CLOUD COMPUTING LAB
BSE (V-B)

Submitted By:

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Roll No:

2023-BSE-068

Submitted To:

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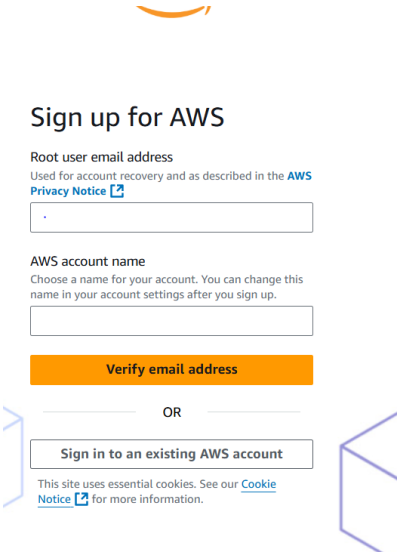
LAB 08

AWS: Account Setup, IAM, VPC Inventory, EC2, Docker & Gitea

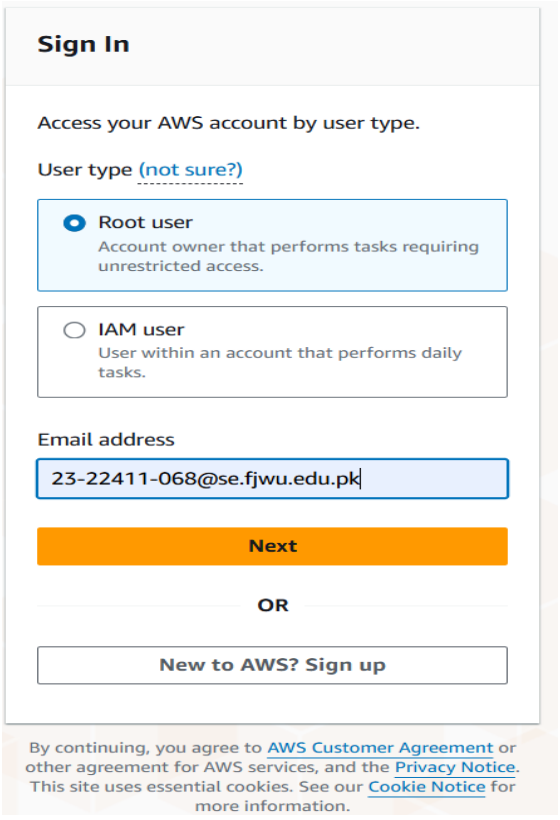
Task 1

Create an AWS account and enable UAE (me-central-1)

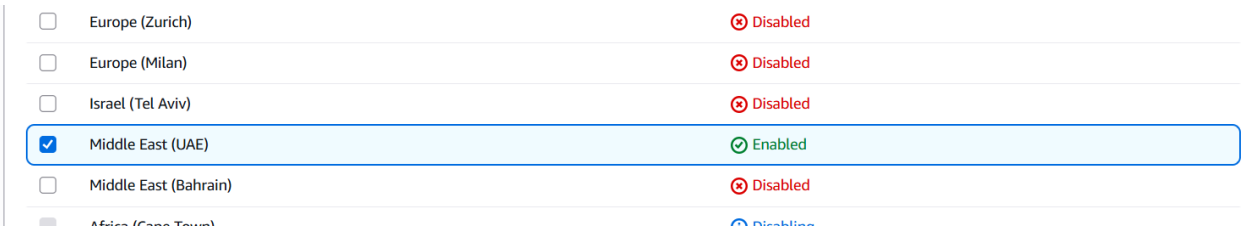
- **AWS signup page:**



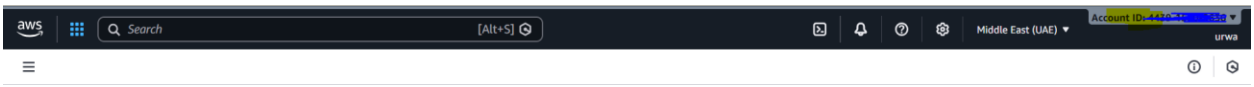
- **Root user signed in:**



- **Enable region me-central-1:**



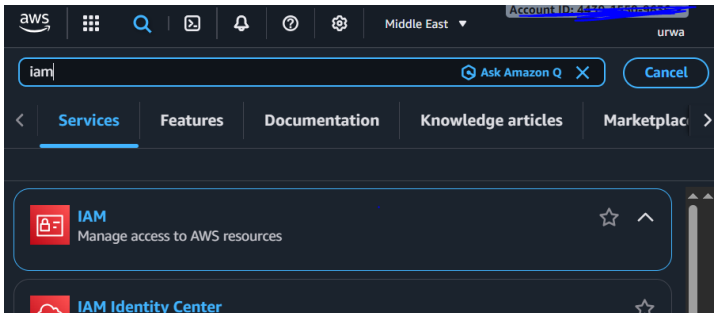
- **task1 summary:**



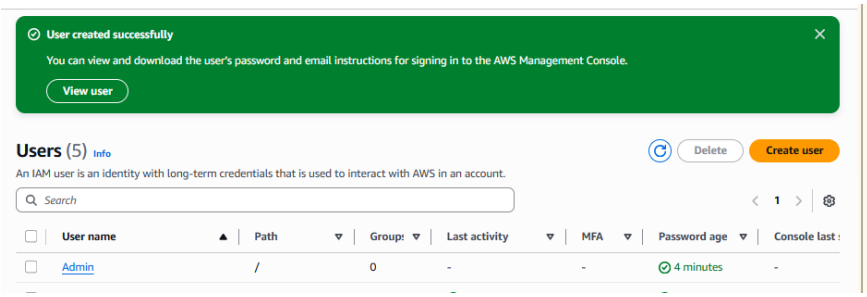
Task 2

Create IAM Admin and Lab8User with console access

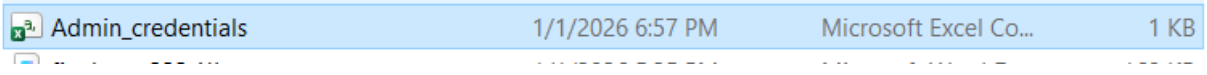
- **open iam console:**



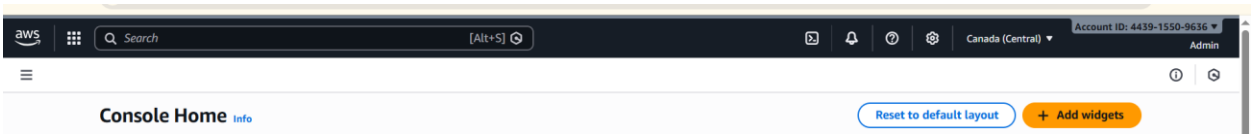
- **admin create confirmation:**



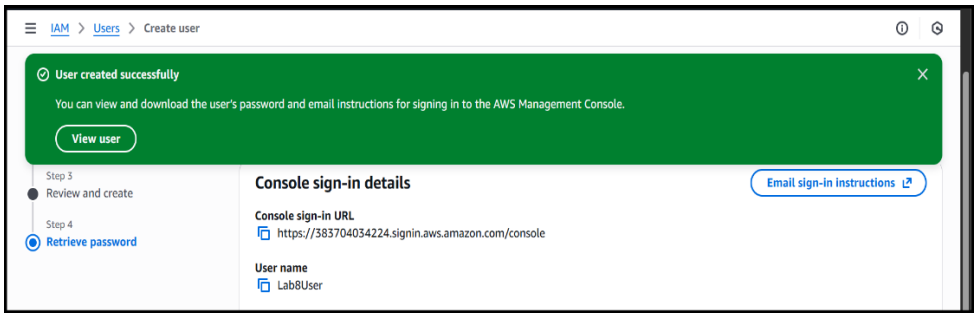
- **admin csv and signin url:**



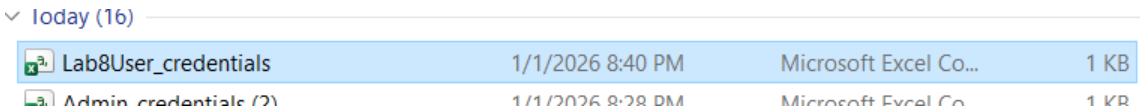
- **admin console after login:**



- **create lab8user and csv:**

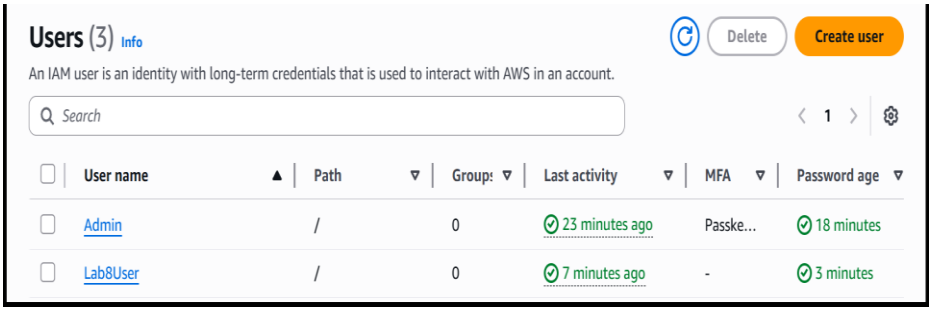


- **lab8user csv saved:**



- **lab8user logged in:**

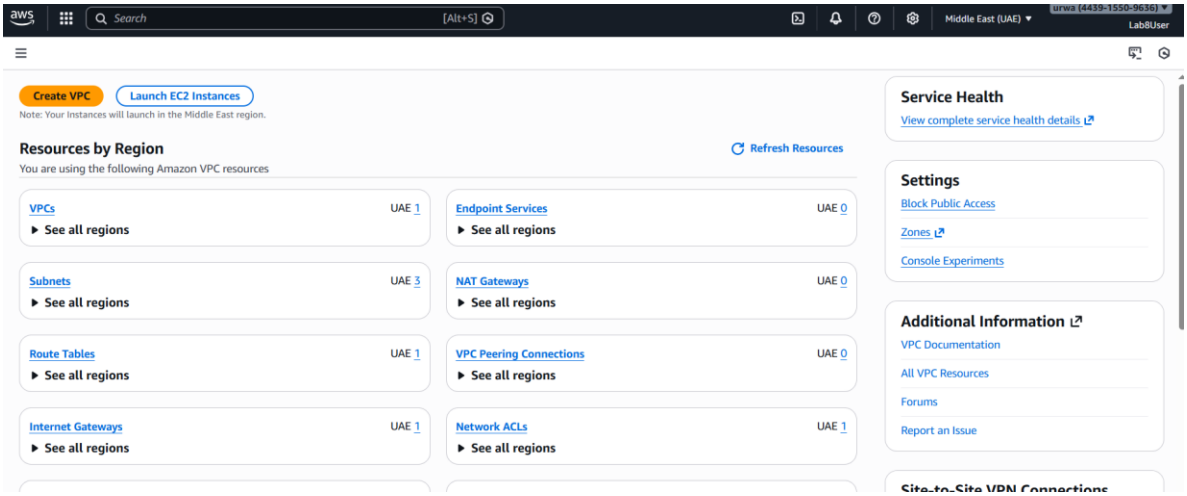
- **task2 summary:**



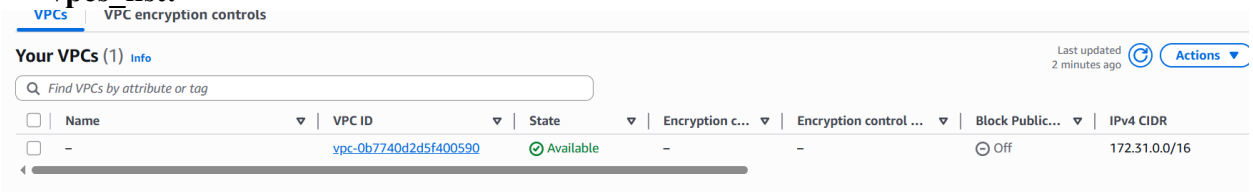
Task 3

Inspect VPC resources (in UAE me-central-1)

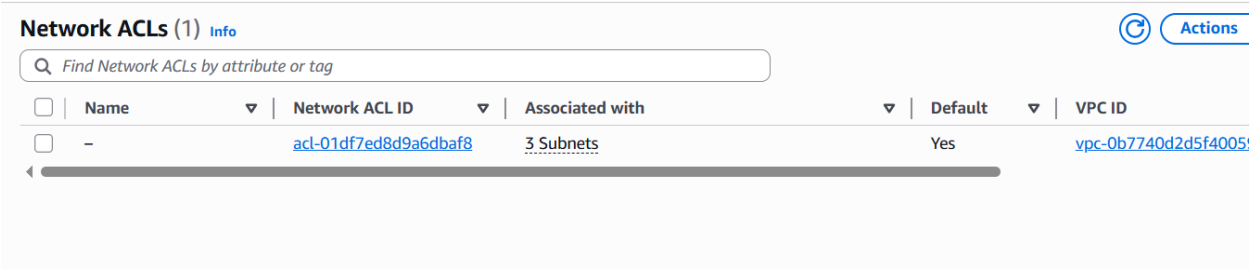
- **open_vpc_console:**



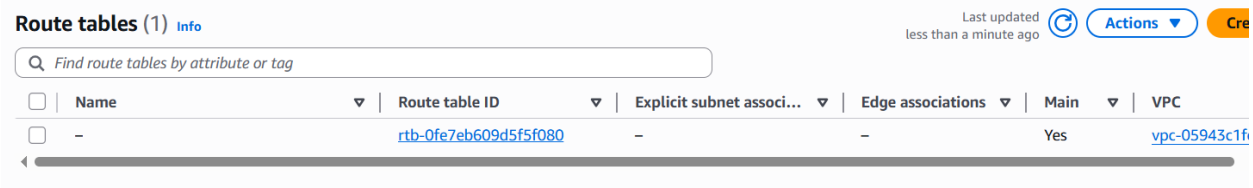
- **vpcs_list:**



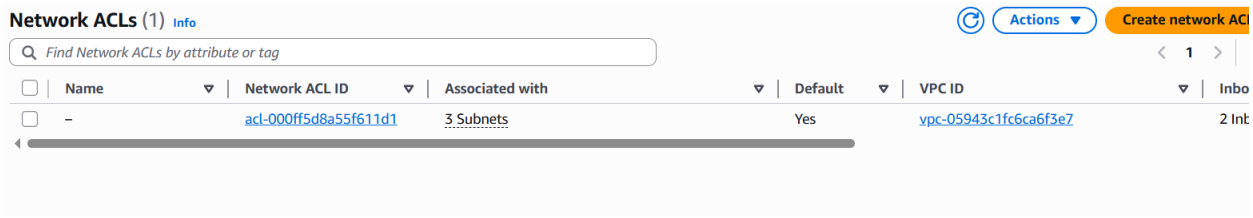
- **subnets_list:**



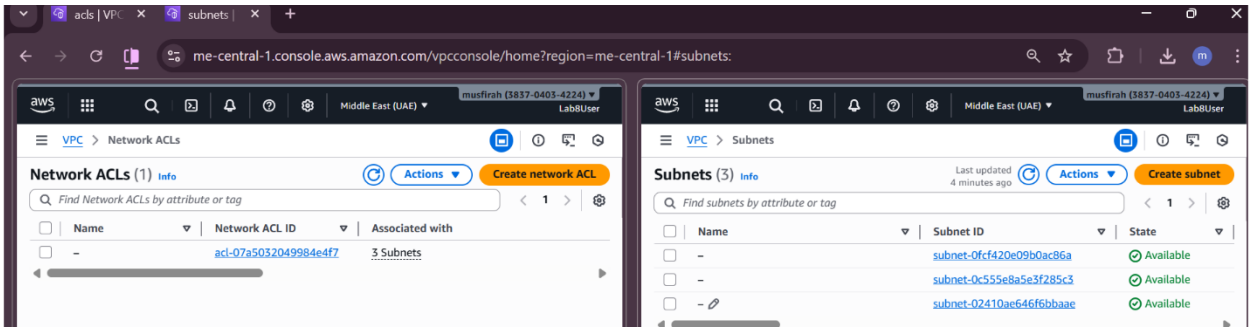
- **route_tables_list:**

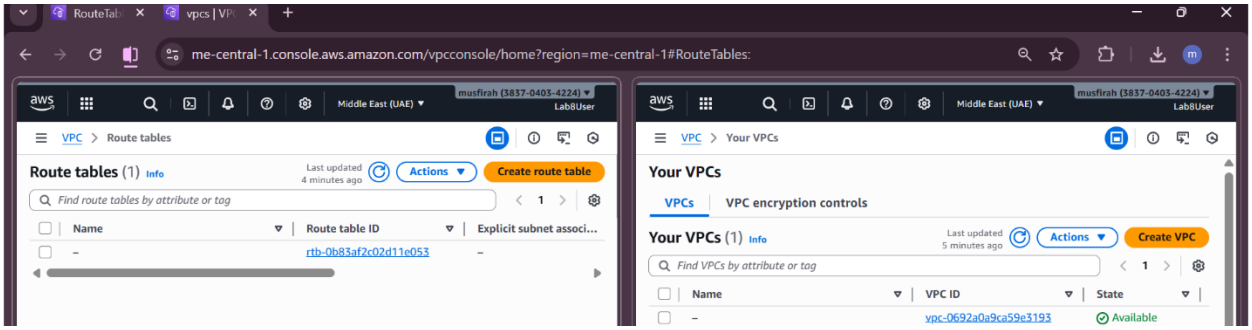


- **network_acls_list:**



- **summary:**

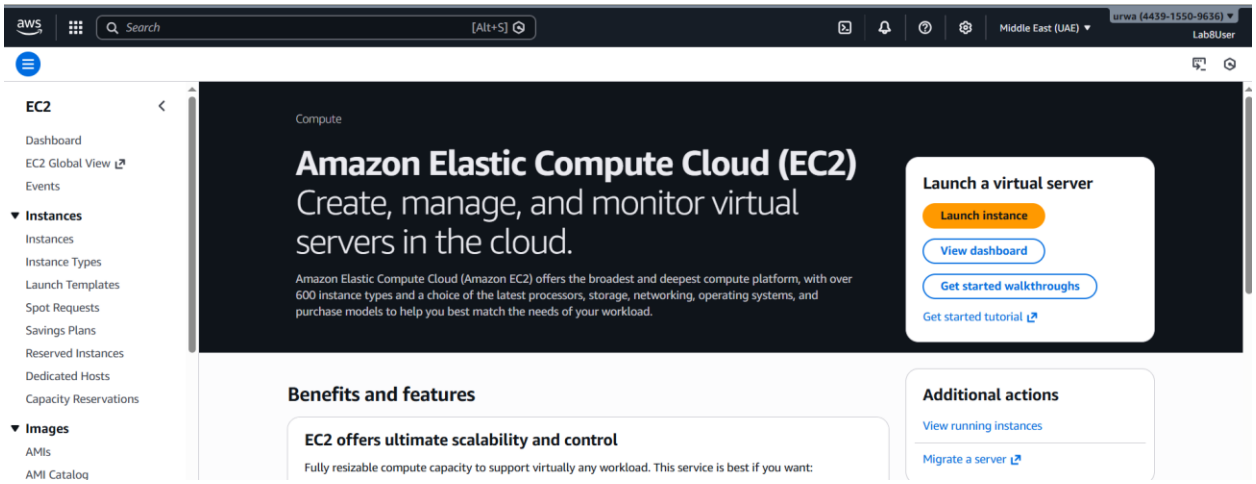




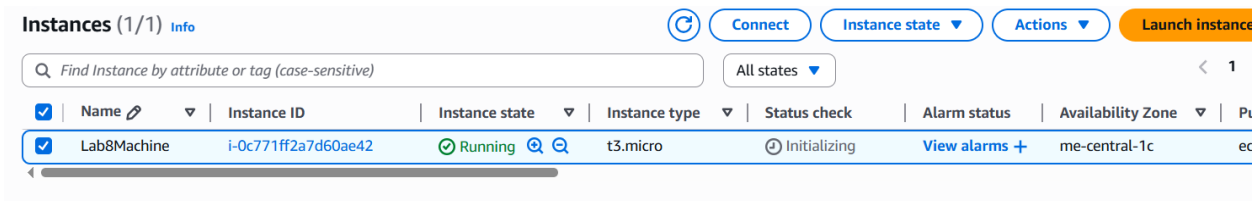
Task 4

Launch EC2, SSH, install Docker & Docker Compose, deploy Gitea

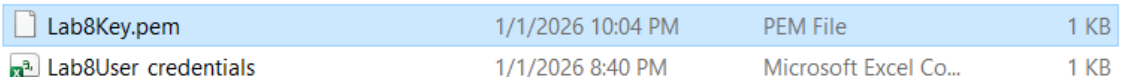
- **Open EC2 Console**



- **Launch Instance Config**

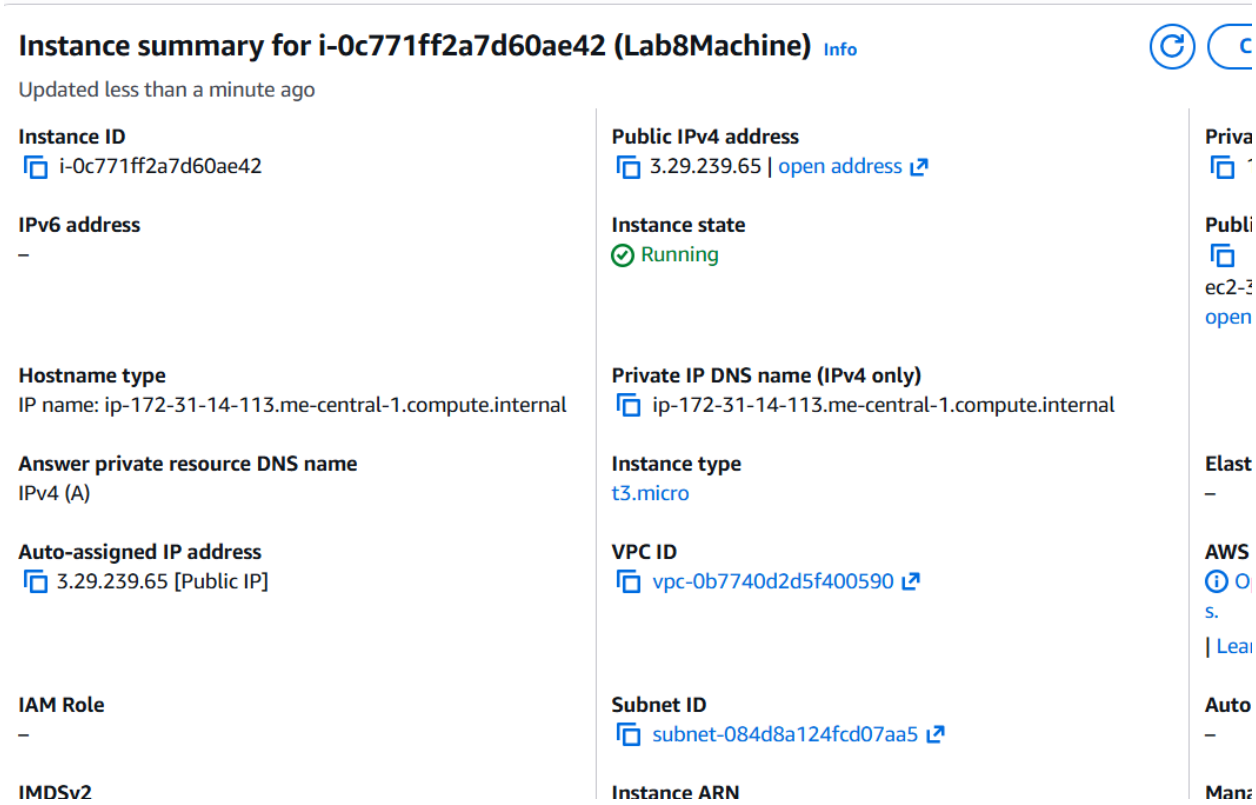


- **Keypair Download**

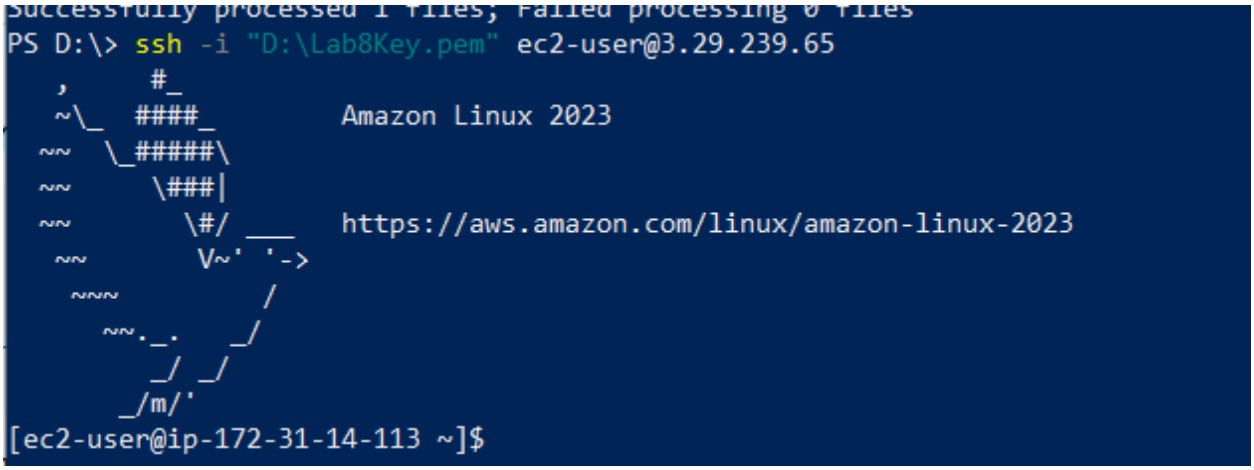


Lab8Key.pem	1/1/2026 10:04 PM	PEM File	1 KB
Lab8User credentials	1/1/2026 8:40 PM	Microsoft Excel Co...	1 KB

- **Instance Running Console**



- **SSH From Windows To EC2**



- **EC2 Install Docker Compose Started**

```
[ec2-user@ip-172-31-14-113 ~]$ sudo yum update -y
/local/lib/docker/cli-plugins
sudo curl -SL https://github.com/docker/compose/releases/latest/download/docker-compose-linux-x86_64 -o /usr/
ocker/cli-plugins/docker-compose
sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
sudo systemctl start dockersudo yum install -y docker
sudo mkdir -p /usr/local/lib/docker/cli-plugins
sudo curl -SL https://github.com/docker/compose/releases/latest/download/docker-compose-linux-x86_64 -o /usr/
ocker/cli-plugins/docker-compose
sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
sudo systemctl start docker
Amazon Linux 2023 Kernel Livepatch repository                                    252 kB/s |  29 kB
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-14-113 ~]$
```

- **Vim Compose YAML Paste**

ec2-user@ip-172-31-14-113:~

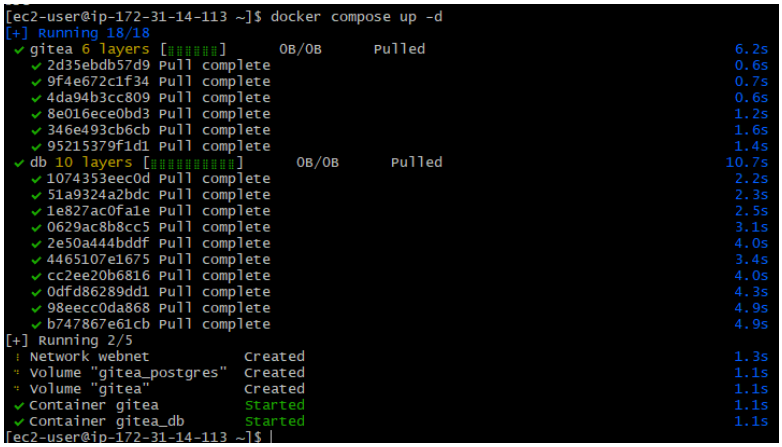
```
services:
  gitea:
    image: gitea/gitea:latest
    container_name: gitea
    environment:
      - DB_TYPE=postgres
      - DB_HOST=db:5432
      - DB_NAME=gitea
      - DB_USER=gitea
      - DB_PASSWD=gitea
    restart: always
    volumes:
      - gitea:/data
    ports:
      - 3000:3000
    extra_hosts:
      - "www.jenkins.com:host-gateway"
    networks:
      - webnet

  db:
    image: postgres:alpine
    container_name: gitea_db
    environment:
      - POSTGRES_USER=gitea
      - POSTGRES_PASSWORD=gitea
      - POSTGRES_DB=gitea
    restart: always
    volumes:
      - gitea_postgres:/var/lib/postgresql/data
    expose:
      - 5432
    networks:
      - webnet

volumes:
  gitea_postgres:
    name: gitea_postgres
  gitea:
    name: gitea

networks:
  webnet:
    name: webnet
#    external: true


# Gitea is not allowed to webhook to Jenkins folow these steps
# 1) Go to Gitea Container
# 2) cat /data/gitea/conf/app.ini
# 3) echo "[webhook]" >> /data/gitea/conf/app.ini
# 4) echo "ALLOWED_HOST_LIST = 192.168.65.2" >> /data/gitea/conf/app.ini
# Gitea Tautorials : https://www.youtube.com/watch?v=daW2CqH8TUA
~
~
~
```

- **Compose YAML Saved LS**

```
[ec2-user@ip-172-31-14-113 ~]$ ls -l
total 4
-rw-r--r--. 1 root root 1132 Jan  1 18:15 compose.yaml
[ec2-user@ip-172-31-14-113 ~]$
```

- **Usermod And Groups Before After**

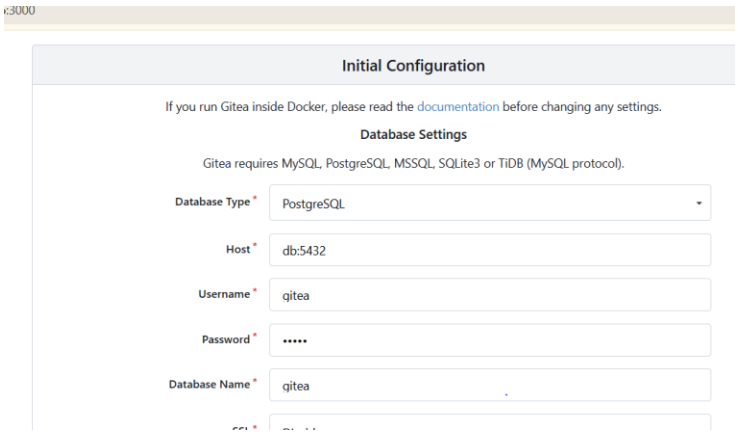
- **Docker Compose Up**



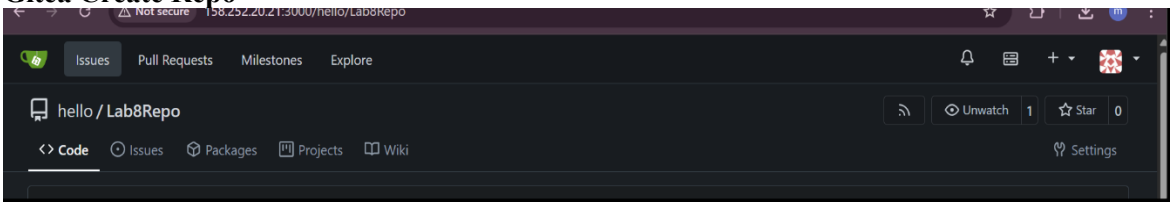
- **Security Group Allow 3000**

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Descripti
–	sgr-06becdc3ce6ff910e	IPv4	Custom TCP	TCP	3000	0.0.0.0/0	Gitea

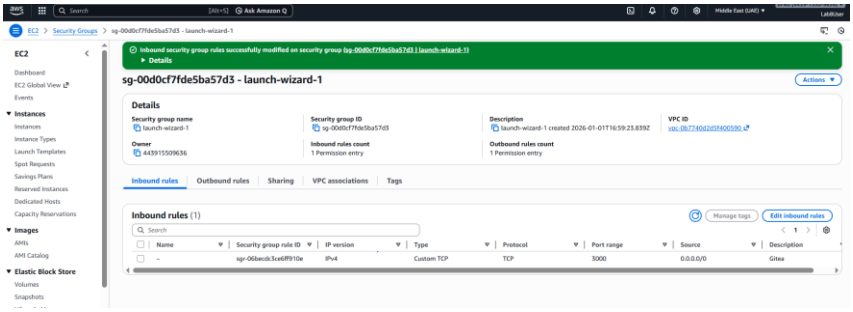
- **Gitea Install Page**



- **Gitea Create Repo**

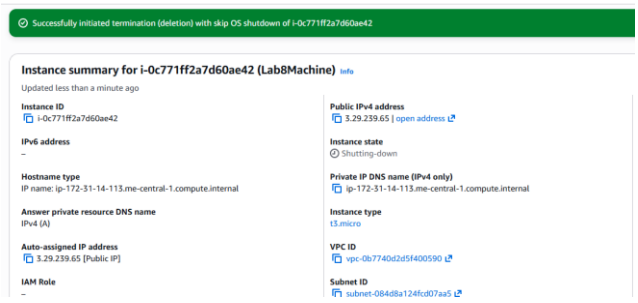


- **Summary**

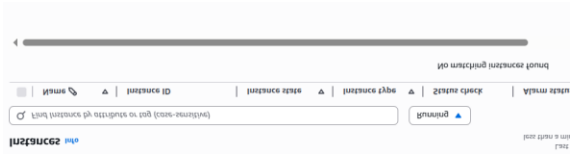


Cleanup — Remove resources to avoid charges

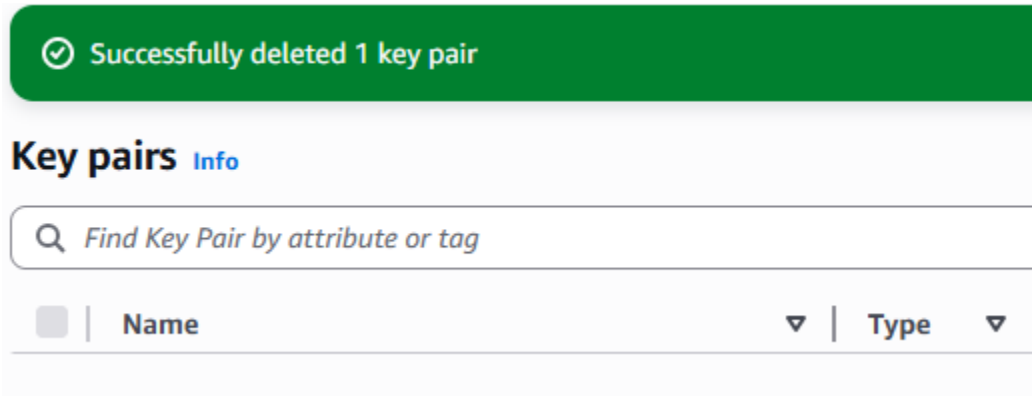
- **cleanup_terminate_instance**



- **cleanup_delete_volumes_snapshots**



- **cleanup_delete_security_group_and_keypair**



- **cleanup_iam_users_deleted**