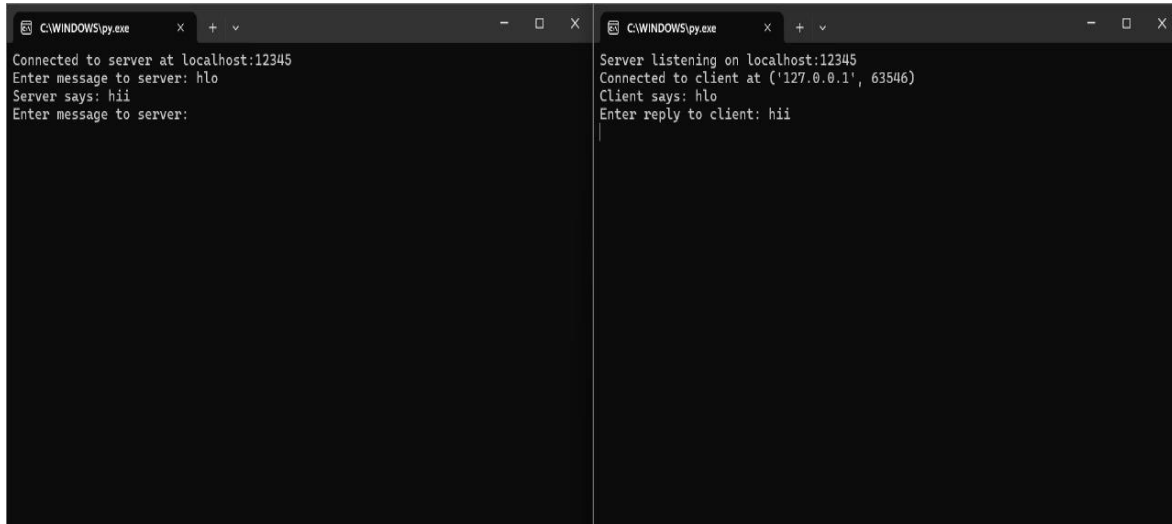


Capstone – 4

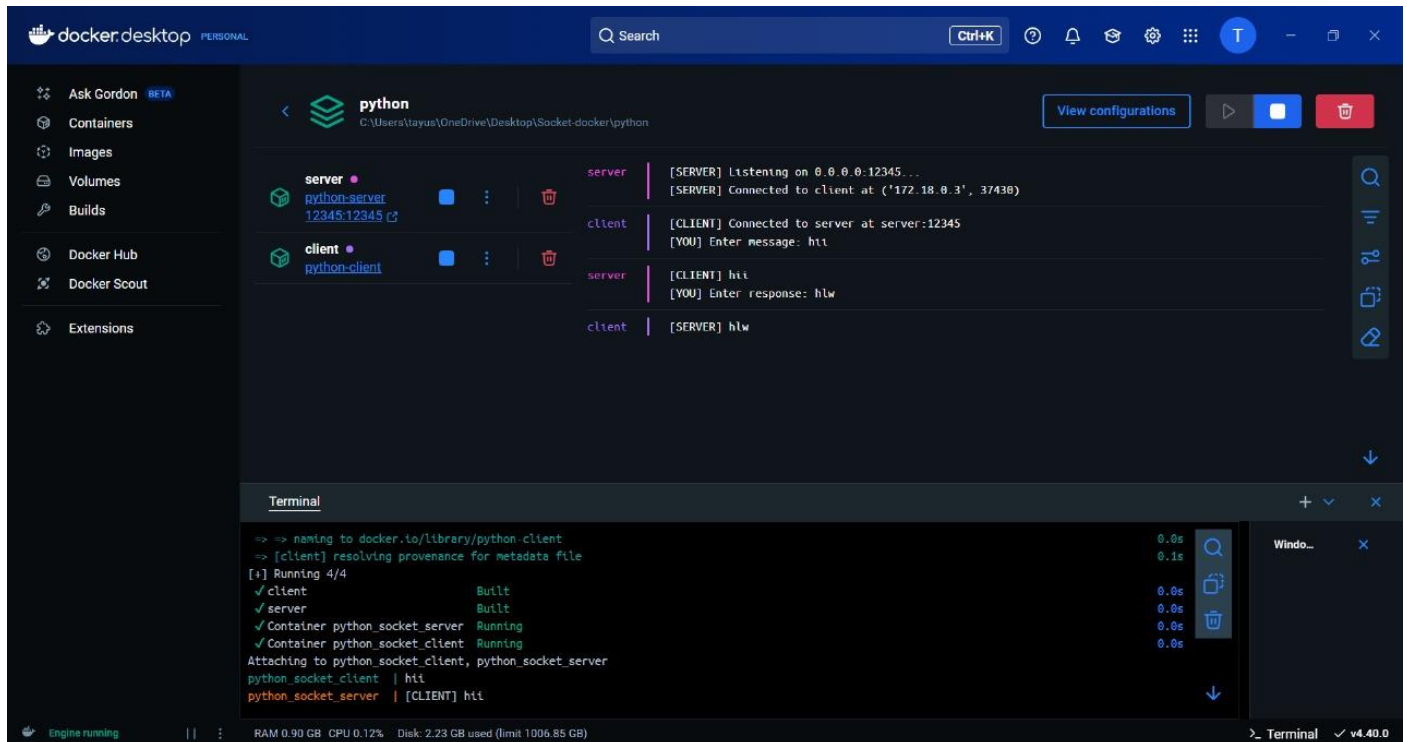
Local.python



```
C:\WINDOWS\py.exe x + v - □ X
Connected to server at localhost:12345
Enter message to server: hlo
Server says: hii
Enter message to server:

C:\WINDOWS\py.exe x + v - □ X
Server listening on localhost:12345
Connected to client at ('127.0.0.1', 63546)
Client says: hlo
Enter reply to client: hii
```

Docker.python



```
Windows PowerShell x Windows PowerShell x Windows PowerShell x + v
=> [server] exporting to image 0.1s
=> => exporting layers 0.0s
=> => writing image sha256:4a8902b008ca7413619fa98d429964dfc9db3c45fc69c8d11f9155bedd71fe5f 0.0s
=> => naming to docker.io/library/python-server 0.0s
=> [server] resolving provenance for metadata file 0.0s
=> [client internal] load build definition from Dockerfile 0.1s
=> => transferring dockerfile: 116B 0.0s
=> [client internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [client internal] load build context 0.0s
=> => transferring context: 558B 0.0s
=> [client 3/3] COPY client.py . 0.0s
=> [client] exporting to image 0.1s
=> => exporting layers 0.0s
=> => writing image sha256:c5750ed119e24990a0f97ce9fc887825692160d225f846f61971ee07eed9bb9d 0.0s
=> => naming to docker.io/library/python-client 0.0s
=> [client] resolving provenance for metadata file 0.0s
[+] Running 5/5
  ✔ client Built 0.0s
  ✔ server Built 0.0s
  ✔ Network python_default Created 0.2s
  ✔ Container python_socket_server Created 0.2s
  ✔ Container python_socket_client Created 0.1s
Attaching to python_socket_client, python_socket_server
python_socket_server | [SERVER] Listening on 0.0.0.0:12345...
python_socket_server | [SERVER] Connected to client at ('172.18.0.3', 37430)
python_socket_client | [CLIENT] Connected to server at server:12345
python_socket_client | [YOU] Enter message: hii
python_socket_server | [CLIENT] hii
python_socket_server | [YOU] Enter response: hlw
python_socket_client | [SERVER] hlw

View in Docker Desktop View Config Enable Watch
```

```
Windows PowerShell x + v
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

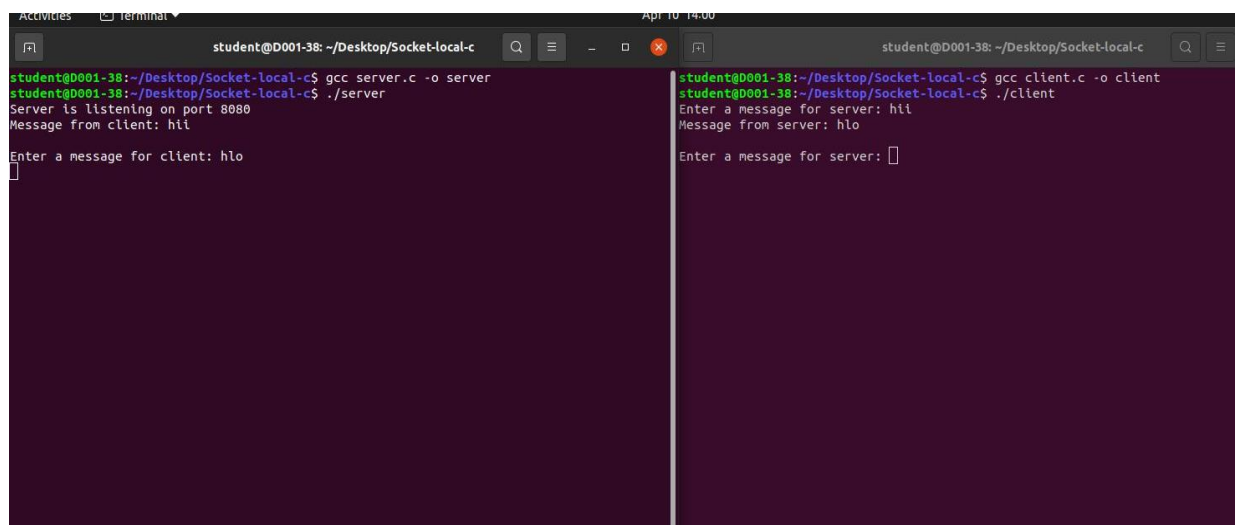
PS C:\Users\tayus> cd C:\Users\tayus\OneDrive\Desktop\Socket-docker\Python\server
PS C:\Users\tayus\OneDrive\Desktop\Socket-docker\Python\server> docker attach python_socket_server
[CLIENT] hii
[YOU] Enter response: hlw

Windows PowerShell x + v
Windows PowerShell
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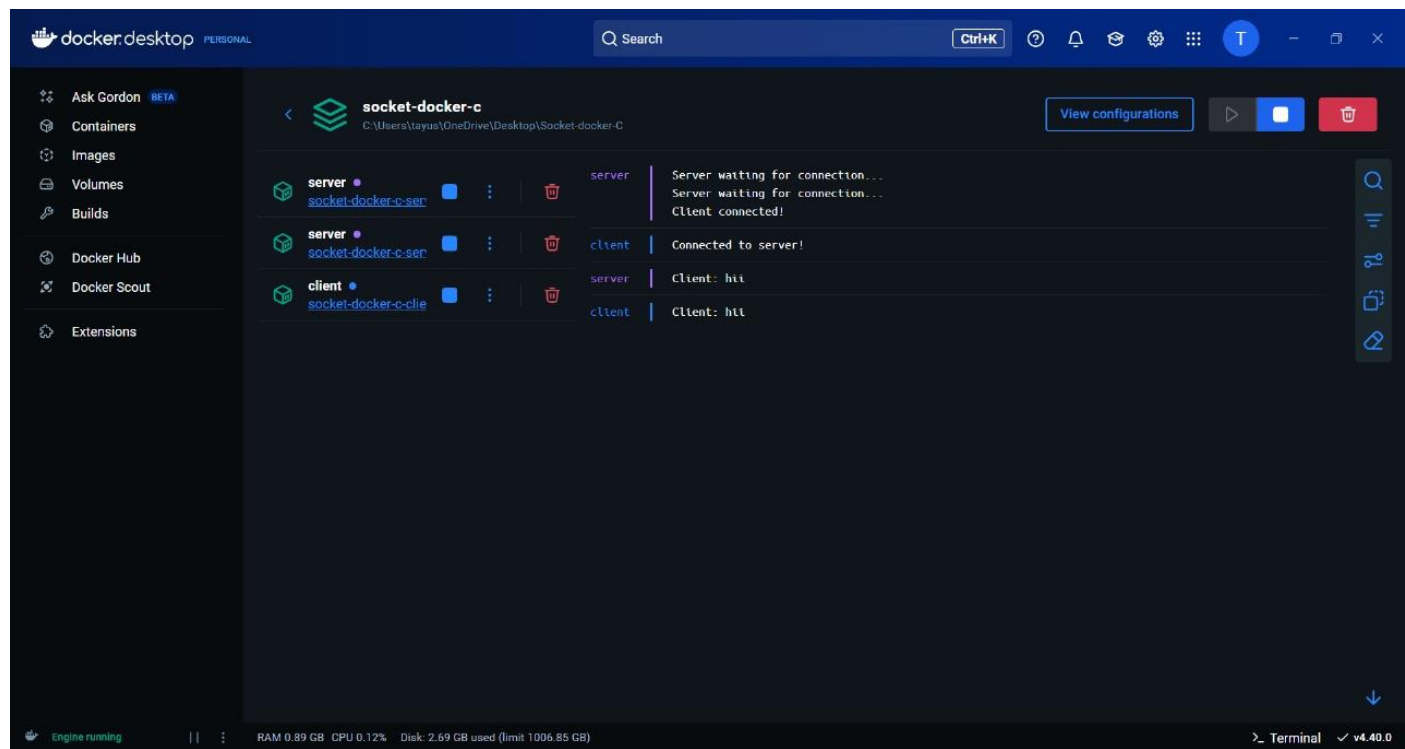
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\tayus> cd C:\Users\tayus\OneDrive\Desktop\Socket-docker\Python\client
PS C:\Users\tayus\OneDrive\Desktop\Socket-docker\Python\client> docker attach python_socket_client
hii
[SERVER] hlw
[YOU] Enter message: |
```

Local.C



Docker.C



```
Windows PowerShell
> sha256:e4dd9c002dd2bb0fbb6de1f18a350e5c0aeabcc16e0fa702c1aba0c09c9936cd 157.73MB / 157.73MB 16.4s
> sha256:8b77cd7514d65ebffdfc56971b896c1e9f0067d45e9ffcf96a76802cbd596d6 9.61kB / 9.61kB 0.8s
> sha256:95f598eea2b230fae0bca018c9e31ac1f9dc0599e5e06f2c70671f14449fdcb1 7.64kB / 7.64kB 0.0s
> sha256:54059b0e9deabd432ff3bca1bc50c101f9ba8d8dc8bb5528ac71276d17e04f01 7.34kB / 7.34kB 0.0s
> sha256:ea589c0b318a435eaaa443207f64cbb47ec482575de53c1b3ad00642ab59c4b4 1.78kB / 1.78kB 1.2s
> extracting sha256:a0fcfad35b187f556943bae42047e6b09c6a79788921825df88a820773ec0ecb 0.2s
> extracting sha256:e4dd9c002dd2bb0fbb6de1f18a350e5c0aeabcc16e0fa702c1aba0c09c9936cd 5.6s
> extracting sha256:8b77cd7514d65ebffdfc56971b896c1e9f0067d45e9ffcf96a76802cbd596d6 0.0s
> extracting sha256:ea589c0b318a435eaaa443207f64cbb47ec482575de53c1b3ad00642ab59c4b4 0.0s
> [server internal] load build context 0.0s
> => transferring context: 2.93kB 0.0s
> CACHED [client 2/6] WORKDIR /app 0.4s
> [server 3/6] COPY server.c . 0.1s
> [server 4/6] COPY client.c . 0.1s
> [server 5/6] RUN gcc -o server server.c 1.4s
> [server 6/6] RUN gcc -o client client.c 0.7s
> [server] exporting to image 0.1s
> => exporting layers 0.1s
> => writing image sha256:7297c4637ac0b78d985530ec66a5cd659e87dfc1135f565alc1bbc8caaaa513 0.0s
> => naming to docker.io/library/socket-docker-c-server 0.0s
> [server] resolving provenance for metadata file 0.0s
> [client internal] load build definition from Dockerfile 0.0s
> => transferring dockerfile: 291B 0.0s
> [client internal] load .dockerignore 0.0s
> => transferring context: 2B 0.0s
> [client internal] load build context 0.0s
> => transferring context: 58B 0.0s
> CACHED [client 3/6] COPY server.c . 0.0s
> CACHED [client 4/6] COPY client.c . 0.0s
> CACHED [client 5/6] RUN gcc -o server server.c 0.0s
> CACHED [client 6/6] RUN gcc -o client client.c 0.0s
> [client] exporting to image 0.0s
> => exporting layers 0.0s
> => writing image sha256:f0c99f086296f91e31cb32b7fe6274585cda044657b62ca345589cfe102b266 0.0s
> => naming to docker.io/library/socket-docker-c-client 0.0s
> [client] resolving provenance for metadata file 0.0s
[+] Building 2/2
  client Built 0.0s
  server Built 0.0s
PS C:\Users\tayus\OneDrive\Desktop\Socket-docker-C> |
```

```
Windows PowerShell
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PS C:\Users\tayus> cd C:\Users\tayus\OneDrive\Desktop\Socket-docker-C
PS C:\Users\tayus\OneDrive\Desktop\Socket-docker-C> docker-compose run serve
time="2025-04-10T13:12:25+05:30" level=warning msg="C:\\Users\\tayus\\OneDrive\\Desktop\\Socket-docker-C\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 1/1
  Network socket-docker-c_chatnet Created 0.1s
Server waiting for connection...

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PS C:\Users\tayus> cd C:\Users\tayus\OneDrive\Desktop\Socket-docker-C
PS C:\Users\tayus\OneDrive\Desktop\Socket-docker-C> docker-compose run client
time="2025-04-10T13:12:46+05:30" level=warning msg="C:\\Users\\tayus\\OneDrive\\Desktop\\Socket-docker-C\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 1/1
  Container chat_server Created 0.1s
[+] Running 1/1
  Container chat_server Started 0.2s
Connected to server!
Client: hii
```

Name: - T.Ayush Raj

Reg. No. : - 2141018011