



Fatima Jinnah Women University

Opening Portals of Excellence Through Higher Education

CLOUD COMPUTING LAB 8

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

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Registration no.: 2023-BSE-035


Task 1 — AWS Root Account + UAE Region

task1_open_signup_page.png



Try AWS at no cost for up to 6 months

Start with USD \$100 in AWS credits, plus earn up to USD \$100 by completing various activities.



Sign up for AWS

Root user email address
Used for account recovery and as described in the [AWS Privacy Notice](#)

AWS account name
Choose a name for your account. You can change this name in your account settings after you sign up.

Verify email address

OR

Sign in to an existing AWS account

This site uses essential cookies. See our [Cookie Notice](#) for more information.

task1_signed_up_confirmation.png

eu-north-1.console.aws.amazon.com/console/home?region=eu-north-1#

aws

Search

[Alt+S]

Europe (Stockholm)


Account ID: 9179-1478-
Maham%20

Console Home

Reset to default layout

+ Add widget

Recently visited



No recently visited services

Applications (0)

Region: Europe (Stockholm)

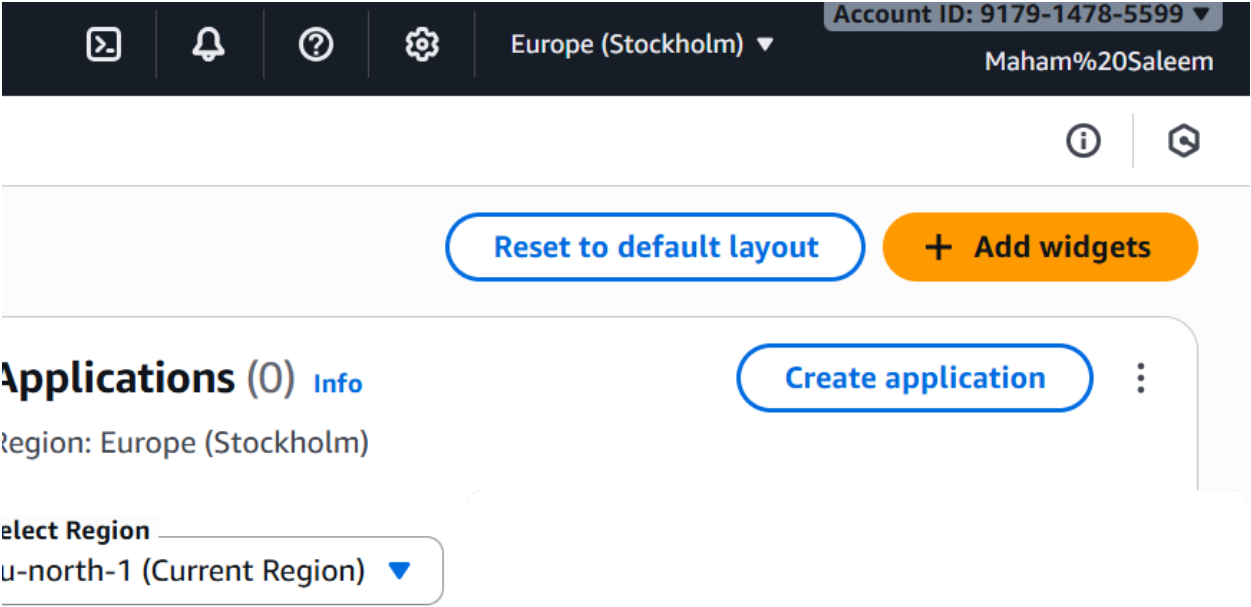
Select Region
eu-north-1 (Current Region)

Find applications

< 1

Name	Description	Region	Orig
The data couldn't be retrieved. Try again later.			

task1_root_signed_in.png

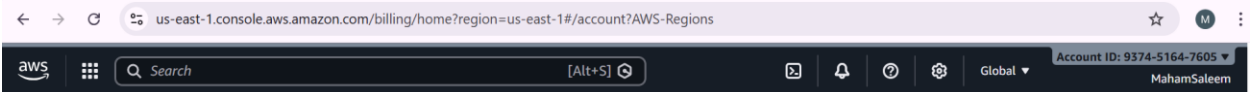


task1_enable_region_me-central-1.png

from the region selector located in the top navigation bar.

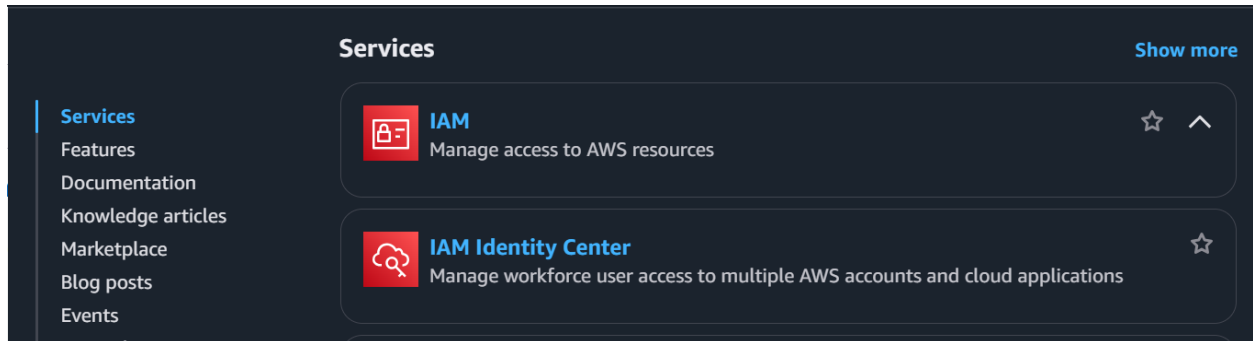
<input type="checkbox"/>	Asia Pacific (Thailand)	⊗ Disabled
<input type="checkbox"/>	Canada (Calgary)	⊗ Disabled
<input type="checkbox"/>	Europe (Zurich)	⊗ Disabled
<input type="checkbox"/>	Europe (Milan)	⊗ Disabled
<input type="checkbox"/>	Europe (Spain)	⊗ Disabled
<input type="checkbox"/>	Israel (Tel Aviv)	⊗ Disabled
<input type="checkbox"/>	Middle East (UAE)	⊙ Enabled
<input type="checkbox"/>	Middle East (Bahrain)	⊗ Disabled
<input type="checkbox"/>	Mexico (Central)	⊗ Disabled
<input checked="" type="checkbox"/>	Asia Pacific (Tokyo)	⊙ Enabled by default
<input checked="" type="checkbox"/>	Asia Pacific (Seoul)	⊙ Enabled by default

task1_summary.png

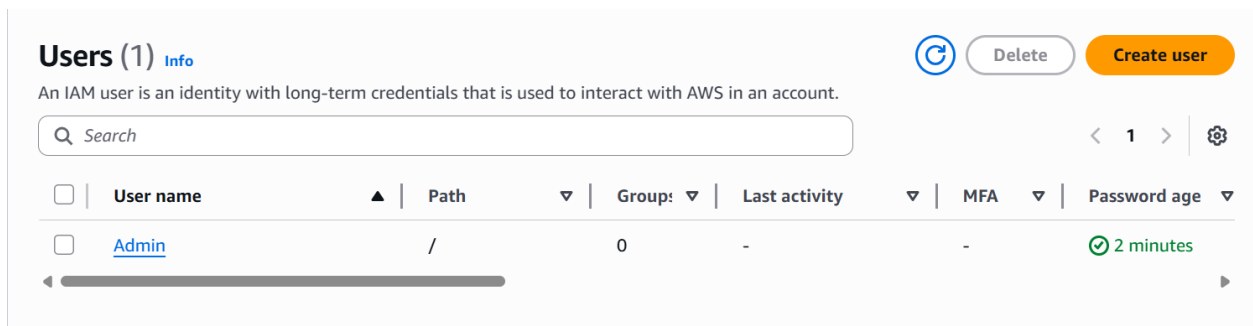


Task 2 — IAM Admin + Lab8User

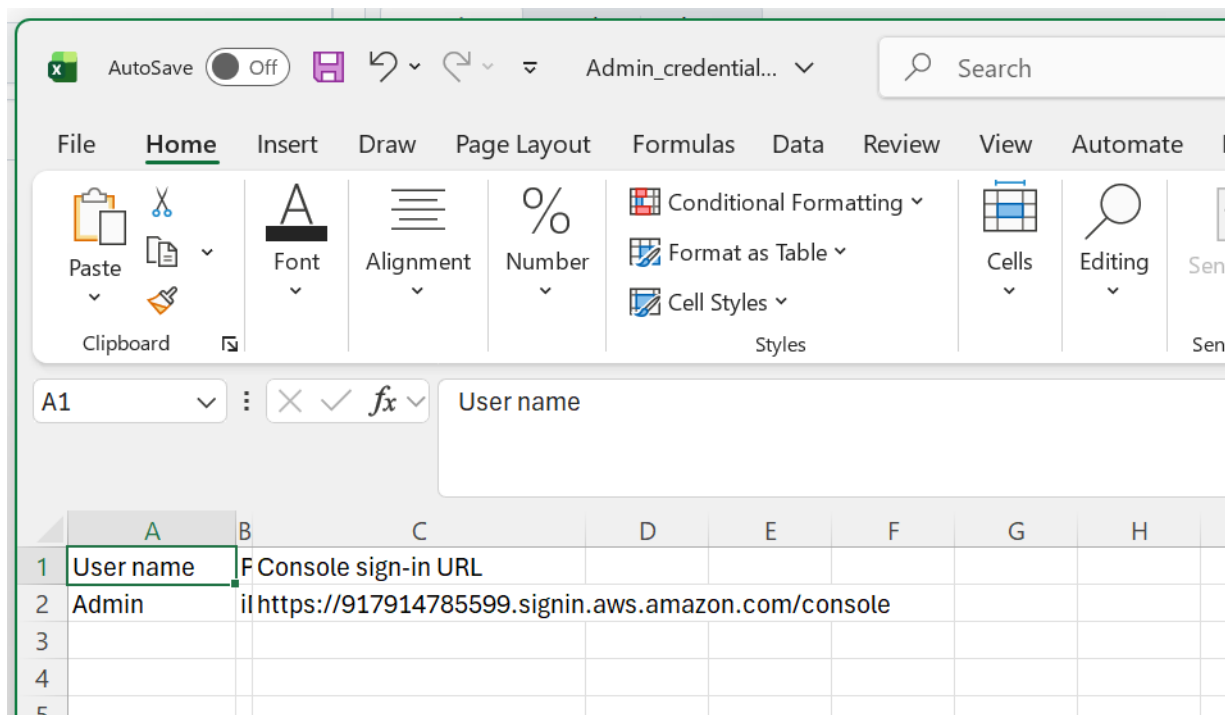
task2_open_iam_console.png



task2_admin_create_confirmation.png



task2_admin_csv_and_signin_url.png



task2_admin_console_after_login.png

Applications (0)

Info

Region: Europe (Stockholm)

Select Region
eu-north-1 (Current Region) ▼

Find applications

< 1 >

Name	Description	Region	Origin
No applications			
Get started by creating an application.			

Create application

task2_create_lab8user_and_csv.png

User name	Path	Group:	Last a
Admin	/	0	-
Lab8User	/	0	-

task2_lab8user_csv_saved.png

▼ Today

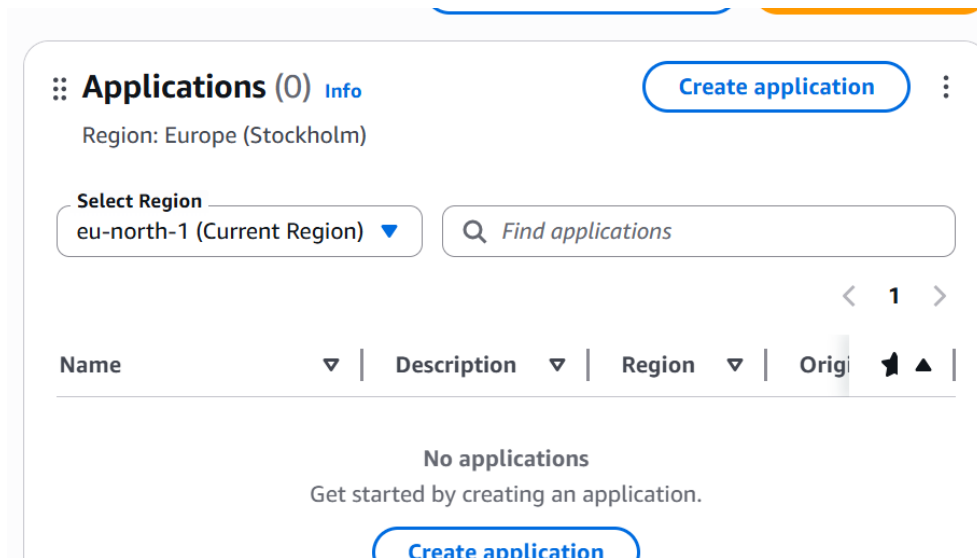
 Lab8User_credentials

29/12/2025 12:45 am

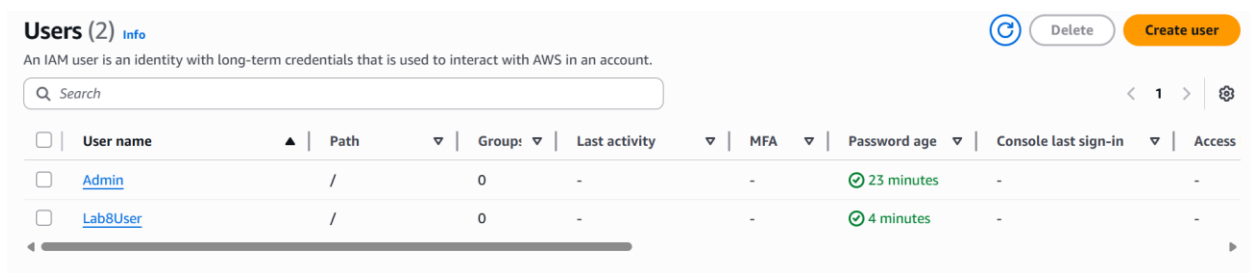
 Admin_credentials

29/12/2025 12:28 am

task2_lab8user_logged_in.png

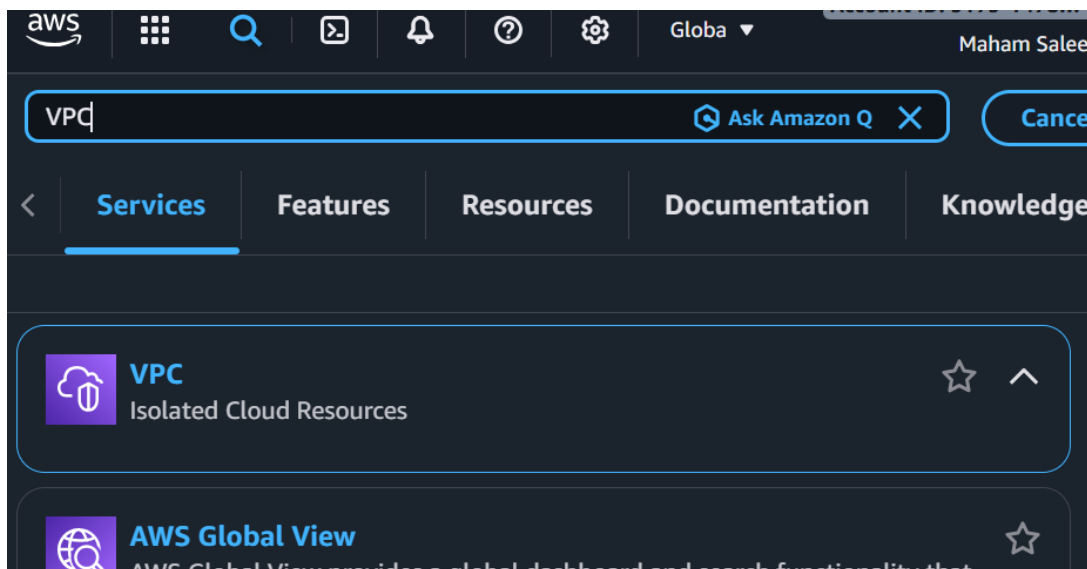


task2_summary.png



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

task3_open_vpc_console.png



task3_vpcs_list.png

Your VPCs

[VPCs](#) | VPC encryption controls

Your VPCs (1) [Info](#)

Last updated less than a minute ago [Refresh](#) [Actions](#) [Create VPC](#)

 Find VPCs by attribute or tag

< 1 > ⚙️

<input type="checkbox"/>	Name	VPC ID	State	Encryption c...	Encryption contrc
<input type="checkbox"/>	-	vpc-0150a748e8b23a223	Available	-	-

Select a VPC above

⚙️ | ▼

task3_subnets_list.png

Subnets (3) Info

Last updated 2 minutes ago

Actions

Create subnet

<input type="checkbox"/>	Name	Subnet ID	State	VPC
<input type="checkbox"/>	-	subnet-0a8173e72ae409469	Available	vpc-0150a748e8b23a223
<input type="checkbox"/>	-	subnet-05c55c2cb6b1868dd	Available	vpc-0150a748e8b23a223
<input type="checkbox"/>	-	subnet-0e33e9783037e4454	Available	vpc-0150a748e8b23a223

task3_route_tables_list.png

Route tables (1) [Info](#)

Last updated 3 minutes ago

Actions

Create route table

<

1

>

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associ...	Edge associations	Main
<input type="checkbox"/>	-	rtb-013ed0fedffd21316	-	-	Yes

task3_network_acs_list.png

Network ACLs (1) Info					Refresh		Actions	Create network ACL
<input type="text" value="Find Network ACLs by attribute or tag"/>					<		1	>
<input type="checkbox"/>	Name	Network ACL ID	Associated with	Default	VPC ID			
<input type="checkbox"/>	-	acl-0a144e052ac2953b6	3 Subnets	Yes	vpc-0150a748			

task3_summary.png

The screenshot shows the AWS Management Console interface for the Stockholm region. At the top, there's a navigation bar with the AWS logo, a search bar, and account information (Account ID: 9179-1478-5599, Maham Saleen). Below the navigation bar, the main content area is titled "Resources by Region" and includes a "Refresh Resources" button. The resources are categorized into VPCs, Subnets, Route Tables, Endpoint Services, NAT Gateways, and VPC Peering Connections, each with a "See all regions" link. On the right side, there are three panels: "Service Health" with a link to "View complete service health details", "Settings" with links for "Block Public Access", "Zones", and "Console Experiments", and "Additional Information" with links for "VPC Documentation", "All VPC Resources", and "Forums".

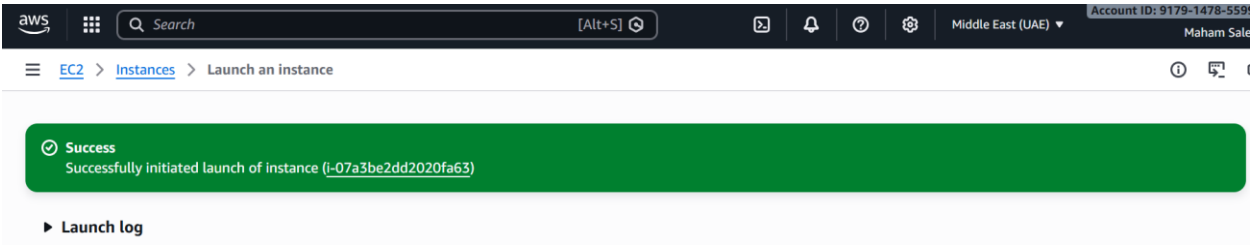
Task 4 — Launch EC2, SSH, install Docker & Docker Compose, deploy Gitea

task4_open_ec2_console.png

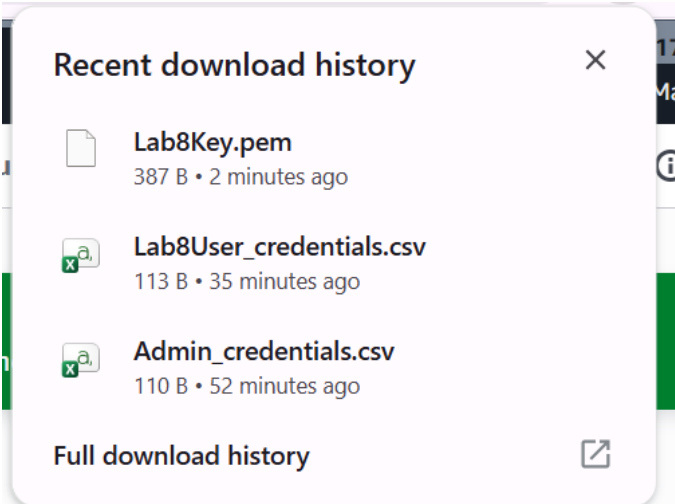
The screenshot shows the AWS Management Console interface for the EC2 service. The main content area is titled "Launch instance" and includes a description: "To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud." Below the description, there are two buttons: "Launch instance" (orange) and "Migrate a server" (blue). A note states: "Note: Your instances will launch in the Europe (Stockholm) Region". On the right side, there is a "Service health" section with a link to "AWS Health Dashboard". Below this, the "Region" is listed as "Europe (Stockholm)" and the "Status" is "This service is operating normally." At the bottom, there is a "Zones" section with a table showing the zone name and zone ID.

Zone name	Zone ID
eu-north-1a	eu-n1-az1

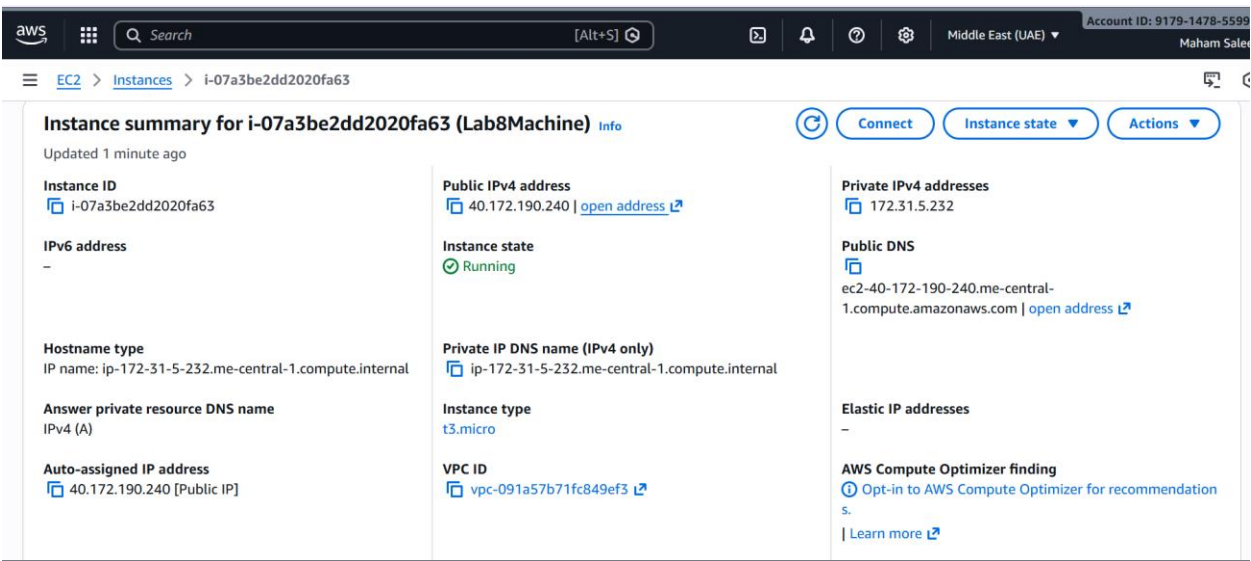
task4_launch_instance_config.png



task4_keypair_download.png



task4_instance_running_console.png



task4_ssh_from_windows_to_ec2.png

```
ec2-user@ip-172-31-5-232:~
```

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

```
PS C:\Users\Hp Probook> ssh -i "C:\Users\Hp Probook\Downloads\Lab8Key.pem" ec2-user@40.172.190.240
The authenticity of host '40.172.190.240 (40.172.190.240)' can't be established.
ED25519 key fingerprint is SHA256:UpxwufKEXkaWuclyUDLMCb9mVHgrfuuk47PH1ymZJs0.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '40.172.190.240' (ED25519) to the list of known hosts.
```

```
#_
~\_   ####_      Amazon Linux 2023
nn \_#####\
nn  \####|
nn  \|#/
nn  \|#/_~'_--> https://aws.amazon.com/linux/amazon-linux-2023
    nnn
      nn._.-./-/-/
        _/m/'
```

```
[ec2-user@ip-172-31-5-232 ~]$
```

task4_ec2_install_docker_compose_started.png

```
Verifying      : libcgroup-3.0-1.amzn2023.0.1.x86_64      6/11
Verifying      : libnetfilter_conntrack-1.0.8-2.amzn20     7/11
Verifying      : libnfnetlink-1.0.1-19.amzn2023.0.2.x8     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
containerd-2.1.5-1.amzn2023.0.1.x86_64
docker-25.0.13-1.amzn2023.0.2.x86_64
iptables-libs-1.8.8-3.amzn2023.0.2.x86_64
iptables-nft-1.8.8-3.amzn2023.0.2.x86_64
libcgroup-3.0-1.amzn2023.0.1.x86_64
libnetfilter_conntrack-1.0.8-2.amzn2023.0.2.x86_64
libnfnetlink-1.0.1-19.amzn2023.0.2.x86_64
libnftnl-1.2.2-2.amzn2023.0.2.x86_64
pigz-2.5-1.amzn2023.0.3.x86_64
runc-1.3.3-2.amzn2023.0.1.x86_64

Complete!
[ec2-user@ip-172-31-5-232 ~]$ sudo mkdir -p /usr/local/lib/docker/c
li-plugins
```

task4_vim_compose_yaml_paste.png


```
ec2-user@ip-172-31-5-232:~  
version: "3"  
  
services:  
  gitea:  
    image: gitea/gitea:latest  
    container_name: gitea  
    restart: always  
    ports:  
      - "3000:3000"  
      - "222:22"  
    volumes:  
      - ./gitea:/data  
    environment:  
      - USER_UID=1000  
      - USER_GID=1000
```

task4_compose_yaml_saved_ls.png

```
[ec2-user@ip-172-31-5-232 ~]$ ls -l
total 4
-rw-r--r--. 1 root root 255 Dec 28 20:48 compose.yaml
[ec2-user@ip-172-31-5-232 ~]$
```

task4_usermod_and_groups_before_after.png

```
PS C:\Users\Hp Probook> ssh -i "C:\Users\Hp Probook\Downloads\Lab8Key.pem" ec2-user@40.172.190.240
```



The logo consists of several rows of ASCII art. The first row has a '#' character. The second row has '~\'_-' followed by four '#' characters. The third row has '~~' followed by five '#' characters. The fourth row has '~~' followed by three '#' characters and a vertical bar '|'. The fifth row has '~~' followed by a backslash '\', a hash '#', and a forward slash '/'. The sixth row has '~~' followed by a vertical bar '|', a tilde '~', and a right arrow '→'. Below these are more decorative lines of tildes and dashes.

```
Amazon Linux 2023  
  
https://aws.amazon.com/linux/amazon-linux-2023
```

```
Last login: Sun Dec 28 20:36:06 2025 from 103.149.240.118  
[ec2-user@ip-172-31-5-232 ~]$ |
```

task4_docker_compose_up.png

```
[+] up 4/7itea/gitea:latest [#####] 40.9MB / 75.48MB Pulling 4.7
[+] up 5/7itea/gitea:latest [#####] 51.89MB / 75.48MB Pulling 4.8
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 4.9
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.0
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.1
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.2
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.3
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.4
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.5
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.6
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.7
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.8
[+] up 5/7itea/gitea:latest [#####] 63.79MB / 75.48MB Pulling 5.9
[+] up 6/7itea/gitea:latest [#####] 68.79MB / 75.48MB Pulling 6.0
[*] Image gitea/gitea:latest [#####] 75.48MB / 75.48MB Pulling 6.1[+] up 9/9bdb57d9 Pull complete 0.9s
✓Image gitea/gitea:latest Pulled 6.1s
✓2d35ebdb57d9 Pull complete 0.9s
✓9f4e672c1f34 Pull complete 1.7s
✓4da94b3cc809 Pull complete 1.8s
✓8e016ece0bd3 Pull complete 1.8s
✓346e493cb6cb Pull complete 2.8s
✓95215379f1d1 Pull complete 2.9s
✓Network ec2-user_default Created 0.2s
✓Container gitea Created 0.2s
[ec2-user@ip-172-31-5-232 ~]$
```

task4_security_group_allow_3000.png

sg-0d0473a0740de73e5 - Lab8SecurityGroup

Search							< 1 >	⚙
<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range		
<input type="checkbox"/>	-	sgr-05cc4dd0c7e992df0	IPv4	SSH	TCP	22		
<input type="checkbox"/>	-	sgr-0425fa45ac38d4c69	IPv4	Custom TCP	TCP	3000		

task4_gitea_install_page.png

Sign In

Username or Email Address *

Maham Saleem

Password


.....

Forgot password?

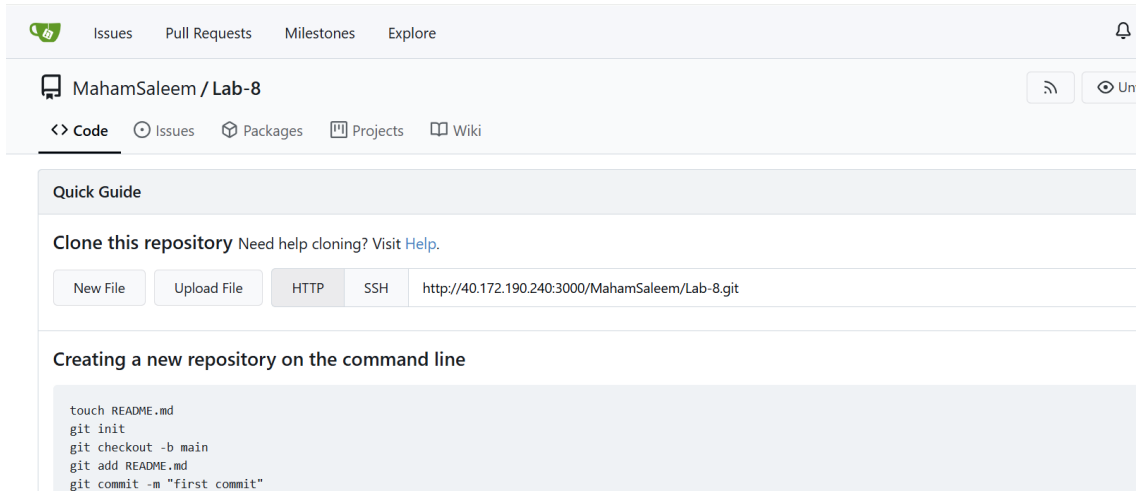
☐ Remember This Device

Sign In

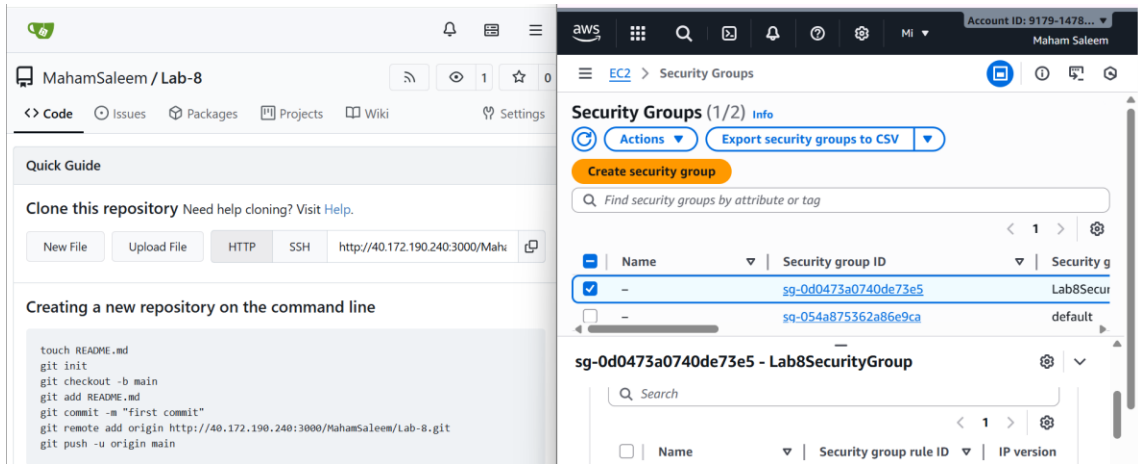
or

 Sign in with OpenID

task4_gitea_create_repo.png

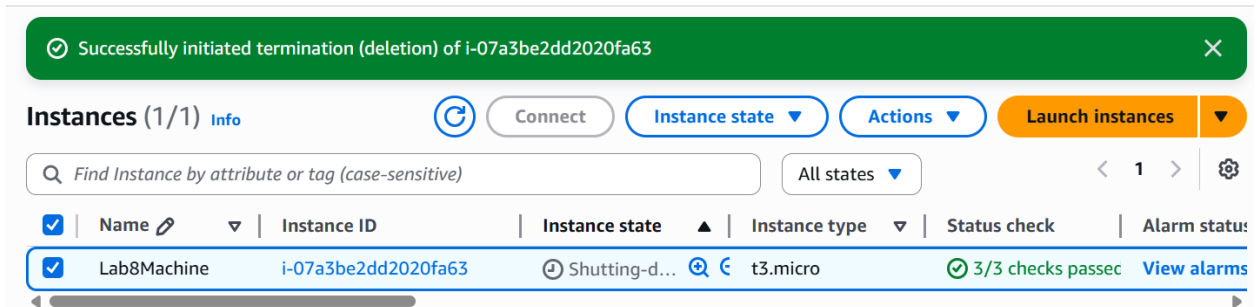


task4_summary.png



Cleanup — Remove resources to avoid charges

cleanup_terminate_instance.png



cleanup_delete_volumes_snapshots.png

Volumes Info Last updated less than a minute ago [Recycle Bin](#) [Actions](#) [Create volume](#)

Saved filter sets Choose filter set Search < 1 > ⚙

☐ Name ☐ Volume ID ☐ Type ☐ Size ☐ IOPS ☐ Throughput ☐ Snapshot ID ☐ Source volume ID ☐ Create

You currently have no volumes in this region

Snapshots Info Last updated less than a minute ago [Recycle Bin](#) [Actions](#) [Create snapshot](#)

Owned by me Search < 1 > ⚙

☐ Name ☐ Snapshot ID ☐ Full snapshot size ☐ Volume size ☐ Description ☐ Storage

You currently have no snapshots in this Region.

cleanup_delete_security_group_and_keypair.png

aws Account ID: 9179-1478... Maham Saleem

EC2 > Security Groups

Security group (sg-0d0473a0740de73e5 | Lab8SecurityGroup) successfully deleted

Security Groups (2) Info [Recycle Bin](#) [Actions](#) [Export security groups to CSV](#) [Create security group](#)

Find security groups by attribute or tag

aws Account ID: 9179-1478... Maham Saleem

EC2 > Key pairs

Successfully deleted 1 key pair

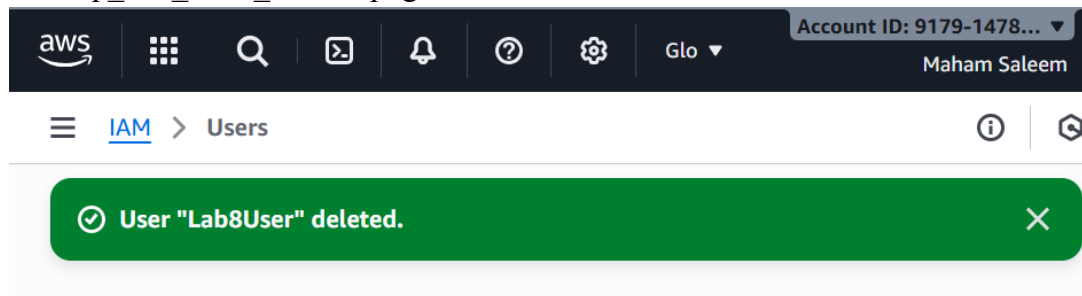
Key pairs Info [Recycle Bin](#) [Actions](#) [Create key pair](#)

Find Key Pair by attribute or tag

< 1 > ⚙

<input type="checkbox"/>	Name	Type	Created	Fingerprint	ID
No key pairs to display					

cleanup_iam_users_deleted.png



cleanup_summary.png

