

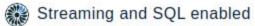
Запускаємо 3 ноди хейзелкасту і Management center:

```
karyna@karyna: ~
                                                                                                                                                                                                     _ @ X
                  karyna@karyna: ~ 50x33
                                                                                    karyna@karyna: ~ 75x33
                                                                                                                                                                  karyna@karyna: ~ 73x33
 023-04-01 22:01:30,095 [ INFO] [main] [c.h.c.Life
                                                     ics.enabled=true to the JVM arguments
                                                                                                                                    ostics.enabled=true to the JVM arguments.
  cleService]: [172.17.0.2]:5701 [dev] [5.2.2] [17
                                                     2023-04-01 22:01:28,682 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.
                                                                                                                                    2023-04-01 22:01:31,105 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.
 .17.0.2]:5701 is STARTED
                                                      ]:5701 [dev] [5.2.2] [172.17.0.3]:5701 is STARTING
                                                                                                                                    .4]:5701 [dev] [5.2.2] [172.17.0.4]:5701 is STARTING
 2023-04-01 22:01:30,419 [ INFO] [hz.recursing_chan
                                                     2023-04-01 22:01:30,391 [ INFO] [main] [c.h.i.c.i.MulticastJoiner]: [172.17
                                                                                                                                   2023-04-01 22:01:31,243 [ INFO] [main] [c.h.i.c.i.MulticastJoiner]: [172.
                                                     .0.3]:5701 [dev] [5.2.2] Trying to join to discovered node: [172.17.0.2]:57
                                                                                                                                   17.0.4]:5701 [dev] [5.2.2] Trying to join to discovered node: [172.17.0.2
 ction]: [172.17.0.2]:5701 [dev] [5.2.2] Initializ
ed new cluster connection between /172.17.0.2:5701
                                                     2023-04-01 22:01:30,423 [ INFO] [hz.blissful_jennings.IO.thread-in-0] [c.h
                                                                                                                                   2023-04-01 22:01:31,283 [ INFO] [hz.modest_fermat.IO.thread-in-0] [c.h.i.
                                                      .s.t.TcpServerConnection]: [172.17.0.3]:5701 [dev] [5.2.2] Initialized new
                                                                                                                                    .t.TcpServerConnection]: [172.17.0.4]:5701 [dev] [5.2.2] Initialized new
 and /172.17.0.3:55449
2023-04-01 22:01:31,280 [ INFO] [hz.recursing chan
                                                     cluster connection between /172.17.0.3:55449 and /172.17.0.2:5701
                                                                                                                                    cluster connection between /172.17.0.4:51779 and /172.17.0.2:5701
                                                     2023-04-01 22:01:36,379 [ INFO] [hz.blissful jennings.generic-operation.thr
                                                                                                                                   2023-04-01 22:01:36,381 [ INFO] [hz.modest fermat.priority-generic-operat
 ction]: [172.17.0.2]:5701 [dev] [5.2.2] Initializ
                                                      ad-2] [c.h.i.c.ClusterService]: [172.17.0.3]:5701 [dev] [5.2.2]
                                                                                                                                    on.thread-0] [c.h.i.c.ClusterService]: [172.17.0.4]:5701 [dev] [5.2.2]
ed new cluster connection between /172.17.0.2:5701
 and /172.17.0.4:51779
                                                     Members {size:3, ver:3} [
                                                                                                                                    Members {size:3, ver:3} [
                                                            Member [172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
2023-04-01 22:01:36,368 [ INFO] [hz.recursing_chan
                                                                                                                                           Member [172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
                                                            Member [172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-cafd777477bb thi
                                                                                                                                           Member [172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-cafd777477bb
                                                                                                                                           Member [172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bbc t
                                                            Member [172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bbc
        Member [172.17.0.2]:5701 - fa816968-d13f-4
                                                                                                                                    2023-04-01 22:01:36,383 [ INFO] [hz.modest_fermat.IO.thread-in-1] [c.h.i
c67-87a6-f32c33a43130 this
                                                      ..s.t.TcpServerConnector]: [172.17.0.3]:5701 [dev] [5.2.2] Connecting to /
                                                                                                                                     t.TcpServerConnection]: [172.17.0.4]:5701 [dev] [5.2.2] Initialized new
       Member [172.17.0.3]:5701 - 7a399187-bec1-4
                                                     172.17.0.4:5701, timeout: 10000, bind-any: true
                                                                                                                                    cluster connection between /172.17.0.4:5701 and /172.17.0.3:55445
5a3-8ceb-cafd777477bb
                                                     2023-04-01 22:01:36,385 [ INFO] [hz.blissful_jennings.IO.thread-in-1] [c.h
                                                                                                                                   2023-04-01 22:01:36,383 [ INFO] [hz.modest_fermat.cached.thread-4] [c.h.
                                                                                                                                    s.t.TcpServerConnector]: [172.17.0.4]:5701 [dev] [5.2.2] Connecting to /
                                                     i.s.t.TcpServerConnection]: [172.17.0.3]:5701 [dev] [5.2.2] Initialized new
ebc-b64f-d163952b2bbc
                                                     cluster connection between /172.17.0.3:55445 and /172.17.0.4:5701
                                                                                                                                   172.17.0.3:5701, timeout: 10000, bind-any: true
                                                     2023-04-01 22:01:36,386 [ INFO] [hz.blissful_jennings.IO.thread-in-2] [c.h
                                                                                                                                   2023-04-01 22:01:36,388 [ INFO] [hz.modest_fermat.IO.thread-in-2] [c.h.i.
                                                     i.s.t.TcpServerConnection]: [172.17.0.3]:5701 [dev] [5.2.2] Initialized new s.t.TcpServerConnection]: [172.17.0.4]:5701 [dev] [5.2.2] Initialized new
2023-04-01 22:01:37,444 [ INFO] [hz.recursing chan
                                                    cluster connection between /172.17.0.3:5701 and /172.17.0.4:33375
                                                                                                                                    cluster connection between /172.17.0.4:33375 and /172.17.0.3:5701
                                                                                                                                   2023-04-01 22:01:37,402 [ INFO] [main] [c.h.j.i.JobCoordinationService]:
 rtitionStateManager]: [172.17.0.2]:5701 [dev] [5.
                                                     72.17.0.3]:5701 [dev] [5.2.2] Jet started scanning for jobs
                                                                                                                                    172.17.0.4]:5701 [dev] [5.2.2] Jet started scanning for jobs
 .2] Initializing cluster partition table arrangem
                                                    2023-04-01 22:01:37,408 [ INFO] [main] [c.h.c.LifecycleService]: [172.17.0.
                                                     3]:5701 [dev] [5.2.2] [172.17.0.3]:5701 is STARTED
                                                                                                                                    .4]:5701 [dev] [5.2.2] [172.17.0.4]:5701 is STARTED
                                                                                               karyna@karyna: ~ 203x20
        at java.lang.Thread.run(Thread.java:833) ~[?:?]
        at com.hazelcast.internal.util.executor.HazelcastManagedThread.executeRun(HazelcastManagedThread.java:76) ~[hazelcast-enterprise-5.2.1.jar!/:5.2.1]
        at com.hazelcast.internal.util.executor.HazelcastManagedThread.run(HazelcastManagedThread.java:102) ~[hazelcast-enterprise-5.2.1.jar!/:5.2.1]
2023-04-01 22:01:20.044 [ INFO] [MC-Client-dev.lifecycle-1] [c.h.w.s.MCClientManager]: MC Client for cluster dev shut down.
karyna@karyna:~$ docker run -p 8088:8080 hazelcast/management-center
Container support enabled. Using automatic heap sizing. JVM will use up to 80% of the memory limit of the host.
 · exec java -server '-Dloader.path=/opt/hazelcast/management-center/bin/user-lib/*' --add-opens java.base/java.lang=ALL-UNNAMED -Dhazelcast.mc.home=/data -Djava.net.preferIPv4Stack=true -XX:+UseContainer
Support -XX:MaxRAMPercentage=80 -cp /opt/hazelcast/management-center/bin/../hazelcast-management-center-5.2.1.jar org.springframework.boot.loader.PropertiesLauncher
2023-04-01 22:01:42,383 [ INFO] [main] [c.h.w.MCApplication]: Starting MCApplication v5.2.1 using Java 17.0.6 on 1a37d94e8849 with PID 1 (/opt/hazelcast/management-center/hazelcast-management-center/hazelcast-management-center-5.2.
1.jar started by hazelcast in /opt/hazelcast/management-center)
2023-04-01 22:01:42,392 [ INFO] [main] [c.h.w.MCApplication]: No active profile set, falling back to 1 default profile: "default"
2023-04-01 22:01:44,992 [ INFO] [main] [c.h.w.c.SqlDbConfig]: Checking DB for required migrations.
2023-04-01 22:01:45,956 [ INFO] [main] [c.h.w.c.SqlDbConfig]: Number of applied DB migrations: 19.
2023-04-01 22:01:46,843 [ INFO] [main] [c.h.w.s.s.i.DisableLoginStrategy]: Login will be disabled for 5 seconds after 3 failed login attempts. For every 3 consecutive failed login attempts, disable perio
d will be multiplied by 10.
2023-04-01 22:01:49,239 [ INFO] [main] [c.h.w.MCApplication]: Started MCApplication in 7.564 seconds (JVM running for 8.812)
2023-04-01 22:01:49,257 [ INFO] [AsyncExecutor-1] [c.h.w.MCApplication]: Hazelcast Management Center successfully started at http://localhost:8080
2023-04-01 22:01:49,271 [ INFO] [AsyncExecutor-2] [c.h.w.s.ClusterManager]: Connecting to 0 enabled cluster(s) on startup.
2023-04-01 22:01:49,274 [ INFO] [AsyncExecutor-1] [c.h.w.MCApplication]: Hazelcast Management Center 5.2.1 (20221201 - f06fa4a), Hazelcast client version: 5.2.1, embedded Jetty version: 9.4.49.v20220914
```



dev

- (i) State:
- Safe Members: 3/3 Clients: 0
 - 0



VIEW CLUSTER

Запускаємо facade service, messages service і 3 logging services

dev] [5.2.0] Authenticated with server Address[172.17.0.4

```
karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc
                                                                                                                                                                                                     _ @ X
                   karyna@karyna: ~/Documents/APZ labs/facade service/cmake-build-release-qcc 100x9
                                                                                                                             karyna@karyna: ~/Documents/APZ labs/messages service/cmake-build-debug 100x9
aryna@karyna:~/Documents/APZ labs/facade service/cmake-build-release-gcc$ ./facade service
                                                                                                         aryna@karyna:~/Documents/APZ labs/messages service/cmake-build-debug$ ./messages service
2023-04-02 01:03:44.781] [info] Creating server
                                                                                                         2023-04-02 01:03:46.196] [info] Creating server
                                                                                                         2023-04-02 01:03:46.196] [info] Port: 8081
2023-04-02 01:03:44.781] [info] Port: 8080
2023-04-02 01:03:44.781] [info] Creating a resource
                                                                                                         2023-04-02 01:03:46.196] [info] Creating a resource
2023-04-02 01:03:44.781] [info] Creating FacadeService... Messages service: ip = 127.0.0.1, port =
                                                                                                         2023-04-02 01:03:46.196] [info] Register a resource
8081. Looging service: ip = 127.0.0.1, ports: 8082, 8083, 8084
                                                                                                         2023-04-02 01:03:46.196] [info] Start server
2023-04-02 01:03:44.782] [info] Start server
🖫 karyna@karyna: -/Documents/APZ_labs/logging_service/cmake-build-release- 🖫 karyna@karyna: -/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x44
                                                                                                                                           karyna@karyna: ~/Documents/APZ labs/logging service/cmake-build-release-gcc 70x44
aryna@karyna:~/Documents/APZ_labs/logging_service/cmake-bu
                                                                                                                                        caryna@karyna:~/Documents/APZ_labs/logging_service/cmake-build-release
                                                               cc$ ./logging service 8083
 ld-release-gcc$ ./logging_service 8082
                                                                                                                                        gcc$ ./logging_service 8084
2023-04-02 01:03:47.718] [info] Creating server
                                                              2023-04-02 01:03:49.384] [info] Creating server
                                                                                                                                       [2023-04-02 01:03:50.891] [info] Creating server
                                                               2023-04-02 01:03:49.384] [info] Port: 8083
                                                                                                                                       [2023-04-02 01:03:50.891] [info] Port: 8084
2023-04-02 01:03:47.718] [info] Port: 8082
                                                              2023-04-02 01:03:49.384] [info] Creating a resource
2023-04-02 01:03:47.718] [info] Creating a resource
                                                                                                                                       [2023-04-02 01:03:50.891] [info] Creating a resource
02/04/2023 01:03:47.719 INFO: [140428905457216] hz.client :
                                                              02/04/2023    01:03:49.385    INFO: [140309010744896]    hz.client_1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.892 INFO: [140286678705728] hz.client 1[dev] [5.2.
dev] [5.2.0] (NOT_FOUND:NOT_FOUND) LifecycleService::Lifec
                                                              0] (NOT FOUND:NOT FOUND) LifecycleService::LifecycleEvent Client (b9e9
                                                                                                                                       0] (NOT_FOUND:NOT_FOUND) LifecycleService::LifecycleEvent Client (83e3
                                                             be4a-7fc3-4093-8846-c380ab27010b) is STARTING
                                                                                                                                       24be-2975-48cd-80f2-41d49d615e2e) is STARTING
cleEvent Client (2d1e3ac5-b42b-4962-a85c-cc4a1c1a43f1) is
                                                              02/04/2023 01:03:49.385 INFO: [140309010744896] hz.client_1[dev] [5.2
                                                                                                                                      02/04/2023 01:03:50.892 INFO: [140286678705728] hz.client 1[dev] [5.2.
                                                              0] (NOT FOUND:NOT FOUND) LifecycleService::LifecycleEvent STARTING
02/04/2023 01:03:47.719 INFO: [140428905457216] hz.client_
                                                                                                                                       0] (NOT_FOUND:NOT_FOUND)    LifecycleService::LifecycleEvent    STARTING
dev] [5.2.0] (NOT FOUND:NOT FOUND) LifecycleService::Life
                                                             02/04/2023 01:03:49.385 INFO: [140309010744896] hz.client_1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.892 INFO: [140286678705728] hz.client_1[dev] [5.2.
                                                                                                                                       ] LifecycleService::LifecycleEvent STARTED
02/04/2023 01:03:47.719 INFO: [140428905457216] hz.client
                                                              02/04/2023 01:03:49.395 INFO: [140309010744896] hz.client 1[dev] [5.2.
                                                                                                                                      02/04/2023 01:03:50.894 INFO: [140286678705728] hz.client_1[dev] [5.2.
                                                              0] Trying to connect to Address[127.0.0.1:5701].
dev] [5.2.0] LifecycleService::LifecycleEvent STARTED
                                                                                                                                       7] Trying to connect to Address[127.0.0.1:5701].
2/04/2023 01:03:47.723 INFO: [140428905457216] hz.client :
                                                              02/04/2023 01:03:49.399 INFO: [140309010744896] hz.client 1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.896 INFO: [140286678705728] hz.client 1[dev] [5.2.
dev] [5.2.0] Trying to connect to Address[127.0.0.1:5701]
                                                              0] LifecycleService::LifecycleEvent CLIENT CONNECTED
                                                                                                                                       D] LifecycleService::LifecycleEvent CLIENT_CONNECTED
02/04/2023 01:03:47.726 INFO: [140428905457216] hz.client
                                                              02/04/2023 01:03:49.399 INFO: [140309010744896] hz.client_1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.896 INFO: [140286678705728] hz.client 1[dev] [5.2.
dev] [5.2.0] LifecycleService::LifecycleEvent CLIENT CONNE
                                                             0 Authenticated with server Address[172.17.0.2:5701]:fa816968-d13f-4
                                                                                                                                       0] Authenticated with server Address[172.17.0.2:5701]:fa816968-d13f-4
                                                              :67-87a6-f32c33a43130, server version: 5.2.2, local address: Address[1
                                                                                                                                       c67-87a6-f32c33a43130, server version: 5.2.2, local address: Address[1
2/04/2023 01:03:47.726 INFO: [140428905457216] hz.client :
                                                             27.0.0.1:42202]. Connection{alive=1, connection id=1, remote endpoint=
                                                                                                                                       27.0.0.1:42212]. Connection{alive=1, connection id=1, remote endpoint=
dev] [5.2.0] Authenticated with server Address[172.17.0.2
                                                              Address[172.17.0.2:5701], last read time=2023-04-02 01:03:50.896, last
5701]:fa816968-d13f-4c67-87a6-f32c33a43130, server version
                                                              write time=2023-04-02 01:03:49.397, closedTime=never, connected serve
                                                                                                                                       _write_time=2023-04-02 01:03:50.894, closedTime=never, connected serve
                                                              r version=5.2.2}
5.2.2, local address: Address[127.0.0.1:42196]. Connection
                                                                                                                                        version=5.2.2}
                                                               2/04/2023 01:03:49.400 INFO: [140308637402688] hz.client 1[dev] [5.2.
{alive=1, connection id=1, remote endpoint=Address[172.17
                                                                                                                                       02/04/2023 01:03:50.896 INFO: [140286306936384] hz.client 1[dev] [5.2.
.2:5701], last read time=2023-04-02 01:03:47.725, last wr
e time=2023-04-02 01:03:47.724, closedTime=never, connecte
server version=5.2.2}
                                                                                                                                       Members [3] {
02/04/2023 01:03:47.728 INFO: [140428535797312] hz.client_
                                                                     Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bb6
                                                                                                                                               Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bbc
                                                                     Member[172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-cafd777477bb
[dev] [5.2.0]
                                                                                                                                               Member[172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-cafd777477bb
                                                                     Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
                                                                                                                                               Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
       Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d
63952b2bbc
                                                              02/04/2023    01:03:49.401    INFO: [140309010744896]    hz.client_1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.896 INFO: [140286678705728] hz.client_1[dev] [5.2.
                                                             0] Trying to connect to Address[172.17.0.4:5701].
       Member[172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-c
                                                                                                                                        Trying to connect to Address[172.17.0.4:5701].
                                                              02/04/2023 01:03:49.403 INFO: [140309010744896] hz.client_1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.898 INFO: [140286678705728] hz.client 1[dev] [5.2.
                                                              0] Authenticated with server Address[172.17.0.4:5701]:0bb23dc0-5f69-4
       Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f
                                                                                                                                      0] Authenticated with server Address[172.17.0.4:5701]:0bb23dc0-5f69-4
2c33a43130
                                                              bc-b64f-d163952b2bbc, server version: 5.2.2, local address: Address[1:
                                                                                                                                       ebc-b64f-d163952b2bbc, server version: 5.2.2, local address: Address[1
                                                              72.17.0.1:43800]. Connection{alive=1, connection id=2, remote endpoint
                                                                                                                                       72.17.0.1:43802]. Connection{alive=1, connection id=2, remote endpoint
                                                               Address[172.17.0.4:5701], last read time=2023-04-02 01:03:49.403, las
                                                                                                                                       =Address[172.17.0.4:5701], last_read_time=2023-04-02 01:03:50.898, las
                                                               write time=2023-04-02 01:03:49.401, closedTime=never, connected serv
2/04/2023 01:03:47.728 INFO: [140428905457216] hz.client 1
                                                                                                                                       t write time=2023-04-02 01:03:50.897, closedTime=never, connected serv
dev] [5.2.0] Trying to connect to Address[172.17.0.4:5701]
                                                              er version=5.2.2}
                                                                                                                                        er version=5.2.2}
                                                               2/04/2023 01:03:49.403 INFO: [140309010744896] hz.client 1[dev] [5.2.
                                                                                                                                       02/04/2023 01:03:50.898 INFO: [140286678705728] hz.client_1[dev] [5.2.
2/04/2023 01:03:47.731 INFO: [140428905457216] hz.client 1
                                                              0] Trying to connect to Address[172.17.0.3:5701].
                                                                                                                                       7] Trying to connect to Address[172.17.0.3:5701].
                                                              02/04/2023 01:03:49.406 INFO: [140309010744896] hz.client 1[dev] [5.2.
```

02/04/2023 01:03:50.900 INFO: [140286678705728] hz.client 1[dev] [5.2.

Додаємо 10 повідомлень

Тут приклад додавання першого повідомлення

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

"msg1"
###
```

Логи після додавання 10 повідомлень

```
karyna@karyna: ~/Documents/APZ labs/facade service/cmake-build-release-gcc
                                                                                                                                                                                                     _ @ X
                   karvna@karvna: ~/Documents/APZ labs/facade service/cmake-build-release-gcc 100x9
                                                                                                                             karyna@karyna: ~/Documents/APZ labs/messages service/cmake-build-debug 100x9
2023-04-02 01:06:44.849] [info] Received POST request by FacadeController
                                                                                                         arvna@karvna:~/Documents/APZ labs/messages service/cmake-build-debug$ ./messages service
2023-04-02 01:06:44.850] [info] Content of request:
                                                                                                        [2023-04-02 01:03:46.196] [info] Creating server
                                                                                                        [2023-04-02 01:03:46.196] [info] Port: 8081
 2023-04-02 01:06:44.850] [info] Adding message: uuid = 34c2b823-2dd4-489c-84f2-faed500464a8 text =
                                                                                                         2023-04-02 01:03:46.196] [info] Creating a resource
2023-04-02 01:06:44.850] [info] Sending POST request to chosen logging service: url = http://127.0.
                                                                                                        [2023-04-02 01:03:46.196] [info] Register a resource
                                                                                                        [2023-04-02 01:03:46.196] [info] Start server
0.1:8083/logging-service
 2023-04-02 01:06:44.851] [info] Response of logging service:
2023-04-02 01:06:44.852] [info] Sending a response:
🖫 karyna@karyna: ~/Documents/APZ labs/logging service/cmake-build-release- 🖫 karyna@karyna: ~/Documents/APZ labs/logging service/cmake-build-release-gcc 70x44
                                                                                                                                       n{alive=1, connection id=2, remote endpoint=Address[172.17
                                                              72.17.0.1:43386]. Connection{alive=1. connection id=3. remote endpoint
                                                                                                                                        2/04/2023 01:03:50.896 INFO: [140286678705728] hz.client 1[dev] [5.2.
0.4:5701], last read time=2023-04-02 01:03:47.730, last wr
                                                              =Address[172.17.0.3:5701]. last read time=2023-04-02 01:03:49.406. las
                                                                                                                                       0 Authenticated with server Address[172.17.0.2:5701]:fa816968-d13f-4
 te time=2023-04-02 01:03:47.729, closedTime=never, connect
                                                              t write time=2023-04-02 01:03:49.403, closedTime=never, connected serv c67-87a6-f32c33a43130, server version: 5.2.2, local address: Address[1
ed server version=5.2.2}
                                                              er version=5.2.2}
                                                                                                                                        27.0.0.1:42212]. Connection{alive=1, connection id=1, remote endpoint=
02/04/2023 01:03:47.731 INFO: [140428905457216] hz.client :
                                                              [2023-04-02 01:03:49.409] [info] Creating HazelcastLoggingService
                                                                                                                                        Address[172.17.0.2:5701], last_read_time=2023-04-02 01:03:50.896, last
 dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              [2023-04-02 01:03:49.409] [info] Register a resource
                                                                                                                                        write time=2023-04-02 01:03:50.894. closedTime=never. connected serve
                                                               2023-04-02 01:03:49.409] [info] Start server
02/04/2023 01:03:47.735 INFO: [140428905457216] hz.client 1
                                                              [2023-04-02 01:04:29.846] [info] Received POST request by LoggingContr
                                                                                                                                        02/04/2023 01:03:50.896 INFO: [140286306936384] hz.client 1[dev] [5.2.
 devl [5.2.0] Authenticated with server Address[172.17.0.3
 5701]:7a399187-bec1-46a3-8ceb-cafd777477bb, server version
                                                              [2023-04-02 01:04:29.846] [info] Add message to HazeicastLoggingserv].
 5.2.2, local address: Address[172.17.0.1:43382]. Connecti
                                                              e: uuid = eda604e4-0c53-4293-b975-ad19a1c50476
                                                                                                             , text = "msq1"
 n{alive=1, connection id=3, remote endpoint=Address[172.17
                                                               2023-04-02 01:04:29.952] [info] Message was a
                                                                                                                                               Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bbc
0.3:5701], last_read_time=2023-04-02 01:03:47.735, last_wr
                                                               2023-04-02 01:04:29.952] [info] All content was added to a map
                                                                                                                                               Member[172.17.0.3]:5701 - 7a399187-bec1-46a3-8ceb-cafd777477bb
                                                               2023-04-02 01:05:59.907] [info] Received POST request by LoggingContr
te time=2023-04-02 01:03:47.731. closedTime=never. connect
                                                                                                                                               Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43136
 d server version=5.2.2}
                                                              [2023-04-02 01:05:59.907] [info] Add message t<mark>o mazeicasiLoggingserv</mark>
 2023-04-02 01:03:47.742] [info] Creating HazelcastLoggingS
                                                              e: uuid = 7cecae2d-b980-4e6f-870e-539a592d262e
                                                                                                             . text = "msg2"
                                                                                                                                        02/04/2023 01:03:50.896 INFO: [140286678705728] hz.client_1[dev] [5.2.
2023-04-02 01:03:47.742] [info] Register a resource
                                                              [2023-04-02 01:05:59.985] [info] Message was a
                                                                                                                                        ] Trying to connect to Address[172.17.0.4:5701].
 2023-04-02 01:03:47.742] [info] Start server
                                                              [2023-04-02 01:05:59.985] [info] All content was added to a map
                                                                                                                                        02/04/2023 01:03:50.898 INFO: [140286678705728] hz.client_1[dev] [5.2
 2023-04-02 01:06:03.076] [info] Received POST request by L
                                                              [2023-04-02 01:06:11.173] [info] Received POST request by LoggingContr
                                                                                                                                        ol Authenticated with server Address[172.17.0.4:5701]:0bb23dc0-5f69-
                                                                                                                                       ebc-b64f-d163952b2bbc. server version: 5.2.2. local address: Address[:
                                                              [2023-04-02 01:06:11.173] [info] Add message to HazelcastLoggingServ
2023-04-02 01:06:03.076] [info] Add message to HazelcastLo
                                                                                                                                        2.17.0.1:43802]. Connection{alive=1, connection id=2, remote endpoint
ggingservice: uuia = T_{cce65c1-37fc-475e-b786-69ecc1455f92},
                                                              e: uuid = 73ae096e-0ad0-4b34-995a-20b5e2b5d125
                                                                                                             , text = "msg4"
                                                                                                                                        Address[172.17.0.4:5701], last read time=2023-04-02 01:03:50.898, las
                                                               2023-04-02 01:06:11.176] [info] Message was a
                                                                                                                                        write time=2023-04-02 01:03:50.897, closedTime=never, connected serv
                     35] [info] Message was added
                                                              [2023-04-02 01:06:11.176] [info] All content was added to a map
                                                                                                                                        er version=5.2.2}
                                                               2023-04-02 01:06:29.935] [info] Received POST request by LoggingContr
                                                                                                                                        02/04/2023 01:03:50.898 INFO: [140286678705728] hz.client 1[dev] [5.2
                                                                                                                                        Trying to connect to Address[172.17.0.3:5701].
 2023-04-02 01:06:36.675] [info] Received POST request by
                                                              [2023-04-02 01:06:29.935] [info] Add message t
                                                                                                                                        02/04/2023 01:03:50.900 INFO: [140286678705728] hz.client_1[dev] [5.2.
                                                               : uuid = a3e242df-e8ed-4634-8d81-25566bbb2460
                                                                                                                                        ] Authenticated with server Address[172.17.0.3:5701]:7a399187-bec1-
2023-04-02 01:06:36.675] [info] Add message to HazelcastL
                                                              [2023-04-02 01:06:29.937] [info] Message was
ggingService: uuid = d<sup>-</sup>cea883-4fa5-44fd-923e-b61503d436ff,
                                                              [2023-04-02 01:06:29.937] [info] All content was added to a map
                                                                                                                                       72.17.0.1:43388]. Connection{alive=1, connection id=3, remote endpoint
                                                               2023-04-02 01:06:33.478] [info] Received POST request by LoggingContr
                                                                                                                                        =Address[172.17.0.3:5701]. last read time=2023-04-02 01:03:50.900. las
 .023-04-02 01.00.30.0<mark>7</mark>7] [info] Message was added
                                                                                                                                        t write time=2023-04-02 01:03:50.898. closedTime=never. connected serv
 2023-04-02 01:06:36.677] [info] All content was added to a
                                                                                                                                        r version=5.2.2}
                                                              [2023-04-02 01:06:33.478] [info] Add message 1
                                                               : uuid = 6bed21b3-d8a2-4086-a089-e6e5d19dc71d, text = "msg7"
                                                                                                                                        2023-04-02 01:03:50.902] [info] Creating HazelcastLoggingService
2023-04-02 01:06:39.720] [info] Received POST request by
                                                               2023-04-02 01:06:33.479] [info] Message was added
                                                                                                                                        2023-04-02 01:03:50.902] [info] Register a resource
                                                               2023-04-02 01:06:33.479] [info] All content was added to a map
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Start server
[2023-04-02 01:06:39.720] [info] Add message to HazelcastLo
                                                              [2023-04-02 01:06:44.850] [info] Received POST request by LoggingContr
                                                                                                                                        2023-04-02 01:06:25.411] [info] Received POST request by LoggingCont
ggingService: uuid = b5c0183-1f24-4491-b5d8-8152bffc0b43,
                                                              [2023-04-02 01:06:44.850] [info] Add message to HazelcastLoggingServ
                                                                                                                                        2023-04-02 01:06:25.411] [info] Add message to HazeleastLogging.
2023-04-02 01:06:39./21] [info] Message was added
                                                              e: uuid = 34c2b823-2dd4-489c-84f2-faed500464a8, text = "msg10"
                                                                                                                                        : uuid = afef31f1-01b0-4c42-a7da-f3ee4dbf223c, text = "msg5"
 2023-04-02 01:06:39.721] [info] All content was added to a
                                                               2023-04-02 01:06:44.851] [info] Message was added
                                                                                                                                        2023-04-02 01:06:25.413] [info] Message was added
                                                               2023-04-02 01:06:44.851] [info] All content was added to a map
                                                                                                                                        [2023-04-02 01:06:25.413] [info] All content was added to a map
```

Розподіл по нодах



GET запит

```
Description  

Descri
```

```
GET http://127.0.0.1:8080/facade-service
HTTP/1.1 200 OK
Date: Sat, 01 Apr 2023 22:09:24 GMT
Content-Type: text/plain
Content-Length: 93
"msg2" "msg4" "msg1" "msg7" "msg10" "msg8" "msg5" "msg3" "msg9" "msg6" : Not implemented yet
Response code: 200 (OK); Time: 19ms (19 ms); Content length: 93 bytes (93 B)
```

Логи після GET запиту

```
karvna@karvna: ~/Documents/APZ labs/facade service/cmake-build-release-gcc
                                                                                                                                                                                                      _ @ X
                    karvna@karvna: ~/Documents/APZ_labs/facade_service/cmake-build-release-gcc 100x9
                                                                                                                              karyna@karyna: ~/Documents/APZ labs/messages service/cmake-build-debug 100x9
[2023-04-02 01:06:44.849] [info] Received POST request by FacadeController
                                                                                                         caryna@karyna:~/Documents/APZ labs/messages service/cmake-build-debug$ ./messages service
2023-04-02 01:06:44.8501 [info] Content of request:
                                                                                                         [2023-04-02 01:03:46.196] [info] Creating server
2023-04-02 01:06:44.850] [info] Adding message: uuid = 34c2b823-2dd4-489c-84f2-faed500464a8 text =
                                                                                                         [2023-04-02 01:03:46.196] [info] Port: 8081
                                                                                                         [2023-04-02 01:03:46.196] [info] Creating a resource
2023-04-02 01:06:44.850] [info] Sending POST request to chosen logging service: url = http://127.0.
                                                                                                         [2023-04-02 01:03:46.196] [info] Register a resource
                                                                                                         [2023-04-02 01:03:46.196] [info] Start server
0.1:8083/logging-service
[2023-04-02 01:06:44.851] [info] Response of logging service:
                                                                                                         [2023-04-02 01:09:24.401] [info] Received GET request
2023-04-02 01:06:44.852] [info] Sending a response:
                                                                                                         [2023-04-02 01:09:24.401] [info] Sending a response: Not implemented yet
2023-04-02 01:09:24.401 [info] Received GET request by FacadeController
2023-04-02 01:09:24 401] [info] Getting message
思 karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release- 문 karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x44 문 karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x44
on{alive=1, connection id=2, remote endpoint=Address[172.17
                                                              72.17.0.1:43386]. Connection{alive=1, connection id=3, remote endpoint
                                                                                                                                        6a3-8ceb-cafd777477bb, server version: 5.2.2, local address: Address[1
.0.4:5701], last read time=2023-04-02 01:03:47.730, last wr
                                                               =Address[172.17.0.3:5701], last read time=2023-04-02 01:03:49.406, las
                                                                                                                                        72.17.0.1:43388]. Connection{alive=1, connection id=3, remote endpoint
te time=2023-04-02 01:03:47.729, closedTime=never, connect t write time=2023-04-02 01:03:49.403, closedTime=never, connected serv
                                                                                                                                       =Address[172.17.0.3:5701], last read time=2023-04-02 01:03:50.900, las
ed server version=5.2.2}
                                                               r version=5.2.2}
                                                                                                                                        t write time=2023-04-02 01:03:50.898, closedTime=never, connected serv
02/04/2023 01:03:47.731 INFO: [140428905457216] hz.client 1
                                                               2023-04-02 01:03:49.409] [info] Creating HazelcastLoggingService
                                                                                                                                         er version=5.2.2}
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              [2023-04-02 01:03:49.409] [info] Register a resource
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Creating HazelcastLoggingService
                                                               2023-04-02 01:03:49.409] [info] Start server
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Register a resource
02/04/2023 01:03:47.735 INFO: [140428905457216] hz.client 1
                                                               [2023-04-02 01:04:29.846] [info] Received POST request by LoggingContr
                                                                                                                                        [2023-04-02 01:03:50.902] [INTO] Start server
                                                                                                                                        [2023-04-02 01:06:25.411] [info] Received POST request by LoggingContr
[dev] [5.2.0] Authenticated with server Address[172.17.0.3
:5701]:7a399187-bec1-46a3-8ceb-cafd777477bb, server version
                                                              [2023-04-02 01:04:29.846] [info] Add message to HazelcastLoggingServic
 5.2.2, local address: Address[172.17.0.1:43382]. Connecti
                                                               e: uuid = eda604e4-0c53-4293-b975-ad19a1c50476, text = "msg1"
                                                                                                                                        [2023-04-02 01:06:25.411] [info] Add message to HazelcastLoggingServic
on{alive=1, connection id=3, remote endpoint=Address[172.17
                                                               [2023-04-02 01:04:29.952] [info] Message was added
                                                                                                                                        e: uuid = afef31f1-01b0-4c42-a7da-f3ee4dbf223c. text = "msq5"
                                                               [2023-04-02 01:04:29.952] [info] All content was added to a map
.0.3:5701], last read time=2023-04-02 01:03:47.735, last wr
                                                                                                                                        [2023-04-02 01:06:25.413] [info] Message was added
te time=2023-04-02 01:03:47.731, closedTime=never, connect
                                                               [2023-04-02 01:05:59.907] [info] Received POST request by LoggingContr
                                                                                                                                         2023-04-02 01:06:25.413] [info] All content was added to a map
ed server version=5.2.2}
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Received GET request by LoggingContro
2023-04-02 01:03:47.742] [info] Creating HazelcastLoggingS
                                                               [2023-04-02 01:05:59.907] [info] Add message to HazelcastLoggingServic
                                                                : uuid = 7cecae2d-b980-4e6f-870e-539a592d262e. text = "msq2"
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Creating an output string
2023-04-02 01:03:47.742] [info] Register a resource
                                                               [2023-04-02 01:05:59.985] [info] Message was added
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Getting logs from HazelcastLoggingSer
2023-04-02 01:03:47.742] [info] Start server
                                                               [2023-04-02 01:05:59.985] [info] All content was added to a map
2023-04-02 01:06:03.076] [info] Received POST request by L
                                                               [2023-04-02 01:06:11.173] [info] Received POST request by LoggingContr
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 7cecae2d-b980-4e6f-87
                                                                                                                                        0e-539a592d262e, text = "msg2"
2023-04-02 01:06:03.076] [info] Add message to HazelcastLo
                                                               [2023-04-02 01:06:11.173] [info] Add message to HazelcastLoggingServic
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 73ae096e-0ad0-4b34-99.
ggingService: uuid = fcce65c1-37fc-475e-b786<u>-69ecc1455f92</u>,
                                                               e: uuid = 73ae096e-0ad0-4b34-995a-20b5e2b5d125. text = "msq4"
                                                                                                                                        5a-20b5e2b5d125, text = "msq4"
                                                               2023-04-02 01:06:11.176] [info] Message was added
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = eda604e4-0c53-4293-b9
2023-04-02 01:06:03.085] [info] Message was added
                                                               2023-04-02 01:06:11.176] [info] All content was added to a map
                                                                                                                                        75-ad19a1c50476, text = "msq1"
2023-04-02 01:06:03.085] [info] All content was added to a
                                                              [2023-04-02 01:06:29.935] [info] Received POST request by LoggingContr
                                                                                                                                       [2023-04-02 01:09:24.417] [info] Got log: uuid = 6bed21b3-d8a2-4086-a0
                                                                                                                                        89-e6e5d19dc71d, text = "msq7
                                                              [2023-04-02 01:06:29.935] [info] Add message to HazelcastLoggingServic
[2023-04-02 01:06:36.675] [info] Received POST request by P
                                                                                                                                       [2023-04-02 01:09:24.417] [info] Got log: uuid = 34c2b823-2dd4-489c-84
paginaController
                                                               e: uuid = a3e242df-e8ed-4634-8d81-25566bbb2460. text = "msq6"
                                                                                                                                        f2-faed500464a8. text = "msq10"
2023-04-02 01:06:36.675] [info] Add message to HazelcastLo
                                                               [2023-04-02 01:06:29.937] [info] Message was added
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = dfcea883-4fa5-44fd-92
gingService: uuid = dfcea883-4fa5-44fd-923e-b61503d436ff,
                                                               [2023-04-02 01:06:29.937] [info] All content was added to a map
                                                                                                                                        3e-b61503d436ff, text = "msg8"
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = afef31f1-01b0-4c42-a7
                                                               2023-04-02 01:06:33.478] [info] Received POST request by LoggingContr
2023-04-02 01:06:36.677] [info] Message was added
                                                                                                                                        da-f3ee4dbf223c, text = "msq5"
2023-04-02 01:06:36.677] [info] All content was added to a
                                                              [2023-04-02 01:06:33.478] [info] Add message to HazelcastLoggingServic
                                                                                                                                       [2023-04-02 01:09:24.417] [info] Got log: uuid = fcce65c1-37fc-475e-b7
                                                               e: uuid = 6bed21b3-d8a2-4086-a089-e6e5d19dc71d, text = "msq7"
                                                                                                                                        86-69ecc1455f92, text = "msq3"
2023-04-02 01:06:39.720] [info] Received POST request by L
                                                               [2023-04-02 01:06:33.479] [info] Message was added
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = bb5c0183-1f24-4491-b5
                                                                                                                                        d8-8152bffc0b43, text = "msg9"
2023-04-02 01:06:39.720] [info] Add message to HazelcastLo
                                                              [2023-04-02 01:06:44.850] [info] Received POST request by LoggingContr
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = a3e242df-e8ed-4634-8d
ggingService: uuid = bb5c0183-1f24-4491-b5d8-8152bffc0b43,
                                                                                                                                        81-25566bbb2460, text = "msq6"
                                                               [2023-04-02 01:06:44.850] [info] Add message to HazelcastLoggingServic
                                                                                                                                        [2023-04-02 01:09:24.417] [info] All content was added to an output st
2023-04-02 01:06:39.721] [info] Message was added
                                                               e: uuid = 34c2b823-2dd4-489c-84f2-faed500464a8, text = "msq10"
2023-04-02 01:06:39.721] [info] All content was added to a
                                                               [2023-04-02 01:06:44.851] [info] Message was added
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Sending a response: "msq2" "msq4" "ms
                                                                                                                                        g1" "msg7" "msg10" "msg8" "msg5" "msg3" "msg9" "msg6"
                                                              [2023-04-02 01:06:44.851] [info] All content was added to a map
```

Вбиваємо один сервіс і одну ноду



GET запит після вбивання одного logging сервіса і однієї ноди у мапі

```
GET http://127.0.0.1:8080/facade-service
HTTP/1.1 200 0K
Date: Sat, 01 Apr 2023 22:12:34 GMT
Content-Type: text/plain
Content-Length: 93
"msg2" "msg7" "msg4" "msg10" "msg8" "msg1" "msg5" "msg3" "msg9" "msg6" : Not implemented yet
Response code: 200 (OK); Time: 6ms (6 ms); Content length: 93 bytes (93 B)
```

Логи після GET запиту

```
karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc
                                                                                                                                                                                                      _ 0 ×
                    karyna@karyna: ~/Documents/APZ labs/facade service/cmake-build-release-qcc 100x9
                                                                                                                              karyna@karyna: ~/Documents/APZ labs/messages service/cmake-build-debug 100x9
2023-04-02 01:06:44.849] [info] Received POST request by FacadeController
                                                                                                         2023-04-02 01:03:46.196] [info] Port: 8081
 2023-04-02 01:06:44.8501 [info] Content of request:
                                                                                                         [2023-04-02 01:03:46.196] [info] Creating a resource
 2023-04-02 01:06:44.850] [info] Adding message: uuid = 34c2b823-2dd4-489c-84f2-faed500464a8 text =
                                                                                                         [2023-04-02 01:03:46.196] [info] Register a resource
                                                                                                         2023-04-02 01:03:46.196] [info] Start server
 msq10"
 2023-04-02 01:06:44.850] [info] Sending POST request to chosen logging service: url = http://127.0.
                                                                                                         [2023-04-02 01:09:24.401] [info] Received GET request
                                                                                                         [2023-04-02 01:09:24.401] [info] Sending a response: Not implemented yet
.1:8083/logging-service
[2023-04-02 01:06:44.851] [info] Response of logging service:
                                                                                                         2023-04-02 01:12:34.275] [info] Received GET request
 2023-04-02 01:06:44.852] [info] Sending a response:
                                                                                                         [2023-04-02 01:12:34.275] [info] Sending a response: Not implemented yet
2023-04-02 01:09:24.401 [info] Received GET request by FacadeController
 2023-04-02 01:09:24 401] [info] Cetting mes
🛱 karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release- 🗄 karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x44
                                                                                                                                        karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x4-
02/04/2023 01:11:11.802 INFO: [140428401514048] hz.client 1
                                                               02/04/2023 01:11:47.478 INFO: [140308545082944] hz.client 1[dev] [5.2.
                                                                                                                                        =Address[172.17.0.3:5701], last_read_time=2023-04-02 01:03:50.900, las
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                             0] Trying to connect to Address[172.17.0.3:5701].
                                                                                                                                         t write time=2023-04-02 01:03:50.898, closedTime=never, connected serv
                                                               02/04/2023 01:11:50.478 INFO: [140308570261056] hz.client 1[dev] [5.2.
                                                                                                                                       er version=5.2.2}
02/04/2023 01:11:17.802 INFO: [140428435084864] hz.client 1
                                                              0] Trying to connect to Address[172.17.0.3:5701].
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Creating HazelcastLoggingService
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Register a resource
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              02/04/2023 01:11:53.479 INFO: [140308578653760] hz.client 1[dev] [5.2.
                                                               ] Trying to connect to Address[172.17.0.3:5701].
                                                                                                                                        [2023-04-02 01:03:50.902] [info] Start server
02/04/2023 01:11:22.803 INFO: [140428460262976] hz.client 1
                                                              02/04/2023 01:11:55.651 INFO: [140308637402688] hz.client_1[dev] [5.2. [2023-04-02 01:06:25.411] [info] Received POST request by LoggingContr
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                                                                                        [2023-04-02 01:06:25.411] [info] Add message to HazelcastLoggingServic
02/04/2023 01:11:27.803 INFO: [140428418299456] hz.client 1
                                                                                                                                        e: uuid = afef31f1-01b0-4c42-a7da-f3ee4dbf223c, text = "msq5"
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                      Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d163952b2bbc
                                                                                                                                        [2023-04-02 01:06:25.413] [info] Message was added
                                                                                                                                        [2023-04-02 01:06:25.413] [info] All content was added to a map
                                                                      Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
02/04/2023 01:11:32.805 INFO: [140428468655680] hz.client 1
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Received GET request by LoggingContro
 dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                               2023-04-02 01:12:34.275] [info] Received GET request by LoggingContro
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Creating an output string
 2/04/2023 01:11:37.806 INFO: [140428409906752] hz.client 1
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Getting logs from HazelcastLoggingSer
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                               [2023-04-02 01:12:34.275] [info] Creating an output string
                                                               [2023-04-02 01:12:34.275] [info] Getting logs from HazelcastLoggingSer
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 7cecae2d-b980-4e6f-87
02/04/2023 01:11:41.807 INFO: [140428401514048] hz.client 1
                                                                                                                                        0e-539a592d262e, text = "msq2'
 dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = 7cecae2d-b980-4e6f-87
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 73ae096e-0ad0-4b34-99
                                                               e-539a592d262e, text = "msg2"
                                                                                                                                        5a-20b5e2b5d125, text = "msg4"
02/04/2023 01:11:44.807 INFO: [140428477048384] hz.client 1
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = 6bed21b3-d8a2-4086-a0
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = eda604e4-0c53-4293-b9
dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                               89-e6e5d19dc71d, text = "msg7'
                                                                                                                                        75-ad19a1c50476. text = "msq1"
                                                               2023-04-02 01:12:34.278] [info] Got log: uuid = 73ae096e-0ad0-4b34-99
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 6bed21b3-d8a2-4086-a0|
02/04/2023 01:11:47.807 INFO: [140428435084864] hz.client 1
                                                                                                                                        89-e6e5d19dc71d, text = "msq7'
 devl [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = 34c2b823-2dd4-489c-84
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 34c2b823-2dd4-489c-84
                                                               2-faed500464a8, text = "msq10"
                                                                                                                                        f2-faed500464a8, text = "msq10"
02/04/2023 01:11:50.808 INFO: [140428451870272] hz.client 1
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = dfcea883-4fa5-44fd-92
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = dfcea883-4fa5-44fd-92
 devl [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              3e-b61503d436ff, text = "msa8"
                                                                                                                                        3e-b61503d436ff, text = "msq8"
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = eda604e4-0c53-4293-b9
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = afef31f1-01b0-4c42-a7
02/04/2023 01:11:53.808 INFO: [140428443477568] hz.client 1
                                                                                                                                        da-f3ee4dbf223c, text = "msg5"
                                                               75-ad19a1c50476, text = "msg1"
 dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = fcce65c1-37fc-475e-b7
                                                               la-f3ee4dbf223c, text = "msq5"
                                                                                                                                        86-69ecc1455f92, text = "msq3"
02/04/2023 01:11:55.651 INFO: [140428502226496] hz.client 1
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = fcce65c1-37fc-475e-b7
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = bb5c0183-1f24-4491-b5
 dev] [5.2.0]
                                                               86-69ecc1455f92, text = "msq3"
                                                                                                                                        d8-8152bffc0b43. text = "msa9"
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = bb5c0183-1f24-4491-b5
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = a3e242df-e8ed-4634-8d
                                                               d8-8152bffc0b43, text = "msg9"
                                                                                                                                        81-25566bbb2460. text = "msq6"
                                                                                                                                        [2023-04-02 01:09:24.417] [info] All content was added to an output st
        Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d
                                                               [2023-04-02 01:12:34.278] [info] Got log: uuid = a3e242df-e8ed-4634-8d
                                                               31-25566bbb2460, text = "msq6"
        Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f
                                                               [2023-04-02 01:12:34.278] [info] All content was added to an output st
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Sending a response: "msg2" "msg4" "ms
 2c33a43130
                                                                                                                                        q1" "msq7" "msq10" "msq8" "msq5" "msq3" "msq9" "msq6"
                                                               [2023-04-02 01:12:34.278] [info] Sending a response: "msq2" "msq7" "ms
                                                               a4" "msa10" "msa8" "msa1" "msa5" "msa3" "msa9" "msa6"
                                                                                                                                        karyna@karyna:~/Documents/APZ_labs/logging_service/cmake-build-release
                                                                                                                                         gccs
```

Вбиваємо ще один сервіс і ще одну ноду



Перша спроба GET запиту була невдалою, адже тепер імовірність потрапити на робочий logging service = 1/3

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

HTTP/1.1 200 OK
Date: Sat, 01 Apr 2023 22:14:47 GMT
Content-Type: text/plain
Content-Length: 22

: Not implemented yet

Response code: 200 (OK); Time: 5ms (5 ms); Content length: 22 bytes (22 B)
```

Але наступна спроба була вдалою

Логи після вдалого GET запиту

```
karyna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc
                   karyna@karyna: ~/Documents/APZ labs/facade service/cmake-build-release-gcc 100x19
                                                                                                                             karyna@karyna: ~/Documents/APZ labs/messages service/cmake-build-debug 100x19
[2023-04-02 01:14:47.588] [info] Getting messages from messages service
                                                                                                         karyna@karyna:~/Documents/APZ labs/messages service/cmake-build-debug$ ./messages service
[2023-04-02 01:14:47.589] [info] Response of messages service: Not implemented yet
                                                                                                         [2023-04-02 01:03:46.196] [info] Creating server
[2023-04-02 01:14:47.589] [info] Getting messages from logging service
                                                                                                         [2023-04-02 01:03:46.196] [info] Port: 8081
[2023-04-02 01:14:47.589] [info] Sending GET request to chosen logging service: url = http://127.0.0
                                                                                                         [2023-04-02 01:03:46.196] [info] Creating a resource
                                                                                                         [2023-04-02 01:03:46.196] [info] Register a resource
                                                                                                         [2023-04-02 01:03:46.196] [info] Start server
[2023-04-02 01:14:47.590] [info] Response of logging service:
[2023-04-02 01:14:47.590] [info] Sending a response: : Not implemented yet
                                                                                                         [2023-04-02 01:09:24.401] [info] Received GET request
[2023-04-02 01:15:05.921] [info] Received GET request by FacadeController
                                                                                                         [2023-04-02 01:09:24.401] [info] Sending a response: Not implemented yet
[2023-04-02 01:15:05.921] [info] Getting messages
                                                                                                         [2023-04-02 01:12:34.275] [info] Received GET request
[2023-04-02 01:15:05.921] [info] Getting messages from messages service
                                                                                                         [2023-04-02 01:12:34.275] [info] Sending a response: Not implemented yet
[2023-04-02 01:15:05.922] [info] Response of messages service: Not implemented yet
                                                                                                         [2023-04-02 01:14:47.589] [info] Received GET request
[2023-04-02 01:15:05.922] [info] Getting messages from logging service
                                                                                                         [2023-04-02 01:14:47.589] [info] Sending a response: Not implemented yet
                                                                                                         [2023-04-02 01:15:05.922] [info] Received GET request
[2023-04-02 01:15:05.922] [info] Sending GET request to chosen logging service: url = http://127.0.0
                                                                                                         [2023-04-02 01:15:05.922] [info] Sending a response: Not implemented yet
1:8083/logging-service
[2023-04-02 01:15:05.926] [info] Response of logging service: "msg2" "msg8" "msg1" "msg5" "msg7" "ms
2023-04-02 01:15:05.926] [info] Sending a response: "msg2" "msg8" "msg1" "msg5" "msg7" "msg3" "msg9
  "msg4" "msg6" "msg10" : Not implemented yet
  karyna@karyna: ~/Documents/APZ labs/logging service/cmake-build-release-
                                                              ☐ Karyna@karyna: ~/Documents/APZ_tabs/togging_service/cmake-build-release-gcc /0x34

    □ Raryna@karyna: ~/Documents/APZ_labs/logging_service/cmake-build-release-gcc 70x34

02/04/2023 01:11:32.805 INFO: [140428468655680] hz.client_1
                                                                                                                                         [2023-04-02 01:06:25.413] [info] Message was added
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                      Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f32c33a43130
                                                                                                                                         [2023-04-02 01:06:25.413] [info] All content was added to a map
                                                                                                                                        [2023-04-02 01:09:24.402] [info] Received GET request by LoggingContro
02/04/2023 01:11:37.806 INFO: [140428409906752] hz.client 1
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              [2023-04-02 01:15:05.922] [info] Received GET request by LoggingContro
                                                                                                                                         [2023-04-02 01:09:24.402] [info] Creating an output string
                                                                                                                                         [2023-04-02 01:09:24.402] [info] Getting logs from HazelcastLoggingSer
02/04/2023 01:11:41.807 INFO: [140428401514048] hz.client 1
                                                               [2023-04-02 01:15:05.922] [info] Creating an output string
                                                               [2023-04-02 01:15:05.922] [info] Getting logs from HazelcastLoggingSer
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 7cecae2d-b980-4e6f-87
                                                                                                                                         0e-539a592d262e, text = "msq2
02/04/2023 01:11:44.807 INFO: [140428477048384] hz.client 1
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = 7cecae2d-b980-4e6f-87
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 73ae096e-0ad0-4b34-99
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              0e-539a592d262e, text = "msg2'
                                                                                                                                         5a-20b5e2b5d125, text = "msg4"
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = dfcea883-4fa5-44fd-92
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = eda604e4-0c53-4293-b9
02/04/2023 01:11:47.807 INFO: [140428435084864] hz.client_1
                                                               3e-b61503d436ff, text = "msq8'
                                                                                                                                         75-ad19a1c50476, text = "msg1"
                                                              [2023-04-02 01:15:05.925] [info] Got log: uuid = eda604e4-0c53-4293-b9
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 6bed21b3-d8a2-4086-a0
                                                               75-ad19a1c50476, text = "msg1"
                                                                                                                                         89-e6e5d19dc71d, text = "msg7'
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = afef31f1-01b0-4c42-a7
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = 34c2b823-2dd4-489c-84
02/04/2023 01:11:50.808 INFO: [140428451870272] hz.client 1
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                                                                                                         f2-faed500464a8, text = "msg10"
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = 6bed21b3-d8a2-4086-a0
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = dfcea883-4fa5-44fd-92
02/04/2023 01:11:53.808 INFO: [140428443477568] hz.client 1
                                                              89-e6e5d19dc71d, text = "msq7"
                                                                                                                                         3e-b61503d436ff, text = "msq8
[dev] [5.2.0] Trying to connect to Address[172.17.0.3:5701]
                                                              [2023-04-02 01:15:05.925] [info] Got log: uuid = fcce65c1-37fc-475e-b7
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = afef31f1-01b0-4c42-a7
                                                               86-69ecc1455f92, text = "msg3'
                                                                                                                                         da-f3ee4dbf223c, text = "msg5"
02/04/2023 01:11:55.651 INFO: [140428502226496] hz.client 1
                                                              [2023-04-02 01:15:05.925] [info] Got log: uuid = bb5c0183-1f24-4491-b5
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = fcce65c1-37fc-475e-b7
[dev] [5.2.0]
                                                              d8-8152bffc0b43, text = "msg9'
                                                                                                                                         86-69ecc1455f92, text = "msg3"
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = 73ae096e-0ad0-4b34-99
Members [2] {
                                                              5a-20b5e2b5d125, text = "msq4'
                                                                                                                                         d8-8152bffc0b43, text = "msq9"
       Member[172.17.0.4]:5701 - 0bb23dc0-5f69-4ebc-b64f-d
                                                              [2023-04-02 01:15:05.925] [info] Got log: uuid = a3e242df-e8ed-4634-8d
                                                                                                                                        [2023-04-02 01:09:24.417] [info] Got log: uuid = a3e242df-e8ed-4634-8d
                                                              81-25566bbb2460, text = "msg6"
                                                                                                                                         81-25566bbb2460, text = "msg6"
       Member[172.17.0.2]:5701 - fa816968-d13f-4c67-87a6-f
                                                               [2023-04-02 01:15:05.925] [info] Got log: uuid = 34c2b823-2dd4-489c-84
                                                                                                                                        [2023-04-02 01:09:24.417] [info] All content was added to an output st
32c33a43130
                                                               f2-faed500464a8, text = "msg10"
                                                               [2023-04-02 01:15:05.925] [info] All content was added to an output st
                                                                                                                                         [2023-04-02 01:09:24.417] [info] Sending a response: "msq2" "msq4" "ms
                                                               [2023-04-02 01:15:05.925] [info] Sending a response: "msg2" "msg8" "ms
karyna@karyna:~/Documents/APZ_labs/logging_service/cmake-bu
                                                              q1" "msq5" "msq7" "msq3" "msq9" "msq4" "msq6" "msq10"
                                                                                                                                        karyna@karyna:~/Documents/APZ_labs/logging_service/cmake-build-release
ild-release-gcc$
```