

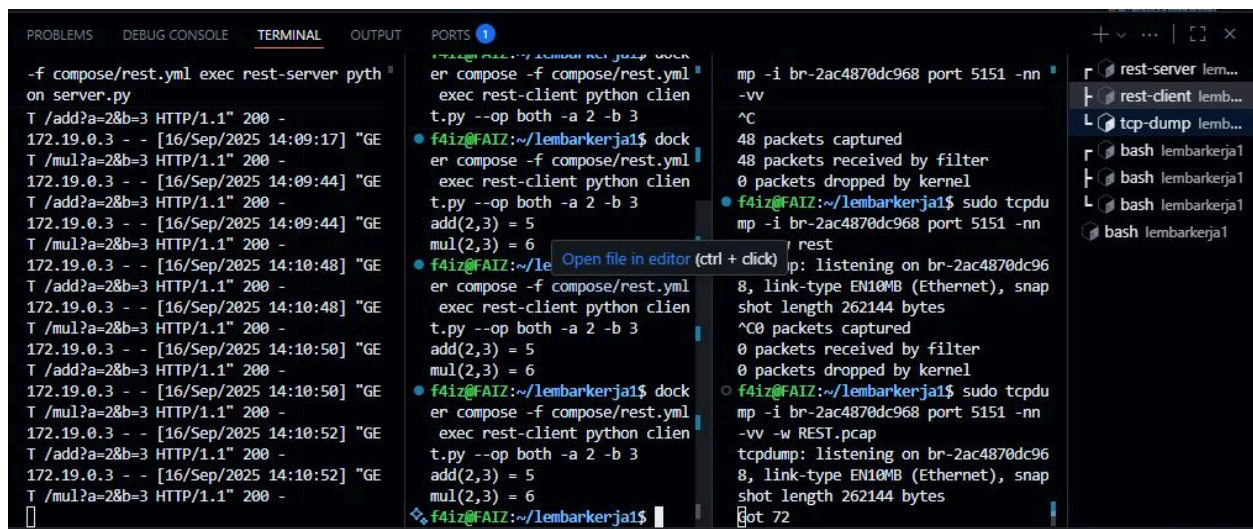
## LK01: Lingkungan Praktik Mandiri + Ujicoba Messaging Protocols

1. Buat Lingkungan Praktik Mandiri berbasis VSCode+GitHub Copilot, WSL2 + Ubuntu, Docker Container
2. Fork Repository Program: [https://github.com/abazh/dist\\_sys](https://github.com/abazh/dist_sys) ke dalam akun Github anda
3. Lakukan ujicoba per protocol dan modifikasi yang diperlukan
4. Buat laporannya dalam repository akun Github anda (bisa private/tidak harus public)
5. Invite akun abazh@ub.ac.id ke repository anda.
6. Submit link ke repository anda ke Tugas ini.

Jawaban :

Agar kita bisa melakukan pengecekan *traffic* paket, maka kita perlu dua *tools*, yakni *wireshark* untuk bisa melihat hasil log dengan lebih mudah, dan tcp dump untuk men-*scan* traffic dan menghasilkan log.

Berikut adalah hasil tangkapan capture packet untuk protokol REST, RPC, SOAP, dan MQTT



```
-f compose/rest.yml exec rest-server python server.py
T /add?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:09:17] "GET /mul?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:09:44] "GET /add?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:09:44] "GET /mul?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:48] "GET /add?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:48] "GET /mul?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:50] "GET /add?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:50] "GET /mul?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:52] "GET /add?a=2&b=3 HTTP/1.1" 200 -
172.19.0.3 - - [16/Sep/2025 14:10:52] "GET /mul?a=2&b=3 HTTP/1.1" 200 -
f4iz@FAIZ:~/lembarkerja1$ docker compose -f compose/rest.yml exec rest-client python client.py --op both -a 2 -b 3
add(2,3) = 5
mul(2,3) = 6
f4iz@FAIZ:~/lembarkerja1$ docker compose -f compose/rest.yml exec rest-client python client.py --op both -a 2 -b 3
add(2,3) = 5
mul(2,3) = 6
f4iz@FAIZ:~/lembarkerja1$ sudo tcpdump -i br-2ac4870dc968 port 5151 -nn -vv
tcpdump: listening on br-2ac4870dc968, link-type EN10MB (Ethernet), snapshot length 262144 bytes
^C
48 packets captured
48 packets received by filter
0 packets dropped by kernel
f4iz@FAIZ:~/lembarkerja1$
```

REST

