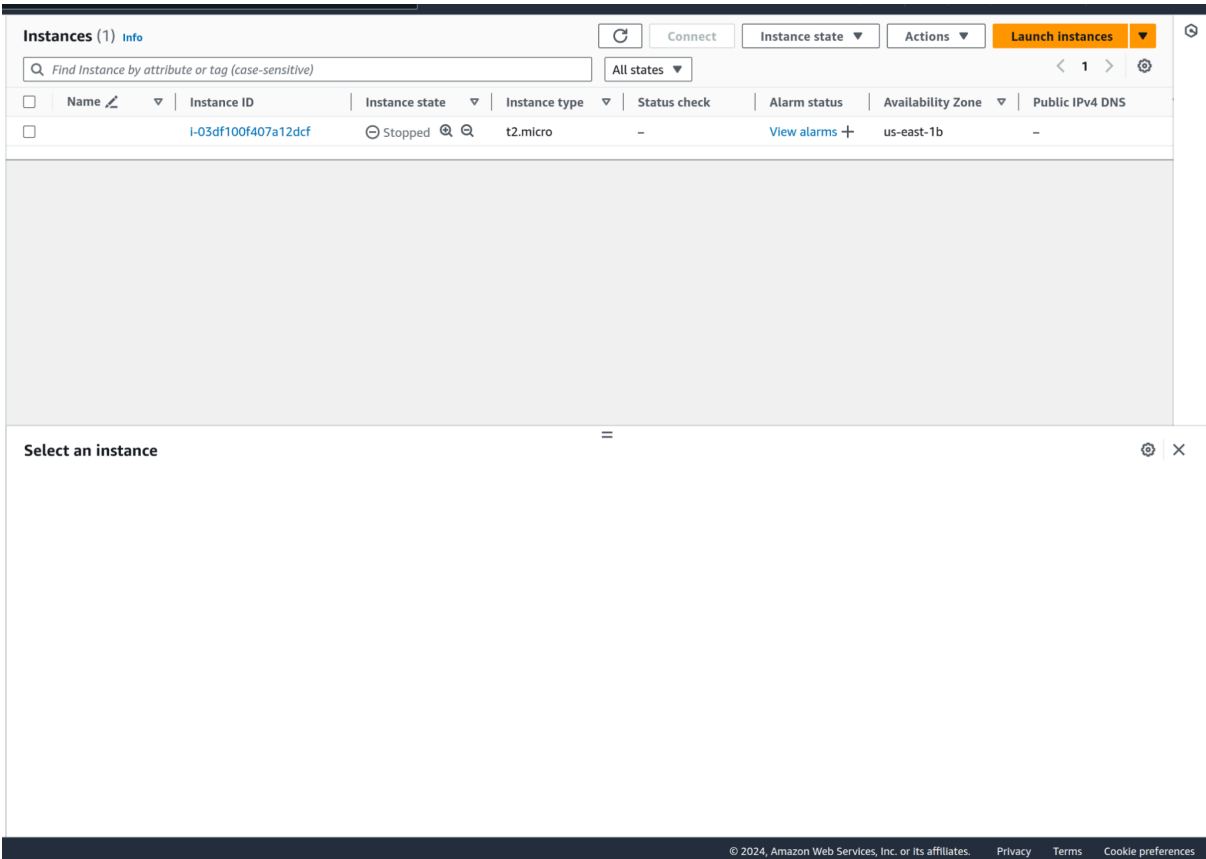
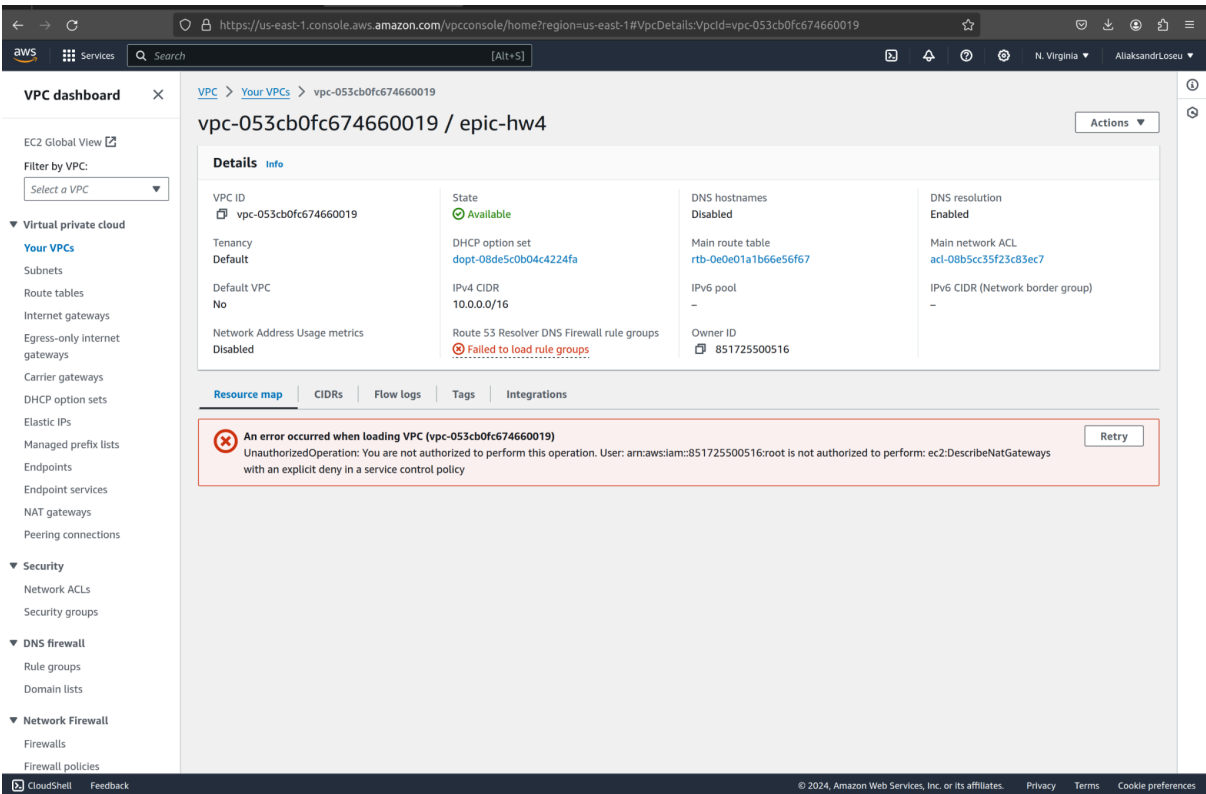


1. Stopped instance



2. Created a VPC



3. Created 2 public subnets

You have successfully created 1 subnet: subnet-08b197b2918604cf6

Subnets (2) Info

Find resources by attribute or tag

VPC: vpc-053cb0fc674660019 X Clear filters

	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	hw4-public-subnet01	subnet-035fc05e78232d06d	Available	vpc-053cb0fc674660019 epic-...	10.0.1.0/24	-
<input type="checkbox"/>	hw4-public-subnet02	subnet-08b197b2918604cf6	Available	vpc-053cb0fc674660019 epic-...	10.0.2.0/24	-

4. Created internet gateway and attached it to the created before VPC

Internet gateway igw-06cc076f36147292f successfully attached to vpc-053cb0fc674660019

VPC > Internet gateways > igw-06cc076f36147292f

igw-06cc076f36147292f / epic-hw4 Actions

Details Info

Internet gateway ID igw-06cc076f36147292f	State Attached	VPC ID vpc-053cb0fc674660019 epic-hw4	Owner 851725500516
--	-------------------	--	-----------------------

Tags Manage tags

Search tags

Key	Value
Name	epic-hw4

5. Created route table

Route table rtb-0132b7ac9536eff5b | epic-hw4-route-table was created successfully.

VPC > Route tables > rtb-0132b7ac9536eff5b

rtb-0132b7ac9536eff5b / epic-hw4-route-table Actions

Details Info

Route table ID rtb-0132b7ac9536eff5b	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-053cb0fc674660019 epic-hw4	Owner ID 851725500516		

Routes Subnet associations Edge associations Route propagation Tags

Routes (1) Both Edit routes

Filter routes

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No

Updated routes for rtb-0132b7ac9536eff5b / epic-hw4-route-table successfully

Details

VPC > Route tables > rtb-0132b7ac9536eff5b

rtb-0132b7ac9536eff5b / epic-hw4-route-table

Actions

Details Info

Route table ID

rtb-0132b7ac9536eff5b

VPC

vpc-053cb0fc674660019 | epic-hw4

Main

No

Owner ID

851725500516

Explicit subnet associations

-

Edge associations

-

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Both Edit routes

Filter routes

Destination

Target

Status

Propagated

0.0.0.0/0

igw-06cc076f36147292f

Active

No

10.0.0.0/16

local

Active

No

You have successfully updated subnet associations for rtb-0132b7ac9536eff5b / epic-hw4-route-table.

VPC > Route tables > rtb-0132b7ac9536eff5b

rtb-0132b7ac9536eff5b / epic-hw4-route-table

Actions

Details Info

Route table ID

rtb-0132b7ac9536eff5b

VPC

vpc-053cb0fc674660019 | epic-hw4

Main

No

Owner ID

851725500516

Explicit subnet associations

2 subnets

Edge associations

-

Routes

Subnet associations

Edge associations

Route propagation

Tags

Explicit subnet associations (2)

Edit subnet associations

Find subnet association

Name

Subnet ID

IPv4 CIDR

IPv6 CIDR

hw4-public-subnet01

subnet-035fc05e78232d06d

10.0.1.0/24

-

hw4-public-subnet02

subnet-08b197b2918604cf6

10.0.2.0/24

-

Subnets without explicit associations (0)

Edit subnet associations

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Find subnet association

Name

Subnet ID

IPv4 CIDR

IPv6 CIDR

No subnets without explicit associations

All your subnets are associated with a route table.

6. Created security group and added accessibility to the VPC

Security group (sg-055907a5372026d1a | epic-hw4) was created successfully

Details

VPC > Security Groups > sg-055907a5372026d1a - epic-hw4

sg-055907a5372026d1a - epic-hw4

Actions

Details

Security group name epic-hw4	Security group ID sg-055907a5372026d1a	Description Allows SSH and HTTP, HTTPS	VPC ID vpc-053cb0fc674660019
Owner 851725500516	Inbound rules count 3 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules | Outbound rules | Tags

Inbound rules (3)

Manage tags | Edit inbound rules

Search

	Name	Security group rule...	IP version	Type	Protocol	Port range
<input type="checkbox"/>	-	sgr-067600c732cfbaad5	IPv4	HTTP	TCP	80
<input type="checkbox"/>	-	sgr-0c0f2eac3fd43daf0	IPv4	SSH	TCP	22
<input type="checkbox"/>	-	sgr-0cab00b3d5e27f513	IPv4	HTTPS	TCP	443

7. Created ec2 instance inside the custom subnet with created security group

Instances (2) Info

Find Instance by attribute or tag (case-sensitive)

All states

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input type="checkbox"/>		i-03df100f407a12dcf	Stopped	t2.micro	-	View alarms +	us-east-1b	-
<input type="checkbox"/>	epic-hw4	i-021693b408d1e9968	Running	t2.micro	Initializing	View alarms +	us-east-1a	-

Select an instance

I don't know why, but i couldn't access this instance by ssh and have created one more and access it 😊

Instances (3) Info								
Find Instance by attribute or tag (case-sensitive)					All states			
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input type="checkbox"/>	epic-hw4-2	i-0e8e070498f675edb	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1b	-
<input type="checkbox"/>		i-03df100f407a12dcf	Stopped	t2.micro	-	View alarms +	us-east-1b	-
<input type="checkbox"/>	epic-hw4	i-021693b408d1e9968	Terminated	t2.micro	-	View alarms +	us-east-1a	-

Select an instance

```

Activities  Terminal  MBR 17 21:10
ubuntu@ip-10-0-2-115: ~
Offending ED25519 key in /home/kartel/.ssh/known_hosts:4
remove with:
ssh-keygen -f "/home/kartel/.ssh/known_hosts" -R "18.208.162.102"
Host key for 18.208.162.102 has changed and you have requested strict checking.
Host key verification failed.
kartel@kartel-GLO-GXXX:~/EPIC/Networks-and-Clouds$ chmod 400 epic-hw4-2
chmod: cannot access 'epic-hw4-2': No such file or directory
kartel@kartel-GLO-GXXX:~/EPIC/Networks-and-Clouds$ chmod 400 epic-hw4-2.pem
kartel@kartel-GLO-GXXX:~/EPIC/Networks-and-Clouds$ ls -l
total 59188
drwxr-xr-x 3 kartel kartel 4096 Mar 10 18:31 aws
-rw-rw-r-- 1 kartel kartel 60583812 Mar 13 21:17 awscli2.zip
-r----- 1 kartel kartel 1679 Mar 13 21:13 epam_lab.pem
-r----- 1 kartel kartel 387 Mar 17 21:05 epic-hw4-2.pem
-r----- 1 kartel kartel 1674 Mar 17 20:36 epic-hw4.pem
-rwxrwxr-x 1 kartel kartel 1120 Mar 13 22:49 hw3.sh
kartel@kartel-GLO-GXXX:~/EPIC/Networks-and-Clouds$ ssh -i "epic-hw4-2.pem" ubuntu@3.235.168.1
The authenticity of host '3.235.168.1 (3.235.168.1)' can't be established.
ED25519 key fingerprint is SHA256:KeaAMqNhtvnf5f6Vf4/NU0aZyTXU1gpN0oKFYwV4S1.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.235.168.1' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1017-aws x86_64)

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

System information as of Fri May 17 18:09:50 UTC 2024

System load: 0.06201171875   Processes:            103
Usage of /:   5.4% of 28.89GB   Users logged in:       0
Memory usage: 21%            IPv4 address for eth0: 10.0.2.115
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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

ubuntu@ip-10-0-2-115: $

```

8. Install nginx to the server and run it on port 80(by default).

The screenshot displays two windows from a Linux desktop environment. The top window is a Firefox web browser showing the 'Welcome to nginx!' page at the IP address 3.235.168.1. The page content includes a welcome message, instructions on how to proceed, and links to the nginx.org website. The bottom window is a terminal window showing the output of several commands. It starts with a series of 'Get' requests from an external source, followed by the command 'netstat -tlnp' which shows the listening ports for various services. Finally, the command 'curl http://localhost' is executed, displaying the HTML content of the 'Welcome to nginx!' page.

Activities Firefox Web Browser

Mar 17 21:24

3.235.168.1

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Inspector Console Debugger Network Style Editor Performance Memory Storage Accessibility Application

Status	Method	Domain	File	Initiator	Type	Transferred	Size	Time
200	GET	3.235.168.1	/	document	html	642 B	642 B	216 ms
200	GET	3.235.168.1	/favicon.ico	Favicon loader	html	318 B	162 B	128 ms

2 requests | 774 B / 960 B transferred | Finish: 433 ms | load: 312 ms

GET http://3.235.168.1/favicon.ico

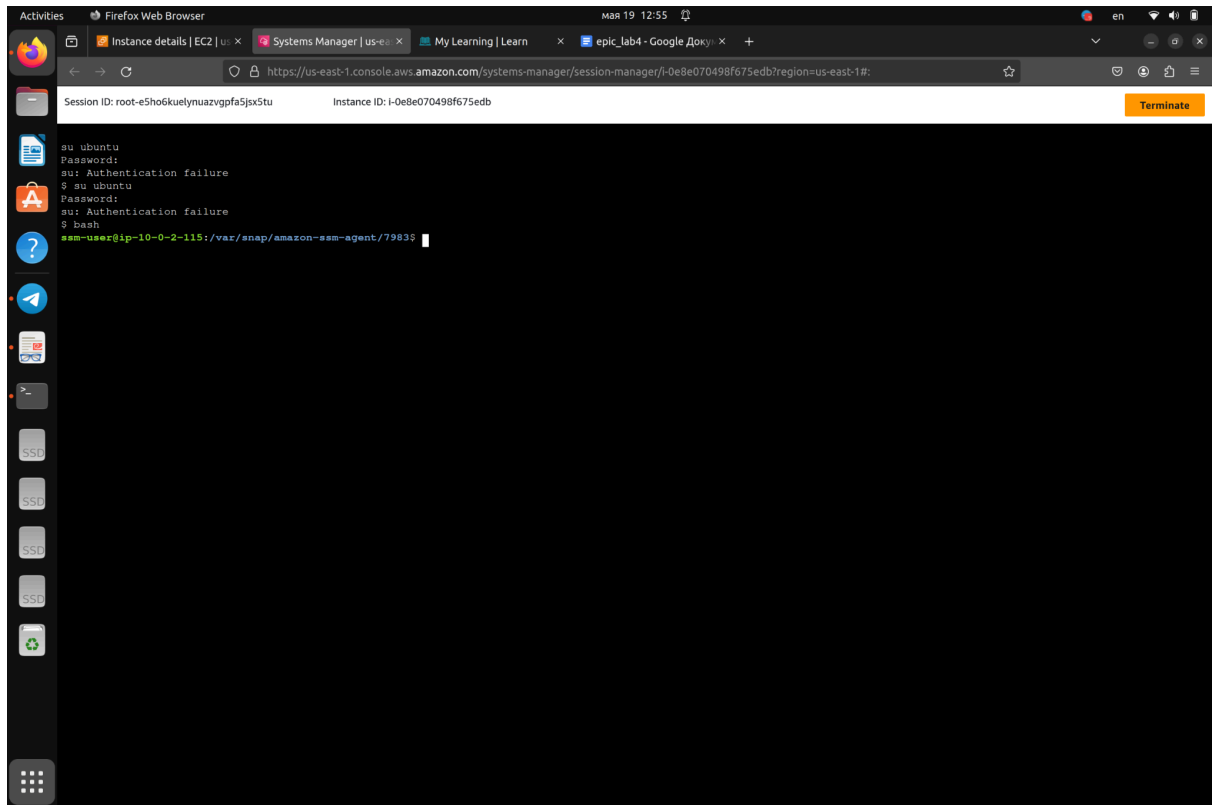
Errors Warnings Logs Info Debug CSS XHR Requests

Activities Terminal

ubuntu@ip-10-0-2-115: ~

```
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [27.2 KB]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.2 KB]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [644 B]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 31.4 MB in 6s (5486 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
28 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-10-0-2-115: ~$ netstat -tlnp
net-tools 2.10-alpha
Fred Baugarten, Alan Cox, Bernd Eckenfels, Phil Blundell, Tuan Hoang, Brian Micek and others
+NEW_ADDR +RTF +RTT +RTF +REJECT +FW_MASQUERADE +I18N +SELINUX
AF: (inet) +UNIX +INET +INET6 +IPX +AX25 +NETROM +X25 +ATALK +ECONET +ROSE +BLUETOOTH
HW: +ETHER +ARC +SLIP +PPP +TUNNEL -TR +AX25 +NETROM +X25 +FR +ROSE +ASH +SIT +FDDI +HIPPI +HDLC/LAPB +EUI64
ubuntu@ip-10-0-2-115: ~$ netstat -tulnp
(Not all processes could be identified, non-owned process info
will not be shown, you would have to be root to see it all.)
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:80              0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.1:53             0.0.0.0:*               LISTEN      -
tcp6       0      0 :::22                   :::*                    LISTEN      -
tcp6       0      0 :::80                   :::*                    LISTEN      -
udp        0      0 127.0.0.1:323           0.0.0.0:*               -          -
udp        0      0 127.0.0.1:53             0.0.0.0:*               -          -
udp        0      0 10.0.2.115:68            0.0.0.0:*               -          -
udp6       0      0 :::1:323                :::*                    -          -
ubuntu@ip-10-0-2-115: ~$ curl http://localhost
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
body {
width: 35em;
margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif;
}
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>
<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>
<p><em>Thank you for using nginx.</em></p>
</body>
</html>
ubuntu@ip-10-0-2-115: ~$
```

9. Created role and attached to the instance. Ssh to the instance by session manager:



10. Running script from some of previous hometasks: