Docker Task -2

Creating EC2 Instance:
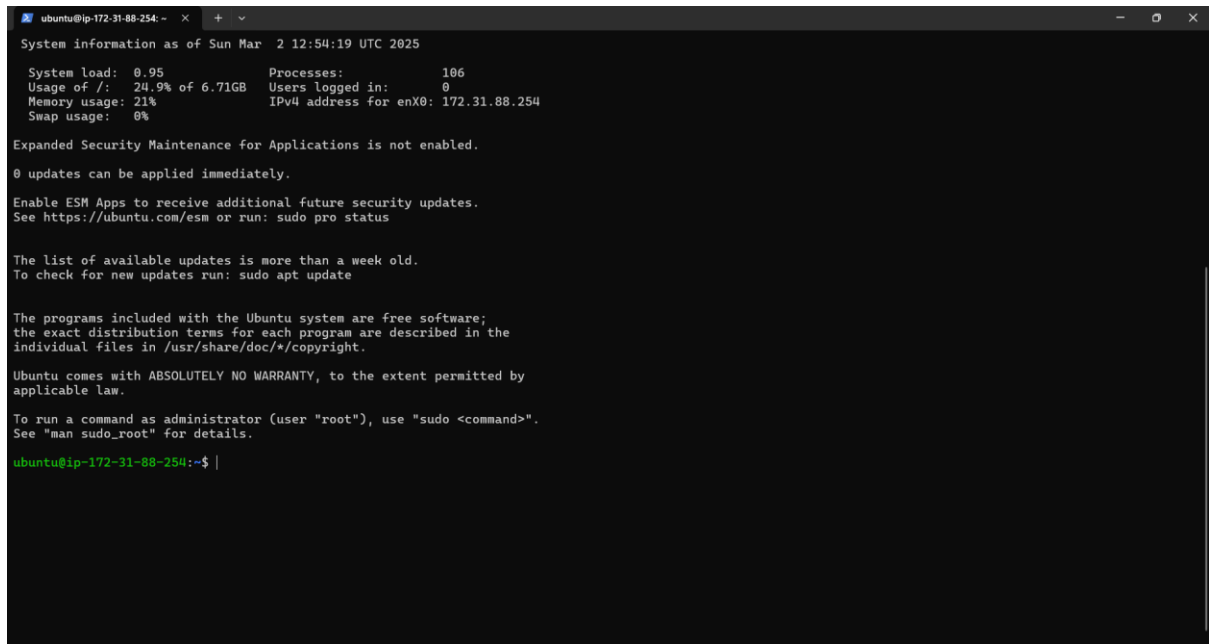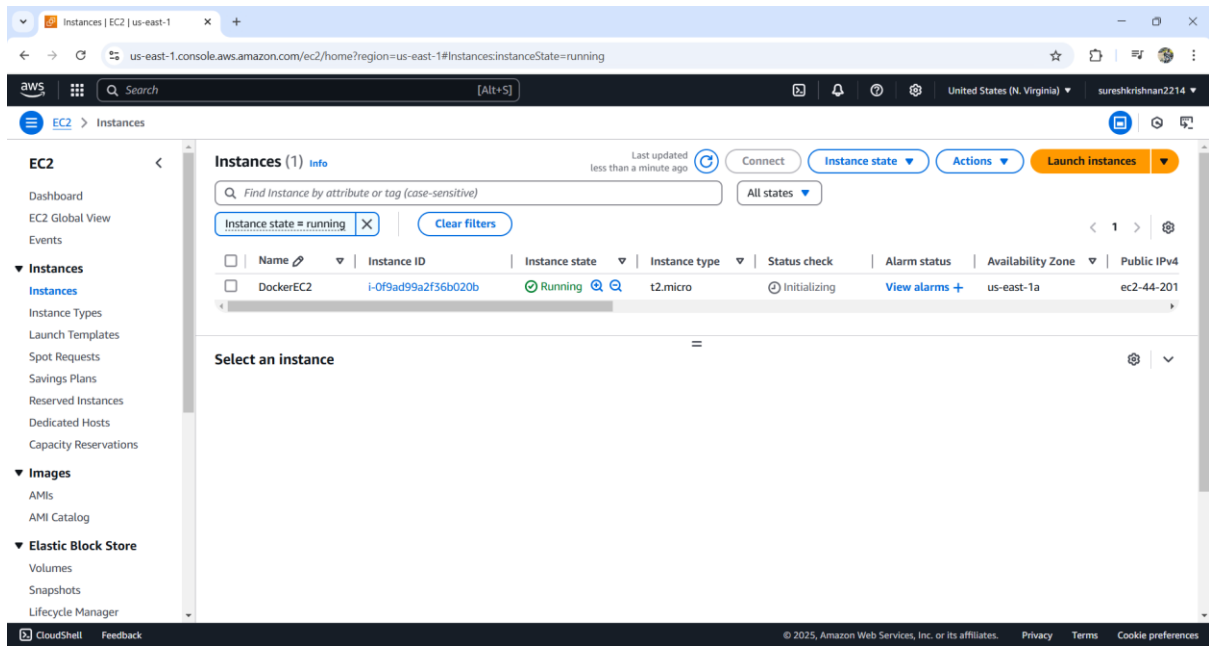
Installing Docker:

Installing Docker Compose File:

```
Unpacking python3-docker (5.0.3-1ubuntu1.1) ...
Selecting previously unselected package python3-dockerpty.
Preparing to unpack .../2-python3-dockerpty_0.4.1-5_all.deb ...
Unpacking python3-dockerpty (0.4.1-5) ...
Selecting previously unselected package python3-docopt.
Preparing to unpack .../3-python3-docopt_0.6.2-6_all.deb ...
Unpacking python3-docopt (0.6.2-6) ...
Selecting previously unselected package python3-dotenv.
Preparing to unpack .../4-python3-dotenv_1.0.1-1_all.deb ...
Unpacking python3-dotenv (1.0.1-1) ...
Selecting previously unselected package python3-texttable.
Preparing to unpack .../5-python3-texttable_1.6.7-1_all.deb ...
Unpacking python3-texttable (1.6.7-1) ...
Selecting previously unselected package python3-compose.
Preparing to unpack .../6-python3-compose_1.29.2-6ubuntu1_all.deb ...
Unpacking python3-compose (1.29.2-6ubuntu1) ...
Selecting previously unselected package docker-compose.
Preparing to unpack .../7-docker-compose_1.29.2-6ubuntu1_all.deb ...
Unpacking docker-compose (1.29.2-6ubuntu1) ...
Setting up python3-dotenv (1.0.1-1) ...
Setting up python3-texttable (1.6.7-1) ...
Setting up python3-docopt (0.6.2-6) ...
Setting up python3-websocket (1.7.0-1) ...
Setting up python3-dockerpty (0.4.1-5) ...
Setting up python3-docker (5.0.3-1ubuntu1.1) ...
Setting up python3-compose (1.29.2-6ubuntu1) ...
Setting up docker-compose (1.29.2-6ubuntu1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-88-254:~$
```

```
ubuntu@ip-172-31-88-254:~$ docker --version
Docker version 26.1.3, build 26.1.3-0ubuntu1~24.04.1
ubuntu@ip-172-31-88-254:~$ docker-compose --version
Docker Compose version v2.33.1
ubuntu@ip-172-31-88-254:~$
```

Creating Project:

```
ubuntu@ip-172-31-88-254:~$ mkdir myproject
ubuntu@ip-172-31-88-254:~$ cd myproject
ubuntu@ip-172-31-88-254:~/myproject$
```

Creating Docker File:

```
ubuntu@ip-172-31-88-254:~$ mkdir myproject
ubuntu@ip-172-31-88-254:~$ cd myproject
ubuntu@ip-172-31-88-254:~/myproject$ vi Dockerfile
ubuntu@ip-172-31-88-254:~/myproject$ cat Dockerfile
# Use the official Python image
FROM python:3.9

# Set the working directory
WORKDIR /app

# Copy the application files
COPY app /app

# Install dependencies
RUN pip install -r requirements.txt

# Expose the port Flask will run on
EXPOSE 5000

# Run the application
CMD ["python", "server.py"]

ubuntu@ip-172-31-88-254:~/myproject$
```

Creating Docker-Compose.yml:

```
ubuntu@ip-172-31-88-254:~/myproject$ cat docker-compose.yml
version: '3.8'

services:
  web:
    build: .
    ports:
      - "80:5000"
    restart: always

ubuntu@ip-172-31-88-254:~/myproject$
```

Build & Running Docker Container:

Accessing the Website: