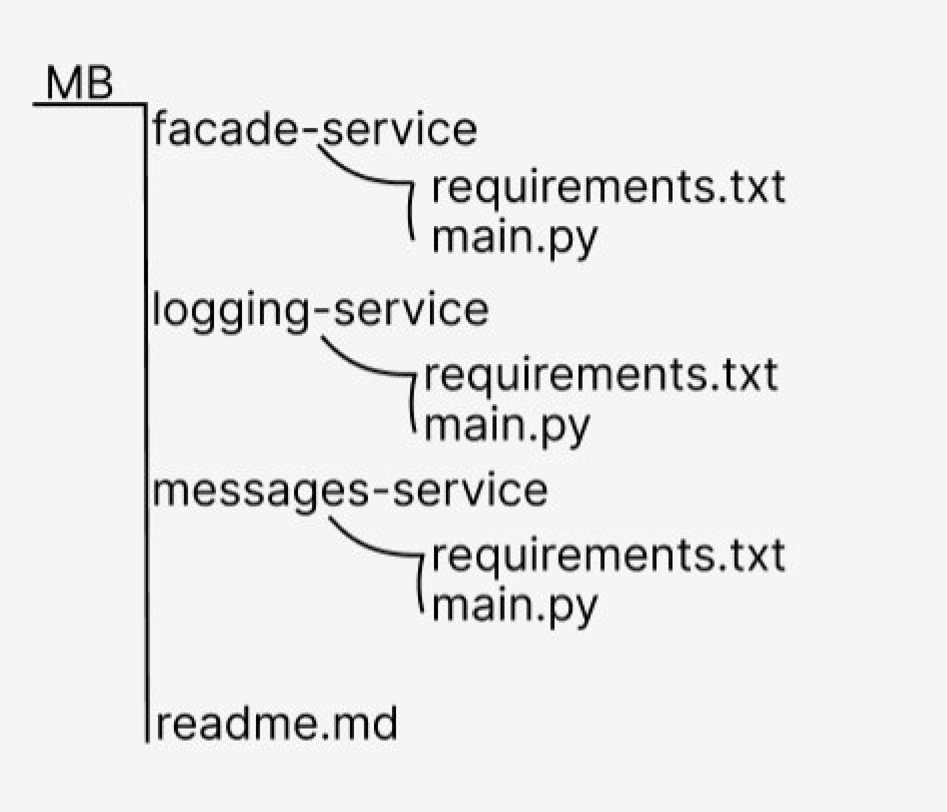
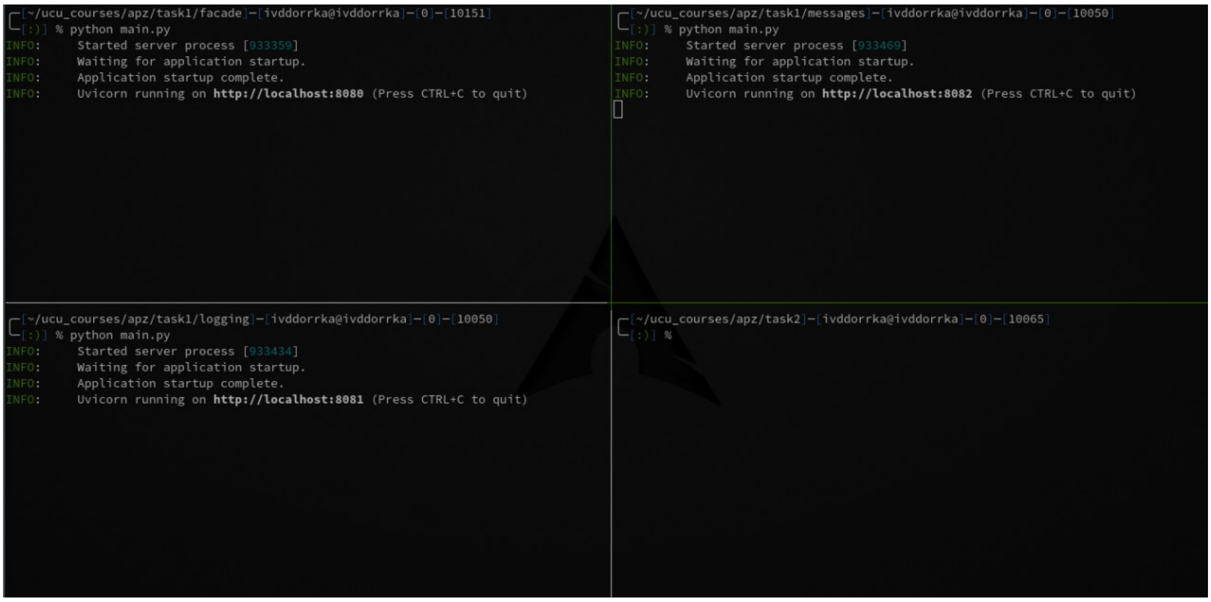


Program execution:

1. In each separate folder the requirements must be satisfied.
2. In the root of each folder each microservice has to be started like this:
   $ python main.py
   After this - the following will appear:

   (* for me the terminal screen is splitted into 4 - to see all the microservices logs and to have a terminal for the further curl com-s*)



```
┌[~/ucu_courses/apz/task1/facade]-[ivddorrka@ivddorrka]-[0]-[10151]
└[:)] % python main.py
INFO:     Started server process [933359]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8080 (Press CTRL+C to quit)
```

```
┌[~/ucu_courses/apz/task1/messages]-[ivddorrka@ivddorrka]-[0]-[10050]
└[:)] % python main.py
INFO:     Started server process [933469]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8082 (Press CTRL+C to quit)
```

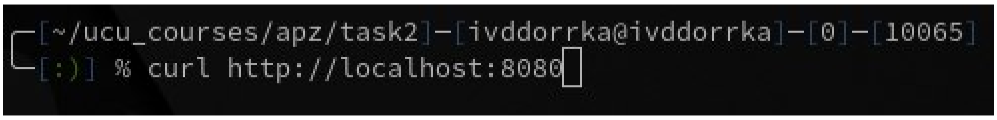
```
┌[~/ucu_courses/apz/task1/logging]-[ivddorrka@ivddorrka]-[0]-[10050]
└[:)] % python main.py
INFO:     Started server process [933434]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8081 (Press CTRL+C to quit)
```

```
┌[~/ucu_courses/apz/task2]-[ivddorrka@ivddorrka]-[0]-[10065]
└[:)] %
```

Now that all the microservices have started their work, here is the testing part:

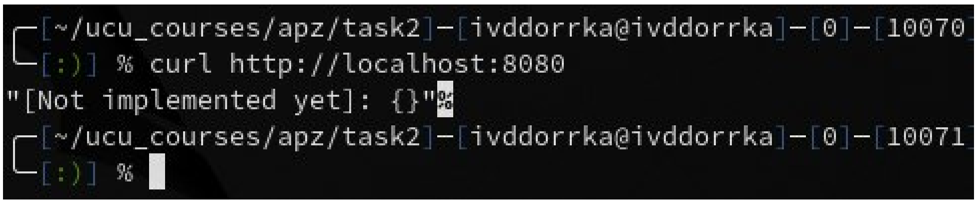
Here curl is used as a client.

1. Get



```
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10065]
└[:)] % curl http://localhost:8080
```

"[Not implemented yet]: {}" will be the out put:



```
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10070]
└[:)] % curl http://localhost:8080
"[Not implemented yet]: {}"%
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10071]
└[:)] %
```

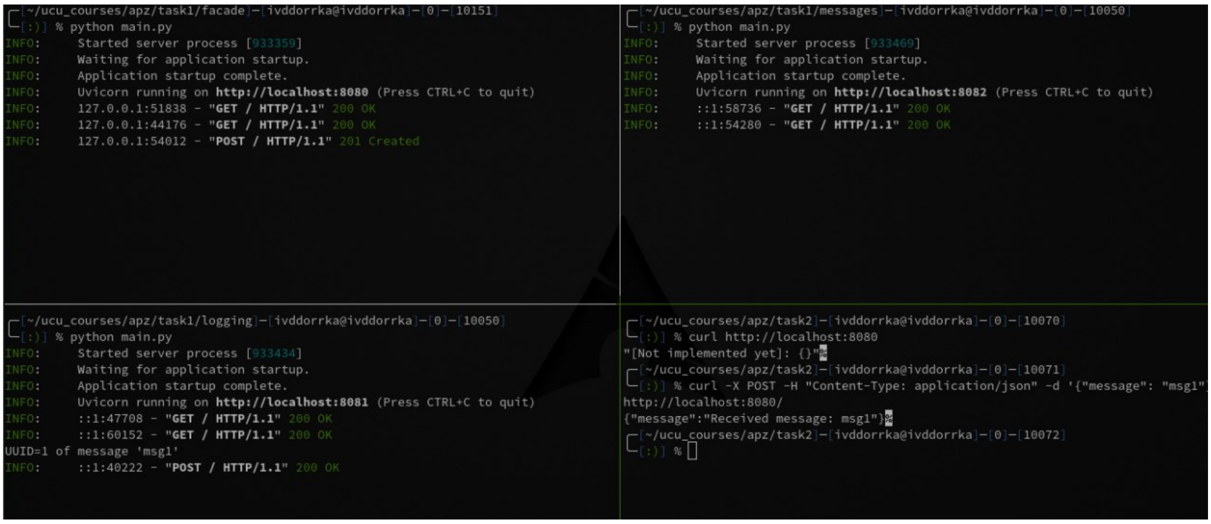
the {} is empty because no messages were posted yet.

2. Post

We can post as many times as we want:

bottom right window:
$ curl -X POST -H "Content-Type: application/json" -d '{"message": "msg1"}' http://localhost:8080/

with an output of:
{"message":"Received message: msg1"}%



```
┌[~/ucu_courses/apz/task1/facade]─[ivddorrka@ivddorrka]─[0]─[10151]
└[:)] % python main.py
INFO:     Started server process [933359]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8080 (Press CTRL+C to quit)
INFO:     127.0.0.1:51838 - "GET / HTTP/1.1" 200 OK
INFO:     127.0.0.1:44176 - "GET / HTTP/1.1" 200 OK
INFO:     127.0.0.1:54012 - "POST / HTTP/1.1" 201 Created
```

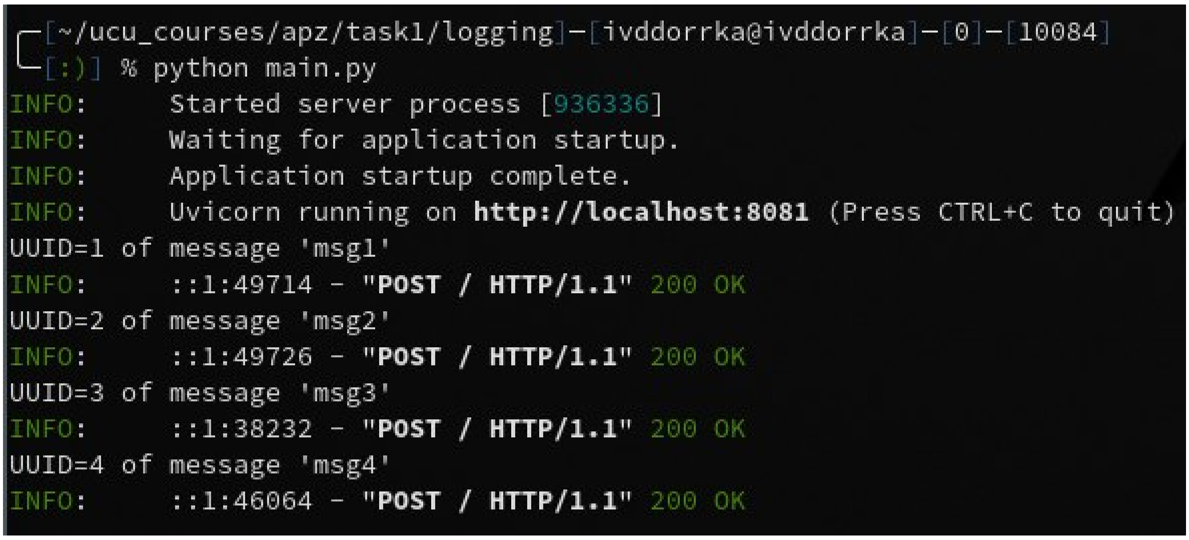
```
┌[~/ucu_courses/apz/task1/messages]─[ivddorrka@ivddorrka]─[0]─[10050]
└[:)] % python main.py
INFO:     Started server process [933469]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8082 (Press CTRL+C to quit)
INFO:     ::1:58736 - "GET / HTTP/1.1" 200 OK
INFO:     ::1:54280 - "GET / HTTP/1.1" 200 OK
```

```
┌[~/ucu_courses/apz/task1/logging]─[ivddorrka@ivddorrka]─[0]─[10050]
└[:)] % python main.py
INFO:     Started server process [933434]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8081 (Press CTRL+C to quit)
INFO:     ::1:47708 - "GET / HTTP/1.1" 200 OK
INFO:     ::1:60152 - "GET / HTTP/1.1" 200 OK
UUID=1 of message 'msg1'
INFO:     ::1:40222 - "POST / HTTP/1.1" 200 OK
```

```
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10070]
└[:)] % curl http://localhost:8080
"[Not implemented yet]: {}"%
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10071]
└[:)] % curl -X POST -H "Content-Type: application/json" -d '{"message": "msg1"
http://localhost:8080/
{"message":"Received message: msg1"}%
┌[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10072]
└[:)] %
```

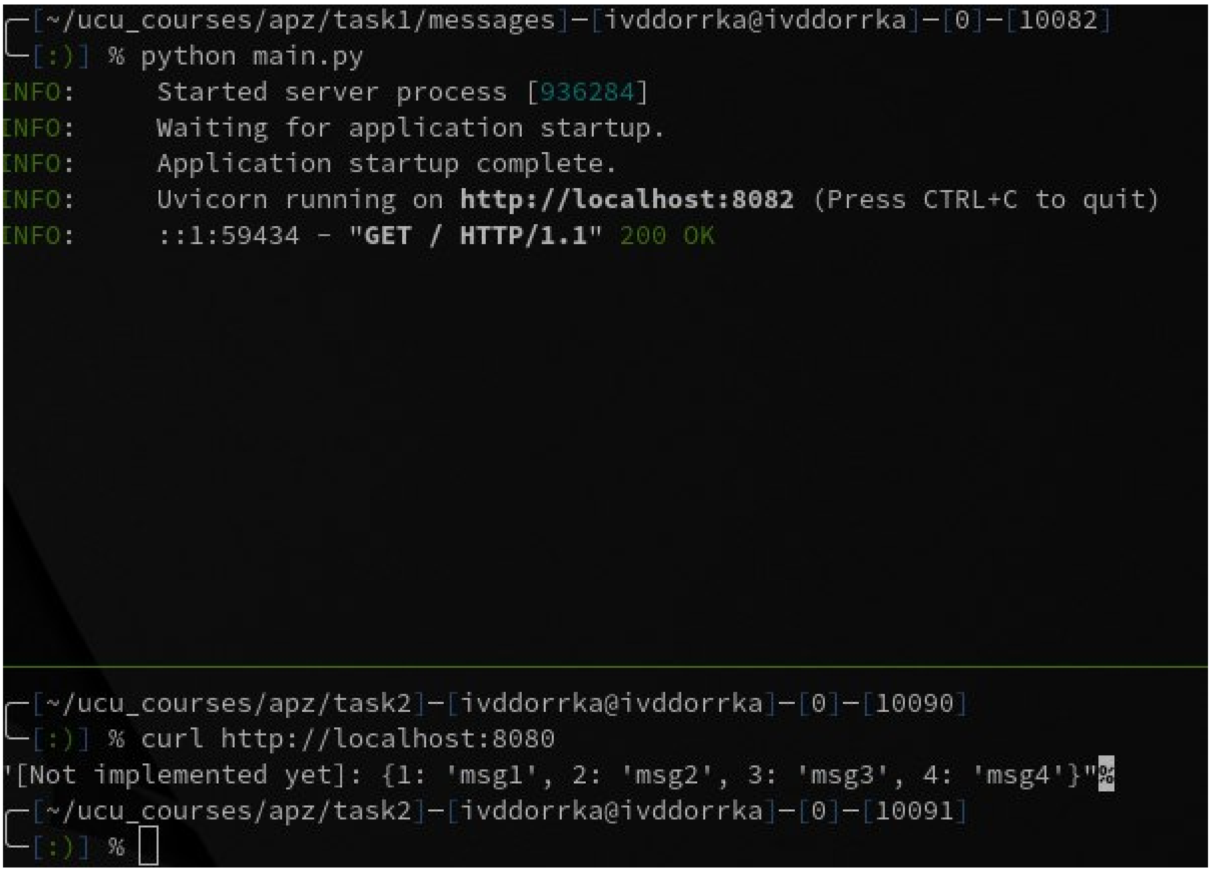
As we can see - logging microservice (bottom left window) produces log:
UUID=1 of message 'msg1'

As I post other messages, this is what the logging-service logs will look like:



```
┌─[~/ucu_courses/apz/task1/logging]─[ivddorrka@ivddorrka]─[0]─[10084]
└─[:)] % python main.py
INFO:     Started server process [936336]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8081 (Press CTRL+C to quit)
UUID=1 of message 'msg1'
INFO:     ::1:49714 - "POST / HTTP/1.1" 200 OK
UUID=2 of message 'msg2'
INFO:     ::1:49726 - "POST / HTTP/1.1" 200 OK
UUID=3 of message 'msg3'
INFO:     ::1:38232 - "POST / HTTP/1.1" 200 OK
UUID=4 of message 'msg4'
INFO:     ::1:46064 - "POST / HTTP/1.1" 200 OK
```

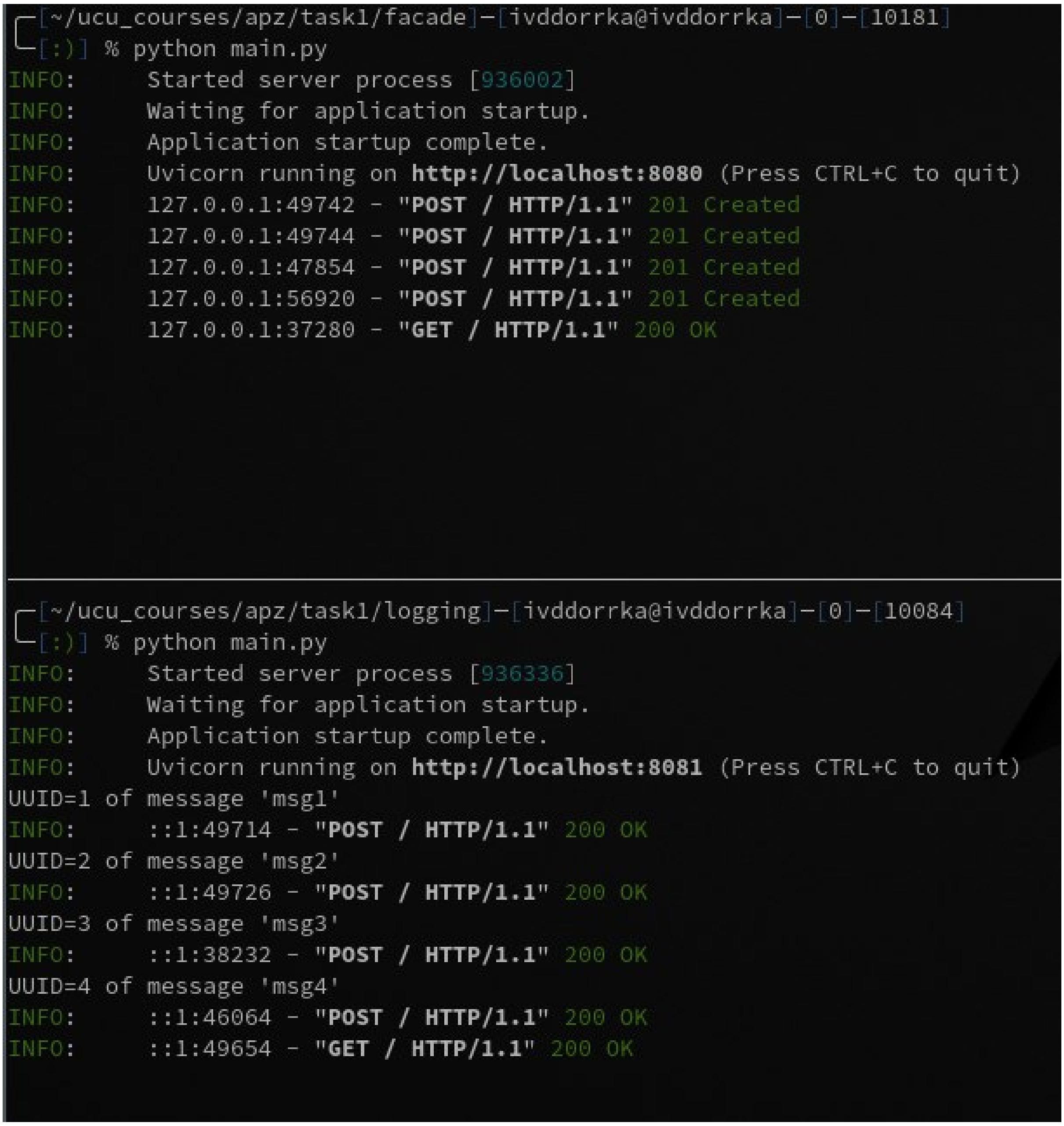
3. Get again



```
┌─[~/ucu_courses/apz/task1/messages]─[ivddorrka@ivddorrka]─[0]─[10082]
└─[:)] % python main.py
INFO:     Started server process [936284]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8082 (Press CTRL+C to quit)
INFO:     ::1:59434 - "GET / HTTP/1.1" 200 OK
```

```
┌─[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10090]
└─[:)] % curl http://localhost:8080
"[Not implemented yet]: {1: 'msg1', 2: 'msg2', 3: 'msg3', 4: 'msg4'}"%
┌─[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10091]
└─[:)] %
```

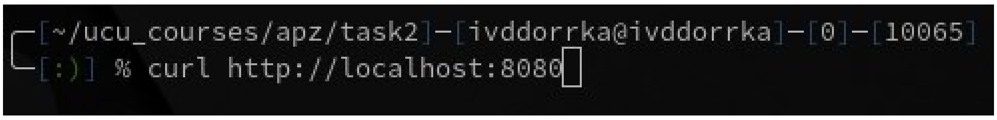
Bottom window is the command to call get.
i also included the upper window with messages-microservice to show that it’s get method is also being called here - “Not implemented yet is its part



```
┌─[~/ucu_courses/apz/task1/facade]─[ivddorrka@ivddorrka]─[0]─[10181]
└─[:)] % python main.py
INFO:     Started server process [936002]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8080 (Press CTRL+C to quit)
INFO:     127.0.0.1:49742 - "POST / HTTP/1.1" 201 Created
INFO:     127.0.0.1:49744 - "POST / HTTP/1.1" 201 Created
INFO:     127.0.0.1:47854 - "POST / HTTP/1.1" 201 Created
INFO:     127.0.0.1:56920 - "POST / HTTP/1.1" 201 Created
INFO:     127.0.0.1:37280 - "GET / HTTP/1.1" 200 OK
```

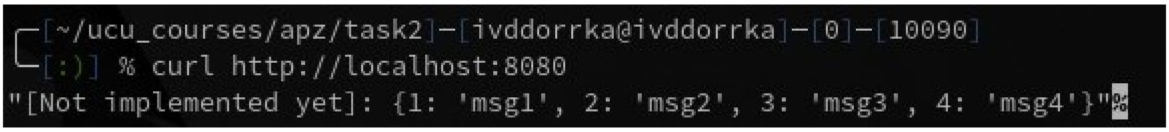
```
┌─[~/ucu_courses/apz/task1/logging]─[ivddorrka@ivddorrka]─[0]─[10084]
└─[:)] % python main.py
INFO:     Started server process [936336]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://localhost:8081 (Press CTRL+C to quit)
UUID=1 of message 'msg1'
INFO:     ::1:49714 - "POST / HTTP/1.1" 200 OK
UUID=2 of message 'msg2'
INFO:     ::1:49726 - "POST / HTTP/1.1" 200 OK
UUID=3 of message 'msg3'
INFO:     ::1:38232 - "POST / HTTP/1.1" 200 OK
UUID=4 of message 'msg4'
INFO:     ::1:46064 - "POST / HTTP/1.1" 200 OK
INFO:     ::1:49654 - "GET / HTTP/1.1" 200 OK
```

same for the logging and facade - gets are called with



```
┌─[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10065]
└─[:)] % curl http://localhost:8080
```

with the following output:



```
┌─[~/ucu_courses/apz/task2]─[ivddorrka@ivddorrka]─[0]─[10090]
└─[:)] % curl http://localhost:8080
"[Not implemented yet]: {1: 'msg1', 2: 'msg2', 3: 'msg3', 4: 'msg4'}"%
```

The github is:

https://github.com/ivddorrka/swa_ucu