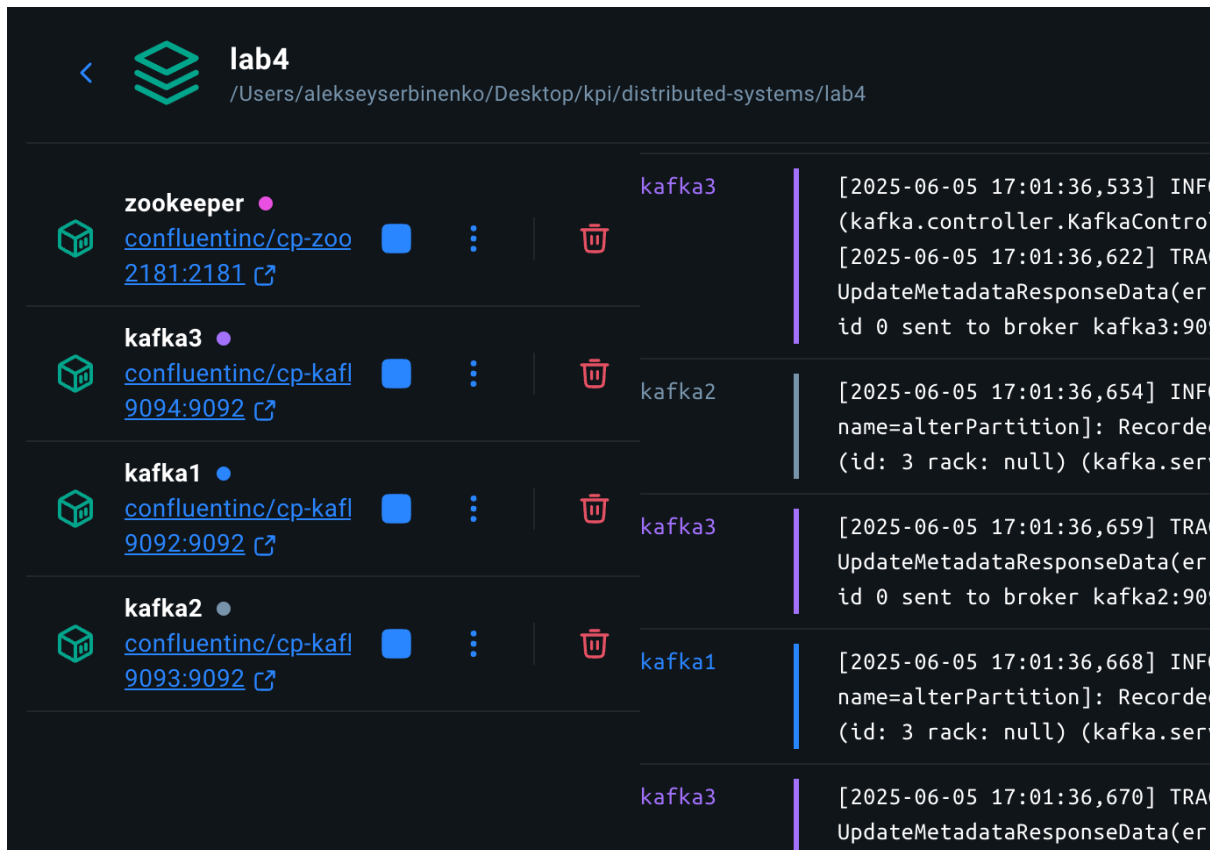
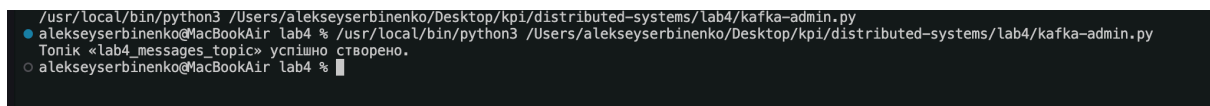


Лаб 4 Сербіненко Олексій фб-42мп

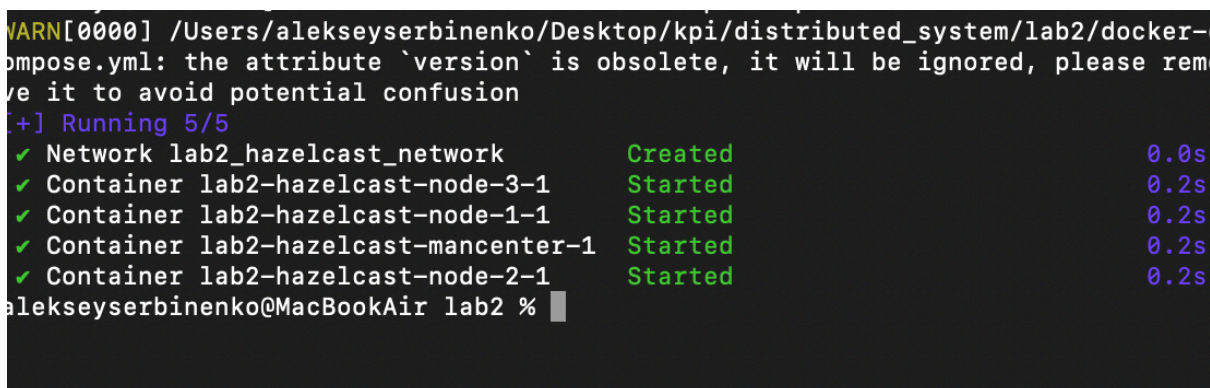
Запустимо сервери кафка



Створемо топик



Після цього підніємо ноди хейзелкасту



Після цього запустив конфіг сервер, Фасад сервіс, 2 меседж сервіси та 3 логінг сервіси

Надіслав повідомлення

GETNew Request xPOSTNew Request x+

POSTlocalhost:8001/message

Send

200 OK293 ms118 BJust Now

ParamsBodyAuthHeaders4ScriptsDocs

PreviewHeaders4CookiesTests0/0MockConsole

JSON

1- {
2 "msg": "message1"
3 }
Preview

1- {
2 "status": "Message sent to logging service and Kafka",
3 "uuid": "26a66c63-62ad-4711-82ed-d47a37bface0",
4 "msg": "message1"
5 }
Preview

2025-06-05 20:42:00,695 - kafka.conn - INFO - <BrokerConnection client_id=kafka-python-2.2.10, node_id=2 host=localhost:9093 <connected> [IPv6 (:::1', 9093, 0, 0)]>: Connection complete.
2025-06-05 20:43:02,573 - __main__ - INFO - Received message: ID=b'26a66c63-62ad-4711-82ed-d47a37bface0', Offset=0, Partition=0, Value={'uuid': '26a66c63-62ad-4711-82ed-d47a37bface0', 'msg': 'message1'}
[]

2025-06-05 20:40:42,807 - kafka.conn - INFO - <BrokerConnection client_id=kafka-python-2.2.10, node_id=2 host=localhost:9093 <connected> [IPv6 (:::1', 9093, 0, 0)]>: Connection complete.
2025-06-05 20:43:02,573 - __main__ - INFO - Received message: ID=b'26a66c63-62ad-4711-82ed-d47a37bface0', Offset=0, Partition=0, Value={'uuid': '26a66c63-62ad-4711-82ed-d47a37bface0', 'msg': 'message1'}
[]

tion complete.
2025-06-05 20:43:02,520 - __main__ - INFO - Message 26a66c63-62ad-4711-82ed-d47a37bface0 successfully sent to Kafka topic 'lab4_messages_topic'.
INFO: 127.0.0.1:52666 - "POST /message HTTP/1.1" 200 OK
[]

Отримаю всі повідомлення

"message10",
"message5",
"message9",
"message10",
"message10",
"message5",
"message10",
"message2",
"message2",
"message8",
"message6",
"message9",
"message5",
"message7",
"message5"
],
"messages_from_selected_messages_service": {
 "instance_port": 8004,
 "messages": [
 {
 "uuid": "2c7d23a6-1fca-401e-b8d6-81eabac1b869",
 "msg": "message2"
 },
 {
 "uuid": "2f0bd324-c7b9-456f-bff6-00d01ed4f79c",
 "msg": "message4"
 }
]
}

d23a6-1fca-401e-b8d6-81eabac1b869', 'msg': 'message2'}
2025-06-05 20:55:22,265 - __main__ - INFO - Received message: ID=b'2f0bd324-c7b9-456f-bff6-00d01ed4f79c', Offset=1, Partition=1, Value={'uuid': '2f0bd324-c7b9-456f-bff6-00d01ed4f79c', 'msg': 'message4'}
2025-06-05 20:55:22,265 - __main__ - INFO - Received message: ID=b'28ebba3e-c470-4a70-af5e-13474620ff32', Offset=2, Partition=1, Value={'uuid': '28ebba3e-c470-4a70-af5e-13474620ff32', 'msg': 'message8'}
[]

"messages_from_selected_messages_service": {
 "instance_port": 8004,
 "messages": [
 {
 "uuid": "2c7d23a6-1fca-401e-b8d6-81eabac1b869",
 "msg": "message2"
 },
 {
 "uuid": "2f0bd324-c7b9-456f-bff6-00d01ed4f79c",
 "msg": "message4"
 },
 {
 "uuid": "28ebba3e-c470-4a70-af5e-13474620ff32",
 "msg": "message8"
 },
 {
 "uuid": "13c459fa-7517-4345-b123-8f7d042d845f",
 "msg": "message3"
 },
 {
 "uuid": "4a0b98de-6513-4ae2-8534-e0d3528f7b9",
 "msg": "message5"
 },
 {
 "uuid": "76c5bcb8-99b0-43d7-bdc5-ecad563701a2",
 "msg": "message6"
 },
 {
 "uuid": "7078c6bf-00d0-4cf4-966a-cba074b31ddd",
 "msg": "message7"
 },
 {
 "uuid": "131fc262-ea2a-44e4-840c-b2bca8d79669",
 "msg": "message9"
 }
]
}

078c6bf-00d0-4cf4-966a-cba074b31ddd', 'msg': 'message7'}
2025-06-05 20:55:25,335 - __main__ - INFO - Received message: ID=b'131fc262-ea2a-44e4-840c-b2bca8d79669', Offset=5, Partition=0, Value={'uuid': '131fc262-ea2a-44e4-840c-b2bca8d79669', 'msg': 'message9'}
2025-06-05 20:55:29,616 - __main__ - INFO - Request /messages received, returning 9 messages from this instance.
INFO: 127.0.0.1:52930 - "GET /messages HTTP/1.1" 200 OK
[]

message1', {'uuid': '13c459fa-7517-4345-b123-8f7d042d845f', 'msg': 'message3'}, {'uuid': '4a0b98de-6513-4ae2-8534-e0d3528f7b9', 'msg': 'message5'}, {'uuid': '76c5bcb8-99b0-43d7-bdc5-ecad563701a2', 'msg': 'message6'}, {'uuid': '7078c6bf-00d0-4cf4-966a-cba074b31ddd', 'msg': 'message7'}, {'uuid': '131fc262-ea2a-44e4-840c-b2bca8d79669', 'msg': 'message9'}]]
INFO: 127.0.0.1:52927 - "GET /message HTTP/1.1" 200 OK
2025-06-05 20:57:02,483 - kafka.client - INFO - Closing idle connection 2, last active 540000 ms ago
2025-06-05 20:57:02,484 - kafka.conn - INFO - <BrokerConnection client_id=kafka-python-producer-1, node_id=2 host=localhost:9093 <connected> [IPv6 (:::1', 9093, 0, 0)]>: Closing connection.
[]

2025-06-05 20:55:22,265 - __main__ - INFO - Received message: ID=b'28ebba3e-c470-4a70-af5e-13474620ff32', Offset=2, Partition=1, Value={'uuid': '28ebba3e-c470-4a70-af5e-13474620ff32', 'msg': 'message8'}
[]
^CINFO: Shutting down
INFO: Waiting for application shutdown.
INFO: Application shutdown complete.
INFO: Finished server process [41065]
alekseyserbinenko@MacBookAir lab4 % []

ssage9'}
2025-06-05 20:55:29,616 - __main__ - INFO - Request /messages received, returning 9 messages from this instance.
INFO: 127.0.0.1:52930 - "GET /messages HTTP/1.1" 200 OK
^CINFO: Shutting down
INFO: Waiting for application shutdown.
INFO: Application shutdown complete.
INFO: Finished server process [41069]
alekseyserbinenko@MacBookAir lab4 % []

Вимкну сеседж сервіси та додам декілька повідомлень

2025-06-05 20:55:22,265 - __main__ - INFO - Received message: ID=b'28ebba3e-c470-4a70-af5e-13474620ff32', Offset=2, Partition=1, Value={'uuid': '28ebba3e-c470-4a70-af5e-13474620ff32', 'msg': 'message8'}
[]
^CINFO: Shutting down
INFO: Waiting for application shutdown.
INFO: Application shutdown complete.
INFO: Finished server process [41065]
alekseyserbinenko@MacBookAir lab4 % []

ssage9'}
2025-06-05 20:55:29,616 - __main__ - INFO - Request /messages received, returning 9 messages from this instance.
INFO: 127.0.0.1:52930 - "GET /messages HTTP/1.1" 200 OK
^CINFO: Shutting down
INFO: Waiting for application shutdown.
INFO: Application shutdown complete.
INFO: Finished server process [41069]
alekseyserbinenko@MacBookAir lab4 % []

POSTlocalhost:8001/message

Send

200 OK

239 ms

119 B

Params

Body

Auth

Headers4

Scripts

Docs

Preview

Headers4

Cookies

Tests0/0

Mock

Console

JSON

Preview

1- {
2 "msg": "message17"
3 }
}

1- {
2 "status": "Message sent to logging service and Kafka",
3 "uuid": "7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac",
4 "msg": "message17"
5 }
}

Логінг сервіси

2025-06-05 20:59:23,772 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:32,767 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:37,756 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:41,775 -- __main__ - INFO - Message saved to Hazelcast: 7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac -> message17
2025-06-05 21:00:20,566 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:25,578 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:34,634 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19

ge10
2025-06-05 20:53:39,044 -- __main__ - INFO - Fetched 22 messages from Hazelcast.
2025-06-05 20:59:25,788 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:34,824 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:39,829 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 21:00:16,464 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:23,547 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:32,598 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19

2025-06-05 20:59:27,764 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:30,811 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 20:59:41,869 -- __main__ - INFO - Message saved to Hazelcast: 66ea78c1-236b-41b3-873c-ce0f5b932ee5 -> message17
2025-06-05 21:00:00,074 -- __main__ - INFO - Message saved to Hazelcast: 6b991cd9-a639-46e3-937d-35b0cb157f33 -> message18
2025-06-05 21:00:18,532 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:27,569 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19
2025-06-05 21:00:30,529 -- __main__ - INFO - Message saved to Hazelcast: 99dbab72-ab9d-4289-a1df-ad1186b0554a -> message19

Вимкну лідера

zookeeper

confluentinc/cp-zoo

2181:2181

kafka3

confluentinc/cp-kafk

9094:9092

kafka1

confluentinc/cp-kafk

9092:9092

kafka2

confluentinc/cp-kafk

9093:9092

[2025-06-05 17:22:26,927] TRACE [Controller id=3 epoch=1] Received response UpdateMetadataResponseData(errorCode=0) for request UPDATE_METADATA with correlation id 2 sent to broker kafka1:9093 (id: 1 rack: null) (state.change.logger)
[2025-06-05 17:25:17,987] INFO [Controller id=3] Processing automatic preferred replica leader election (kafka.controller.KafkaController)
[2025-06-05 17:25:17,988] TRACE [Controller id=3] Checking need to trigger auto leader balancing (kafka.controller.KafkaController)
[2025-06-05 17:25:17,993] DEBUG [Controller id=3] Topics not in preferred replica for broker 1 Map() (kafka.controller.KafkaController)
[2025-06-05 17:25:17,997] TRACE [Controller id=3] Leader imbalance ratio for broker 1 is 0.0 (kafka.controller.KafkaController)
[2025-06-05 17:25:17,997] DEBUG [Controller id=3] Topics not in preferred replica for broker 3 Map() (kafka.controller.KafkaController)
[2025-06-05 17:25:17,997] TRACE [Controller id=3] Leader imbalance ratio for broker 3 is 0.0 (kafka.controller.KafkaController)
[2025-06-05 17:30:17,989] INFO [Controller id=3] Processing automatic preferred replica leader election (kafka.controller.KafkaController)
[2025-06-05 17:30:17,993] TRACE [Controller id=3] Checking need to trigger auto leader balancing (kafka.controller.KafkaController)

Запустив знову меседж сервіси

23-8f7d042d845f', 'msg': 'message3'}
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'4adb98de-6513-4ae2-8554-e0d3528ff7b9', Offset=2, Partition=0, Value='uid': '4adb98de-6513-4ae2-8554-e0d3528ff7b9', 'msg': 'message5'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'76c5bcb8-99b0-43d7-bdc5-ecad563701a2', Offset=3, Partition=0, Value='uid': '76c5bcb8-99b0-43d7-bdc5-ecad563701a2', 'msg': 'message6'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'7078c6bf-00d0-4cf4-966a-cba074b31ddd', Offset=4, Partition=0, Value='uid': '7078c6bf-00d0-4cf4-966a-cba074b31ddd', 'msg': 'message7'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'131fc262-ea2a-44e4-840c-b2bca8d79669', Offset=5, Partition=0, Value='uid': '131fc262-ea2a-44e4-840c-b2bca8d79669', 'msg': 'message9'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac', Offset=6, Partition=0, Value='uid': '7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac', 'msg': 'message17'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'2c7d23a6-1fca-401e-b8d6-81eabac1b869', Offset=0, Partition=1, Value='uid': '2c7d23a6-1fca-401e-b8d6-81eabac1b869', 'msg': 'message2'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'2f0bd324-c7b9-456f-bffe-00d01ed4f79c', Offset=1, Partition=1, Value='uid': '2f0bd324-c7b9-456f-bffe-00d01ed4f79c', 'msg': 'message4'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'28ebba3e-c470-4a70-af5e-13474620ff32', Offset=2, Partition=1, Value='uid': '28ebba3e-c470-4a70-af5e-13474620ff32', 'msg': 'message8'
2025-06-05 21:06:25,079 -- __main__ - INFO - Received message: ID=b'6b991cd9-a639-46e3-937d-35b0cb157f33', Offset=3, Partition=1, Value='uid': '6b991cd9-a639-46e3-937d-35b0cb157f33', 'msg': 'message18'

5-b123-8f7d042d845f', 'msg': 'message3'}
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'4adb98de-6513-4ae2-8554-e0d3528ff7b9', Offset=2, Partition=0, Value='uid': '4adb98de-6513-4ae2-8554-e0d3528ff7b9', 'msg': 'message5'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'76c5bcb8-99b0-43d7-bdc5-ecad563701a2', Offset=3, Partition=0, Value='uid': '76c5bcb8-99b0-43d7-bdc5-ecad563701a2', 'msg': 'message6'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'7078c6bf-00d0-4cf4-966a-cba074b31ddd', Offset=4, Partition=0, Value='uid': '7078c6bf-00d0-4cf4-966a-cba074b31ddd', 'msg': 'message7'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'131fc262-ea2a-44e4-840c-b2bca8d79669', Offset=5, Partition=0, Value='uid': '131fc262-ea2a-44e4-840c-b2bca8d79669', 'msg': 'message9'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac', Offset=6, Partition=0, Value='uid': '7d4c18fc-72c5-4ce8-a68b-de7bdb01c4ac', 'msg': 'message17'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'2c7d23a6-1fca-401e-b8d6-81eabac1b869', Offset=0, Partition=1, Value='uid': '2c7d23a6-1fca-401e-b8d6-81eabac1b869', 'msg': 'message2'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'2f0bd324-c7b9-456f-bffe-00d01ed4f79c', Offset=1, Partition=1, Value='uid': '2f0bd324-c7b9-456f-bffe-00d01ed4f79c', 'msg': 'message4'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'28ebba3e-c470-4a70-af5e-13474620ff32', Offset=2, Partition=1, Value='uid': '28ebba3e-c470-4a70-af5e-13474620ff32', 'msg': 'message8'
2025-06-05 21:06:27,056 -- __main__ - INFO - Received message: ID=b'6b991cd9-a639-46e3-937d-35b0cb157f33', Offset=3, Partition=1, Value='uid': '6b991cd9-a639-46e3-937d-35b0cb157f33', 'msg': 'message18'

zsh
Python: config_ser...
Python: facade_ser...
Python: kafka-admin...
Python: message...
Python
Python: logging...
Python
Python

GETNew Request x

POSTNew Request x


+

GET http://localhost:8001/messageSend200 OK243 ms1162 BJust Now

ParamsBodyAuthHeaders3ScriptsDocs

PreviewHeaders4CookiesTests0/0MockConsole

No BodyPreview



Enter a URL and send to get a response

Select a body type from above to send data in the body of a request

[Introduction to Insomnia](#)

```
1 {
2   "logged_messages_from_hazelcast": [
3     "message18",
4     "message3",
5     "message1",
6     "message17",
7     "message4",
8     "message8",
9     "message7",
10    "message19",
11    "message2",
12    "message6",
13    "message10",
14    "message17",
15    "message5",
16    "message9",
17    "message10",
18    "message10",
19    "message5",
20    "message10",
21    "message2",
22    "message2",
23    "message8",
24    "message6",
25    "message9",
26    "message5",
27    "message7",
28    "message5"
29  ],
30  "messages_from_selected_messages_service": {
31    "instance_port": 8004,
32    "messages": [
33      {
34        "uuid": "26a66c63-62ad-4711-82ed-d47a37bface0",
35        "msg": "message1"
36      },
37      {
38        "uuid": "13c459fa-7517-4345-b123-8f7d042d845f",
39        "msg": "message3"
40      },
41    ]
42  }
43 }
```