

Karthick VM

Batch – CIS 1.3

Mock Assessment 2 – AWS

1. Deploy a Node.js static web app on an EC2 instance with Apache and access it publicly via a browser.

- Launch a Ec2 Instance

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Name and tags' section has 'Name' set to 'WebzServer'. The 'Application and OS Images (Amazon Machine Image)' section shows various AMI options like Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, and Debian. The 'Summary' panel on the right shows 1 instance being launched with the AMI 'Amazon Linux 2023 AMI 2023.9.2...', instance type 't3.micro', and 1 volume(s) - 8 GiB. A large orange 'Launch instance' button is at the bottom right.

The screenshot shows the 'Network settings' step in the 'Launch an instance' wizard. It shows a key pair named 'Karthick_710' selected. Under 'Network', it shows a VPC named 'vpc-0c282e294992db20a'. In the 'Subnet' section, there is no preference for a subnet. Under 'Auto-assign public IP', 'Enable' is selected. In the 'Firewall (security groups)' section, 'Select existing security group' is chosen, and a security group named 'default sg-0e6f4c315e65e0c57' is selected. The 'Summary' panel on the right shows 1 instance being launched with the same configuration. A large orange 'Launch instance' button is at the bottom right.

Instance summary for i-0ee467d945966551a (WebzServer) [Info](#)

Updated less than a minute ago

Instance ID i-0ee467d945966551a

IPv6 address -

Hostname type IP name: ip-172-31-28-186.eu-north-1.compute.internal

Answer private resource DNS name (IPv4 A)

Auto-assigned IP address 13.62.54.238 [Public IP]

IAM Role -

IMDSv2 Required

Public IPv4 address 13.62.54.238 | [open address](#)

Private IP address 172.31.28.186

Instance state Running

Private IP DNS name (IPv4 only) ip-172-31-28-186.eu-north-1.compute.internal

Instance type t3.micro

VPC ID vpc-0c28e294992db20a

Subnet ID subnet-041ea3449d449bbfc

Instance ARN arn:aws:ec2:eu-north-1:556415206823:instance/i-0ee467d945966551a

Elastic IP addresses -

AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Auto Scaling Group name -

Managed false

- Connect to the Ec2 Instance

EC2 Instance Connect Session Manager SSH client EC2 serial console

Instance ID i-0ee467d945966551a (WebzServer)

Connection type

Connect using a Public IP
Connect using a public IPv4 or IPv6 address

Connect using a Private IP
Connect using a private IP address and a VPC endpoint

Public IPv4 address 13.62.54.238

IPv6 address -

Username Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.

ec2-user

Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel Connect

- Install and enable httpd server in the server machine

```
[root@ip-172-31-16-249 ec2-user]# cd /
[root@ip-172-31-16-249 /]# yum install -y httpd
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
237 kB/s | 26 kB 00:00
=====
Package           Architecture Version      Repository   Size
=====
Installing:
httpd            x86_64       2.4.65-1.amzn2023.0.1  amazonlinux  47 k
Installing dependencies:
apr              x86_64       1.7.5-1.amzn2023.0.4    amazonlinux 129 k
apr-util          x86_64       1.6.3-1.amzn2023.0.1    amazonlinux 98 k
generico-logos-httdp noarch      18.0.0-12.amzn2023.0.3  amazonlinux 19 k
httpd-core        x86_64       2.4.65-1.amzn2023.0.1    amazonlinux 1.4 M
httpd-filesystem noarch      2.4.65-1.amzn2023.0.1    amazonlinux 13 k
httpd-tools       x86_64       2.4.65-1.amzn2023.0.1    amazonlinux 81 k
libbrotli         x86_64       1.0.9-4.amzn2023.0.2    amazonlinux 315 k
mailcap           noarch      2.1.49-3.amzn2023.0.3    amazonlinux 33 k
Installing weak dependencies:
apr-util-openssl x86_64       1.6.3-1.amzn2023.0.1    amazonlinux 17 k
mod_http2          x86_64       2.0.27-1.amzn2023.0.3  amazonlinux 166 k
mod_lua             x86_64       2.4.65-1.amzn2023.0.1  amazonlinux 60 k
=====
Transaction Summary
Install 12 Packages
=====
i-0ba0f09b3e94bb095b (WebzServer)
PublicIPs: 13.60.59.51 PrivateIPs: 172.31.16.249
```

```

aws | Search [Alt+S] | Europe (Stockholm) | Account ID: 5564-1520-6825 | Karthick VM
[Complete]
[Installed]
apr-1.7.5-1.amzn2023.0.4.x86_64
generic-logos-httd-18.0.0-12.amzn2023.0.3.noarch
httpd-filesystem-2.4.65-1.amzn2023.0.1.noarch
mailcap-2.1.49-3.amzn2023.0.3.noarch

apr-util-1.6.3-1.amzn2023.0.1.x86_64
httpd-2.4.65-1.amzn2023.0.1.x86_64
httpd-tools-2.4.65-1.amzn2023.0.1.x86_64
mod_http2-2.0.27-1.amzn2023.0.3.x86_64

apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
httpd-core-2.4.65-1.amzn2023.0.1.x86_64
libbrotli-1.0.9-4.amzn2023.0.2.x86_64
mod_lua-2.4.65-1.amzn2023.0.1.x86_64

```

- Install npm and nodejs in the server machine

```

aws | Search [Alt+S] | Europe (Stockholm) | Account ID: 5564-1520-6825 | Karthick VM
[Complete]
[root@ip-172-31-16-249 html]# dnf install npm
Last metadata expiration check: 0:07:29 ago on Tue Oct 7 10:53:07 2025.
Dependencies resolved.
=====
| Package           | Architecture | Version      | Repository | Size
|:-----|:-----|:-----|:-----|:-----|
| Installing: |
|   nodejs-npm      | x86_64       | 1:10.8.2-1.18.20.8.1.amzn2023.0.2 | amazonlinux | 1.9 M
| Installing dependencies: |
|   nodejs          | x86_64       | 1:18.20.8-1.amzn2023.0.2 | amazonlinux | 13 M
|   nodejs-libs     | x86_64       | 1:18.20.8-1.amzn2023.0.2 | amazonlinux | 14 M
| Installing weak dependencies: |
|   nodejs-docs     | noarch       | 1:18.20.8-1.amzn2023.0.2 | amazonlinux | 7.8 M
|   nodejs-full-l18n | x86_64       | 1:18.20.8-1.amzn2023.0.2 | amazonlinux | 8.4 M
| Transaction Summary |
|:-----|
| Install 5 Packages |
Total download size: 45 M
Installed size: 223 M
Is this ok [y/N]: y
Downloading Packages:
(1/5): nodejs-docs-18.20.8-1.amzn2023.0.2.noarch.rpm 43 MB/s | 7.8 MB 00:00
(2/5): nodejs-18.20.8-1.amzn2023.0.2.x86_64.rpm 52 MB/s | 13 MB 00:00
(3/5): nodejs-full-l18n-18.20.8-1.amzn2023.0.2.x86_64.rpm 28 MB/s | 8.4 MB 00:00
(4/5): nodejs-libs-18.20.8-1.amzn2023.0.2.x86_64.rpm 60 MB/s | 14 MB 00:00

```

i-0ba09b3e94bb095b (WebzServer)

```

[Complete]
[root@ip-172-31-16-249 html]# dnf install nodejs
Last metadata expiration check: 0:09:08 ago on Tue Oct 7 10:53:07 2025.
Package nodejs-1:18.20.8-1.amzn2023.0.2.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-172-31-16-249 html]#

```

i-0ba09b3e94bb095b (WebzServer)

PublicIPs: 13.60.59.51 PrivateIPs: 172.31.16.249

- Create a node app and create script.js and index.html files

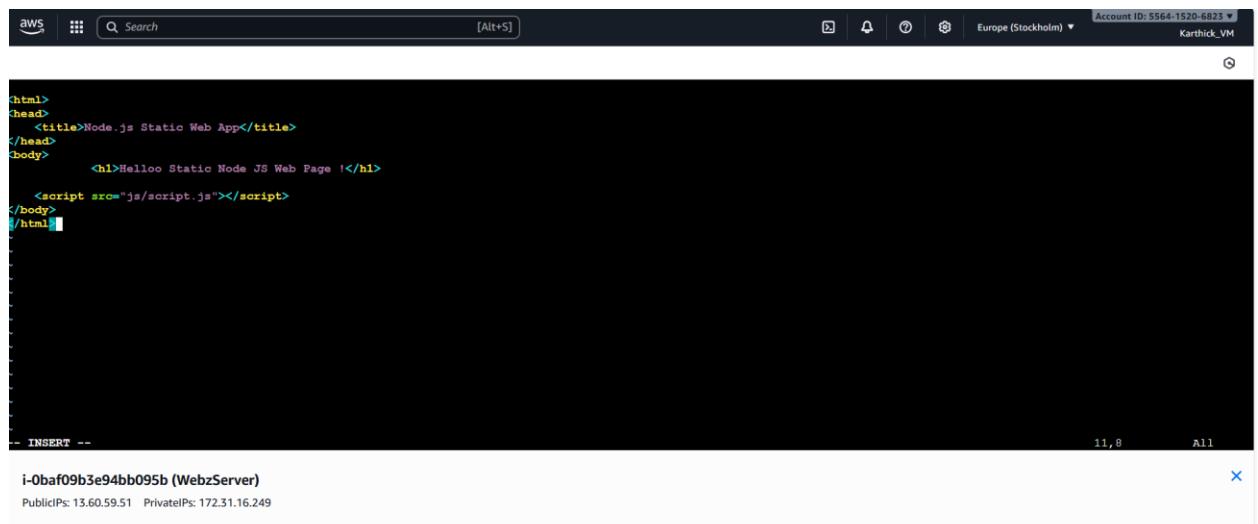
```
[root@ip-172-31-16-249 node-app]# npm init -y
Wrote to /var/www/html/node-app/package.json:

{
  "name": "app",
  "version": "1.0.0",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "description": ""
}

[root@ip-172-31-16-249 node-app]#
```

i-0ba09b3e94bb095b (WebzServer)

PublicIPs: 13.60.59.51 PrivateIPs: 172.31.16.249



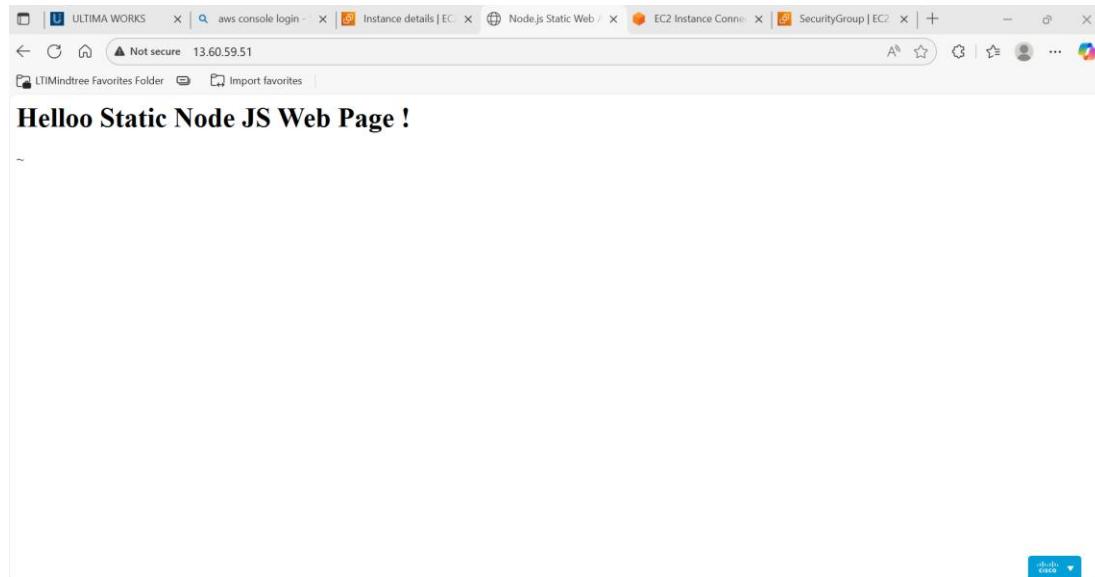
```
<html>
<head>
  <title>Node.js Static Web App</title>
</head>
<body>
  <h1>Helloo Static Node JS Web Page !</h1>
  <script src="js/script.js"></script>
</body>
</html>
```

-- INSERT --

i-0ba09b3e94bb095b (WebzServer)

PublicIPs: 13.60.59.51 PrivateIPs: 172.31.16.249

- Run the node app using the apache server.



2. Create an S3 bucket, enable versioning, upload multiple file versions, and restore a previous version.

- Create a s3 bucket

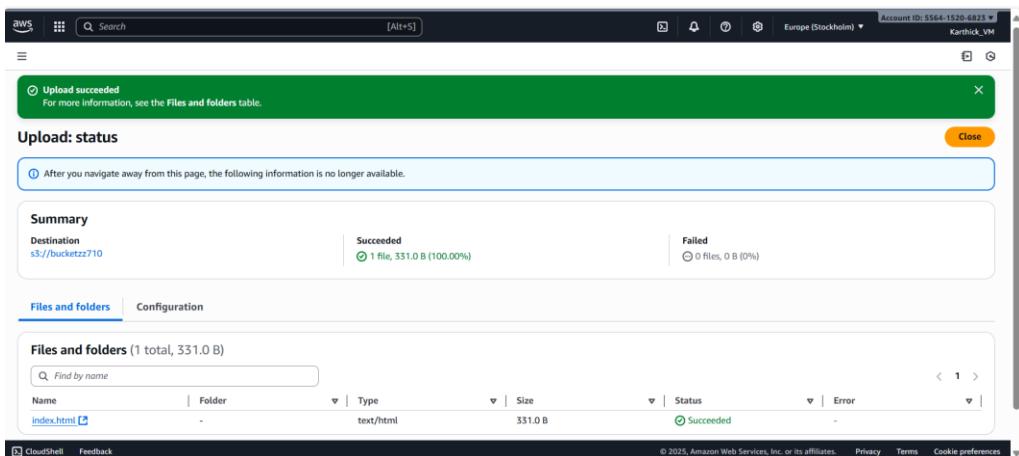
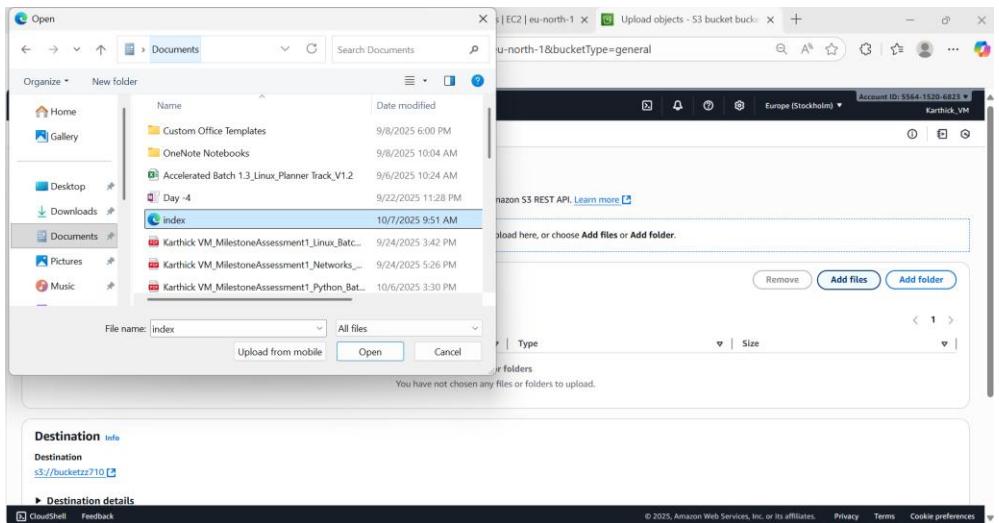
The screenshot shows the 'Create bucket' wizard. In the 'General configuration' tab, the AWS Region is set to 'Europe (Stockholm) eu-north-1'. The 'Bucket type' is set to 'General purpose', which is described as recommended for most use cases. The bucket name is 'Bucketzz710'. In the 'Object Ownership' tab, the ownership is set to 'CloudShell'.

- Enable versioning and upload a file

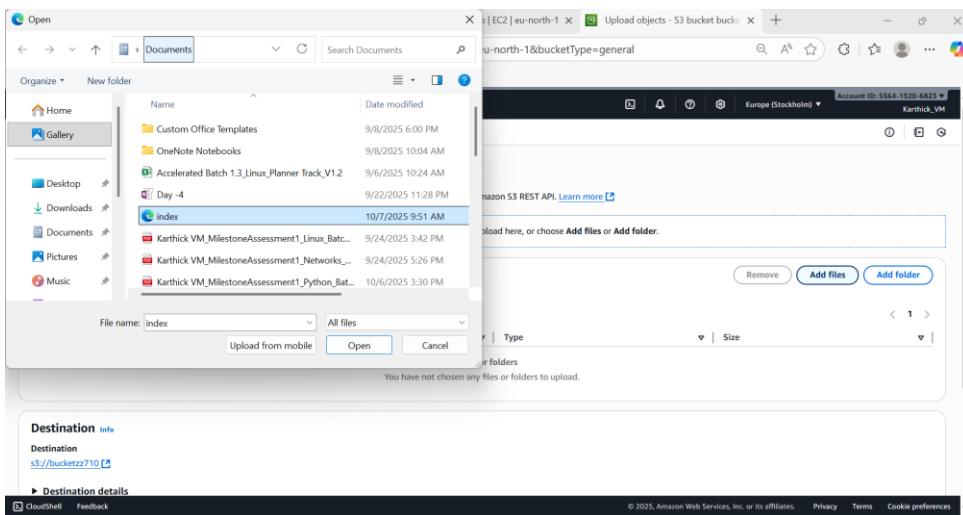
The screenshot shows the 'Bucket Versioning' configuration page. It includes a warning about turning off public access and a checkbox for acknowledging the risk. The 'Bucket Versioning' section shows 'Enable' selected. There is also a 'Tags - optional' section.

The screenshot shows the AWS S3 'Buckets' dashboard. A green banner at the top indicates that the bucket 'bucketzz710' was successfully created. The 'General purpose buckets' tab is selected, showing three buckets: 'bucketzz710', 'cf-templates--3otz1ek1bqy1-us-east-1', and 'webzzz'. The 'Account snapshot' and 'External access summary' sections are also visible.

Name	AWS Region	Creation date
bucketzz710	Europe (Stockholm) eu-north-1	October 7, 2025, 16:45:43 (UTC+05:30)
cf-templates--3otz1ek1bqy1-us-east-1	US East (N. Virginia) us-east-1	October 6, 2025, 17:03:18 (UTC+05:30)
webzzz	Europe (Stockholm) eu-north-1	October 7, 2025, 09:52:12 (UTC+05:30)



- Upload the same file again



- Go to the file and go to the versions page , there you can see the previous versions of the file.

The screenshot shows the AWS S3 console with the path `Amazon S3 > Buckets > bucketzz710 > index.html`. The **Versions** tab is selected. The table lists two versions:

	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	ito8c1_l_CbmEk2HcG3zgpDDG5a...	html	October 7, 2025, 16:47:16 (UTC+05:30)	331.0 B	Standard
<input type="checkbox"/>	94LNQqbJ9Xk8RkgjvShcTY.kVXRy...	html	October 7, 2025, 16:46:43 (UTC+05:30)	331.0 B	Standard

- Now delete the current version of the file

The screenshot shows the AWS S3 console with the path `Amazon S3 > Buckets > bucketzz710 > index.html > Delete objects`. A warning message states: "If a folder is selected for deletion, all objects in the folder will be deleted, and any new objects added while the delete action is in progress might also be deleted. If an object is selected for deletion, any new objects with the same name that are uploaded before the delete action is completed will also be deleted." Below it says "Deleting the specified objects can't be undone." The "Specified objects" section shows the current version of `index.html`.

Specified objects

Name	Version ID	Type	Last modified	Size
<input type="checkbox"/> index.html	ito8c1_l_CbmEk2HcG3zgpDDG5a...	html	October 7, 2025, 16:47:16 (UTC+05:30)	331.0 B

Permanently delete objects?

To confirm deletion, type *permanently delete* in the text input field.

Delete objects

- You can see after we delete the current version of the file the previous version is restored.

The screenshot shows the AWS S3 console with the path `Amazon S3 > Buckets > bucketzz710 > index.html`. The **Versions** tab is selected. The table now lists only one version:

	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	94LNQqbJ9Xk8RkgjvShcTY.kVXRy...	html	October 7, 2025, 16:46:43 (UTC+05:30)	331.0 B	Standard

3. Launch two EC2 instances in different subnets and verify connectivity using securitygroups.

- EC2 Created using default vpc and subnet using default security group --- permissions inclusive of tcp,http,https.

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Name and tags' section has 'WebzServer' entered. The 'Software Image (AMI)' section shows 'Amazon Linux 2023 AMI 2023.9.2...' selected. The 'Virtual server type (instance type)' is set to 't3.micro'. The 'Storage (volumes)' section indicates 1 volume(s) - 8 GiB. The right panel displays a summary of the configuration and includes 'Launch instance' and 'Preview code' buttons.

This screenshot continues the 'Launch an instance' wizard, focusing on 'Network settings'. It shows the 'Subnet' dropdown set to 'No preference (Default subnet in any availability zone)'. Under 'Firewall (security groups)', the 'Select existing security group' radio button is selected, and a dropdown menu lists 'default sg-0e6f4c315e65e0c57'. The right panel remains consistent with the previous screenshot, showing the summary and launch buttons.

aws Search [Alt+S] Account ID: 5564-1520-6823 Europe (Stockholm) Karthick_VM

EC2 Instances i-0ee467d945966551a

Instance summary for i-0ee467d945966551a (WebzServer) [Info](#)

Updated less than a minute ago

Instance ID i-0ee467d945966551a	Public IPv4 address 13.62.54.238 open address	Private IPv4 addresses 172.31.28.186
IPv6 address -	Instance state Running	Public DNS ec2-13-62-54-238.eu-north-1.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-28-186.eu-north-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-28-186.eu-north-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t3.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto-assigned IP address 13.62.54.238 [Public IP]	VPC ID vpc-0c282e294992db20a	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-041ea3449d449bbfc	Managed false
IMDSv2 Required	Instance ARN arn:aws:ec2:eu-north-1:556415206823:instance/i-0ee467d945966551a	

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aws Search [Alt+S] Account ID: 5564-1520-6823 Europe (Stockholm) Karthick_VM

EC2 Instances i-0ee467d945966551a > Connect to instance

EC2 Instance Connect

Session Manager SSH client EC2 serial console

Instance ID: i-0ee467d945966551a (WebzServer)

Connection type:

Connect using a Public IP
Connect using a public IPv4 or IPv6 address

Connect using a Private IP
Connect using a private IP address and a VPC endpoint

Public IPv4 address: 13.62.54.238

IPv6 address: -

Username:
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.
ec2-user

Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel Connect

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```
[root@ip-172-31-16-249 ec2-user]# cd /
[root@ip-172-31-16-249 /]# yum install -y httpd
Amazon Linux Kernel Livepatch repository
Dependencies resolved.
237 kB/s | 26 kB 00:00

Package           Architecture     Version          Repository      Size
Installing:
httpd             x86_64          2.4.65-1.amzn2023.0.1   amazonlinux    47 k
Installing dependencies:
apr               x86_64          1.7.5-1.amzn2023.0.4   amazonlinux    129 k
apr-util          x86_64          1.6.3-1.amzn2023.0.1   amazonlinux    98 k
generic-logos-htpd noarch          18.0.0-12.amzn2023.0.3  amazonlinux    19 k
httpd-core        x86_64          2.4.65-1.amzn2023.0.1   amazonlinux    1.4 M
httpd-filesystem noarch          2.4.65-1.amzn2023.0.1   amazonlinux    13 k
httpd-tools       x86_64          2.4.65-1.amzn2023.0.1   amazonlinux    81 k
libbrotli         x86_64          1.0.9-4.amzn2023.0.2   amazonlinux    315 k
mailcap           noarch          2.1.49-3.amzn2023.0.3  amazonlinux    33 k
Installing weak dependencies:
apr-util-openssl x86_64          1.6.3-1.amzn2023.0.1   amazonlinux    17 k
mod http2         x86_64          2.0.27-1.amzn2023.0.3  amazonlinux    166 k
mod_lua           x86_64          2.4.65-1.amzn2023.0.1   amazonlinux    60 k

Transaction Summary
Install 12 Packages

i-0ba0f09b3e94bb095b (WebServer)
PublicIPs: 13.60.59.51 PrivateIPs: 172.31.16.249
```

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- Create another instance using another vpc i.e vpc-01

Name and tags [Info](#)

Name 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](#).

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

Recent [Quick Start](#)

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux Debian

[Browse other AMIs](#) Including AMIs from AWS, Marketplace and the Community

Summary [Info](#)

Number of instances

Software Image (AMI) [Read more](#)
Amazon Linux 2023 AMI 2023.9.2... ami-040fd8aa14af291

Virtual server type (instance type) t3.micro

Firewall (security group) New security group

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

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

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Network settings [Info](#)

VPC - required [Info](#)

vpc-0adff09efabac54696 (vpc-01) 10.0.0.0/16

Subnet [Info](#)

subnet-0b2375dbd1214ea8a sub-pub-1 [Create new subnet](#)

Auto-assign public IP [Info](#)

Disable [Create security group](#) [Select existing security group](#)

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](#)

Common security groups [Info](#)

Select security groups [Compare security group rules](#)

default sg-0471ec69628eb43e1 [X](#) VPC vpc-0adff09efabac54696

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Advanced network configuration

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- You can see that the elastic ip address i.e public ip is not assigned to this instance so we want to allocate the elastic ip address to this instance.

- Now you can connect to the ec2 instance .

```

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

Last login: Tue Oct  7 10:52:22 2025 from 13.48.4.203
[ec2-user@ip-172-31-16-249 ~]$ sudo su
[root@ip-172-31-16-249 ec2-user]# 

```

4. Configure a NAT Gateway in a public subnet and allow private instances to download updates from the internet.

- Create a vpc and create a public subnet

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create: [Info](#)
Create only the VPC resource or the VPC and other networking resources.

VPC only VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.
vpc-01

IPv4 CIDR block [Info](#)
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block
10.0.0.0/16
CIDR block size must be between /16 and /28.

IPv6 CIDR block [Info](#)
 No IPv6 CIDR block IPAM-allocated IPv6 CIDR block Amazon-provided IPv6 CIDR block IPv6 CIDR owned by me

Tenancy [Info](#)

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Subnet 1 of 1

Subnet name
Creates a tag with a key of 'Name' and a value that you specify.
sub-pub-1
The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Europe (Stockholm) / eur1-az1 (eu-north-1a)

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.
10.0.0.0/16

IPv4 subnet CIDR block
10.0.1.0/24
256 IPs

Tags - optional

Key	Value - optional
Q Name	X sub-pub-1

Add new tag

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- Create a internet gateway and route table , then associate the route table with the subnet and edit the route with the internet gateway.

Create internet gateway [Info](#)
An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

Internet gateway settings

Name tag
Creates a tag with a key of 'Name' and a value that you specify.
igw-1

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.

Key	Value - optional
Q Name	X igw-1

Add new tag
You can add 49 more tags.

Cancel **Create internet gateway**

aws Search [Alt+S] Account ID: 5564-1520-6823 Europe (Stockholm) Karthick_VM

VPC > Route tables > rtb-0a6aeed2121dbf4 > Edit routes

Edit routes

Destination	Target	Status	Propagated	Route Origin
10.0.0.0/16	local	Active	No	CreateRouteTable
0.0.0.0/0	Internet Gateway	-	No	CreateRoute
	igw-0872a289958cfb4c2			Remove
	igw-0872a289958cfb4c2 (igw-1)			
Add route Cancel Preview Save changes				

- Create a private subnet

aws Search [Alt+S] Account ID: 5564-1520-6823 Europe (Stockholm) Karthick_VM

VPC > Subnets > Create subnet

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="sub-private-1"/> Remove

[Add new tag](#) You can add 49 more tags.

[Preview](#)

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- Now create a NAT Gateway and select the public subnet (so that it can access the internet)

aws Search [Alt+S] Account ID: 5564-1520-6823 Europe (Stockholm) Karthick_VM

VPC > NAT gateways > Create NAT gateway

Elastic IP address 13.51.140.42 (eipalloc-08e3a72176c1e7a43) allocated.

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

Connectivity type
Select a connectivity type for the NAT gateway.
 Public
 Private

Elastic IP allocation ID [Info](#)
Assign an Elastic IP address to the NAT gateway.
 [Allocate Elastic IP](#)

Additional settings [Info](#)

Tags

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- Now create another route table and edit the route with NAT gateway and associate this route table with private subnet so it can access the internet using the NAT gateway.

The screenshot shows the AWS VPC console with the 'Edit routes' page for a specific route table. A new route is being added:

Destination	Target	Status	Propagated	Route Origin
10.0.0.0/16	local	Active	No	CreateRouteTable
Q. 0.0.0.0/0	NAT Gateway	-	No	CreateRoute
	Q. nat-08e4444b22173c2b1			Remove

Buttons at the bottom include 'Add route', 'Cancel', 'Preview', and 'Save changes'.

A green success message at the top states: "You have successfully updated subnet associations for rtb-02c3433893c6ce395 / route-2."

The route table details page shows:

- Details** tab selected.
- Route table ID**: rtb-02c3433893c6ce395
- Main**: No
- Owner ID**: 556415206823
- Explicit subnet associations**: subnet-06a01337108a16f79 / sub-private-1
- Edge associations**: -

The **Routes** tab is selected, showing two routes:

Destination	Target	Status	Propagated	Route Origin
0.0.0.0/0	nat-08e4444b22173c2b1	Active	No	Create Route
10.0.0.0/16	local	Active	No	Create Route Table



5. Use IAM to create a user with programmatic access and restrict them to only read S3 buckets.

Specify user details

User details

User name: User-01

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](#).

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.

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 (1/1393)

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

Filter by Type			
<input type="text" value="s3"/>	All types	17 matches	▼
<input type="checkbox"/> Policy name AmazonS3ReadOnlyAccess	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3FullAccess	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3ObjectLambdaExecutionRolePolicy	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3OutpostsFullAccess	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3OutpostsReadOnlyAccess	AWS managed	0	▼
<input checked="" type="checkbox"/> Policy name AmazonS3ReadOnlyAccess	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3TablesFullAccess	AWS managed	0	▼
<input type="checkbox"/> Policy name AmazonS3TablesLakeFormationServiceRole	AWS managed	0	▼

User created successfully

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

Step 1 Specify user details
Step 2 Set permissions
Step 3 Review and create
Step 4 Retrieve password

Retrieve password

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

Console sign-in details

Console sign-in URL: <https://556415206823.signin.aws.amazon.com/console>

User name: User-01

Console password: ***** [Show](#)

[Email sign-in instructions](#)

[Cancel](#) [Download .csv file](#) [Return to users list](#)

6. Run AWS CLI commands to list EC2 instances, 53 buckets, and IAMusers in your account.

- List Ec2 Instances

```
~ $ aws ec2 describe-instances --output table
  ┌─────────────────────────────────────────────────────────────────┐
  │ DescribeInstances                                         │
  └────────────────────────────────────────────────────────────────┘
    +-----+-----+
    | Reservations |
    +-----+-----+
    | OwnerId      | 556415206823
    | ReservationId| r-0008d39e116c7e150
    +-----+-----+
    +-----+-----+
    | Instances    |
    +-----+-----+
      AmiLaunchIndex | 0
      Architecture  | x86_64
      BootMode      | uefi-preferred
      ClientToken   | 7dc4438d-b5f3-48d3-9172-8e3ed4e71930
      CurrentInstanceBootMode | uefi
      Enabled       | True
      EnaSupport    | True
      Hypervisor    | xen
      ImageId       | ami-04c08fd8aa1af291
      InstanceId   | i-0ee467d945966551a
      InstanceType  | t3.micro
      KeyName       | Karthick_J10
      LaunchTime   | 2025-10-07T10:48:36+00:00
      PlatformDetails | Linux/UNIX
      PrivateDnsName |
      PublicDnsName |
      RootDeviceName | /dev/xvda
      RootDeviceType | ebs
      StatusTransitoinReason | User initiated (2025-10-07 10:51:38 GMT)
      UsageOperation | RunInstances
      UsageOperationUpdateTime | 2025-10-07T10:48:36+00:00
      VirtualizationType | hvm
      +-----+-----+
      CapacityReservationSpecification |
      +-----+-----+
        CapacityReservationPreference | open
      +-----+-----+
```

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- List S3 buckets

```
~ $ aws s3 ls
2025-10-07 10:51:46 bucketzz710
2025-10-06 11:37:33 cf-templates--3otziekbgy1-us-east-1
2025-10-07 04:29:44 webzzz
~ $
```

- List IAM Users



```
aws CloudShell eu-north-1 + [Alt+S] Search Europe (Stockholm) ▾

$ aws iam list-users
{
  "Users": [
    {
      "Path": "/",
      "UserName": "User-01",
      "UserId": "AIDAVDDHOIWTUE67VN4MB",
      "Arn": "arn:aws:iam::556415206823:user/User-01",
      "CreateDate": "2025-10-07T11:40:26+00:00"
    }
  ]
}
```