

1. Create VPC with 2 private and 2 public subnets.

Open VPC and create one new VPC.

VPC > Your VPCs > Create VPC

Create VPC

Info

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.

my-vpc

IPv4 CIDR block

Info

☒ IPv4 CIDR manual input

☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR

192.168.0.0/24

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

Your VPCs (1/2)

Info

Last updated about 2 hours ago

Actions

Create VPC

Find VPCs by attribute or tag

	Name	VPC ID	State	Block Public...	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	-	vpc-0db9d4fb39c8bc078	Available	Off	172.31.0.0/16	-
<input checked="" type="checkbox"/>	my-vpc	vpc-0a1c19d689d25443f	Available	Off	192.168.0.0/24	-

Go to subnets and create 2 public subnets and 2 private subnets.

VPC > Subnets

VPC dashboard

Subnets

You have successfully created 1 subnet: subnet-0b530a493375be687

Subnets (7)

Info

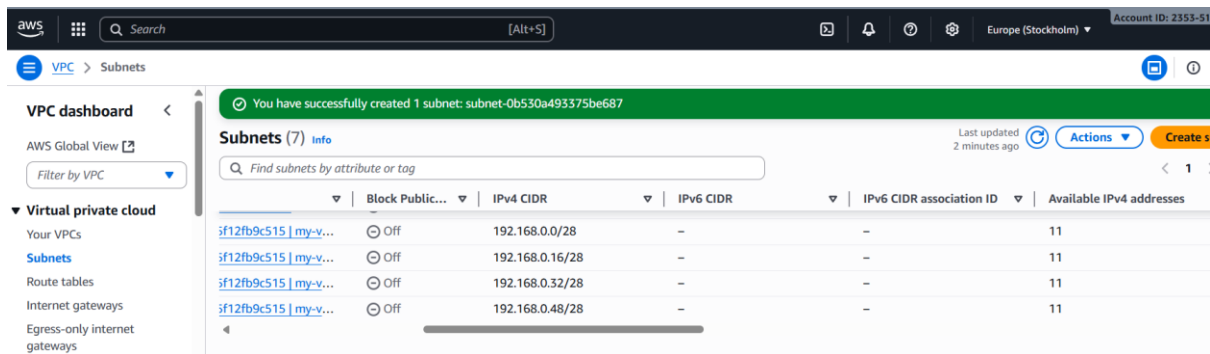
Last updated 1 minute ago

Actions

Create subnet

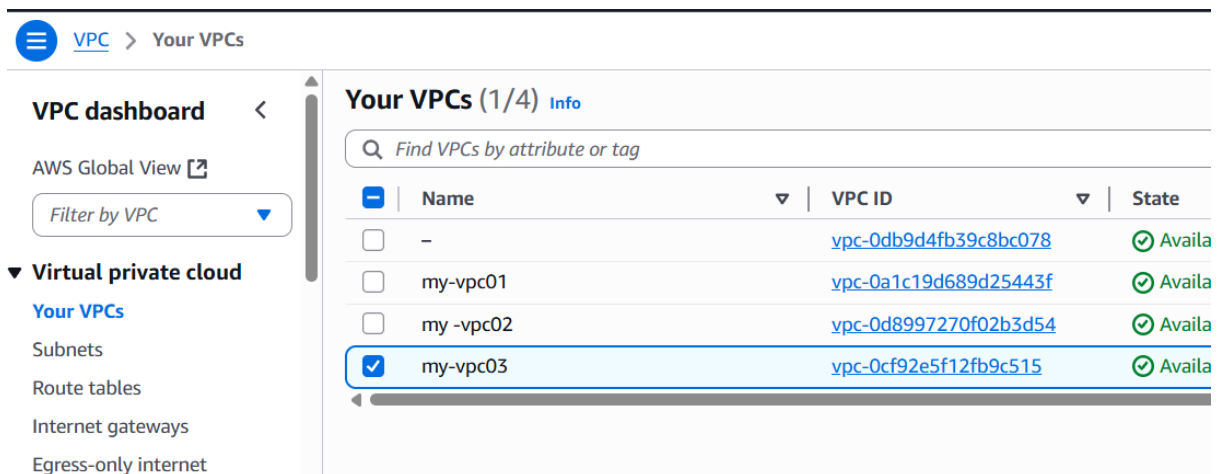
Find subnets by attribute or tag

	Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
<input type="checkbox"/>	-	subnet-0cc304f411ffbe14c	Available	vpc-0db9d4fb39c8bc078	Off	172.31.32.0
<input type="checkbox"/>	-	subnet-0446b22818aa451b1	Available	vpc-0db9d4fb39c8bc078	Off	172.31.0.0/
<input type="checkbox"/>	-	subnet-05523948fb6f25c67	Available	vpc-0db9d4fb39c8bc078	Off	172.31.16.0
<input type="checkbox"/>	pub-01-subnet	subnet-0d731413aa4728794	Available	vpc-0cf92e5f12fb9c515 my-v...	Off	192.168.0.0
<input type="checkbox"/>	pub-02-subnet	subnet-03c9125782b571c1c	Available	vpc-0cf92e5f12fb9c515 my-v...	Off	192.168.0.1
<input type="checkbox"/>	pri-01-subnet	subnet-085b49e94e790394c	Available	vpc-0cf92e5f12fb9c515 my-v...	Off	192.168.0.3
<input type="checkbox"/>	pri-02-subnet	subnet-0b530a493375be687	Available	vpc-0cf92e5f12fb9c515 my-v...	Off	192.168.0.4

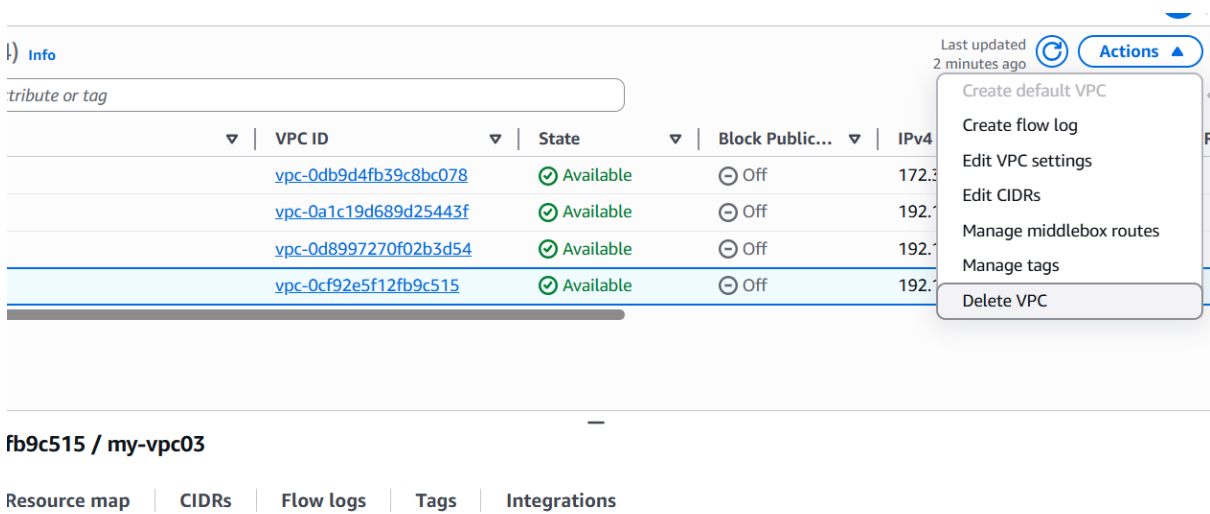


2. Enable DNS Hostname in VPC.

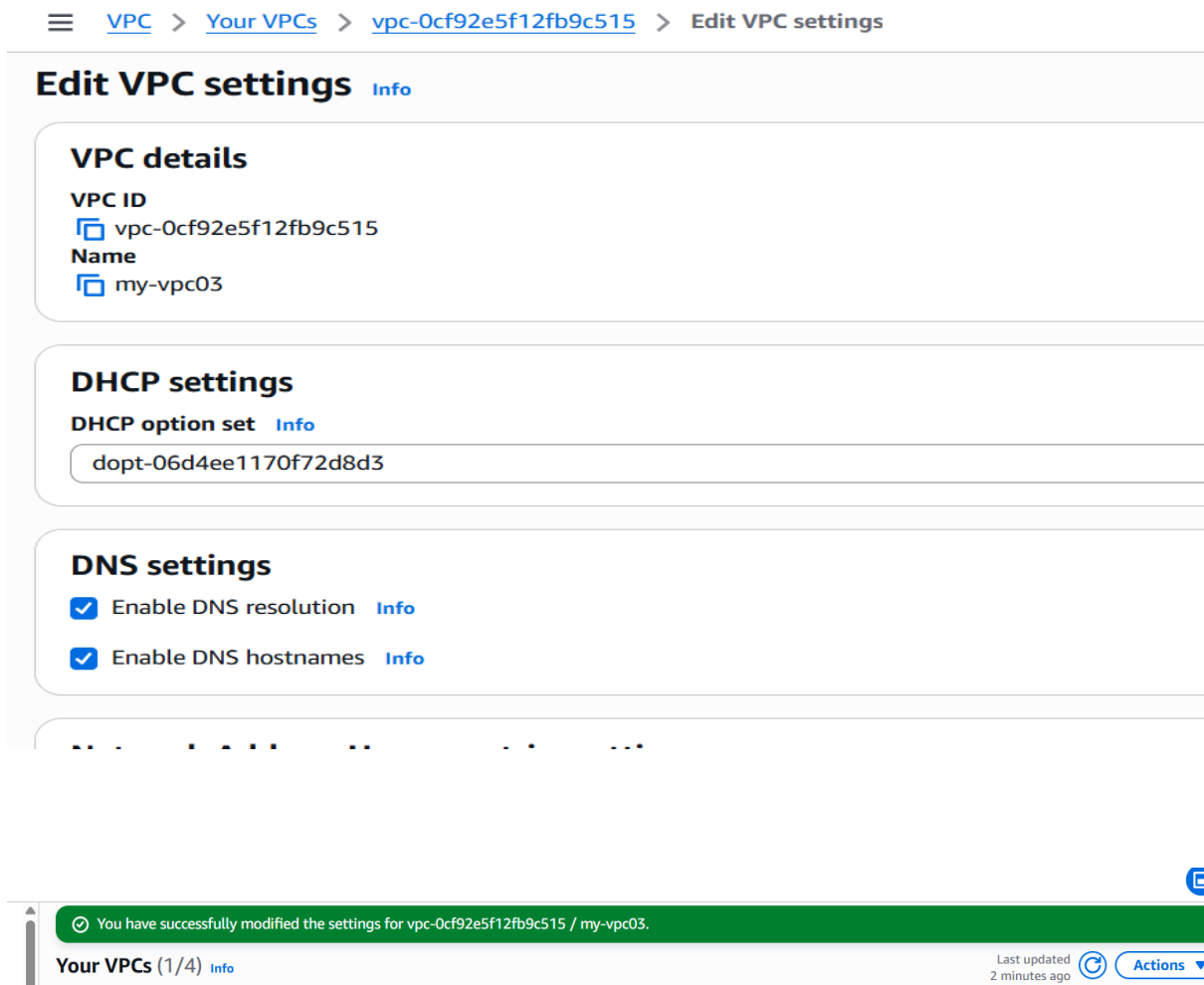
- Select the instance which we need to change DNS hostname.



- Click on actions and select VPC change settings.



- Enable DNS hostnames and save.



3.Enable Auto Assign Public IP in 2 public subnets.

Click on subnets. Select your first public subnet and Go to actions and click on actions and click edit subnet changes and enable it.

VPC > Subnets > subnet-0d731413aa4728794 > Edit subnet settings

Edit subnet settings [Info](#)

Subnet

Subnet ID

subnet-0d731413aa4728794

Name

pub-01-subnet

Auto-assign IP settings [Info](#)

Enable AWS to automatically assign a public IPv4 or IPv6 address to a new primary network interface for an instance in this subnet.

☒ Enable auto-assign public IPv4 address [Info](#)

☐ Enable auto-assign customer-owned IPv4 address [Info](#)
Option disabled because no customer owned pools found.

Resource-based name (RBN) settings [Info](#)

Specify the hostname type for EC2 instances in this subnet and optional RBN DNS query settings.

☐ Enable resource name DNS A record on launch [Info](#)

And save the changes. Select the second subnet and do the same process.

You have successfully changed subnet settings:

- Enable auto-assign public IPv4 address

Subnets (1/7) [Info](#)

Find subnets by attribute or tag

	Name	Subnet ID	State	VPC
<input type="checkbox"/>	-	subnet-0cc304f411ffbe14c	Available	vpc-0db9d4fb39c8bc078
<input type="checkbox"/>	-	subnet-0446b22818aa451b1	Available	vpc-0db9d4fb39c8bc078
<input type="checkbox"/>	-	subnet-05523948fb6f25c67	Available	vpc-0db9d4fb39c8bc078
<input type="checkbox"/>	pub-01-subnet	subnet-0d731413aa4728794	Available	vpc-0cf92e5f12fb9c515 my
<input checked="" type="checkbox"/>	pub-02-subnet	subnet-07e013f7805f71e1e	Available	vpc-0cf92e5f12fb9c515 my

4. Add 2 private subnets in private route table.

Create a route table with the name pri-route table. And select VPC which the private subnets are present.

☰ VPC > Route tables > Create route table ⓘ

0 ⓘ

Create route table ⓘ

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

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

pri-routable

VPC
The VPC to use for this route table.

vpc-0cf92e5f12fb9c515 (my-vpc03) ▾

Tags

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 Q pri-routable X Remove

Add new tag

You can add 49 more tags.

Cancel Create route table

Select the private route table and go to the actions and select edit subnet associations.

→ eu-north-1.console.aws.amazon.com/vpcconsole/home?region=eu-north-1#RouteTables: ⓘ

Gmail YouTube Maps

Search [Alt+S] Europe (Stockholm) Account ID: 2553-5102

VPC > Route tables

VPC dashboard <

AWS Global View ⓘ

Filter by VPC ▾

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

Security

Network ACLs

Security groups

Route tables (1/5) ⓘ

Find route tables by attribute or tag

Last updated 1 minute ago ⓘ Actions Create route table

<input type="checkbox"/>	Name ▾	Route table ID ▾	Explicit subnet associ... ▾	Edge associations ▾	Main ▾
<input type="checkbox"/>	-	rtb-0b42283383e9a976a	-	-	Yes
<input type="checkbox"/>	-	rtb-06bf5b21afb9a964d7	-	-	Yes
<input type="checkbox"/>	-	rtb-0231e0c25d8f9f91f	-	-	Yes
<input checked="" type="checkbox"/>	pri-routable	rtb-072698f31881e4245	-	-	No
<input type="checkbox"/>	-	rtb-08f5272920ed5ca4f	-	-	Yes

rtb-072698f31881e4245 / pri-routable ⓘ

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Route table ID
rtb-072698f31881e4245

Main
No

Explicit subnet associations
-

Edge associations
-

Select the 2 private subnets and save it.

VPC > Route tables > rtb-072698f31881e4245 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input type="checkbox"/>	pub-01-subnet	subnet-0d731413aa4728794	192.168.0.0/28	-	Main (rtb-0231e0c25d8f9f91f)
<input type="checkbox"/>	pub-02-subnet	subnet-03c9125782b571c1c	192.168.0.16/28	-	Main (rtb-0231e0c25d8f9f91f)
<input checked="" type="checkbox"/>	pri-01-subnet	subnet-085b49e94e790394c	192.168.0.32/28	-	Main (rtb-0231e0c25d8f9f91f)
<input checked="" type="checkbox"/>	pri-02-subnet	subnet-0b530a493375be687	192.168.0.48/28	-	Main (rtb-0231e0c25d8f9f91f)

Selected subnets

subnet-085b49e94e790394c / pri-01-subnet X subnet-0b530a493375be687 / pri-02-subnet X

Cancel Save associations

You have successfully updated subnet associations for rtb-072698f31881e4245 / pri-routeable.

Route tables (1/5) Info

Last updated less than a minute ago

Find route tables by attribute or tag

5. Add 2 public subnets in public route table.

Create a route table with the name pub-route table.

VPC > Route tables > Create route table

Create route table Info

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

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

pub-route table

VPC
The VPC to use for this route table.

vpc-0cf92e5f12fb9c515 (my-vpc03)

Tags

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

Q Name X

Value - optional

Q pub-route table X Remove

Add new tag

You can add 49 more tags.

Cancel

Select the public route table and edit subnet associations and add two subnets.

Route table rtb-06d7a6b1a588f9301 | pub-route table was created successfully.

Route tables (1/6) Info Last updated 5 minutes ago Actions Create route table

Find route tables by attribute or tag

	Name	Route table ID	Explicit subnet associ...	Edge associations	
<input type="checkbox"/>	-	rtb-0231e0c25d8f9f91f	-	-	Y
<input type="checkbox"/>	pri-route table	rtb-072698f31881e4245	2 subnets	-	N
<input type="checkbox"/>	-	rtb-08f5272920ed3ca4f	-	-	Y
<input checked="" type="checkbox"/>	pub-route table	rtb-06d7a6b1a588f9301	-	-	N

View details
Set main route table
Edit subnet associations
Edit edge associations
Edit route propagation
Edit routes
Manage tags

aws Search [Alt+S] Europe (Stockholm) Account ID: 2353-5102-8455 mujahed

VPC > Route tables > rtb-06d7a6b1a588f9301 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	pub-01-subnet	subnet-0d731413aa4728794	192.168.0.0/28	-	Main (rtb-0231e0c25d8f9f91f)
<input checked="" type="checkbox"/>	pub-02-subnet	subnet-03c9125782b571c1c	192.168.0.16/28	-	Main (rtb-0231e0c25d8f9f91f)
<input type="checkbox"/>	pri-01-subnet	subnet-085b49e94e790394c	192.168.0.32/28	-	rtb-072698f31881e4245 / pri-route table
<input type="checkbox"/>	pri-02-subnet	subnet-0b530a493375be687	192.168.0.48/28	-	rtb-072698f31881e4245 / pri-route table

Selected subnets

subnet-03c9125782b571c1c / pub-02-subnet × subnet-0d731413aa4728794 / pub-01-subnet ×

Cancel Save associations

You have successfully updated subnet associations for rtb-06d7a6b1a588f9301 / pub-route table.

6. Public route table will have the routes to internet and local.

Create a internet gateway with the name my-gateway.

Internet gateways

Create 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.

my-gateway

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.

Key
Q Name X

Value - optional
Q my-gateway

Add new tag

You can add 49 more tags.

igw-039b0cc65033dfd2b

The following internet gateway was created: igw-039b0cc65033dfd2b - my-gateway . You can now attach to a VPC to enable the VPC to communicate with the internet. Attach to a VPC

igw-039b0cc65033dfd2b / my-gateway Actions

Details Info

Internet gateway ID	State	VPC ID	Owner
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Attach to vpc which have the public subnets.

The following internet gateway was created: igw-039b0cc65033dfd2b - my-gateway . You can now attach to a VPC to enable the VPC to communicate with the internet. Attach to

Attach to VPC (igw-039b0cc65033dfd2b) Info

VPC
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs
Attach the internet gateway to this VPC.

Q vpc-0cf92e5f12fb9c515 X

AWS Command Line Interface command

Cancel Attach internet gateway

Edit the routes of add gate way to public routetable.

aws

Search

[Alt+S]

Europe (Stockholm)

VPC > Route tables > rtb-06d7a6b1a588f9301

Updated routes for rtb-06d7a6b1a588f9301 / pub-route table successfully
Details

rtb-06d7a6b1a588f9301 / pub-route table

Details Info

Route table ID rtb-06d7a6b1a588f9301	Main No	Explicit subnet associations 2 subnets	Edge associations -
VPC vpc-0cf92e5f12fb9c515 my-vpc03	Owner ID 235351028455		

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Filter routes

Destination	Target	Status	Propagated	Route
0.0.0.0/0	igw-039b0cc65033dfd2b	Active	No	Create
192.168.0.0/20	local	Active	No	Create

7. Create EC2 in public subnet with t2.micro and install PHP.

Create a instance with the name php-server and select amazon liux image and select your VPC and select your publicsubnet and launch the instance.

EC2 > Instances > Launch an instance

▼ Network settings [Info](#)

VPC - required | [Info](#)

vpc-0cf92e5f12fb9c515 (my-vpc03)
192.168.0.0/20

Subnet | [Info](#)

subnet-0d731413aa4728794 pub-01-subnet
VPC: vpc-0cf92e5f12fb9c515 Owner: 235351028455
Availability Zone: eu-north-1a (eun1-az1) Zone type: Availability Zone
IP addresses available: 11 CIDR: 192.168.0.0/28

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.

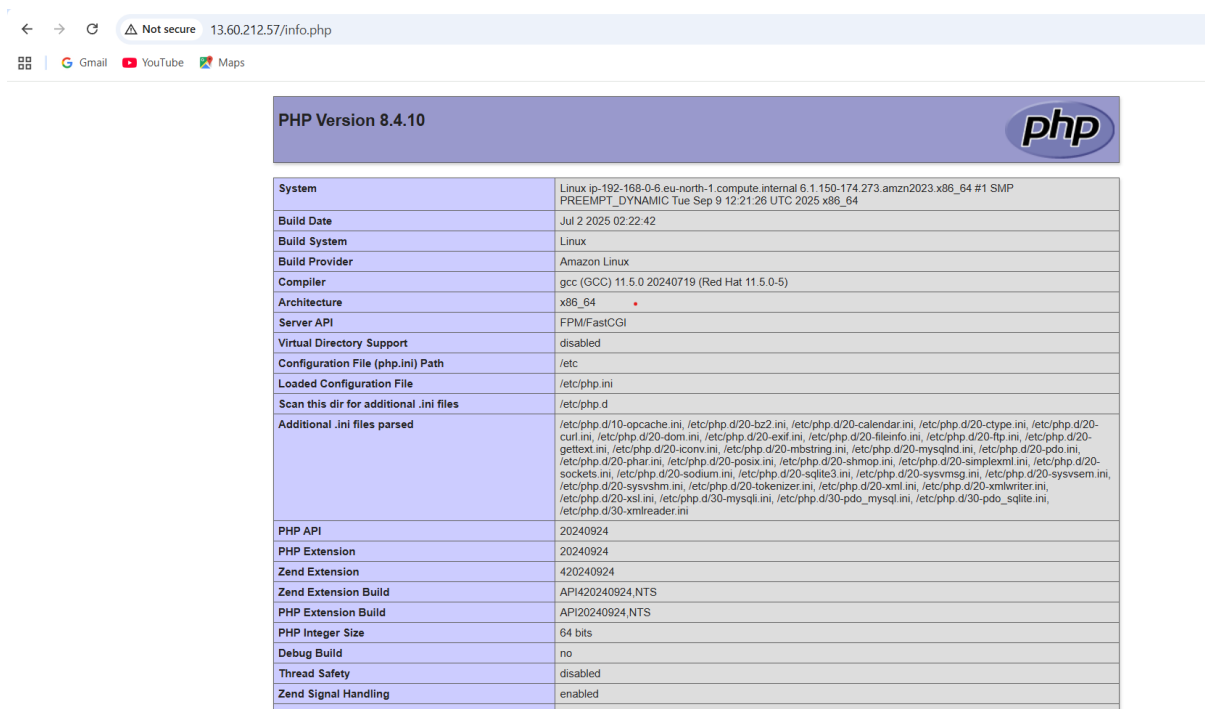
☒ Create security group ☐ Select existing security group

Security group name - required

Write the installation code of php in the user data and launch the instance.


```
[ec2-user@ip-192-168-0-6 ~]$ ls -l /var/www/html/
total 4
-rw-r--r--. 1 root root 20 Sep 21 05:27 info.php
[ec2-user@ip-192-168-0-6 ~]$ curl http://localhost/info.php
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "DTD/xhtml
<html xmlns="http://www.w3.org/1999/xhtml"><head>
<style type="text/css">
body {background-color: #fff; color: #222; font-family: sans-serif;}
pre {margin: 0; font-family: monospace;}
a {color: inherit;}
a:hover {text-decoration: none;}
table {border-collapse: collapse; border: 0; width: 934px; box-shadow: 1
.center {text-align: center;}
.center table {margin: 1em auto; text-align: left;}
.center th {text-align: center !important;}
td, th {border: 1px solid #666; font-size: 75%; vertical-align: baseline
th {position: sticky; top: 0; background: inherit;}
h1 {font-size: 150%;}
h2 {font-size: 125%;}
h2 > a {text-decoration: none;}
h2 > a:hover {text-decoration: underline;}
```

Open browser and check with the <http://ipaddress/info.php>



PHP Version 8.4.10	
System	Linux ip-192-168-0-6 eu-north-1 compute internal 6.1.150-174.273.amzn2023.x86_64 #1 SMP PREEMPT_DYNAMIC Tue Sep 9 12:21:26 UTC 2025 x86_64
Build Date	Jul 2 2025 02:22:42
Build System	Linux
Build Provider	Amazon Linux
Compiler	gcc (GCC) 11.5.0 20240719 (Red Hat 11.5.0-5)
Architecture	x86_64
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php.d
Additional .ini files parsed	/etc/php.d/10-opcache.ini, /etc/php.d/20-bz2.ini, /etc/php.d/20-calendar.ini, /etc/php.d/20-ctype.ini, /etc/php.d/20-curl.ini, /etc/php.d/20-dom.ini, /etc/php.d/20-exif.ini, /etc/php.d/20-fileinfo.ini, /etc/php.d/20-ftp.ini, /etc/php.d/20-gettext.ini, /etc/php.d/20-iconv.ini, /etc/php.d/20-mbstring.ini, /etc/php.d/20-mysqli.ini, /etc/php.d/20-pdo.ini, /etc/php.d/20-phar.ini, /etc/php.d/20-posix.ini, /etc/php.d/20-shmop.ini, /etc/php.d/20-simplexml.ini, /etc/php.d/20-sockets.ini, /etc/php.d/20-sodium.ini, /etc/php.d/20-sqlite3.ini, /etc/php.d/20-sysmsg.ini, /etc/php.d/20-syssem.ini, /etc/php.d/20-sysvshm.ini, /etc/php.d/20-tokenizer.ini, /etc/php.d/20-xml.ini, /etc/php.d/20-xmlwriter.ini, /etc/php.d/20-xsl.ini, /etc/php.d/30-mysqli.ini, /etc/php.d/30-pdo_mysql.ini, /etc/php.d/30-pdo_sqlite.ini, /etc/php.d/30-xmlreader.ini
PHP API	20240924
PHP Extension	20240924
Zend Extension	420240924
Zend Extension Build	API420240924.NTS
PHP Extension Build	API20240924.NTS
PHP Integer Size	64 bits
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	enabled

8. Configure NAT gateway in public subnet and connect to private instance.

Create a NAT gateway

aws [Search] [Alt+S]

VPC > NAT gateways > Create NAT gateway

✓ Elastic IP address 13.62.124.166 (eipalloc-0af25458cf74d491a) allocated.

Create NAT gateway [Info](#)

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 i

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](#)

Go to the route table and select the private route table and edit the routes.

Route tables (1/6) [Info](#) Last updated 13 minutes ago [Actions](#) [Create route table](#)

	Name	Route table ID	Explicit subnet associ...	Edge associations	M
<input type="checkbox"/>	-	rtb-0b42283383e9a976a	-	-	Y
<input type="checkbox"/>	-	rtb-06bf5b21afb964d7	-	-	Y
<input type="checkbox"/>	-	rtb-0231e0c25d8f9f91f	-	-	Y
<input type="checkbox"/>	pub-route table	rtb-06d7a6b1a588f9301	2 subnets	-	N
<input checked="" type="checkbox"/>	pri-routable	rtb-072698f31881e4245	2 subnets	-	N
<input type="checkbox"/>	-	rtb-08f5272920ed3ca4f	-	-	Yes

[View details](#)
[Set main route table](#)
[Edit subnet associations](#)
[Edit edge associations](#)
[Edit route propagation](#)
[Edit routes](#)
[Manage tags](#)
[Delete route table](#)

rtb-072698f31881e4245 / pri-routable

[Details](#) [Routes](#) [Subnet associations](#) [Edge associations](#) [Route propagation](#) [Tags](#)

Details

Route table ID <input checked="" type="checkbox"/> rtb-072698f31881e4245	Main <input checked="" type="checkbox"/> No	Explicit subnet associations 2 subnets	Edge associations -
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Select your created NAT gateway

[VPC](#) > [Route tables](#) > [rtb-072698f31881e4245](#) > Edit routes

Edit routes

Destination	Target	Status	Propagated	Route Origin
192.168.0.0/20	local	Active	No	CreateRouteTable
Q 0.0.0.0/0	NAT Gateway	-	No	CreateRoute

[Add route](#)
[Cancel](#)
[Preview](#)
[Save changes](#)

9. Install Apache Tomcat in private EC2 and deploy a sample app.

Create a private instance with your VPC and placed in your private subnet. And create another instance named as bastion host with your VPC and placed in your public subnet.

[EC2](#) > [Instances](#) > Launch an instance

Select security groups

default sg-0d627a19ccc4572c4 [Compare security group rules](#)

VPC: vpc-0db9d4fb39c8bc078

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

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 2023.8.2...[read more](#)
ami-0433359ea831b48099

Virtual server type (instance type)
t3.micro

Firewall (security group)
default

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

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

Login in ssh with the public ip address.

- `wget https://dlcdn.apache.org/tomcat/tomcat9/v9.0.95/bin/apache-tomcat-9.0.95.tar.gz`
- `tar -xvzf apache-tomcat-9.0.95.tar.gz`
- `mv apache-tomcat-9.0.95 /opt/tomcat`
- `sh /opt/tomcat/bin/startup.sh`

```
[root@ip-10-0-14-43 opt]# ls
apache-tomcat-9.0.109  aws  tomcat  tomcat9
[root@ip-10-0-14-43 opt]# cd /opt/tomcat9
-bash: cd: /opt/tomcat9: Not a directory
[root@ip-10-0-14-43 opt]#
[root@ip-10-0-14-43 opt]#
[root@ip-10-0-14-43 opt]# cd apache-tomcat-9.0.109/
[root@ip-10-0-14-43 apache-tomcat-9.0.109]# ls
BUILDING.txt  LICENSE  README.md  RUNNING.txt  conf  logs  webapps
CONTRIBUTING.md  NOTICE  RELEASE-NOTES  bin  lib  temp  work
[root@ip-10-0-14-43 apache-tomcat-9.0.109]# cd bin/
[root@ip-10-0-14-43 bin]# ls
bootstrap.jar  ciphers.sh  daemon.sh  setclasspath.bat  startup.sh  version.bat
catalina-tasks.xml  commons-daemon-native.tar.gz  digest.bat  setclasspath.sh  tomcat-juli.jar  version.sh
catalina.bat  commons-daemon.jar  digest.sh  shutdown.bat  tomcat-native.tar.gz
catalina.sh  configtest.bat  makebase.bat  shutdown.sh  tool-wrapper.bat
ciphers.bat  configtest.sh  makebase.sh  startup.bat  tool-wrapper.sh
[root@ip-10-0-14-43 bin]# ./startup.sh
Using CATALINA_BASE:   /opt/apache-tomcat-9.0.109
Using CATALINA_HOME:   /opt/apache-tomcat-9.0.109
Using CATALINA_TMPDIR: /opt/apache-tomcat-9.0.109/temp
Using JRE_HOME:        /usr
Using CLASSPATH:       /opt/apache-tomcat-9.0.109/bin/bootstrap.jar:/opt/apache-tomcat-9.0.109/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
```

Deploy a sample war:

wget <https://tomcat.apache.org/tomcat-9.0>

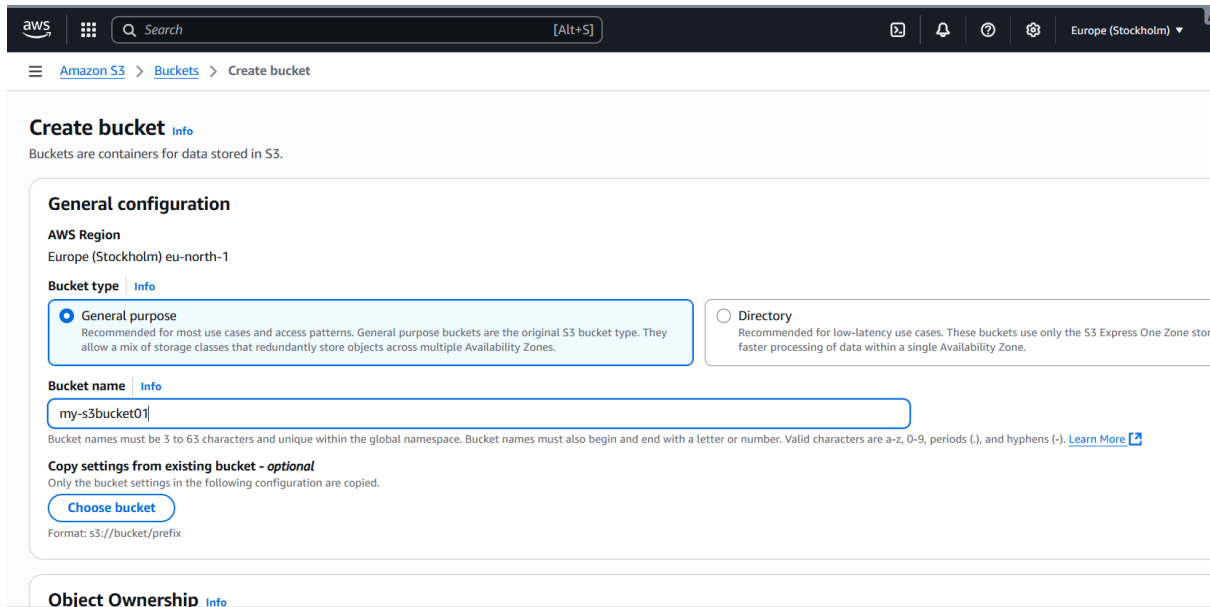
doc/appdev/sample/sample.war -O sample.war

```
root@ip-192-168-3-99 tmp]# sudo systemctl daemon-reload
root@ip-192-168-3-99 tmp]# sudo systemctl start tomcat
root@ip-192-168-3-99 tmp]# sudo systemctl status tomcat
tomcat.service - Apache Tomcat Web Application Container
Loaded: loaded (/etc/systemd/system/tomcat.service; enabled; preset: disabled)
Active: active (running) since Thu 2025-09-25 09:27:15 UTC; 113ms ago
Process: 30512 ExecStart=/opt/tomcat/bin/catalina.sh start (code=exited, status=0/SUCCESS)
Main PID: 30520 (java)
Tasks: 12 (limit: 1111)
Memory: 17.4M
CPU: 66ms
CGroup: /system.slice/tomcat.service
└─30520 /usr/lib/jvm/java-24-amazon-corretto.x86_64/bin/java -Djava.util.logging.config.file=/opt/tomcat
ep 25 09:27:15 ip-192-168-3-99.ec2.internal systemd[1]: Starting tomcat.service - Apache Tomcat Web Application Cont
ep 25 09:27:15 ip-192-168-3-99.ec2.internal catalina.sh[30512]: Existing PID file found during start.
ep 25 09:27:15 ip-192-168-3-99.ec2.internal catalina.sh[30512]: Removing/clearing stale PID file.
ep 25 09:27:15 ip-192-168-3-99.ec2.internal catalina.sh[30512]: Tomcat started.
ep 25 09:27:15 ip-192-168-3-99.ec2.internal systemd[1]: Started tomcat.service - Apache Tomcat Web Application Conta
ines 1-16/16 (END)
```

Access from Public EC2 using: `http://<Private-EC2-PrivateIP>:8080/sample` (curl or browser if using bastion)

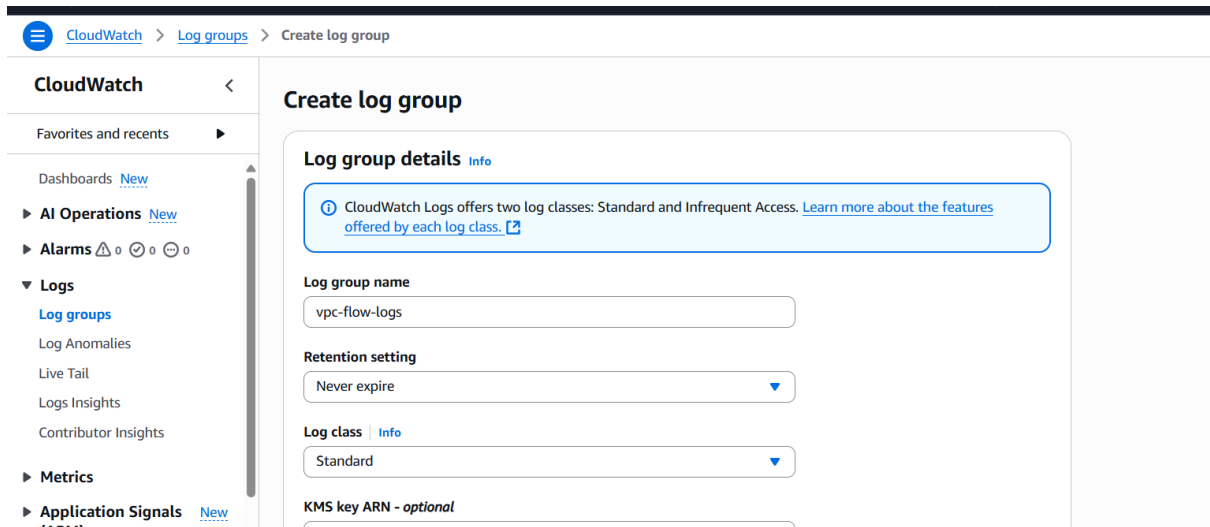
10. Configure VPC flow logs and store the logs in S3 and CloudWatch.

Create a bucket by navigating to S3 bucket.



The screenshot shows the AWS Management Console 'Create bucket' page. The breadcrumb navigation is 'Amazon S3 > Buckets > Create bucket'. The page title is 'Create bucket' with an 'Info' link. A sub-header states 'Buckets are containers for data stored in S3.' The 'General configuration' section shows the 'AWS Region' as 'Europe (Stockholm) eu-north-1'. Under 'Bucket type', the 'General purpose' option is selected, with a note: 'Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.' The 'Directory' option is also visible. The 'Bucket name' field contains 'my-s3bucket01', with a note: 'Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-). Learn More'. Below this, there's a section for 'Copy settings from existing bucket - optional' with a 'Choose bucket' button and a format example 's3://bucket/prefix'. The 'Object Ownership' section is partially visible at the bottom.

Go to cloud watch and select log groups and create a log group.



The screenshot shows the AWS Management Console 'Create log group' page. The breadcrumb navigation is 'CloudWatch > Log groups > Create log group'. The left sidebar shows the 'CloudWatch' menu with 'Log groups' selected. The main content area is titled 'Create log group'. Under 'Log group details', there's a note: 'CloudWatch Logs offers two log classes: Standard and Infrequent Access. Learn more about the features offered by each log class.' The 'Log group name' field contains 'vpc-flow-logs'. The 'Retention setting' is set to 'Never expire'. The 'Log class' is set to 'Standard'. The 'KMS key ARN - optional' field is empty.

Go to vpc and select your vpc int that vpc select flow logs and create flowlog.

VPC > Your VPCs > Create flow logs

my-vpcvpc-0b5ab1c5d8a1c0b00Available

Flow log settings

Name - optional

my-flowlog

Filter
The type of traffic to capture (accepted traffic only, rejected traffic only, or all traffic).

☐ Accept

☐ Reject

☒ All

Maximum aggregation interval [Info](#)
The maximum interval of time during which a flow of packets is captured and aggregated into a flow log record.

☐ 10 minutes

☒ 1 minute

Destination
The destination to which to publish the flow log data.

☒ Send to CloudWatch Logs

☐ Send to an Amazon S3 bucket

☐ Send to Amazon Data Firehose in the same account

☐ Send to Amazon Data Firehose in a different account

Destination log group [Info](#)
The name of an existing log group or the name of a new log group that will be created when you create this flow log. A new log stream is created for each monitored network interface.

Go to cloudwatch and log groups vpc-flow-logs if you didn't see any streams delete an instance it will give the logs.

CloudWatch > Log groups > vpc-flow-logs > eni-0caf5943ad2ea6353-all

CloudWatch

Favorites and recents

Dashboards [New](#)

▶ AI Operations [New](#)

▶ Alarms [🔔](#) [🔔](#) [🔔](#) [🔔](#)

▼ Logs

Log groups

Log Anomalies

Live Tail

Logs Insights

Contributor Insights

▶ Metrics

▶ Application Signals (APM) [New](#)

▶ Network Monitoring

▼ Insights

Log events

[🕒](#) [Actions](#) [Start tailing](#) [Create](#)

You can use the filter bar below to search for and match terms, phrases, or values in your log events. [Learn more about filter patterns](#)

Filter events - press enter to search

Display

Clear

1m

30m

1h

12h

Custom

UTC ti

▶	Timestamp	Message
▶	2025-09-24T13:21:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720084 1758720115 - NODATA
▶	2025-09-24T13:22:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720144 1758720175 - NODATA
▶	2025-09-24T13:23:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720204 1758720235 - NODATA
▶	2025-09-24T13:24:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720264 1758720295 - NODATA
▶	2025-09-24T13:25:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720324 1758720355 - NODATA
▶	2025-09-24T13:26:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720384 1758720415 - NODATA
▶	2025-09-24T13:27:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720444 1758720475 - NODATA
▶	2025-09-24T13:28:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720504 1758720535 - NODATA
▶	2025-09-24T13:29:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720564 1758720595 - NODATA
▶	2025-09-24T13:30:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720624 1758720655 - NODATA
▶	2025-09-24T13:31:24.000Z	2 235351028455 eni-0caf5943ad2ea6353 - - - - - 1758720684 1758720715 - NODATA

