IAM:

AWS identity and Access Management (IAM) is a web service that helps you securely control access to AWS resources. With IAM you can centrally manage permissions that control which AWS resource users can access. you use IAM to control who is authenticated and authorised to use resource.

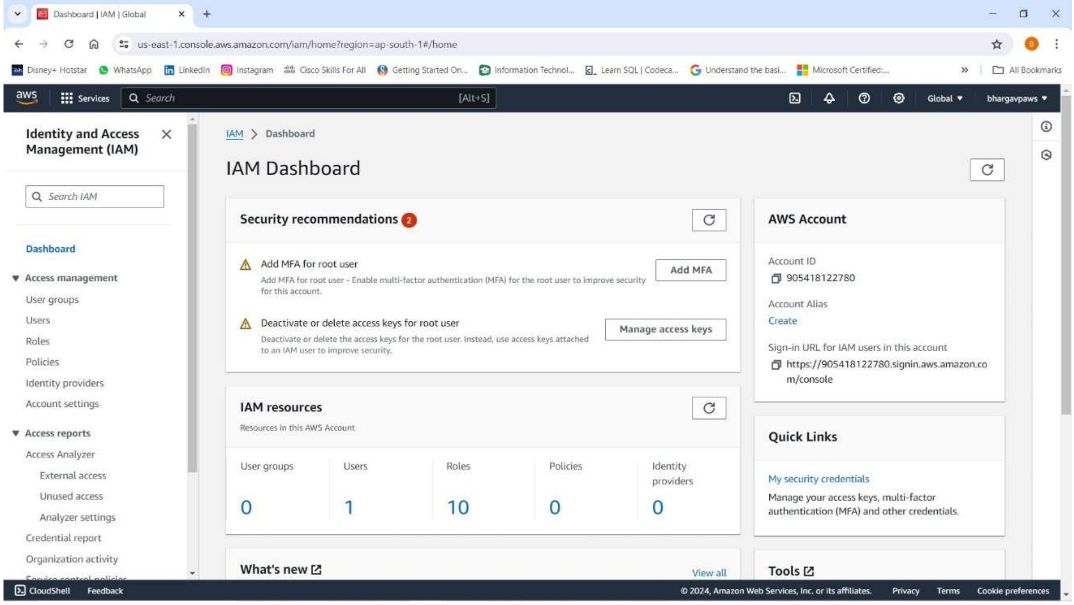
Task:- 1

Create an IAM user with username of your own wish and grant EC2 Access. Launch your Linux instance via IAM user that you created now and install Jenkins and docker on your machine.

To create an IAM User with EC2 access, follow these steps:-

A) Log in to the AWS Management console.

B) Go to the IAM Service and click on "Users" in the Left menu.



Add MFA for root user

Add MFA for root user - Enable multi-factor authentication (MFA) for the root user to improve security for this account.

Deactivate or delete access keys for root user

Deactivate or delete the access keys for the root user. Instead, use access keys attached to an IAM user to improve security.

Resources in this AWS Account

User groups	Users	Roles	Policies	Identity providers
0	1	10	0	0

Account ID
905418122780

Account Alias
Create

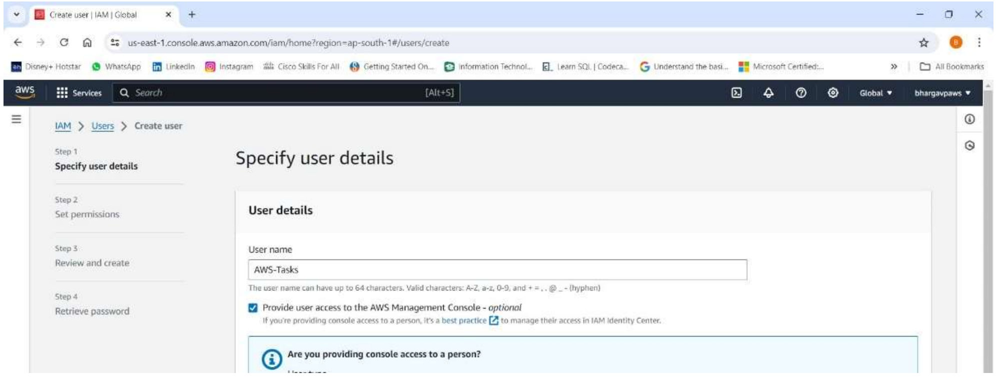
Sign-in URL for IAM users in this account
https://905418122780.signin.aws.amazon.com/console

My security credentials
Manage your access keys, multi-factor authentication (MFA) and other credentials.

IAM Service and click on "Users" in the Left menu.

Add a New User.

Click on "Users" in the left menu. Click on "Add user". Enter a username of your choice.



Specify user details

User details

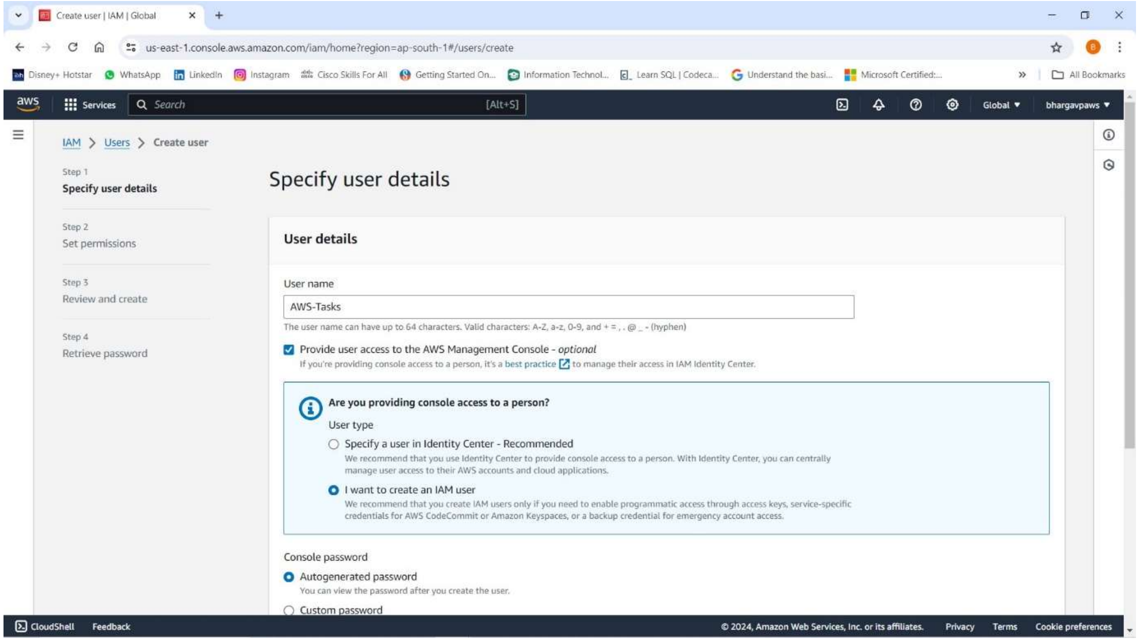
User name
AWS-Tasks

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*
If you're providing console access to a person, it's a best practice to manage their access in IAM Identity Center.

Are you providing console access to a person?

D) Select I want to create an IAM user and select Autogenerated password.



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

AWS-Tasks

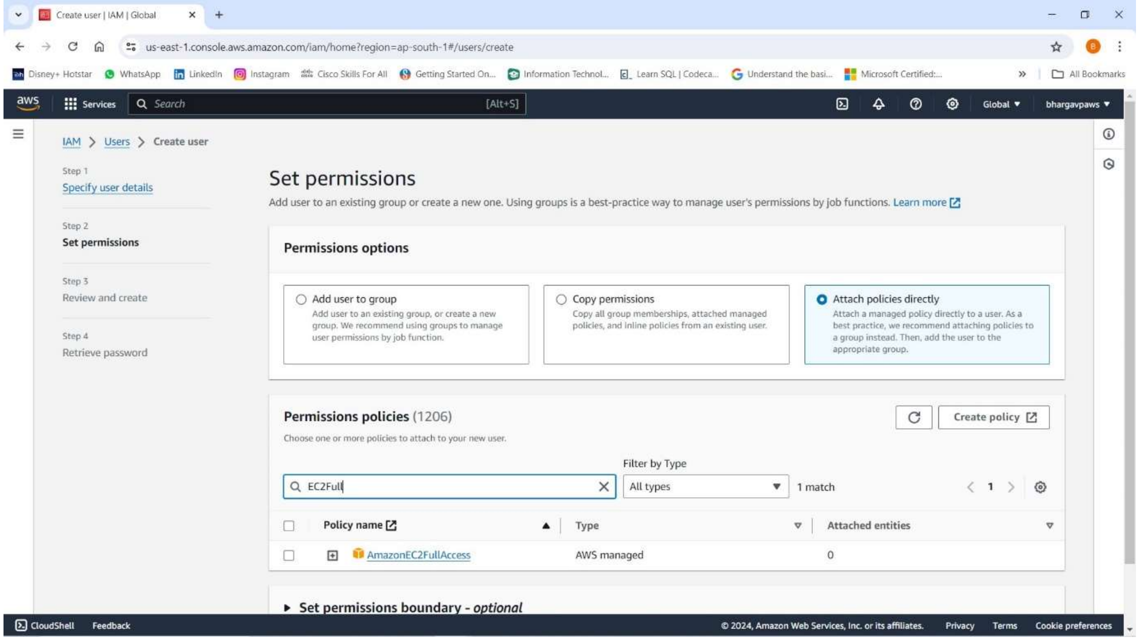
The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

☑ Provide user access to the AWS Management Console - *optional*
If you're providing console access to a person, it's a best practice to manage their access in IAM Identity Center.

Are you providing console access to a person?
User type
○ Specify a user in Identity Center - Recommended
We recommend that you use Identity Center to provide console access to a person. With Identity Center, you can centrally manage user access to their AWS accounts and cloud applications.
● I want to create an IAM user
We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

Console password
● Autogenerated password
You can view the password after you create the user.
○ Custom password

E) Select "Attach policies directly" and select the policy "AmazonEC2 full Access".



IAM > Users > Create user

Step 1
Specify user details

Step 2
Set permissions

Step 3
Review and create

Step 4
Retrieve password

Set permissions
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more

Permissions options

○ Add user to group
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.

○ Copy permissions
Copy all group memberships, attached managed policies, and inline policies from an existing user.

● Attach policies directly
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

Permissions policies (1206)
Choose one or more policies to attach to your new user.

Create policy

EC2Full

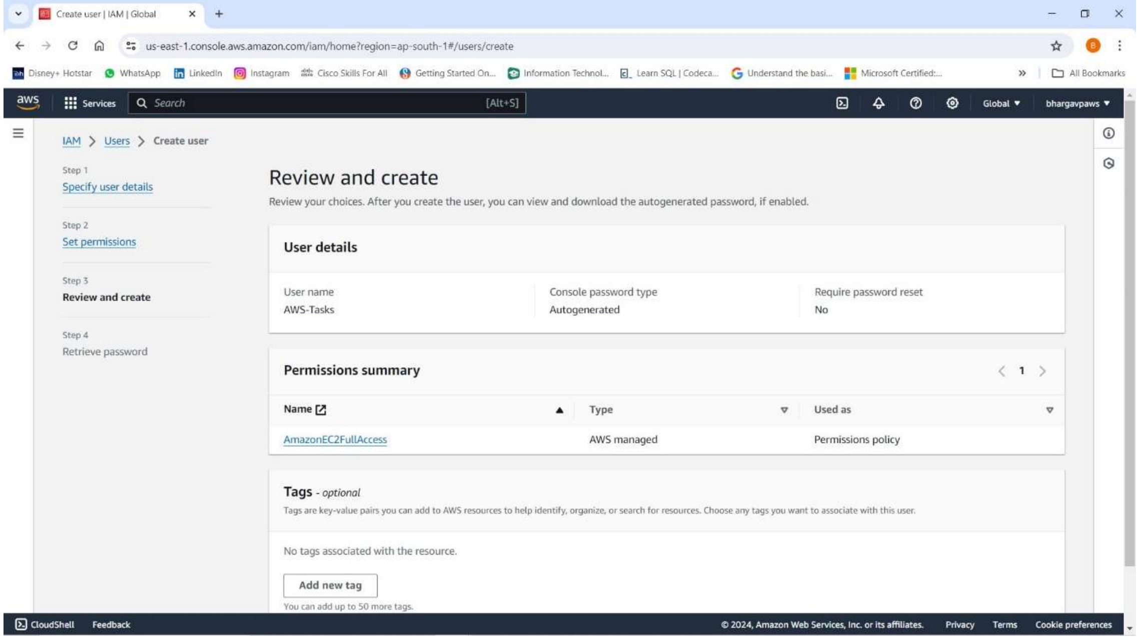
Filter by Type
All types

1 match

□	Policy name ▲	Type	Attached entities
□	AmazonEC2FullAccess	AWS managed	0

▸ Set permissions boundary - *optional*

F) Review your settings and click "Create user". Take note of the Access Key ID and Secret Access Key for the IAM user.



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	Console password type	Require password reset
AWS-Tasks	Autogenerated	No

Permissions summary

Name	Type	Used as
AmazonEC2FullAccess	AWS managed	Permissions policy

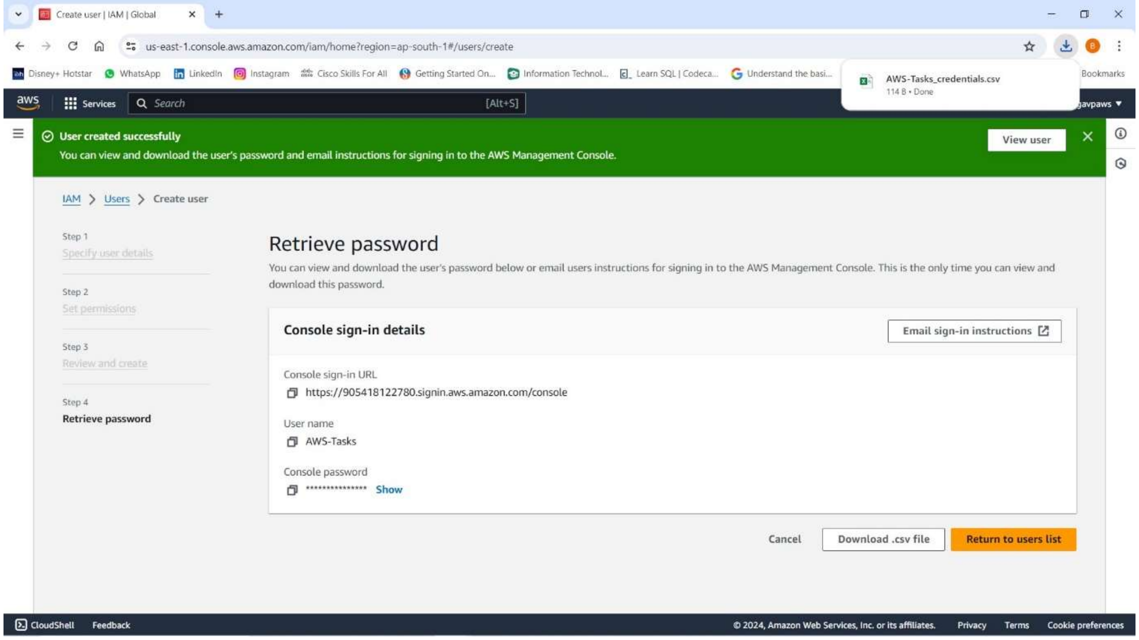
Tags - *optional*

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.

No tags associated with the resource.

You can add up to 50 more tags.

G) Take note of the username and password, Download the .csv file as you will need these to authenticate your IAM user when launching instances.



User created successfully

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

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.

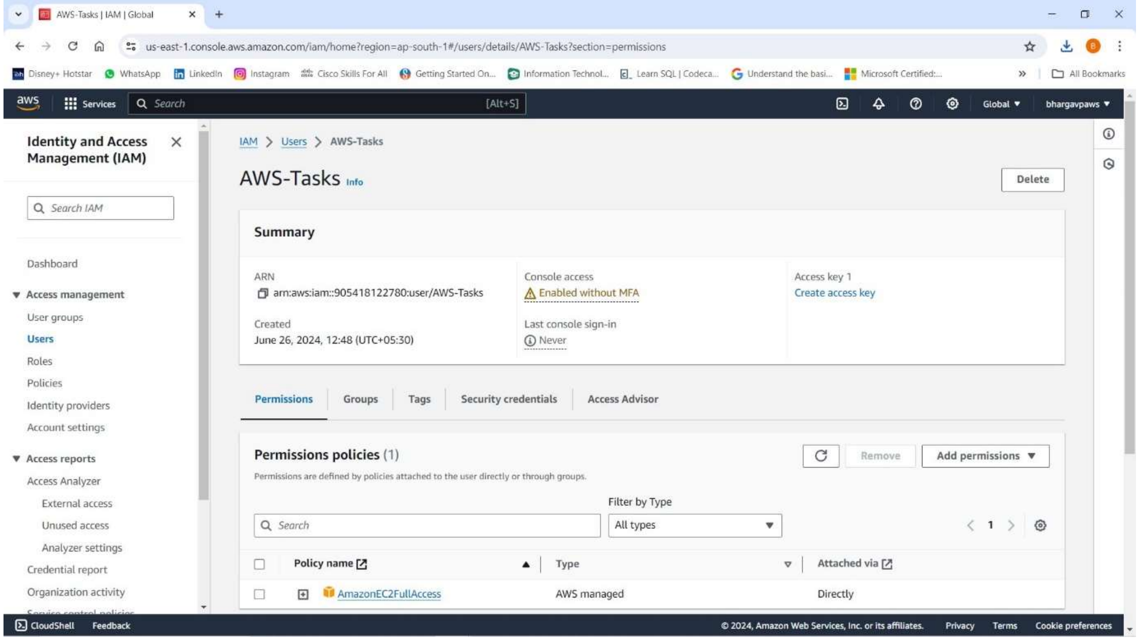
Console sign-in details

Console sign-in URL
https://905418122780.signin.aws.amazon.com/console

User name
AWS-Tasks

Console password
*************** Show

Review the IAM user which was created.



AWS-Tasks

Summary

ARN: arn:aws:iam::905418122780:user/AWS-Tasks

Created: June 26, 2024, 12:48 (UTC+05:30)

Console access: Enabled without MFA

Last console sign-in: Never

Access key 1: Create access key

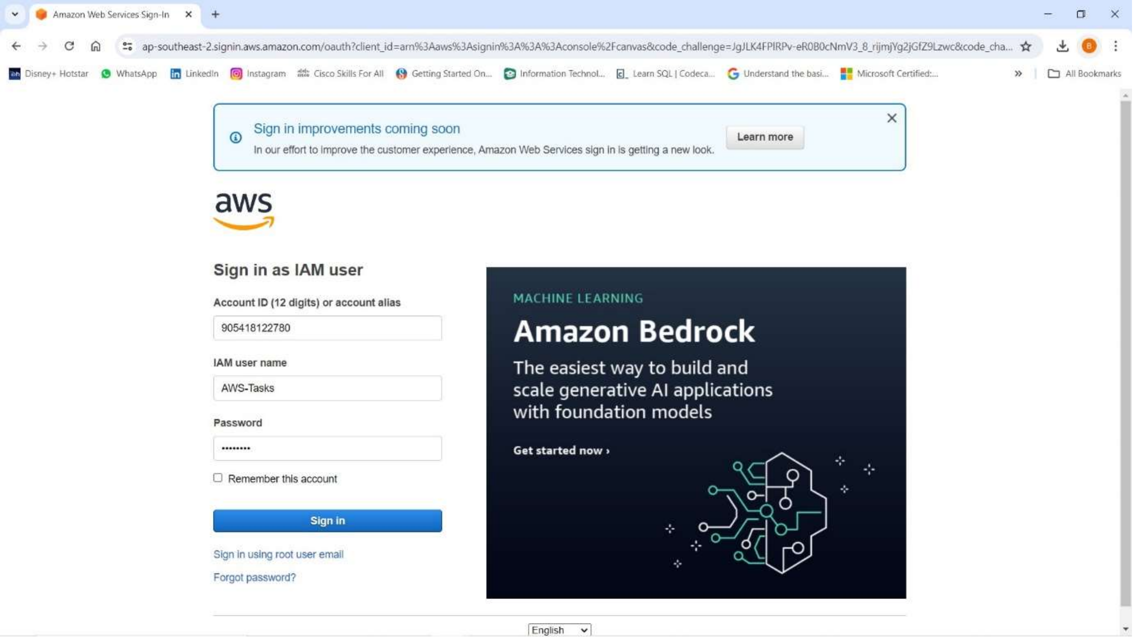
Permissions policies (1)

Permissions are defined by policies attached to the user directly or through groups.

Policy name	Type	Attached via
AmazonEC2FullAccess	AWS managed	Directly

H) To launch a Linux instance using your IAM user, follow these steps:

Sign in to AWS account as IAM user which we created above.


Amazon Web Services Sign-In
ap-southeast-2.signin.aws.amazon.com/oauth?client_id=arn%3Aaws%3Asignin%3A%3A%3Aconsole%2Fcanvas&code_challenge=JgJLK4FPIRPv-eR0B0cNmV3_8_rijmjYg2jGfZ9Lzwc&code_cha...
Sign in improvements coming soon
In our effort to improve the customer experience, Amazon Web Services sign in is getting a new look.
Learn more
aws
MACHINE LEARNING
Amazon Bedrock
The easiest way to build and scale generative AI applications with foundation models
Get started now ›
English

Sign in as IAM user

Account ID (12 digits) or account alias: 905418122780

IAM user name: AWS-Tasks

Password: •••••••••

□ Remember this account

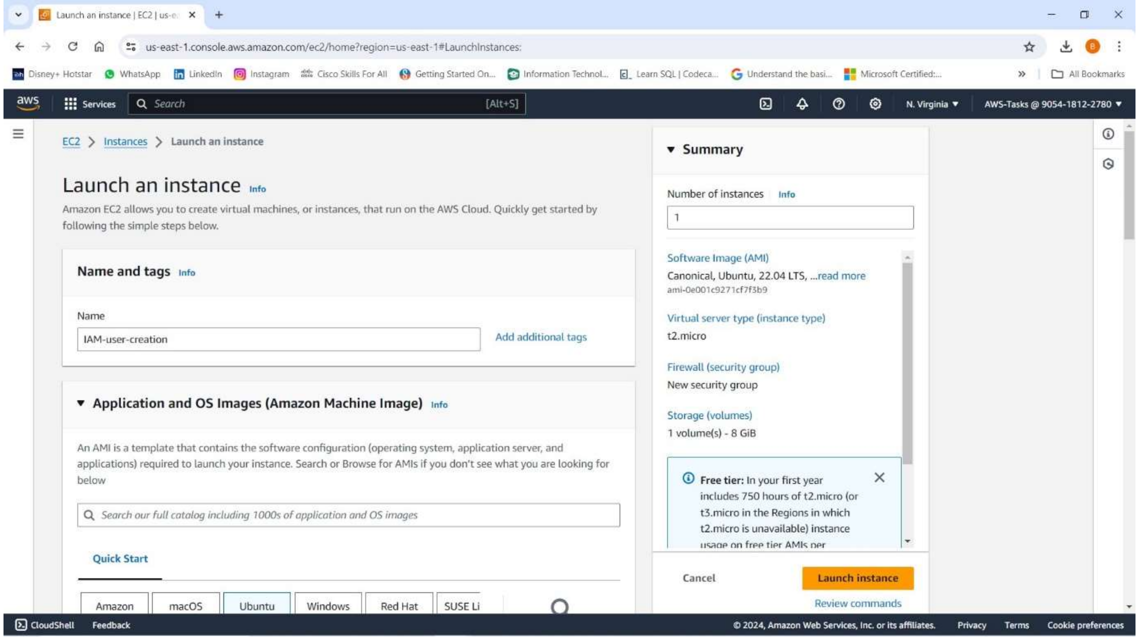
Sign in

Sign in using root user email

Forgot password?

Go to the EC2 service and click on "Launch instance".

Choose an Ubuntu AMI.



Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name: IAM-user-creation

▼ Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

▼ Summary

Number of instances: 1

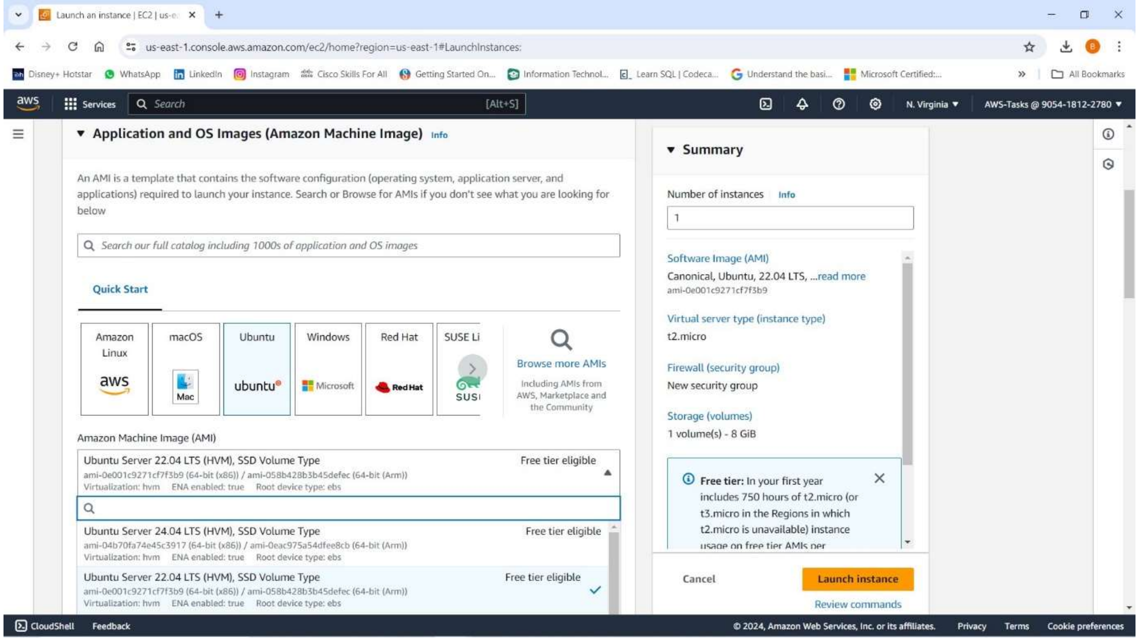
Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0e001c9271cf7f3b9

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per



▼ Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type — Free tier eligible
ami-0e001c9271cf7f3b9 (64-bit (x86)) / ami-058b428b3b45defec (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type — Free tier eligible
ami-04b70fa74e45c3917 (64-bit (x86)) / ami-0eac975a54dfee8cb (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type — Free tier eligible ✓
ami-0e001c9271cf7f3b9 (64-bit (x86)) / ami-058b428b3b45defec (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

▼ Summary

Number of instances: 1

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0e001c9271cf7f3b9

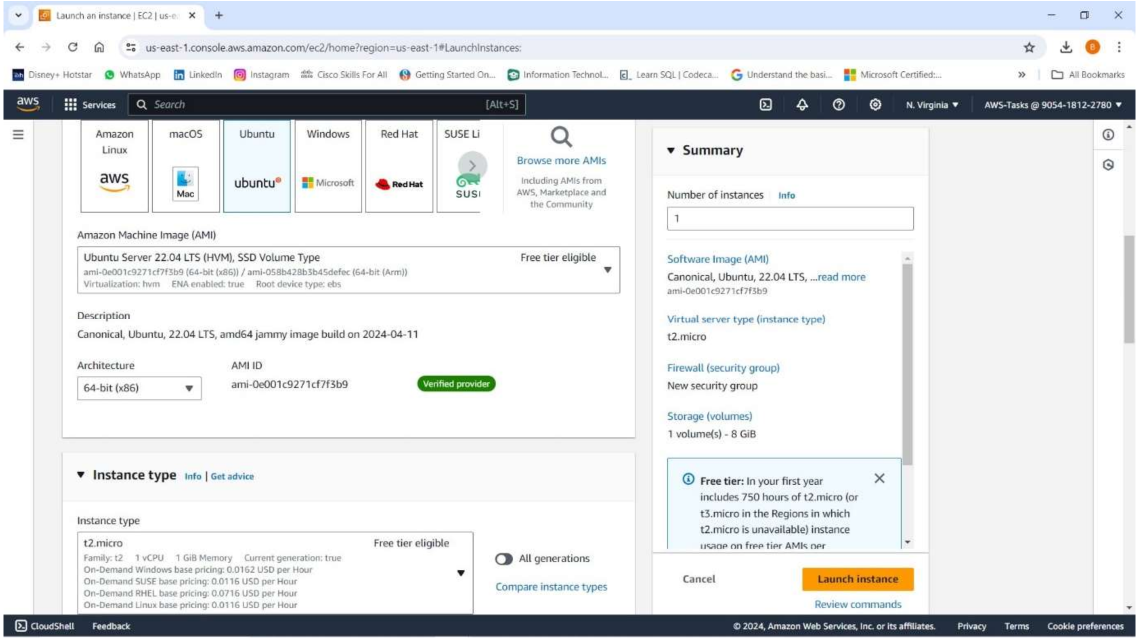
Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per

Select an instance type t2.micro and create new key-pair and download the key-pair.



Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type — Free tier eligible
ami-0e001c9271cf7f3b9 (64-bit (x86)) / ami-058b428b3b45defec (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Description
Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2024-04-11

Architecture: 64-bit (x86)
AMI ID: ami-0e001c9271cf7f3b9 — Verified provider

Instance type

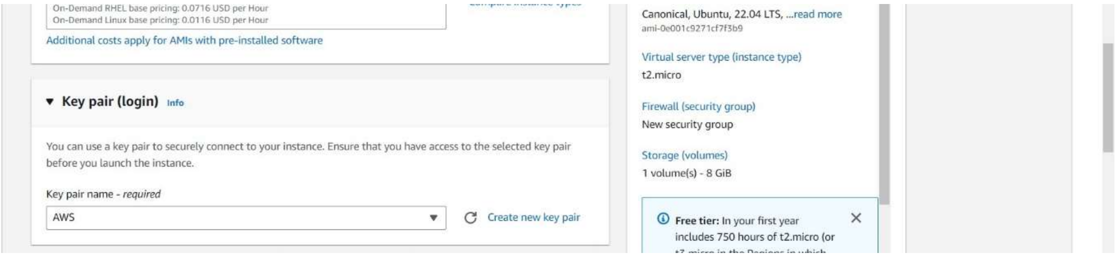
t2.micro — Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.0716 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

Summary

Number of instances: 1
Software Image (AMI): Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0e001c9271cf7f3b9
Virtual server type (instance type): t2.micro
Firewall (security group): New security group
Storage (volumes): 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per

Launch an instance | EC2 | us-e
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
Services
Search
[Alt+S]
N. Virginia
AWS-Tasks @ 9054-1812-2780
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
SUSE Li
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Info | Get advice
All generations
Compare instance types
Cancel
Launch instance
Review commands
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences



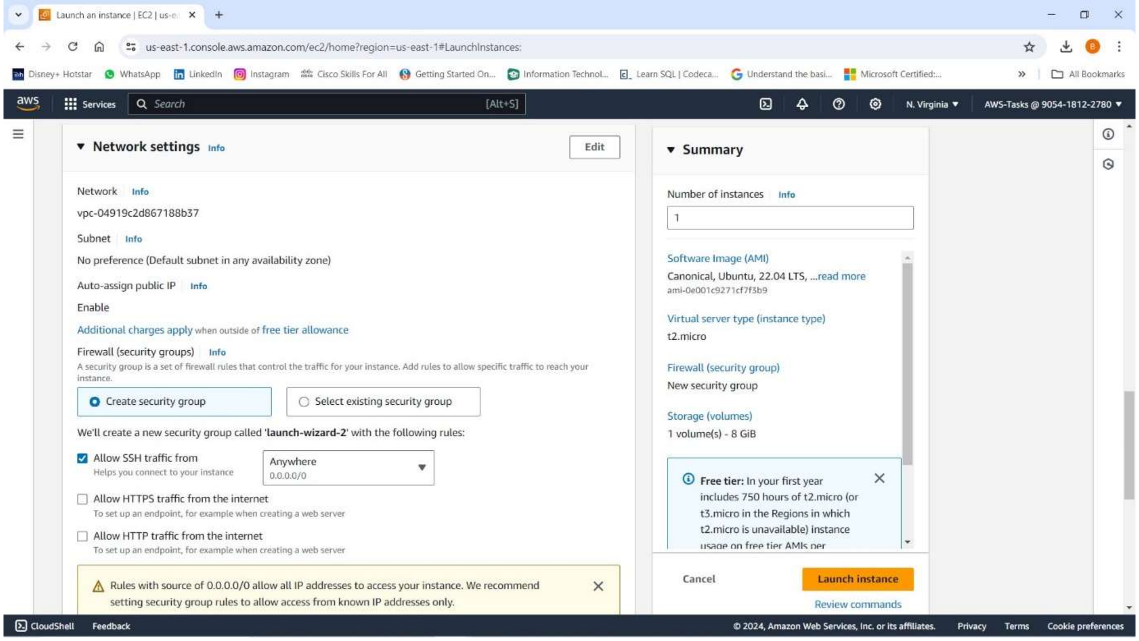
Additional costs apply for AMIs with pre-installed software

Key pair (login)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*: AWS

click on Launch instance to create the instance.



Network settings

Network: vpc-04919c2d867188b37
Subnet: No preference (Default subnet in any availability zone)
Auto-assign public IP: Enable
Additional charges apply when outside of free tier allowance

Firewall (security groups)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

● Create security group ○ Select existing security group

We'll create a new security group called '**launch-wizard-2**' with the following rules:

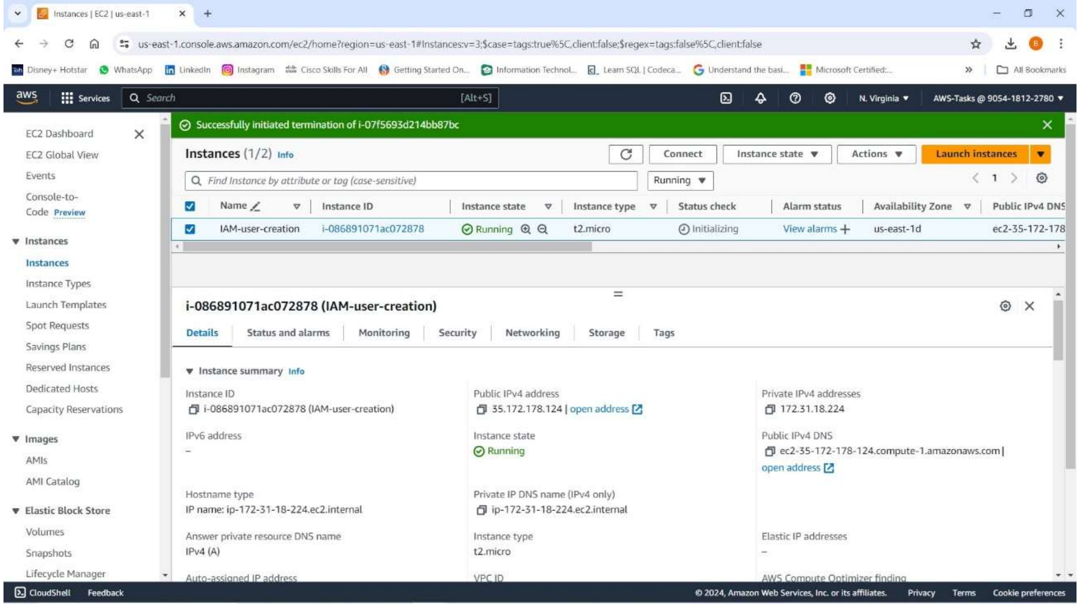
☑ Allow SSH traffic from — Anywhere 0.0.0.0/0
Helps you connect to your instance

☐ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

☐ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Review the instance created on the EC2 dashboard.



Successfully initiated termination of i-07f5693d214bb87bc

Instances (1/2) Info

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
☑	IAM-user-creation	i-086891071ac072878	Running	t2.micro	Initializing	View alarms +	us-east-1d	ec2-35-172-178

i-086891071ac072878 (IAM-user-creation)

Instance summary Info

Instance ID
i-086891071ac072878 (IAM-user-creation)

Public IPv4 address
35.172.178.124 | open address

Private IPv4 addresses
172.31.18.224

IPv6 address
–

Instance state
Running

Public IPv4 DNS
ec2-35-172-178-124.compute-1.amazonaws.com | open address

Hostname type
IP name: ip-172-31-18-224.ec2.internal

Private IP DNS name (IPv4 only)
ip-172-31-18-224.ec2.internal

Answer private resource DNS name
IPv4 (A)

Instance type
t2.micro

Elastic IP addresses
–

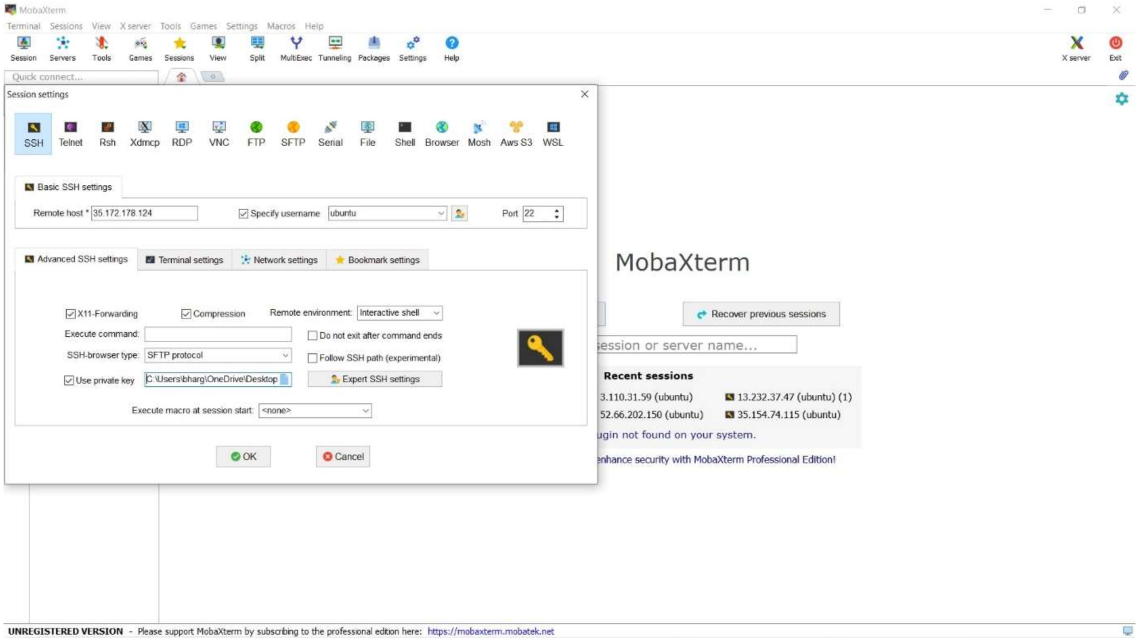
Auto-assigned IP address

VPC ID

AWS Compute Optimizer finding

Log in ec2 instance using SSH client (Here I have used Mobaxterm to launch the instance which is created or you can directly connect to the SSH instance on the AWS)

Copy the Public Ip address and specify username as “ubuntu” select the private key which is created during EC2 instance creation, locate where your public key is downloaded and select.



Session settings

Remote host * 35.172.178.124   ☑ Specify username ubuntu   Port 22

☑ X11-Forwarding   ☑ Compression   Remote environment: Interactive shell

Execute command: □ Do not exit after command ends

SSH-browser type: SFTP protocol   □ Follow SSH path (experimental)

☑ Use private key C:\Users\bharg\OneDrive\Desktop

Execute macro at session start: <none>

Recent sessions

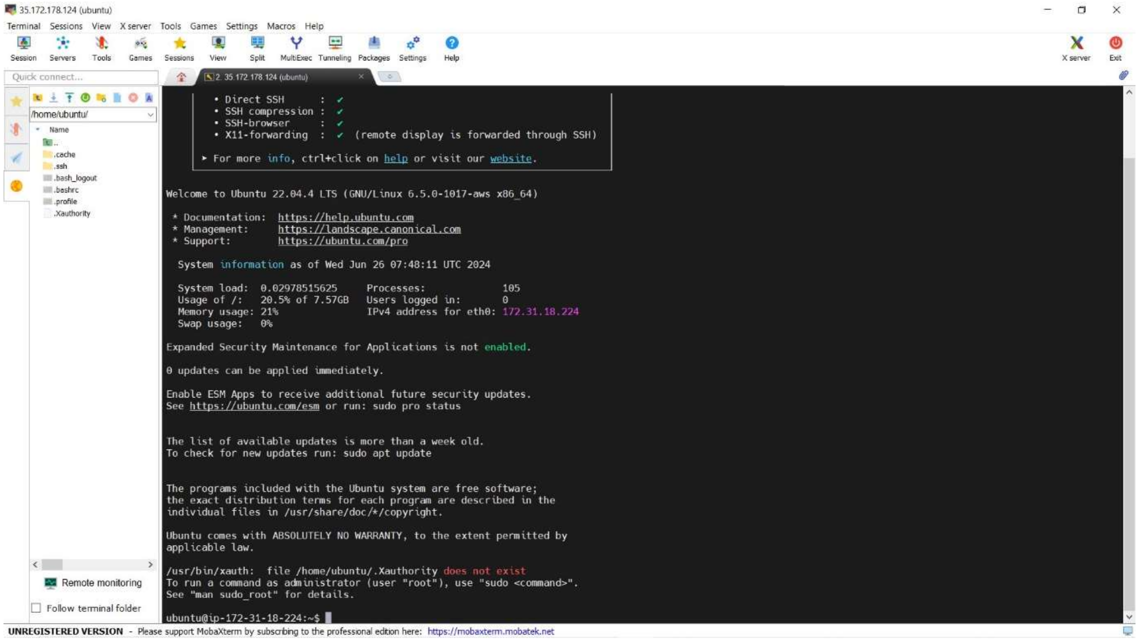
3.110.31.59 (ubuntu)   13.232.37.47 (ubuntu) (1)

52.66.202.150 (ubuntu)   35.154.74.115 (ubuntu)

ugin not found on your system.

enhance security with MobaXterm Professional Edition!

UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net



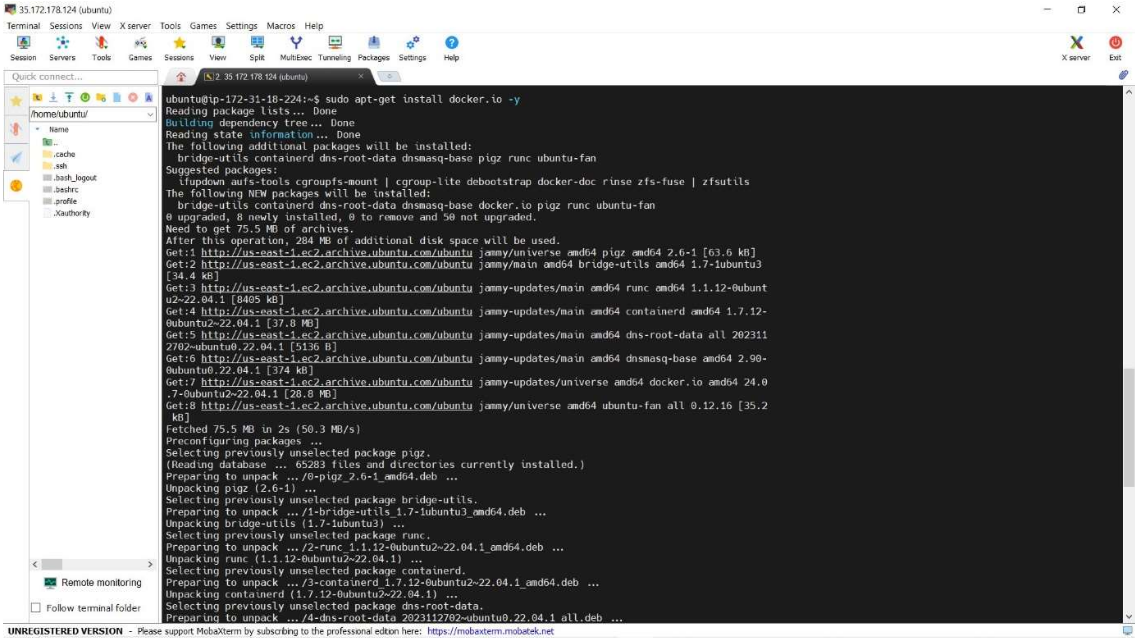
35.172.178.124 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
2. 35.172.178.124 (ubuntu)
/home/ubuntu/
Name
..
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

```
     • Direct SSH      :  ✔
     • SSH compression :  ✔
     • SSH-browser     :  ✔
     • X11-forwarding  :  ✔  (remote display is forwarded through SSH)

   ► For more info, ctrl+click on help or visit our website.

Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1017-aws x86_64)

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

  System information as of Wed Jun 26 07:48:11 UTC 2024

  System load:  0.02978515625     Processes:             105
  Usage of /:   20.5% of 7.57GB   Users logged in:       0
  Memory usage: 21%               IPv4 address for eth0: 172.31.18.224
  Swap usage:   0%

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 pro status


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


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.

/usr/bin/xauth:  file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-18-224:~$
```

Install Jenkins and docker on your machine by following these commands.

sudo apt-get update -y

sudo apt-get install docker.io -y

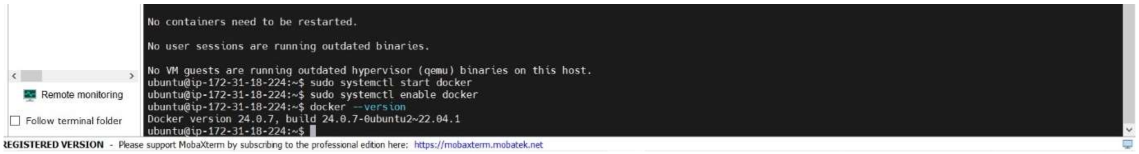


35.172.178.124 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
2. 35.172.178.124 (ubuntu)
/home/ubuntu/
Name
..
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

```
ubuntu@ip-172-31-18-224:~$ sudo apt-get 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-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 50 not upgraded.
Need to get 75.5 MB of archives.
After this operation, 284 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 pigz amd64 2.6-1 [63.6 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 bridge-utils amd64 1.7-1ubuntu3
[34.4 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 runc amd64 1.1.12-0ubunt
u2~22.04.1 [8405 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 containerd amd64 1.7.12-
0ubuntu2~22.04.1 [37.8 MB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 dns-root-data all 202311
2702~ubuntu0.22.04.1 [5136 B]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 dnsmasq-base amd64 2.90-
0ubuntu0.22.04.1 [374 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 docker.io amd64 24.0
.7-0ubuntu2~22.04.1 [28.8 MB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 ubuntu-fan all 0.12.16 [35.2
 kB]
Fetched 75.5 MB in 2s (50.3 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 65283 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.6-1_amd64.deb ...
Unpacking pigz (2.6-1) ...
Selecting previously unselected package bridge-utils.
Preparing to unpack .../1-bridge-utils_1.7-1ubuntu3_amd64.deb ...
Unpacking bridge-utils (1.7-1ubuntu3) ...
Selecting previously unselected package runc.
Preparing to unpack .../2-runc_1.1.12-0ubuntu2~22.04.1_amd64.deb ...
Unpacking runc (1.1.12-0ubuntu2~22.04.1) ...
Selecting previously unselected package containerd.
Preparing to unpack .../3-containerd_1.7.12-0ubuntu2~22.04.1_amd64.deb ...
Unpacking containerd (1.7.12-0ubuntu2~22.04.1) ...
Selecting previously unselected package dns-root-data.
Preparing to unpack .../4-dns-root-data 2023112702~ubuntu0.22.04.1 all.deb ...
```

sudo systemctl start docker

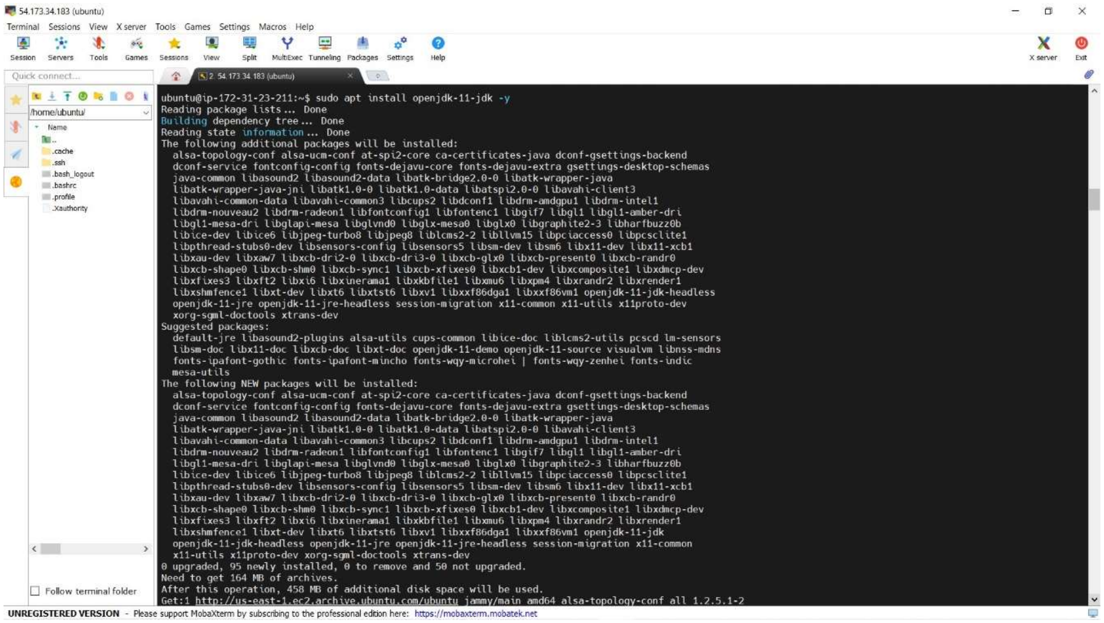
sudo systemctl enable docker



```
No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-18-224:~$ sudo systemctl start docker
ubuntu@ip-172-31-18-224:~$ sudo systemctl enable docker
ubuntu@ip-172-31-18-224:~$ docker --version
Docker version 24.0.7, build 24.0.7-0ubuntu2~22.04.1
ubuntu@ip-172-31-18-224:~$
```

REGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

sudo apt install openjdk-11-jdk -y

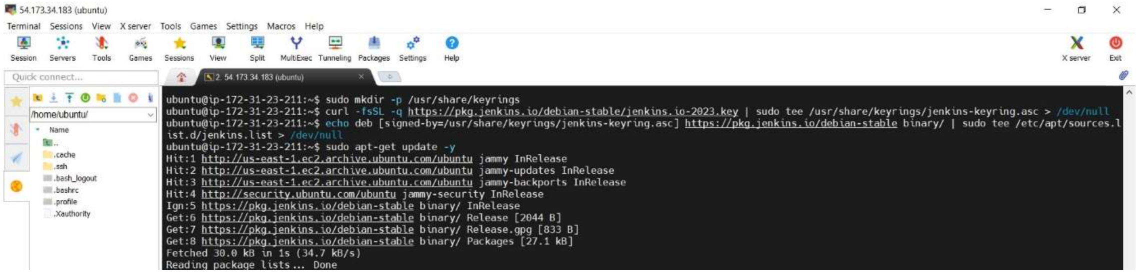

54.173.34.183 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
2. 54.173.34.183 (ubuntu)
/home/ubuntu/
Name
..
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
☐ Follow terminal folder

```
ubuntu@ip-172-31-23-211:~$ sudo apt install openjdk-11-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend
  dconf-service fontconfig-config fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas
  java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java
  libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0 libavahi-client3
  libavahi-common-data libavahi-common3 libcups2 libdconf1 libdrm-amdgpu1 libdrm-intel1
  libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgif7 libgl1 libgl1-amber-dri
  libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libharfbuzz0b
  libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpciaccess0 libpcsclite1
  libpthread-stubs0-dev libsensors-config libsensors5 libsm-dev libsm6 libx11-dev libx11-xcb1
  libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0
  libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxdmcp-dev
  libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1
  libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 openjdk-11-jdk-headless
  openjdk-11-jre openjdk-11-jre-headless session-migration x11-common x11-utils x11proto-dev
  xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre libasound2-plugins alsa-utils cups-common libice-doc liblcms2-utils pcscd lm-sensors
  libsm-doc libx11-doc libxcb-doc libxt-doc openjdk-11-demo openjdk-11-source visualvm libnss-mdns
  fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-zenhei fonts-indic
  mesa-utils
The following NEW packages will be installed:
  alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend
  dconf-service fontconfig-config fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas
  java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java
  libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0 libavahi-client3
  libavahi-common-data libavahi-common3 libcups2 libdconf1 libdrm-amdgpu1 libdrm-intel1
  libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgif7 libgl1 libgl1-amber-dri
  libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libharfbuzz0b
  libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpciaccess0 libpcsclite1
  libpthread-stubs0-dev libsensors-config libsensors5 libsm-dev libsm6 libx11-dev libx11-xcb1
  libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0
  libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxdmcp-dev
  libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1
  libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 openjdk-11-jdk
  openjdk-11-jdk-headless openjdk-11-jre openjdk-11-jre-headless session-migration x11-common
  x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
0 upgraded, 95 newly installed, 0 to remove and 50 not upgraded.
Need to get 164 MB of archives.
After this operation, 458 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 alsa-topology-conf all 1.2.5.1-2
```

UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

sudo mkdir -p /usr/share/keyrings

curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee\
/usr/share/keyrings/jenkins-keyring.asc > /dev/null

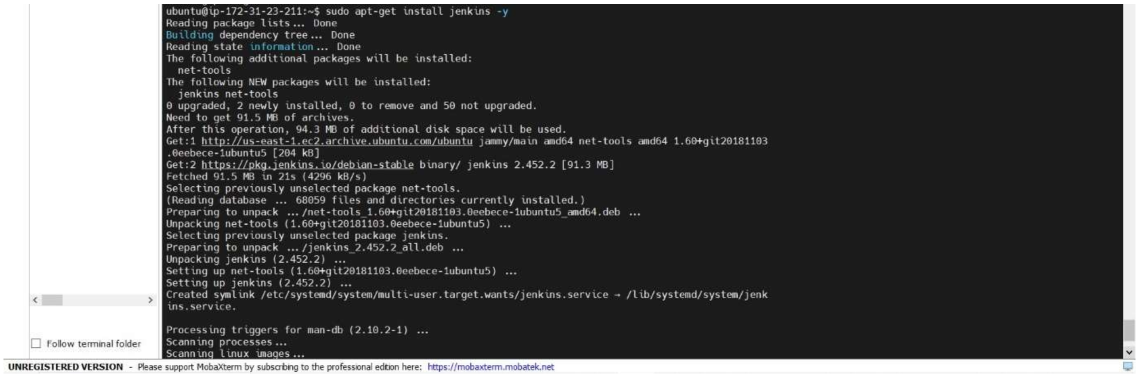

54.173.34.183 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
2. 54.173.34.183 (ubuntu)
/home/ubuntu/
Name
..
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority

```
ubuntu@ip-172-31-23-211:~$ sudo mkdir -p /usr/share/keyrings
ubuntu@ip-172-31-23-211:~$ curl -fsSL -q https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc > /dev/null
ubuntu@ip-172-31-23-211:~$ echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.l
ist.d/jenkins.list > /dev/null
ubuntu@ip-172-31-23-211:~$ sudo apt-get update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:8 https://pkg.jenkins.io/debian-stable binary/ Packages [27.1 kB]
Fetched 30.0 kB in 1s (34.7 kB/s)
Reading package lists... Done
```

echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null

sudo apt-get update -y

sudo apt-get install jenkins -y



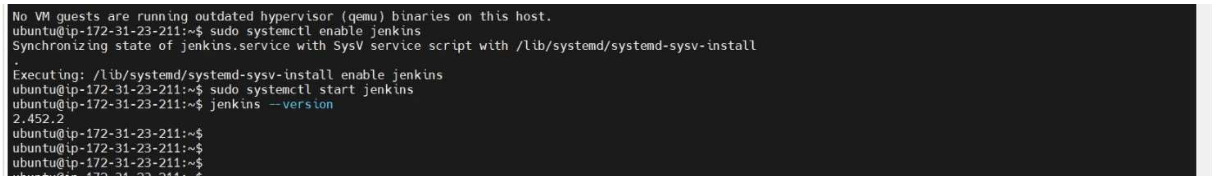
```
ubuntu@ip-172-31-23-211:~$ sudo apt-get install jenkins -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  net-tools
The following NEW packages will be installed:
  jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 50 not upgraded.
Need to get 91.5 MB of archives.
After this operation, 94.3 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60+git20181103
.0eebece-1ubuntu5 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.452.2 [91.3 MB]
Fetched 91.5 MB in 21s (4296 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 68059 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.452.2_all.deb ...
Unpacking jenkins (2.452.2) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up jenkins (2.452.2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenk
ins.service.

Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...
```

□ Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

sudo systemctl enable jenkins

sudo systemctl start jenkins

jenkins –version



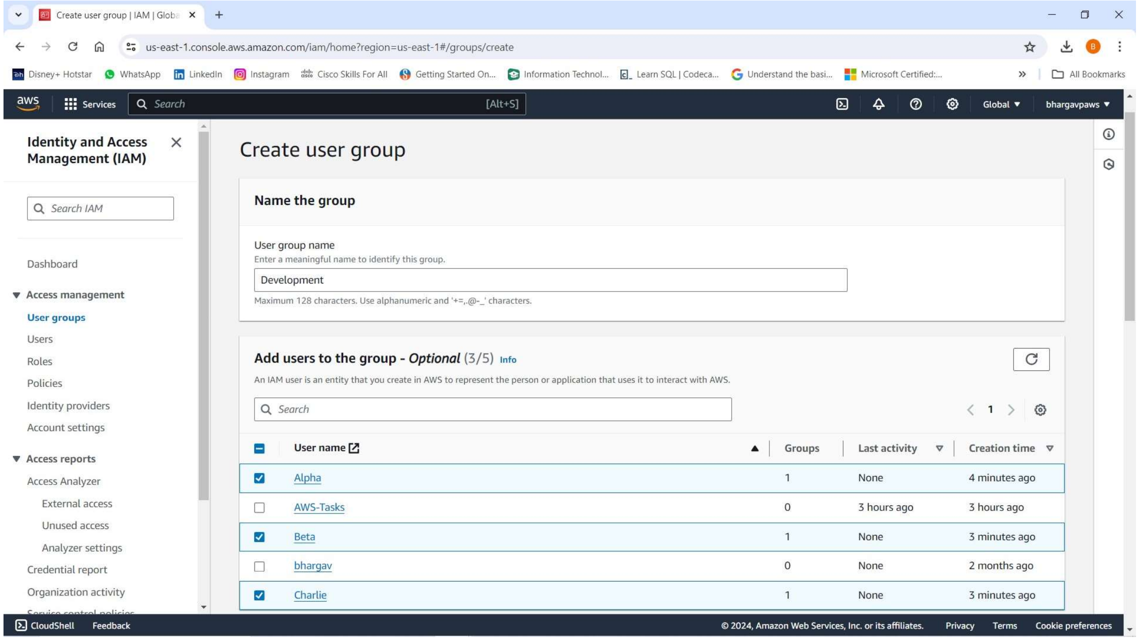
```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-23-211:~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /lib/systemd/systemd-sysv-install
.
Executing: /lib/systemd/systemd-sysv-install enable jenkins
ubuntu@ip-172-31-23-211:~$ sudo systemctl start jenkins
ubuntu@ip-172-31-23-211:~$ jenkins --version
2.452.2
ubuntu@ip-172-31-23-211:~$
ubuntu@ip-172-31-23-211:~$
ubuntu@ip-172-31-23-211:~$
```

Task:2

In this task you need to prepare a DevOps team for Development group.

Create 3 IAM users of Development and assign them in DevOps groups with IAM policy.

Create 3 IAM users of Development by following the Task-1, and give a name to each user and assign an IAM policy for each of the user created.



Create user group

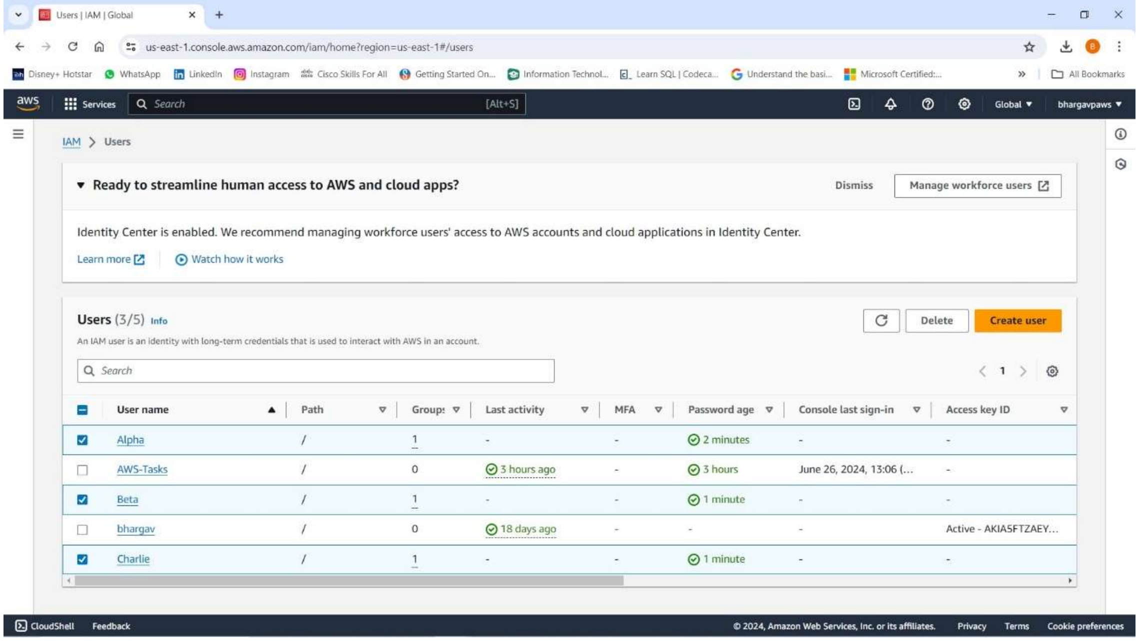
Name the group

User group name
Enter a meaningful name to identify this group.
Development
Maximum 128 characters. Use alphanumeric and '+=,.@-_' characters.

Add users to the group - *Optional* (3/5) Info
An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

	User name	Groups	Last activity	Creation time
☑	Alpha	1	None	4 minutes ago
□	AWS-Tasks	0	3 hours ago	3 hours ago
☑	Beta	1	None	3 minutes ago
□	bhargav	0	None	2 months ago
☑	Charlie	1	None	3 minutes ago

Enter a name for the group (Development) and add the three IAM users to the group by selecting the users. Select the users you created (e.g., "Alpha", "Beta", "Charlie"). Click "Add users".



Ready to streamline human access to AWS and cloud apps?

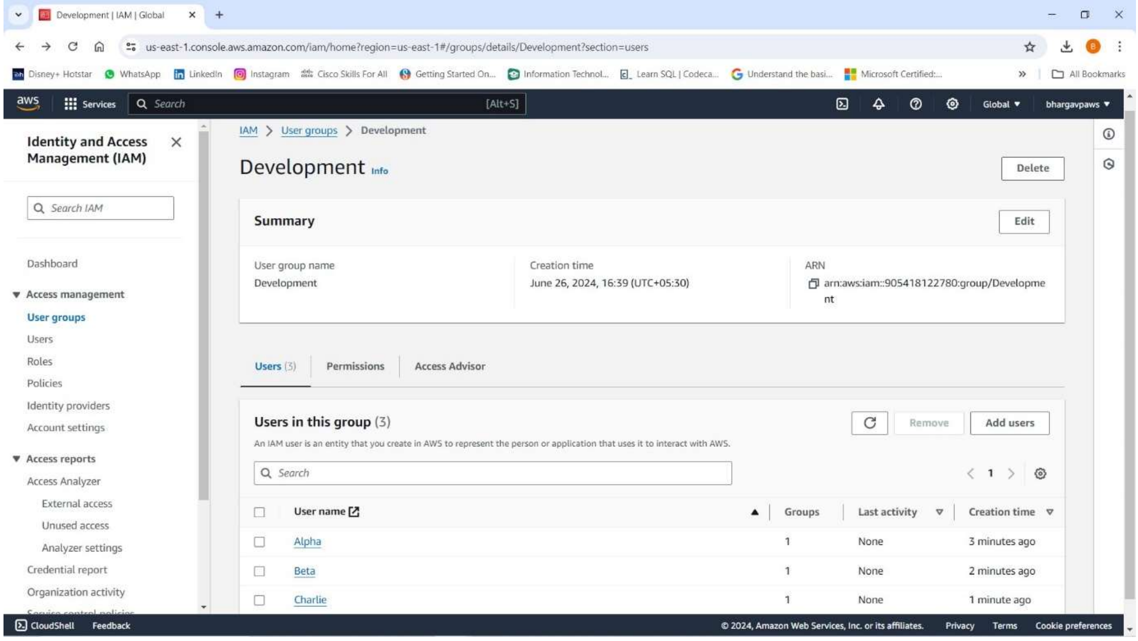
Identity Center is enabled. We recommend managing workforce users' access to AWS accounts and cloud applications in Identity Center.

Users (3/5) Info
An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

	User name	Path	Groups	Last activity	MFA	Password age	Console last sign-in	Access key ID
☑	Alpha	/	1	-	-	2 minutes	-	-
□	AWS-Tasks	/	0	3 hours ago	-	3 hours	June 26, 2024, 13:06 (...	-
☑	Beta	/	1	-	-	1 minute	-	-
□	bhargav	/	0	18 days ago	-	-	-	Active - AKIA5FTZAEY...
☑	Charlie	/	1	-	-	1 minute	-	-

Review and create:

Review your settings and click "Create Group".



Development

Summary

User group name
Development

Creation time
June 26, 2024, 16:39 (UTC+05:30)

ARN
arn:aws:iam::905418122780:group/Development

Users in this group (3)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

User name	Groups	Last activity	Creation time
Alpha	1	None	3 minutes ago
Beta	1	None	2 minutes ago
Charlie	1	None	1 minute ago

- If required You can add more users by clicking "Add users".