Confluent-Kafka Producer

February 18, 2025

```
[ ]: # Send a message to Confluent-Kafka Topic via Python
```

```
[ ]: # Required connection configs for Kafka producer, consumer, and admin
     bootstrap.servers=pkc-921jm.us-east-2.aws.confluent.cloud:9092
     security.protocol=SASL_SSL
     sasl.mechanisms=PLAIN
     sasl.username=FLY6JUGGUCNYPEC4
     sasl.password=ag/kHODDkMvDUIt3zscBtcDhct9ZrzzQjzFIzNIMcgGIkbKyc7ZTPQ/dF6tOGnoO

     # Best practice for higher availability in librdkafka clients prior to 1.7
     session.timeout.ms=45000

     client.id=ccloud-python-client-0ba89b25-4c4f-437d-b6a2-47efab204258
```

```
[1]: !pip install confluent-Kafka
```

```
Collecting confluent-Kafka
  Downloading
confluent_kafka-2.8.0-cp311-cp311-manylinux_2_28_x86_64.whl.metadata (21 kB)
Downloading confluent_kafka-2.8.0-cp311-cp311-manylinux_2_28_x86_64.whl (3.8 MB)
                         3.8/3.8 MB
21.9 MB/s eta 0:00:00
Installing collected packages: confluent-Kafka
Successfully installed confluent-Kafka-2.8.0
```

```python
[3]: import pandas as pd
     import json

     csv_file = 'Customers_data/first_100_customers.csv'

     df = pd.read_csv(csv_file)

     df.head()
```

```
[3]:    customer_id        name        city         state country registration_date  \
     0            0  Customer_0        Pune   Maharashtra   India        2023-06-29
     1            1  Customer_1   Bangalore    Tamil Nadu   India        2023-12-07
     2            2  Customer_2   Hyderabad       Gujarat   India        2023-10-27
```

```
3            3  Customer_3  Bangalore   Karnataka   India          2023-10-17
4            4  Customer_4  Ahmedabad   Karnataka   India          2023-03-14

   is_active
0      False
1       True
2       True
3      False
4      False
```

[4]:
```python
json_records = df.to_dict(orient='records')

json_file = 'customers.json'

with open(json_file,'w') as file:
    json.dump(json_records,file,indent=4)


print("File Converted to JSON")
```

```
File Converted to JSON
```

[ ]:
```python
# prompt: give a code to provide kafka producer conf

import pandas as pd
import json
from confluent_kafka import Producer

# Kafka Configuration
kafka_config = {
    'bootstrap.servers': 'pkc-921jm.us-east-2.aws.confluent.cloud:9092',
    'security.protocol': 'SASL_SSL',
    'sasl.mechanisms': 'PLAIN',
    'sasl.username': 'FLY6JUGGUCNYPEC4',
    'sasl.password': 'ag/kHODDkMvDUIt3zscBtcDhct9ZrzzQjzFIzNIMcgGIkbKyc7ZTPQ/
 ↪dF6tOGnoO',
    'session.timeout.ms': 45000,
    'client.id': 'ccloud-python-client-0ba89b25-4c4f-437d-b6a2-47efab204258'
}

# ... (rest of your code)
```

[7]:
```python
from confluent_kafka import Producer
import json
import time
```

```
conf ={
    "bootstrap.servers":"pkc-921jm.us-east-2.aws.confluent.cloud:9092",
    "security.protocol":"SASL_SSL",
    "sasl.mechanisms":"PLAIN",
    "sasl.username":"FLY6JUGGUCNYPEC4",
    "sasl.password":"ag/kHODDkMvDUIt3zscBtcDhct9ZrzzQjzFIzNIMcgGIkbKyc7ZTPQ/
    ↪dF6tOGnoO",
    'session.timeout.ms': 45000,
    'client.id': 'ccloud-python-client-0ba89b25-4c4f-437d-b6a2-47efab204258'
}

producer = Producer(conf)
```

[9]:
```
topic = 'ecommerce'

with open('customers.json','r') as file:
    customers_data = json.load(file)

value = customers_data[0]
key = value['customer_id']

print(key,value)
```

```
0 {'customer_id': 0, 'name': 'Customer_0', 'city': 'Pune', 'state':
'Maharashtra', 'country': 'India', 'registration_date': '2023-06-29',
'is_active': False}
```

[13]:
```
type(str(value).encode('utf-8'))
```

[13]: bytes

[14]:
```
producer.produce(topic,key = str(key).encode('utf-8'),value=str(value).
    ↪encode('utf-8'))
```

[ ]:
```
# Send multiple messages to our Kafka Cluster
```

[18]:
```
customers_data
```

[18]:
```
[{'customer_id': 0,
  'name': 'Customer_0',
  'city': 'Pune',
  'state': 'Maharashtra',
  'country': 'India',
  'registration_date': '2023-06-29',
  'is_active': False},
 {'customer_id': 1,
  'name': 'Customer_1',
  'city': 'Bangalore',
```

```
  'state': 'Tamil Nadu',
  'country': 'India',
  'registration_date': '2023-12-07',
  'is_active': True},
 {'customer_id': 2,
  'name': 'Customer_2',
  'city': 'Hyderabad',
  'state': 'Gujarat',
  'country': 'India',
  'registration_date': '2023-10-27',
  'is_active': True},
 {'customer_id': 3,
  'name': 'Customer_3',
  'city': 'Bangalore',
  'state': 'Karnataka',
  'country': 'India',
  'registration_date': '2023-10-17',
  'is_active': False},
 {'customer_id': 4,
  'name': 'Customer_4',
  'city': 'Ahmedabad',
  'state': 'Karnataka',
  'country': 'India',
  'registration_date': '2023-03-14',
  'is_active': False},
 {'customer_id': 5,
  'name': 'Customer_5',
  'city': 'Hyderabad',
  'state': 'Karnataka',
  'country': 'India',
  'registration_date': '2023-07-28',
  'is_active': False},
 {'customer_id': 6,
  'name': 'Customer_6',
  'city': 'Pune',
  'state': 'Delhi',
  'country': 'India',
  'registration_date': '2023-08-29',
  'is_active': False},
 {'customer_id': 7,
  'name': 'Customer_7',
  'city': 'Ahmedabad',
  'state': 'West Bengal',
  'country': 'India',
  'registration_date': '2023-12-28',
  'is_active': True},
 {'customer_id': 8,
```

```
 'name': 'Customer_8',
 'city': 'Pune',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-06-22',
 'is_active': True},
{'customer_id': 9,
 'name': 'Customer_9',
 'city': 'Mumbai',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-01-05',
 'is_active': True},
{'customer_id': 10,
 'name': 'Customer_10',
 'city': 'Pune',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-08-05',
 'is_active': True},
{'customer_id': 11,
 'name': 'Customer_11',
 'city': 'Delhi',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-08-02',
 'is_active': False},
{'customer_id': 12,
 'name': 'Customer_12',
 'city': 'Chennai',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-11-21',
 'is_active': False},
{'customer_id': 13,
 'name': 'Customer_13',
 'city': 'Chennai',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-11-06',
 'is_active': True},
{'customer_id': 14,
 'name': 'Customer_14',
 'city': 'Hyderabad',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-02-07',
```

```
 'is_active': False},
{'customer_id': 15,
 'name': 'Customer_15',
 'city': 'Mumbai',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-03-02',
 'is_active': True},
{'customer_id': 16,
 'name': 'Customer_16',
 'city': 'Chennai',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-04-05',
 'is_active': False},
{'customer_id': 17,
 'name': 'Customer_17',
 'city': 'Hyderabad',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-08-21',
 'is_active': False},
{'customer_id': 18,
 'name': 'Customer_18',
 'city': 'Pune',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-10-04',
 'is_active': True},
{'customer_id': 19,
 'name': 'Customer_19',
 'city': 'Kolkata',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-02-05',
 'is_active': True},
{'customer_id': 20,
 'name': 'Customer_20',
 'city': 'Hyderabad',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-01-01',
 'is_active': True},
{'customer_id': 21,
 'name': 'Customer_21',
 'city': 'Bangalore',
 'state': 'Tamil Nadu',
```

```
 'country': 'India',
 'registration_date': '2023-05-30',
 'is_active': True},
{'customer_id': 22,
 'name': 'Customer_22',
 'city': 'Chennai',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-08-03',
 'is_active': True},
{'customer_id': 23,
 'name': 'Customer_23',
 'city': 'Chennai',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-02-15',
 'is_active': False},
{'customer_id': 24,
 'name': 'Customer_24',
 'city': 'Kolkata',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-03-06',
 'is_active': False},
{'customer_id': 25,
 'name': 'Customer_25',
 'city': 'Pune',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-01-06',
 'is_active': False},
{'customer_id': 26,
 'name': 'Customer_26',
 'city': 'Delhi',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-03-22',
 'is_active': True},
{'customer_id': 27,
 'name': 'Customer_27',
 'city': 'Ahmedabad',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-07-08',
 'is_active': True},
{'customer_id': 28,
 'name': 'Customer_28',
```

```
 'city': 'Hyderabad',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-05-31',
 'is_active': True},
{'customer_id': 29,
 'name': 'Customer_29',
 'city': 'Delhi',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-05-28',
 'is_active': False},
{'customer_id': 30,
 'name': 'Customer_30',
 'city': 'Hyderabad',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-01-28',
 'is_active': False},
{'customer_id': 31,
 'name': 'Customer_31',
 'city': 'Kolkata',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-06-14',
 'is_active': False},
{'customer_id': 32,
 'name': 'Customer_32',
 'city': 'Delhi',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-05-15',
 'is_active': False},
{'customer_id': 33,
 'name': 'Customer_33',
 'city': 'Mumbai',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-09-11',
 'is_active': False},
{'customer_id': 34,
 'name': 'Customer_34',
 'city': 'Kolkata',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-11-01',
 'is_active': True},
```

```
{'customer_id': 35,
 'name': 'Customer_35',
 'city': 'Pune',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-07-31',
 'is_active': False},
{'customer_id': 36,
 'name': 'Customer_36',
 'city': 'Ahmedabad',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-10-07',
 'is_active': True},
{'customer_id': 37,
 'name': 'Customer_37',
 'city': 'Hyderabad',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-03-21',
 'is_active': True},
{'customer_id': 38,
 'name': 'Customer_38',
 'city': 'Bangalore',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-09-26',
 'is_active': False},
{'customer_id': 39,
 'name': 'Customer_39',
 'city': 'Pune',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-12-14',
 'is_active': False},
{'customer_id': 40,
 'name': 'Customer_40',
 'city': 'Pune',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-01-15',
 'is_active': False},
{'customer_id': 41,
 'name': 'Customer_41',
 'city': 'Bangalore',
 'state': 'Karnataka',
 'country': 'India',
```

```
 'registration_date': '2023-03-28',
 'is_active': False},
{'customer_id': 42,
 'name': 'Customer_42',
 'city': 'Bangalore',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-08-11',
 'is_active': True},
{'customer_id': 43,
 'name': 'Customer_43',
 'city': 'Hyderabad',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-11-21',
 'is_active': True},
{'customer_id': 44,
 'name': 'Customer_44',
 'city': 'Pune',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-04-01',
 'is_active': True},
{'customer_id': 45,
 'name': 'Customer_45',
 'city': 'Chennai',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-11-12',
 'is_active': False},
{'customer_id': 46,
 'name': 'Customer_46',
 'city': 'Kolkata',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-09-23',
 'is_active': True},
{'customer_id': 47,
 'name': 'Customer_47',
 'city': 'Kolkata',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-11-03',
 'is_active': True},
{'customer_id': 48,
 'name': 'Customer_48',
 'city': 'Ahmedabad',
```

```
      'state': 'Tamil Nadu',
      'country': 'India',
      'registration_date': '2023-11-16',
      'is_active': True},
     {'customer_id': 49,
      'name': 'Customer_49',
      'city': 'Delhi',
      'state': 'Gujarat',
      'country': 'India',
      'registration_date': '2023-04-16',
      'is_active': True},
     {'customer_id': 50,
      'name': 'Customer_50',
      'city': 'Kolkata',
      'state': 'Tamil Nadu',
      'country': 'India',
      'registration_date': '2023-09-10',
      'is_active': True},
     {'customer_id': 51,
      'name': 'Customer_51',
      'city': 'Ahmedabad',
      'state': 'Tamil Nadu',
      'country': 'India',
      'registration_date': '2023-07-18',
      'is_active': True},
     {'customer_id': 52,
      'name': 'Customer_52',
      'city': 'Ahmedabad',
      'state': 'Karnataka',
      'country': 'India',
      'registration_date': '2023-02-25',
      'is_active': True},
     {'customer_id': 53,
      'name': 'Customer_53',
      'city': 'Pune',
      'state': 'Telangana',
      'country': 'India',
      'registration_date': '2023-08-27',
      'is_active': True},
     {'customer_id': 54,
      'name': 'Customer_54',
      'city': 'Kolkata',
      'state': 'Delhi',
      'country': 'India',
      'registration_date': '2023-12-13',
      'is_active': False},
     {'customer_id': 55,
```

```
  'name': 'Customer_55',
  'city': 'Pune',
  'state': 'Telangana',
  'country': 'India',
  'registration_date': '2023-12-07',
  'is_active': True},
 {'customer_id': 56,
  'name': 'Customer_56',
  'city': 'Delhi',
  'state': 'Karnataka',
  'country': 'India',
  'registration_date': '2023-12-29',
  'is_active': False},
 {'customer_id': 57,
  'name': 'Customer_57',
  'city': 'Kolkata',
  'state': 'Gujarat',
  'country': 'India',
  'registration_date': '2023-08-06',
  'is_active': False},
 {'customer_id': 58,
  'name': 'Customer_58',
  'city': 'Kolkata',
  'state': 'Tamil Nadu',
  'country': 'India',
  'registration_date': '2023-07-31',
  'is_active': True},
 {'customer_id': 59,
  'name': 'Customer_59',
  'city': 'Ahmedabad',
  'state': 'Telangana',
  'country': 'India',
  'registration_date': '2023-07-08',
  'is_active': True},
 {'customer_id': 60,
  'name': 'Customer_60',
  'city': 'Mumbai',
  'state': 'Tamil Nadu',
  'country': 'India',
  'registration_date': '2023-12-01',
  'is_active': True},
 {'customer_id': 61,
  'name': 'Customer_61',
  'city': 'Hyderabad',
  'state': 'Delhi',
  'country': 'India',
  'registration_date': '2023-12-31',
```

```
  'is_active': False},
{'customer_id': 62,
 'name': 'Customer_62',
 'city': 'Delhi',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-04-12',
 'is_active': True},
{'customer_id': 63,
 'name': 'Customer_63',
 'city': 'Mumbai',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-05-23',
 'is_active': True},
{'customer_id': 64,
 'name': 'Customer_64',
 'city': 'Chennai',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-10-12',
 'is_active': False},
{'customer_id': 65,
 'name': 'Customer_65',
 'city': 'Delhi',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-03-11',
 'is_active': True},
{'customer_id': 66,
 'name': 'Customer_66',
 'city': 'Pune',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-12-02',
 'is_active': True},
{'customer_id': 67,
 'name': 'Customer_67',
 'city': 'Hyderabad',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-03-06',
 'is_active': False},
{'customer_id': 68,
 'name': 'Customer_68',
 'city': 'Kolkata',
 'state': 'Gujarat',
```

```
 'country': 'India',
 'registration_date': '2023-07-17',
 'is_active': False},
{'customer_id': 69,
 'name': 'Customer_69',
 'city': 'Pune',
 'state': 'Tamil Nadu',
 'country': 'India',
 'registration_date': '2023-01-16',
 'is_active': True},
{'customer_id': 70,
 'name': 'Customer_70',
 'city': 'Kolkata',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-11-06',
 'is_active': True},
{'customer_id': 71,
 'name': 'Customer_71',
 'city': 'Mumbai',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-12-19',
 'is_active': True},
{'customer_id': 72,
 'name': 'Customer_72',
 'city': 'Mumbai',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-09-20',
 'is_active': False},
{'customer_id': 73,
 'name': 'Customer_73',
 'city': 'Chennai',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-03-01',
 'is_active': False},
{'customer_id': 74,
 'name': 'Customer_74',
 'city': 'Chennai',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-01-10',
 'is_active': False},
{'customer_id': 75,
 'name': 'Customer_75',
```

```
 'city': 'Hyderabad',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-11-05',
 'is_active': True},
{'customer_id': 76,
 'name': 'Customer_76',
 'city': 'Kolkata',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-01-08',
 'is_active': False},
{'customer_id': 77,
 'name': 'Customer_77',
 'city': 'Pune',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-12-07',
 'is_active': True},
{'customer_id': 78,
 'name': 'Customer_78',
 'city': 'Bangalore',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-03-31',
 'is_active': False},
{'customer_id': 79,
 'name': 'Customer_79',
 'city': 'Pune',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-02-06',
 'is_active': True},
{'customer_id': 80,
 'name': 'Customer_80',
 'city': 'Ahmedabad',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-03-25',
 'is_active': False},
{'customer_id': 81,
 'name': 'Customer_81',
 'city': 'Chennai',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-08-22',
 'is_active': True},
```

```
{'customer_id': 82,
 'name': 'Customer_82',
 'city': 'Kolkata',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-09-07',
 'is_active': False},
{'customer_id': 83,
 'name': 'Customer_83',
 'city': 'Pune',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-08-28',
 'is_active': True},
{'customer_id': 84,
 'name': 'Customer_84',
 'city': 'Pune',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-04-14',
 'is_active': False},
{'customer_id': 85,
 'name': 'Customer_85',
 'city': 'Chennai',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-07-30',
 'is_active': True},
{'customer_id': 86,
 'name': 'Customer_86',
 'city': 'Ahmedabad',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-08-13',
 'is_active': False},
{'customer_id': 87,
 'name': 'Customer_87',
 'city': 'Pune',
 'state': 'Karnataka',
 'country': 'India',
 'registration_date': '2023-10-06',
 'is_active': False},
{'customer_id': 88,
 'name': 'Customer_88',
 'city': 'Pune',
 'state': 'Telangana',
 'country': 'India',
```

```
 'registration_date': '2023-06-15',
 'is_active': True},
{'customer_id': 89,
 'name': 'Customer_89',
 'city': 'Delhi',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-10-28',
 'is_active': True},
{'customer_id': 90,
 'name': 'Customer_90',
 'city': 'Ahmedabad',
 'state': 'Gujarat',
 'country': 'India',
 'registration_date': '2023-02-15',
 'is_active': False},
{'customer_id': 91,
 'name': 'Customer_91',
 'city': 'Mumbai',
 'state': 'Telangana',
 'country': 'India',
 'registration_date': '2023-01-02',
 'is_active': False},
{'customer_id': 92,
 'name': 'Customer_92',
 'city': 'Kolkata',
 'state': 'Delhi',
 'country': 'India',
 'registration_date': '2023-06-25',
 'is_active': True},
{'customer_id': 93,
 'name': 'Customer_93',
 'city': 'Pune',
 'state': 'West Bengal',
 'country': 'India',
 'registration_date': '2023-09-30',
 'is_active': False},
{'customer_id': 94,
 'name': 'Customer_94',
 'city': 'Chennai',
 'state': 'Maharashtra',
 'country': 'India',
 'registration_date': '2023-04-28',
 'is_active': False},
{'customer_id': 95,
 'name': 'Customer_95',
 'city': 'Mumbai',
```

```
       'state': 'Karnataka',
       'country': 'India',
       'registration_date': '2023-09-29',
       'is_active': True},
      {'customer_id': 96,
       'name': 'Customer_96',
       'city': 'Ahmedabad',
       'state': 'Telangana',
       'country': 'India',
       'registration_date': '2023-06-22',
       'is_active': False},
      {'customer_id': 97,
       'name': 'Customer_97',
       'city': 'Pune',
       'state': 'Maharashtra',
       'country': 'India',
       'registration_date': '2023-10-31',
       'is_active': True},
      {'customer_id': 98,
       'name': 'Customer_98',
       'city': 'Pune',
       'state': 'West Bengal',
       'country': 'India',
       'registration_date': '2023-06-01',
       'is_active': True}]
```

[20]:
```python
topic = 'ecommerce'

# with open('customers.json','r') as file:
#     customers_data = json.load(file)

def delivery_status(err,msg):
  if(err):
    print(f"Message delivery failed: {err}")
  else:
    print(f"message delivered to {msg.topic()} [{msg.partition()}] at offset
  {msg.offset()}")

for record in customers_data:
  try:

    message_value = json.dumps(record)
    message_key = str(int(record['customer_id']) + 1000).encode('utf-8')

    producer.produce(topic,key = message_key,value=message_value,callback =
  delivery_status)
    producer.poll(1)
```

```python
  except Exception as e:
    print(f"Error sending messages: {e}")

producer.flush()

print("Message send to kafka successfully")
```

```
message delivered to ecommerce [0] at offset 42
message delivered to ecommerce [0] at offset 43
message delivered to ecommerce [2] at offset 26
message delivered to ecommerce [2] at offset 27
message delivered to ecommerce [1] at offset 38
message delivered to ecommerce [2] at offset 28
message delivered to ecommerce [0] at offset 44
message delivered to ecommerce [1] at offset 39
message delivered to ecommerce [2] at offset 29
message delivered to ecommerce [2] at offset 30
message delivered to ecommerce [0] at offset 45
message delivered to ecommerce [1] at offset 40
message delivered to ecommerce [2] at offset 31
message delivered to ecommerce [2] at offset 32
message delivered to ecommerce [2] at offset 33
message delivered to ecommerce [2] at offset 34
message delivered to ecommerce [2] at offset 35
message delivered to ecommerce [1] at offset 41
message delivered to ecommerce [1] at offset 42
message delivered to ecommerce [0] at offset 46
message delivered to ecommerce [1] at offset 43
message delivered to ecommerce [0] at offset 47
message delivered to ecommerce [0] at offset 48
message delivered to ecommerce [0] at offset 49
message delivered to ecommerce [2] at offset 36
message delivered to ecommerce [1] at offset 44
message delivered to ecommerce [2] at offset 37
message delivered to ecommerce [0] at offset 50
message delivered to ecommerce [2] at offset 38
message delivered to ecommerce [0] at offset 51
message delivered to ecommerce [0] at offset 52
message delivered to ecommerce [2] at offset 39
message delivered to ecommerce [0] at offset 53
message delivered to ecommerce [1] at offset 45
message delivered to ecommerce [2] at offset 40
message delivered to ecommerce [1] at offset 46
message delivered to ecommerce [2] at offset 41
message delivered to ecommerce [1] at offset 47
message delivered to ecommerce [2] at offset 42
message delivered to ecommerce [1] at offset 48
```

```
message delivered to ecommerce [2] at offset 43
message delivered to ecommerce [0] at offset 54
message delivered to ecommerce [0] at offset 55
message delivered to ecommerce [0] at offset 56
message delivered to ecommerce [2] at offset 44
message delivered to ecommerce [0] at offset 57
message delivered to ecommerce [0] at offset 58
message delivered to ecommerce [1] at offset 49
message delivered to ecommerce [1] at offset 50
message delivered to ecommerce [2] at offset 45
message delivered to ecommerce [0] at offset 59
message delivered to ecommerce [0] at offset 60
message delivered to ecommerce [1] at offset 51
message delivered to ecommerce [2] at offset 46
message delivered to ecommerce [0] at offset 61
message delivered to ecommerce [0] at offset 62
message delivered to ecommerce [2] at offset 47
message delivered to ecommerce [1] at offset 52
message delivered to ecommerce [0] at offset 63
message delivered to ecommerce [0] at offset 64
message delivered to ecommerce [2] at offset 48
message delivered to ecommerce [0] at offset 65
message delivered to ecommerce [0] at offset 66
message delivered to ecommerce [1] at offset 53
message delivered to ecommerce [0] at offset 67
message delivered to ecommerce [1] at offset 54
message delivered to ecommerce [0] at offset 68
message delivered to ecommerce [2] at offset 49
message delivered to ecommerce [0] at offset 69
message delivered to ecommerce [2] at offset 50
message delivered to ecommerce [2] at offset 51
message delivered to ecommerce [0] at offset 70
message delivered to ecommerce [2] at offset 52
message delivered to ecommerce [1] at offset 55
message delivered to ecommerce [0] at offset 71
message delivered to ecommerce [1] at offset 56
message delivered to ecommerce [0] at offset 72
message delivered to ecommerce [0] at offset 73
message delivered to ecommerce [0] at offset 74
message delivered to ecommerce [0] at offset 75
message delivered to ecommerce [0] at offset 76
message delivered to ecommerce [2] at offset 53
message delivered to ecommerce [2] at offset 54
message delivered to ecommerce [2] at offset 55
message delivered to ecommerce [0] at offset 77
message delivered to ecommerce [0] at offset 78
message delivered to ecommerce [2] at offset 56
message delivered to ecommerce [0] at offset 79
```

```
message delivered to ecommerce [0] at offset 80
message delivered to ecommerce [2] at offset 57
message delivered to ecommerce [1] at offset 57
message delivered to ecommerce [1] at offset 58
message delivered to ecommerce [0] at offset 81
message delivered to ecommerce [0] at offset 82
message delivered to ecommerce [0] at offset 83
message delivered to ecommerce [0] at offset 84
message delivered to ecommerce [0] at offset 85
message delivered to ecommerce [0] at offset 86
message delivered to ecommerce [1] at offset 59
Message send to kafka successfully
```