

README

Lab 1: Microservices Basics

GitHub: https://github.com/alorthius/microservices/tree/micro_basics

Setup

- Host and ports configs are in the [json file](#)
- Install [requirements.txt](#)

Running

In the root project directory run each service:

- `python -m facade.main`
- `python -m log.main`
- `python -m models.main`

Send requests via `curl`:

- e.g. send GET request to the Facade:

```
curl http://127.0.0.1:8000/
```

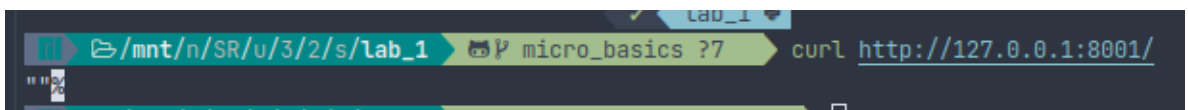
- e.g. send POST request to the Facade:

```
curl -d '{"msg":"facade"}' -H "Content-Type: application/json" -X POST  
http://127.0.0.1:8000/
```

Results

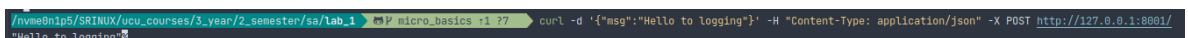
1. Startup all the services

2. 1. Send GET to the `log`:



```
lab_1  
/mnt/n/SR/u/3/2/s/lab_1 micro_basics ?7 curl http://127.0.0.1:8001/
```

2. Send POST to the `log`:



```
/nvm0nlp5/SRINUX/ucv_courses/5_year/2_semester/sa/lab_1 micro_basics ?1 77 curl -d '{"msg":"Hello to logging"}' -H "Content-Type: application/json" -X POST http://127.0.0.1:8001/  
"Hello to logging"
```

3. Send GET to the `log`:

```
➤ /mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1 ➤ micro_basics +1 ?9 ➤ curl http://127.0.0.1:8001/
"Hello to logging"
```

4. Log output:

```
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics +1 !1 ?14 ➤ python -m log.main
INFO: Will watch for changes in these directories: ['/mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1']
INFO: Uvicorn running on http://127.0.0.1:8001 (Press CTRL+C to quit)
INFO: Started reloader process [12151] using WatchFiles
INFO: Started server process [12153]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:40970 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:54996 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:49336 - "GET / HTTP/1.1" 200 OK
```

3. 1. Send GET to the `messages`:

```
➤ /mnt/n/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1 ➤ micro_basics +1 ?10 ➤ curl http://127.0.0.1:8002/
"Not implemented yet"
```

2. Send POST to the `messages` (as we should not implement it):

```
➤ /mnt/n/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1 ➤ micro_basics +1 ?11 ➤ curl -d '{"msg":"Hello to messages"}' -H 'Content-Type: application/json' -X POST http://127.0.0.1:8002/
{"detail":"Method Not Allowed"}
```

3. Messages output:

```
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics +1 !1 ?14 ➤ python -m messages.main
INFO: Will watch for changes in these directories: ['/mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1']
INFO: Uvicorn running on http://127.0.0.1:8002 (Press CTRL+C to quit)
INFO: Started reloader process [12155] using WatchFiles
INFO: Started server process [12157]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:44172 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:49290 - "POST / HTTP/1.1" 405 Method Not Allowed
```

4. 1. Send GET to the `facade`:

```
➤ /mnt/n/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1 ➤ micro_basics +1 ?12 ➤ curl http://127.0.0.1:8000/
"Response from logging: 'Hello to logging' with status 200\nResponse from messages: 'Not implemented yet' with status 200\n"
```

2. Send POST to the `facade` 2 times:

```
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics +1 !1 ?16 ➤ curl -d '{"msg":"Hello to facade"}' -H 'Content-Type: application/json' -X POST http://127.0.0.1:8000/
"Hello to facade"
```

3. Send GET to the facade:

```
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics #1 !1 ?16 ➤ curl http://127.0.0.1:8000/ lab_1
"Response from logging: 'Hello to logging;Hello to facade;Hello to facade' with status 200\nResponse from messages: 'Not implemented yet' with status 200\n"
```

```
➤ /mnt/n/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1 ➤ micro_basics #1 ?12 ➤ curl http://127.0.0.1:8000/
"Response from logging: 'Hello to logging' with status 200\nResponse from messages: 'Not implemented yet' with status 200\n"
```

4. All services output:

```
python -m facade.main
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics #1 !1 ?14 ➤ python -m facade.main
INFO: Will watch for changes in these directories: ['/mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1']
INFO: Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
INFO: Started reloader process [12147] using WatchFiles
INFO: Started server process [12149]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:46956 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:45846 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:57940 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:47668 - "GET / HTTP/1.1" 200 OK
```

```
python -m log.main
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics #1 !1 ?14 ➤ python -m log.main
INFO: Will watch for changes in these directories: ['/mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1']
INFO: Uvicorn running on http://127.0.0.1:8001 (Press CTRL+C to quit)
INFO: Started reloader process [12151] using WatchFiles
INFO: Started server process [12153]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:40970 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:54996 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:49336 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:51570 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:43090 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:50754 - "POST / HTTP/1.1" 200 OK
INFO: 127.0.0.1:40826 - "GET / HTTP/1.1" 200 OK
```

```
python -m messages.main
➤ /mnt/n/SR/u/3/2/s/lab_1 ➤ micro_basics #1 !1 ?14 ➤ python -m messages.main
INFO: Will watch for changes in these directories: ['/mnt/nvme0n1p5/SRINUX/ucu_courses/3_year/2_semester/sa/lab_1']
INFO: Uvicorn running on http://127.0.0.1:8002 (Press CTRL+C to quit)
INFO: Started reloader process [12155] using WatchFiles
INFO: Started server process [12157]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:44172 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:49290 - "POST / HTTP/1.1" 405 Method Not Allowed
INFO: 127.0.0.1:33808 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:53680 - "GET / HTTP/1.1" 200 OK
```