path:/admin/preferred_replica_election Error:KeeperEr
rorCode = NoNode for /admin/preferred_replica_election
2021-03-18 11:42:27,287 [myid:1 - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:21
81:NIOServerCxnFactory@1921 - Accepted socket connection from /0:0:0:0:0:0:1:
51697
2021-03-18 11:42:27,287 [myid:1 - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:21
81:ZooKeeperServer@8981 - Client attempting to establish new session at /0:0:0:0
:0:0:0:1:51697
2021-03-18 11:42:27,348 [myid:1 - INFO [SyncThread:0:ZooKeeperServer@6431 - Est
ablished session 0x17843d2892e0001 with negotiated timeout 30000 for client /0:0
:0:0:0:0:1:51697
2021-03-18 11:42:27,812 [myid:1 - INFO [ProcessThread(sid:0 cport:2181)::PrepRe
questProcessor@6511 - Got user-level KeeperException when processing sessionid:0
x17843d2892e0001 type:setData cxid:0x4 zxid:0xe1 txntype:-1 reqpath:n/a Error Pa
th:/config/topics/Rajharini Error:KeeperErrorCode = NoNode for /config/topics/Ra
jharini
2021-03-18 11:42:27,949 [myid:1 - INFO [ProcessThread(sid:0 cport:2181)::PrepRe
questProcessor@4891 - Processed session termination for sessionid: 0x17843d2892e
0001
2021-03-18 11:42:27,989 [myid:1 - INFO [NIOServerCxn.Factory:0.0.0.0/0.0.0.0:21
81:NIOServerCxn@10081 - Closed socket connection for client /0:0:0:0:0:0:1:51
697 which had sessionid 0x17843d2892e0001
```

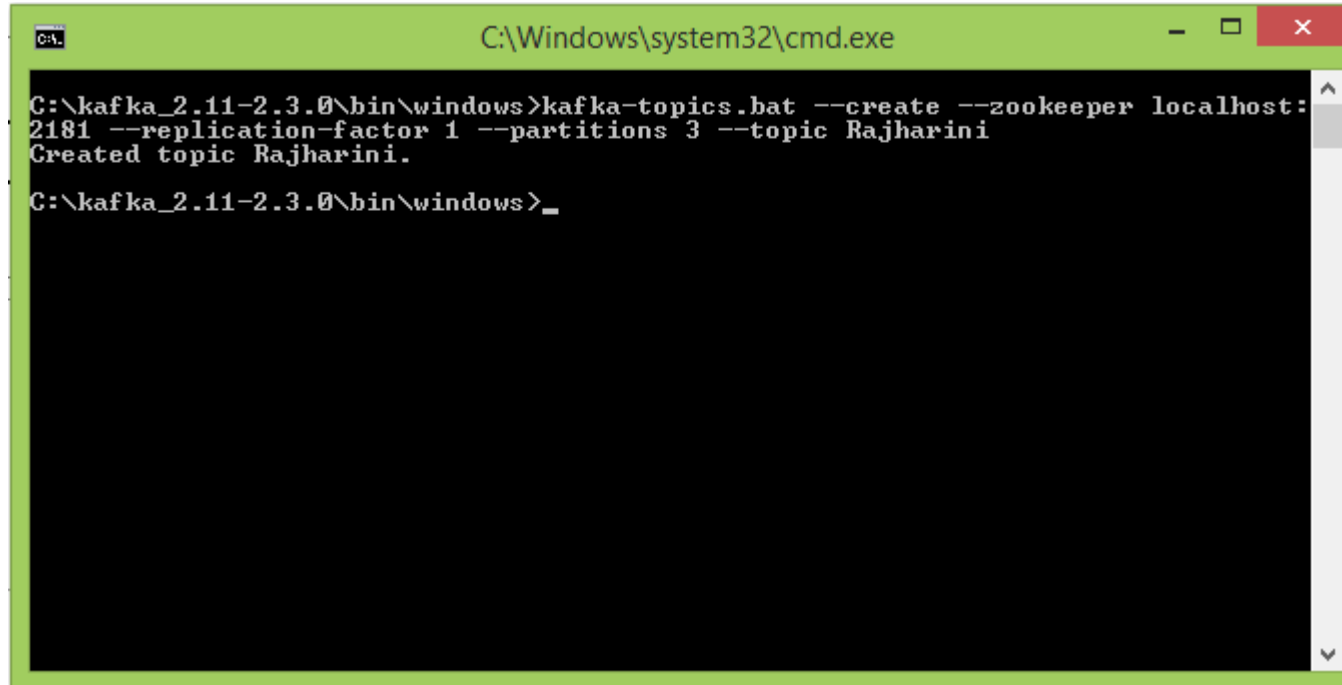
KAFKA SERVER



A screenshot of a Windows command prompt window. The title bar shows the path `.\bin\windows\kafka-server-start.bat` and the file `.\config\server.properties`. The window contains a series of log messages from the Kafka server. The logs show the process of adding new members to a group, stabilizing the group, receiving assignments from the leader, and preparing for a rebalance. The messages include timestamps, log levels (INFO), and the names of the Kafka classes involved (e.g., `GroupCoordinator`, `GroupMetadataManager`).

```
.\bin\windows\kafka-server-start.bat .\config\server.properties
<reason: Adding new member consumer-1-5f567c05-8c21-43d1-9076-325ece728a95 with
group instanceid None> (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:46:23,911] INFO [GroupCoordinator 0]: Stabilized group con1 gener
ation 1 (__consumer_offsets-39) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:46:23,919] INFO [GroupCoordinator 0]: Assignment received from le
ader for group con1 for generation 1 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:47:35,136] INFO [GroupCoordinator 0]: Preparing to rebalance grou
p con1 in state PreparingRebalance with old generation 1 (__consumer_offsets-39)
<reason: Adding new member consumer-1-2b594e02-ae92-4fe7-815c-94a2cc81cb33 with
group instanceid None> (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:47:36,052] INFO [GroupCoordinator 0]: Stabilized group con1 gener
ation 2 (__consumer_offsets-39) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:47:36,060] INFO [GroupCoordinator 0]: Assignment received from le
ader for group con1 for generation 2 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:48:29,604] INFO [GroupCoordinator 0]: Preparing to rebalance grou
p g2 in state PreparingRebalance with old generation 0 (__consumer_offsets-43) <
reason: Adding new member consumer-1-15d669cd-0fa2-4284-ae8c-1215a0156fec with g
roup instanceid None> (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:48:29,604] INFO [GroupCoordinator 0]: Stabilized group g2 generat
ion 1 (__consumer_offsets-43) (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:48:29,612] INFO [GroupCoordinator 0]: Assignment received from le
ader for group g2 for generation 1 (kafka.coordinator.group.GroupCoordinator)
[2021-03-18 11:55:57,644] INFO [GroupMetadataManager brokerId=0] Removed 0 expir
ed offsets in 0 milliseconds. (kafka.coordinator.group.GroupMetadataManager)
```

TOPIC- RAJHARINI



```
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 Rajharini
Created topic Rajharini.

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

The image shows a Windows command prompt window with a green title bar. The title bar text is 'C:\Windows\system32\cmd.exe'. The command prompt shows the execution of the 'kafka-topics.bat' command to create a new topic named 'Rajharini'. The command includes the following flags: '--create', '--zookeeper localhost:2181', '--replication-factor 1', and '--partitions 3'. The output of the command is 'Created topic Rajharini.'.

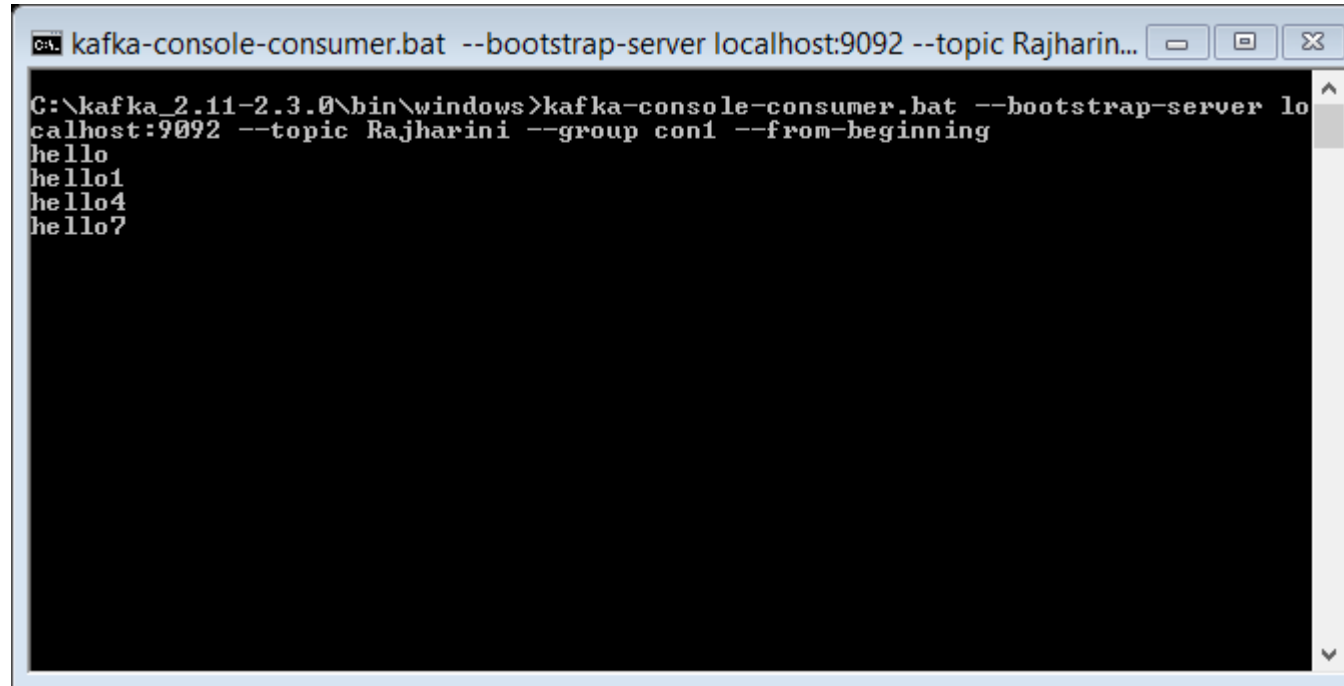
PRODUCER OF PARTITION 3, TOPIC RAJHARINI



```
kafka-console-producer.bat --broker-list localhost:9092 --topic Rajharini

C:\kafka_2.11-2.3.0\bin\windows>kafka-console-producer.bat --broker-list localho
st:9092 --topic Rajharini
>hello
>hello1
>hello2
>hello3
>hello4
>hello5
>hello6
>hello7
>
```

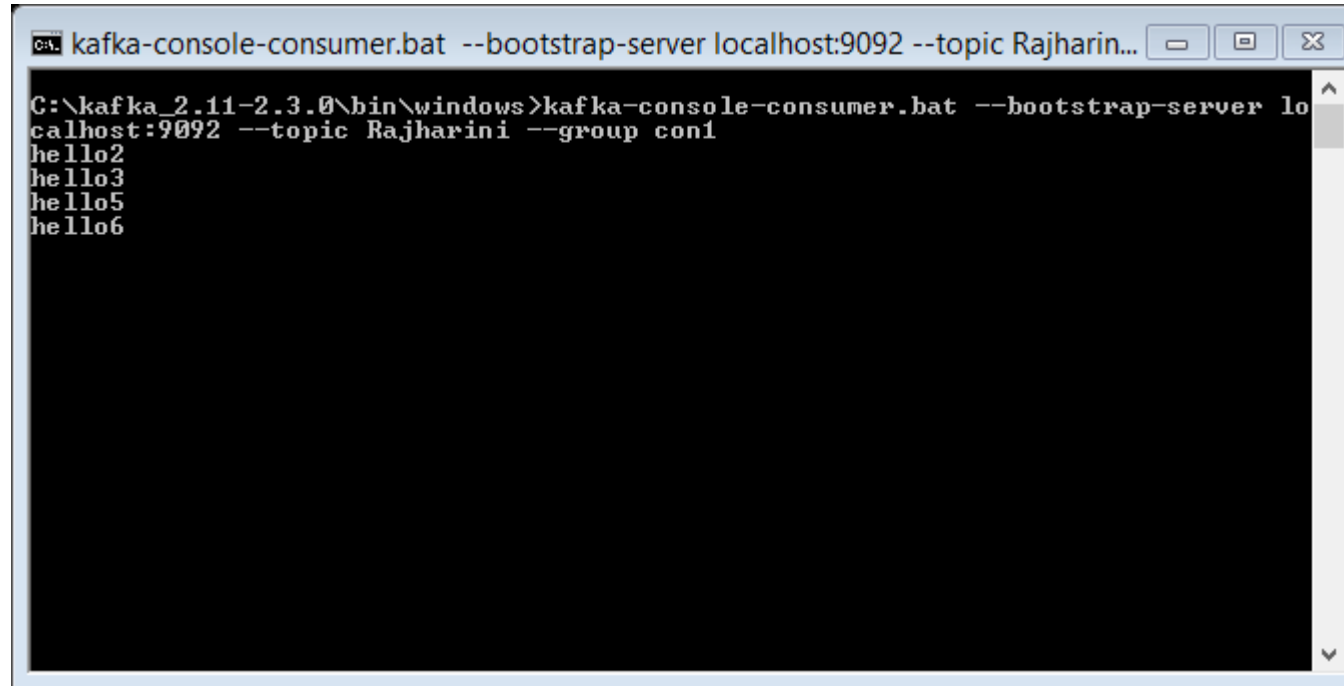
GROUP CON1 – CONSUMER 1



```
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group con1 --from-beginning
hello
hello1
hello4
hello7
```

The screenshot shows a Windows command prompt window with the title bar "C:\ kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharin...". The command prompt displays the command `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group con1 --from-beginning` and its output, which consists of four lines: `hello`, `hello1`, `hello4`, and `hello7`.

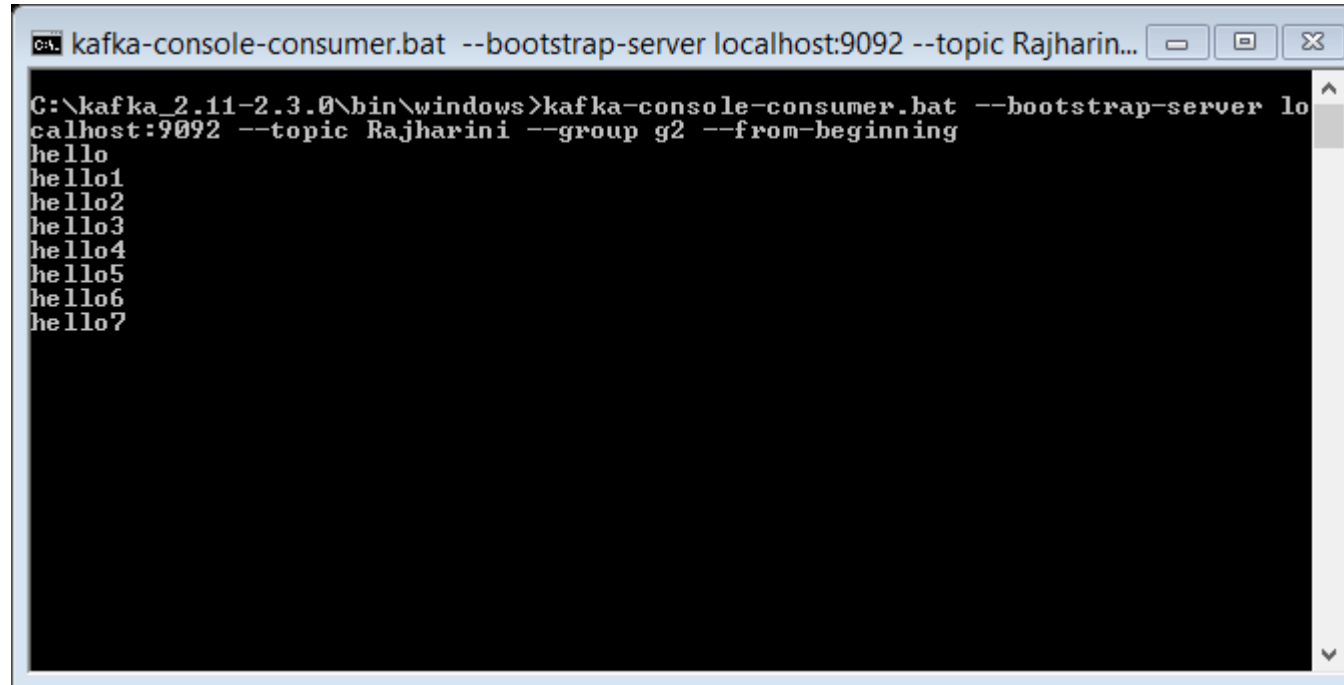
GROUP CON1 – CONSUMER 2



A screenshot of a Windows command prompt window. The title bar reads "cmd kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharin...". 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 Rajharini --group con1  
hello2  
hello3  
hello5  
hello6
```

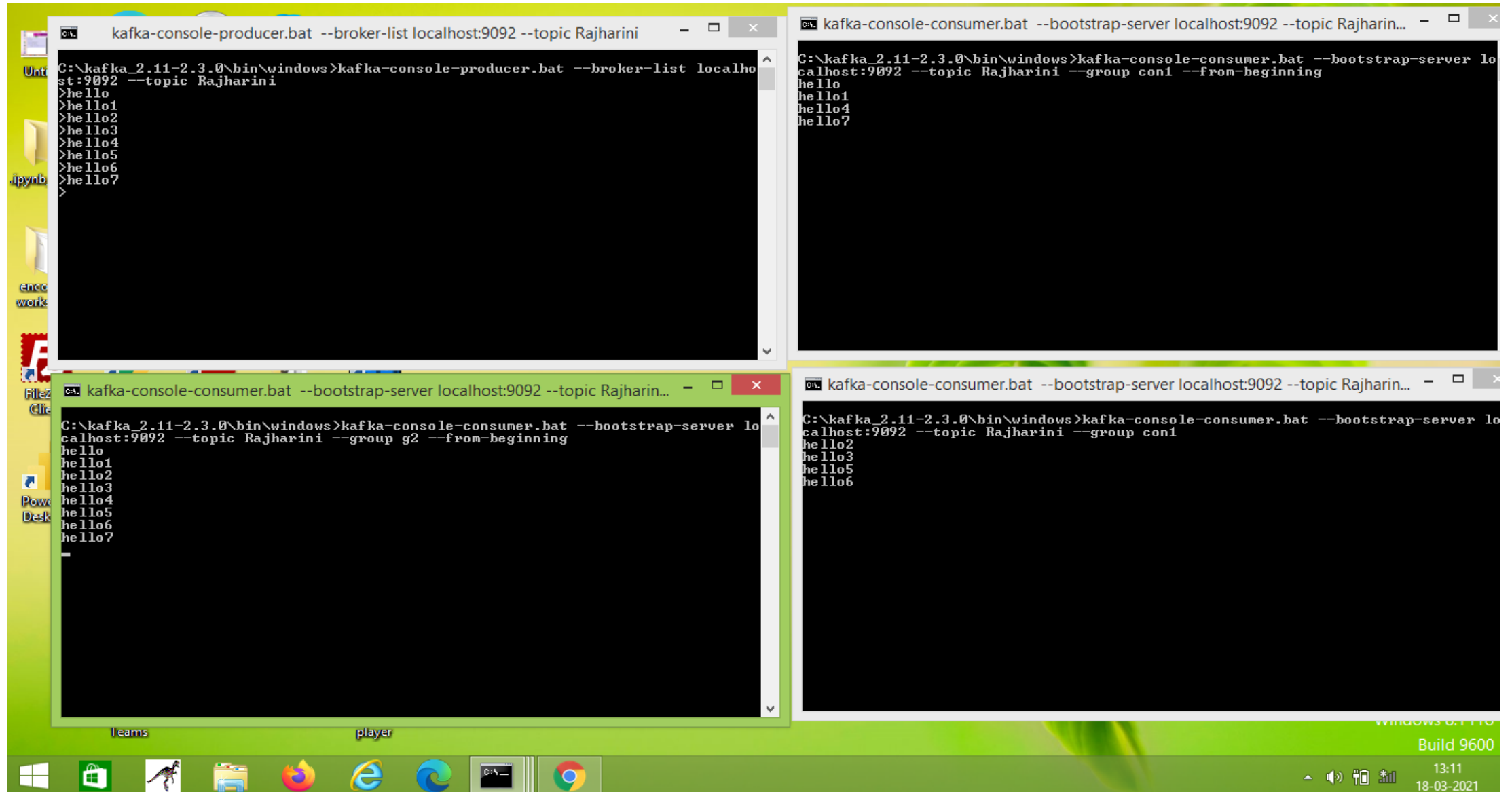
GROUP G2 - CONSUMER



```
C:\kafka_2.11-2.3.0\bin\windows>kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group g2 --from-beginning
hello
hello1
hello2
hello3
hello4
hello5
hello6
hello7
```

The screenshot shows a Windows command prompt window with the title bar "C:\ kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharin...". The command prompt displays the command `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group g2 --from-beginning` and its output, which consists of eight lines: `hello`, `hello1`, `hello2`, `hello3`, `hello4`, `hello5`, `hello6`, and `hello7`.

STRING FEEDING THROUGH PROCEDURE



The screenshot displays a Windows desktop environment with four terminal windows open, illustrating the process of string feeding through a Kafka topic using a procedure.

Top Left Window: `kafka-console-producer.bat --broker-list localhost:9092 --topic Rajharini`
The terminal shows the command prompt where the user enters `>hello`, followed by `>hello1`, `>hello2`, `>hello3`, `>hello4`, `>hello5`, `>hello6`, and `>hello7`.

Top Right Window: `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group con1 --from-beginning`
The terminal displays the output of the consumer: `hello`, `hello1`, `hello4`, and `hello7`.

Bottom Left Window: `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group g2 --from-beginning`
The terminal displays the output of the consumer: `hello`, `hello1`, `hello2`, `hello3`, `hello4`, `hello5`, `hello6`, and `hello7`.

Bottom Right Window: `kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic Rajharini --group con1`
The terminal displays the output of the consumer: `hello2`, `hello3`, `hello5`, and `hello6`.

The desktop background is a green abstract image. The taskbar at the bottom shows icons for Teams, a media player, and several web browsers (Firefox, Edge, Chrome). The system tray in the bottom right corner indicates the time is 13:11 on 18-03-2021.

PLATFORM AND FRAMEWORK

Zookeeper version-3.4.7

Apache Kafka version - 2.11-2.3.0

We installed zookeeper and Kafka in Windows operating system

Reason:

I wasn't able to run Kafka server in cloudera , so I tried this lab exercise in my host system.