

# CAPSTONE4

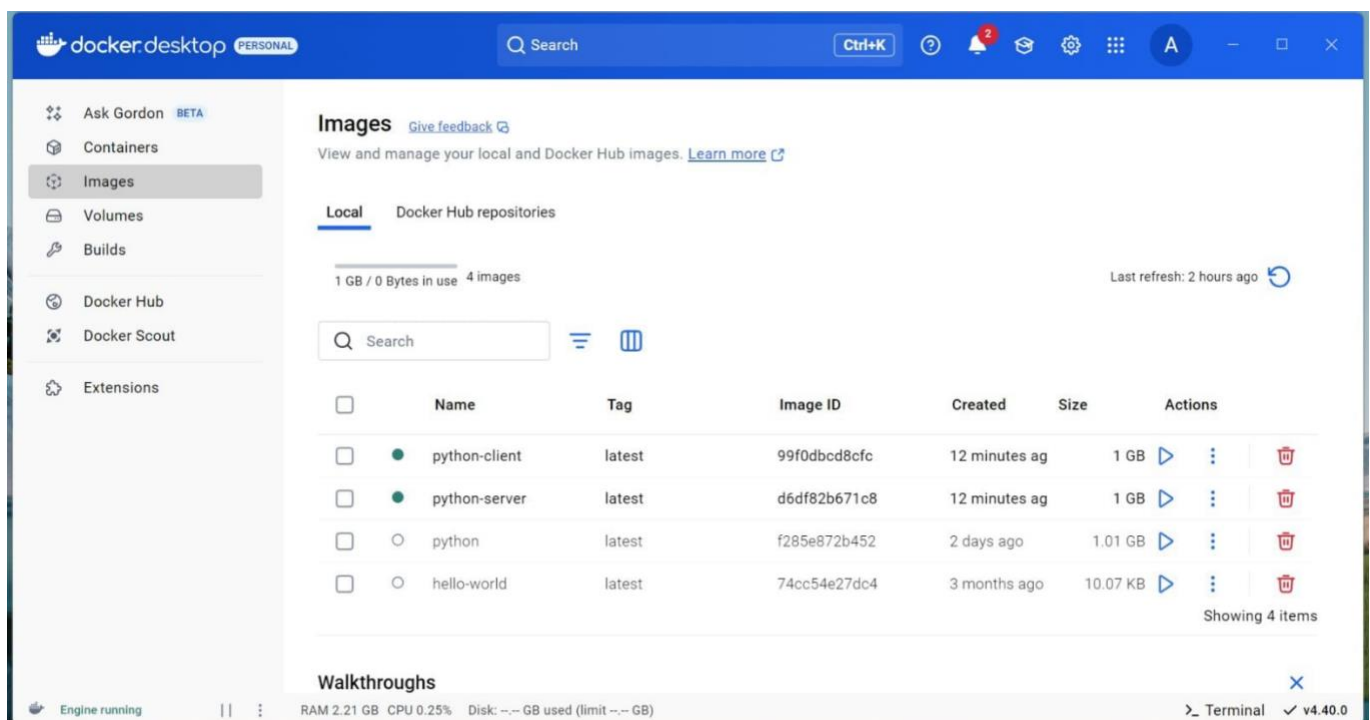
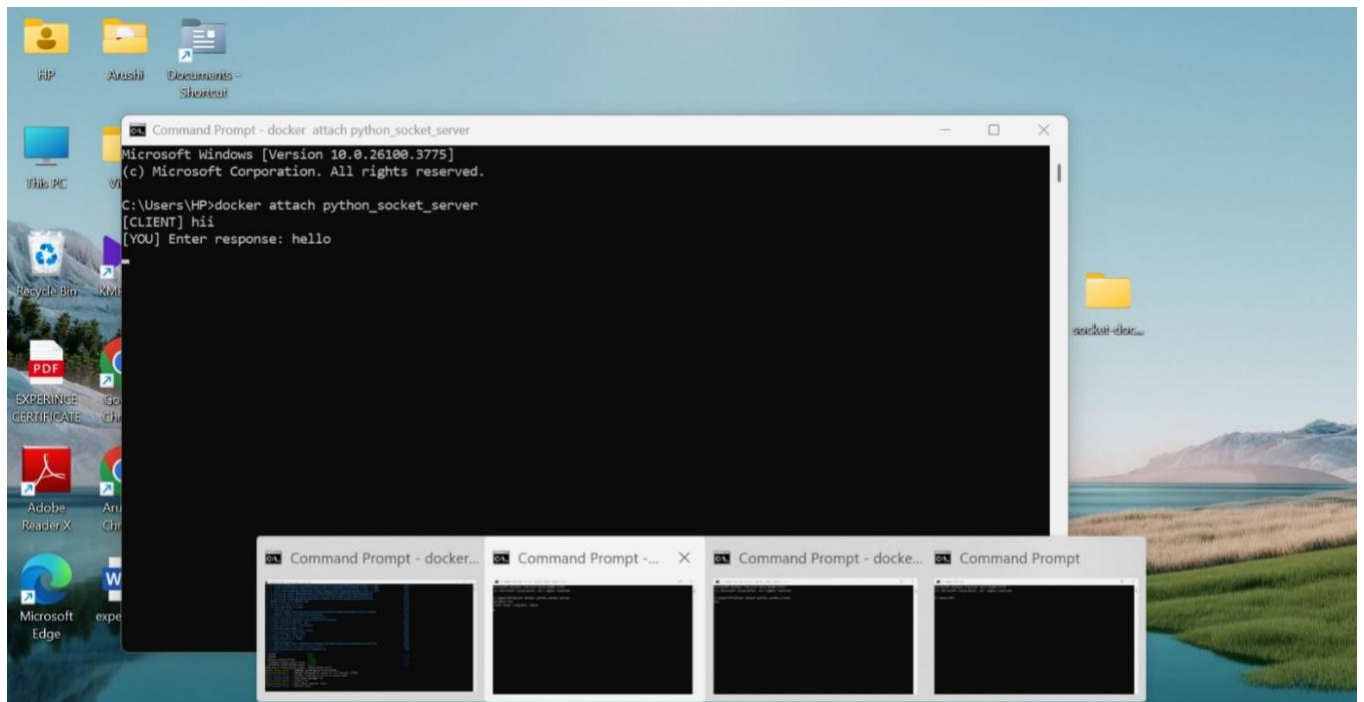
## USING PYTHON-

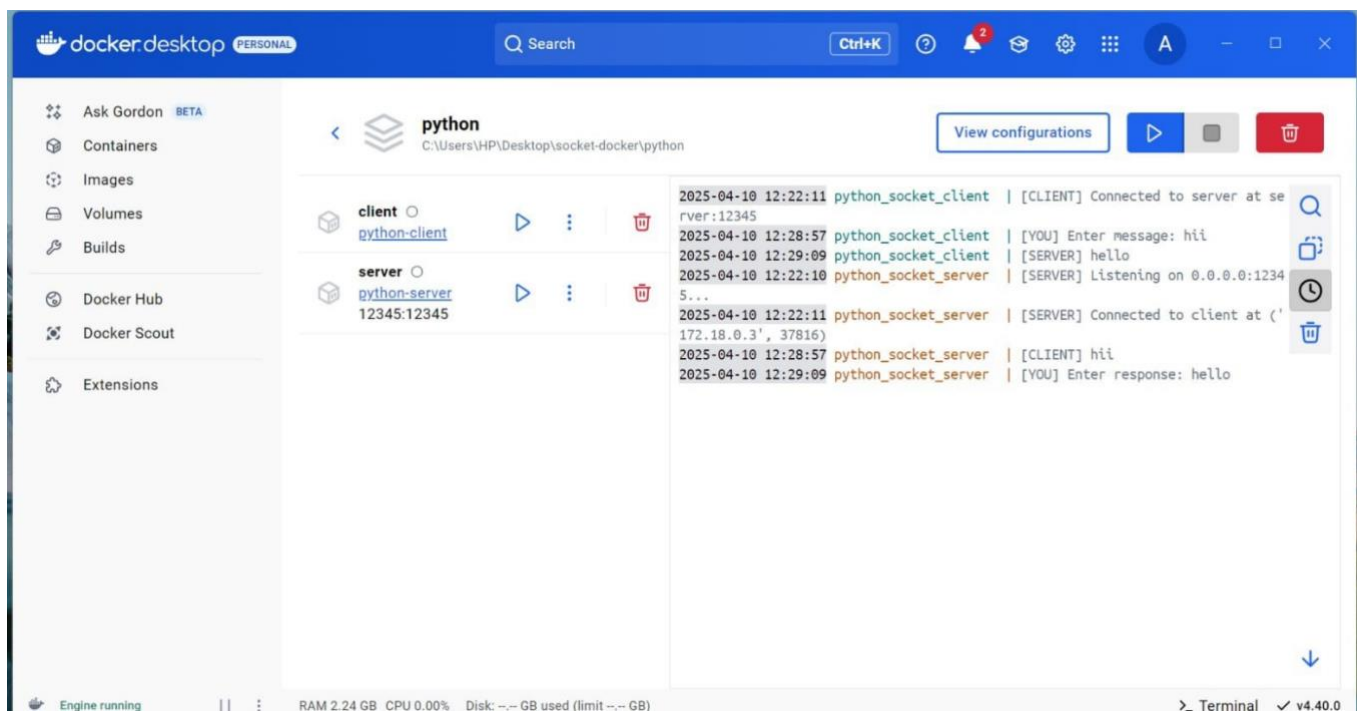
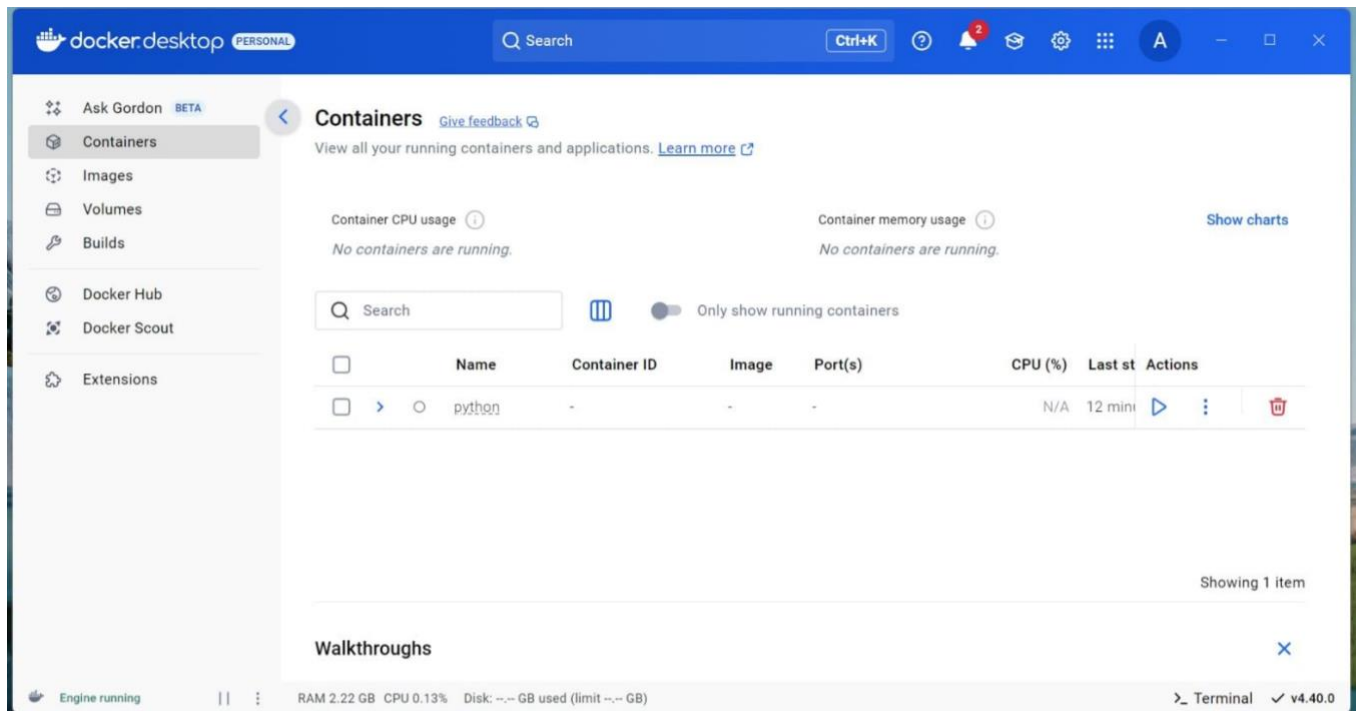
```
Command Prompt - docker-compose up --build
Microsoft Windows [Version 10.0.26100.3775]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>cd C:\Users\HP\Desktop\socket-docker\python

C:\Users\HP\Desktop\socket-docker\python>docker-compose up --build
time="2025-04-10T12:21:43+05:30" level=warning msg="C:\Users\HP\Desktop\socket-docker\python\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
Compose can now delegate builds to bake for better performance.
To do so, set COMPOSE_BAKE=true.
[*] Building 25.6s (16/16) FINISHED                                docker:desktop-linux
=> [server internal] load build definition from Dockerfile                                0.0s
=> => transferring dockerfile: 116B                                                       0.0s
=> [client internal] load metadata for docker.io/library/python:3.10                     4.7s
=> [server auth] library/python:pull token for registry-1.docker.io                    0.0s
=> [server internal] load .dockerignore                                                  0.0s
=> => transferring context: 2B                                                             0.0s
=> [server internal] load build context                                                  0.0s
=> => transferring context: 727B                                                            0.0s
=> [client 1/3] FROM docker.io/library/python:3.10@sha256:e2c7fb05741c735679b26eda7dd34575151079f8c615875fbefe4 19.9s
=> => resolve docker.io/library/python:3.10@sha256:e2c7fb05741c735679b26eda7dd34575151079f8c615875fbefe401972b14d85 0.0s
=> => sha256:bccb2be02b84b98d3da542d41d018ac0bc6f789e15396fd163d373ce96d140b 2.33kB / 2.33kB 0.0s
=> => sha256:af8e3845afdcf84d8f7c373c732dfcb9261fdd63a13bbb3f430d253034e9c29e 21.39MB / 21.39MB 18.9s
=> => sha256:d877749e7e8482366a677c46b54831fa8ed9e217760353e2654f4f670776145e 251B / 251B 1.6s
=> => sha256:e2c7fb05741c735679b26eda7dd34575151079f8c615875fbefe401972b14d85 9.08kB / 9.08kB 0.0s
=> => sha256:5a340f1230968c8d05eeeee3359540a4e7249f21c8bd689bb8c1cec63143840ad 6.20kB / 6.20kB 0.0s
=> => sha256:35a6ae16d0f03d1e758190b50a7b0495277bbe894fe2fbf7f91083d2aad3ef98 6.16MB / 6.16MB 6.8s
=> => extracting sha256:35a6ae16d0f03d1e758190b50a7b0495277bbe894fe2fbf7f91083d2aad3ef98 0.4s
=> => extracting sha256:af8e3845afdcf84d8f7c373c732dfcb9261fdd63a13bbb3f430d253034e9c29e 0.9s
=> => extracting sha256:d877749e7e8482366a677c46b54831fa8ed9e217760353e2654f4f670776145e 0.0s
=> CACHED [client 2/3] WORKDIR /app                                                    0.1s
=> [server 3/3] COPY server.py .                                                        0.0s
=> [server] exporting to image                                                            0.1s
=> => exporting layers                                                                    0.0s
=> => writing image sha256:d6df82b671c8e0f49546f5c9bd35a4f296856f1a225db44717f5165753a8890d 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                                0.0s
=> => transferring dockerfile: 116B                                                       0.0s
=> [client internal] load .dockerignore                                                  0.0s
```

```
Command Prompt - docker-compose up --build
=> => sha256:e2c7fb05741c735679b26eda7dd34575151079f8c615875fbefe401972b14d85 9.08kB / 9.08kB 0.0s
=> => sha256:5a340f1230968c8d05eeeee3359540a4e7249f21c8bd689bb8c1cec63143840ad 6.20kB / 6.20kB 0.0s
=> => sha256:35a6ae16d0f03d1e758190b50a7b0495277bbe894fe2fbf7f91083d2aad3ef98 6.16MB / 6.16MB 6.8s
=> => extracting sha256:35a6ae16d0f03d1e758190b50a7b0495277bbe894fe2fbf7f91083d2aad3ef98 0.4s
=> => extracting sha256:af8e3845afdcf84d8f7c373c732dfcb9261fdd63a13bbb3f430d253034e9c29e 0.9s
=> => extracting sha256:d877749e7e8482366a677c46b54831fa8ed9e217760353e2654f4f670776145e 0.0s
=> CACHED [client 2/3] WORKDIR /app                                                    0.1s
=> [server 3/3] COPY server.py .                                                        0.0s
=> [server] exporting to image                                                            0.1s
=> => exporting layers                                                                    0.0s
=> => writing image sha256:d6df82b671c8e0f49546f5c9bd35a4f296856f1a225db44717f5165753a8890d 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                                0.0s
=> => 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                                                            0.0s
=> => exporting layers                                                                    0.0s
=> => writing image sha256:99f8dbcd8cfc9f1da41ace25be8837b482ba5f83252ef466f8d13f637217f10 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 0.1s
✓Container python_socket_server Created 0.1s
✓Container python_socket_client Created 0.0s
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', 37816)
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: hello
python_socket_client | [SERVER] hello
```





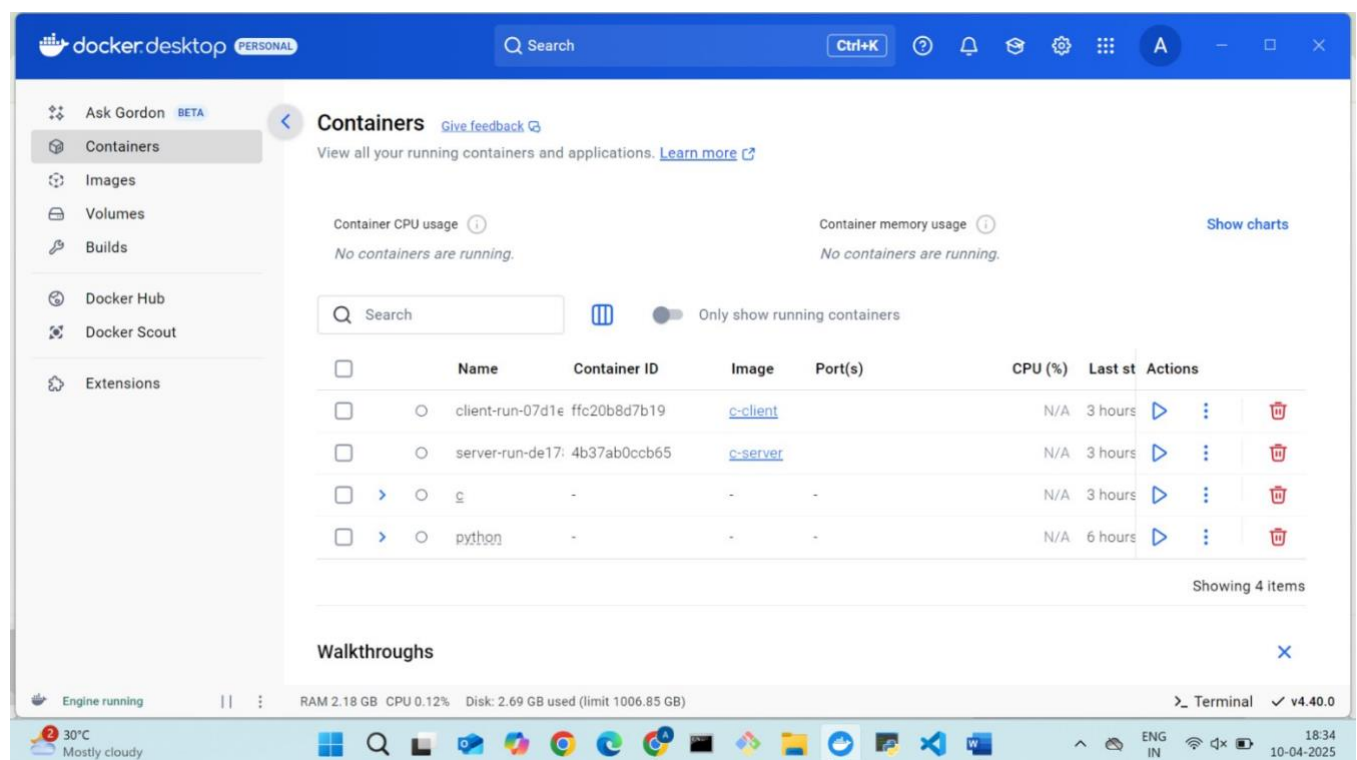
## USING C-

The image displays three screenshots of a Windows Command Prompt window, showing the execution of Docker commands to build and run a container.

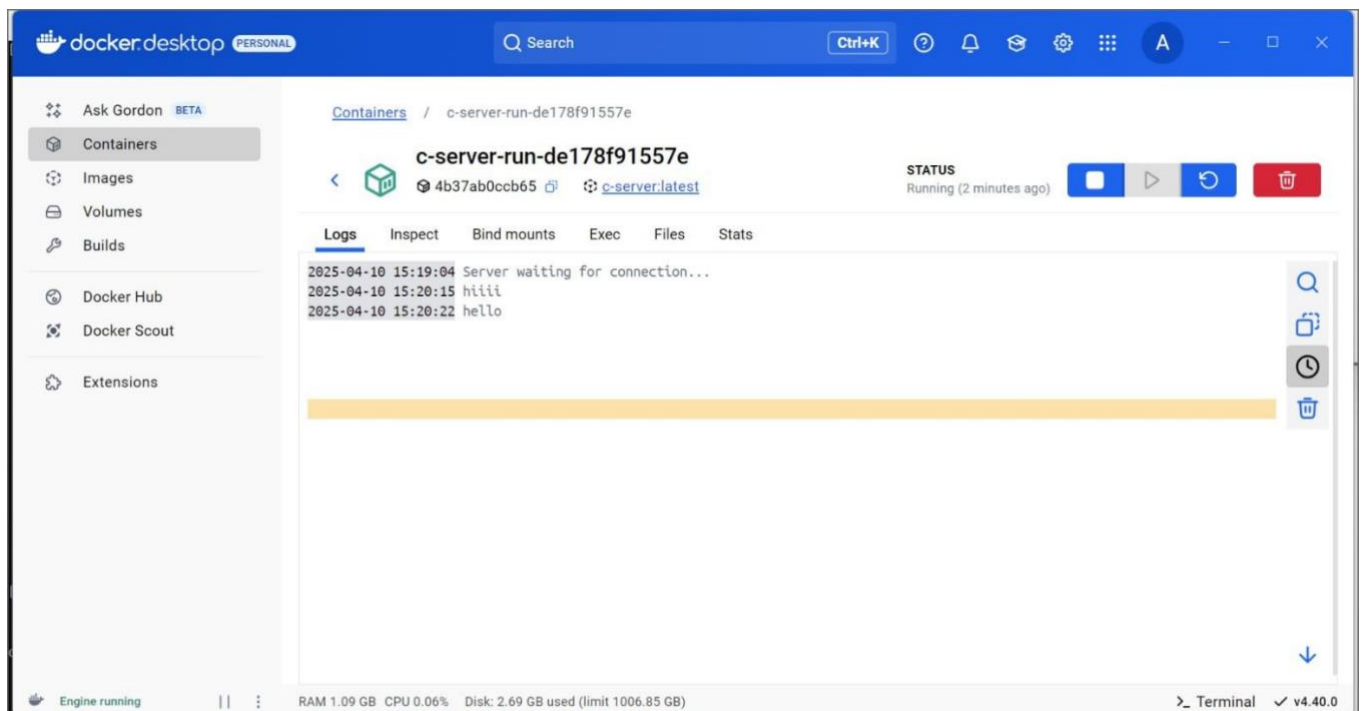
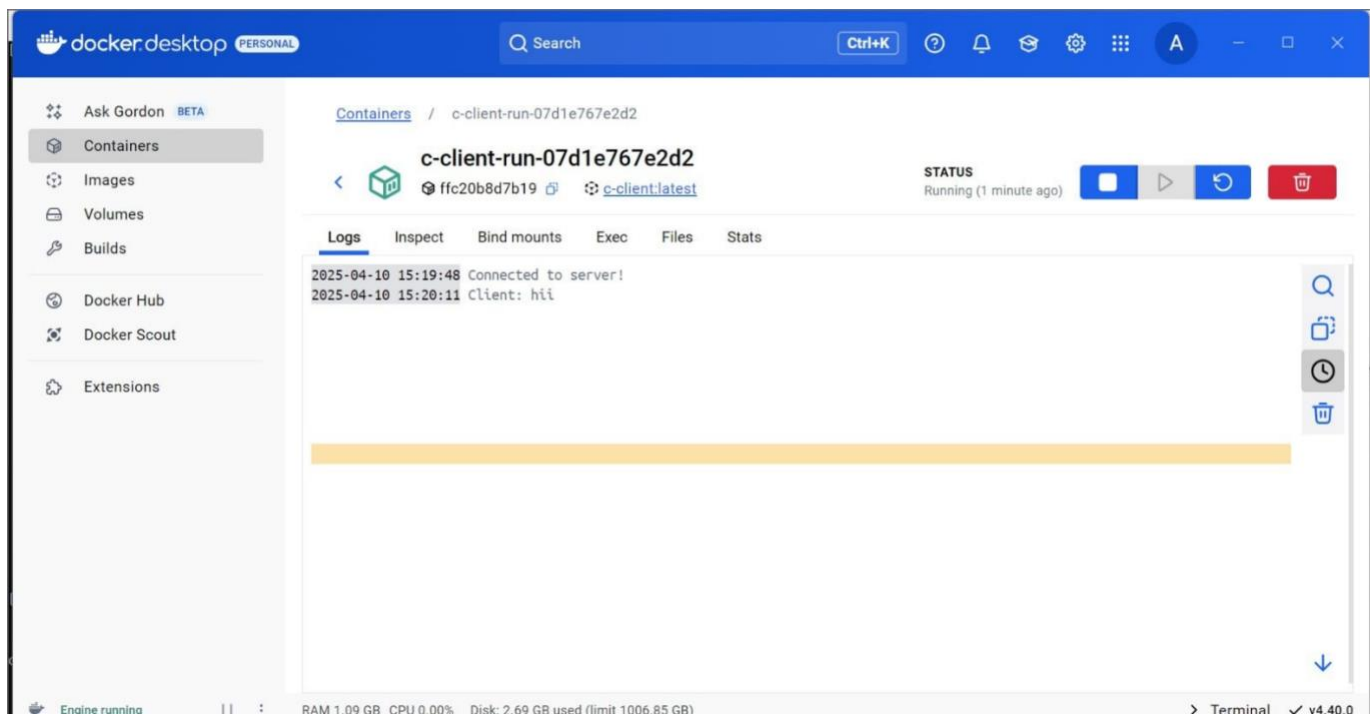
**Top Screenshot:** Shows the command `docker:desktop-linux` and the output of `docker build -t c-server .`. The build process is successful, creating image `sha256:b75c36e1e36853dfdc73b05563b0d66c7f15e58d30c9bc8`.

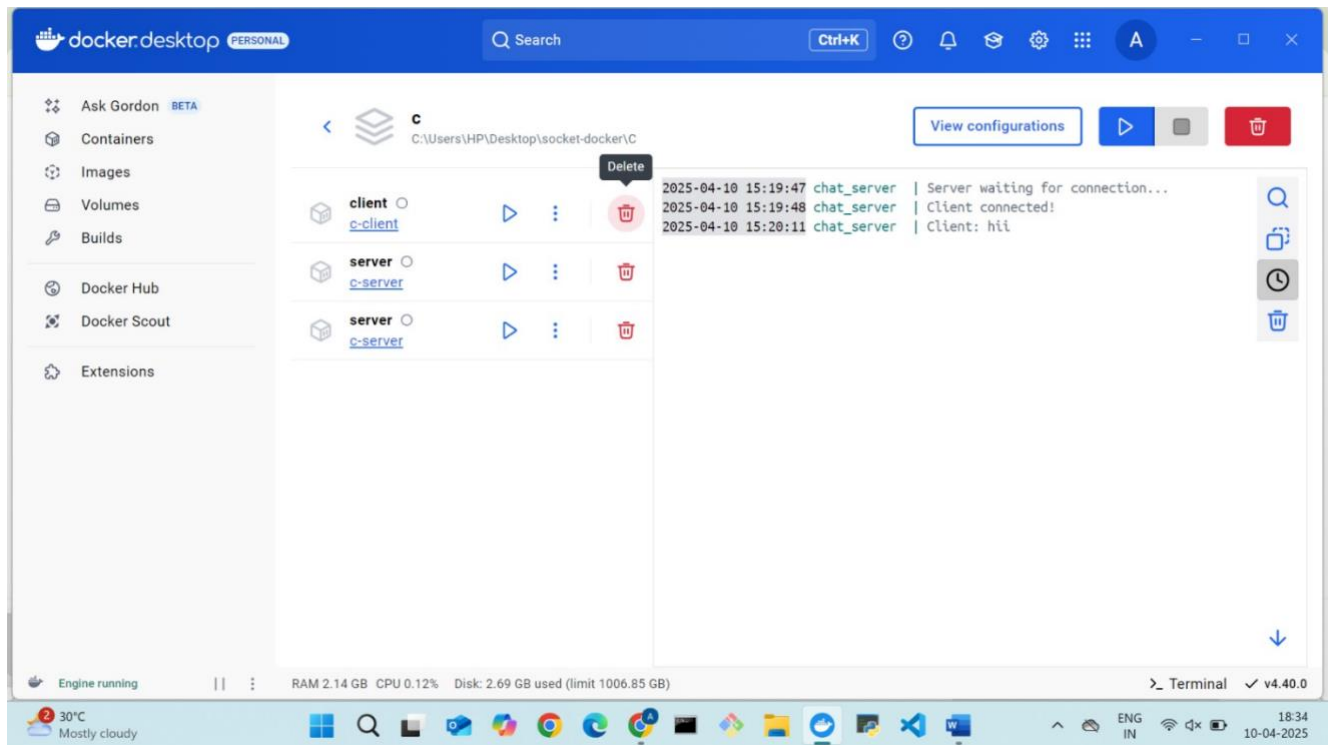
**Middle Screenshot:** Shows the command `docker-compose run client` being executed. The output indicates that the container `chat_server` was created and started successfully. The client is connected to the server.

**Bottom Screenshot:** Shows the command `docker-compose run server` being executed. The output indicates that the container `c_chatnet` was created and started successfully. The server is waiting for a connection.









NAME -ARUSHI PRIYA

REGD NO-2141016384