

Report

For setting up everything you need to run following commands in root directory (before please follow install instruction in Readme file):

```
docker-compose build
```

```
docker-compose up -d
```

After it all needed services will be running in docker

You can access FacadeService via localhost:5000/swagger in your browser and Consul via localhost:8500

As I said in Readme file when you run all of the services via docker-compose up command all of services will exit with error. That's because the KV properties in consul are not set.

So after they fail, run following commands one by one in terminal:

```
docker compose exec consul sh

consul kv put config/hazelcast/ClusterName dev
consul kv put config/hazelcast/Networking/Addresses/0 hazelcast:5701

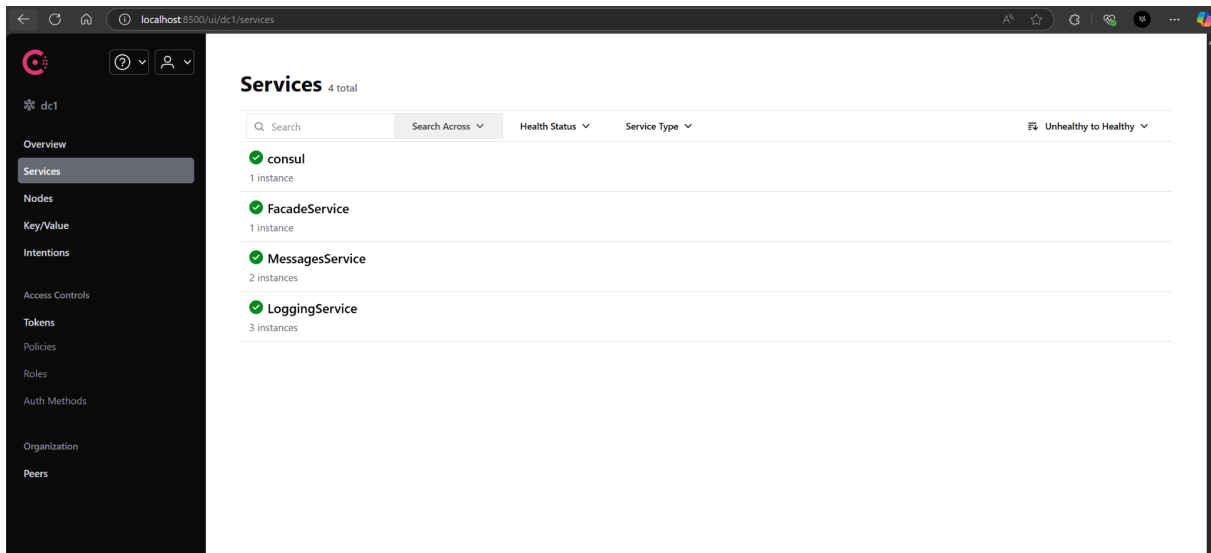
consul kv put config/messaging/BootstrapServers
"kafka-1:9092,kafka-2:9092,kafka-3:9092"
consul kv put config/messaging/Topic messages

exit
```

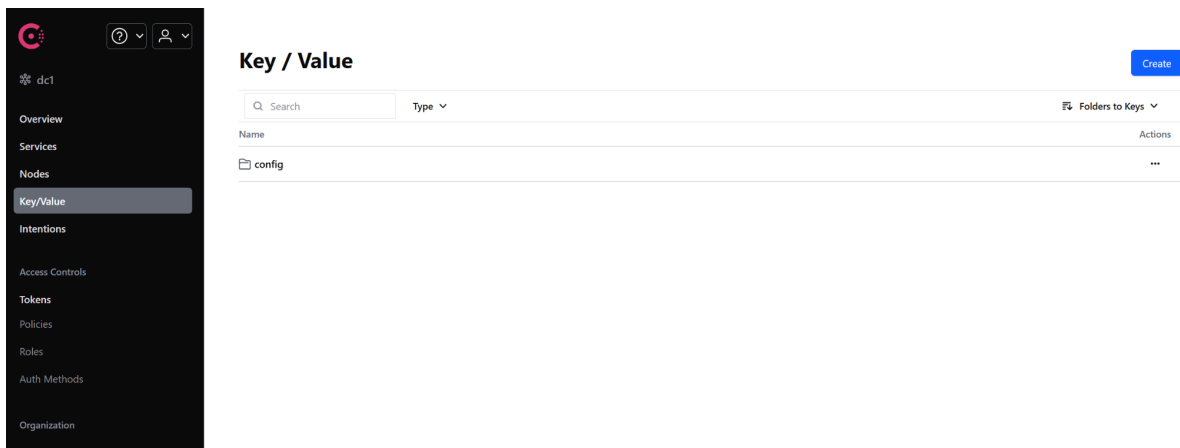
After it just start each service in Docker Desktop independently

1. Run everything via command and see what Consul have

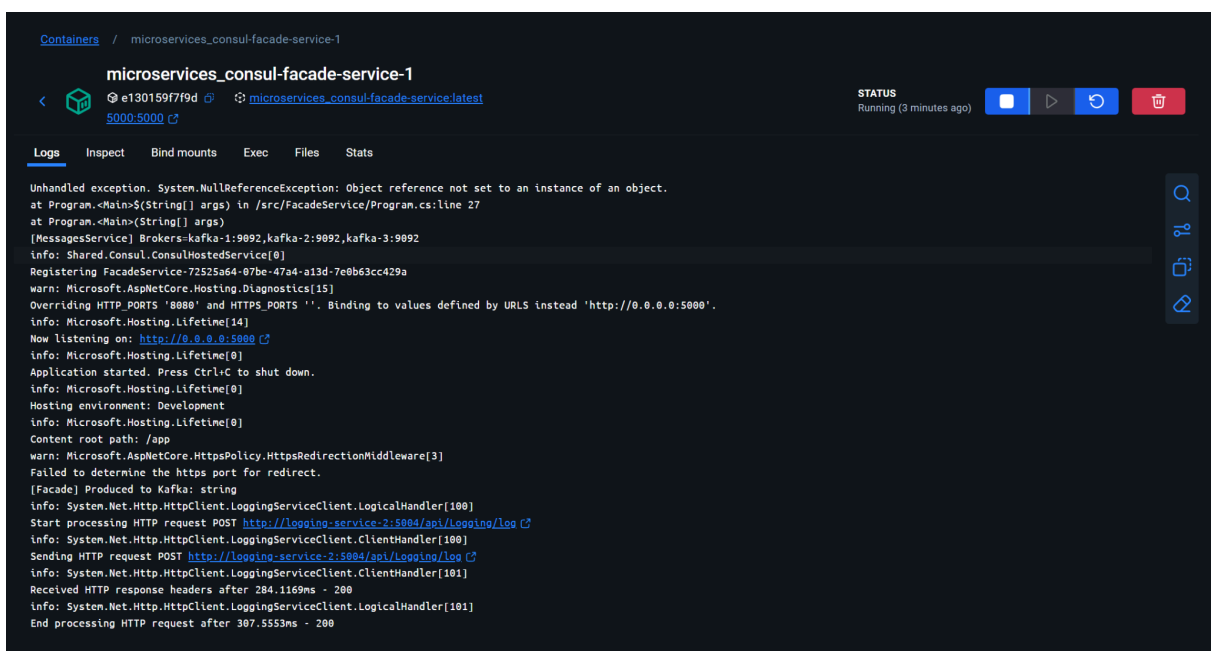
- We see following registered services:



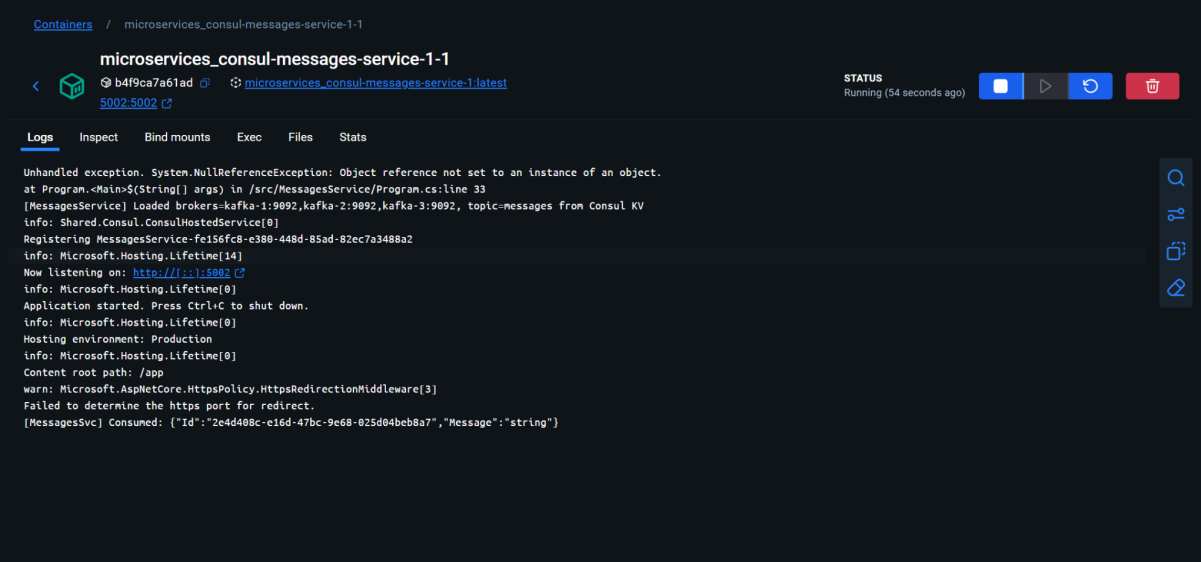
- And in KV part:



2. Send a simple message with FacadeService and see logs
FacadeService:



MessageService 1:



The screenshot displays a Docker container management interface. At the top, the container name is 'microservices_consul-messages-service-1-1'. Below the name, there are icons for a container ID 'b4f9ca7a61ad', a link to 'microservices_consul-messages-service-1-latest', and a port '5002:5002'. To the right, the status is 'Running (54 seconds ago)' with icons for stop, play, refresh, and delete. Below this, there are tabs for 'Logs', 'Inspect', 'Bind mounts', 'Exec', 'Files', and 'Stats'. The 'Logs' tab is selected, showing a log message: 'Unhandled exception. System.NullReferenceException: Object reference not set to an instance of an object. at Program.<Main>S(String[] args) in /src/MessageService/Program.cs:line 33 [MessageService] Loaded brokers=kafka-1:9092,kafka-2:9092,kafka-3:9092, topic=messages from Consul KV info: Shared.Consul.ConsulHostedService[0] Registering MessageService-fe156fc8-e380-448d-85ad-82ec7a3488a2 info: Microsoft.Hosting.Lifetime[14] Now listening on: http://(::):5002 info: Microsoft.Hosting.Lifetime[0] Application started. Press Ctrl+C to shut down. info: Microsoft.Hosting.Lifetime[0] Hosting environment: Production info: Microsoft.Hosting.Lifetime[0] Content root path: /app warn: Microsoft.AspNetCore.HttpPolicy.HttpsRedirectionMiddleware[3] Failed to determine the https port for redirect. [MessageSvc] Consumed: {"Id":"2e4d408c-e16d-47bc-9e68-025d04beb8a7","Message":"string"}'. On the right side of the logs, there are icons for search, refresh, copy, and share.

LoggingService:

Containers / microservices_consul-logging-service-2-1

microservices_consul-logging-service-2-1

🔍 f9063f942f3e 🔄 microservices_consul-logging-service-2:latest

STATUS
Running (2 minutes ago)

5004:5004 🔗

Logs Inspect Bind mounts Exec Files Stats

Starting LoggingService...
Unhandled exception. System.NullReferenceException: Object reference not set to an instance of an object.
at LoggingService.Services.HazelcastService.InitializeAsync() in /src/LoggingService/Services/HazelcastService.cs:line 25
at Program.<Main>\$(String[] args) in /src/LoggingService/Program.cs:line 37
at Program.<Main>(String[] args)
Starting LoggingService...
info: Shared.Consul.ConsulHostedService[0]
Registering LoggingService-6a3f715a-e91b-4120-b073-f7664d3260da
warn: Microsoft.AspNetCore.Hosting.Diagnostics[15]
Overriding HTTP_PORTS '8080' and HTTPS_PORTS ''. Binding to values defined by URLS instead 'http://0.0.0.0:5004'.
info: Microsoft.Hosting.Lifetime[14]
Now listening on: <http://0.0.0.0:5004> 🔗
info: Microsoft.Hosting.Lifetime[0]
Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
Hosting environment: Production
info: Microsoft.Hosting.Lifetime[0]
Content root path: /app
warn: Microsoft.AspNetCore.HttpsPolicy.HttpsRedirectionMiddleware[3]
Failed to determine the https port for redirect.
[LoggingService] New log received. ID: 2e4d408c-e16d-47bc-9e68-025d04beb8a7, Message: string

We see for now that everything works!