

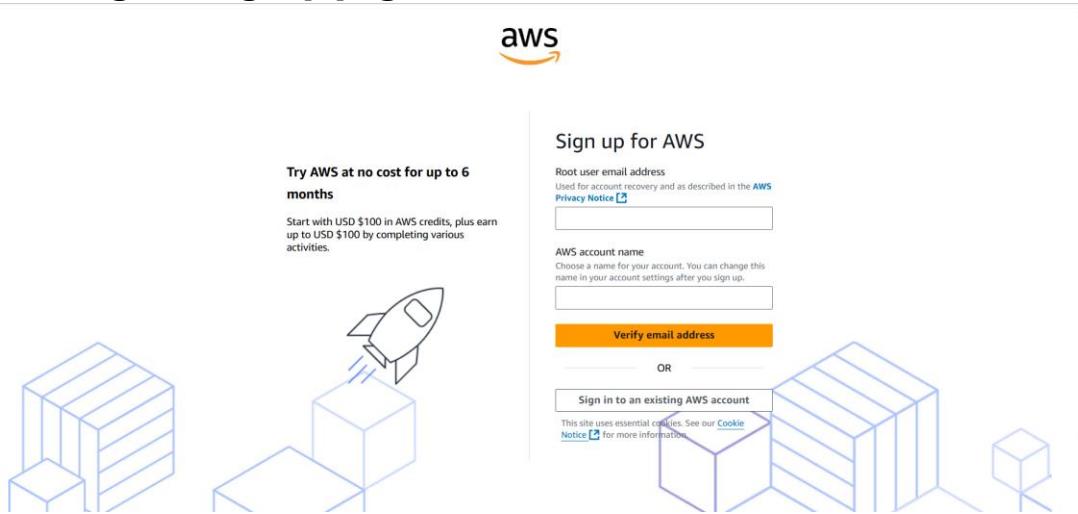
**Name:** Lujain Zia  
**Roll no:** 2023-BSE-034  
**Date:** November 21, 2025



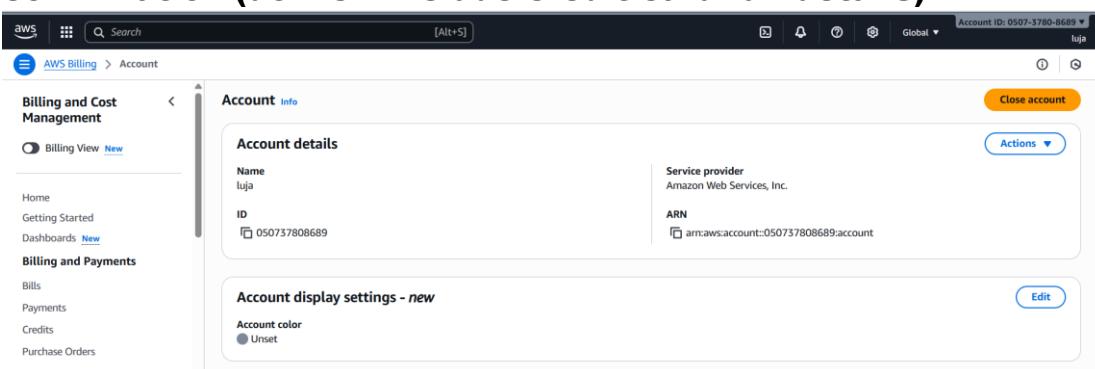
## Lab 8

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

**1. Open your browser and go to: AWS Signup  
Save screenshot as: task1\_open\_signup\_page.png — browser showing the signup page.**

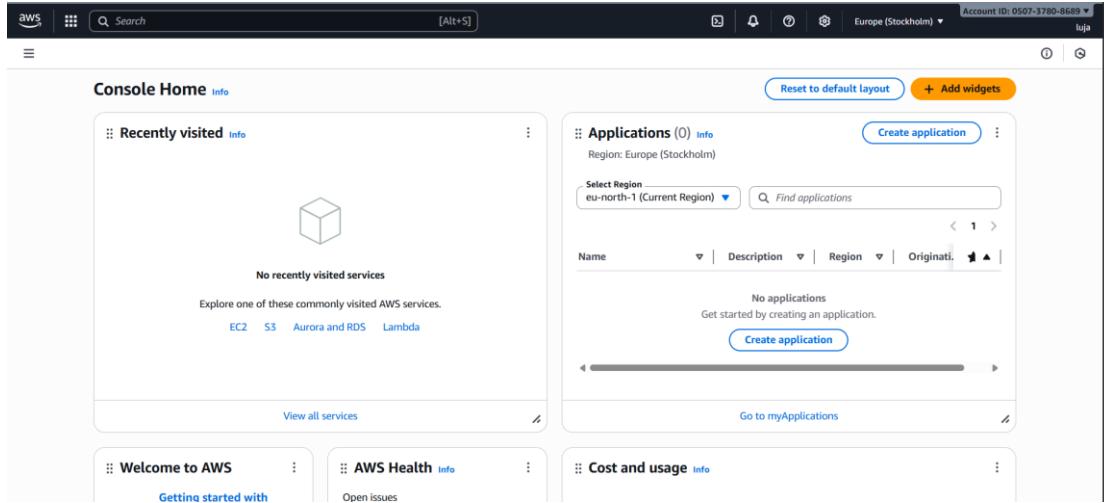


**2. Complete registration (Account type: Personal, Plan: AWS Paid Plan), fill contact, billing (credit card) and phone details, complete verification. After successful registration capture:  
Save screenshot as: task1\_signed\_up\_confirmation.png — registration success/confirmation page or payment confirmation (do NOT include credit card full details).**



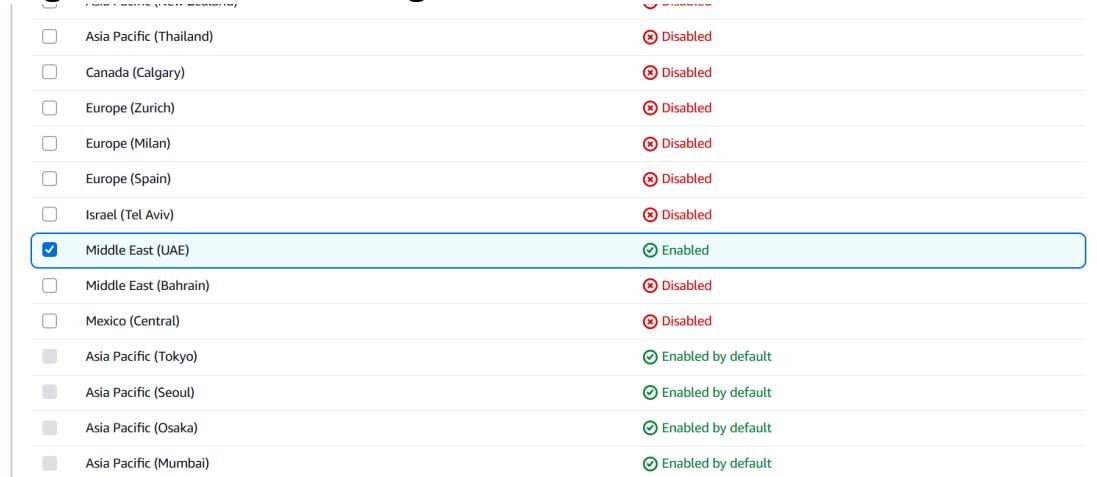
**3. Sign in as the root user (root email). Immediately capture:**

**Save screenshot as: task1\_root\_signed\_in.png — AWS Console Home after root login (top bar with root email/account alias visible).**



**4. From the Console, open the region selector and enable UAE (me-central-1), then switch to me-central-1. Capture the change**

**Save screenshot as: task1\_enable\_region\_me-central-1.png — region selector showing me-central-1 selected.**



**5. Task 1 summary screenshot (combine evidence):**

**Save screenshot as: task1\_summary.png — single screenshot showing root console header (root email/account alias) and region set to me-central-1.**



**Task 2 — Create IAM Admin and Lab8User with console access**

**1. Open IAM via Console search (Alt+S → "IAM").**

**Save screenshot as: task2\_open\_iam\_console.png — IAM console landing page (region me-central-1 visible).**



**2. Create the Admin user: IAM → Users → Create user. Fill:**

Username: Admin

**Provide user access to the AWS Management Console**

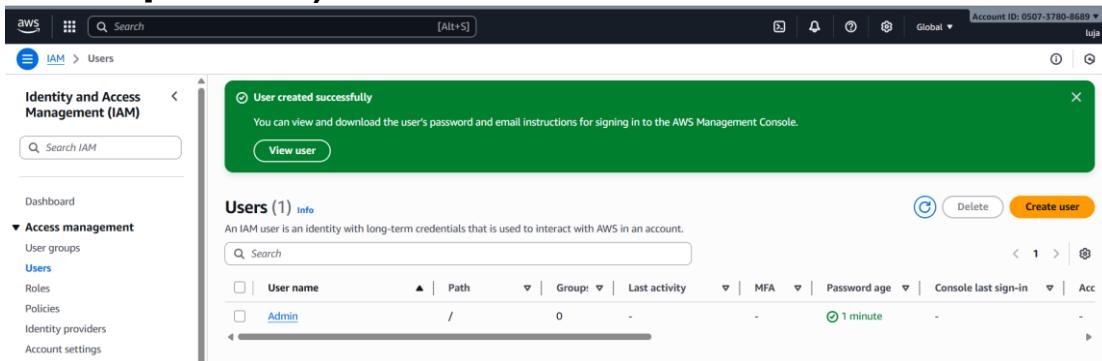
**Set console password (autogenerate or set)**

**Attach policies directly → AdministratorAccess**

**Capture the completion screen when user is created:**

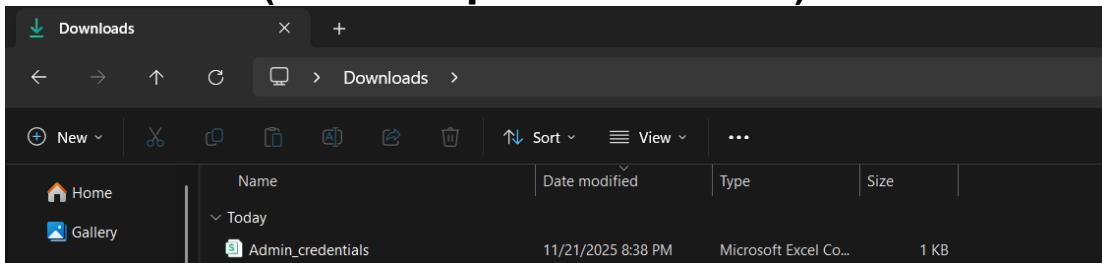
**Save screenshot as: task2\_admin\_create\_confirmation.png —**

**IAM "Create user" success screen showing Admin (do NOT include password).**



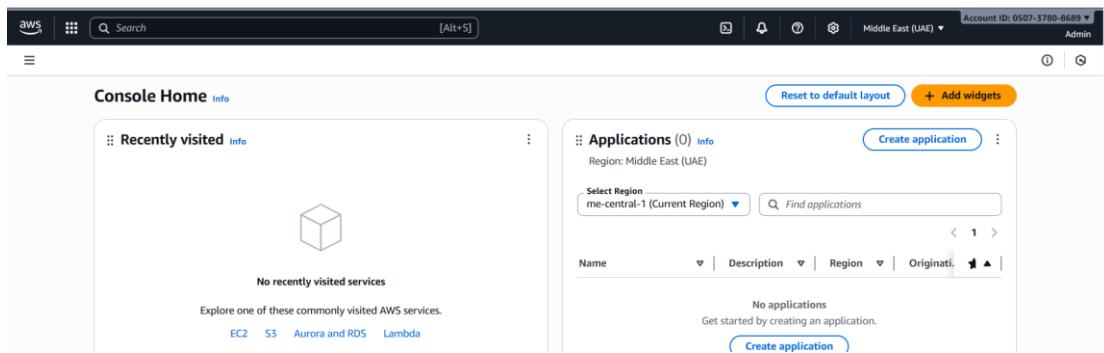
**3. Download the Admin .csv and show its presence on your Windows host (do not display the password text):**

**Save screenshot as: task2\_admin\_csv\_and\_signin\_url.png — Windows File Explorer showing the downloaded CSV filename and/or a cropped view of the CSV showing only the Sign-in URL and username (redact the password if visible).**



**4. Sign out of root, then sign in using the Admin account (use the signin URL from the .csv). Capture after successful Admin login:**

**Save screenshot as: task2\_admin\_console\_after\_login.png — Admin user console home.**



## 5. While logged in as Admin, create Lab8User:

IAM → Users → Create user

Username: Lab8User

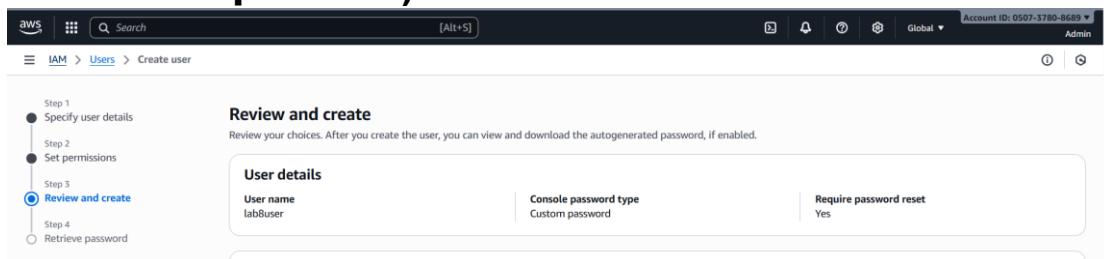
**Provide user access to the AWS Management Console**

**Attach AdministratorAccess policy**

**Capture the create-user success screen:**

**Save screenshot as: task2\_create\_lab8user\_and\_csv.png —**

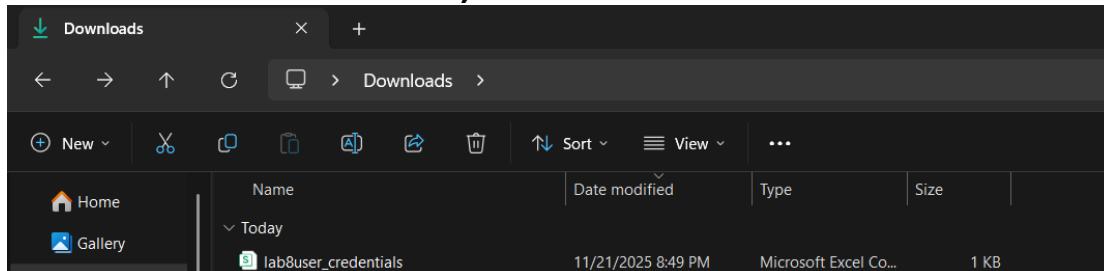
**Lab8User create confirmation and CSV download prompt (do NOT include password).**



## 6. Download/save the Lab8User CSV on your Windows host (do not show password).

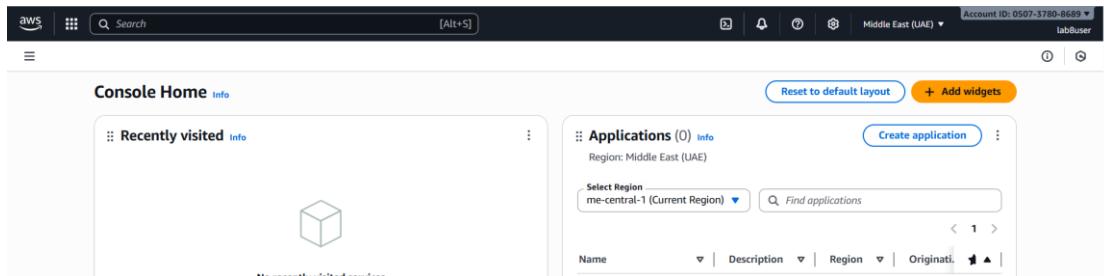
**Save screenshot as: task2\_lab8user\_csv\_saved.png — File**

**Explorer showing the Lab8User CSV filename (cropped to exclude sensitive content).**



## 7. Logout Admin and login as Lab8User (use the Lab8User signin URL and credentials). Capture after login:

**Save screenshot as: task2\_lab8user\_logged\_in.png — Lab8User console home.**



**8. Task 2 summary (combine evidence):  
Save screenshot as: task2\_summary.png — IAM Users list  
showing both Admin and Lab8User present (region me-central-1 visible).**

The screenshot shows the 'Users' list in the IAM service. It lists two users: 'Admin' and 'lab8User'. Both users have a path of '/' and a group of '0'. Their last activity was 12 minutes ago and 3 minutes ago respectively. Their password age is 10 minutes and 2 minutes respectively. Their console last sign-in was 12 minutes ago and 3 minutes ago respectively. There are buttons for 'Delete' and 'Create user' at the top right.

User Name	Path	Group	Last Activity	MFA	Password Age	Console Last Sign-In
Admin	/	0	12 minutes ago	-	10 minutes	12 minutes ago
lab8User	/	0	3 minutes ago	-	2 minutes	3 minutes ago

### Task 3 — Inspect VPC resources (in UAE me-central-1)

**1. Open VPC console (Alt+S → "VPC") while region is me-central-1.**

**Save screenshot as: task3\_open\_vpc\_console.png — VPC console landing page (region visible).**

The screenshot shows the VPC dashboard. On the left, there's a sidebar with 'Virtual private cloud' options like 'Your VPCs', 'Subnets', 'Route tables', etc. The main area shows 'Resources by Region' with sections for 'VPCs', 'Subnets', 'Route Tables', and 'Internet Gateways'. Each section has a link to 'See all regions'. To the right, there are 'Service Health' (with a link to 'View complete service health details'), 'Settings' (with links to 'Block Public Access', 'Zones', and 'Console Experiments'), and 'Additional Information' (with links to 'VPC Documentation', 'All VPC Resources', 'Forums', and 'Report an Issue').

### 2. View VPCs list. Capture:

**Save screenshot as: task3\_vpcs\_list.png — VPCs list view (show default VPC if present).**

The screenshot shows the AWS VPC dashboard with the Middle East (UAE) region selected. It displays various VPC resources with their counts in the UAE region:

- VPCs: UAE 1
- NAT Gateways: UAE 0
- Subnets: UAE 3
- VPC Peering Connections: UAE 0
- Route Tables: UAE 1
- Network ACLs: UAE 1
- Internet Gateways: UAE 1
- Security Groups: UAE 1
- Egress-only Internet Gateways: UAE 0
- Customer Gateways: UAE 0

### 3. View Subnets list. Capture:

**Save screenshot as: task3\_subnets\_list.png — Subnets list view (show at least 3 default subnets if present).**

The screenshot shows the Subnets list view with three default subnets listed:

Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
-	subnet-0b11cd485731a0ff7	Available	vpc-01b7d554ea60c902d	Off	172.31.32.0/20
-	subnet-09a23e3b14a74df6e	Available	vpc-01b7d554ea60c902d	Off	172.31.0.0/20
-	subnet-06e5d96b7c34d750f	Available	vpc-01b7d554ea60c902d	Off	172.31.16.0/20

### 4. View Route Tables list. Capture:

**Save screenshot as: task3\_route\_tables\_list.png — Route Tables list view.**

The screenshot shows the Route tables list view with one route table listed:

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
-	rta-0d9c9635ce1fa816e	-	-	Yes	vpc-01b7d554ea60c902d

### 5. View Network ACLs list. Capture:

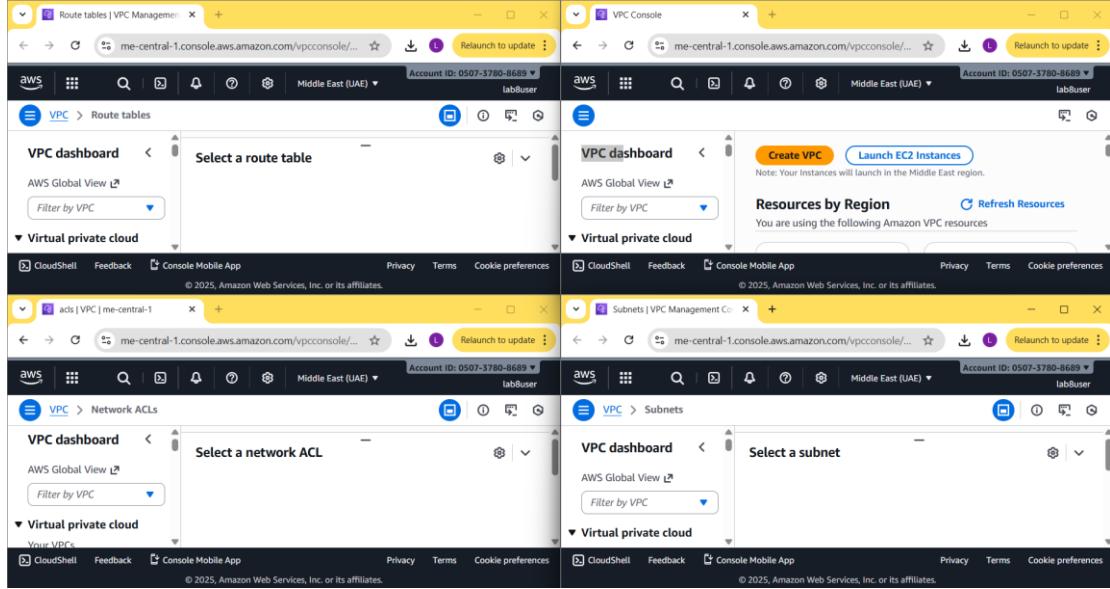
**Save screenshot as: task3\_network\_acls\_list.png — Network ACLs list view.**

The screenshot shows the Network ACLs list view with one Network ACL listed:

Name	Network ACL ID	Associated with	Default	VPC ID	Inbound
-	acl-038a129a7f4fa9b5	3 Subnets	Yes	vpc-01b7d554ea60c902d	2 Inbound

### 6. Task 3 summary (combine evidence):

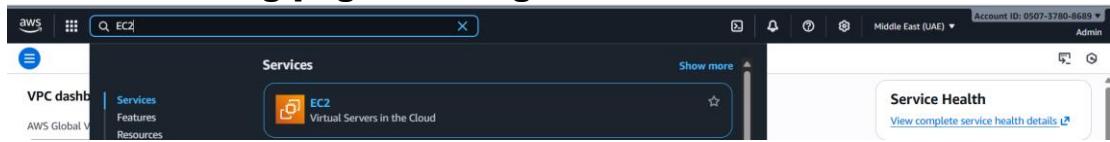
**Save screenshot as: task3\_summary.png — a single screenshot showing the VPC console left navigation and counts or multiple open tabs/windows tiled to show each resource's list (region me-central-1 visible).**



## **Task 4 — Launch EC2, SSH, install Docker & Docker Compose, deploy Gitea**

**1. Open EC2 Console (Alt+S → "EC2") (me-central-1).**

**Save screenshot as: task4\_open\_ec2\_console.png — EC2 console landing page with region visible.**



## **2. Instance Launch configuration (during review before launching). Configure:**

Name: Lab8Machine

**AMI: Amazon Linux 2**

**Instance type: t2.micro**

**Security group: Create Lab8SecurityGroup with SSH from My IP**

**Storage: default**

**Key pair: Create Lab8Key (ED25519, .pem) and download the .pem file to your Windows host**

**Capture the final review page and the key download prompt:**

**Save screenshot as: task4\_launch\_instance\_config.png — final review page showing instance name, AMI, type, security group, key pair.**

Instances (1) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
lab8machine	i-048d9bd7f3ce84ea5	Running	t3.micro	Initializing		me-central-1c	ec2-3-29-1e

**Save screenshot as: task4\_keypair\_download.png — Windows File Explorer showing Lab8Key.pem downloaded (do NOT open .pem contents).**

**3. After launch, EC2 Instances list showing Lab8Machine in "running" state and public IPv4 visible.**

**Save screenshot as: task4\_instance\_running\_console.png — Instances table with Lab8Machine running and Public IPv4.**

i-048d9bd7f3ce84ea5 (lab8machine)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary

Instance ID	Public IP4 address	Private IP4 addresses
i-048d9bd7f3ce84ea5	3.29.18.104   open address	172.31.1.144
IPv6 address	Instance state	Public DNS
-	Running	ec2-3-29-18-104.me-central-1.compute.amazonaws.com   open address

**4. On Windows host, run SSH using the downloaded .pem (PowerShell/Git Bash/Windows Terminal):**

```
ssh -i <path>/Lab8Key.pem ec2-user@<public-IP>
```

**Capture the SSH command and successful shell prompt on the EC2 instance:**

**Save screenshot as: task4\_ssh\_from\_windows\_to\_ec2.png — PowerShell showing ssh command and EC2 shell (do NOT show private key contents).**

```

PS C:\Users\user> ssh -i "C:\Users\user\Downloads\Lab8Key.pem" ec2-user@3.29.18.104
      _#
     /_###_      Amazon Linux 2023
    ~\_\####\_
    ~~ \###|
    ~~  \#/ __ https://aws.amazon.com/linux/amazon-linux-2023
    ~~   V~' '-->
    ~~~   /_
    ~~_. /_
    _/_/ /_
    /m/ /
[ec2-user@ip-172-31-1-144 ~]$ |

```

## 5. Run the install commands on the EC2 shell:

```

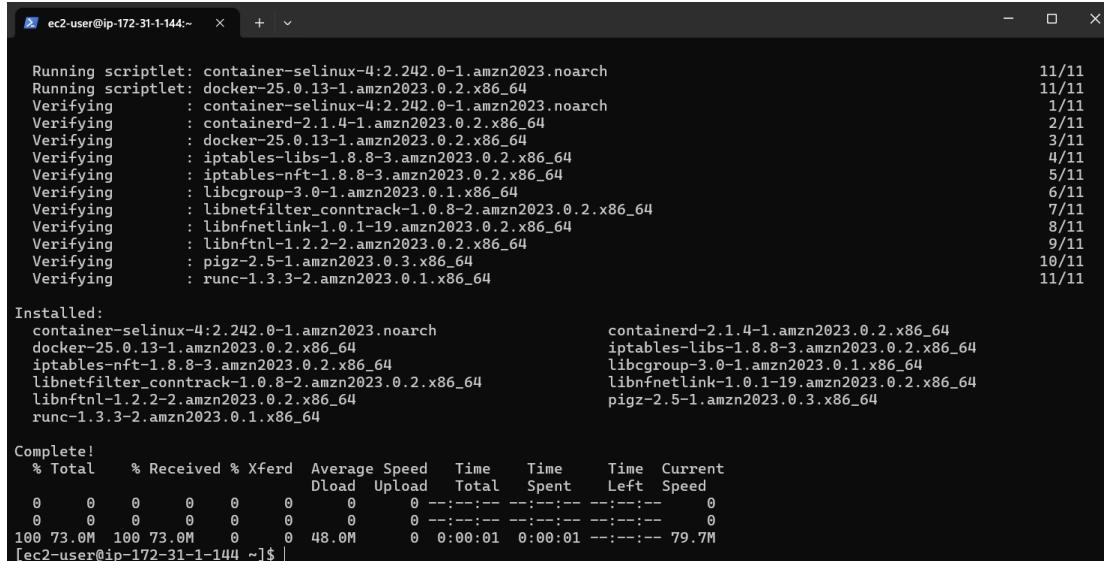
sudo yum update -y
sudo yum install -y docker
sudo mkdir -p /usr/local/lib/docker/cli-plugins
sudo curl -SL
https://github.com/docker/compose/releases/latest/download/docker-
compose-linux-x86_64 -o /usr/local/lib/docker/cli-plugins/docker-compose
sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
sudo systemctl start docker

```

**Capture the terminal showing these commands run and successful outputs:**

**Save screenshot**

**as: task4\_ec2\_install\_docker\_compose\_started.png — outputs of update/install and systemctl start.**



```

ec2-user@ip-172-31-1-144:~ x + v

Running scriptlet: container-selinux-4:2.242.0-1.amzn2023.noarch          11/11
Running scriptlet: docker-25.0.13-1.amzn2023.0.2.x86_64                  11/11
Verifying : container-selinux-4:2.242.0-1.amzn2023.noarch                1/11
Verifying : containerd-2.1.4-1.amzn2023.0.2.x86_64                     2/11
Verifying : docker-25.0.13-1.amzn2023.0.2.x86_64                      3/11
Verifying : iptables-libc-1.8.8-3.amzn2023.0.2.x86_64                   4/11
Verifying : iptables-nft-1.8.8-3.amzn2023.0.2.x86_64                   5/11
Verifying : libcgroup-3.0-1.amzn2023.0.1.x86_64                         6/11
Verifying : libnetfilter_conntrack-1.0.8-2.amzn2023.0.2.x86_64           7/11
Verifying : libnftnl-1.0.1-19.amzn2023.0.2.x86_64                        8/11
Verifying : libnftnl-1.2.2-2.amzn2023.0.2.x86_64                         9/11
Verifying : pigz-2.5-1.amzn2023.0.3.x86_64                           10/11
Verifying : runc-1.3.3-2.amzn2023.0.1.x86_64                         11/11

Installed:
  container-selinux-4:2.242.0-1.amzn2023.noarch
  docker-25.0.13-1.amzn2023.0.2.x86_64
  iptables-nft-1.8.8-3.amzn2023.0.2.x86_64
  libnftnl_conntrack-1.0.8-2.amzn2023.0.2.x86_64
  libnftnl-1.2.2-2.amzn2023.0.2.x86_64
  runc-1.3.3-2.amzn2023.0.1.x86_64

containerd-2.1.4-1.amzn2023.0.2.x86_64
iptables-libc-1.8.8-3.amzn2023.0.2.x86_64
libcgroup-3.0-1.amzn2023.0.1.x86_64
libnftnl-1.0.1-19.amzn2023.0.2.x86_64
pigz-2.5-1.amzn2023.0.3.x86_64

Complete!
% Total    % Received % Xferd  Average Speed   Time   Time   Time  Current
          Dload  Upload Total Spent   Left  Speed
0       0      0      0      0      0      0      0      0      0
0       0      0      0      0      0      0      0      0      0
100  73.0M  100  73.0M  0      48.0M      0:00:01  0:00:01  --:--:-- 79.7M
[ec2-user@ip-172-31-1-144 ~]$ |

```

**6. Create/edit compose.yaml on the EC2 instance (sudo vim compose.yaml) and paste content from the repo: Gitea . While pasting, capture the editor content:**

**Save screenshot as: task4\_vim\_compose\_yaml\_paste.png — vim editor showing compose.yaml contents while pasted.**

```

ec2-user@ip-172-31-1-144:~ - + v
  - 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 follow 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 Tutorials : https://www.youtube.com/watch?v=daw2CqH8TUA

```

45,0-1 Bot

## 7. Save and verify file exists:

**Save screenshot as: task4\_compose\_yaml\_saved\_ls.png — ls -l showing compose.yaml present.**

```
[ec2-user@ip-172-31-1-144 ~]$ ls -l
total 4
-rw-r--r--. 1 root root 1126 Nov 21 16:36 compose.yaml
[ec2-user@ip-172-31-1-144 ~]$ |
```

## 8. Add ec2-user to docker group, show groups before re-login, exit and reconnect, show groups after reconnect:

```
groups # user does not docker permission
sudo usermod -aG docker $USER
groups # before re-login
ssh -i <path>/Lab8Key.pem ec2-user@<public-IP>
groups # after re-login (should include docker)
```

**Save screenshot**

**as: task4\_usermod\_and\_groups\_before\_after.png — show usermod command, groups output before exit, reconnect sequence, and groups output after (docker included).**

```

[ec2-user@ip-172-31-1-144 ~]$ groups
sudo usermod -aG docker $USER
groups
exit
ec2-user adm wheel systemd-journal
ec2-user adm wheel systemd-journal
logout
Connection to 3.29.18.104 closed.
PS C:\Users\user> ssh -i "C:\Users\user\Downloads\Lab8Key.pem" ec2-user@3.29.18.104
'~\_ _###_          Amazon Linux 2023
~~ \#####\
~~ \###]
~~ \#/ ___ https://aws.amazon.com/linux/amazon-linux-2023
~~ V~' '-->
~~ /
~~ .-
~/ -/
/_m/`_
Last login: Fri Nov 21 16:31:48 2025 from 154.192.18.62
[ec2-user@ip-172-31-1-144 ~]$ groups
ec2-user adm wheel systemd-journal docker
[ec2-user@ip-172-31-1-144 ~]$ |

```

## 9. Run docker compose up -d from the directory with compose.yaml:

docker compose up -d

**Save screenshot as: task4\_docker\_compose\_up.png — output of docker compose up -d showing containers starting.**

```

[ec2-user@ip-172-31-1-144 ~]$ docker compose up -d
[+] Running 17/17
  ✓ db Pulled
    ✓ 87aaaf2c1f39b Pull complete      17.5s
    ✓ 84ae6d252b40 Pull complete      3.4s
    ✓ 7dd90d8c5ae5 Pull complete      5.1s
    ✓ d58703585b9c Pull complete      5.1s
    ✓ 3174f2a00dc7 Pull complete      14.0s
    ✓ 9e4eaf63327c Pull complete      14.0s
    ✓ 4b67a2fbf223 Pull complete      14.0s
    ✓ f6c5971200e2 Pull complete      14.0s
    ✓ 9c312a93b89a Pull complete      14.0s
  ✓ gitea Pulled
    ✓ 2d35ebdb57d9 Pull complete      9.6s
    ✓ 7b628712e36f Pull complete      2.0s
    ✓ 84e269a08d42 Pull complete      3.1s
    ✓ ed62dfa4e32 Pull complete      3.1s
    ✓ b0e526e23464 Pull complete      3.1s
    ✓ 3ca2f02af57 Pull complete      6.3s
    ✓ 3ca2f02af57 Pull complete      6.5s
[+] Running 5/5
  ✓ Network webnet      Created      0.2s
  ✓ Volume gitea        Created      0.0s
  ✓ Volume gitea_postgres Created      0.0s
  ✓ Container gitea     Started      0.0s
  ✓ Container gitea_db  Started      0.9s
[ec2-user@ip-172-31-1-144 ~]$ |

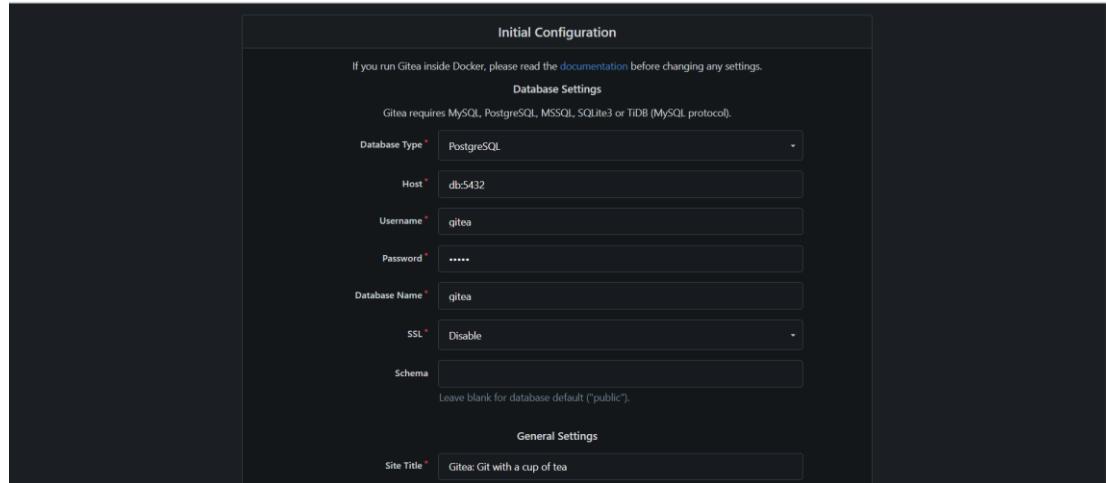
```

## 10. Edit the security group Lab8SecurityGroup inbound rules in the EC2 console: add Custom TCP rule port 3000 source 0.0.0.0/0 and save. Capture the inbound rules after saving: Save screenshot as: task4\_security\_group\_allow\_3000.png — security group inbound rules list showing SSH from My IP and Custom TCP 3000 anywhere.

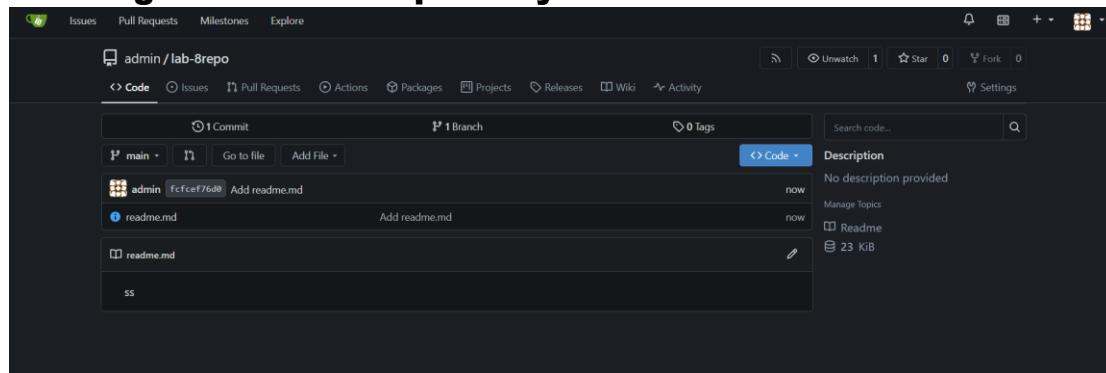
Inbound rules (1)						
Search		Manage tags		Edit inbound rules		
Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
-	sgr-0d6f3bd04c2b614c0	IPv4	Custom TCP	TCP	3000	0.0.0.0/0

## 11. From your Windows browser navigate to: http://Public-IP:3000 — capture the Gitea setup/install page:

**Save screenshot as: task4\_gitea\_install\_page.png — Gitea installation page in browser.**



**12. Complete initial Gitea setup (create admin user, create a repo) and capture Gitea showing the created repository:  
Save screenshot as: task4\_gitea\_create\_repo.png — Gitea UI showing the created repository.**



**13. Task 4 summary (combine evidence)**  
**Save screenshot as: task4\_summary.png — single screenshot (or tiled screenshot) showing: EC2 Instances list with Lab8Machine running and public IP, security group inbound rules showing SSH and port 3000, and browser tab open to Gitea UI or repo list.**  
**task4\_summary.png**

## Cleanup — Remove resources to avoid charges

**After verification, terminate and delete everything you created.  
Capture screenshots immediately after each cleanup step.**

**Cleanup steps and required screenshots:**

**1. Terminate the EC2 instance Lab8Machine.**

**Save screenshot as: cleanup\_terminate\_instance.png — EC2 terminate instance confirmation.**

**2. Delete associated EBS volumes and snapshots (if any).**

**Save screenshot as: cleanup\_delete\_volumes\_snapshots.png — confirmation or list showing volumes/snapshots deleted.**

**3. Delete security group Lab8SecurityGroup and key pair Lab8Key from the EC2 console (after instances terminated).**

**Save screenshot**

**as: cleanup\_delete\_security\_group\_and\_keypair.png — deletion confirmation(s) (show key pair list and security group list after deletion).**

The screenshot shows two separate AWS EC2 management pages. The top page is titled 'Security Groups' and displays a table of security groups. A green success message at the top states: 'Security group (sg-03901ce9a507ef374 | lab8securitygroup) successfully deleted'. The table lists two rows: 'sg-0851e2a278e0ffd34' (Name), 'default' (Security group name), 'ypc-01b7d554ea60c902d' (VPC ID), and 'default VPC security' (Description). The bottom page is titled 'Key pairs' and also shows a table. A green success message at the top states: 'Successfully deleted 1 key pairs'. The table lists one row: 'keypair1' (Name), 'keypair1' (Fingerprint), and 'keypair1' (Last used).

#### **4. Delete IAM users Lab8User and any access keys.**

**Save screenshot as: cleanup\_iam\_users\_deleted.png — IAM Users list showing Admin and Lab8User no longer present (or a deletion confirmation).**

The screenshot shows the 'Users' page under the 'Access management' section of the AWS IAM console. The title bar says 'Users (0)'. A message below the title states: 'An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.' A search bar labeled 'Search IAM' is present. The main table header includes columns for 'User name', 'Path', 'Group', 'Last activity', 'MFA', 'Password age', 'Console last sign-in', and 'Acc'. Below the table, a message reads: 'No resources to display'.

#### **5. Final cleanup summary (show billing or resource groups with no active resources if possible).**

**Save screenshot as: cleanup\_summary.png — AWS console Billing/Resource Groups showing no active resources or no recent charges (if available).**

The screenshot shows the 'Bills' page under the 'Billing and Cost Management' section. The title bar says 'Bills'. A message at the top left says: 'Page refresh time: Friday, November 21, 2025 at 9:57:41 PM GMT+5'. There are download and print buttons, and a 'Billing period: November 2025' dropdown set to 'November 1 - November 30, 2025'. The main content area is titled 'AWS bill summary' and contains sections for 'Account ID' (050737808689), 'Billing period info' (November 1 - November 30, 2025), and 'Payment information'. A note says: 'No data' and 'There is no data to display.' At the bottom, it shows 'Estimated grand total: USD 0.00'.