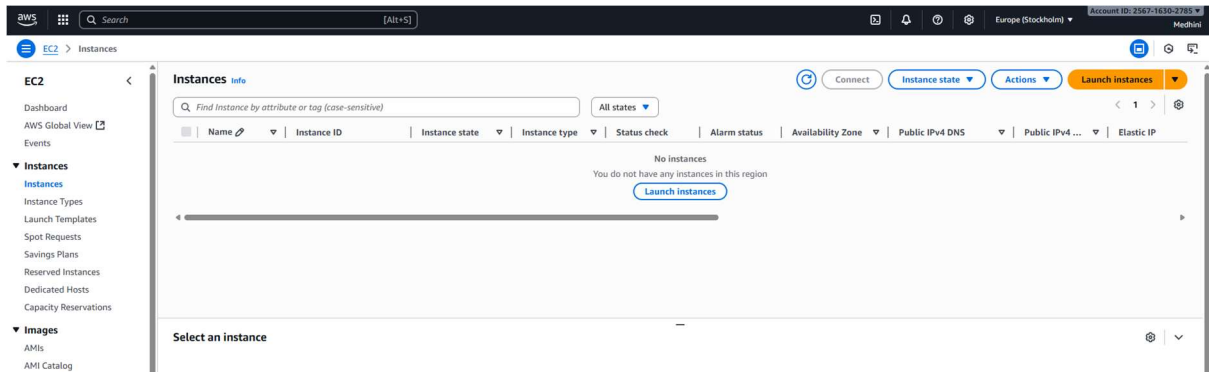
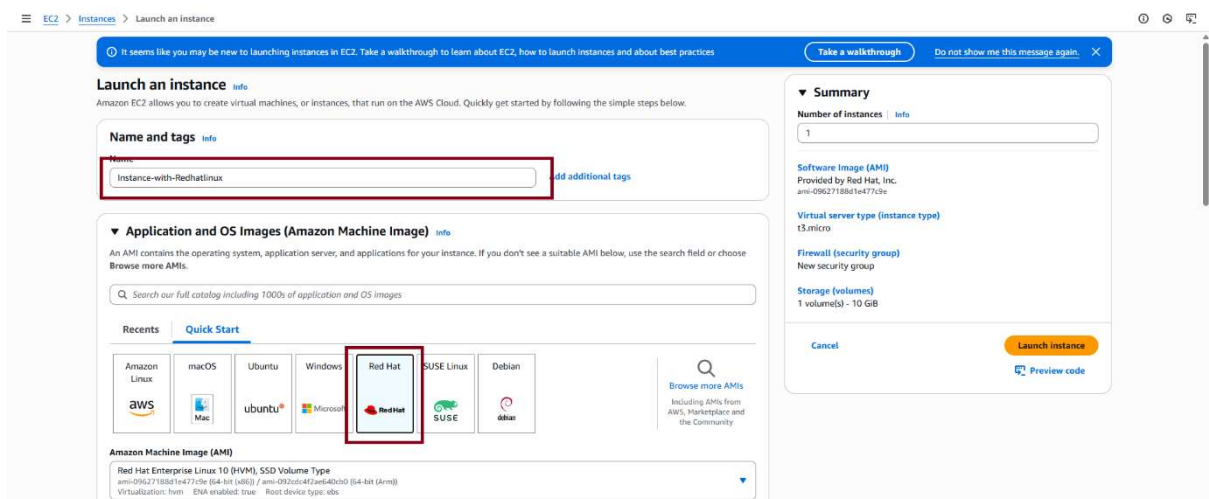


# EC2 Instance with Red Hat Linux Operating System

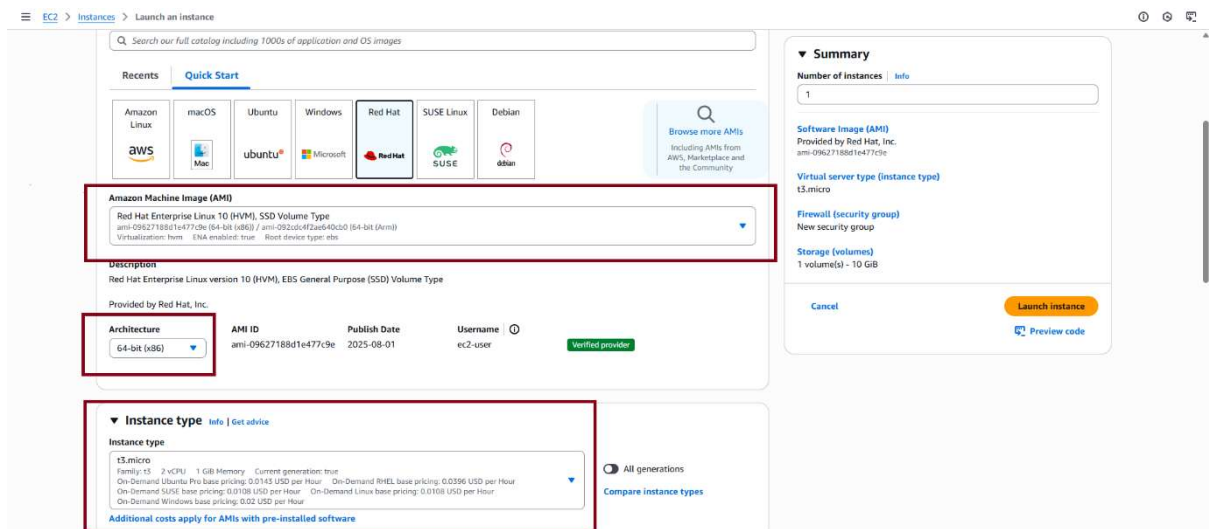
Step 1: Login to your account, click on **Instances**



Step 2: Give a name for an instance and select Operating system as RED Hat



Step 3: Select AMI, choose storage type and instance type as shown in below picture



## Assignment 1 – EC2 AND EFS

### Step 4: Select Keypair as shown in below picture

**Key pair (login)** [Info](#)

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**

Select  [Create new key pair](#)

[Proceed without a key pair \(Not recommended\)](#) [Default value](#)

**Network** [Info](#)

vpc-008e8b801be510f98

**Subnet** [Info](#)

No preference (Default subnet in any availability zone)

**Auto-assign public IP** [Info](#)

Enable

**Firewall (security groups)** [Info](#)

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](#)

☐ 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.](#)

**Summary**

**Number of instances** [Info](#)

1

**Software Image (AMI)** [Info](#)

Provided by Red Hat, Inc.  
ami-0962718bd1e477c9e

**Virtual server type (instance type)**

t3.micro

**Firewall (security group)**

New security group

**Storage (volumes)**

1 volume(s) - 10 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)

### Step 5: Select Network Settings and configure storage as shown in below figure

**Network settings** [Info](#) [Edit](#)

**Network** [Info](#)

vpc-008e8b801be510f98

**Subnet** [Info](#)

No preference (Default subnet in any availability zone)

**Auto-assign public IP** [Info](#)

Enable

**Firewall (security groups)** [Info](#)

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](#)

☐ 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.](#)

**Configure storage** [Info](#) [Advanced](#)

1k  GiB  [Root volume, 3000 IOPS, Not encrypted](#)

[Add new volume](#)

**Summary**

**Number of instances** [Info](#)

1

**Software Image (AMI)** [Info](#)

Provided by Red Hat, Inc.  
ami-0962718bd1e477c9e

**Virtual server type (instance type)**

t3.micro

**Firewall (security group)**

New security group

**Storage (volumes)**

1 volume(s) - 10 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)

### Step 6: Click on Launch Instance as shown in picture

**Launch an instance** [Info](#)

It seems like you may be new to launching instances in EC2. Take a walkthrough to learn about EC2, how to launch instances and about best practices. [Take a walkthrough](#) [Do not show me this message again](#)

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** [Info](#)

**Name**

Instance-with-Redhatlinux [Add additional tags](#)

**Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

**Recents** [Quick Start](#)

[Amazon Linux](#) [macOS](#) [Ubuntu](#) [Windows](#) [Red Hat](#) [SUSE Linux](#) [Debian](#)

**Amazon Machine Image (AMI)**

Red Hat Enterprise Linux 10 (HVM), SSD Volume Type

**Summary**

**Number of instances** [Info](#)

1

**Software Image (AMI)** [Info](#)

Provided by Red Hat, Inc.  
ami-0962718bd1e477c9e

**Virtual server type (instance type)**

t3.micro

**Firewall (security group)**

New security group

**Storage (volumes)**

1 volume(s) - 10 GiB

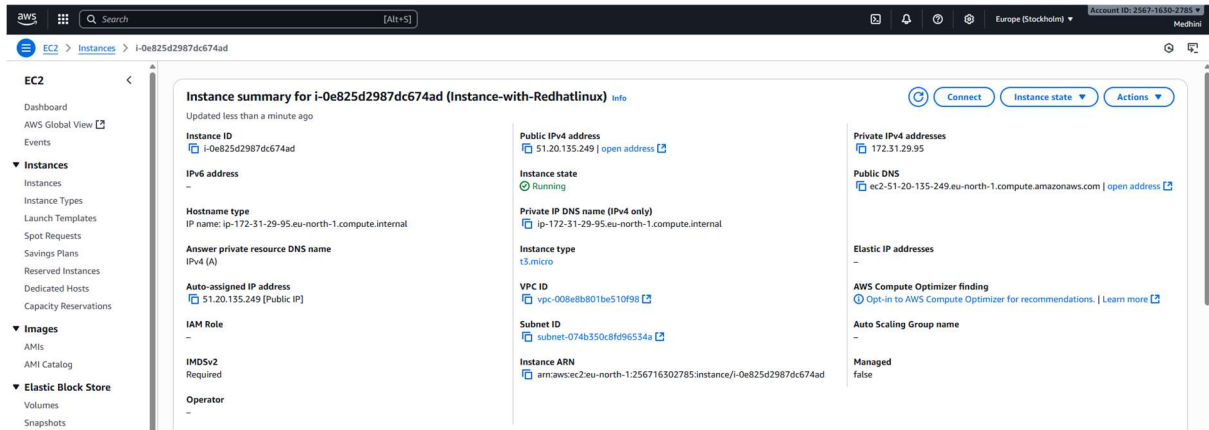
[Cancel](#) [Launch instance](#) [Preview code](#)

## Assignment 1 – EC2 AND EFS

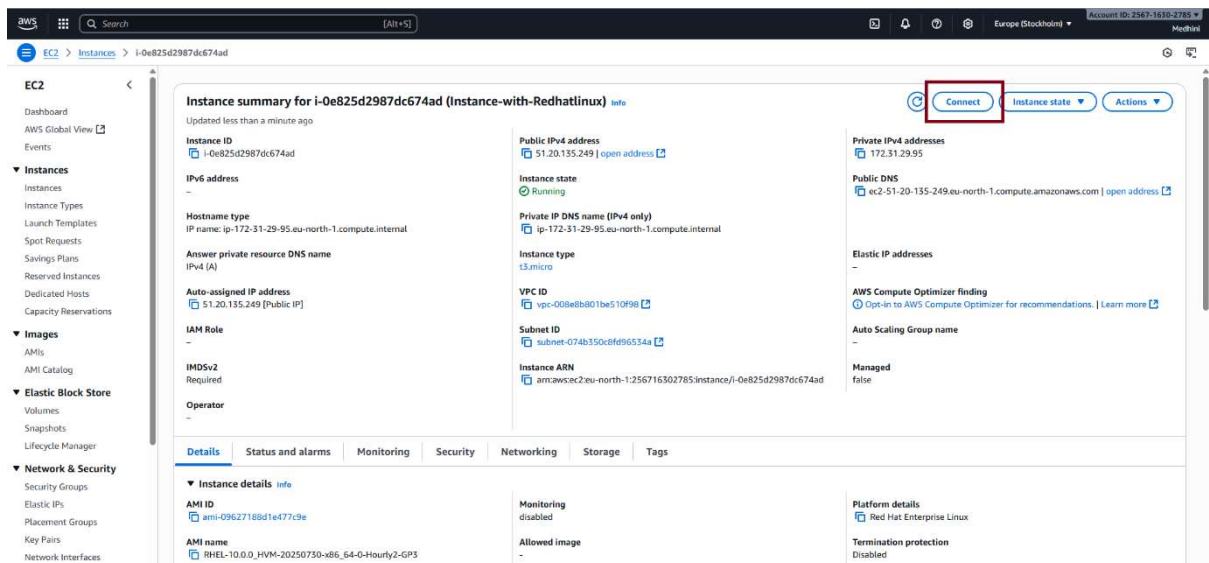
Step 7: You will see this Green bar where your instance is created and click on the marked area



Step 8: The below picture shows output of EC2 instance created with Redhat operating system

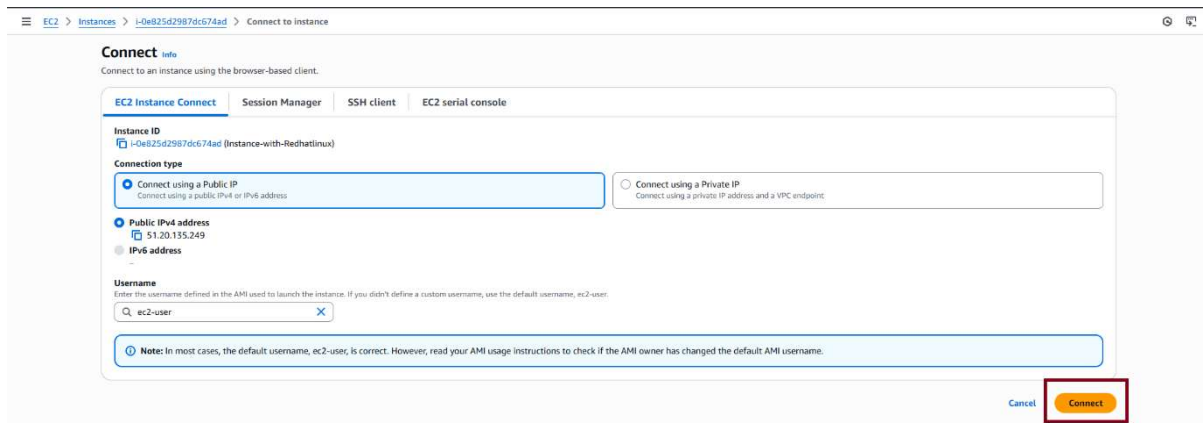


Step 9: Click on Connect as shown in below figure

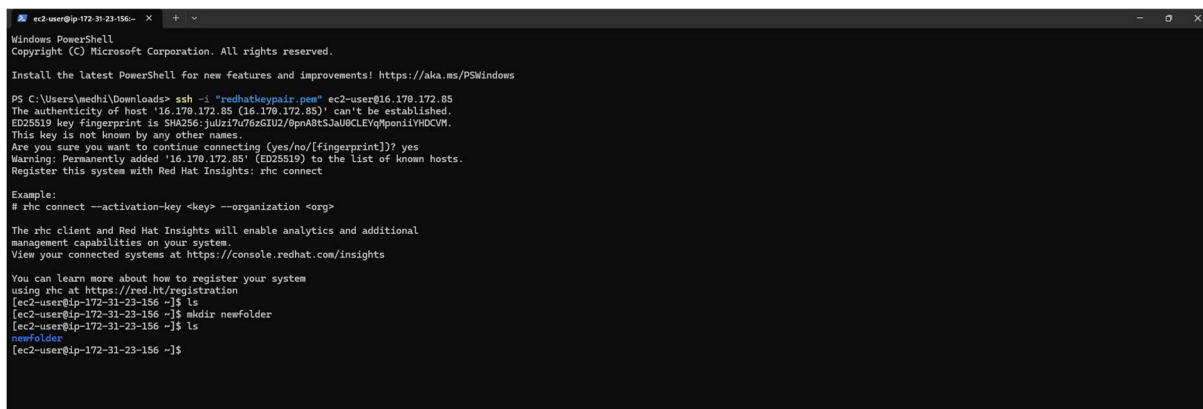


## Assignment 1 – EC2 AND EFS

### Step 10: Click on connect it will redirect to new tab

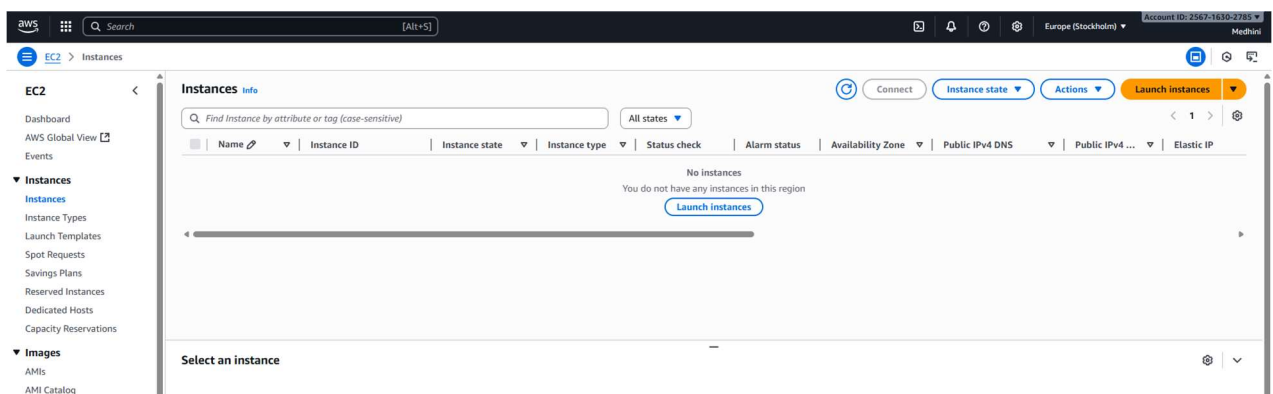


### Step 11: The below picture shows the EC2 instance running on REDHAT linux operating system



## EC2 Instance with AWS Linux Operating System

### Step 1: Login to your account, click on Instances



### Step 2: Give a name for an instance

## Assignment 1 – EC2 AND EFS

**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: Instance-with-Linux

**Application and OS Images (Amazon Machine Image)**

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

**Quick Start**

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, Debian

**Amazon Machine Image (AMI)**

Amazon Linux 2023 kernel-6.1 AMI  
ami-04c08f8baa14af291 (64-bit (x86), uefi-preferred) / ami-04e4413ba918bd630 (64-bit (Arm), uefi)  
Virtualization: hvm ENA enabled: true Root device type: ebs

**Summary**

Number of instances: 1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.9.2...read more  
ami-04c08f8baa14af291

Virtual server type (instance type)  
t3.micro

Firewall (security group)  
New security group

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

Cancel Launch instance Preview code

### Step 3: Select Operating systems and storage under Architecture

**Application and OS Images (Amazon Machine Image)**

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

**Quick Start**

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, Debian

**Amazon Machine Image (AMI)**

Amazon Linux 2023 kernel-6.1 AMI  
ami-04c08f8baa14af291 (64-bit (x86), uefi-preferred) / ami-04e4413ba918bd630 (64-bit (Arm), uefi)  
Virtualization: hvm ENA enabled: true Root device type: ebs

**Description**

Amazon Linux 2023 (kernel-6.1) is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.9.20250929.0 x86\_64 HVM kernel-6.1

**Architecture**  
64-bit (x86)

**Boot mode**  
uefi-preferred

**AMI ID**  
ami-04c08f8baa14af291

**Publish Date**  
2025-09-25

**Username**  
ec2-user

**Verified provider**

**Summary**

Number of instances: 1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.9.2...read more  
ami-04c08f8baa14af291

Virtual server type (instance type)  
t3.micro

Firewall (security group)  
New security group

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

Cancel Launch instance Preview code

### Step 4: Select instance type and Keypair

**Instance type**

Instance type: t3.micro  
Family: t3 2 vCPU 1 GiB Memory Current generation: true  
On-Demand Ubuntu Pro base pricing: 0.0145 USD per Hour On-Demand RHEL base pricing: 0.0396 USD per Hour  
On-Demand SUSE base pricing: 0.0108 USD per Hour On-Demand Linux base pricing: 0.0108 USD per Hour  
On-Demand Windows base pricing: 0.02 USD per Hour

**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: Select

**Proceed without a key pair (Not recommended)**

**Network**

vpc-008eb801be510f98

**Subnet**

No preference (Default subnet in any availability zone)

**Auto-assign public IP**

**Summary**

Number of instances: 1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.9.2...read more  
ami-04c08f8baa14af291

Virtual server type (instance type)  
t3.micro

Firewall (security group)  
New security group

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

Cancel Launch instance Preview code

### Step 5: Select Network settings

## Assignment 1 – EC2 AND EFS

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console, specifically the 'Configure storage' step. The 'Network settings' section on the left shows the network configuration, including the VPC, Subnet, and Firewall (security groups). The 'Configure storage' section on the right shows the storage configuration, including the root volume and additional volumes. The 'Summary' section on the far right shows the overall configuration of the instance, including the number of instances, software image (AMI), virtual server type (instance type), firewall (security group), and storage (volumes).

**Network settings**

Network: vpc-008eb801be510f98

Subnet: No preference (Default subnet in any availability zone)

Auto-assign public IP: Enable

Firewall (security groups): Create security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

- ☒ Allow SSH traffic from: Anywhere (0.0.0.0/0)
- ☐ Allow HTTPS traffic from the internet
- ☐ Allow HTTP traffic from the internet

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.

**Configure storage**

1x 8 GiB gp3 Root volume, 3000 IOPS, Not encrypted

[Add new volume](#)

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.

0 x File systems

**Summary**

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

[Cancel](#) [Launch instance](#) [Preview code](#)

### Step 6: Configure storage

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console, specifically the 'Click on Launch Instance' step. The 'Name and tags' section shows the instance name 'Instance-with-Linux'. The 'Application and OS Images (Amazon Machine Image)' section shows a search bar and a 'Quick Start' section with various operating system options. The 'Summary' section on the right shows the overall configuration of the instance, including the number of instances, software image (AMI), virtual server type (instance type), firewall (security group), and storage (volumes).

**Name and tags**

Name: Instance-with-Linux

[Add additional tags](#)

**Application and OS Images (Amazon Machine Image)**

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

**Quick Start**

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, Debian

**Summary**

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

[Cancel](#) [Launch instance](#) [Preview code](#)

### Step 7: Click on Launch Instance

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console, specifically the 'The Instance overview and Click on connect it will redirect to new tab as shown in figure below' step. The 'Name and tags' section shows the instance name 'Instance-with-Linux'. The 'Application and OS Images (Amazon Machine Image)' section shows a search bar and a 'Quick Start' section with various operating system options. The 'Summary' section on the right shows the overall configuration of the instance, including the number of instances, software image (AMI), virtual server type (instance type), firewall (security group), and storage (volumes).

**Name and tags**

Name: Instance-with-Linux

[Add additional tags](#)

**Application and OS Images (Amazon Machine Image)**

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

**Quick Start**

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, Debian

**Summary**

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

[Cancel](#) [Launch instance](#) [Preview code](#)

### Step 8: The Instance overview and Click on connect it will redirect to new tab as shown in figure below

The screenshot shows the 'Instance summary' page for instance i-07f52c72cb8d50dea. The page displays various details about the instance, including its ID, IP addresses, hostname, DNS name, VPC ID, Subnet ID, Instance ARN, and IAM Role. The 'Connect' button is highlighted, indicating that the user can click on it to connect to the instance.

**Instance summary for i-07f52c72cb8d50dea (Instance-with-Linux)**

Updated less than a minute ago

**Instance ID**  
i-07f52c72cb8d50dea

**IPv6 address**  
-

**Hostname type**  
IP name: ip-172-31-29-157.eu-north-1.compute.internal

**Answer private resource DNS name**  
IPv4 (A)

**Auto-assigned IP address**  
51.21.222.162 [Public IP]

**IAM Role**  
-

**IMDSv2**  
Required

**Operator**  
-

**Public IPv4 address**  
51.21.222.162 [open address]

**Instance state**  
Running

**Private IP DNS name (IPv4 only)**  
ip-172-31-29-157.eu-north-1.compute.internal

**Instance type**  
t3.micro

**VPC ID**  
vpc-008eb801be510f98

**Subnet ID**  
subnet-074b350c6d9d96534a

**Instance ARN**  
arn:aws:ec2:eu-north-1:256716302785:instance/i-07f52c72cb8d50dea

**Private IPv4 addresses**  
172.31.29.157

**Public DNS**  
ec2-51-21-222-162.eu-north-1.compute.amazonaws.com [open address]

**Elastic IP addresses**  
-

**AWS Compute Optimizer finding**  
Opt-in to AWS Compute Optimizer for recommendations. [Learn more]

**Auto Scaling Group name**  
-

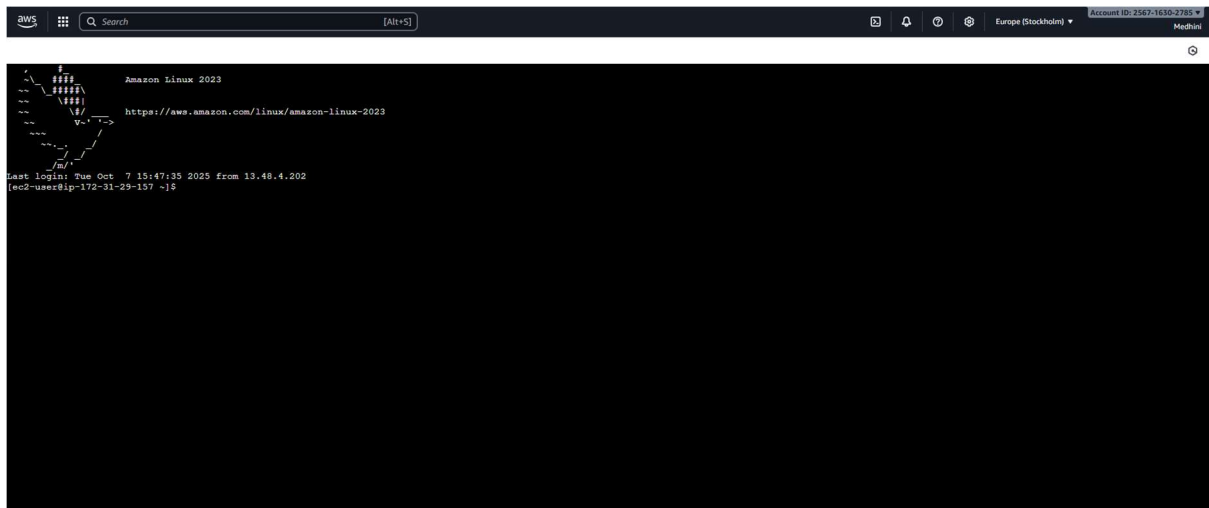
**Managed**  
false

[Connect](#) [Instance state](#) [Actions](#)



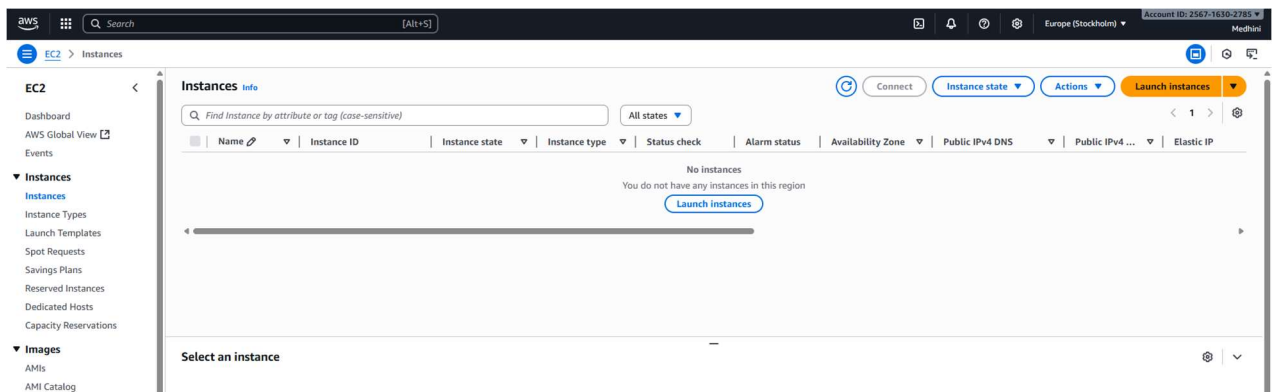
## Assignment 1 – EC2 AND EFS

Step 9: The instance is running in AWS Linux is shown in below picture



## EC2 Instance with Ubuntu Operating System

Step 1: Login to your account, click on **Instances**



## Assignment 1 – EC2 AND EFS

Step 2: Give a name for an instance and choose operating system as Ubuntu as shown in below picture

**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: Instance-with-Ubuntu

**Application and OS Images (Amazon Machine Image)**

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

Recents: Quick Start

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, Debian

Amazon Machine Image (AMI): Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

**Summary**

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

Cancel Launch instance Preview code

Step 3: Choose AMI, Storage under Architecture and Instance type

**Amazon Machine Image (AMI)**

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

Description: Ubuntu Server 24.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Architecture: 64-bit (x86)

AMI ID: ami-0a716d3f3b16d290c

Publish Date: 2025-08-21

Username: ubuntu

**Instance type**

Instance type: t3.micro

Family: t3

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

Cancel Launch instance Preview code

Step 4: Select Keypair and Network settings

**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: Proceed without a key pair (Not recommended)

**Network settings**

Network: vpc-008eb801be510f98

Subnet: No preference (Default subnet in any availability zone)

Auto-assign public IP: Enable

Firewall (security groups): Create security group

We'll create a new security group called 'launch-wizard-3' with the following rules:

Allow SSH traffic from: Anywhere

**Summary**

Number of instances: 1

Software Image (AMI): Canonical, Ubuntu, 24.04, amd64...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

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

Cancel Launch instance Preview code

Step 5: Configure storage and click on **Lunch Instance**



## Assignment 1 – EC2 AND EFS

▼ Configure storage Info

Advanced

1x 8 GiB gp3 Root volume, 3000 IOPS, Not encrypted

Add new volume

The selected AMI contains instance store volumes, however the instance does not allow any instance store volumes. None of the instance store volumes from the AMI will be accessible from the instance.

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.

0 x File systems

Edit

1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

## Step 6: The below figure shows the Instance created with Ubuntu Operating Systems

EC2

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

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

Instance summary for i-01f418a027ba83076 (Instance-with-Ubuntu) Info

Updated less than a minute ago

Instance ID

i-01f418a027ba83076

IPv6 address

-

Hostname type

IP name: ip-172-31-30-95.eu-north-1.compute.internal

Answer private resource DNS name

IPv4 (A)

Auto-assigned IP address

13.51.108.105 [Public IP]

IAM Role

-

IMDSv2

Required

Operator

-

Public IPv4 address

13.51.108.105 [open address]

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-30-95.eu-north-1.compute.internal

Instance type

t3.micro

VPC ID

vpc-008e8b801be510f98

Subnet ID

subnet-074b350c8fd96534a

Instance ARN

arn:aws:ec2:eu-north-1:256716302785:instance/i-01f418a027ba83076

Private IPv4 addresses

172.31.30.95

Public DNS

ec2-13-51-108-105.eu-north-1.compute.amazonaws.com [open address]

Elastic IP addresses

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations. [Learn more]

Auto Scaling Group name

-

Managed

false

Details

Status and alarms

Monitoring

Security

Networking

Storage

Tags

▼ Instance details Info

AMI ID

ami-0a716d3f3b16d290c

AMI name

ubuntu/images/hvm-ssd-gp3/ubuntu-noble-24.04-amd64-server-20250821

Monitoring

disabled

Allowed image

-

Platform details

Linux/UNIX

Termination protection

Disabled

## Step 7: Click on connect it will redirect you to OS

EC2

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

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

Connect to i-01f418a027ba83076 > Connect to instance

Connect to an instance using the browser-based client.

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Instance ID

i-01f418a027ba83076 (Instance-with-Ubuntu)

Connection type

Connect using a Public IP

Connect using a Private IP

Public IPv4 address

13.51.108.105

IPv6 address

-

Username

ubuntu

Note: In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

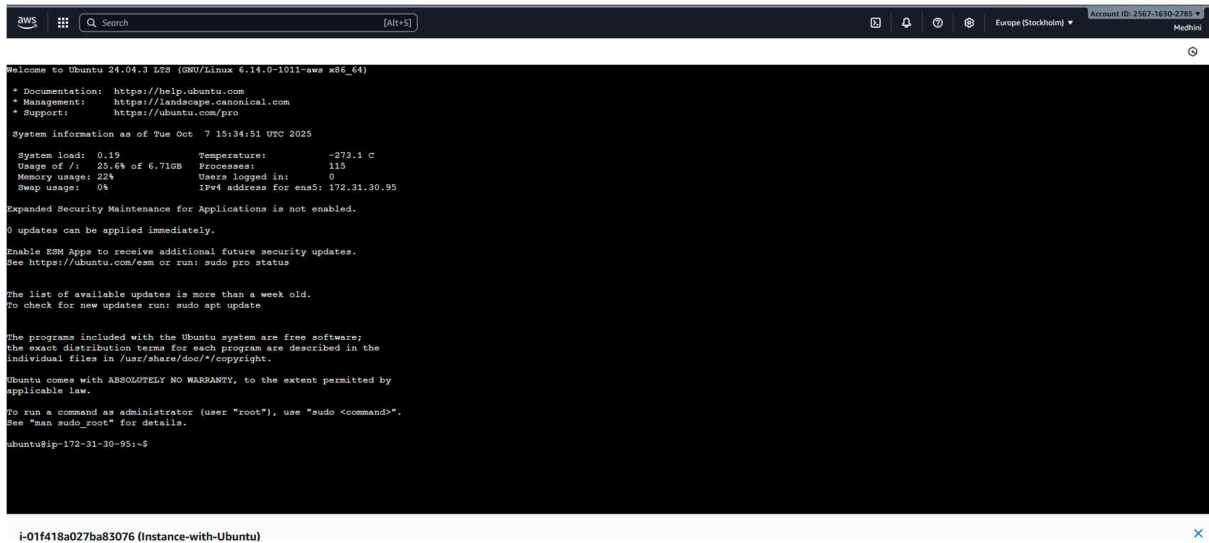
Cancel

Connect

9

## Assignment 1 – EC2 AND EFS

Step 9: The below picture shows the operating system is running



```
aws
[Alt+S]
Europe (Stockholm)
Account ID: 2567-1636-2785
Medhini

Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1011-aws x86_64)

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

System information as of Tue Oct 7 15:34:51 UTC 2025

System load: 0.19           Temperature: -273.1 C
Usage of /: 25.6% of 6.71GB   Processes: 115
Memory usage: 22%           Users logged in: 0
Swap usage: 0%              IPv4 address for ena0: 172.31.30.95

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.

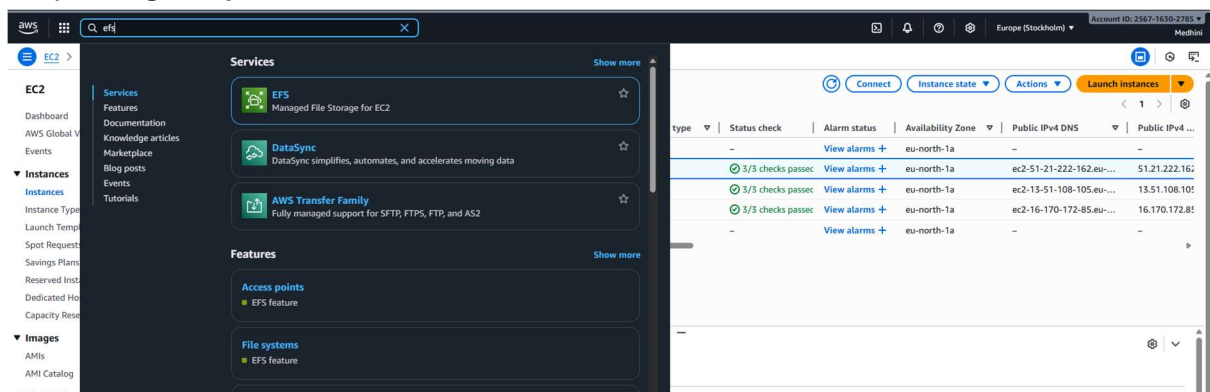
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-30-95:~$
```

i-01f418a027ba83076 (Instance-with-Ubuntu)

## Create EFS(Elastic File System)

Step 1: Login to your account and search EFS and click on EFS

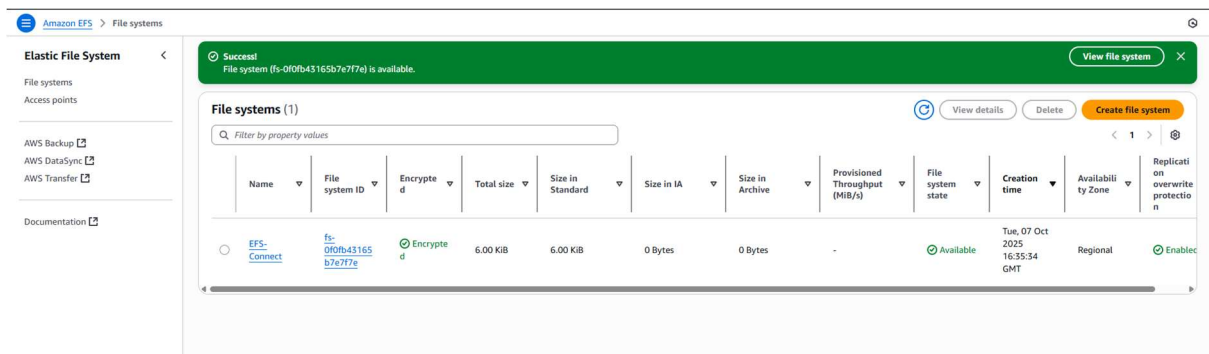


Step 2: Click on Create File System as shown in below picture

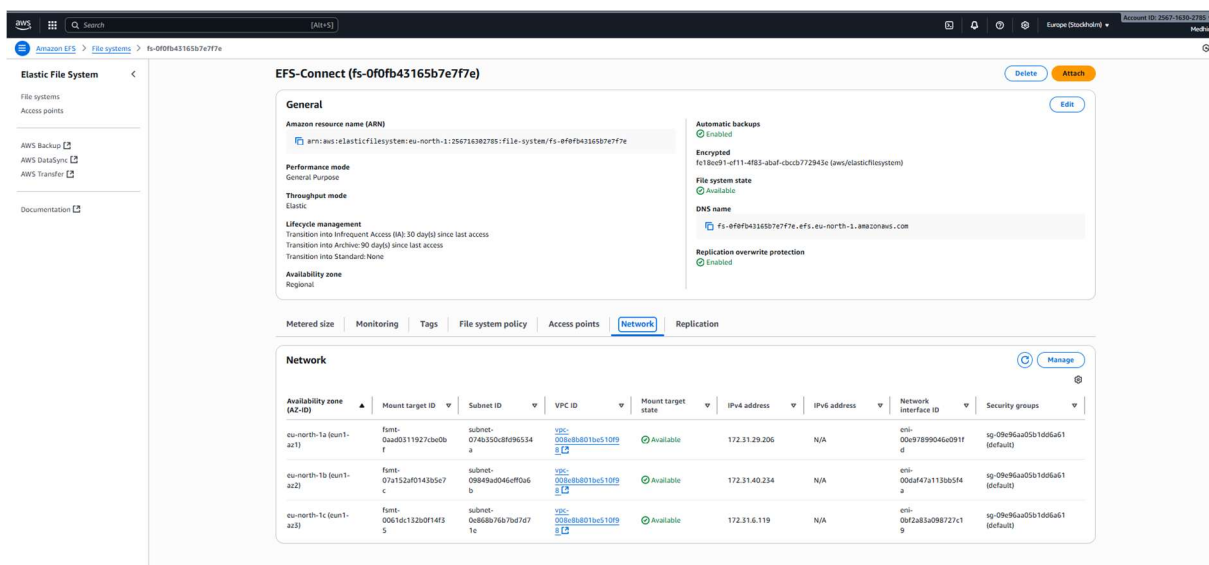


## Assignment 1 – EC2 AND EFS

### Step 3: EFS has been created as shown in below picture

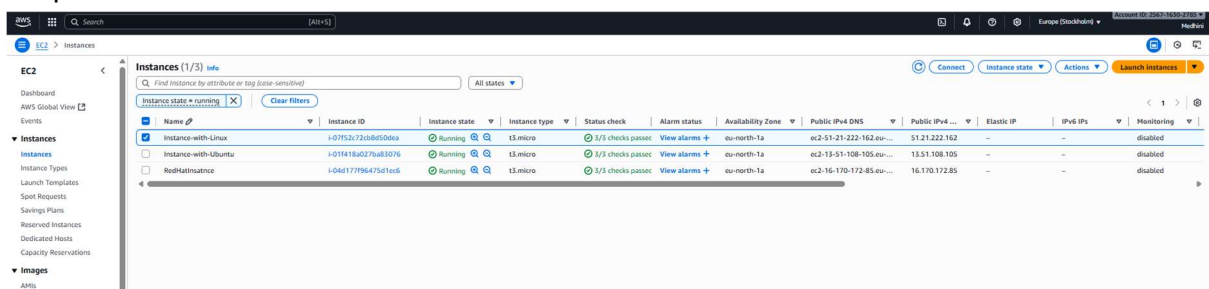


### Step 4: Click on created EFS, there will be overview of the created EFS



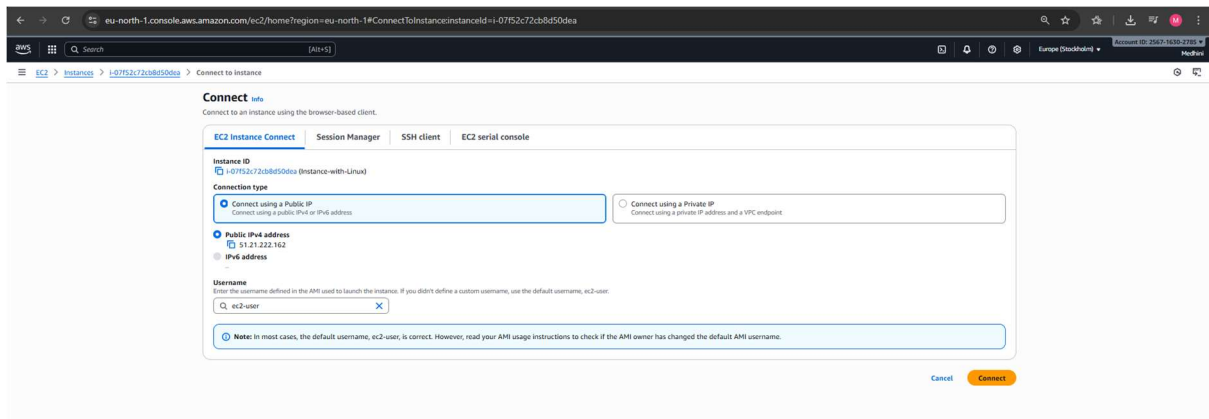
## Connect AWS Linux Instance to EFS

### Step 1: Select AWS instance and click on connect



## Assignment 1 – EC2 AND EFS

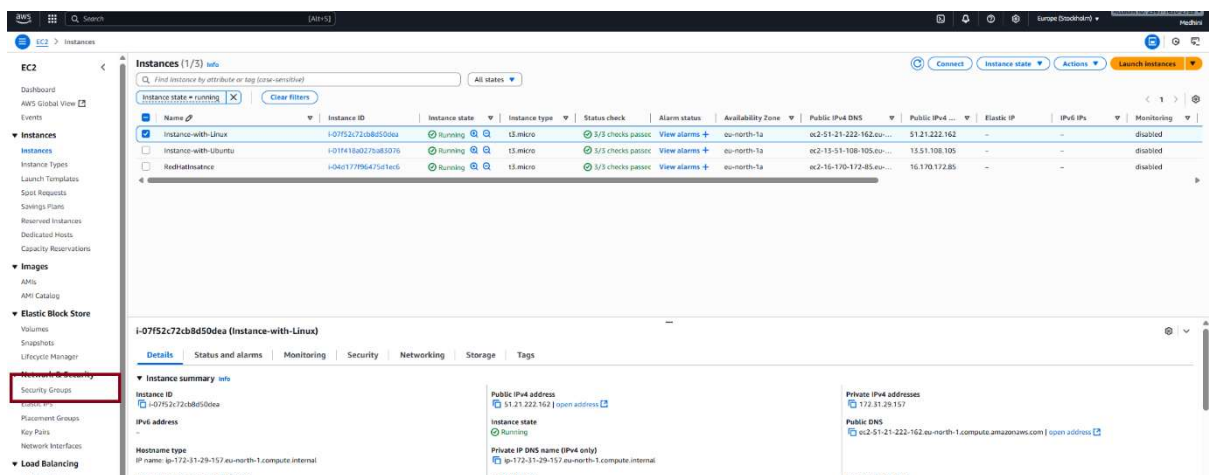
Step 2: You will redirect to below section, now click on Connect



Step 3: The OS will be running



Step 6: Click on Security Groups marked on below picture



## Assignment 1 – EC2 AND EFS

### Step 6: Go to EFS and click On “NETWORK” and then click on “Manage”

**EFS-Connect (fs-0f0fb43165b7e7f7e)** Delete Attach

**General** Edit

Amazon resource name (ARN)  
arn:aws:elasticfilesystem:eu-north-1:256716302785:file-system/fs-0f0fb43165b7e7f7e

Performance mode  
General Purpose

Throughput mode  
Elastic

Lifecycle management  
Transition into Infrequent Access (IA): 30 day(s) since last access  
Transition into Archive: 90 day(s) since last access  
Transition into Standard: None

Availability zone  
Regional

Automatic backups  
Enabled

Encrypted  
fe18ec91-ef11-4f83-2baf-cbccb772943e (aws/elasticfilesystem)

File system state  
Available

DNS name  
fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com

Replication overwrite protection  
Enabled

Metered size | Monitoring | Tags | File system policy | Access points | **Network** | Replication

**Network** Manage

Availability zone (AZ-ID)	Mount target ID	Subnet ID	VPC ID	Mount target state	IPv4 address	IPv6 address	Network interface ID	Security groups
eu-north-1a (eu-n1-az1)	fsmt-0aad0311927cbe0bf	subnet-074b350c8fd96534a	<a href="#">vpc-008e8b801be510f98</a>	Available	172.31.29.206	N/A	eni-00e97899046e091fd	sg-09e96aa05b1dd6a61 (default)
eu-north-1b (eu-n1-az2)	fsmt-07a152af0143b5e7c	subnet-09849ad046eff0a6b	<a href="#">vpc-008e8b801be510f98</a>	Available	172.31.40.234	N/A	eni-00da47a113bb5f4a	sg-09e96aa05b1dd6a61 (default)
eu-north-1c (eu-n1-az3)	fsmt-0061dc132b0f14f35	subnet-0e868b76b7bd7d71e	<a href="#">vpc-008e8b801be510f98</a>	Available	172.31.6.119	N/A	eni-0bf2a83a098727c19	sg-09e96aa05b1dd6a61 (default)

### Step 7: Go to Security groups and click on “Edit Inbound Rules”

**Security Groups (1/7)** Info Actions Export security groups to CSV Create security group

Find security groups by attribute or tag

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	<a href="#">sg-0f42ae2d2867ca403</a>	launch-wizard-5	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-5 created 2025-10-07T1...	2567
-	<a href="#">sg-0a56e0c84ba87c03f</a>	launch-wizard-4	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-4 created 2025-10-07T1...	2567
-	<a href="#">sg-09eb1a99b07d893f7</a>	launch-wizard-1	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-1 created 2025-10-07T1...	2567
<input checked="" type="checkbox"/>	<a href="#">sg-04be70e49264a44e2</a>	launch-wizard-6	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-6 created 2025-10-07T1...	2567
-	<a href="#">sg-0f53f8e00a2c6b175</a>	launch-wizard-2	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-2 created 2025-10-07T1...	2567
-	<a href="#">sg-0c810bb254dbdc692</a>	launch-wizard-3	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-3 created 2025-10-07T1...	2567
-	<a href="#">sg-09e96aa05b1dd6a61</a>	default	<a href="#">vpc-008e8b801be510f98</a>	default VPC security group	2567

**sg-04be70e49264a44e2 - launch-wizard-6**

**Inbound rules (2)** Manage tags Edit inbound rules

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
-	sg-0e9125e78adca692c	IPv4	SSH	TCP	22	0.0.0.0/0
-	sg-064042396e6c8667c	IPv4	NFS	TCP	2049	0.0.0.0/0

## Assignment 1 – EC2 AND EFS

### Step 8: Add new and Select NFS and then select “Anywhere ipv4”

**Edit inbound rules** info  
Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	Actions
sg-0e9125e78adca692c	SSH	TCP	22	Custom		Delete
sg-064042396eeca8667c	NFS	TCP	2049	Anywhere...		Delete
	NFS	TCP	2049	Anywhere...		Delete

[Add rule](#)

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

[Cancel](#) [Preview changes](#) [Save rules](#)

Step 9: Then Go do OS running command window and paste “sudo yum install -y amazon-efs-utils” code to manually install then create a folder and add “sudo mount -t efs -o tls fs-0f0fb43165b7e7f7e:/ <folder name>”

### Amazon Linux 2 / Amazon Linux 2023

#### Step 1: Install required packages

# For Amazon Linux 2

```
sudo yum install -y amazon-efs-utils
```

# For Amazon Linux 2023

```
sudo dnf install -y amazon-efs-utils
```

#### Step 2: Create a mount point

```
sudo mkdir -p /mnt/efs
```

#### Step 3: Mount the EFS

```
sudo mount -t efs fs-xxxxxxx:/ /mnt/efs
```

#### Optional: Add to /etc/fstab

```
echo "fs-xxxxxxx:/ /mnt/efs efs defaults,_netdev 0 0" | sudo tee -a /etc/fstab
```

### The AWS Linux – Instance is mounted to EFS

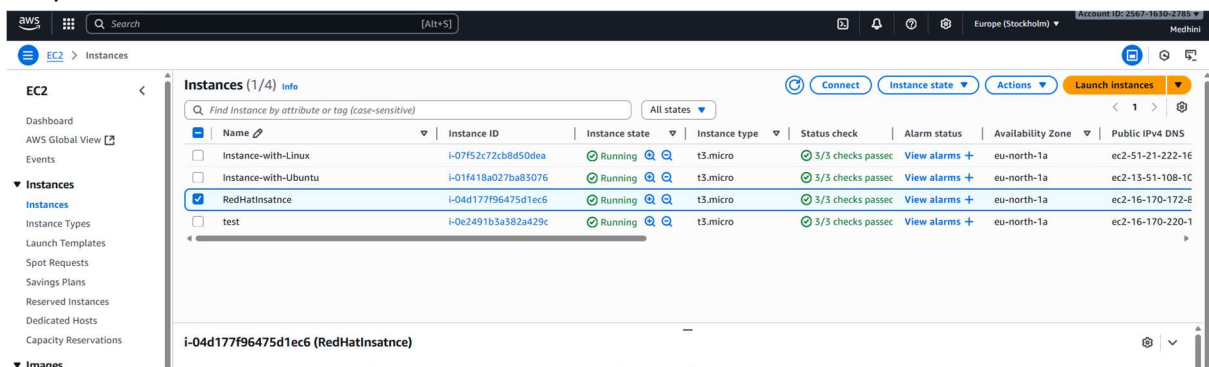


## Assignment 1 – EC2 AND EFS

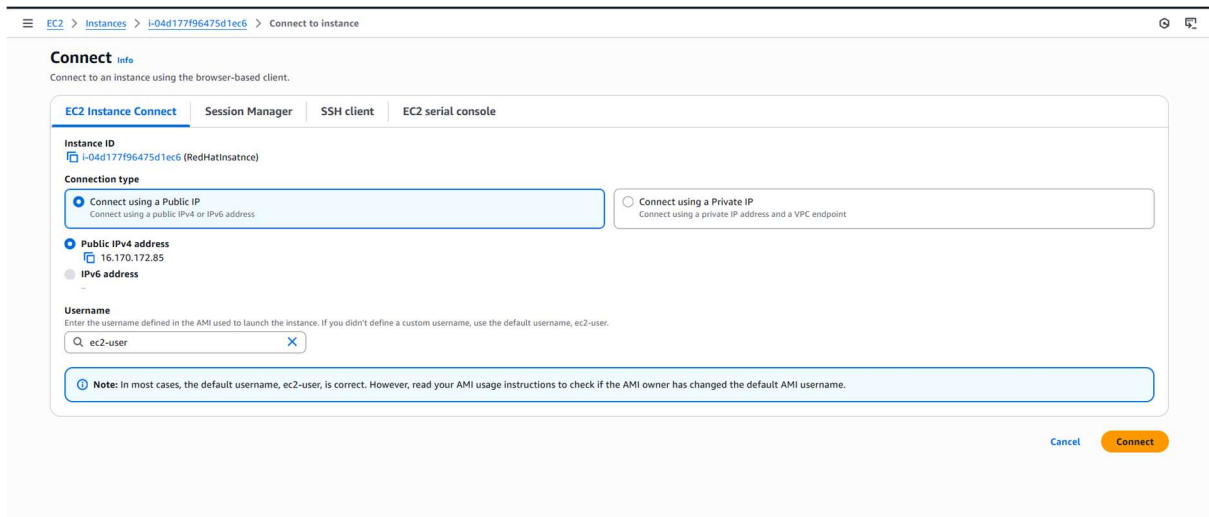
```
[ec2-user@ip-172-31-29-100 ~]$ sudo mount -t efs fs-0f0fb43165b7e7fe:/mnt/efs
[ec2-user@ip-172-31-29-100 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M  0  4.0M  0% /dev
tmpfs           453M  0  453M  0% /dev/shm
tmpfs           181M  444K  181M  1% /run
/dev/nvme0n1p1  8.0G  1.6G  6.4G  20% /
tmpfs           453M  0  453M  0% /tmp
/dev/nvme0n1p128 10M  1.3M  8.7M  13% /boot/efi
tmpfs           91M  0  91M  0% /run/user/1000
127.0.0.1:/    8.0G  0  8.0G  0% /mnt/efs
[ec2-user@ip-172-31-29-100 ~]$
```

## RedHat EFS Mount

### Step 1: Select instance and click on connect



### Step 2: Click on Connect



### Step 1: Install required packages

1. `sudo yum install -y amazon-efs-utils`
2. `sudo yum install -y nfs-utils`

### Step 2: Create a mount point

## Assignment 1 – EC2 AND EFS

sudo mkdir -p /mnt/efs

### Step 3: Mount the EFS

Replace fs-xxxxxxx with your EFS ID and <region> with your AWS region.

sudo mount -t efs fs-xxxxxxx:/ /mnt/efs

Using the EFS mount helper:

```
sudo mount -t efs -o tls fs-0f0fb43165b7e7f7e:/ efs
```

Using the NFS client:

```
sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsz=1048576,hard,timeo=600,retrans=2,noresvport fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com:/ efs
```

The RedHat OS – Instance has been successfully mounted on EFS

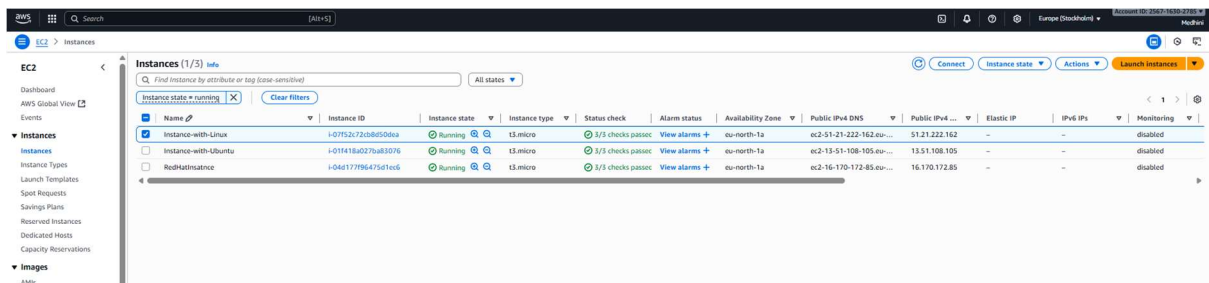
```
Installing      : quota-nls-1.4.09-9.el10.noarch                                4/10
Installing      : quota-1:4.09-9.el10.x86_64                                5/10
Installing      : libev-4.33-14.el10.x86_64                                6/10
Installing      : libverto-libev-0.3.2-10.el10.x86_64                        7/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64                            8/10
Installing      : gssproxy-0.9.2-10.el10.x86_64                            8/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64                            8/10
Running scriptlet: nfs-utils-1:2.8.2-3.el10.x86_64                          9/10
Installing      : nfs-utils-1:2.8.2-3.el10.x86_64                          9/10
Running scriptlet: nfs-utils-1:2.8.2-3.el10.x86_64                          9/10
Created symlink '/etc/systemd/system/multi-user.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.
Created symlink '/etc/systemd/system/remote-fs.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.
Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.
Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.
Installing      : sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64                    10/10
Running scriptlet: sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64                    10/10
Installed products updated.

Installed:
gssproxy-0.9.2-10.el10.x86_64          libev-4.33-14.el10.x86_64          libnfsidmap-1:2.8.2-3.el10.x86_64
libtirpc-1.3.5-1.el10.x86_64          libverto-libev-0.3.2-10.el10.x86_64  nfs-utils-1:2.8.2-3.el10.x86_64
quota-1:4.09-9.el10.x86_64           quota-nls-1:4.09-9.el10.noarch      rpcbind-1:2.7-3.el10.x86_64
sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64

Complete!
[ec2-user@ip-172-31-23-156 ~]$ sudo mkdir -p /mnt/efs
[ec2-user@ip-172-31-23-156 ~]$ sudo mount -t efs -o tls fs-0f0fb43165b7e7f7e:/ /mnt/efs
mount: /mnt/efs: unknown filesystem type 'efs'.
       dmesg(8) may have more information after a failed mount system call.
[ec2-user@ip-172-31-23-156 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsz=1048576,hard,timeo=600,retrans=2,noresvport fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com:/ /mnt/efs
[ec2-user@ip-172-31-23-156 ~]$ df -h
Filesystem                Size      Used Avail Use% Mounted on
/dev/nvme0n1p3             9.8G      1.8G  8.1G  18% /
devtmpfs                   4.0M           0  4.0M   0% /dev
tmpfs                      454M           0  454M   0% /dev/shm
efivarfs                   128K       3.6K  128K   3% /sys/firmware/efi/efivars
tmpfs                      1.8G       4.2M   1.8G   3% /run
tmpfs                      1.0M           0   1.0M   0% /run/credentials/systemd-journald.service
/dev/nvme0n1p2            200M       8.4M  192M   5% /boot/efi
tmpfs                      1.0M           0   1.0M   0% /run/credentials/serial-getty@ttyS0.service
tmpfs                      1.0M           0   1.0M   0% /run/credentials/getty@tty1.service
tmpfs                      91M        4.0K   91M   1% /run/user/1000
fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com:/  8.0E       0  8.0E   0% /mnt/efs
[ec2-user@ip-172-31-23-156 ~]$
```

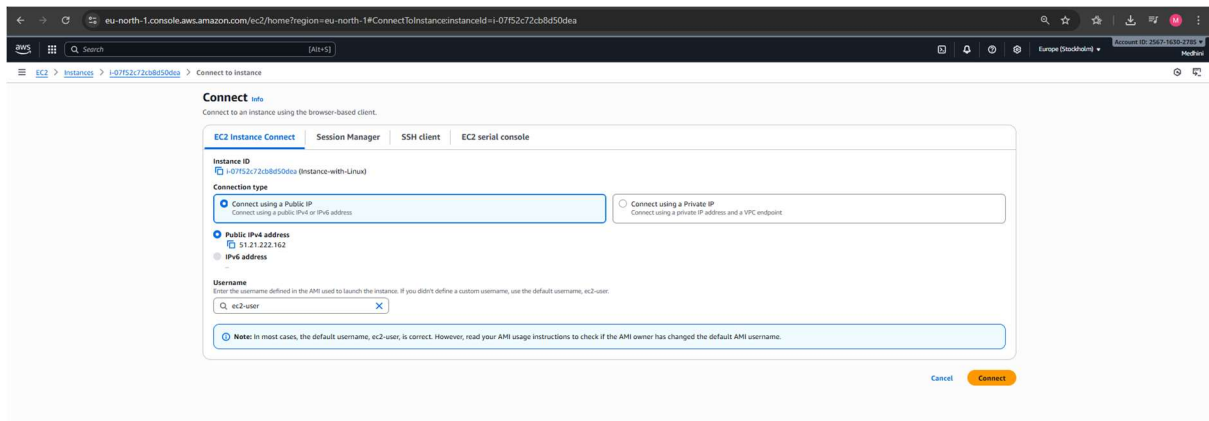
## Ubuntu EFS Mount

Step 1: Select AWS instance and click on connect



## Assignment 1 – EC2 AND EFS

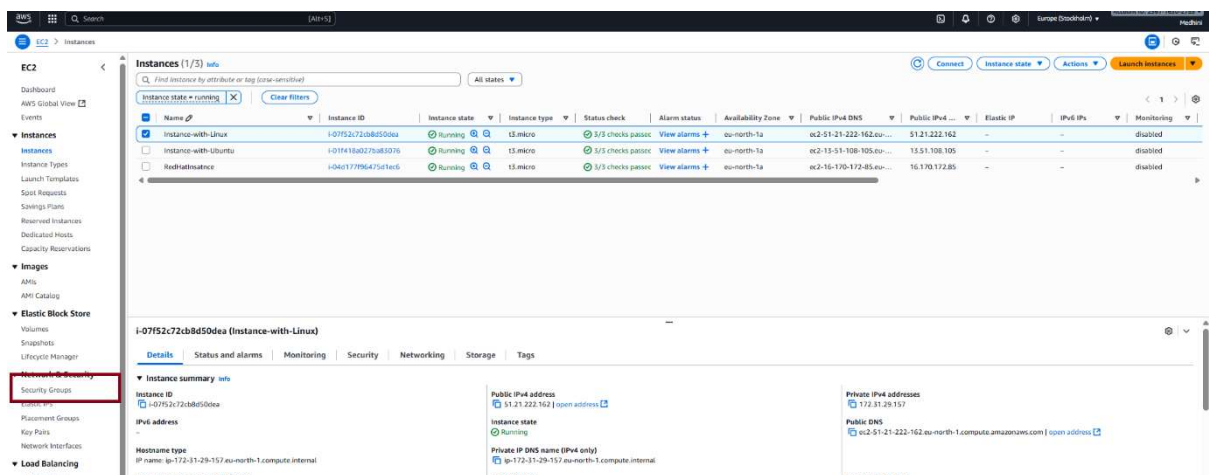
Step 2: You will redirect to below section, now click on Connect



Step 3: The OS will be running



Step 6: Click on Security Groups marked on below picture



## Assignment 1 – EC2 AND EFS

### Step 6: Go to EFS and click On “NETWORK” and then click on “Manage”

**EFS-Connect (fs-0f0fb43165b7e7f7e)** Delete Attach

**General** Edit

Amazon resource name (ARN)  
`arn:aws:elasticfilesystem:eu-north-1:256716302785:file-system/fs-0f0fb43165b7e7f7e`

Performance mode  
General Purpose

Throughput mode  
Elastic

Lifecycle management  
Transition into Infrequent Access (IA): 30 day(s) since last access  
Transition into Archive: 90 day(s) since last access  
Transition into Standard: None

Availability zone  
Regional

Automatic backups  
Enabled

Encrypted  
`fe18ec91-ef11-4f83-2baf-cbccb772943e (aws/elasticfilesystem)`

File system state  
Available

DNS name  
`fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com`

Replication overwrite protection  
Enabled

Metered size | Monitoring | Tags | File system policy | Access points | **Network** | Replication

**Network** Manage

Availability zone (AZ-ID)	Mount target ID	Subnet ID	VPC ID	Mount target state	IPv4 address	IPv6 address	Network interface ID	Security groups
eu-north-1a (eu1-az1)	fsmt-0aad0311927cbe0bf	subnet-074b350c8fd96534a	<a href="#">vpc-008e8b801be510f98</a>	<span>Available</span>	172.31.29.206	N/A	eni-00e97899046e091fd	sg-09e96aa05b1dd6a61 (default)
eu-north-1b (eu1-az2)	fsmt-07a152af0143b5e7c	subnet-09849ad046eff0a6b	<a href="#">vpc-008e8b801be510f98</a>	<span>Available</span>	172.31.40.234	N/A	eni-00da47a113bb5f4a	sg-09e96aa05b1dd6a61 (default)
eu-north-1c (eu1-az3)	fsmt-0061dc132b0f14f35	subnet-0e868b76b7bd7d71e	<a href="#">vpc-008e8b801be510f98</a>	<span>Available</span>	172.31.6.119	N/A	eni-0bf2a83a098727c19	sg-09e96aa05b1dd6a61 (default)

### Step 7: Go to Security groups and click on “Edit Inbound Rules”

**Security Groups (1/7)** Info Actions Export security groups to CSV Create security group

Find security groups by attribute or tag

<input type="checkbox"/>	Name	Security group ID	Security group name	VPC ID	Description	Owner
<input type="checkbox"/>	-	<a href="#">sg-0f42ae2d2867ca403</a>	launch-wizard-5	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-5 created 2025-10-07T1...	2567
<input type="checkbox"/>	-	<a href="#">sg-0a56e0c84ba87c03f</a>	launch-wizard-4	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-4 created 2025-10-07T1...	2567
<input type="checkbox"/>	-	<a href="#">sg-09eb1a99b07d893f7</a>	launch-wizard-1	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-1 created 2025-10-07T1...	2567
<input checked="" type="checkbox"/>	-	<a href="#">sg-04be70e49264a44e2</a>	launch-wizard-6	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-6 created 2025-10-07T1...	2567
<input type="checkbox"/>	-	<a href="#">sg-0f53f8e00a2c6b175</a>	launch-wizard-2	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-2 created 2025-10-07T1...	2567
<input type="checkbox"/>	-	<a href="#">sg-0c810bb254dbdc692</a>	launch-wizard-3	<a href="#">vpc-008e8b801be510f98</a>	launch-wizard-3 created 2025-10-07T1...	2567
<input type="checkbox"/>	-	<a href="#">sg-09e96aa05b1dd6a61</a>	default	<a href="#">vpc-008e8b801be510f98</a>	default VPC security group	2567

**sg-04be70e49264a44e2 - launch-wizard-6**

**Inbound rules (2)** Manage tags Edit inbound rules

Search

<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
<input type="checkbox"/>	-	sg-0e9125e78adca692c	IPv4	SSH	TCP	22	0.0.0.0/0
<input type="checkbox"/>	-	sg-064042396ec8667c	IPv4	NFS	TCP	2049	0.0.0.0/0

## Assignment 1 – EC2 AND EFS

### Step 8: Add new and Select NFS and then select “Anywhere ipv4”

**Edit inbound rules** info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	Actions
sgr-0e9125e78adca692c	SSH	TCP	22	Custom	0.0.0.0/0	Delete
sgr-064042396eeca8667c	NFS	TCP	2049	Anywhere...	0.0.0.0/0	Delete

[Add rule](#)

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

[Cancel](#) [Preview changes](#) [Save rules](#)

### Step 9: Use Below code to mount on Ubuntu

sudo apt install -y nfs-common

sudo mkdir -p /mnt/efs

sudo mount -t nfs4 -o nfsvers=4.1 fs-xxxxxxx.efs.<region>.amazonaws.com:/ /mnt/efs

df -h (This last one is to verify the mounted ec2)

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-30-95:~$ sudo mkdir -p /mnt/efs
ubuntu@ip-172-31-30-95:~$ sudo mount -t nfs4 -o nfsvers=4.1,rsz=1048576,wsz=1048576,hard,timeo=600,retrans=2,noresvport fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com:/ /mnt/efs
ubuntu@ip-172-31-30-95:~$ df -h
Filesystem                Size      Used Avail Use% Mounted on
/dev/root                  6.8G      2.0G  4.8G   30% /
tmpfs                      458M          0  458M   0% /dev/shm
tmpfs                      183M      900K   182M   1% /run
tmpfs                      5.0M          0   5.0M   0% /run/lock
efivarfs                   128K       3.6K   120K   3% /sys/firmware/efi/efivars
/dev/nvme0n1p16            681M       97M   584M  14% /boot
/dev/nvme0n1p5             105M       6.2M    99M   6% /boot/efi
tmpfs                      92M       12K    92M   1% /run/user/1000
fs-0f0fb43165b7e7f7e.efs.eu-north-1.amazonaws.com:/ 8.0E          0   8.0E   0% /mnt/efs
ubuntu@ip-172-31-30-95:~$
```