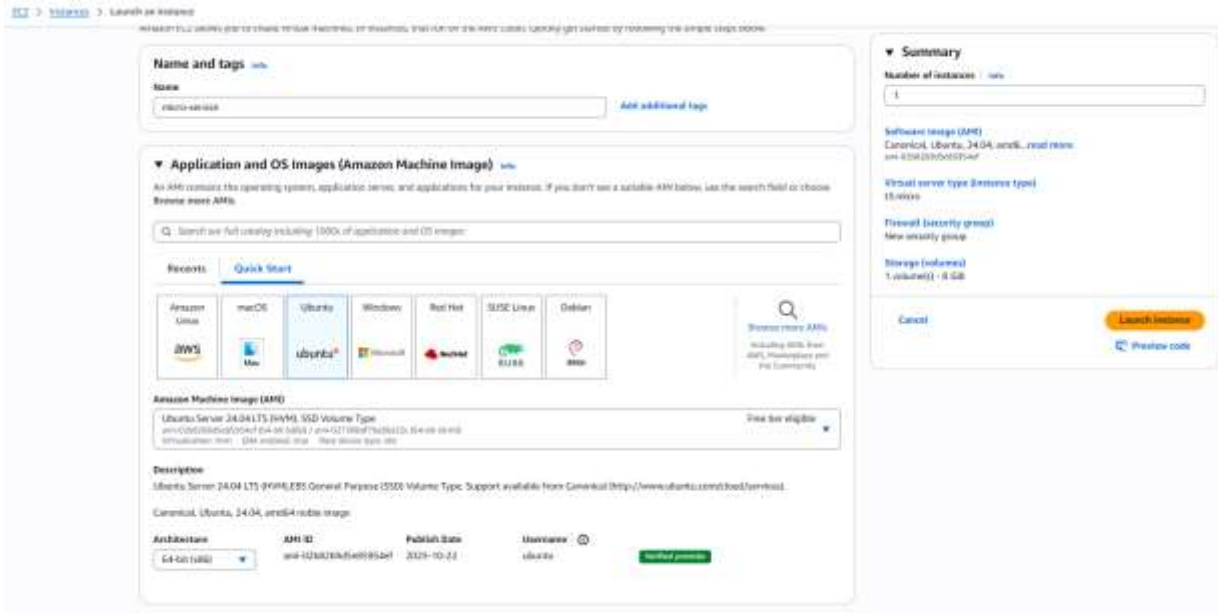


# AWS Assignment

1.



Create Aws EC2 instance

```
ubuntu@ip-172-31-0-32:~$
172.0.0.1 - [04/Jan/2026:09:11:51] "GET /Devops-practice/Flask/ HTTP/1.0" 200 -
172.0.0.1 - [04/Jan/2026:09:11:51] "GET /Devops-practice/Flask/Frontend/ HTTP/1.0" 200 -
172.0.0.1 - [04/Jan/2026:09:12:05] "GET /Devops-practice/Flask/Frontend/templates/ HTTP/1.0" 200 -
172.0.0.1 - [04/Jan/2026:09:12:11] "GET /Devops-practice/Flask/Frontend/app.py HTTP/1.0" 200 -
Read from remote host ec2-3-109-209-206.ap-south-1.compute.amazonaws.com: Connection reset by peer
Connect to ec2-3-109-209-206.ap-south-1.compute.amazonaws.com closed.
Client loop: send disconnect: Connection reset by peer

ubuntu@ip-172-31-0-32:~$ cd ~/Devops-practice/AWS
$ ls
Add-microService.rtf  aws_ec2.pem  boto3/  ~$S-microService.rtf

ubuntu@ip-172-31-0-32:~$ cd ~/Devops-practice/AWS
$ ssh -i "aws_ec2.pem" ubuntu@ec2-3-109-209-206.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-109-209-206.ap-south-1.compute.amazonaws.com (3.109.209.206)' can't be established.
ECDSA key fingerprint is SHA256:0502Df9h2L3TT7q04qMfmlhmrVexk3u0a=1Q031.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-109-209-206.ap-south-1.compute.amazonaws.com' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.14.0-1015-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management:   https://landscape.canonical.com
 * Support:       https://ubuntu.com/support

System information as of Fri Jan  4 14:45:03 UTC 2026

System load:  0.01               Temperature:  -27.1 C
Usage of /:   23.8% of 8.71GB     Processes:    111
Memory usage: 22%               Users logged in: 0
Swap usage:   0%                 IPv4 address for eno1: 172.31.8.32

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo apt update

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
```

Connet our ec2 instance from local using Bash/ssh

```
MINGW64 ~/workspace/docker/Backend
cpi console create directory ubuntuec2-3-109-209-206.ap-south-1.compute.amazonaws.com/home/ubuntu : No such file or directory

MINGW64 ~/workspace/docker/Backend
$ scp -i F:/workspace/keys/ssh_ec2.pem -r ./ ubuntuec2-3-109-209-206.ap-south-1.compute.amazonaws.com /home/ubuntu
/home/ubuntu: No such file or directory

MINGW64 ~/workspace/docker/Backend
$ scp -i F:/workspace/keys/ssh_ec2.pem -r ./ ubuntuec2-3-109-209-206.ap-south-1.compute.amazonaws.com /home/ubuntu
/home/ubuntu: No such file or directory

MINGW64 ~/workspace/docker/Backend
$ scp -i F:/workspace/keys/ssh_ec2.pem -r ./ ubuntuec2-3-109-209-206.ap-south-1.compute.amazonaws.com /home/ubuntu
/home/ubuntu: No such file or directory

MINGW64 ~/workspace/docker/Backend
1 %C

MINGW64 ~/workspace/docker/Backend
$ scp -i F:/workspace/keys/ssh_ec2.pem -r ./ ubuntuec2-3-109-209-206.ap-south-1.compute.amazonaws.com/home/ubuntu/
./dockerignore 100% 11 0.1KB/s 00:00
addData.py 100% 181 3.1KB/s 00:00
app.py 100% 388 4.9KB/s 00:00
data.txt 100% 48 1.2KB/s 00:00
dockerFile 100% 181 3.9KB/s 00:00
getdata.py 100% 118 0.4KB/s 00:00
requirements.txt 100% 9 0.1KB/s 00:00
./dockerignore 100% 11 0.0KB/s 00:00
addData.py 100% 181 2.9KB/s 00:00
app.py 100% 388 3.5KB/s 00:00
data.txt 100% 48 0.6KB/s 00:00
dockerFile 100% 181 0.9KB/s 00:00
getdata.py 100% 118 3.9KB/s 00:00
requirements.txt 100% 9 0.1KB/s 00:00
addData.cpython-37.pyc 100% 364 5.0KB/s 00:00
getdata.cpython-37.pyc 100% 594 3.5KB/s 00:00
addData.ttython-37.pyc 100% 364 1.1KB/s 00:00
getdata.cpython-37.pyc 100% 594 6.0KB/s 00:00

MINGW64 ~/workspace/docker/Backend
1 |
```

Move backend-sourcecode to ec2 similarly frontend

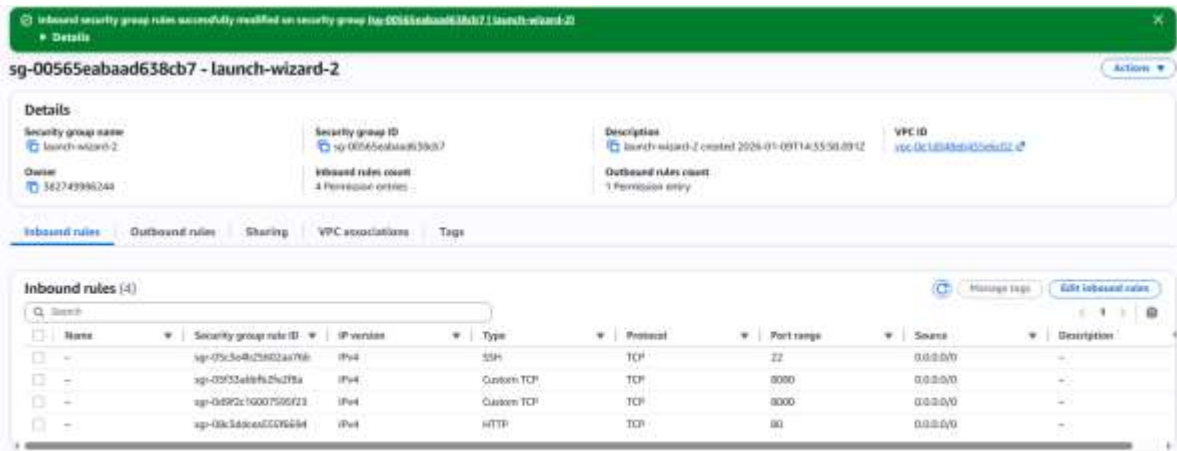
```
ubuntu@ip-172-31-8-32:~/backend
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates...
See https://ubuntu.com/esm or run: sudo apt update

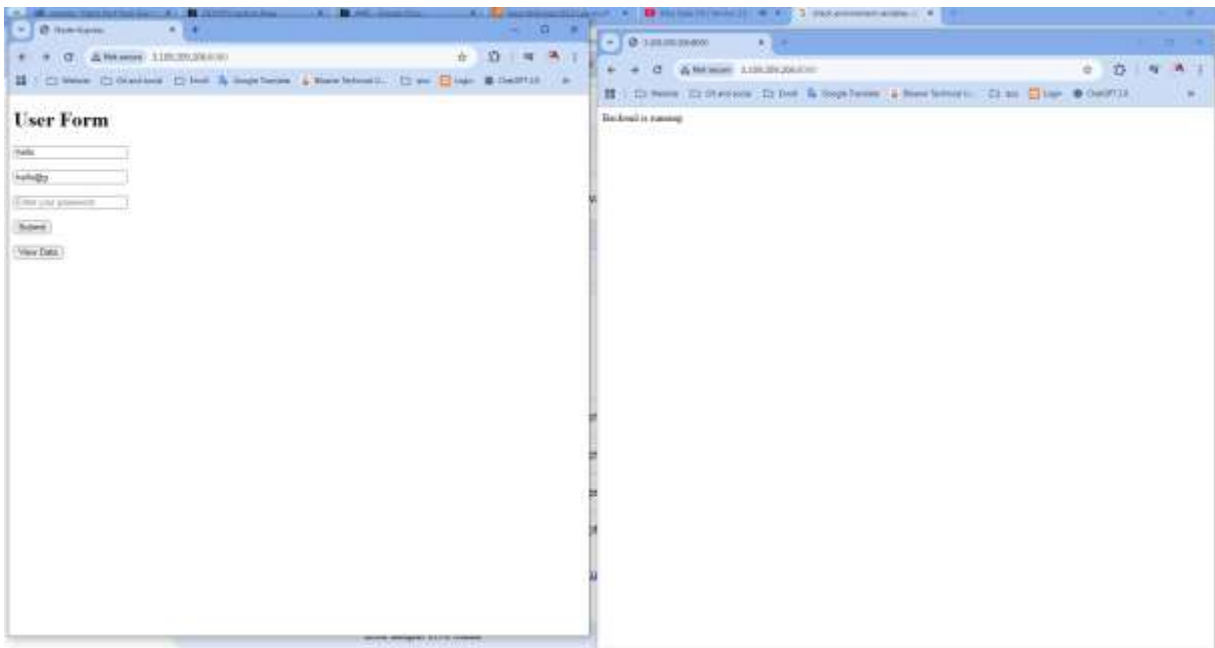
Last login: Fri Jan 9 14:43:08 2020 from 45.16.142.119
ubuntu@ip-172-31-8-32:~$ cd
ubuntu@ip-172-31-8-32:~$ cd backend/
ubuntu@ip-172-31-8-32:~/backend$ docker
Command 'docker' not found, but can be installed with:
sudo apt install docker.io # version 18.01.1-ubuntu18.04.1, or
sudo apt install docker-engine # version 1.13.1-ubuntu18.04.1
ubuntu@ip-172-31-8-32:~/backend$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base iproute iproute2 iptables
Suggested packages:
  connman nfs-tools cgroupfs-mount | cgroup-lite docker-compose | docker-buildx-plugin docker-compose-plugin dnsmasq-base iproute2
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io iproute iproute2 iptables
0 upgraded, 9 newly installed, 0 to remove and 79 not upgraded.
Need to get 76.9 MB of archives.
After this operation, 208 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 iproute amd64 2.9-1 [66.4 kB]
Get:2 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 bridge-utils amd64 1.2.1-1ubuntu1 [33.9 kB]
Get:3 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 iproute amd64 2.9-1-ubuntu18.04.1 [66.4 kB]
Get:4 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 containerd amd64 1.2.28-ubuntu1-24.04.1 [75.4 kB]
Get:5 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 dns-root-data all 2024071801-ubuntu0.24.04.1 [33.8 B]
Get:6 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 dnsmasq-base amd64 2.90-2ubuntu1 [579 kB]
Get:7 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 docker.io amd64 24.0.2-DefectID-28.04.1 [76.3 MB]
Get:8 http://us-west-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 ubuntu-fan all 0.12.16ubuntu1 [38.7 kB]
Fetched 76.9 MB in 1s (79.2 MB/s)
Preconfiguring packages ...
Detecting previously unselected package iproute.
Setting up iproute (2.9-1) ...
Setting up bridge-utils (1.2.1-1ubuntu1) ...
Setting up containerd (1.2.28-ubuntu1-24.04.1) ...
Setting up dnsmasq-base (2.90-2ubuntu1) ...
Setting up dns-root-data (2024071801-ubuntu0.24.04.1) ...
Setting up iproute2 (2.9-1-ubuntu18.04.1) ...
Setting up iptables (1.6.0-2ubuntu1) ...
Setting up docker.io (24.0.2-DefectID-28.04.1) ...
Setting up ubuntu-fan (0.12.16ubuntu1) ...
```

Install docker in in ec2



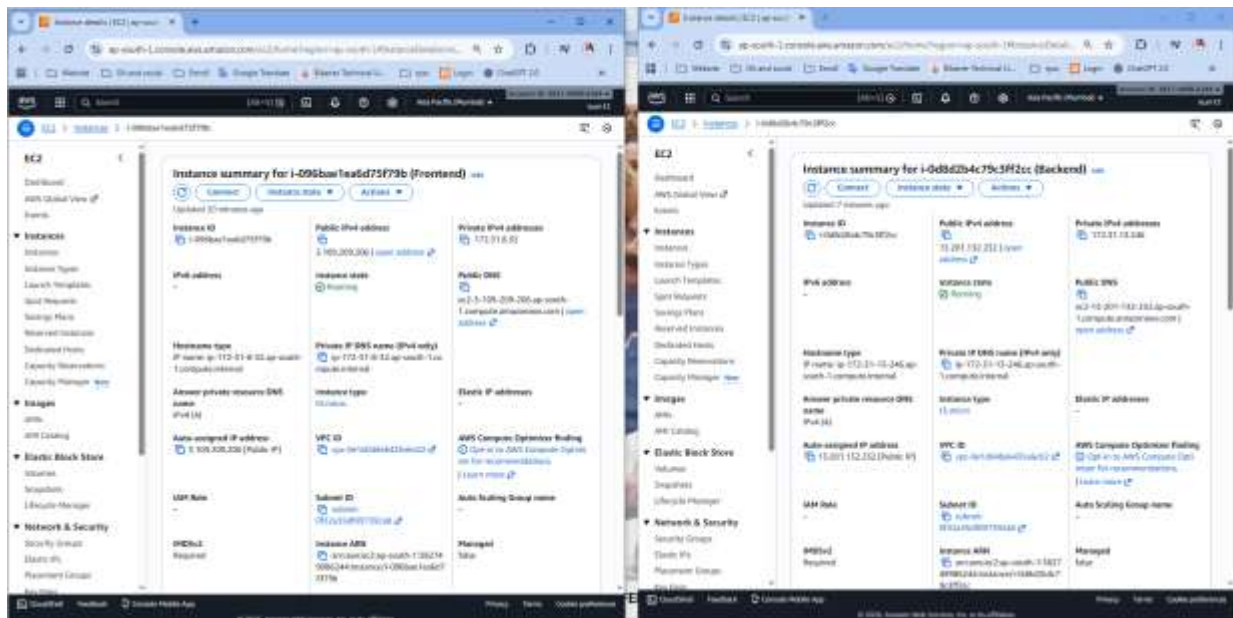


Add Inbound rule to security group to recive request from outside/fromlocal

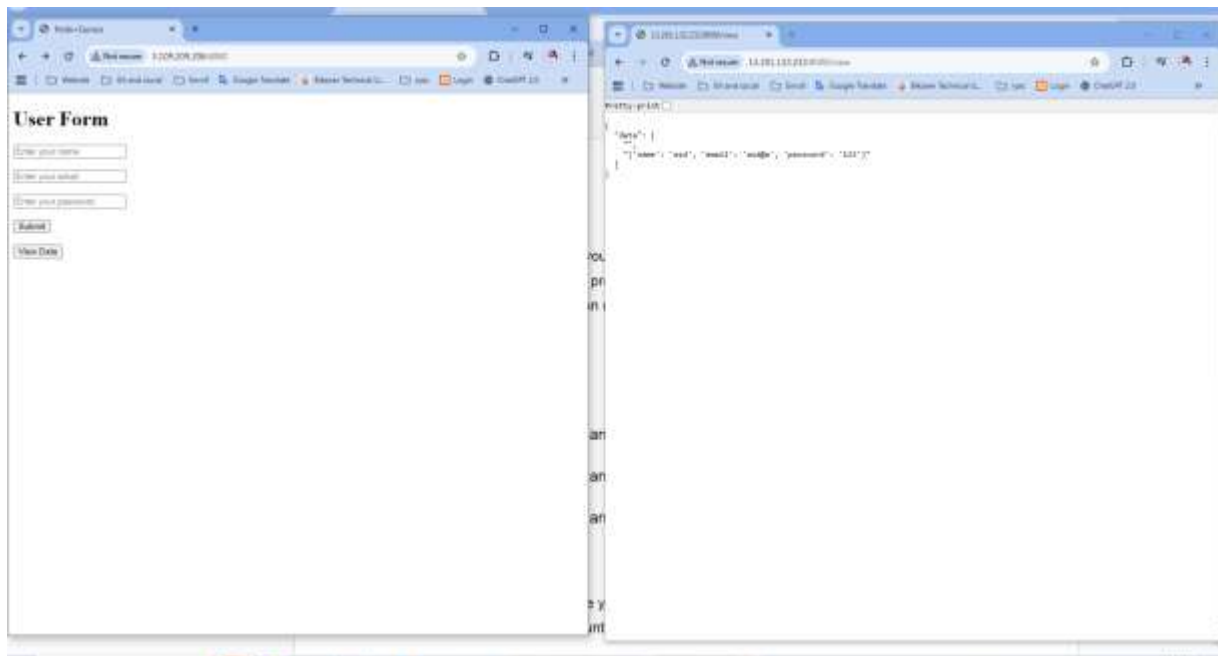


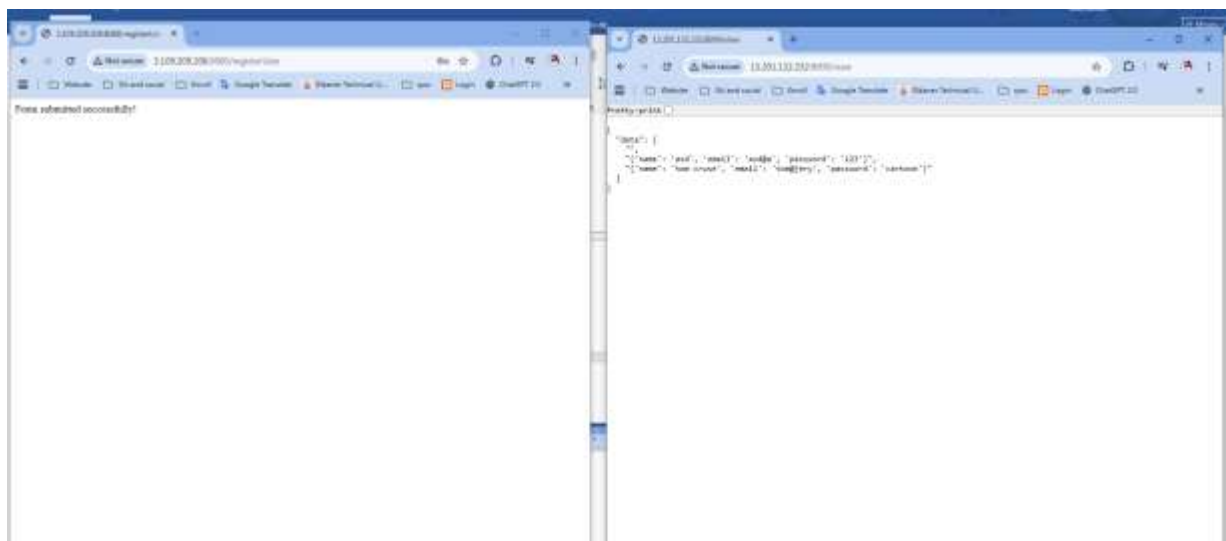
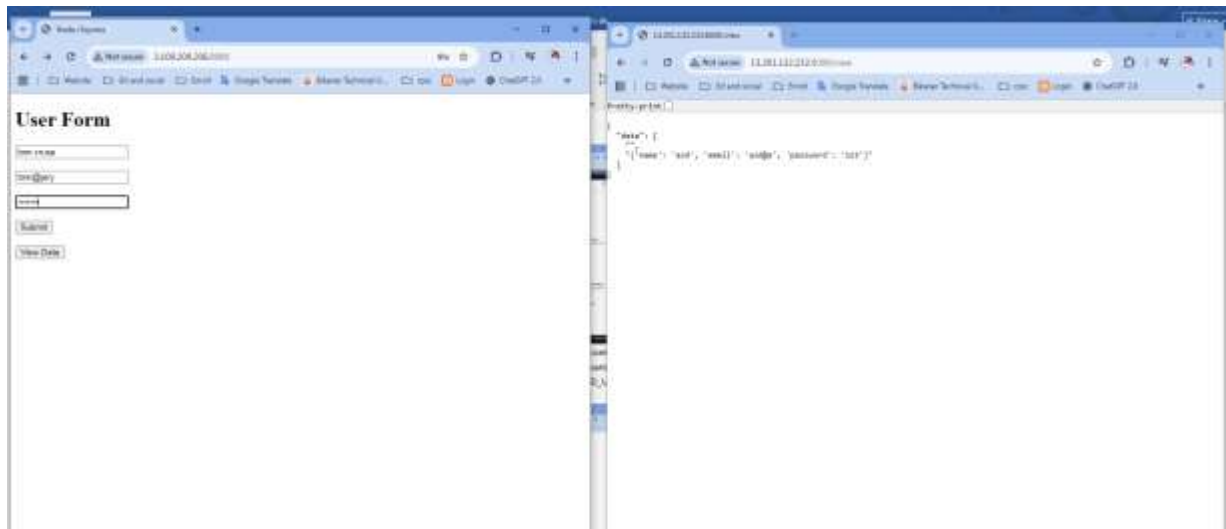
Both container run successfully but on same public IP

2.



Two instances launched and run backend container after that run frontend container and pass backend url as environment variable to frontend container  
 Ex: `docker run -d -p 8080:8080 -e BACKEND_URL=http://13.201.132.232:8000 frontend:latest`



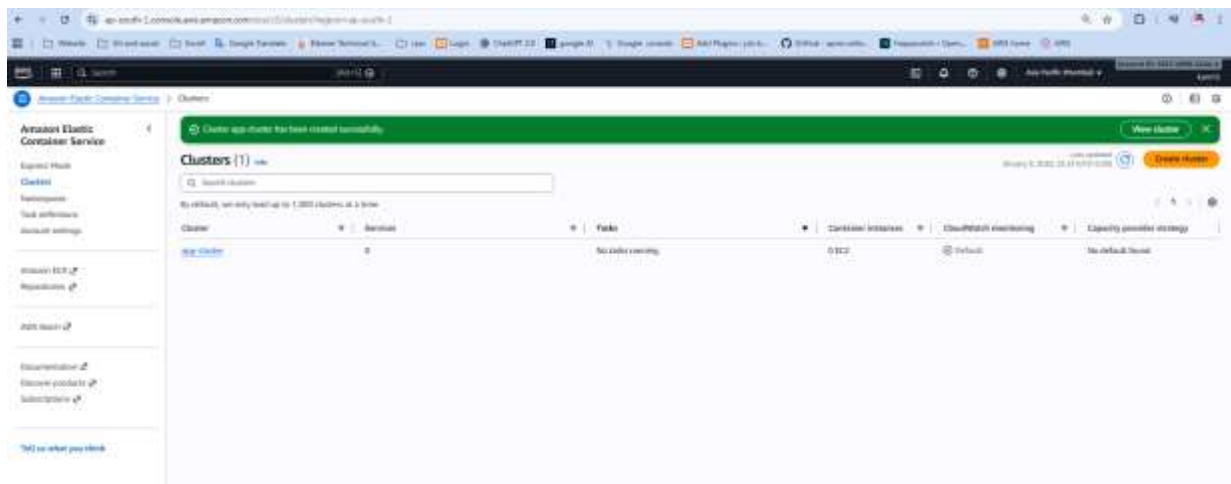


Data successfully recived and saved by backend.

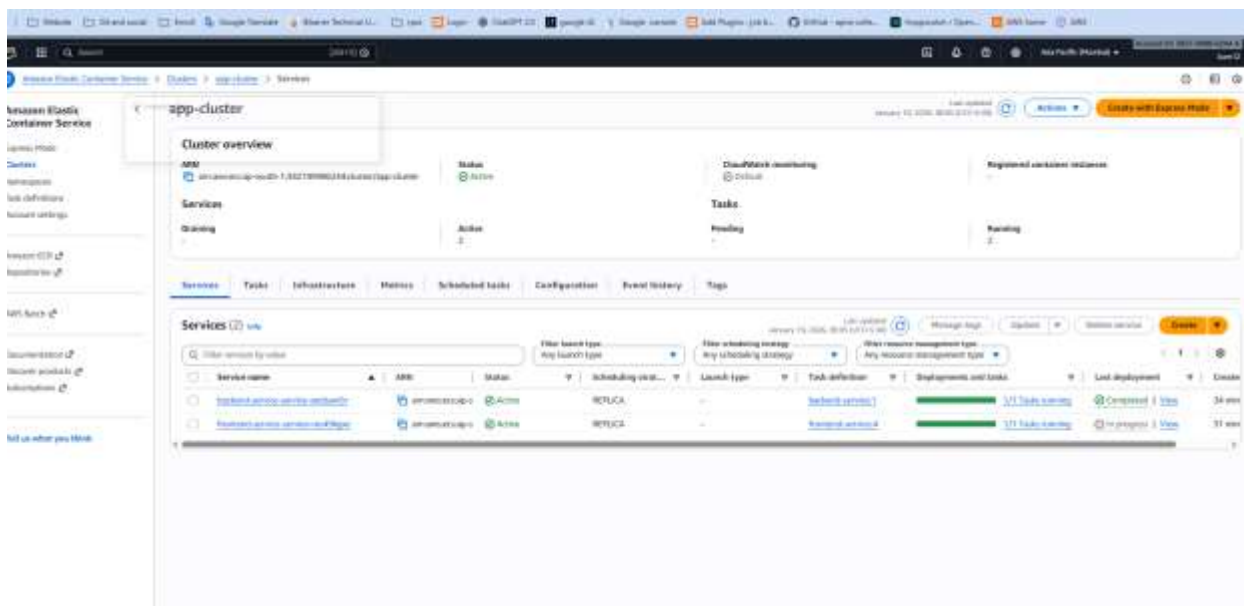
The screenshot shows the AWS IAM console interface for the 'microservice/frontend' repository. The 'Images' tab is active, displaying a search bar with the text 'microservice-frontend'. Below the search bar is a table with columns: 'Image tags', 'Type', 'Created at', 'Image size', 'Image digest', and 'Last pushed at'. The table is currently empty, and a message 'No active images' is displayed at the bottom of the table area. The left sidebar shows the navigation menu with options like 'Amazon ECR', 'Private registry', and 'Public registry'.

Push frontend docker image to ECR & similarly backed

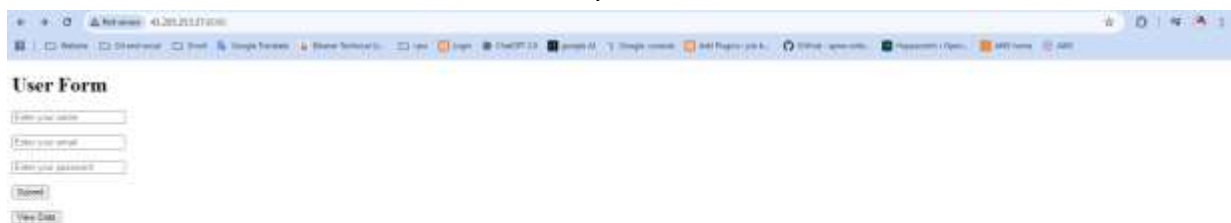




Create cluster for deploy service

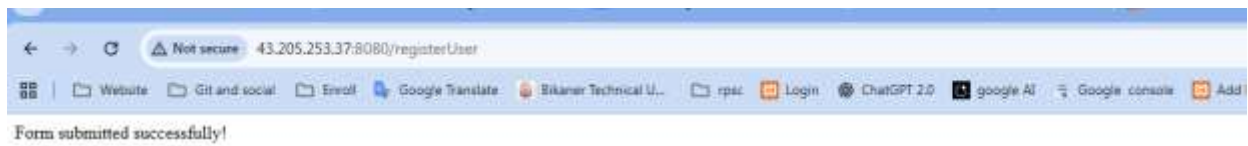


both service created and both run successfully



Frontend run fine





Form linked to backed properly