CC LAB 4

NAME- AYUSH PATHAK

SRN – PES2UG23CS113

SS1::

```
PS C:\Users\ayush pathak> wsl
PES2UG23CS113:/mnt/c/Users/ayush pathak$ export SRN=PES2UG23CS113
PES2UG23CS113:/mnt/c/Users/ayush pathak$ echo $SRN
PES2UG23CS113
PES2UG23CS113:/mnt/c/Users/ayush pathak$ export PS1="[\u@\$SRN \W]\\$ "
```

```
[ayush_pathak@PES2UG23CS113 ayush pathak]$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
17eec7bbc9d7: Pull complete
Digest: sha256:ef54e839ef541993b4e87f25e752f7cf4238fa55f017957c2eb44077083d7a6a
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/

[ayush_pathak@PES2UG23CS113 ayush pathak]$
```

SS2::

```
[ayush_pathak@PES2UG23CS113 ayush pathak]$ docker compose version
Docker Compose version 2.37.1+ds1-0ubuntu2~24.04.1
[ayush_pathak@PES2UG23CS113 ayush pathak]$
```

SS3::

```
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker ps
CONTAINER ID   IMAGE                  COMMAND               CREATED         STATUS         PORTS
                     NAMES
4876f861d533   rabbitmq:3-management  "docker-entrypoint.s…"  12 seconds ago  Up 11 seconds  4369/tcp, 5671-5672/tcp, 15671-15672/tcp, 15691-15692/tcp,
25672/tcp    rabbitmq
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$
```

SS4::

```
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker run -it --name user-a chat-app

--- No Previous Chat History ---

--- Chat Started (unknown-user connecting to localhost) ---
RabbitMQ not ready, retrying... (1/5)
RabbitMQ not ready, retrying... (1/5)
RabbitMQ not ready, retrying... (2/5)
RabbitMQ not ready, retrying... (2/5)
RabbitMQ not ready, retrying... (3/5)
RabbitMQ not ready, retrying... (3/5)
RabbitMQ not ready, retrying... (4/5)RabbitMQ not ready, retrying... (4/5)

RabbitMQ not ready, retrying... (5/5)RabbitMQ not ready, retrying... (5/5)


ERROR: Could not connect to RabbitMQ at localhost

Falling back to standalone mode...
================================================
STANDALONE MODE (No RabbitMQ)
================================================

--- No Previous Chat History ---

Messages will not be sent to any other container.

Type message (standalone):
ERROR: Could not connect to RabbitMQ at localhost
HELLO PES2UG23C113
Sent by unknown-user (standalone): HELLO PES2UG23C113
Type message (standalone):
```

SS5 ::

```
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker run -it --name user-a --network chat-net -e RABBIT_HOST=rabbitmq -e QUEUE_NAME=queue_a -e TARGET_QUEUE=queue_b chat-app

--- No Previous Chat History ---

--- Chat Started (unknown-user connecting to rabbitmq) ---
Type message: Hello Ayush Pathak
Sent by unknown-user: Hello Ayush Pathak
Type message:
```

SS6::

```
PES2UG23CS113:/mnt/c/Users/ayush pathak/docker-advanced-lab$ sudo docker run -it --name user-b --network chat-net -e RABBIT_HOST=rabbitmq -e QUEUE_NAME=queu
e_b -e TARGET_QUEUE=queue_a chat-app
[sudo] password for ayush_pathak:

--- No Previous Chat History ---

--- Chat Started (unknown-user connecting to rabbitmq) ---
Type message:
Received from unknown-user: Hello Ayush Pathak
Type message:
```
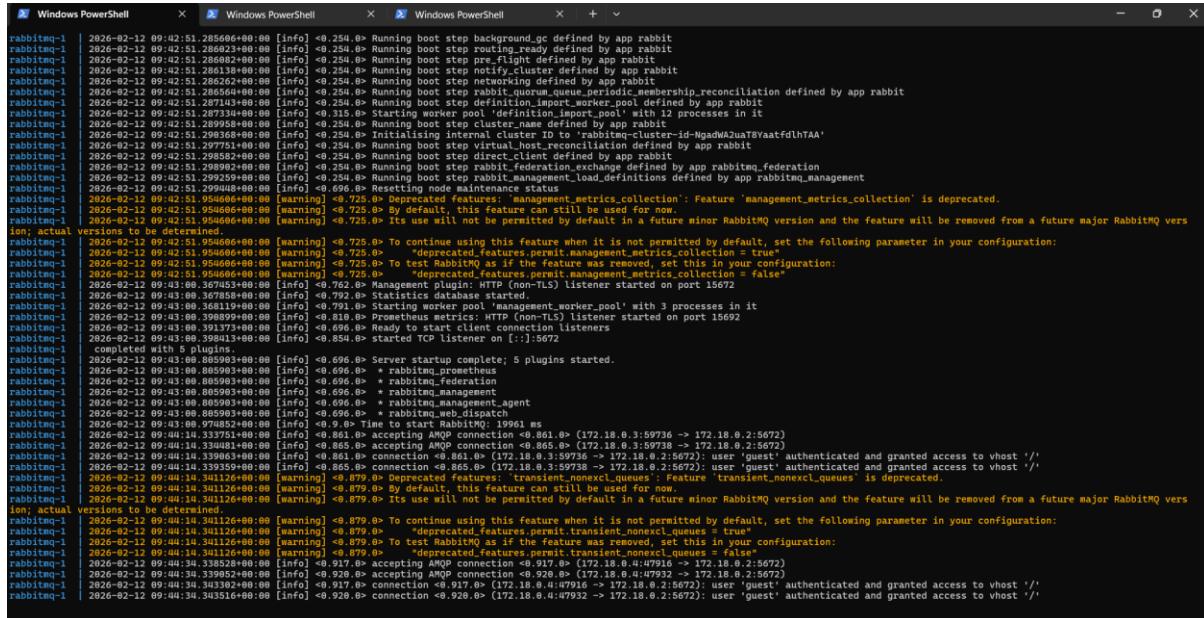
SS7::

```
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker stop user-a user-b rabbitmq
user-a
user-b
rabbitmq
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker rm user-a user-b rabbitmq
user-a
user-b
rabbitmq
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker network rm chat-net
chat-net
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$ sudo docker ps -a
CONTAINER ID   IMAGE         COMMAND     CREATED          STATUS                   PORTS     NAMES
1b161e7e15b2   hello-world   "/hello"    49 minutes ago   Exited (0) 49 minutes ago          naughty_cohen
[ayush_pathak@PES2UG23CS113 docker-advanced-lab]$
```
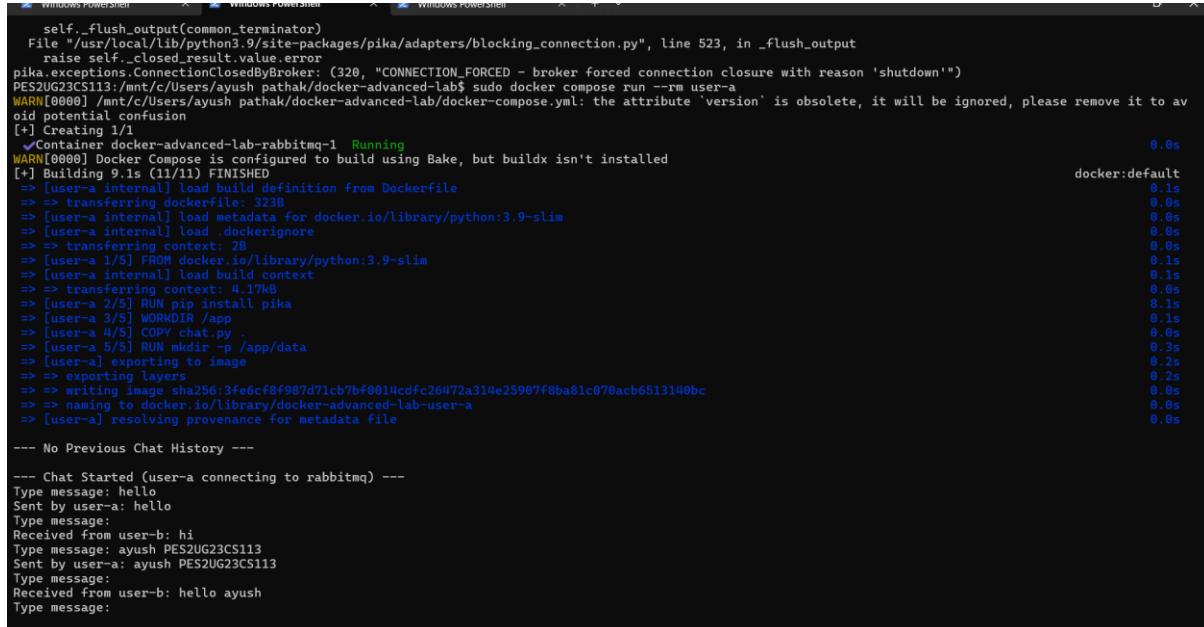
SS8::

SS9::

SS10::

```
PS C:\Users\ayush pathak> wsl
PES2UG23CS113:/mnt/c/Users/ayush pathak$ cd docker-advanced-lab/
PES2UG23CS113:/mnt/c/Users/ayush pathak/docker-advanced-lab$ sudo docker compose run --rm user-b
[sudo] password for ayush_pathak:
WARN[0000] /mnt/c/Users/ayush pathak/docker-advanced-lab/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to av
oid potential confusion
[+] Creating 1/1
 ✔ Container docker-advanced-lab-rabbitmq-1  Running                                                                    0.0s
WARN[0000] Docker Compose is configured to build using Bake, but buildx isn't installed
[+] Building 0.2s (11/11) FINISHED                                                                          docker:default
 => [user-b internal] load build definition from Dockerfile                                                            0.0s
 => => transferring dockerfile: 323B                                                                                   0.0s
 => [user-b internal] load metadata for docker.io/library/python:3.9-slim                                              0.0s
 => [user-b internal] load .dockerignore                                                                               0.0s
 => => transferring context: 2B                                                                                        0.0s
 => [user-b 1/5] FROM docker.io/library/python:3.9-slim                                                                0.0s
 => [user-b internal] load build context                                                                               0.0s
 => => transferring context: 29B                                                                                       0.0s
 => CACHED [user-b 2/5] RUN pip install pika                                                                           0.0s
 => CACHED [user-b 3/5] WORKDIR /app                                                                                   0.0s
 => CACHED [user-b 4/5] COPY chat.py .                                                                                 0.0s
 => CACHED [user-b 5/5] RUN mkdir -p /app/data                                                                         0.0s
 => [user-b] exporting to image                                                                                        0.0s
 => => exporting layers                                                                                                0.0s
 => => writing image sha256:87f9a55defe0396a88d5fb8217d448c8fc726a8ed62dbdbc73e3688f88a8e144                           0.0s
 => => naming to docker.io/library/docker-advanced-lab-user-b                                                          0.0s
 => [user-b] resolving provenance for metadata file                                                                    0.0s

--- No Previous Chat History ---

--- Chat Started (user-b connecting to rabbitmq) ---
Type message:
Received from user-a: hello
Type message: hi
Sent by user-b: hi
Type message:
Received from user-a: ayush PES2UG23CS113
Type message: hello ayush
Sent by user-b: hello ayush
Type message: |
```

SS11::

```
PES2UG23CS113:/mnt/c/Users/ayush pathak/docker-advanced-lab$ sudo docker compose run --rm user-a
WARN[0000] /mnt/c/Users/ayush pathak/docker-advanced-lab/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to av
oid potential confusion
[+] Creating 1/1
 ✔ Container docker-advanced-lab-rabbitmq-1  Running                                                                    0.0s

--- Chat History ---
Sent by user-b: hello
Received from user-b: hello
Sent by user-a: ayush
Received from user-a: ayush
--- End of History ---

--- Chat Started (user-a connecting to rabbitmq) ---
Type message:
```

SS12::

```
PES2UG23CS113:/mnt/c/Users/ayush pathak/docker-advanced-lab$ sudo docker compose run --rm user-b
WARN[0000] /mnt/c/Users/ayush pathak/docker-advanced-lab/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to av
oid potential confusion
[+] Creating 1/1
 ✔ Container docker-advanced-lab-rabbitmq-1  Running                                                                    0.0s

--- Chat History ---
Sent by user-b: hello
Received from user-b: hello
Sent by user-a: ayush
Received from user-a: ayush
--- End of History ---

--- Chat Started (user-b connecting to rabbitmq) ---
Type message:
```