COMP.SE140 – DEVOPS

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1. The result from "curl" request

```
[dungho@DungHos-MBP TUNI % curl localhost:8001
 Hello came from 172.20.0.1:59316 to 172.20.0.3:8001
[Hello came from 172.20.0.3:50614 to 172.20.0.2:8002
```

Because Docker services run on local pc, so they are in same internal network environment. The IP addresses can be different for each time run docker-compose build. Inside Docker, defined a network which called backend, so 2 docker services will be able to communicate.

- 172.20.0.1 is the local IP address from what used to send the curl request to service1, and the port which is used to send curl request to service1.
- 172.20.0.3 is the IP address of service1, and the port is defined in app.py and mapped from Docker to local host.
- 172.20.0.2 is the IP address of the service2, and the port is defined to use within Docker network.

2. Output from docker container

```
[dungho@DungHos-MBP TUNI % docker container ls
CONTAINER ID   IMAGE                          COMMAND          CREATED         STATUS        PORTS                    NAMES
4c416ee681e8   5.1-Docker-Compose/service1:v1.0   "python app.py"  9 minutes ago   Up 9 minutes  0.0.0.0:8001->8001/tcp   51dockercompose-service1-1
022f5b04fc28   5.1-Docker-Compose/service2:v1.0   "python app.py"  22 minutes ago  Up 9 minutes                           51dockercompose-service2-1
```

3. Output from docker network

```
[dungho@DungHos-MBP TUNI % docker network ls
NETWORK ID     NAME                        DRIVER    SCOPE
89c636a4b851   51dockercompose_backend     bridge    local
ee97963c4f74   bridge                      bridge    local
d79286175a52   host                        host      local
fa5148ff56e9   none                        null      local
```