

[https://github.com/karyna-volokhatiuk/APZ\\_labs/tree/micro\\_consul](https://github.com/karyna-volokhatiuk/APZ_labs/tree/micro_consul)

Повторю запуски з лабораторної 4, але з використанням consul. Тому спочатку запускаю скрипт, який запустить consul

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs/bash_scripts
karyna@karyna:~/Documents/APZ_lab5/APZ_labs/bash_scripts$ ./setup_consul.sh
==> Starting Consul agent...
    Version: '1.15.2'
    Build Date: '2023-03-30 17:51:19 +0000 UTC'
    Node ID: '7a8c1a29-07b2-f793-2e37-adb2741f0378'
    Node name: 'server-1'
    Datacenter: 'dc1' (Segment: '<all>')
    Server: true (Bootstrap: true)
    Client Addr: [0.0.0.0] (HTTP: 8500, HTTPS: -1, gRPC: -1, gRPC-TLS: 8503, DNS: 8600)
    Cluster Addr: 172.17.0.2 (LAN: 8301, WAN: 8302)
    Gossip Encryption: false
    Auto-Encrypt-TLS: false
    HTTPS TLS: Verify Incoming: false, Verify Outgoing: false, Min Version: TLSv1_2
    gRPC TLS: Verify Incoming: false, Min Version: TLSv1_2
    Internal RPC TLS: Verify Incoming: false, Verify Outgoing: false (Verify Hostname: false), Min Version: TLSv1_2

==> Log data will now stream in as it occurs:

2023-05-30T14:46:40.249Z [WARN] agent: BootstrapExpect is set to 1; this is the same as Bootstrap mo
2023-05-30T14:46:40.249Z [WARN] agent: bootstrap = true: do not enable unless necessary
2023-05-30T14:46:40.253Z [WARN] agent.auto_config: BootstrapExpect is set to 1; this is the same as
2023-05-30T14:46:40.253Z [WARN] agent.auto_config: bootstrap = true: do not enable unless necessary
2023-05-30T14:46:40.280Z [INFO] agent.server.raft: initial configuration: index=1 servers="[{"Suffrag
2023-05-30T14:46:40.281Z [INFO] agent.server.raft: entering follower state: follower="Node at 172.17
2023-05-30T14:46:40.282Z [INFO] agent.server.serf.wan: serf: EventMemberJoin: server-1.dc1 172.17.0.
2023-05-30T14:46:40.284Z [INFO] agent.server.serf.lan: serf: EventMemberJoin: server-1 172.17.0.2
2023-05-30T14:46:40.284Z [INFO] agent.router: Initializing LAN area manager
2023-05-30T14:46:40.284Z [INFO] agent.server.autopilot: reconciliation now disabled
2023-05-30T14:46:40.284Z [INFO] agent.server: Adding LAN server: server="server-1 (Addr: tcp/172.17.
2023-05-30T14:46:40.285Z [INFO] agent.server: Handled event for server in area: event=member-join se
2023-05-30T14:46:40.287Z [INFO] agent.server.cert-manager: initialized server certificate management
2023-05-30T14:46:40.287Z [INFO] agent: Started DNS server: address=0.0.0.0:8600 network=udp
2023-05-30T14:46:40.287Z [INFO] agent: Started DNS server: address=0.0.0.0:8600 network=tcp
2023-05-30T14:46:40.288Z [INFO] agent: Starting server: address=[:]:8500 network=tcp protocol=http
2023-05-30T14:46:40.289Z [INFO] agent: Started gRPC listeners: port_name=grpc_tls address=[:]:8503
2023-05-30T14:46:40.289Z [INFO] agent: started state syncer
2023-05-30T14:46:40.289Z [INFO] agent: Consul agent running!
```

```
1 #!/bin/bash
2 CONSUL_NAME=services-manager
3
4 #https://developer.hashicorp.com/consul/tutorials/day-0/docker-container-agents
5 docker run \
6   -p 8500:8500 \
7   -p 8600:8600/udp \
8   --name="${CONSUL_NAME}" \
9   consul agent -server -ui -node=server-1 -bootstrap-expect=1 -client=0.0.0.0
```

І скрипт, який додасть key/value для мапи і черги повідомлень

```
1  ▶  #!/bin/bash
2     CONSUL_NAME=services-manager
3
4     MSG_QUEUE_KEY="msg_queue_name"
5     MSG_QUEUE_VALUE="my-distributed-key"
6     docker exec -it "${CONSUL_NAME}" consul kv put "${MSG_QUEUE_KEY}" "${MSG_QUEUE_VALUE}"
7
8     MAP_KEY="map_name"
9     MAP_VALUE="my-distributed-map"
10    docker exec -it "${CONSUL_NAME}" consul kv put "${MAP_KEY}" "${MAP_VALUE}"
```

```
karyna@karyna:~/Documents/APZ_lab5/APZ_labs/bash_scripts$ ./add_kv.sh
Success! Data written to: msg_queue_name
Success! Data written to: map_name
```

## Запускаемо 3 ноди хейзелкасту

```
karyna@karyna: ~ 42x55
2023-05-30 14:50:02,778 [ INFO] [main] [c.h.i.c.ClusterService]: [172.17.0.3]:5701 [dev] [5.2.2]

Members {size:1, ver:1} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
]

2023-05-30 14:50:02,786 [ INFO] [main] [c.h.j.i.JobCoordinationService]: [172.17.0.3]:5701 [dev] [5.2.2] Jet started scanning for jobs
2023-05-30 14:50:02,790 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.3]:5701 [dev] [5.2.2] [172.17.0.3]:5701 is STARTED
2023-05-30 14:50:05,602 [ INFO] [hz.trustimg_carson.IO.thread-in-0] [c.h.i.s.t.TcpServerConnection]: [172.17.0.3]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.3:5701 and /172.17.0.4:35085
2023-05-30 14:50:10,704 [ INFO] [hz.trustimg_carson.priority-generic-operation.thread-0] [c.h.i.c.ClusterService]: [172.17.0.3]:5701 [dev] [5.2.2]

Members {size:2, ver:2} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
  Member [172.17.0.4]:5701 - b9242311-7072-493f-9d0b-44815c7945a6 this
]

2023-05-30 14:50:11,523 [ INFO] [hz.trustimg_carson.IO.thread-in-1] [c.h.i.s.t.TcpServerConnection]: [172.17.0.3]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.3:5701 and /172.17.0.5:55131
2023-05-30 14:50:16,619 [ INFO] [hz.trustimg_carson.priority-generic-operation.thread-0] [c.h.i.c.ClusterService]: [172.17.0.3]:5701 [dev] [5.2.2]

Members {size:3, ver:3} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
  Member [172.17.0.4]:5701 - b9242311-7072-493f-9d0b-44815c7945a6 this
  Member [172.17.0.5]:5701 - 10286836-6ae3-4e5a-bbb4-03220452fe40 this
]

karyna@karyna: ~ 52x55
2023-05-30 14:50:05,357 [ INFO] [main] [c.h.j.i.JobCoordinationService]: [172.17.0.4]:5701 [dev] [5.2.2] Setting number of cooperative threads and default parallelism to 8
2023-05-30 14:50:05,409 [ INFO] [main] [c.h.i.d.Diagnostics]: [172.17.0.4]:5701 [dev] [5.2.2] Diagnostics disabled. To enable add -D Hazelcast.diagnostics.enabled=true to the JVM arguments.
2023-05-30 14:50:05,421 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.4]:5701 [dev] [5.2.2] [172.17.0.4]:5701 is STARTING
2023-05-30 14:50:05,579 [ INFO] [main] [c.h.i.c.i.MulticastJoiner]: [172.17.0.4]:5701 [dev] [5.2.2] Trying to join to discovered node: /172.17.0.3:5701
2023-05-30 14:50:05,604 [ INFO] [hz.charming_shtern.IO.thread-in-0] [c.h.i.s.t.TcpServerConnection]: [172.17.0.4]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.4:35085 and /172.17.0.3:5701
2023-05-30 14:50:10,715 [ INFO] [hz.charming_shtern.priority-generic-operation.thread-0] [c.h.i.c.ClusterService]: [172.17.0.4]:5701 [dev] [5.2.2]

Members {size:2, ver:2} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
  Member [172.17.0.4]:5701 - b9242311-7072-493f-9d0b-44815c7945a6 this
]

2023-05-30 14:50:10,724 [ INFO] [main] [c.h.j.i.JobCoordinationService]: [172.17.0.4]:5701 [dev] [5.2.2] Jet started scanning for jobs
2023-05-30 14:50:10,727 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.4]:5701 [dev] [5.2.2] [172.17.0.4]:5701 is STARTED
2023-05-30 14:50:16,626 [ INFO] [hz.charming_shtern.priority-generic-operation.thread-0] [c.h.i.c.ClusterService]: [172.17.0.4]:5701 [dev] [5.2.2]

Members {size:3, ver:3} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
  Member [172.17.0.4]:5701 - b9242311-7072-493f-9d0b-44815c7945a6 this
  Member [172.17.0.5]:5701 - 10286836-6ae3-4e5a-bbb4-03220452fe40 this
]

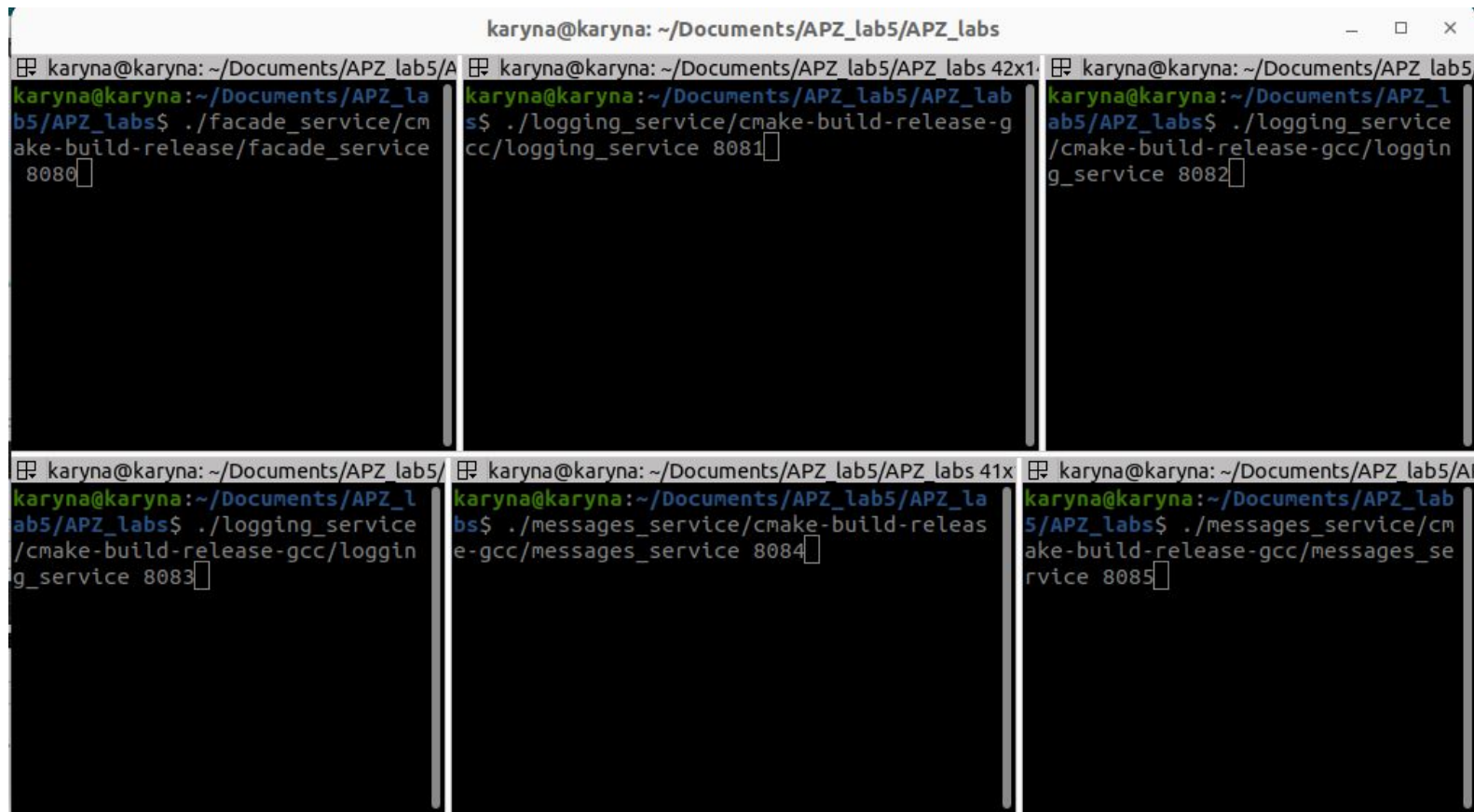
2023-05-30 14:50:16,635 [ INFO] [hz.charming_shtern.IO.thread-in-1] [c.h.i.s.t.TcpServerConnection]: [172.17.0.4]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.4:38705 and /172.17.0.5:5701

karyna@karyna: ~ 47x55
2023-05-30 14:50:11,044 [ INFO] [main] [c.h.i.c.i.MulticastJoiner]: [172.17.0.5]:5701 [dev] [5.2.2] Using Multicast discovery
2023-05-30 14:50:11,048 [ WARN] [main] [c.h.c.CPSubsystem]: [172.17.0.5]:5701 [dev] [5.2.2] CP Subsystem is not enabled. CP data structures will operate in UNSAFE mode! Please note that UNSAFE mode will not provide strong consistency guarantees.
2023-05-30 14:50:11,309 [ INFO] [main] [c.h.j.i.JobCoordinationService]: [172.17.0.5]:5701 [dev] [5.2.2] Setting number of cooperative threads and default parallelism to 8
2023-05-30 14:50:11,361 [ INFO] [main] [c.h.i.d.Diagnostics]: [172.17.0.5]:5701 [dev] [5.2.2] Diagnostics disabled. To enable add -D Hazelcast.diagnostics.enabled=true to the JVM arguments.
2023-05-30 14:50:11,376 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.5]:5701 [dev] [5.2.2] [172.17.0.5]:5701 is STARTING
2023-05-30 14:50:11,501 [ INFO] [main] [c.h.i.c.i.MulticastJoiner]: [172.17.0.5]:5701 [dev] [5.2.2] Trying to join to discovered node: /172.17.0.3:5701
2023-05-30 14:50:11,524 [ INFO] [hz.flamboyant_kalam.IO.thread-in-0] [c.h.i.s.t.TcpServerConnection]: [172.17.0.5]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.5:55131 and /172.17.0.3:5701
2023-05-30 14:50:16,631 [ INFO] [hz.flamboyant_kalam.IO.thread-in-1] [c.h.i.s.t.TcpServerConnection]: [172.17.0.5]:5701 [dev] [5.2.2] Initialized new cluster connection between /172.17.0.5:5701 and /172.17.0.4:38705
2023-05-30 14:50:16,646 [ INFO] [hz.flamboyant_kalam.priority-generic-operation.thread-0] [c.h.i.c.ClusterService]: [172.17.0.5]:5701 [dev] [5.2.2]

Members {size:3, ver:3} [
  Member [172.17.0.3]:5701 - b239d1e8-0a19-43a6-926b-07ee8d00cb56 this
  Member [172.17.0.4]:5701 - b9242311-7072-493f-9d0b-44815c7945a6 this
  Member [172.17.0.5]:5701 - 10286836-6ae3-4e5a-bbb4-03220452fe40 this
]

2023-05-30 14:50:16,659 [ INFO] [main] [c.h.j.i.JobCoordinationService]: [172.17.0.5]:5701 [dev] [5.2.2] Jet started scanning for jobs
2023-05-30 14:50:16,663 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.5]:5701 [dev] [5.2.2] [172.17.0.5]:5701 is STARTED
```

Запускаємо мікросервіси (наприклад, з іншими портами для logging і messages services відносно попередньої лаби)



```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./facade_service/cmake-build-release/facade_service 8080
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./logging_service/cmake-build-release-gcc/logging_service 8081
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./logging_service/cmake-build-release-gcc/logging_service 8082
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./logging_service/cmake-build-release-gcc/logging_service 8083
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./messages_service/cmake-build-release-gcc/messages_service 8084
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs$ ./messages_service/cmake-build-release-gcc/messages_service 8085
```



```
karyna@karyna: ~/Documents/APZ lab5/A karyna@karyna: ~/Documents/APZ lab5/APZ labs 42x1 karyna@karyna: ~/Documents/APZ lab5/
6, server version: 5.2.2, local
address: Address[172.17.0.1:4888
0]. Connection{alive=1, connecti
on id=3, remote endpoint=Address
[172.17.0.4:5701], last_read_tim
e=2023-05-30 10:59:24.207, last_
write_time=2023-05-30 10:59:24.1
94, closedTime=never, connected
server version=5.2.2}
[2023-05-30 10:59:24.247] [info]
Register a resource
[2023-05-30 10:59:24.248] [info]
Start server

r version: 5.2.2, local address: Address[1
72.17.0.1:42204]. Connection{alive=1, conn
ection id=3, remote endpoint=Address[172.1
7.0.4:5701], last_read_time=2023-05-30 10:
59:26.326, last_write_time=2023-05-30 10:5
9:26.325, closedTime=never, connected serv
er version=5.2.2}
[2023-05-30 10:59:26.330] [info] Creating
HazelcastLoggingService
[2023-05-30 10:59:26.342] [info] Register
a resource
[2023-05-30 10:59:26.342] [info] Start ser
ver

t=Address[172.17.0.4:5701], las
t_read_time=2023-05-30 10:59:27
.763, last_write_time=2023-05-3
0 10:59:27.760, closedTime=neve
r, connected server version=5.2
.2}
[2023-05-30 10:59:27.769] [info]
Creating HazelcastLoggingServ
ice
[2023-05-30 10:59:27.791] [info]
Register a resource
[2023-05-30 10:59:27.791] [info]
Start server
```

```
karyna@karyna: ~/Documents/APZ lab5/ karyna@karyna: ~/Documents/APZ lab5/APZ labs 41x karyna@karyna: ~/Documents/APZ lab5/A
.519, last_write_time=2023-05-3
0 10:59:29.517, closedTime=neve
r, connected server version=5.2
.2}
[2023-05-30 10:59:29.524] [info]
Creating HazelcastLoggingServ
ice
[2023-05-30 10:59:29.544] [info]
Register a resource
[2023-05-30 10:59:29.544] [info]
Start server

server version: 5.2.2, local address: Addr
ess[172.17.0.1:42238]. Connection{alive=1
, connection id=3, remote endpoint=Addres
s[172.17.0.4:5701], last_read_time=2023-0
5-30 10:59:30.997, last_write_time=2023-0
5-30 10:59:30.994, closedTime=never, conn
ected server version=5.2.2}
[2023-05-30 10:59:31.017] [info] Register
a resource
[2023-05-30 10:59:31.017] [info] Start se
rver

nection{alive=1, connection id=3,
remote endpoint=Address[172.17.0
.4:5701], last_read_time=2023-05-
30 10:59:32.998, last_write_time=
2023-05-30 10:59:32.995, closedTi
me=never, connected server versio
n=5.2.2}
[2023-05-30 10:59:33.018] [info]
Register a resource
[2023-05-30 10:59:33.018] [info]
Start server
```

Дивимося на вивід в consul:

```
2023-05-30T14:59:24.236Z [INFO] agent: Synced service: service=facade-service-8080
2023-05-30T14:59:26.339Z [INFO] agent: Synced service: service=logging-service-8081
2023-05-30T14:59:27.787Z [INFO] agent: Synced service: service=logging-service-8082
2023-05-30T14:59:29.541Z [INFO] agent: Synced service: service=logging-service-8083
2023-05-30T14:59:31.014Z [INFO] agent: Synced service: service=messages-service-8084
2023-05-30T14:59:33.014Z [INFO] agent: Synced service: service=messages-service-8085
```

Id представлені у вигляді <назва сервісу>-<порт>

Робимо 10 POST запитів

```
▶ POST http://127.0.0.1:8080/facade-service
  Content-Type: application/json

  {"msg1"}
  ###
```

POST http://127.0.0.1:8080/facade-service

Show Request

HTTP/1.1 200 OK

Date: Tue, 30 May 2023 15:02:44 GMT

Content-Type: text/plain

Content-Length: 0

<Response body is empty>

Response code: 200 (OK); Time: 135ms (135 ms); Content length: 0 bytes (0 B)



```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 60x28
[2023-05-30 11:03:56.754] [info] Sending a response:
[2023-05-30 11:03:59.718] [info] Received POST request by Fa
cadeController
[2023-05-30 11:03:59.718] [info] Content of request: "msg9"
[2023-05-30 11:03:59.718] [info] Pushing message to queue: "
msg9"
[2023-05-30 11:03:59.718] [info] Adding message: uuid = ea74
fc26-f8e5-4eae-9a51-ff233157df2c
text = "msg9"
[2023-05-30 11:03:59.720] [info] Sending POST request to cho
sen logging service: url = http://localhost:8081/logging-ser
viceservice = http://localhost:8081/logging-service
[2023-05-30 11:03:59.722] [info] Response of logging service
:
[2023-05-30 11:03:59.722] [info] Sending a response:
[2023-05-30 11:04:03.138] [info] Received POST request by Fa
cadeController
[2023-05-30 11:04:03.138] [info] Content of request: "msg10"
[2023-05-30 11:04:03.138] [info] Pushing message to queue: "
msg10"
[2023-05-30 11:04:03.138] [info] Adding message: uuid = 019a
89c0-9134-4550-80ec-aed251071bff
text = "msg10"
[2023-05-30 11:04:03.140] [info] Sending POST request to cho
sen logging service: url = http://localhost:8082/logging-ser
viceservice = http://localhost:8082/logging-service
[2023-05-30 11:04:03.141] [info] Response of logging service
:
[2023-05-30 11:04:03.141] [info] Sending a response:
```

```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 79x28
time=never, connected server version=5.2.2}
30/05/2023 10:59:26.325 INFO: [139933358896704] hz.client_1[dev] [5.2.0] Trying
to connect to Address[172.17.0.4:5701].
30/05/2023 10:59:26.326 INFO: [139933358896704] hz.client_1[dev] [5.2.0] Authen
ticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815c794
5a6, server version: 5.2.2, local address: Address[172.17.0.1:42204]. Connectio
n[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read
_time=2023-05-30 10:59:26.326, last_write_time=2023-05-30 10:59:26.325, closedT
ime=never, connected server version=5.2.2}
[2023-05-30 10:59:26.330] [info] Creating HazelcastLoggingService
[2023-05-30 10:59:26.342] [info] Register a resource
[2023-05-30 10:59:26.342] [info] Start server
[2023-05-30 11:03:40.734] [info] Received POST request by LoggingController
[2023-05-30 11:03:40.734] [info] Add message to HazelcastLoggingService: uuid =
d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3"
[2023-05-30 11:03:40.735] [info] Message was added
[2023-05-30 11:03:40.735] [info] All content was added to a map
[2023-05-30 11:03:56.752] [info] Received POST request by LoggingController
[2023-05-30 11:03:56.752] [info] Add message to HazelcastLoggingService: uuid =
4d81a4c9-6054-42c2-93d5-60aadae42d32, text = "msg8"
[2023-05-30 11:03:56.753] [info] Message was added
[2023-05-30 11:03:56.753] [info] All content was added to a map
[2023-05-30 11:03:59.720] [info] Received POST request by LoggingController
[2023-05-30 11:03:59.720] [info] Add message to HazelcastLoggingService: uuid =
ea74fc26-f8e5-4eae-9a51-ff233157df2c, text = "msg9"
[2023-05-30 11:03:59.722] [info] Message was added
[2023-05-30 11:03:59.722] [info] All content was added to a map
```

```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 59x28
[2023-05-30 11:03:44.943] [info] Message was added
[2023-05-30 11:03:44.944] [info] All content was added to a
map
[2023-05-30 11:03:50.870] [info] Received POST request by L
oggingController
[2023-05-30 11:03:50.870] [info] Add message to HazelcastLo
ggingService: uuid = 1ec7cc15-bd5d-4e49-aa30-fb161d9c14d1,
text = "msg6"
[2023-05-30 11:03:50.871] [info] Message was added
[2023-05-30 11:03:50.871] [info] All content was added to a
map
[2023-05-30 11:03:53.572] [info] Received POST request by L
oggingController
[2023-05-30 11:03:53.572] [info] Add message to HazelcastLo
ggingService: uuid = 62c5c2f0-8ba7-4157-b660-064df1a31977,
text = "msg7"
[2023-05-30 11:03:53.577] [info] Message was added
[2023-05-30 11:03:53.577] [info] All content was added to a
map
[2023-05-30 11:04:03.140] [info] Received POST request by L
oggingController
[2023-05-30 11:04:03.140] [info] Add message to HazelcastLo
ggingService: uuid = 019a89c0-9134-4550-80ec-aed251071bff,
text = "msg10"
[2023-05-30 11:04:03.141] [info] Message was added
[2023-05-30 11:04:03.141] [info] All content was added to a
map
```

```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 59x25
ed server version=5.2.2}
30/05/2023 10:59:29.517 INFO: [140039128888896] hz.client_1
[dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701]
.
30/05/2023 10:59:29.519 INFO: [140039128888896] hz.client_1
[dev] [5.2.0] Authenticated with server Address[172.17.0.4
:5701]:b9242311-7072-493f-9d0b-44815c7945a6, server version
: 5.2.2, local address: Address[172.17.0.1:42222]. Connecti
on[alive=1, connection id=3, remote endpoint=Address[172.17
.0.4:5701], last_read_time=2023-05-30 10:59:29.519, last wr
ite_time=2023-05-30 10:59:29.517, closedTime=never, connect
ed server version=5.2.2}
[2023-05-30 10:59:29.524] [info] Creating HazelcastLoggings
ervice
[2023-05-30 10:59:29.544] [info] Register a resource
[2023-05-30 10:59:29.544] [info] Start server
[2023-05-30 11:03:48.036] [info] Received POST request by L
oggingController
[2023-05-30 11:03:48.036] [info] Add message to HazelcastLo
ggingService: uuid = d3937340-f469-42e6-8050-e6072494a639,
text = "msg5"
[2023-05-30 11:03:48.039] [info] Message was added
[2023-05-30 11:03:48.039] [info] All content was added to a
map
```

```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 77x25
30/05/2023 10:59:30.994 INFO: [140585552025152] hz.client_1[dev] [5.2.0] Auth
enticated with server Address[172.17.0.5:5701]:10286836-6ae3-4e5a-bbb4-03220
452fe40, server version: 5.2.2, local address: Address[172.17.0.1:57182]. Con
nection[alive=1, connection id=2, remote endpoint=Address[172.17.0.5:5701], l
ast_read_time=2023-05-30 10:59:30.994, last_write_time=2023-05-30 10:59:30.99
1, closedTime=never, connected server version=5.2.2}
30/05/2023 10:59:30.994 INFO: [140585552025152] hz.client_1[dev] [5.2.0] Tryi
ng to connect to Address[172.17.0.4:5701].
30/05/2023 10:59:30.997 INFO: [140585552025152] hz.client_1[dev] [5.2.0] Auth
enticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815
c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42238]. Con
nection[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], l
ast_read_time=2023-05-30 10:59:30.997, last_write_time=2023-05-30 10:59:30.99
4, closedTime=never, connected server version=5.2.2}
[2023-05-30 10:59:31.017] [info] Register a resource
[2023-05-30 10:59:31.017] [info] Start server
[2023-05-30 11:03:40.733] [info] Message service took new msg from queue: "ms
g3"
[2023-05-30 11:03:48.036] [info] Message service took new msg from queue: "ms
g5"
[2023-05-30 11:03:53.571] [info] Message service took new msg from queue: "ms
g7"
[2023-05-30 11:03:59.719] [info] Message service took new msg from queue: "ms
g9"
```

```
karyna@karyna: ~/Documents/APZ_labs/APZ_labs 62x25
30/05/2023 10:59:32.995 INFO: [140174579914304] hz.client_1[de
v] [5.2.0] Trying to connect to Address[172.17.0.4:5701].
30/05/2023 10:59:32.998 INFO: [140174579914304] hz.client_1[de
v] [5.2.0] Authenticated with server Address[172.17.0.4:5701]
:b9242311-7072-493f-9d0b-44815c7945a6, server version: 5.2.2,
local address: Address[172.17.0.1:42240]. Connection[alive=1,
connection id=3, remote endpoint=Address[172.17.0.4:5701], las
t_read_time=2023-05-30 10:59:32.998, last_write_time=2023-05-3
0 10:59:32.995, closedTime=never, connected server version=5.2
.2}
[2023-05-30 10:59:33.018] [info] Register a resource
[2023-05-30 10:59:33.018] [info] Start server
[2023-05-30 11:02:44.678] [info] Message service took new msg
from queue: "msg1"
[2023-05-30 11:03:37.007] [info] Message service took new msg
from queue: "msg2"
[2023-05-30 11:03:44.941] [info] Message service took new msg
from queue: "msg4"
[2023-05-30 11:03:50.869] [info] Message service took new msg
from queue: "msg6"
[2023-05-30 11:03:56.751] [info] Message service took new msg
from queue: "msg8"
[2023-05-30 11:04:03.139] [info] Message service took new msg
from queue: "msg10"
```

З якими повідомленнями працював кожен із logging або messages сервісів:

Logging-service-8081: msg3, msg8, msg9

Logging-service-8082: msg1, msg2, msg4, msg6, msg7, msg10

Logging-service-8083: msg5

Messages-service-8084: msg3, msg5, msg7, msg9

Messages-service-8085: msg1, msg2, msg4, msg6, msg8, msg10

Робимо GET запит (спроба 1)

```
▶ GET http://127.0.0.1:8080/facade-service
  Accept: text/html
  ###
```

```
GET http://127.0.0.1:8080/facade-service
```

Show Request

```
HTTP/1.1 200 OK
```

```
Date: Tue, 30 May 2023 15:11:05 GMT
```

```
Content-Type: text/plain
```

```
Content-Length: 102
```

```
"msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg3" "msg5" "msg7" "msg9"
```

```
Response code: 200 (OK); Time: 53ms (53 ms); Content length: 102 bytes (102 B)
```



## Запит був опрацьований logging-service-8082 і messages-service-8084

karyna@karyna: ~/Documents/APZ_lab5/APZ_labs	
<pre>karyna@karyna:~/Documents/APZ_lab5/APZ_labs 60x28 [2023-05-30 11:04:03.140] [Info] Sending POST request to chosen logging service: url = http://localhost:8082/logging-service [2023-05-30 11:04:03.141] [Info] Response of logging service: [2023-05-30 11:04:03.141] [Info] Sending a response: [2023-05-30 11:11:05.142] [Info] Received GET request by FacadeController [2023-05-30 11:11:05.142] [Info] Getting messages [2023-05-30 11:11:05.142] [Info] Getting messages from messages service [2023-05-30 11:11:05.143] [Info] Sending GET request to chosen messages service: url = http://localhost:8084/messages-service [2023-05-30 11:11:05.144] [Info] Response of messages service: "msg3" "msg5" "msg7" "msg9" [2023-05-30 11:11:05.144] [Info] Getting messages from logging service [2023-05-30 11:11:05.146] [Info] Sending GET request to chosen logging service: url = http://localhost:8082/logging-service [2023-05-30 11:11:05.193] [Info] Response of logging service: "msg7" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" [2023-05-30 11:11:05.193] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg3" "msg5" "msg7" "msg9"</pre>	<pre>karyna@karyna:~/Documents/APZ_lab5/APZ_labs 79x28 time=never, connected server version=5.2.2} 30/05/2023 10:59:26.325 INFO: [139933358896704] hz.client_1[dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701]. 30/05/2023 10:59:26.326 INFO: [139933358896704] hz.client_1[dev] [5.2.0] Authenticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42240]. Connection[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:26.326, last_write_time=2023-05-30 10:59:26.325, closedTime=never, connected server version=5.2.2} [2023-05-30 10:59:26.330] [Info] Creating HazelcastLoggingService [2023-05-30 10:59:26.342] [Info] Register a resource [2023-05-30 10:59:26.342] [Info] Start server [2023-05-30 11:03:40.734] [Info] Received POST request by LoggingController [2023-05-30 11:03:40.734] [Info] Add message to HazelcastLoggingService: uid = d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3" [2023-05-30 11:03:40.735] [Info] Message was added [2023-05-30 11:03:40.735] [Info] All content was added to a map [2023-05-30 11:03:56.752] [Info] Received POST request by LoggingController [2023-05-30 11:03:56.752] [Info] Add message to HazelcastLoggingService: uid = 4d81a4c9-6054-42c2-93d5-60aadae42d32, text = "msg8" [2023-05-30 11:03:56.753] [Info] Message was added [2023-05-30 11:03:56.753] [Info] All content was added to a map [2023-05-30 11:03:59.720] [Info] Received POST request by LoggingController [2023-05-30 11:03:59.720] [Info] Add message to HazelcastLoggingService: uid = ea74fc26-f8e5-4eae-9a51-ff233157df2c, text = "msg9" [2023-05-30 11:03:59.722] [Info] Message was added [2023-05-30 11:03:59.722] [Info] All content was added to a map</pre>
<pre>karyna@karyna:~/Documents/APZ_lab5/APZ_labs 59x25 ed server version=5.2.2} 30/05/2023 10:59:29.517 INFO: [140039128888896] hz.client_1[dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701]. 30/05/2023 10:59:29.519 INFO: [140039128888896] hz.client_1[dev] [5.2.0] Authenticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42222]. Connection[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:29.517, last_write_time=2023-05-30 10:59:29.517, closedTime=never, connected server version=5.2.2} [2023-05-30 10:59:29.524] [Info] Creating HazelcastLoggingService [2023-05-30 10:59:29.544] [Info] Register a resource [2023-05-30 10:59:29.544] [Info] Start server [2023-05-30 11:03:48.036] [Info] Received POST request by LoggingController [2023-05-30 11:03:48.036] [Info] Add message to HazelcastLoggingService: uid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5" [2023-05-30 11:03:48.039] [Info] Message was added [2023-05-30 11:03:48.039] [Info] All content was added to a map</pre>	<pre>karyna@karyna:~/Documents/APZ_lab5/APZ_labs 77x25 c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42238]. Connection[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:30.997, last_write_time=2023-05-30 10:59:30.994, closedTime=never, connected server version=5.2.2} [2023-05-30 10:59:31.017] [Info] Register a resource [2023-05-30 10:59:31.017] [Info] Start server [2023-05-30 11:03:40.733] [Info] Message service took new msg from queue: "msg3" [2023-05-30 11:03:48.036] [Info] Message service took new msg from queue: "msg5" [2023-05-30 11:03:53.571] [Info] Message service took new msg from queue: "msg7" [2023-05-30 11:03:59.719] [Info] Message service took new msg from queue: "msg9" [2023-05-30 11:11:05.144] [Info] Received GET request by MessagesController [2023-05-30 11:11:05.144] [Info] Creating an output string [2023-05-30 11:11:05.144] [Info] Getting saved messages from MessagesService [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg3" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg5" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg7" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg9" [2023-05-30 11:11:05.144] [Info] All content was added to an output string [2023-05-30 11:11:05.144] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9"</pre>
	<pre>karyna@karyna:~/Documents/APZ_lab5/APZ_labs 59x28 [2023-05-30 11:11:05.146] [Info] Getting logs from HazelcastLoggingService [2023-05-30 11:11:05.193] [Info] Got log: uid = 62c52cf0-8ba7-4157-b660-064df1a31977, text = "msg7" [2023-05-30 11:11:05.193] [Info] Got log: uid = 243c936b-d1ab-4484-a587-0bd8a0667f9c, text = "msg1" [2023-05-30 11:11:05.193] [Info] Got log: uid = 019a89c0-9134-4550-80ec-aed251071bff, text = "msg10" [2023-05-30 11:11:05.193] [Info] Got log: uid = 1ec7cc15-bd5d-4e49-aa30-fb161d9c14d1, text = "msg6" [2023-05-30 11:11:05.193] [Info] Got log: uid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5" [2023-05-30 11:11:05.193] [Info] Got log: uid = ea74fc26-f8e5-4eae-9a51-ff233157df2c, text = "msg9" [2023-05-30 11:11:05.193] [Info] Got log: uid = 6e0fa45e-031a-4026-843e-d0b23c082a2a, text = "msg2" [2023-05-30 11:11:05.193] [Info] Got log: uid = d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3" [2023-05-30 11:11:05.193] [Info] Got log: uid = cdf98b32-5c1d-415a-a9b3-c634cbe2d419, text = "msg4" [2023-05-30 11:11:05.193] [Info] Got log: uid = 4d81a4c9-6054-42c2-93d5-60aadae42d32, text = "msg8" [2023-05-30 11:11:05.193] [Info] All content was added to an output string [2023-05-30 11:11:05.193] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"</pre>

Робимо GET запит (спроба 2 – результат як при спробі 1)

```
▶ GET http://127.0.0.1:8080/facade-service
  Accept: text/html
  ###
```

```
GET http://127.0.0.1:8080/facade-service
```

Show Request

```
HTTP/1.1 200 OK
```

```
Date: Tue, 30 May 2023 15:15:05 GMT
```

```
Content-Type: text/plain
```

```
Content-Length: 102
```

```
"msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg3" "msg5" "msg7" "msg9"
```

```
Response code: 200 (OK); Time: 16ms (16 ms); Content length: 102 bytes (102 B)
```



Робимо GET запит (спроба 3 – результат відмінний від спроб 1 і 2)

```
▶ GET http://127.0.0.1:8080/facade-service
  Accept: text/html
  ###
```

```
GET http://127.0.0.1:8080/facade-service
```

Show Request

```
HTTP/1.1 200 OK
```

```
Date: Tue, 30 May 2023 15:16:04 GMT
```

```
Content-Type: text/plain
```

```
Content-Length: 117
```

```
"msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
```

```
Response code: 200 (OK); Time: 16ms (16 ms); Content length: 117 bytes (117 B)
```

Запит був опрацьований logging-service-8082 і messages-service-8085

<pre>karyna@karyna:~/Documents/APZ lab5/APZ labs 60x28 [2023-05-30 11:15:05.647] [Info] Response of logging service : "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" [2023-05-30 11:15:05.647] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg3" "msg5" "msg7" "msg9" [2023-05-30 11:16:04.946] [Info] Received GET request by FacadeController [2023-05-30 11:16:04.946] [Info] Getting messages [2023-05-30 11:16:04.946] [Info] Getting messages from messages service [2023-05-30 11:16:04.947] [Info] Sending GET request to chosen messages service: url = http://localhost:8085/messages-service [2023-05-30 11:16:04.948] [Info] Response of messages service: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10" [2023-05-30 11:16:04.948] [Info] Getting messages from logging service [2023-05-30 11:16:04.950] [Info] Sending GET request to chosen logging service: url = http://localhost:8082/logging-service [2023-05-30 11:16:04.959] [Info] Response of logging service : "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" [2023-05-30 11:16:04.959] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"</pre>	<pre>karyna@karyna:~/Documents/APZ lab5/APZ labs 79x28 time=never, connected server version=5.2.2) 30/05/2023 10:59:26.325 INFO: [139933558896704] hz.client_1[dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701] 30/05/2023 10:59:26.326 INFO: [139933558896704] hz.client_1[dev] [5.2.0] Authenticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42204]. Connection alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:26.326, last_write_time=2023-05-30 10:59:26.325, closedTime=never, connected server version=5.2.2) [2023-05-30 10:59:26.330] [Info] Creating HazelcastLoggingService [2023-05-30 10:59:26.342] [Info] Register a resource [2023-05-30 10:59:26.342] [Info] Start server [2023-05-30 11:03:40.734] [Info] Received POST request by LoggingController [2023-05-30 11:03:40.734] [Info] Add message to HazelcastLoggingService: uuid = d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3" [2023-05-30 11:03:40.735] [Info] Message was added [2023-05-30 11:03:40.735] [Info] All content was added to a map [2023-05-30 11:03:56.752] [Info] Received POST request by LoggingController [2023-05-30 11:03:56.752] [Info] Add message to HazelcastLoggingService: uuid = 4d81a4c9-6054-42c2-93d5-60aade42d32, text = "msg8" [2023-05-30 11:03:56.753] [Info] Message was added [2023-05-30 11:03:56.753] [Info] All content was added to a map [2023-05-30 11:03:59.720] [Info] Received POST request by LoggingController [2023-05-30 11:03:59.720] [Info] Add message to HazelcastLoggingService: uuid = ea74fc26-f8e5-4eae-9a51-ff233157df2c, text = "msg9" [2023-05-30 11:03:59.722] [Info] Message was added [2023-05-30 11:03:59.722] [Info] All content was added to a map</pre>	<pre>karyna@karyna:~/Documents/APZ lab5/APZ labs 59x28 [2023-05-30 11:16:04.950] [Info] Getting logs from HazelcastLoggingService [2023-05-30 11:16:04.959] [Info] Got log: uuid = 62c5c2f0-8ba7-4157-b660-064df1a31977, text = "msg7" [2023-05-30 11:16:04.959] [Info] Got log: uuid = 243c936b-c1ab-4484-a587-0bd8a0667f9c, text = "msg1" [2023-05-30 11:16:04.959] [Info] Got log: uuid = 019a89bc-134-4550-80ec-aed251071bff, text = "msg10" [2023-05-30 11:16:04.959] [Info] Got log: uuid = 1ec7c15-bd5d-4e49-aa30-fb161d9c14d1, text = "msg6" [2023-05-30 11:16:04.959] [Info] Got log: uuid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5" [2023-05-30 11:16:04.959] [Info] Got log: uuid = ea74fc26-f8e5-4eae-9a51-ff233157df2c, text = "msg9" [2023-05-30 11:16:04.959] [Info] Got log: uuid = 6e6fa45e-631a-4026-843e-d0b23c082a2a, text = "msg2" [2023-05-30 11:16:04.959] [Info] Got log: uuid = d63fe41f-9d1-4f8a-98ed-92539a53ac13, text = "msg3" [2023-05-30 11:16:04.959] [Info] Got log: uuid = cdf9b832-c1d-415a-a9b3-c634cbe2d419, text = "msg4" [2023-05-30 11:16:04.959] [Info] Got log: uuid = 4d81a4c9-e054-42c2-93d5-60aade42d32, text = "msg8" [2023-05-30 11:16:04.959] [Info] All content was added to an output string [2023-05-30 11:16:04.959] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"</pre>
<pre>karyna@karyna:~/Documents/APZ lab5/APZ labs 59x25 ad server version=5.2.2) 30/05/2023 10:59:29.517 INFO: [14003912888896] hz.client_1[dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701] 30/05/2023 10:59:29.519 INFO: [14003912888896] hz.client_1[dev] [5.2.0] Authenticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-9d0b-44815c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42222]. Connection alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:29.517, last_write_time=2023-05-30 10:59:29.517, closedTime=never, connected server version=5.2.2) [2023-05-30 10:59:29.524] [Info] Creating HazelcastLoggingService [2023-05-30 10:59:29.544] [Info] Register a resource [2023-05-30 10:59:29.544] [Info] Start server [2023-05-30 11:03:48.036] [Info] Received POST request by LoggingController [2023-05-30 11:03:48.036] [Info] Add message to HazelcastLoggingService: uuid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5" [2023-05-30 11:03:48.039] [Info] Message was added [2023-05-30 11:03:48.039] [Info] All content was added to a map</pre>	<pre>karyna@karyna:~/Documents/APZ lab5/APZ labs 77x25 [2023-05-30 11:03:53.571] [Info] Message service took new msg from queue: "msg7" [2023-05-30 11:03:59.719] [Info] Message service took new msg from queue: "msg9" [2023-05-30 11:11:05.144] [Info] Received GET request by MessagesController [2023-05-30 11:11:05.144] [Info] Creating an output string [2023-05-30 11:11:05.144] [Info] Getting saved messages from MessagesService [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg3" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg5" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg7" [2023-05-30 11:11:05.144] [Info] Got saved msg: "msg9" [2023-05-30 11:11:05.144] [Info] All content was added to an output string [2023-05-30 11:11:05.144] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9" [2023-05-30 11:15:05.635] [Info] Received GET request by MessagesController [2023-05-30 11:15:05.635] [Info] Creating an output string [2023-05-30 11:15:05.635] [Info] Getting saved messages from MessagesService [2023-05-30 11:15:05.635] [Info] Got saved msg: "msg3" [2023-05-30 11:15:05.635] [Info] Got saved msg: "msg5" [2023-05-30 11:15:05.635] [Info] Got saved msg: "msg7" [2023-05-30 11:15:05.635] [Info] Got saved msg: "msg9" [2023-05-30 11:15:05.635] [Info] All content was added to an output string [2023-05-30 11:15:05.635] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9"</pre>	<pre>from queue: "msg2" [2023-05-30 11:03:44.941] [Info] Message service took new msg from queue: "msg4" [2023-05-30 11:03:50.869] [Info] Message service took new msg from queue: "msg6" [2023-05-30 11:03:56.751] [Info] Message service took new msg from queue: "msg8" [2023-05-30 11:04:03.139] [Info] Message service took new msg from queue: "msg10" [2023-05-30 11:16:04.948] [Info] Received GET request by MessagesController [2023-05-30 11:16:04.948] [Info] Creating an output string [2023-05-30 11:16:04.948] [Info] Getting saved messages from MessagesService [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg1" [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg2" [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg4" [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg6" [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg8" [2023-05-30 11:16:04.948] [Info] Got saved msg: "msg10" [2023-05-30 11:16:04.948] [Info] All content was added to an output string [2023-05-30 11:16:04.948] [Info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"</pre>



Щоб переконатися, що запити не опрацьовуються тільки logging-service-8082, запустила ще раз. На цей раз запит опрацьовувався за допомогою logging-service-8081 (бо по логах минулих запусків використовувався тільки logging-service-8082)

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 60x28
[2023-05-30 11:16:04.959] [Info] Response of logging service : "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"
[2023-05-30 11:16:04.959] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
[2023-05-30 11:18:33.483] [Info] Received GET request by FacadeController
[2023-05-30 11:18:33.483] [Info] Getting messages
[2023-05-30 11:18:33.483] [Info] Getting messages from messages service
[2023-05-30 11:18:33.484] [Info] Sending GET request to chosen messages service: url = http://localhost:8084/messages-service
[2023-05-30 11:18:33.485] [Info] Response of messages service: "msg3" "msg5" "msg7" "msg9"
[2023-05-30 11:18:33.485] [Info] Getting messages from logging service
[2023-05-30 11:18:33.486] [Info] Sending GET request to chosen logging service: url = http://localhost:8081/logging-service
[2023-05-30 11:18:33.491] [Info] Response of logging service : "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"
[2023-05-30 11:18:33.491] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg3" "msg5" "msg7" "msg9"
```

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 79x28
[2023-05-30 11:03:59.722] [Info] All content was added to a map
[2023-05-30 11:18:33.487] [Info] Received GET request by LoggingController
[2023-05-30 11:18:33.487] [Info] Creating an output string
[2023-05-30 11:18:33.487] [Info] Getting logs from HazelcastLoggingService
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 62c5c2f0-8ba7-4157-b660-064df1a31977, text = "msg7"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 243c936b-d1ab-4484-a587-0bd8a0667f9c, text = "msg1"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 019a89c0-9134-4550-80ec-aed251071bfff, text = "msg10"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 1ec7cc15-bd5d-4e49-aa30-fb161d9c14d1, text = "msg6"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = ea74fc20-f8e5-4eae-9a51-ff233157df2c, text = "msg9"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 6e6fa45e-031a-4026-843e-d0b23c082a2a, text = "msg2"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = cdf9b832-5c1d-415a-a9b3-c634cb02d410, text = "msg4"
[2023-05-30 11:18:33.491] [Info] Got log: uuid = 4d81a4c9-6054-42c2-93d5-60aad4e2d32, text = "msg8"
[2023-05-30 11:18:33.491] [Info] All content was added to an output string
[2023-05-30 11:18:33.491] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"
```

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 59x28
[2023-05-30 11:16:04.950] [Info] Getting logs from HazelcastLoggingService
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 62c5c2f0-8ba7-4157-b660-064df1a31977, text = "msg7"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 243c936b-d1ab-4484-a587-0bd8a0667f9c, text = "msg1"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 019a89c0-9134-4550-80ec-aed251071bfff, text = "msg10"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 1ec7cc15-bd5d-4e49-aa30-fb161d9c14d1, text = "msg6"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = ea74fc20-f8e5-4eae-9a51-ff233157df2c, text = "msg9"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 6e6fa45e-031a-4026-843e-d0b23c082a2a, text = "msg2"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = d63fe41f-09d1-4f8a-98ed-92539a53ac13, text = "msg3"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = cdf9b832-5c1d-415a-a9b3-c634cb02d410, text = "msg4"
[2023-05-30 11:16:04.959] [Info] Got log: uuid = 4d81a4c9-6054-42c2-93d5-60aad4e2d32, text = "msg8"
[2023-05-30 11:16:04.959] [Info] All content was added to an output string
[2023-05-30 11:16:04.959] [Info] Sending a response: "msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8"
```

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 59x25
ed server version=5.2.2)
30/05/2023 10:59:29.517 INFO: [140039128888896] hz.client.1 [dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701]
30/05/2023 10:59:29.519 INFO: [140039128888896] hz.client.1 [dev] [5.2.0] Authenticated with server Address[172.17.0.4:5701]:b9242311-7072-493f-90db-44815c7945a6, server version: 5.2.2, local address: Address[172.17.0.1:42222]. Connection[alive=1, connection id=3, remote endpoint=Address[172.17.0.4:5701], last_read_time=2023-05-30 10:59:29.519, last_write_time=2023-05-30 10:59:29.517, closedTime=never, connected server version=5.2.2]
[2023-05-30 10:59:29.524] [Info] Creating HazelcastLoggingService
[2023-05-30 10:59:29.544] [Info] Register a resource
[2023-05-30 10:59:29.544] [Info] Start server
[2023-05-30 11:03:48.036] [Info] Received POST request by LoggingController
[2023-05-30 11:03:48.036] [Info] Add message to HazelcastLoggingService: uuid = d3937340-f469-42e6-8050-e6072494a639, text = "msg5"
[2023-05-30 11:03:48.039] [Info] Message was added
[2023-05-30 11:03:48.039] [Info] All content was added to a map
```

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 79x25
[2023-05-30 11:11:05.144] [Info] Got saved msg: "msg9"
[2023-05-30 11:11:05.144] [Info] All content was added to an output string
[2023-05-30 11:11:05.144] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9"
[2023-05-30 11:15:05.635] [Info] Received GET request by MessagesController
[2023-05-30 11:15:05.635] [Info] Creating an output string
[2023-05-30 11:15:05.635] [Info] Getting saved messages from MessagesService
[2023-05-30 11:15:05.635] [Info] Got saved msg: "msg3"
[2023-05-30 11:15:05.635] [Info] Got saved msg: "msg5"
[2023-05-30 11:15:05.635] [Info] Got saved msg: "msg7"
[2023-05-30 11:15:05.635] [Info] Got saved msg: "msg9"
[2023-05-30 11:15:05.635] [Info] All content was added to an output string
[2023-05-30 11:15:05.635] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9"
[2023-05-30 11:18:33.485] [Info] Received GET request by MessagesController
[2023-05-30 11:18:33.485] [Info] Creating an output string
[2023-05-30 11:18:33.485] [Info] Getting saved messages from MessagesService
[2023-05-30 11:18:33.485] [Info] Got saved msg: "msg3"
[2023-05-30 11:18:33.485] [Info] Got saved msg: "msg5"
[2023-05-30 11:18:33.485] [Info] Got saved msg: "msg7"
[2023-05-30 11:18:33.485] [Info] Got saved msg: "msg9"
[2023-05-30 11:18:33.485] [Info] All content was added to an output string
[2023-05-30 11:18:33.485] [Info] Sending a response: "msg3" "msg5" "msg7" "msg9"
```

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 62x25
[2023-05-30 11:03:44.941] [Info] Message service took new msg from queue: "msg4"
[2023-05-30 11:03:50.869] [Info] Message service took new msg from queue: "msg6"
[2023-05-30 11:03:56.751] [Info] Message service took new msg from queue: "msg8"
[2023-05-30 11:04:03.139] [Info] Message service took new msg from queue: "msg10"
[2023-05-30 11:16:04.948] [Info] Received GET request by MessagesController
[2023-05-30 11:16:04.948] [Info] Creating an output string
[2023-05-30 11:16:04.948] [Info] Getting saved messages from MessagesService
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg1"
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg2"
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg4"
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg6"
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg8"
[2023-05-30 11:16:04.948] [Info] Got saved msg: "msg10"
[2023-05-30 11:16:04.948] [Info] All content was added to an output string
[2023-05-30 11:16:04.948] [Info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
```

Щоб зробити deregister для мікросервісу, запускаємо скрипт, якому передаємо id сервісу

```
#!/bin/bash
CONSUL_NAME=services-manager
docker exec -it "${CONSUL_NAME}" consul services deregister -id="${1}"
```

```
karyna@karyna:~/Documents/APZ_lab5/APZ_labs/bash_scripts$ ./service_deregistraton_by_id.sh messages-service-8084
Deregistered service: messages-service-8084
karyna@karyna:~/Documents/APZ_lab5/APZ_labs/bash_scripts$
```

Вивід у consul:

```
2023-05-30T14:46:56.966Z [INFO] agent: Synced node info
2023-05-30T14:59:24.236Z [INFO] agent: Synced service: service=facade-service-8080
2023-05-30T14:59:26.339Z [INFO] agent: Synced service: service=logging-service-8081
2023-05-30T14:59:27.787Z [INFO] agent: Synced service: service=logging-service-8082
2023-05-30T14:59:29.541Z [INFO] agent: Synced service: service=logging-service-8083
2023-05-30T14:59:31.014Z [INFO] agent: Synced service: service=messages-service-8084
2023-05-30T14:59:33.014Z [INFO] agent: Synced service: service=messages-service-8085
2023-05-30T15:24:36.171Z [INFO] agent: Deregistered service: service=messages-service-8084
```

Тепер всі GET запити не будуть повертати повідомлення з messages-service-8084, всі повідомлення з messages services повертаються тільки з messages-service-8085:

```
GET http://127.0.0.1:8080/facade-service
```

```
Show Request
```

```
HTTP/1.1 200 OK
```

```
Date: Tue, 30 May 2023 15:26:04 GMT
```

```
Content-Type: text/plain
```

```
Content-Length: 117
```

```
"msg7" "msg1" "msg10" "msg6" "msg5" "msg9" "msg2" "msg3" "msg4" "msg8" : "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
```

```
Response code: 200 (OK); Time: 7ms (7 ms); Content length: 117 bytes (117 B)
```



## Логи з messages-service-8085

```
karyna@karyna: ~/Documents/APZ_lab5/APZ_labs 117x51
[2023-05-30 11:26:01.350] [info] Got saved msg: "msg4"
[2023-05-30 11:26:01.350] [info] Got saved msg: "msg6"
[2023-05-30 11:26:01.350] [info] Got saved msg: "msg8"
[2023-05-30 11:26:01.350] [info] Got saved msg: "msg10"
[2023-05-30 11:26:01.350] [info] All content was added to an output string
[2023-05-30 11:26:01.350] [info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
[2023-05-30 11:26:02.206] [info] Received GET request by MessagesController
[2023-05-30 11:26:02.206] [info] Creating an output string
[2023-05-30 11:26:02.206] [info] Getting saved messages from MessagesService
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg1"
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg2"
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg4"
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg6"
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg8"
[2023-05-30 11:26:02.206] [info] Got saved msg: "msg10"
[2023-05-30 11:26:02.206] [info] All content was added to an output string
[2023-05-30 11:26:02.206] [info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
[2023-05-30 11:26:02.813] [info] Received GET request by MessagesController
[2023-05-30 11:26:02.813] [info] Creating an output string
[2023-05-30 11:26:02.813] [info] Getting saved messages from MessagesService
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg1"
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg2"
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg4"
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg6"
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg8"
[2023-05-30 11:26:02.813] [info] Got saved msg: "msg10"
[2023-05-30 11:26:02.813] [info] All content was added to an output string
[2023-05-30 11:26:02.813] [info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
[2023-05-30 11:26:03.491] [info] Received GET request by MessagesController
[2023-05-30 11:26:03.491] [info] Creating an output string
[2023-05-30 11:26:03.491] [info] Getting saved messages from MessagesService
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg1"
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg2"
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg4"
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg6"
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg8"
[2023-05-30 11:26:03.491] [info] Got saved msg: "msg10"
[2023-05-30 11:26:03.491] [info] All content was added to an output string
[2023-05-30 11:26:03.491] [info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
[2023-05-30 11:26:04.118] [info] Received GET request by MessagesController
[2023-05-30 11:26:04.118] [info] Creating an output string
[2023-05-30 11:26:04.118] [info] Getting saved messages from MessagesService
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg1"
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg2"
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg4"
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg6"
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg8"
[2023-05-30 11:26:04.118] [info] Got saved msg: "msg10"
[2023-05-30 11:26:04.118] [info] All content was added to an output string
[2023-05-30 11:26:04.118] [info] Sending a response: "msg1" "msg2" "msg4" "msg6" "msg8" "msg10"
```