1. Дані з двох сенсорів

```
/PyTEST$ python3 send_msg_building_sensor.py
'2024-11-24T12:35:00.654597', 'temperature':
'2024-11-24T12:35:05.669274', 'temperature':
                                                                                                                                                           'temperature': 26,
'temperature': 34,
                          'sensor_id': 7333,
'sensor_id': 7333,
'sensor_id': 7333,
Sent data:
                                                                   'timestamp':
                                                                                                                                                                                                     'humidity':
                                                                 'timestamp':
                                                                                                                                                                                                    'humidity':
'humidity':
Sent data:
                         'sensor_id': 7333,
                                                                  'timestamp':
                                                                                              '2024-11-24T12:35:10.675043',
'2024-11-24T12:35:15.679950',
'2024-11-24T12:35:20.684952',
                                                                                                                                                            'temperature': 38,
Sent data:
                                                                                                                                                                                                                             72]
                                                                                                                                                                                                    'humidity':
'humidity':
'humidity':
'humidity':
'humidity':
'humidity':
                                                                 'timestamp':
                                                                                                                                                            'temperature': 37,
                                                                                                                                                                                                                             40]
Sent data:
                                                                  'timestamp':
                                                                                                                                                            'temperature': 44,
                                                                                                                                                                                                                             54
Sent data:
                                                                 'timestamp
                                                                                               2024-11-24T12:35:25.690980',
                                                                                                                                                            'temperature': 43,
Sent data:
                                                                                            '2024-11-24T12:35:25.690980',
'2024-11-24T12:35:30.700970',
'2024-11-24T12:35:35.713329',
'2024-11-24T12:35:40.724019',
'2024-11-24T12:35:50.737303',
'2024-11-24T12:35:55.744941',
                                                                                                                                                            'temperature': 32,
'temperature': 29,
'temperature': 29,
                                                                 'timestamp':
Sent data:
                                                                 'timestamp':
Sent data:
                                                                                                                                                                                                    'humidity':
'humidity':
                                                                 'timestamp':
Sent data:
                                                                                                                                                                                                                             16
                                                                                                                                                            'temperature': 36,
                                                                 'timestamp':
Sent data:
                                                                                                                                                                                                    'humidity'
Sent data:
                                                                 'timestamp':
                                                                                                                                                            'temperature': 42,
                                                                                                                                                            'temperature': 38,
'temperature': 30,
'temperature': 25,
Sent data:
                                                                 'timestamp':
                                                                                             2024-11-24112:35:35.744941,

'2024-11-24112:36:00.755939',

'2024-11-24112:36:05.761974',

'2024-11-24112:36:15.786935',
                                                                 'timestamp':
                                                                                                                                                                                                    'humidity':
Sent data:
                                                                 'timestamp':
                                                                                                                                                                                                    'humidity':
Sent data:
                                                                                                                                                            'temperature': 30,
                                                                 'timestamp':
                                                                                                                                                                                                    'humidity'
Sent data:
                                                                 'timestamp
                                                                                                                                                             'temperature': 42,
                                                                                                                                                                                                    'humidity
Sent data:
                                                                                                                                                                                                                              76]
                                                                                             '2024-11-24T12:36:20.794300',
'2024-11-24T12:36:25.799933',
'2024-11-24T12:36:30.810931'
                                                                                                                                                            'temperature': 36,
                                                                'timestamp':
'timestamp':
                                                                                                                                                           'temperature': 31,
                                                                                                                                                                                                    'humidity
Sent data:
```

2. після запуску команди **spark-submit --packages org.apache.spark:spark-sql-kafka-0-10\_2.12:3.2.0 stream.py** Дані через стрімінг потрапляють знов в кафку, що видно з виводу файла який читає відповідний топік:

```
uments/PyTE:15 python3 read_alerts.py
2024-11-24T12:37:00.000+02:00'}, 't_avg': 35.1666666666666, 'h_avg': 56.833333333333, 'code': 101, 'message': "It's too
                          ]
2024-11-24T12:36:00.000+02:00', 'end': '2024-11-24T12:37:00.000+02:00'), 't_avg': 35.1666666666664, 'h_avg': 56.833333333333333, 'code': 104, 'message': "It's too
                          2024-11-24T12:38:30.000+02:00', 'end': '2024-11-24T12:39:30.000+02:00'}, 't_avg': 35.4166666666666, 'h_avg': 49.41666666666664, 'code': 101, 'message': "It's too
                          2024-11-24T12:38:30.000+02:00', 'end': '2024-11-24T12:39:30.000+02:00'), 't_avg': 35.4166666666666, 'h_avg': 49.41666666666666, 'code': 102, 'message': "It's too w
                          2024-11-24T12:38:30.000+02:00', 'end': '2024-11-24T12:39:30.000+02:00'}, 't_avg': 35.4166666666666, 'h_avg': 49.41666666666666, 'code': 103, 'message': "It's too
                          ")
2024-11-24T12:38:30.000+02:00", 'end': '2024-11-24T12:39:30.000+02:00"), 't_avg': 35.4166666666664, 'h_avg': 49.4166666666666, 'code': 104, 'message': "It's too h
                          2024-11-24T12:35:30.000+02:00', 'end': '2024-11-24T12:36:30.000+02:00'), 't_avg': 33.5833333333336, 'h_avg': 56.41666666666666, 'code': 101, 'message': "It's too c
                          2024-11-24T12:35:30.000+02:00', 'end': '2024-11-24T12:36:30.000+02:00'), 't_avg': 33.5833333333336, 'h_avg': 56.416666666666666, 'code': 103, 'message': "It's too
                           .
1024-11-24T12:35:30.000+02:00', 'end': '2024-11-24T12:36:30.000+02:00'), 't_avg': 33.583333333333, 'h_avg': 56.4166666666666, 'code': 104, 'message': "It's too
                          2024-11-24T12:36:30.000+02:00', 'end': '2024-11-24T12:37:30.000+02:00'), 't_avg': 36.29166666666664, 'h_avg': 52.0833333333333, 'code': 101, 'message': "It's too
t. ("window": ("start": "024-11-24712:36:30.800+02:00", "end": '2024-11-24712:37:30.000+02:00"), 't_avg': 36.29166666666664, 'h_avg': 52.083333333333333, 'code': 104, 'message': "It's too heps': "curent, itessame")
t: ("window": ("start": '2024-11-24712:37:00.000+02:00", "end": '2024-11-24712:38:00.000+02:00"), 't_avg': 34.2916666666664, 'h_avg': 58.875, 'code': 101, 'message': "It's too dry", 'timest
t_timestamp'
t: ("window": ("start": '2024-11-24712:37:00.000+02:00", 'end": '2024-11-24712:38:00.000+02:00"), 't_avg': 34.2916666666664, 'h_avg': 58.875, 'code': 102, 'message': "It's too wet", 'timest
t_timestamp'
t_timestamp'
              {'start': '2024-11-24T12:37:30.000+02:00', 'end': '2024-11-24T12:38:30.000+02:00'}, 't_avg': 34.0, 'h_avg': 56.0416666666666, 'code': 101, 'message': "It's too dry", 'timesta
             : ('start': '2024-11-24T12:37:30.000+02:00', 'end': '2024-11-24T12:38:30.000+02:00'), 't_avg': 34.0, 'h_avg': 56.0416666666666, 'code': 102, 'message': "It's too wet", 'timestam
 w: (:start:: '2024-11-24112:35:00.000-02:00', 'end': '2024-11-24112:36:00.000+02:00'), 't_avg': 35.608095652173914, 'h_avg': 48.391304347826086, 'code': 101, 'nessage': "It's too rent timestamp'
```