

Module 2: EC2 Assignment

Problem Statement:

You work for XYZ Corporation. Your corporation wants to launch a new web-based application using AWS Virtual Machines. Configure the resources accordingly for the tasks.

Tasks To Be Performed:

1. Create an instance in the US-East-1 (N. Virginia) region with an Ubuntu OS and install Nginx for making them web servers.
2. Change the default website with a page displaying the message: "Hello World"

Launching ec2 instance in US-East-1 (N. Virginia) with Ubuntu

The screenshot displays the AWS Management Console interface for launching an EC2 instance. The browser tabs at the top include 'Start Course | Intellipaat', 'Launch an instance | EC2 | us-east-1', and 'Browser - ratre.raj@gmail.com'. The address bar shows the URL: `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:`.

The console header features the AWS logo, a 'Services' menu, a search bar, and the current region 'N. Virginia' with the user 'prakash24'.

Quick Start

A carousel of operating system logos is shown: Amazon Linux, macOS, Ubuntu (selected), Windows, and Red Hat. A 'Browse more AMIs' link is available next to the carousel.

Amazon Machine Image (AMI)

The selected AMI is 'Ubuntu Server 22.04 LTS (HVM), SSD Volume Type' with AMI ID `ami-0e001c9271cf7f3b9`. It is marked as 'Free tier eligible'. The description states: 'Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2024-04-11'. The architecture is set to '64-bit (x86)'.

Summary

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

A 'Free tier: In your first year' notification is displayed. At the bottom, there are 'Cancel' and 'Launch instance' buttons, along with a 'Review commands' link.

The footer includes 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

ec2 instance is in running status

Start Course | Intellipaat

Instances | EC2 | us-east-1

EC2 Instance Connect | us-east-1

Browser - ratre.raj@gmail.com

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;\$case=tags:true%5C,client:false;\$regex=tags:false%5C,client:false

aws

Services

Search

[Alt+S]

N. Virginia

prakash24

EC2 Dashboard

EC2 Global View

Events

Console-to-Code

Preview

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Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

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Instances (1/1)

Info

Refresh

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

1

Table with 7 columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status. Row 1: ec2-ubuntu, i-0a98b6ab9af599648, Running, t2.micro, 2/2 checks passed, View alarms.

i-0a98b6ab9af599648 (ec2-ubuntu)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance summary

Info

Instance ID: i-0a98b6ab9af599648 (ec2-ubuntu)

Public IPv4 address: 44.202.117.210 | open address

Private IPv4 addresses: 172.31.82.180

IPv6 address: -

Instance state: Running

Public IPv4 DNS: ec2-44-202-117-210.compute-1.amazonaws.com | open address

CloudShell

Feedback

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Privacy

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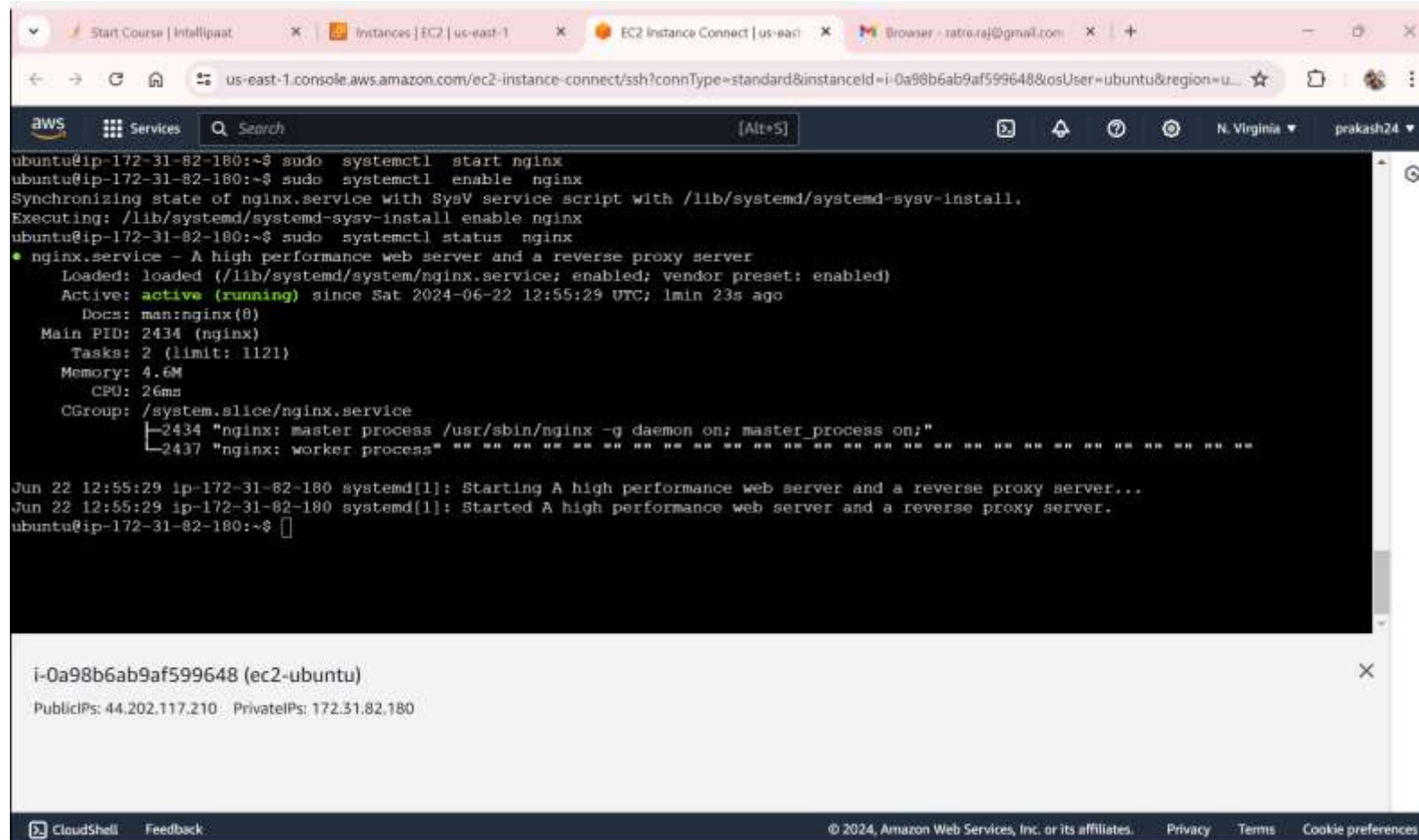
Nginx server is install in ubuntu

sudo apt update

sudo apt install nginx

sudo systemctl start nginx

sudo systemctl enable nginx



The screenshot shows a terminal window within the AWS Management Console, accessed via EC2 Instance Connect. The terminal is running on an Ubuntu instance with IP 172.31.82.180. The user has executed the following commands:

```
ubuntu@ip-172-31-82-180:~$ sudo systemctl start nginx
ubuntu@ip-172-31-82-180:~$ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
ubuntu@ip-172-31-82-180:~$ sudo systemctl status nginx
```

The output of the status command shows that the nginx.service is active and running. It is a high performance web server and a reverse proxy server. The service is loaded and enabled, and it has been running since Saturday, June 22, 2024, at 12:55:29 UTC. The main PID is 2434, and there are 2 tasks running. The memory usage is 4.6M, and the CPU usage is 26ms. The CGroup is /system.slice/nginx.service. The output also shows the master process and worker processes.

```
nginx.service - A high performance web server and a reverse proxy server
Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
Active: active (running) since Sat 2024-06-22 12:55:29 UTC; 1min 23s ago
Docs: man:nginx(8)
Main PID: 2434 (nginx)
Tasks: 2 (limit: 1121)
Memory: 4.6M
CPU: 26ms
CGroup: /system.slice/nginx.service
└─2434 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
   └─2437 "nginx: worker process"

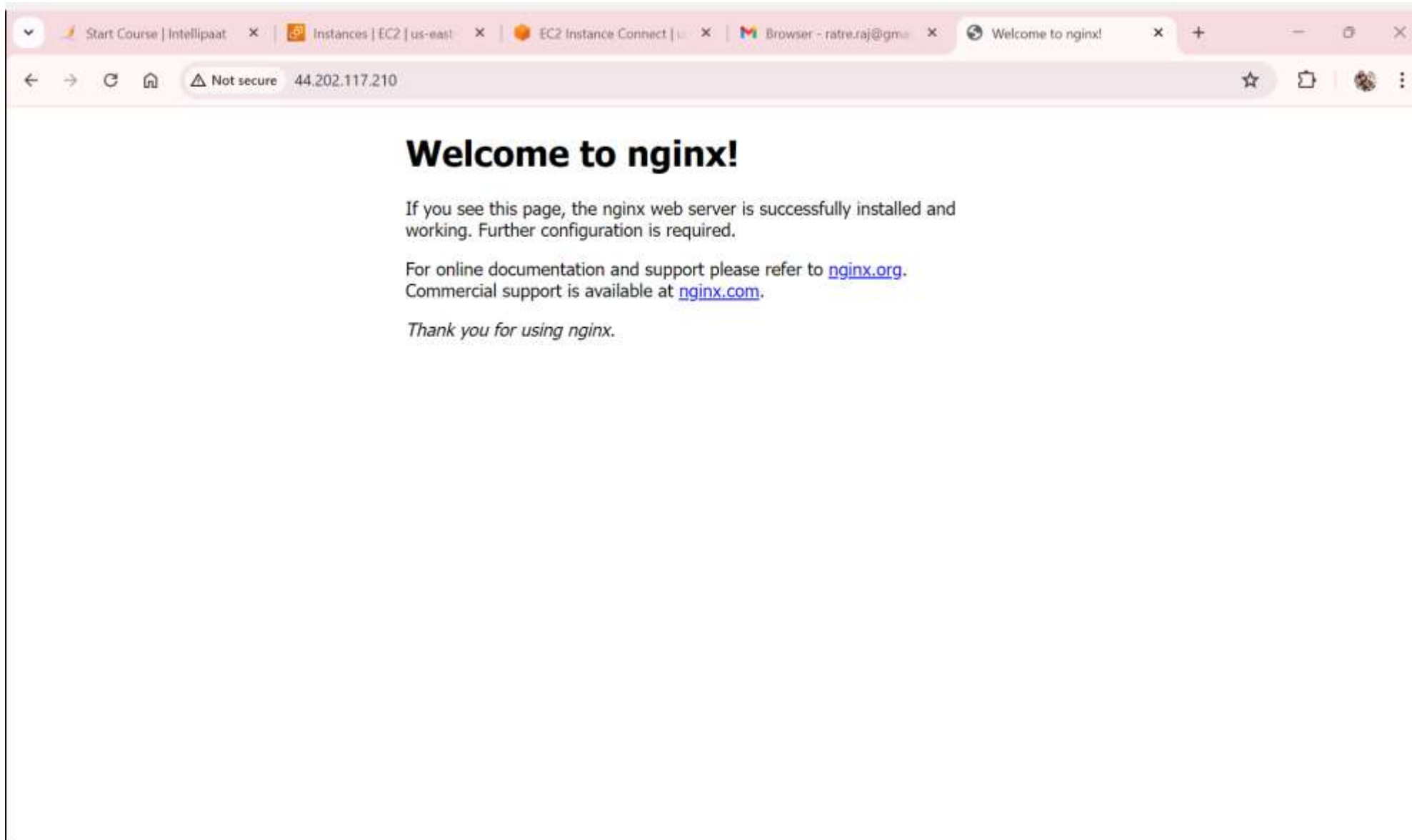
Jun 22 12:55:29 ip-172-31-82-180 systemd[1]: Starting A high performance web server and a reverse proxy server...
Jun 22 12:55:29 ip-172-31-82-180 systemd[1]: Started A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-82-180:~$
```

Below the terminal window, the instance details are shown:

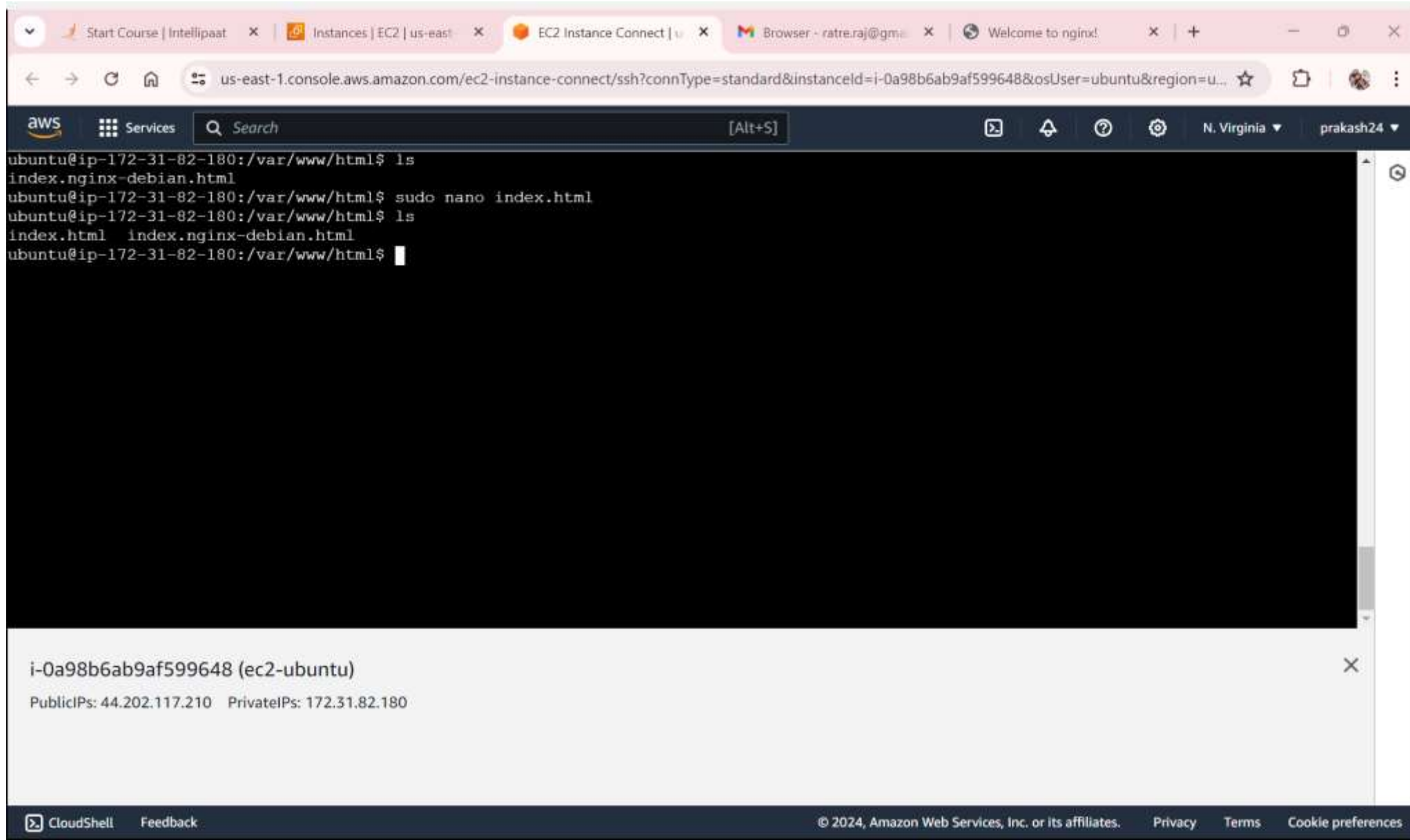
```
i-0a98b6ab9af599648 (ec2-ubuntu)
Public IPs: 44.202.117.210 Private IPs: 172.31.82.180
```

The bottom of the screenshot shows the AWS CloudShell footer with the text "© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

Test page of nginx server



Added a index.html page



The screenshot shows the AWS CloudShell interface. The terminal window displays the following commands and output:

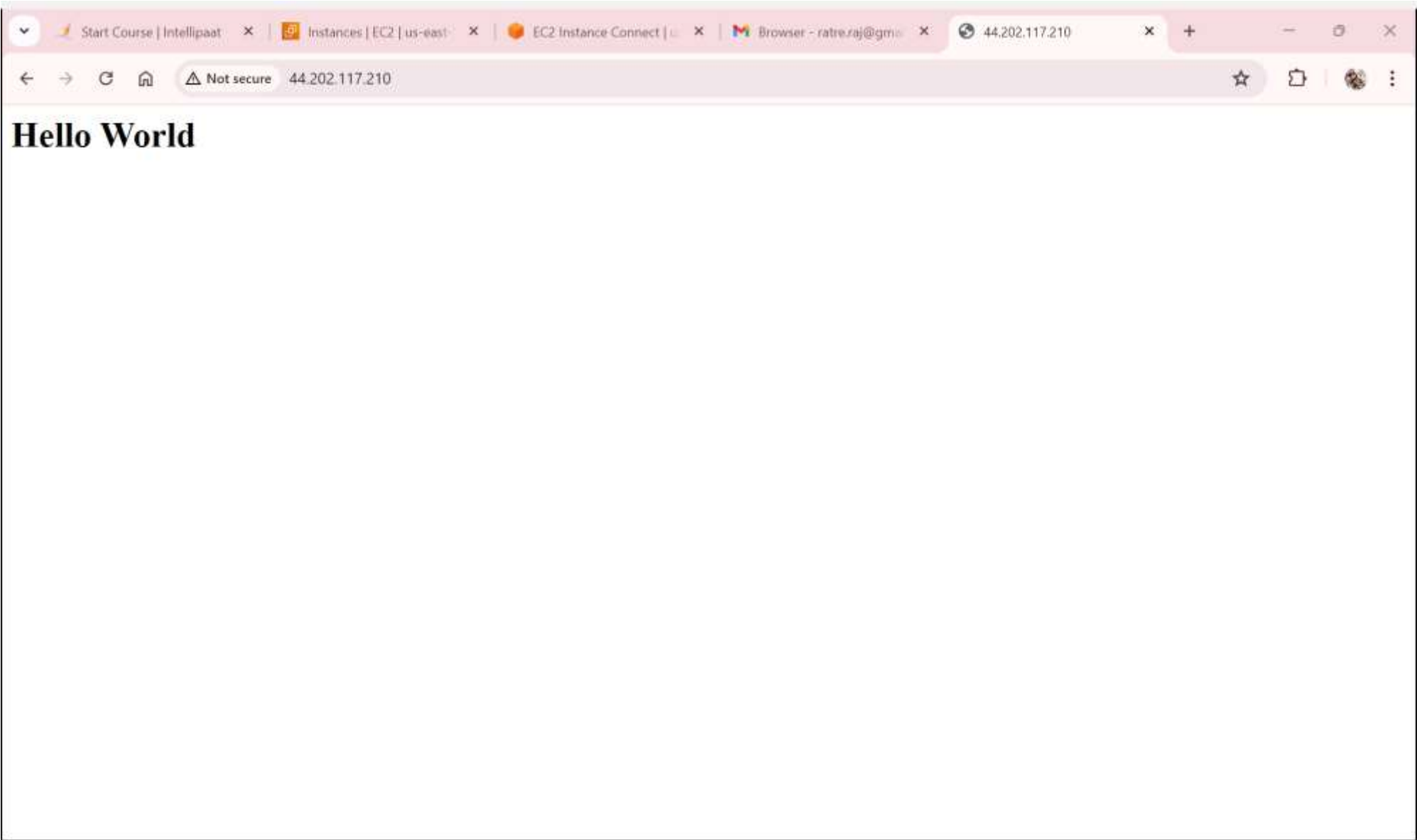
```
ubuntu@ip-172-31-82-180:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-82-180:/var/www/html$ sudo nano index.html
ubuntu@ip-172-31-82-180:/var/www/html$ ls
index.html  index.nginx-debian.html
ubuntu@ip-172-31-82-180:/var/www/html$
```

Below the terminal, the instance details are shown:

i-0a98b6ab9af599648 (ec2-ubuntu)
PublicIPs: 44.202.117.210 PrivateIPs: 172.31.82.180

The bottom of the interface includes the CloudShell logo, a Feedback link, and copyright information: © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences.

page displaying the message: “Hello World”



Module 2: EC2 and EFS Assignment

Tasks To Be Performed:

1. Create an EFS and connect it to 3 different EC2 instances. Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

EFS Created in default VPC

The screenshot displays the AWS Management Console interface for the 'ap-south-1' region. The browser address bar shows the URL: `ap-south-1.console.aws.amazon.com/efs/home?region=ap-south-1#/file-systems`. The console header includes the AWS logo, a search bar, and navigation links for EC2, EC2 Image Builder, S3, IAM, and VPC. A green success banner at the top of the console area states: "Success! File system (fs-0e4ba2138e6a1f65f) is available." with a "View file system" button. The left sidebar shows the "Elastic File System" section with links for "File systems" and "Access points", as well as "AWS Backup", "AWS DataSync", "AWS Transfer", and "Documentation". The main content area, titled "File systems (1)", features a search bar and a table of file systems. The table has columns for Name, File system ID, Encryption status, Total size, Size in Standard, Size in IA, and Size in Archive. A single file system is listed: "demo-efs-26-07-2024" with ID "fs-0e4ba2138e6a1f65f", which is encrypted and has a total size of 6.00 KiB. The bottom of the console shows a "CloudShell" button and a footer with copyright information and links for Privacy, Terms, and Cookie preferences.

ap-south-1.console.aws.amazon.com/efs/home?region=ap-south-1#/file-systems

aws Services Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

Elastic File System

File systems
Access points

AWS Backup
AWS DataSync
AWS Transfer
Documentation

Success!
File system (fs-0e4ba2138e6a1f65f) is available. [View file system](#)

[Amazon EFS](#) > File systems

File systems (1) [Refresh](#) [View details](#) [Delete](#) [Create file system](#)

Filter by property values

	Name	File system ID	Encrypte d	Total size	Size in Standard	Size in IA	Size in Archive	Pro Th (M
	demo-efs-26-07-2024	fs-0e4ba2138e6a1f65f	✓ Encrypte d	6.00 KiB	6.00 KiB	0 Bytes	0 Bytes	-

CloudShell Feedback

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Select AMI for EC2

Start Cour... Weekday! EFS | ap- Launch an Inbox (721 Executive... Enable CC for efs wh +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

aws Services Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

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

Recents Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE LI

aws Mac ubuntu Microsoft Red Hat SUSI

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type Free tier eligible

ami-0d473344347276854 (64-bit (x86)) / ami-053db21b8e958f160 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.

Architecture AMI ID

64-bit (x86) ami-0d473344347276854 Verified provider

Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...read more

ami-0d473344347276854

Virtual server type (instance type)

t2.micro

Firewall (security group)

ec2-sg-26-07-2024

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

Cancel Launch instance

Review commands

CloudShell Feedback

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Attaching EFS to ec2 while creating

The screenshot shows the AWS Management Console for the 'ap-south-1' region. The 'Launch instances' page is active, showing the configuration for a new EC2 instance. The 'File systems' section is expanded, showing a shared file system 'fs-0e4ba2138e6a1f65f' attached to the instance. The 'Summary' section on the right shows the instance configuration: 1 instance, Amazon Linux 2 Kernel 5.10 AMI, t2.micro instance type, ec2-sg-26-07-2024 security group, and 1 volume of 8 GiB. The 'Launch instance' button is highlighted in orange.

Start Cour... x WeekdayE... x EFS | ap-s... x Launch an... x Inbox (72... x Executive... x Enable CO... x G for efs wh... x +

← → ↻ 🏠 📄 ⭐ 📁 👤 New Chrome available ⋮

aws Services 🔍 Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

⌵ Click refresh to view backup information
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

File systems [Hide details](#)

☒ EFS ☐ FSx

▼ Shared file system 1 [Remove](#)

File system [Info](#) Mount point [Info](#)

fs-0e4ba2138e6a1f65f
Name: demo-efs-26-07-2024 Availability: Regional

/mnt/efs/fs1

[Add shared file system](#) [Create new shared file system](#)

4 remaining (Up to 5 file systems maximum).

☒ Automatically create and attach security groups
To enable access to the file system, the required security groups will be automatically created and attached to this instance and the selected file system. To manually manage the security groups, clear the checkbox. [Learn more.](#)

☒ Automatically mount shared file system by attaching required user data script
Automatically mount your file system by updating your user data to install efs-utils. If you would like to manually mount your file system, clear the checkbox.

▼ **Summary**

Number of instances [Info](#)

1

[Software Image \(AMI\)](#)
Amazon Linux 2 Kernel 5.10 AMI...[read more](#)
ami-0d473344347276854

[Virtual server type \(instance type\)](#)
t2.micro

[Firewall \(security group\)](#)
ec2-sg-26-07-2024

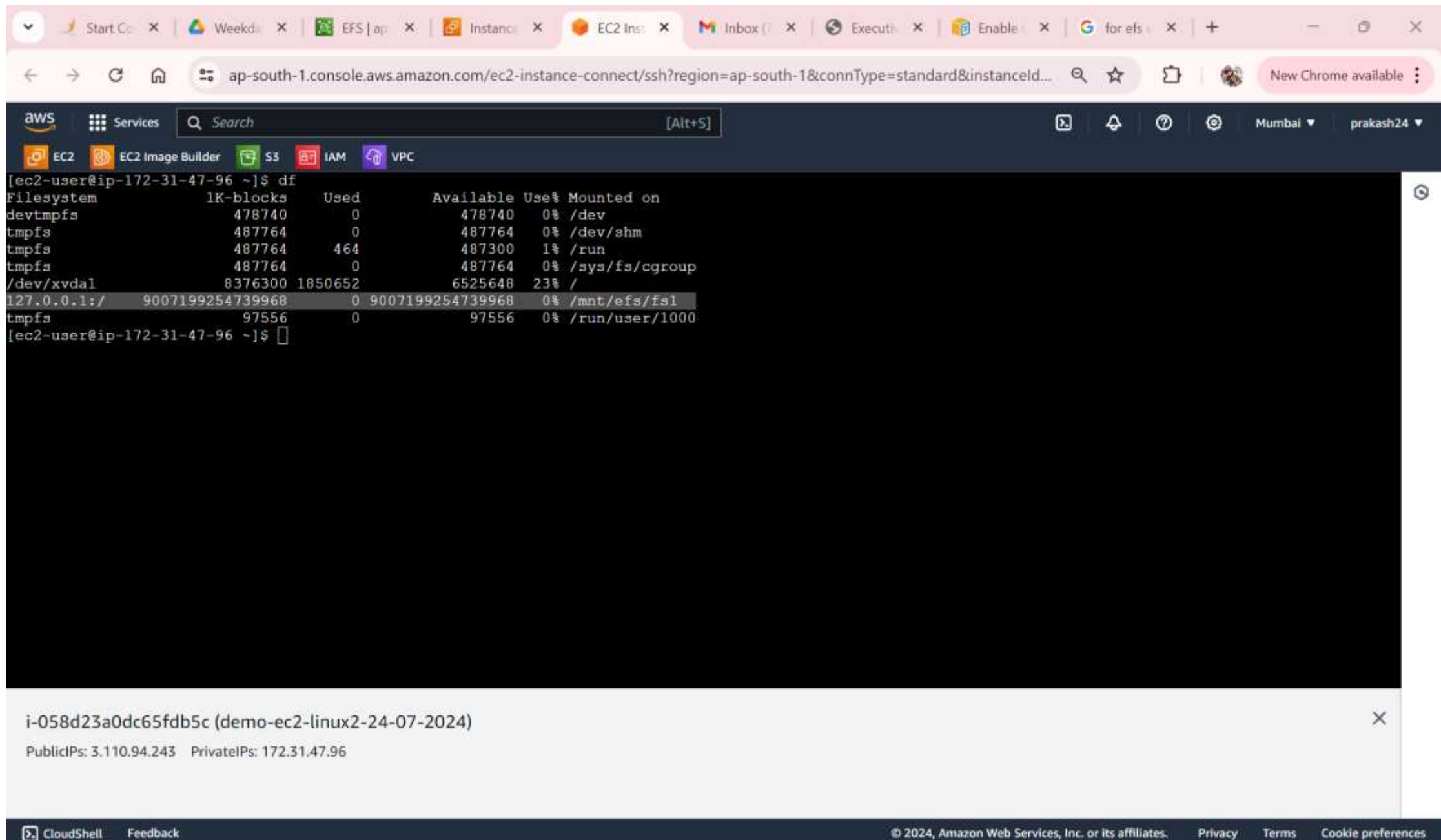
[Storage \(volumes\)](#)
1 volume(s) - 8 GiB

[Free tier:](#) In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

[Cancel](#) [Launch instance](#) [Review commands](#)

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EFS is mounted in ec2 linux2



The screenshot shows the AWS CloudShell interface with a terminal window displaying the output of the `df` command. The terminal output shows that the EFS file system is mounted at `/mnt/efs/fs1` with 0% usage. Below the terminal window, a metadata box for the EC2 instance is visible.

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
devtmpfs	478740	0	478740	0%	/dev
tmpfs	487764	0	487764	0%	/dev/shm
tmpfs	487764	464	487300	1%	/run
tmpfs	487764	0	487764	0%	/sys/fs/cgroup
/dev/xvda1	8376300	1850652	6525648	23%	/
127.0.0.1:/	9007199254739968	0	9007199254739968	0%	/mnt/efs/fs1
tmpfs	97556	0	97556	0%	/run/user/1000

i-058d23a0dc65fdb5c (demo-ec2-linux2-24-07-2024)
PublicIPs: 3.110.94.243 PrivateIPs: 172.31.47.96

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3 different ec2 linux2,Redhat, Ubuntu

The screenshot displays the AWS Management Console for the 'ap-south-1' region. The left sidebar shows the navigation menu with categories like Instances, Images, and Elastic Block Store. The main content area is titled 'Instances (3)' and shows a list of three EC2 instances. A filter 'Instance state = running' is applied. Below the list, a modal titled 'Select an instance' is open.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
demo-ec2-ubuntu-24-07-2024	i-081bb26f7503b38fd	Running	t2.micro	Initializing	View alarms
demo-ec2-linux2-24-07-2024	i-058d23a0dc65fdb5c	Running	t2.micro	2/2 checks passed	View alarms
demo-ec2-redhat-24-07-2024	i-0c5b942a3f6836d6e	Running	t3.micro	Initializing	View alarms

Select an instance

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This is Ubuntu ec2 we can see EFS mounted

Browser tabs: Start C... x Weekda... x EFS | ap... x Instance... x EC2 Ins... x EC2 Ins... x Inbox... x Executi... x Enable... x +

Browser address bar: ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instanceId...

Navigation icons: Back, Forward, Reload, Home, Search, Star, Bookmarks, New Chrome available

Top bar: AWS logo, Services, Search [Alt+S], Mumbai, prakash24

Navigation icons: EC2, EC2 Image Builder, S3, IAM, VPC

```
ubuntu@ip-172-31-38-127:~$ df
Filesystem                                1K-blocks    Used    Available Use% Mounted on
/dev/root                                7941576 2392736    5532456   31% /
tmpfs                                     486012      0    486012     0% /dev/shm
tmpfs                                    194408     884    193524     1% /run
tmpfs                                     5120      0     5120     0% /run/lock
/dev/xvda15                             106832    6186    100646     6% /boot/efi
fs-0e4ba2138e6a1f65f.efs.ap-south-1.amazonaws.com:/ 9007199254739968 0 9007199254739968 0% /mnt/efs/fs1
tmpfs                                     97200      4     97196     1% /run/user/1000

ubuntu@ip-172-31-38-127:~$ cd /mnt/efs/fs1
ubuntu@ip-172-31-38-127:/mnt/efs/fs1$ echo "this first line in sample file" > sample.txt
-bash: sample.txt: Permission denied
ubuntu@ip-172-31-38-127:/mnt/efs/fs1$ sudo echo "this first line in sample file" > sample.txt
-bash: sample.txt: Permission denied
ubuntu@ip-172-31-38-127:/mnt/efs/fs1$ ls
ubuntu@ip-172-31-38-127:/mnt/efs/fs1$ sudo su
root@ip-172-31-38-127:/mnt/efs/fs1# echo "this is my first line" >> sample.txt
root@ip-172-31-38-127:/mnt/efs/fs1# ls
sample.txt
root@ip-172-31-38-127:/mnt/efs/fs1#
```

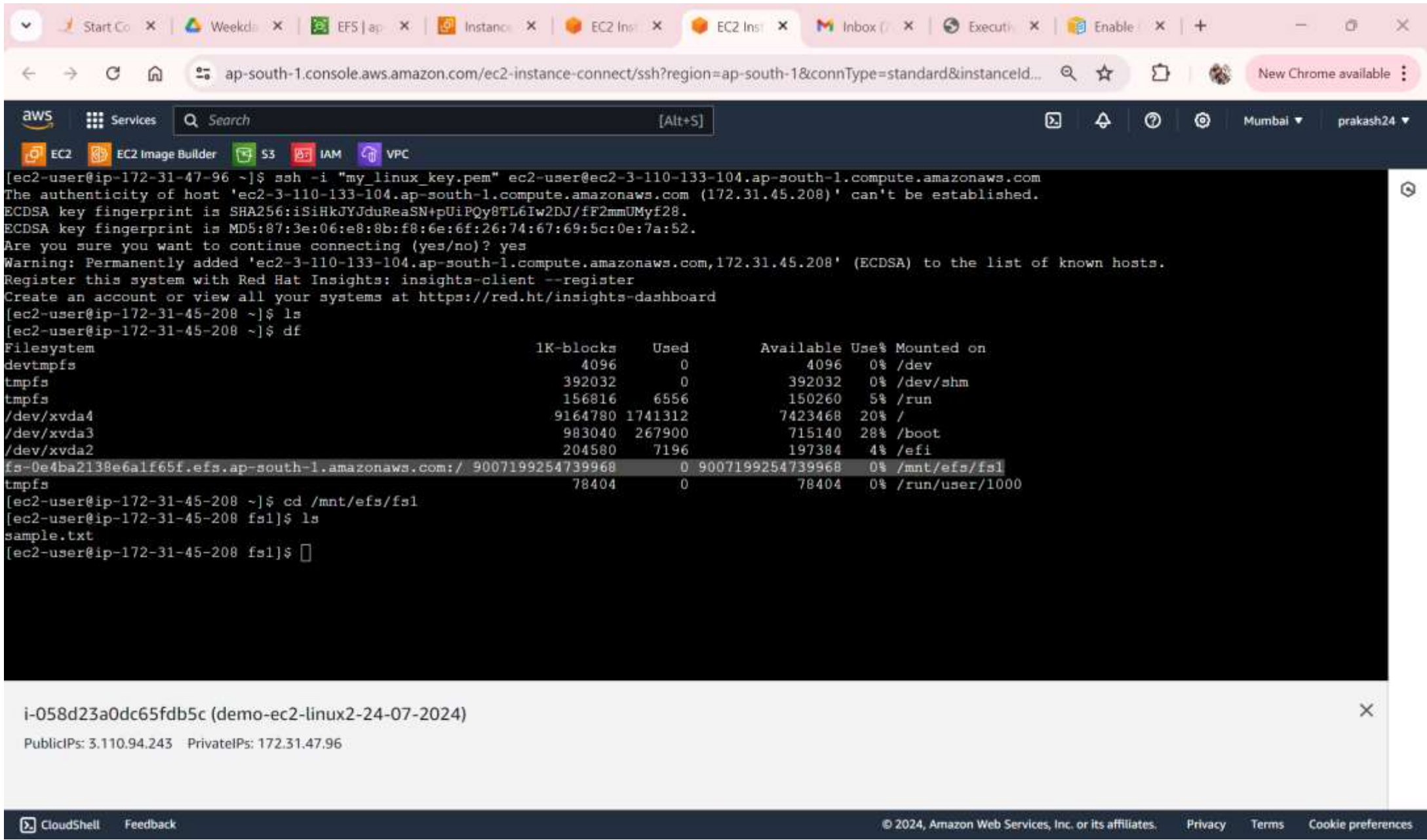
i-0c73a9b3d665b30b2 (Ubuntu)

PublicIPs: 13.201.51.163 PrivateIPs: 172.31.38.127

CloudShell Feedback

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Connected RedHat machine via Linux 2 able to see EFS mount



The screenshot displays the AWS Management Console interface. The top navigation bar shows the AWS logo, a search bar, and various service icons (EC2, EC2 Image Builder, S3, IAM, VPC). The main content area shows a terminal window titled "i-058d23a0dc65fdb5c (demo-ec2-linux2-24-07-2024)". The terminal output shows the following commands and results:

```
[ec2-user@ip-172-31-47-96 ~]$ ssh -i "my_linux_key.pem" ec2-user@ec2-3-110-133-104.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-110-133-104.ap-south-1.compute.amazonaws.com (172.31.45.208)' can't be established.
ECDSA key fingerprint is SHA256:iSiHkYJYJduReaSN+pUiPQy8TL6Iw2DJ/fF2mmUMyf28.
ECDSA key fingerprint is MD5:87:3e:06:e8:8b:f8:6e:6f:26:74:67:69:5c:0e:7a:52.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-3-110-133-104.ap-south-1.compute.amazonaws.com,172.31.45.208' (ECDSA) to the list of known hosts.
Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-dashboard
[ec2-user@ip-172-31-45-208 ~]$ ls
[ec2-user@ip-172-31-45-208 ~]$ df
Filesystem                                1K-blocks    Used    Available Use% Mounted on
devtmpfs                                4096         0         4096    0% /dev
tmpfs                                   392032        0        392032    0% /dev/shm
tmpfs                                   156816       6556        150260    5% /run
/dev/xvda4                             9164780 1741312        7423468 20% /
/dev/xvda3                             983040 267900         715140 28% /boot
/dev/xvda2                             204580       7196        197384    4% /efi
fs-0e4ba2138e6a1f65f.efs.ap-south-1.amazonaws.com:/ 9007199254739968    0 9007199254739968    0% /mnt/efs/fs1
tmpfs                                   78404         0        78404    0% /run/user/1000
[ec2-user@ip-172-31-45-208 ~]$ cd /mnt/efs/fs1
[ec2-user@ip-172-31-45-208 fs1]$ ls
sample.txt
[ec2-user@ip-172-31-45-208 fs1]$
```

At the bottom of the terminal window, there is a notification bar that reads: "i-058d23a0dc65fdb5c (demo-ec2-linux2-24-07-2024) PublicIPs: 3.110.94.243 PrivateIPs: 172.31.47.96".

Module 2: Case Study - 1

Problem Statement:

You work for XYZ Corporation. Your corporation is working on an application and they require secured web servers on Linux to launch the application.

Tasks To Be Performed:

1. Create an instance in the US-East-1 (N. Virginia) region with Linux OS and manage the requirement of web servers of your company using AMI.
2. Replicate the instance in the US-West-2 (Oregon) region.
3. Build two EBS volumes and attach them to the instance in the US-East-1 (N. Virginia) region.
4. Delete one volume after detaching it and extend the size of the other volume.
5. Take backup of this EBS volume.

Instance Created in US-East-1

The screenshot displays the AWS Management Console interface for the us-east-1 region. The top navigation bar includes the AWS logo, a search bar, and various service icons (EC2, EC2 Image Builder, S3, IAM, VPC). The left sidebar contains a navigation menu with categories like EC2 Dashboard, Events, Console-to-Code, Instances, Images, Elastic Block Store, and Network & Security. The main content area is titled 'Instances (1/1)' and features a search bar, a filter dropdown set to 'All states', and a table of instances. The table lists one instance: 'Demo-ec2-linux2-24-07-2024-001' with ID 'i-05154e9fadafef537', in a 'Running' state, of type 't2.micro', with no status checks, no alarms, and in the 'us-east-1b' availability zone. Below the table, a detailed view for the selected instance is shown, including tabs for Details, Status and alarms, Monitoring, Security, Networking, Storage, and Tags. The 'Details' tab is active, showing an 'Instance summary' with fields for Instance ID, Public IPv4 address (35.153.160.68), and Private IPv4 addresses (172.31.36.11).

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;\$case=tags:true%5C,client:false;...

aws Services Search [Alt+5]

EC2 EC2 Image Builder S3 IAM VPC

EC2 Dashboard X

EC2 Global View

Events

Console-to-Code [Preview](#)

▼ Instances

- Instances
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations

▼ Images

- AMIs
- AMI Catalog

▼ Elastic Block Store

- Volumes
- Snapshots
- Lifecycle Manager

▼ Network & Security

Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive)

All states

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/>	Demo-ec2-linux2-24-07-2024-001	i-05154e9fadafef537	Running	t2.micro	-	View alarms +	us-east-1b

i-05154e9fadafef537 (Demo-ec2-linux2-24-07-2024-001)

Details Status and alarms Monitoring Security Networking Storage Tags

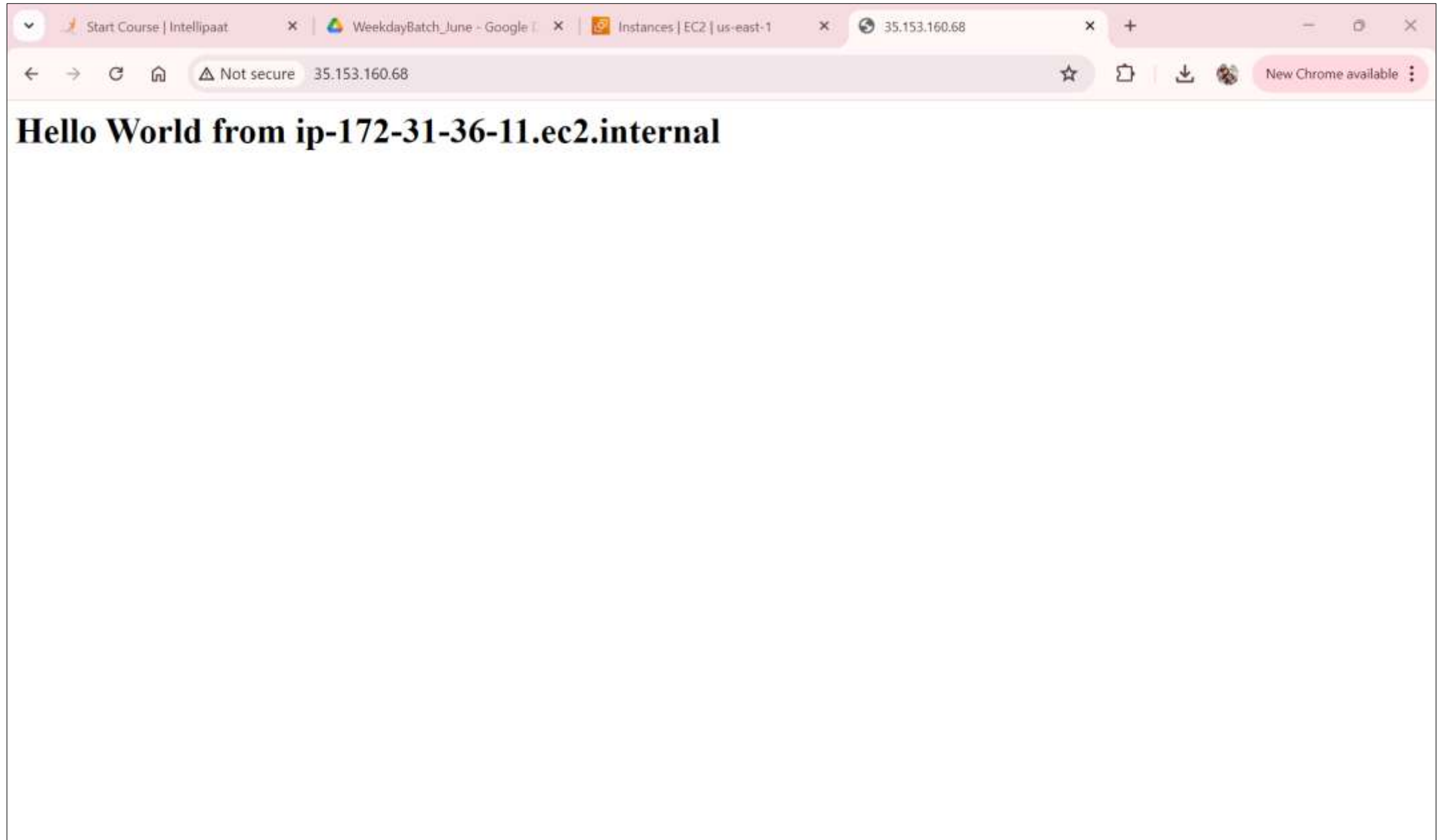
▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-05154e9fadafef537 (Demo-ec2-linux2-24-07-2024-001)	35.153.160.68 open address	172.31.36.11

CloudShell Feedback

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In Instance we have installed apache server to create AMI



AMI Created from instance

Start Course

WeekdayBatc

Images | EC2

Images | EC2

35.153.160.68

Copy an AMI

Copy an AMI

+

—

📄

✕

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👤

New Chrome available

⋮

aws

Services

🔍 Search

[Alt+S]

📄

🔔

?

⚙️

N. Virginia

prakash24

EC2

EC2 Image Builder

S3

IAM

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EC2 Global View

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Preview

▼ Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

▼ Network & Security

Security Groups

Amazon Machine Images (AMIs) (1/1) Info

🔄

🗑️ Recycle Bin

🔗 EC2 Image Builder

Actions

Launch instance from AMI

Owned by me

🔍 Find AMI by attribute or tag

< 1 >

⚙️

✓	Name	AMI name	AMI ID	Source	Owner	Visibility
✓	linux-AMI	ec2-linux-AMI-26-07-2024	ami-0e248479eb5bc7ea1	654654393526/ec2-linux-AMI-26-07-2...	654654393526	Private

AMI ID: ami-0e248479eb5bc7ea1 (linux-AMI)

⚙️ ✕

Details

Permissions

Storage

Tags

AMI ID	ami-0e248479eb5bc7ea1 (linux-AMI)	Image type	machine	Platform details	Linux/UNIX	Root device type	EBS
AMI name	ec2-linux-AMI-26-07-2024	Owner account ID	654654393526	Architecture	x86_64	Usage operation	RunInstances
Root device name	/dev/xvda	Status	Available	Source	654654393526/ec2-linux-AMI-26-07-2024	Virtualization type	hvm
Boot mode	—	State reason	—	Creation date	Fri Jul 26 2024 21:59:32 GMT+0530 (India Standard Time)	Kernel ID	—
Description	Linux2 and http server	Product codes	—	RAM disk ID	—	Deprecation time	—

CloudShell

Feedback

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Copy AMI to US-East-1 to US-West-2

Start Course | WeekdayBat | Copy Image | Images | EC2 | 35.153.160.68 | Copy an AMI | Copy an AMI | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CopyImage:imageId=ami-0e248479eb5bc7ea1

aws Services Search [Alt+S] EC2 EC2 Image Builder S3 IAM VPC

Copy AMI Info

Create a copy of an Amazon Machine Image in a Region.

Copy Amazon Machine Image (AMI)

Original AMI ID

ami-0e248479eb5bc7ea1 (linux-AMI)

AMI copy name

ec2-linux-AMI-26-07-2024

AMI copy description

[Copied ami-0e248479eb5bc7ea1 (linux-AMI) from us-east-1] ec2-linux-AMI-26-07-2024

Destination Region

A copy of the original AMI will be created in the destination Region.

US West (Oregon)

☐ Copy tags

Includes your user-defined AMI tags when copying the AMI.

☐ Encrypt EBS snapshots of AMI copy

Encrypts all snapshots in the AMI copy with the same key.

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

☒ Tag image and snapshots together

Tag the image and the snapshots with the same tag.

☐ Tag image and snapshots separately

Tag the image and the snapshots with different tags.

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AMI is available US-West-2

Start Course

WeekdayBat

Images | EC2

Images | EC2

35.153.160.68

Copy an AMI

Copy an AMI

us-west-2.console.aws.amazon.com/ec2/home?region=us-west-2#Images:visibility=owned-by-me

New Chrome available

aws

Services

Search

[Alt+S]

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Amazon Machine Images (AMIs) (1)

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Refresh

Recycle Bin

EC2 Image Builder

Actions

Launch instance from AMI

Owned by me

Find AMI by attribute or tag

< 1 >

Name	AMI name	AMI ID	Source	Owner
	ec2-linux-AMI-26-07-2024	ami-0d9a9eb50e2a290f3	654654393526/ec2-linux-AMI-26-07-2...	654654393526

Select an AMI

CloudShell

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Ec2 Instance is Ready

The screenshot displays the AWS Management Console for the 'us-west-2' region. The left-hand navigation pane lists various services, with 'Instances' expanded under the 'EC2' category. The main content area, titled 'Instances (1)', shows a single EC2 instance in a 'Running' state. The instance's details are as follows:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
	i-0a5bd6aef2ebbc4d7	Running	t2.micro	2/2 checks passed	View alarms	us-west-2b

Below the table, a modal window titled 'Select an instance' is visible, indicating that the instance has been selected. The bottom of the console shows the 'CloudShell' button and a 'Feedback' link. The footer contains the copyright notice '© 2024, Amazon Web Services, Inc. or its affiliates.' along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

Created 2 EBS Volume

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Volumes:sort=volumeId

Successfully created volume [vol-048922ffa99711a82](#).

Volumes (2/3) Info

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
<input type="checkbox"/>	-	vol-02e44bd0dbf19d105	gp2	8 GiB	100	-	snap-0c591ac...	2024/07/26 2
<input checked="" type="checkbox"/>	Volume 2	vol-048922ffa99711a82	gp3	1 GiB	3000	125	-	2024/07/26 2
<input checked="" type="checkbox"/>	Volume 1	vol-0985b7614026d769a	gp3	2 GiB	3000	125	-	2024/07/26 2

Volume IDs: [vol-048922ffa99711a82 \(Volume 2\)](#), [vol-0985b7614026d769a \(Volume 1\)](#)

Monitoring Selection summary

3h 1d 1w 1h Local timezone Add to dashboard

Read throughput (Ki...
1
0.5
0

Write throughput (Ki...
1
0.5
0

Read operations (Op...
1
0.5
0

Write operations (Op...
1
0.5
0

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Attaching a volume 1

The screenshot shows the AWS Management Console interface in the 'us-east-1' region. The 'Attach volume' dialog box is open, displaying the following details:

- Volume ID:** vol-0985b7614026d769a (Volume 1)
- Availability Zone:** us-east-1b
- Instance:** i-05154e9fadafefb537
- Device name:** /dev/xvdbz

A note at the bottom of the dialog states: "Newer Linux kernels may rename your devices to `/dev/xvdf` through `/dev/xvdp` internally, even when the device name entered here (and shown in the details) is `/dev/sdf` through `/dev/sdp`."

At the bottom of the dialog, there are two buttons: "Cancel" and "Attach volume".

The footer of the console shows "CloudShell", "Feedback", and copyright information: "© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

Attaching a volume 2

The screenshot shows the AWS Management Console interface for attaching a volume to an EC2 instance. The browser tabs at the top include 'Start Course', 'WeekdayBat...', 'Attach volume', 'Instances | EC...', '35,153,160.68', 'Copy an AMI', and another 'Copy an AMI'. The address bar shows the URL: `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#AttachVolume:volumeId=vol-048922ffa99711a82`. The console header includes the AWS logo, 'Services', a search bar, and navigation icons for EC2, EC2 Image Builder, S3, IAM, and VPC. The user's location is 'N. Virginia' and their name is 'prakash24'.

The main content area displays the 'Attach volume' dialog box with the following details:

- Basic details**
- Volume ID:** `vol-048922ffa99711a82` (Volume 2)
- Availability Zone:** `us-east-1b`
- Instance:** `i-05154e9fadafefb537` (with an 'Info' link and a refresh button)
- Device name:** `/dev/xvdbx` (with an 'Info' link)

Below the device name field, a note states: 'Recommended device names for Linux: `/dev/xvda` for root volume, `/dev/sd[f-p]` for data volumes.'

A light blue information box contains the following text: 'Newer Linux kernels may rename your devices to `/dev/xvdf` through `/dev/xvdp` internally, even when the device name entered here (and shown in the details) is `/dev/sdf` through `/dev/sdp`.'

At the bottom of the dialog box, there are two buttons: 'Cancel' and 'Attach volume'.

The footer of the console includes 'CloudShell', 'Feedback', and copyright information: '© 2024, Amazon Web Services, Inc. or its affiliates.' along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

Both Volume attached in EC2 Instance

The screenshot displays the AWS Management Console interface for an EC2 instance. The top navigation bar includes the AWS logo, a search bar, and various service icons (EC2, EC2 Image Builder, S3, IAM, VPC). The left sidebar contains a navigation menu with categories like EC2 Dashboard, Instances, Images, and Elastic Block Store. The main content area shows the 'Instances (1/1)' page, where a single instance named 'Demo-ec2-linux2-24-07-2024-001' is listed in a 'Running' state. Below this, a modal window titled 'i-05154e9fadafef537 (Demo-ec2-linux2-24-07-2024-001)' is open, displaying the 'Block devices' section. This section contains a table of three attached EBS volumes, all in an 'Attached' state. The table columns include Volume ID, Device name, Volume size (GiB), Attachment status, Attachment time, Encrypted status, and a checkbox. The bottom of the modal shows 'Volume monitoring (3)' and a footer with navigation options and a copyright notice.

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;\$case=tags:true%5C,client:false;\$regex...

Services Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

EC2 Dashboard X

EC2 Global View

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Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive)

All states

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Actions
<input checked="" type="checkbox"/>	Demo-ec2-linux2-24-07-2024-001	i-05154e9fadafef537	Running	t2.micro	2/2 checks passed	

i-05154e9fadafef537 (Demo-ec2-linux2-24-07-2024-001)

▼ Block devices

Filter block devices

<input checked="" type="checkbox"/>	Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted	KMS Key ID
<input checked="" type="checkbox"/>	vol-02e44bd0dbf19d105	/dev/xvda	8	Attached	2024/07/26 21:10 GMT+5:30	No	-
<input checked="" type="checkbox"/>	vol-048922ffa99711a82	/dev/xvdbx	1	Attached	2024/07/26 22:22 GMT+5:30	No	-
<input checked="" type="checkbox"/>	vol-0985b7614026d769a	/dev/xvdbz	2	Attached	2024/07/26 22:21 GMT+5:30	No	-

Volume monitoring (3)

3h 1d 1w 1h Local timezone Add to dashboard

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Detaching Volume1 from EC2 Instance

The screenshot shows the AWS Management Console interface. The browser tabs include 'Start Course', 'WeekdayBats', 'Volumes | EC2', 'Instances | EC2', and several 'Copy an AMI' tabs. The address bar shows the URL: `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Volumes:sort=volumeid`. The console header includes the AWS logo, 'Services', a search bar, and navigation links for EC2, EC2 Image Builder, S3, IAM, and VPC. The left sidebar shows the navigation menu with categories like EC2 Dashboard, Instances, Images, and Elastic Block Store. The main content area displays the 'Volumes (1/5)' list. A modal dialog is open in the center, titled 'Detach vol-048922ffa99711a82?'. The dialog contains the following text: 'After you detach a volume, you might still be charged for volume storage. If you no longer need the volume, delete it to stop incurring charges.' and 'Are you sure that you want to detach volume vol-048922ffa99711a82?'. At the bottom of the dialog are 'Cancel' and 'Detach' buttons. The background shows a table of volumes with columns: Name, Volume ID, Type, Size, IOPS, Throughput, Snapshot ID, and Created. The table lists three volumes: 'Volume 1' (gp2, 8 GiB, 100 IOPS), 'Volume 2' (gp3, 1 GiB, 3000 IOPS, 125 Throughput), and 'Volume 3' (gp3, 2 GiB, 3000 IOPS, 125 Throughput). Below the table, the details for 'Volume ID: vol-048922ffa99711a82' are shown, including its type (gp3), size (1 GiB), and status (Available).

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Volumes:sort=volumeid

aws Services Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

EC2 Dashboard X

EC2 Global View

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Volumes (1/5)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-02c44b8d09f10d105	gp2	8 GiB	100	-	snp0-0c531ac...	2024/07/28 2
Volume 2	vol-048922ffa99711a82	gp3	1 GiB	3000	125	-	2024/07/28 2
Volume 1	vol-0725b78f48126d7e9e	gp3	2 GiB	3000	125	-	2024/07/28 2

Detach vol-048922ffa99711a82?

After you detach a volume, you might still be charged for volume storage. If you no longer need the volume, delete it to stop incurring charges.

Are you sure that you want to detach volume vol-048922ffa99711a82?

Cancel Detach

Volume ID: vol-048922ffa99711a82

Details Status checks Monitor

Volume ID	Size	Type	Volume status
vol-048922ffa99711a82 (Volume 2)	1 GiB	gp3	Available data

AWS Compute Optimizer finding

Optimized to AWS Compute Optimizer for recommendations. [Learn more](#)

First snapshot removed

Availability Zone

Created

Full-Attach enabled

No

us-east-1b

Fri Jul 26 2024 22:20:11 GMT+0530

No

CloudShell Feedback

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Deleting Volume1

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and various service icons (EC2, EC2 Image Builder, S3, IAM, VPC). The left sidebar contains a navigation menu with categories like Instances, Images, and Elastic Block Store. The main content area displays the 'Volumes (1/3)' page. A modal dialog is open in the center, titled 'Delete vol-048922ffa99711a82?'. The dialog contains a warning message: 'After you delete a volume, its data is permanently deleted and the volume can no longer be attached to an instance.' Below this, it asks 'Are you sure that you want to delete vol-048922ffa99711a82?' and provides a text input field for confirmation. The input field contains the word 'delete'. At the bottom of the dialog are 'Cancel' and 'Delete' buttons. The background shows a table of volumes with columns for Name, Volume ID, Type, Size, IOPS, Throughput, Snapshot ID, and Created. The volume 'vol-048922ffa99711a82' is highlighted.

Start Course | WeekdayBatch | Volumes | EC2 | Instances | EC2 | 35.153.160.68 | Copy an AMI | Copy an AMI | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Volumes:sort=volumeId

aws Services Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

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Volumes

Snapshots

Successfully detached volumes.

Volumes (1/3) [View](#)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-02e448a0d0f18a106	gp2	8 GiB	100	-	snap-0c531a...	2024/07/26 2
Volume 2	vol-048922ffa99711a82	gp3	1 GiB	3000	125	-	2024/07/26 2
Volume 1	vol-0885879...	gp3	1 GiB	3000	125	-	2024/07/26 2

Delete vol-048922ffa99711a82?

⚠ After you delete a volume, its data is permanently deleted and the volume can no longer be attached to an instance.

Are you sure that you want to delete **vol-048922ffa99711a82**?

To confirm deletion, type *delete* in the field.

delete

Cancel Delete

Volume ID: vol-048922ffa99711a82 (Volume 2) 1 GiB

Volume state: Available

Created: Fri Jul 26 2024 22:30:11 GMT+0530

Multi-Attach enabled: No

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Resizing the Volume

Start Course | WeekdayBat | Modify volum | Instances | EC | 35.153.160.68 | Copy an AMI | Copy an AMI | +

← → ↻ 🏠 🔍 ⭐ 📁 👤 New Chrome available

aws Services 🔍 Search [Alt+S]

EC2 EC2 Image Builder S3 IAM VPC

⋮

Modify the type, size, and performance of an EBS volume.

Volume details

Volume ID

📄 vol-0985b7614026d769a (Volume 1)

Volume type [Info](#)

General Purpose SSD (gp3) ▼

Size (GiB) [Info](#)

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s) [Info](#)

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

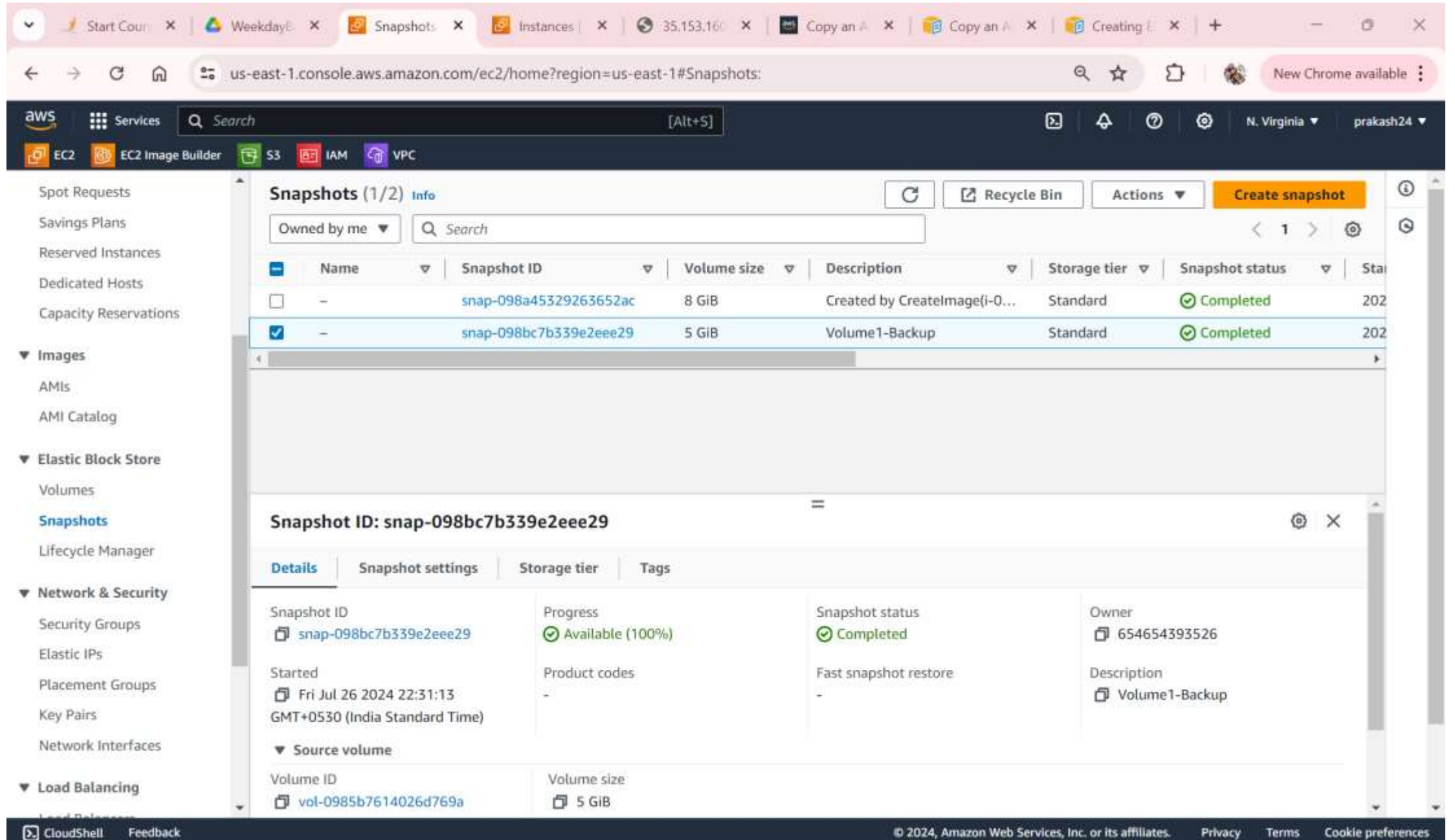
Cancel

Modify

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Created a Snapshot backup



The screenshot shows the AWS Management Console interface for the Snapshots page. The console displays a list of snapshots, with one selected. The details for the selected snapshot (snap-098bc7b339e2eee29) are shown below the list, including its status (Completed), progress (100%), and source volume (vol-0985b7614026d769a).

Snapshots (1/2)

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	State
-	snap-098a45329263652ac	8 GiB	Created by CreateImage(i-0...	Standard	Completed	202
-	snap-098bc7b339e2eee29	5 GiB	Volume1-Backup	Standard	Completed	202

Snapshot ID: snap-098bc7b339e2eee29

Details | Snapshot settings | Storage tier | Tags

Snapshot ID snap-098bc7b339e2eee29	Progress Available (100%)	Snapshot status Completed	Owner 654654393526
Started Fri Jul 26 2024 22:31:13 GMT+0530 (India Standard Time)	Product codes -	Fast snapshot restore -	Description Volume1-Backup
Source volume			
Volume ID vol-0985b7614026d769a	Volume size 5 GiB		

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We can also use AWS Backup

The screenshot shows the AWS Management Console interface for creating an on-demand backup. The browser address bar displays the URL: `us-east-1.console.aws.amazon.com/backup/home?region=us-east-1#/resources/recoverypoint/create`. The console header includes the AWS logo, a search bar, and navigation links for various services like EC2, IAM, and VPC. The main content area is titled 'Create on-demand backup' and includes a breadcrumb trail: 'AWS Backup > Protected resources > Create on-demand backup'.

Settings

Resource type: EBS (selected from a dropdown menu)

Volume ID: vol-0985b7614026d769a (selected from a dropdown menu, with a refresh button next to it)

Backup window

- ☒ Create backup now
Starts within 1 hour.
- ☐ Customize backup window

Cold storage for Amazon EBS [Info](#)

- ☐ Archive Amazon EBS snapshots
Lower-cost, long-term storage of rarely-accessed snapshots that do not need frequent or fast retrieval. Converts incremental to full backups. Longer recovery time objective (RTO). Applies to backup frequency of monthly or less often.

Total retention period [Info](#)
Tell AWS Backup how long to store your backups.

35 Days (selected from a dropdown menu)

Total retention (days)

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