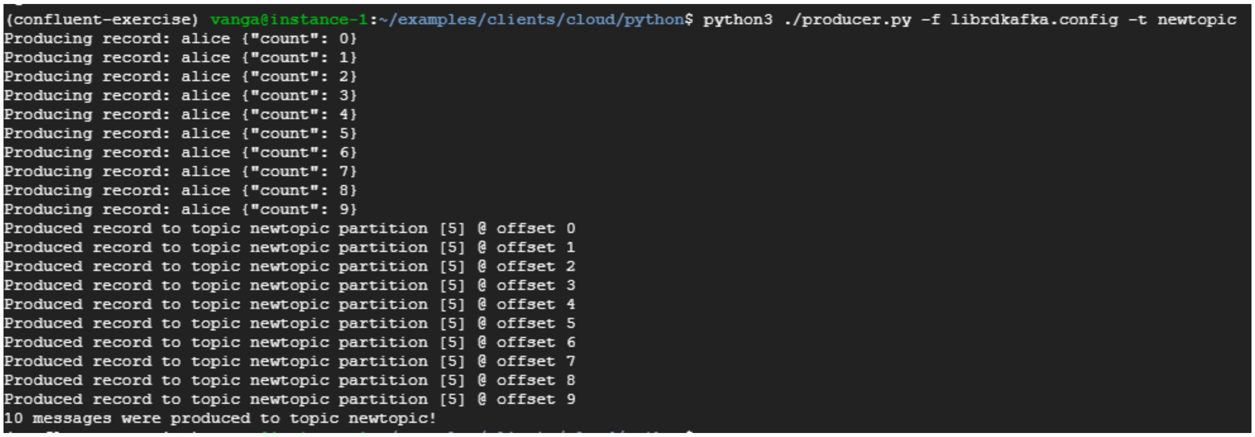
Likhitha Vanga
977673912

In-class Activity Report
DataEng: Data Transport Activity

A. Initialization

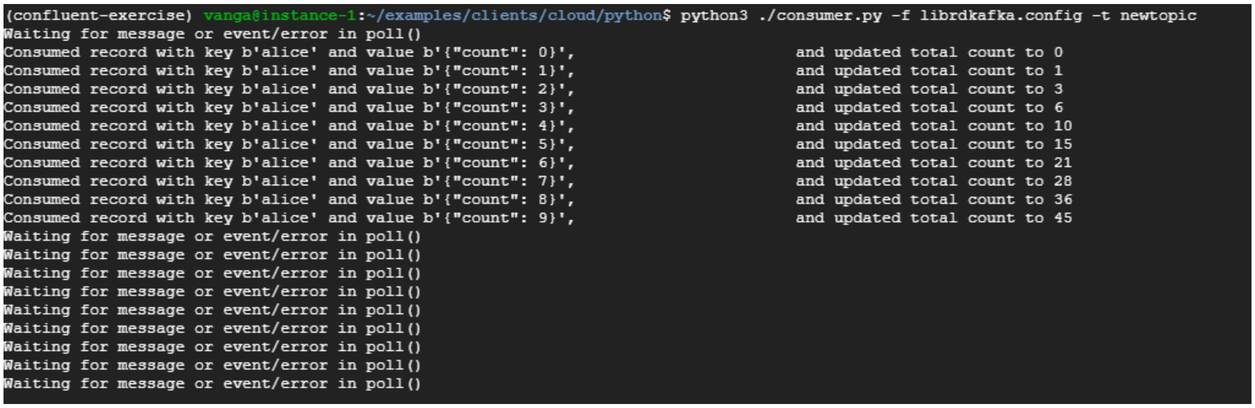
Day-1:

Results after running producer.py



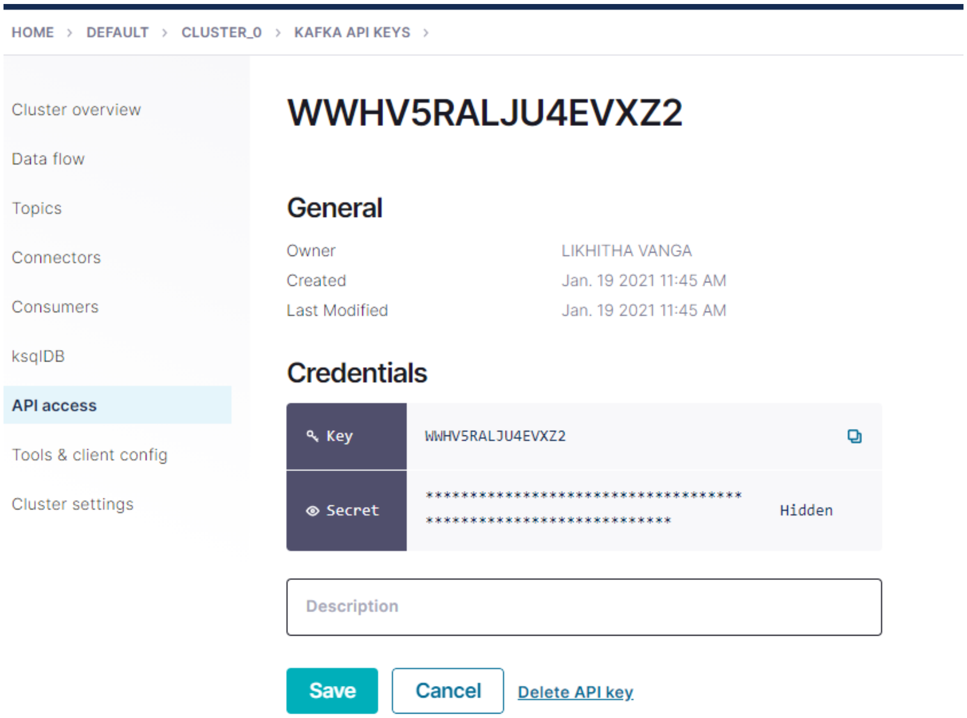
```
(confluent-exercise) vanga@instance-1:~/examples/clients/cloud/python$ python3 ./producer.py -f librdkafka.config -t newtopic
Producing record: alice {"count": 0}
Producing record: alice {"count": 1}
Producing record: alice {"count": 2}
Producing record: alice {"count": 3}
Producing record: alice {"count": 4}
Producing record: alice {"count": 5}
Producing record: alice {"count": 6}
Producing record: alice {"count": 7}
Producing record: alice {"count": 8}
Producing record: alice {"count": 9}
Produced record to topic newtopic partition [5] @ offset 0
Produced record to topic newtopic partition [5] @ offset 1
Produced record to topic newtopic partition [5] @ offset 2
Produced record to topic newtopic partition [5] @ offset 3
Produced record to topic newtopic partition [5] @ offset 4
Produced record to topic newtopic partition [5] @ offset 5
Produced record to topic newtopic partition [5] @ offset 6
Produced record to topic newtopic partition [5] @ offset 7
Produced record to topic newtopic partition [5] @ offset 8
Produced record to topic newtopic partition [5] @ offset 9
10 messages were produced to topic newtopic!
```

Results after running consumer.py



```
(confluent-exercise) vanga@instance-1:~/examples/clients/cloud/python$ python3 ./consumer.py -f librdkafka.config -t newtopic
Waiting for message or event/error in poll()
Consumed record with key b'alice' and value b'{"count": 0}',                      and updated total count to 0
Consumed record with key b'alice' and value b'{"count": 1}',                      and updated total count to 1
Consumed record with key b'alice' and value b'{"count": 2}',                      and updated total count to 3
Consumed record with key b'alice' and value b'{"count": 3}',                      and updated total count to 6
Consumed record with key b'alice' and value b'{"count": 4}',                      and updated total count to 10
Consumed record with key b'alice' and value b'{"count": 5}',                      and updated total count to 15
Consumed record with key b'alice' and value b'{"count": 6}',                      and updated total count to 21
Consumed record with key b'alice' and value b'{"count": 7}',                      and updated total count to 28
Consumed record with key b'alice' and value b'{"count": 8}',                      and updated total count to 36
Consumed record with key b'alice' and value b'{"count": 9}',                      and updated total count to 45
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
Waiting for message or event/error in poll()
```

API key:



WWHV5RALJU4EVXZ2

General

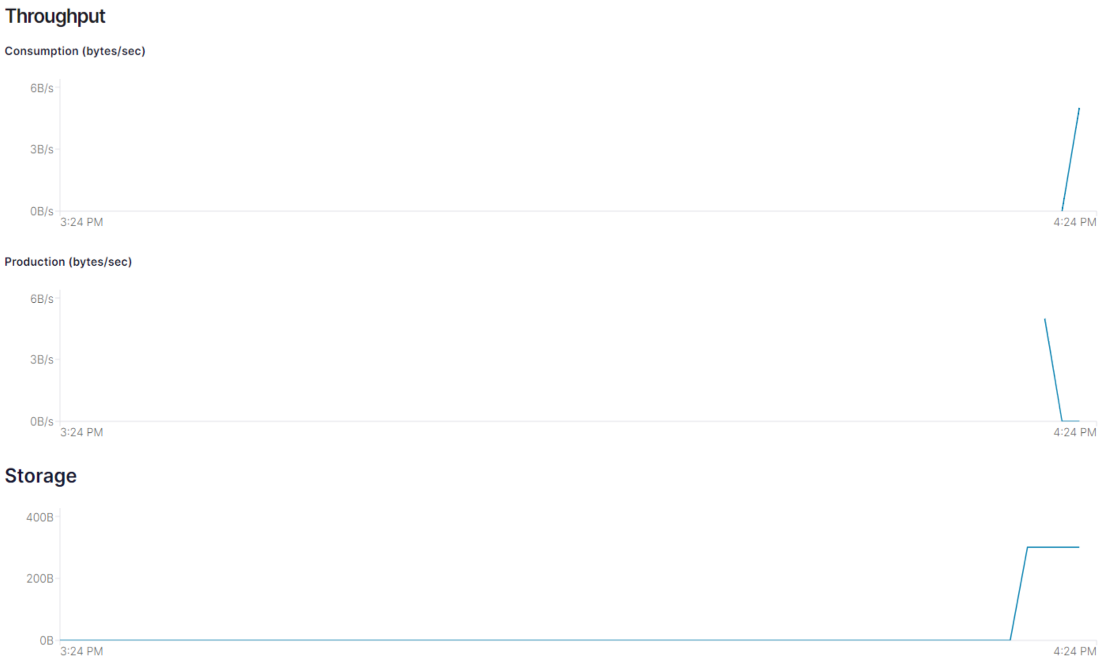
Owner	LIKHITHA VANGA
Created	Jan. 19 2021 11:45 AM
Last Modified	Jan. 19 2021 11:45 AM

Credentials

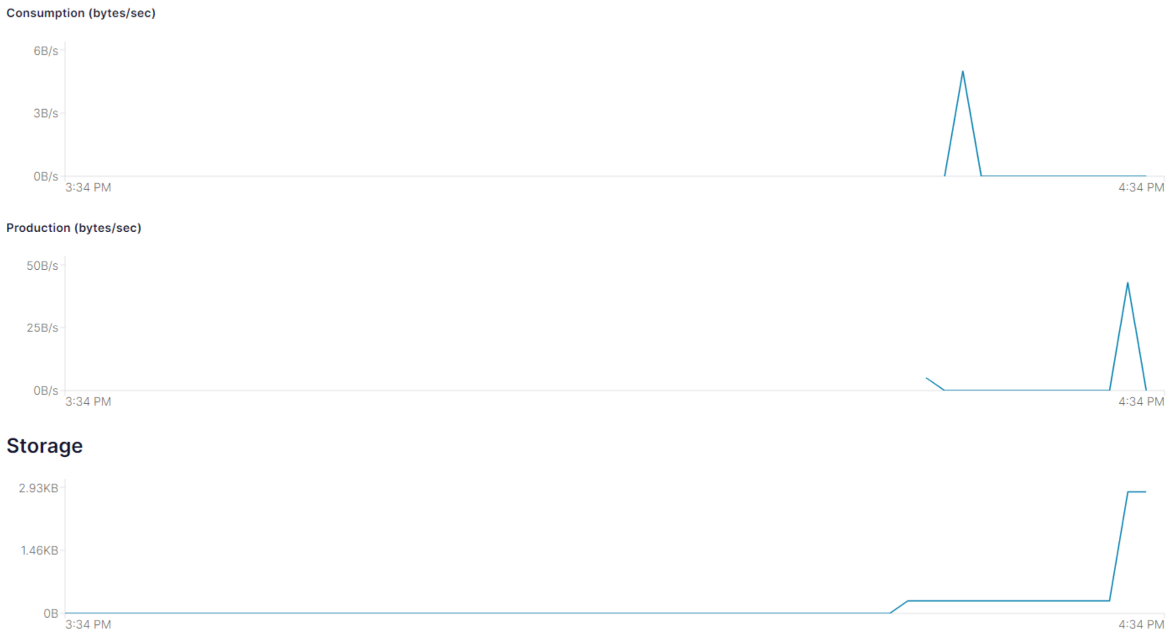
Key	WWHV5RALJU4EVXZ2	
Secret	************************************ ****************************	Hidden

B. Kafka Monitoring

Kafka Message Monitoring



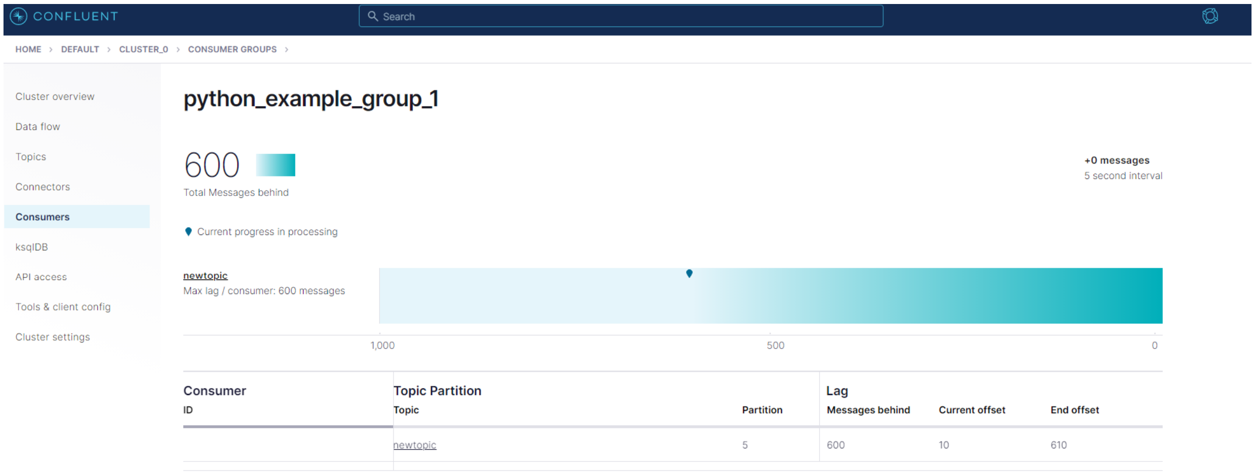
Likhitha Vanga
977673912



Consumption (bytes/sec)

Production (bytes/sec)

Storage



python_example_group_1

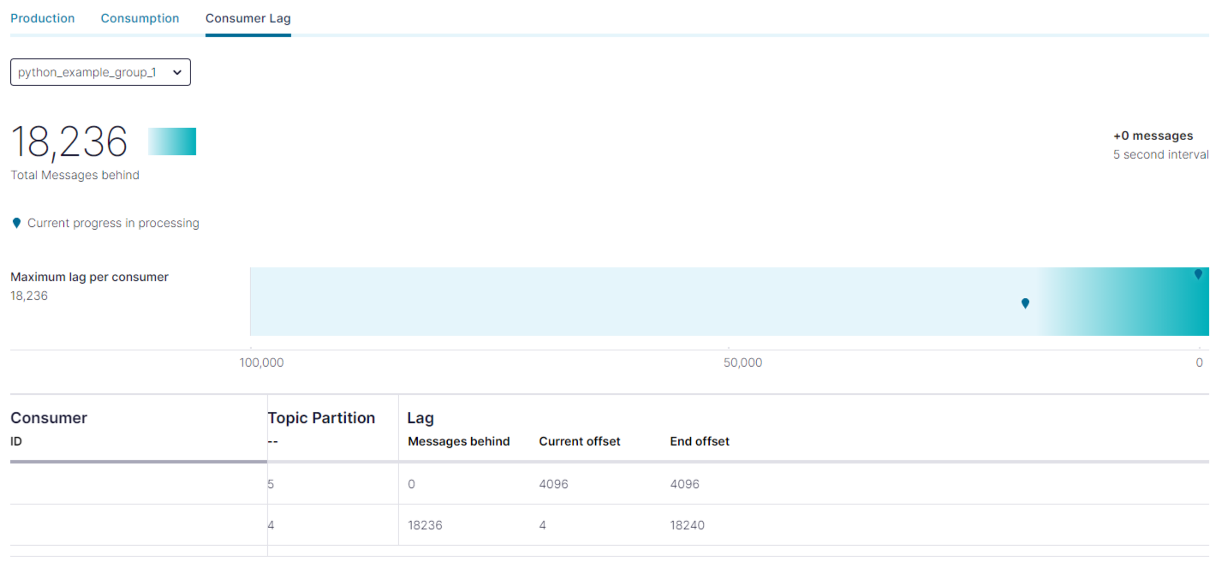
600
Total Messages behind

+0 messages
5 second interval

Current progress in processing

newtopic
Max lag / consumer: 600 messages

Consumer	Topic Partition		Lag		
ID	Topic	Partition	Messages behind	Current offset	End offset
	newtopic	5	600	10	610



18,236

Total Messages behind

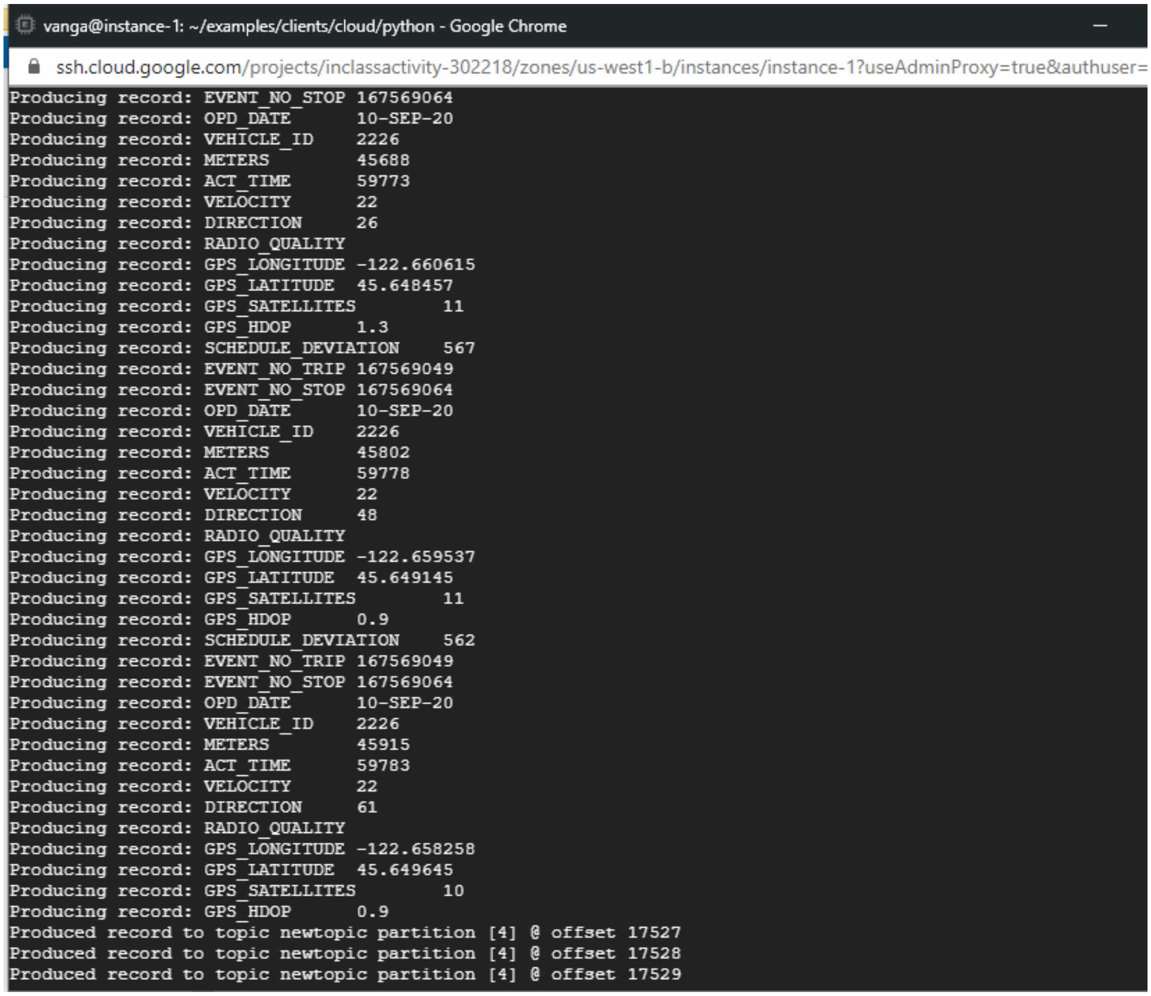
+0 messages
5 second interval

Current progress in processing

Maximum lag per consumer
18,236

Consumer ID	Topic Partition --	Lag Messages behind	Current offset	End offset
	5	0	4096	4096
	4	18236	4	18240

Producing Records of breadcrumb data:



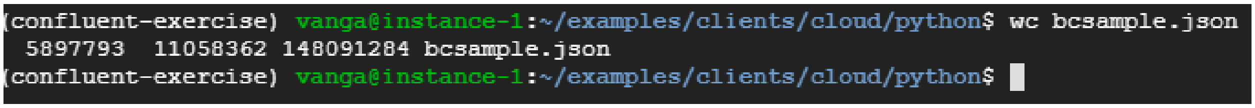
vanga@instance-1: ~/examples/clients/cloud/python - Google Chrome
ssh.cloud.google.com/projects/inclassactivity-302218/zones/us-west1-b/instances/instance-1?useAdminProxy=true&authuser=

```
Producing record: EVENT_NO_STOP 167569064
Producing record: OPD_DATE      10-SEP-20
Producing record: VEHICLE_ID    2226
Producing record: METERS        45688
Producing record: ACT_TIME      59773
Producing record: VELOCITY      22
Producing record: DIRECTION     26
Producing record: RADIO_QUALITY
Producing record: GPS_LONGITUDE -122.660615
Producing record: GPS_LATITUDE  45.648457
Producing record: GPS_SATELLITES        11
Producing record: GPS_HDOP      1.3
Producing record: SCHEDULE_DEVIATION    567
Producing record: EVENT_NO_TRIP 167569049
Producing record: EVENT_NO_STOP 167569064
Producing record: OPD_DATE      10-SEP-20
Producing record: VEHICLE_ID    2226
Producing record: METERS        45802
Producing record: ACT_TIME      59778
Producing record: VELOCITY      22
Producing record: DIRECTION     48
Producing record: RADIO_QUALITY
Producing record: GPS_LONGITUDE -122.659537
Producing record: GPS_LATITUDE  45.649145
Producing record: GPS_SATELLITES        11
Producing record: GPS_HDOP      0.9
Producing record: SCHEDULE_DEVIATION    562
Producing record: EVENT_NO_TRIP 167569049
Producing record: EVENT_NO_STOP 167569064
Producing record: OPD_DATE      10-SEP-20
Producing record: VEHICLE_ID    2226
Producing record: METERS        45915
Producing record: ACT_TIME      59783
Producing record: VELOCITY      22
Producing record: DIRECTION     61
Producing record: RADIO_QUALITY
Producing record: GPS_LONGITUDE -122.658258
Producing record: GPS_LATITUDE  45.649645
Producing record: GPS_SATELLITES        10
Producing record: GPS_HDOP      0.9
Produced record to topic newtopic partition [4] @ offset 17527
Produced record to topic newtopic partition [4] @ offset 17528
Produced record to topic newtopic partition [4] @ offset 17529
```

Running producer every 2 seconds:

watch -n 2 python3 ./producer.py -f librdkafka.config -t newtopic

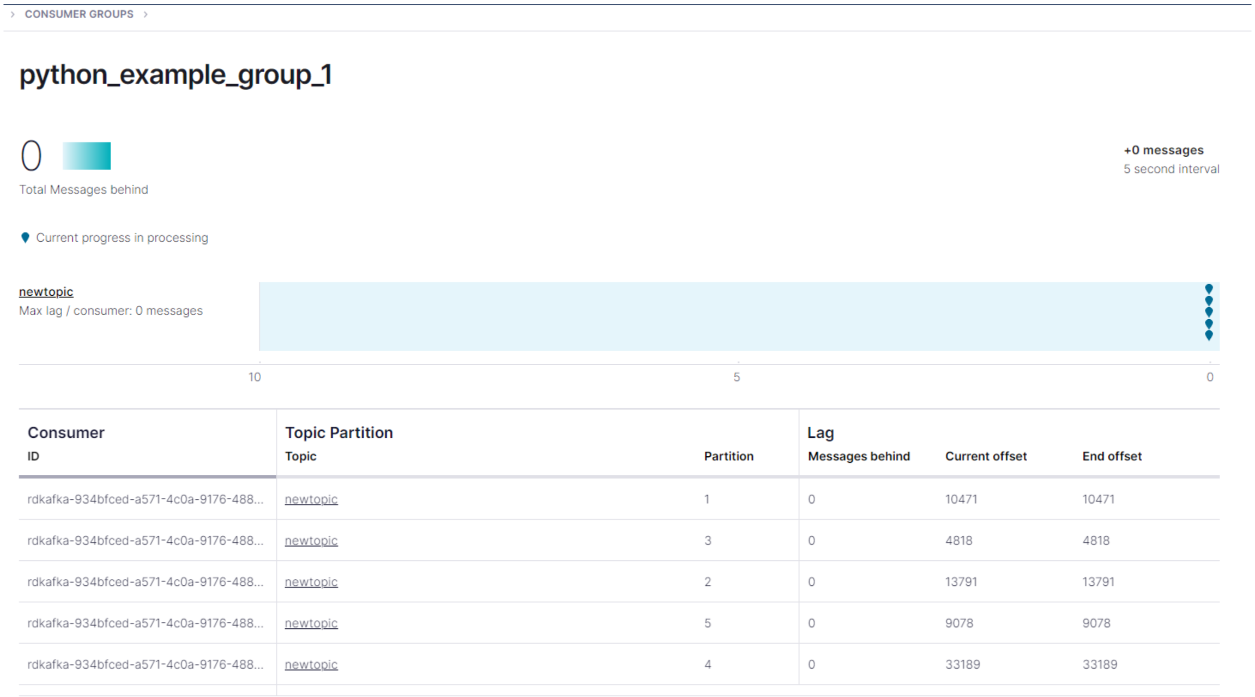
C. Kafka Storage



```
(confluent-exercise) vanga@instance-1:~/examples/clients/cloud/python$ wc bcsample.json
  5897793  11058362 148091284 bcsample.json
(confluent-exercise) vanga@instance-1:~/examples/clients/cloud/python$
```

When I run the consumer multiple times and producer only once…all the messages produced by producer are already consumed and consumer just waits for a message to be sent by producer.

Before the consumer runs the data will be waiting in the queue.



python_example_group_1

0
Total Messages behind

+0 messages
5 second interval

newtopic
Max lag / consumer: 0 messages

Consumer	Topic Partition		Lag		
ID	Topic	Partition	Messages behind	Current offset	End offset
rdkafka-934bfced-a571-4c0a-9176-488...	newtopic	1	0	10471	10471
rdkafka-934bfced-a571-4c0a-9176-488...	newtopic	3	0	4818	4818
rdkafka-934bfced-a571-4c0a-9176-488...	newtopic	2	0	13791	13791
rdkafka-934bfced-a571-4c0a-9176-488...	newtopic	5	0	9078	9078
rdkafka-934bfced-a571-4c0a-9176-488...	newtopic	4	0	33189	33189

D. Multiple Producers

When multiple producers are run, there were messages unconsumed in the queue and when a consumer is run, these messages will be consumed.