



FATIMA JINNAH WOMEN UNIVERSITY

Submitted To:

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Submitted By:

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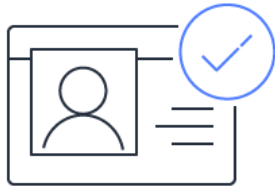
Section:

5A

CLOUD COMPUTING

LAB 8

TASK1:



Sign up for AWS

Confirm your identity

Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code.

Country or region code

Pakistan (+92)

Mobile phone number

Send SMS (step 4 of 5)

A screenshot of the AWS Management Console home page. The top navigation bar includes the AWS logo, a search bar, and various utility icons. The main content area is titled "Console home" and features two primary panels. The left panel, "Recently visited", shows a link to "Support". The right panel, "Applications (0)", displays a table with columns for Name, Description, Region, and Originator, but it is currently empty, showing a "No applications" message and a "Create application" button. The interface is clean and professional, with a dark header and light-colored content areas.

aws Search [Alt+S] Europe (Stockholm) Account ID: 123456789012 IrrajSamreen

Console home Info

Reset to default layout + Add widgets

Recently visited Info

Support

Applications (0) Info

Region: Europe (Stockholm)

Select Region Supported Regions Find applications

1

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

Create application

View all services Go to myApplications

Middle East (UAE)

[Open Middle East \(UAE\)](#)[Disable Region](#)[Enable Region](#)

Overview

Status

✓ Enabled

Region code

me-central-1

Availability Zones

3

Wavelength Zones

—

Geography

Middle East (UAE)

Local Zones

—

Zones

Resources

Zones (1/3)

Find resources by attribute or tag

[Opt-out](#)[Opt-in](#)

< 1 > ⚙

Zone name | Network border ... | Group name | Health ... | Parent zone ... | Parent zone ID

aws

Search

[Alt+S]

Account ID: 2122-0875-0468

IrrajSamreen

VPC dashboard

AWS Global View

Filter by VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Create VPC

Launch EC2 Instances

Note: Your Instances will launch in the Middle East region.

Resources by Region

You are using the following Amazon VPC resources

VPCs UAE 1

Endpoint Services UAE 0

Refresh Resources

Service Health

View complete service health details

Settings

Block Public Access

Zones

TASK2:

me-central-1.console.aws.amazon.com/vpcconsole/home?region=me-central-1#Home:

aws

Search IAM

Ask Amazon

Middle East (UAE)

VPC dashboard

AWS Global View

Filter by VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only Internet gateways

DHCP options

Elastic IPs

Managed prefixes

Endpoints

Services

Features

Documentation

Knowledge articles

Marketplace

Blog posts

Events

Tutorials

IAM

Manage access to AWS resources

IAM Identity Center

Manage workforce user access to multiple AWS accounts and cloud applications

Resource Access Manager

Share AWS resources with other accounts or AWS Organizations

IAM Access analyzer for S3

S3 feature

Were these results helpful?

View detail

Block

Zones

Consolidate

Add

VPC console

User details

User name

Admin

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

- ☒ Provide user access to the AWS Management Console - optional
- In addition to console access, users with `SignInLocalDevelopmentAccess` permissions can use the same console credentials for programmatic access without the need for access keys.

Console password

☒ Autogenerated password

You can view the password after you create the user.

☐ Custom password

Enter a custom password for the user.

- Must be at least 8 characters long
- Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } ' '

☐ Show password

- ☒ Users must create a new password at next sign-in - Recommended

Step 4

Retrieve password

For users not in an existing group, we create a new group. We recommend using groups to manage user permissions by job function.

Copy the group's permissions and attach those policies, and inline policies from an existing user.

As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

Permissions policies (1/1440)

Choose one or more policies to attach to your new user.

Create policy

Filter by Type			
Q admin	All types	53 matches	
Policy name	Type	Attached entities	
<input checked="" type="checkbox"/> AdministratorAccess	AWS managed - job function	0	
<input type="checkbox"/> AdministratorAccess-Amplify	AWS managed	0	
<input type="checkbox"/> AdministratorAccess-AWSElast...	AWS managed	0	
<input type="checkbox"/> AIOpsConsoleAdminPolicy	AWS managed	0	
<input type="checkbox"/> AmazonAPIGatewayAdministr...	AWS managed	0	

Step 1

Specify user details

Step 2

Set permissions

Step 3

Review and create

Step 4

Retrieve password

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name
Admin

Console password type
Autogenerated

Require password reset
Yes

Permissions summary

Name	Type	Used as
AdministratorAccess	AWS managed - job function	Permissions policy
IAMUserChangePassword	AWS managed	Permissions policy

Tags - optional

Tags are key-value pairs that you add to AWS resources to help identify, organize, and manage them. Choose any tags you want to associate with this

IAM

Users

Create user

✔ User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

View user

Step 2

Set permissions

Step 3

Review and create

Step 4

Retrieve password

Console sign-in details

Email sign-in instructions

Console sign-in URL

https://212208750468.signin.aws.amazon.com/console

User name

Admin

Console password

Show

Cancel

Download .csv file

Return to users list

Recent download history

Admin_credentials.csv

110 B • Done

Today (1)

Admin_credentials.csv

Date modified: 12/28/2025 9:30 PM

Size: 110 bytes

Last week (8)

aws

✔ Password reset successful

Password reset

Your IAM User (Admin) password has been reset successfully.

Continue to sign in

aws

Search

[Alt+S]

Middle East (UAE)

Account ID: 2122-0875-0468

Admin

Console home

Info

Reset to default layout

Add widgets

Recently visited

Info

No recently visited services

Applications (0)

Info

Create application

Region: Middle East (UAE)

Select Region

me-central-1 (Current Region)

Find applications

1

Name

Description

Region

Originati...

No applications

IAM

Users

Create user

Step 1

Specify user details

Step 2

Set permissions

Step 3

Review and create

Step 4

Retrieve password

Specify user details

User details

User name

Lab8User

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

☒ Provide user access to the AWS Management Console - optional

In addition to console access, users with `SignInLocalDevelopmentAccess` permissions can use the same console credentials for programmatic access without the need for access keys.

Console password

☒ Autogenerated password

You can view the password after you create the user.

☐ Custom password

Enter a custom password for the user.

- Must be at least 8 characters long
- Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } | ' "

IAM

Users

Create user

Step 1

Specify user details

Step 2

Set permissions

Step 3

Review and create

Step 4

Retrieve password

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name

Lab8User

Console password type

Autogenerated

Require password reset

Yes

Permissions summary

1

Name	Type	Used as
AdministratorAccess	AWS managed - job function	Permissions policy
IAMUserChangePassword	AWS managed	Permissions policy

Tags - optional

Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

View user

Step 1

Specify user details

Step 2

Set permissions

Step 3

Review and create

Step 4

Retrieve password

Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details

Email sign-in instructions

Console sign-in URL

https://212208750468.signin.aws.amazon.com/console

User name

Lab8User

Console password

Show

Today (2)

Admin_credentials.csv

Date modified: 12/28/2025 9:30 PM

Size: 110 bytes

Lab8User_credentials.csv

Date modified: 12/28/2025 10:09 PM

Size: 113 bytes

Last week (8)

Users (2) Info

Refresh

Delete

Create user

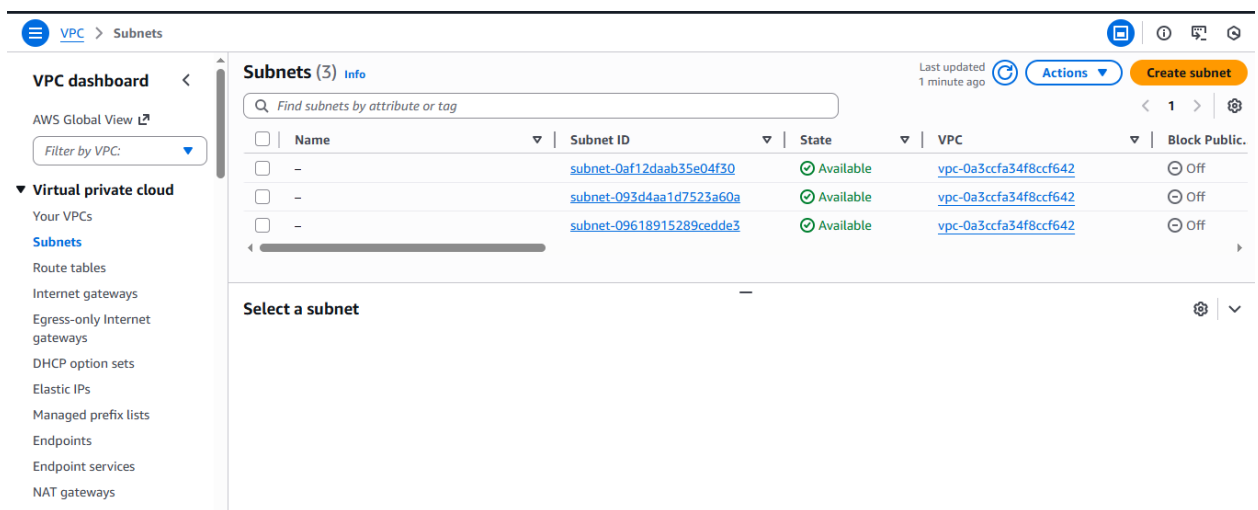
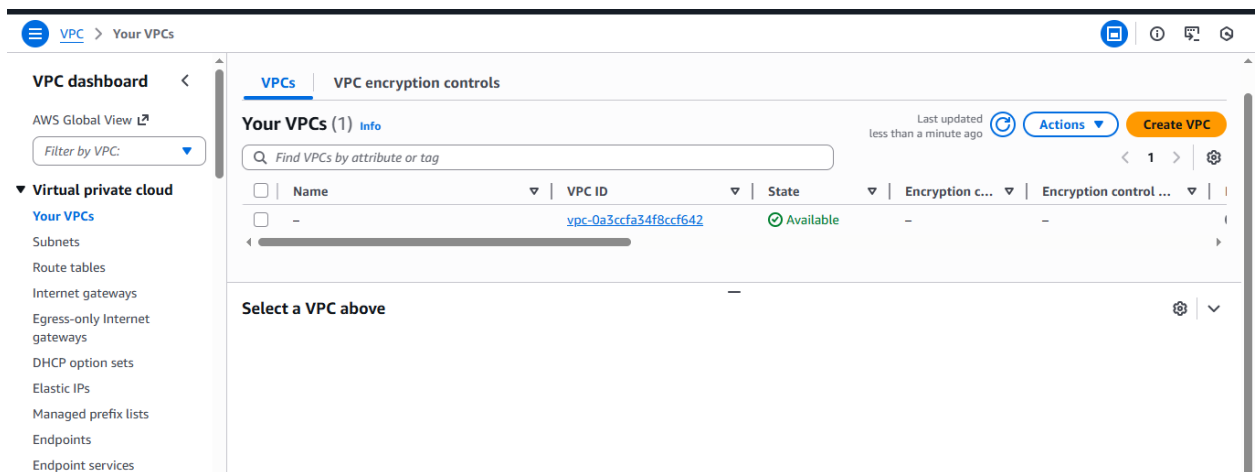
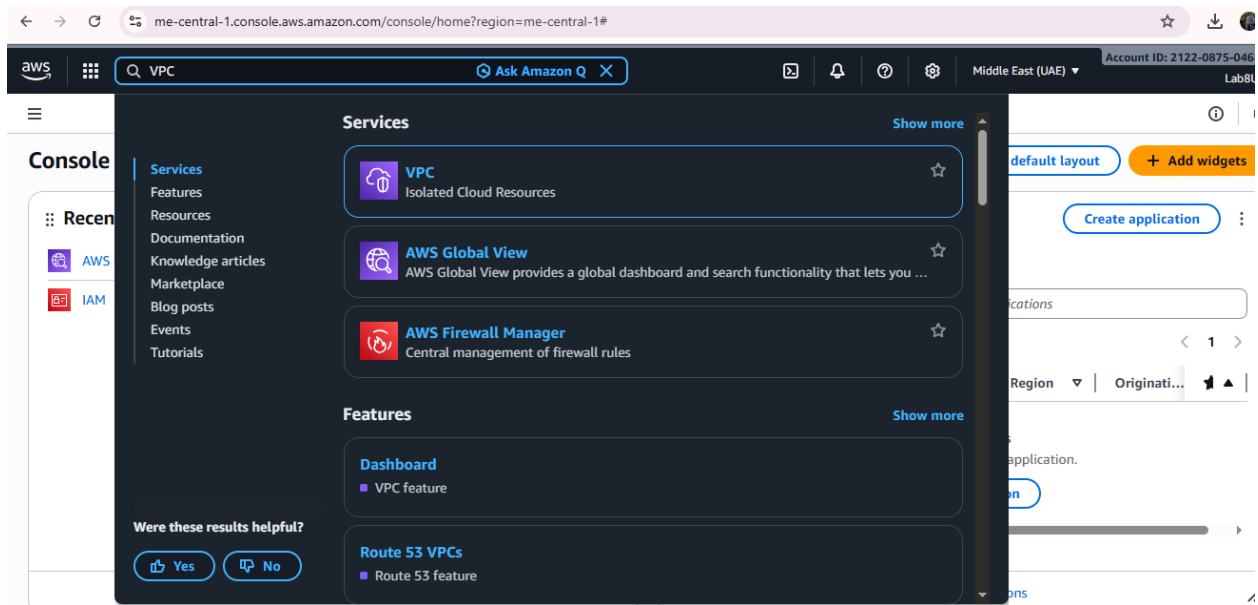
An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

Search

< 1 > ⚙

<input type="checkbox"/>	User name	▲	Path	▼	Group: ▼	Last activity	▼	MFA	▼	Password age	▼	Console
<input type="checkbox"/>	Admin		/		0	23 minutes ago		-		18 minutes		23 m
<input type="checkbox"/>	Lab8User		/		0	5 minutes ago		-		Now		5 mir

TASK3:



VPC > Route tables

Route tables (1) Info

Last updated 1 minute ago

Actions

Create route table

Find route tables by attribute or tag

	Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
<input type="checkbox"/>	-	rtb-07abdc9dad1cb2b6d	-	-	Yes	vpc-0

Select a route table

VPC dashboard

AWS Global View

Filter by VPC:

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only Internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

VPC > Network ACLs

Network ACLs (1) Info

Last updated 1 minute ago

Actions

Create network AC

Find Network ACLs by attribute or tag

	Name	Network ACL ID	Associated with	Default	VPC ID
<input type="checkbox"/>	-	acl-0b32b3bc83f34cba2	3 Subnets	Yes	vpc-0a3ccfa34f8ccf642

Select a network ACL

Internet gateways

Egress-only Internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Route servers

Security

Network ACLs

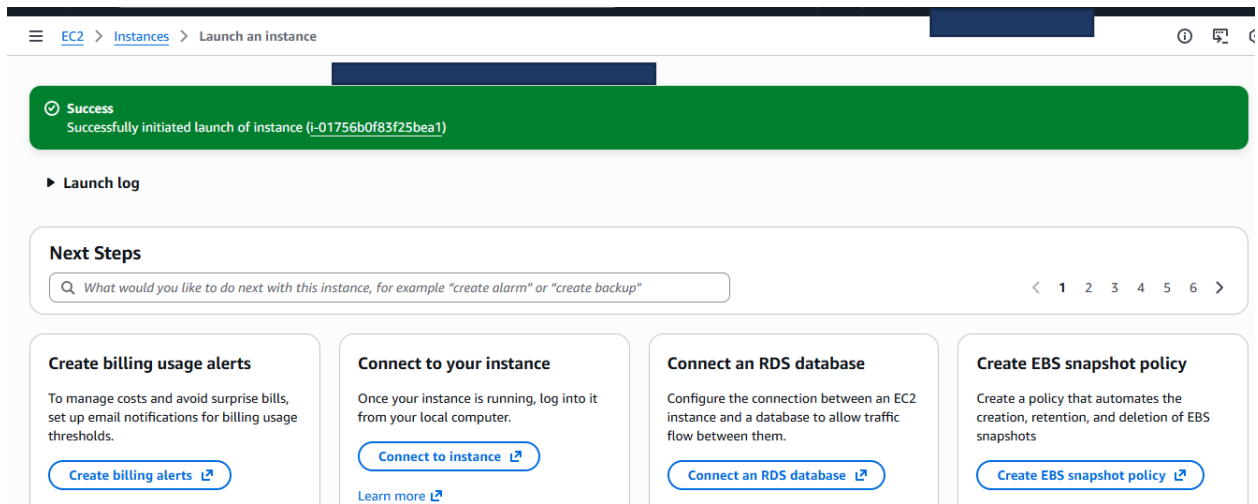
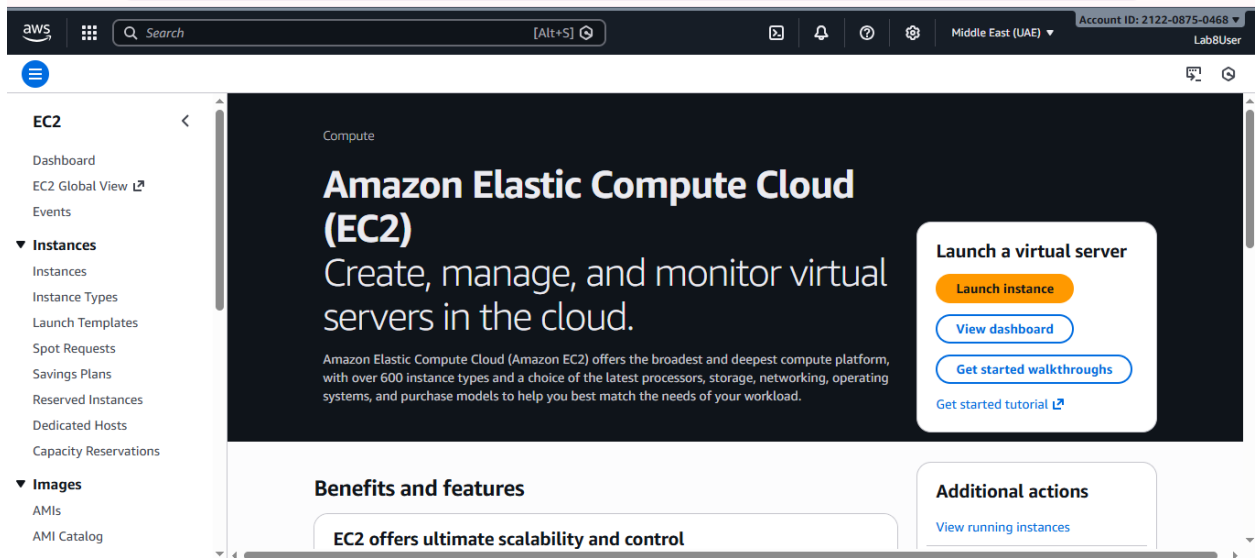
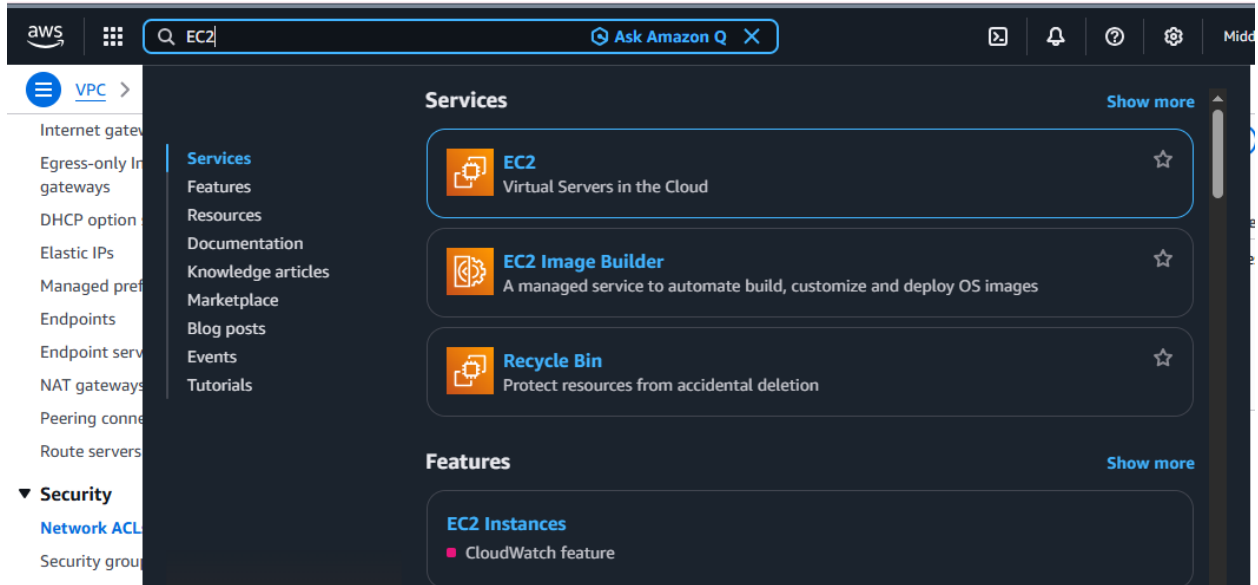
Security groups

DNS firewall

Rule groups

Domain lists

TASK4:



```
PS C:\Users\IRRAJ\Documents\AWSKeys> ssh -i aws_key.pem ubuntu@3.28.120.  
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1015-aws x86_64)
```

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

```
System information as of Mon Dec 29 04:21:35 UTC 2025
```

```
System load:  0.0           Temperature:    -273.1 C  
Usage of /:   32.6% of 6.71GB Processes:      112  
Memory usage: 25%          Users logged in: 0  
Swap usage:   0%           IPv4 address for ens5: 172.31.2.13
```

```
* Ubuntu Pro delivers the most comprehensive open source security and  
  compliance features.
```

```
https://ubuntu.com/aws/pro
```

```
Expanded Security Maintenance for Applications is not enabled.
```

```
74 updates can be applied immediately.
```

```
28 of these updates are standard security updates.
```

```
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 pro status
```

```
The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.
```

```
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.
```

```
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.
```

```
ubuntu@ip-172-31-2-13:~$ sudo apt update -y
```

```

ubuntu@ip-172-31-2-13:~$ sudo apt update -y
Hit:1 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [175 kB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [378 kB]
Get:7 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:8 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:9 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7300 B]
Get:10 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [10.5 kB]
Get:11 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [21 B]
Get:12 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [21 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [71.5 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:16 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Fetched 1044 kB in 1s (988 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
68 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-2-13:~$

```

```

68 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-2-13:~$ sudo apt install docker.io -y
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 pigz runc ubuntu-fan
Suggested packages:
  ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-buildx docker-compose-v2 docker-doc rinse
  zfs-fuse | zfsutils
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubuntu-fan
0 upgraded, 8 newly installed, 0 to remove and 68 not upgraded.
Need to get 76.0 MB of archives.
After this operation, 288 MB of additional disk space will be used.
Get:1 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:2 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 bridge-utils amd64 1.7.1-1ubuntu2 [33.9 kB]
Get:3 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 runc amd64 1.3.3-0ubuntu1~24.04.3 [8815
kB]
Get:4 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 containerd amd64 1.7.28-0ubuntu1~24.04.
1 [38.4 MB]
Get:5 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 dns-root-data all 2024071801~ubuntu0.24
.04.1 [5918 B]
Get:6 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 dnsmasq-base amd64 2.90-2ubuntu0.1 [376
kB]
Get:7 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 docker.io amd64 28.2.2-0ubuntu1~24.
04.1 [28.3 MB]
Get:8 http://me-central-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 ubuntu-fan all 0.12.16+24.04.1 [34.
2 kB]
Fetched 76.0 MB in 1s (72.8 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 71735 files and directories currently installed.)
Unpacking pigz (2.8-1) .....
Selecting previously unselected package bridge-utils.....
Preparing to unpack .../1-bridge-utils_1.7.1-1ubuntu2_amd64.deb ...
Unpacking bridge-utils (1.7.1-1ubuntu2) .....
Selecting previously unselected package runc.....
Preparing to unpack .../2-runc_1.3.3-0ubuntu1~24.04.3_amd64.deb ...
Unpacking runc (1.3.3-0ubuntu1~24.04.3) .....
Selecting previously unselected package containerd.....

```

```
ubuntu@ip-172-31-2-13:~$ sudo systemctl start docker
ubuntu@ip-172-31-2-13:~$ sudo systemctl enable docker
ubuntu@ip-172-31-2-13:~$ sudo usermod -aG docker ubuntu
ubuntu@ip-172-31-2-13:~$ exit
logout
Connection to 3.28.120.27 closed.
PS C:\Users\IRRAJ\Documents\AWSKeys> ssh -i aws_key.pem ubuntu@3.28.120.27
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1015-aws x86_64)

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

System information as of Mon Dec 29 04:26:50 UTC 2025

System load:  0.03          Temperature:    -273.1 C
Usage of /:   36.7% of 6.71GB Processes:      121
Memory usage: 30%          Users logged in: 0
Swap usage:   0%           IPv4 address for ens5: 172.31.2.13

 * Ubuntu Pro delivers the most comprehensive open source security and
   compliance features.

   https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

74 updates can be applied immediately.
28 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

1 additional security update can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm
```

```
ubuntu@ip-172-31-2-13:~$ docker --version
Docker version 28.2.2, build 28.2.2-0ubuntu1~24.04.1
ubuntu@ip-172-31-2-13:~$ docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
17eec7bbc9d7: Pull complete
Digest: sha256:d4aaab6242e0cace87e2ec17a2ed3d779d18fbfd03042ea58f2995626396a274
Status: Downloaded newer image for hello-world:latest
```

Hello from Docker!

This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:

1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:

```
$ docker run -it ubuntu bash
```

Share images, automate workflows, and more with a free Docker ID:

<https://hub.docker.com/>

```
ubuntu@ip-172-31-2-13:~$ mkdir -p ~/gitea
ubuntu@ip-172-31-2-13:~$ cd ~/gitea
ubuntu@ip-172-31-2-13:~/gitea$ docker pull gitea/gitea:latest
latest: Pulling from gitea/gitea
2d35ebdb57d9: Pull complete
9f4e672c1f34: Pull complete
4da94b3cc809: Pull complete
8e016ece0bd3: Pull complete
346e493cb6cb: Pull complete
95215379f1d1: Pull complete
Digest: sha256:fee0e5e55da6d2d11186bf39023a772fe63d9deffc0a83283e3d8e5d11c2716a
Status: Downloaded newer image for gitea/gitea:latest
docker.io/gitea/gitea:latest
ubuntu@ip-172-31-2-13:~/gitea$ docker run -d --name gitea -p 3000:3000 -p 222:22 \
> -v ~/gitea:/data gitea/gitea:latest
d5a5a8f8ab418361f2cb87ed9342d140615335aad4cb9be49e4ce9850688002c
ubuntu@ip-172-31-2-13:~/gitea$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS
d5a5a8f8ab41   gitea/gitea:latest   "/usr/bin/entrypoint..." 19 seconds ago Up 19 seconds 0.0.0.0:3000->3000/tcp, [
:]:3000->3000/tcp, 0.0.0.0:222->22/tcp, [::]:222->22/tcp   gitea
ubuntu@ip-172-31-2-13:~/gitea$
```

Initial Configuration

If you run Gitea inside Docker, please read the [documentation](#) before changing any settings.

Database Settings

Gitea requires MySQL, PostgreSQL, MSSQL, SQLite3 or TiDB (MySQL protocol).

Database Type *

Path *

File path for the SQLite3 database.
Enter an absolute path if you run Gitea as a service.

General Settings

Site Title *

You can enter your company name here.

Repository Root Path *

Remote Git repositories will be saved to this directory.

Git LFS Root Path

Files tracked by Git LFS will be stored in this directory. Leave empty to disable.



Installing now, please wait...



No Activity

You are currently not following any repositories or users, so there is no content to display. You can explore repositories or users of interest from the links below.


[Explore repositories](#) · [Explore users](#)





Repository

Repositories






There are no repositories

 [Issues](#) [Pull Requests](#) [Milestones](#) [Explore](#)

ADMIN1 / lab_task4

  1  Star 0

[Code](#) [Issues](#) [Packages](#) [Projects](#) [Wiki](#) [Settings](#)


Quick Guide

Clone this repository Need help cloning? Visit [Help](#).

New FileUpload File

HTTPSSH

http://3.28.120.27:3000/ADMIN1/lab_task4.git



Creating a new repository on the command line