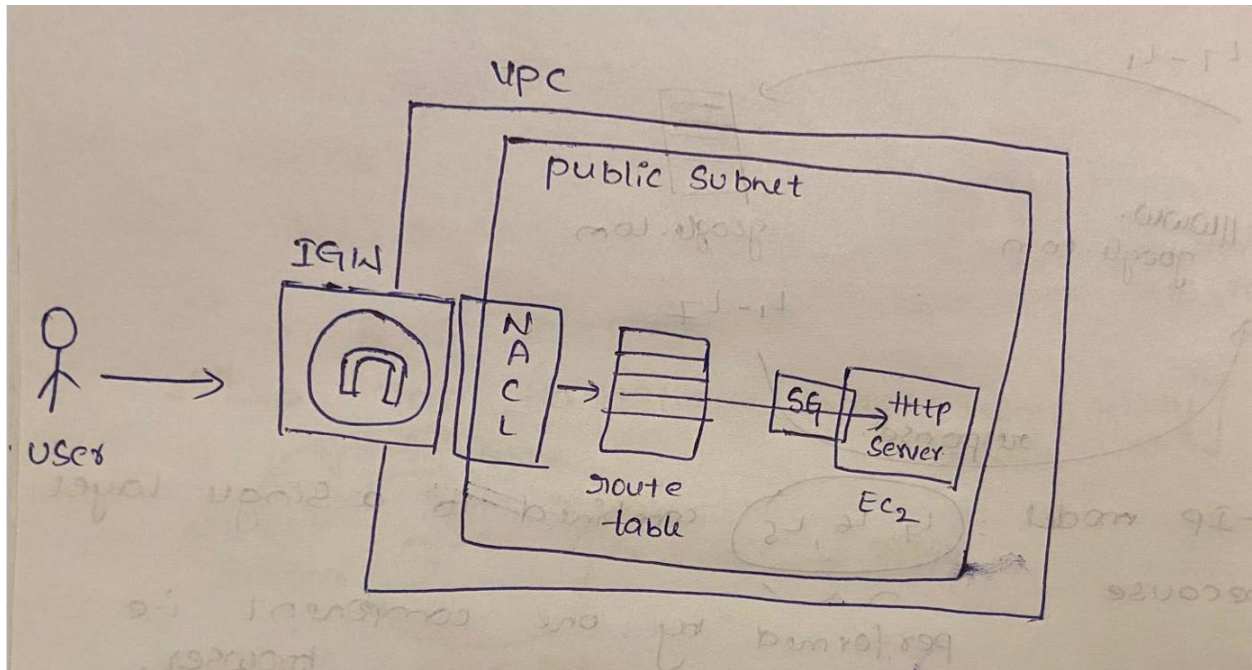


VPC

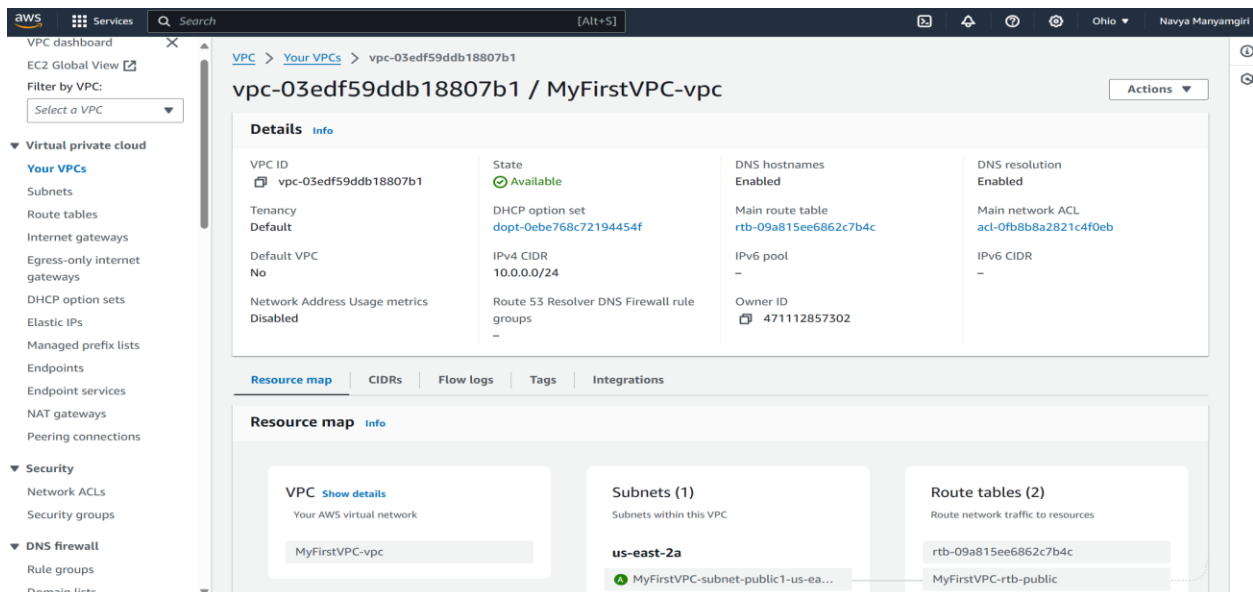
PROJECT 1

Requirements: Hosting a http server on ec2 instance in a public subnet.

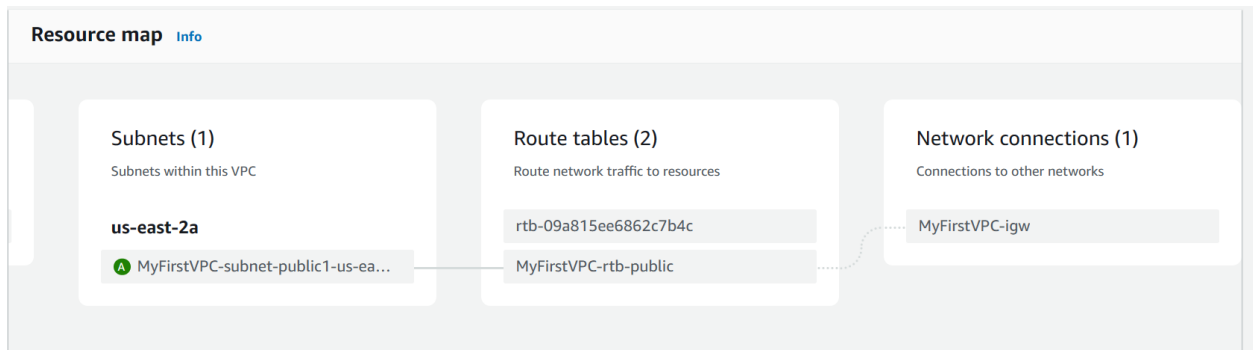
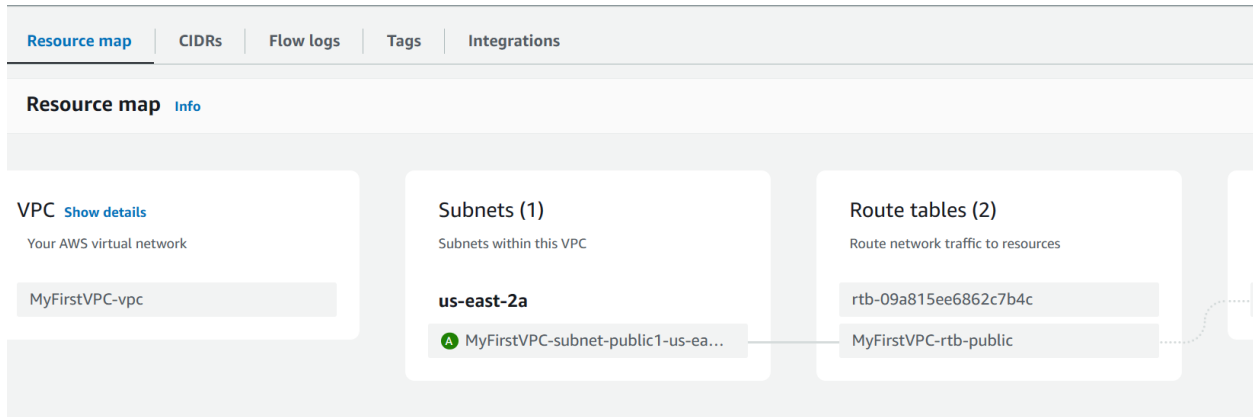


Implementation:

STEP1: Creating a VPC. Create a VPC with only Public subnet as per requirements.



VPC Resource Map:



Default NACL: All traffic is allowed

Search [Alt+S] Ohio Navya Manyamgiri

VPC > Network ACLs > acl-0fb8b8a2821c4f0eb

acl-0fb8b8a2821c4f0eb

Actions

Details Info

Network ACL ID acl-0fb8b8a2821c4f0eb	Associated with subnet-01268cdf1a90dd5a / MyFirstVPC-subnet-public1-us-east-2a	Default Yes	VPC ID vpc-03edf59ddb18807b1 / MyFirstVPC-vpc
---	--	----------------	---

Owner
471112857302

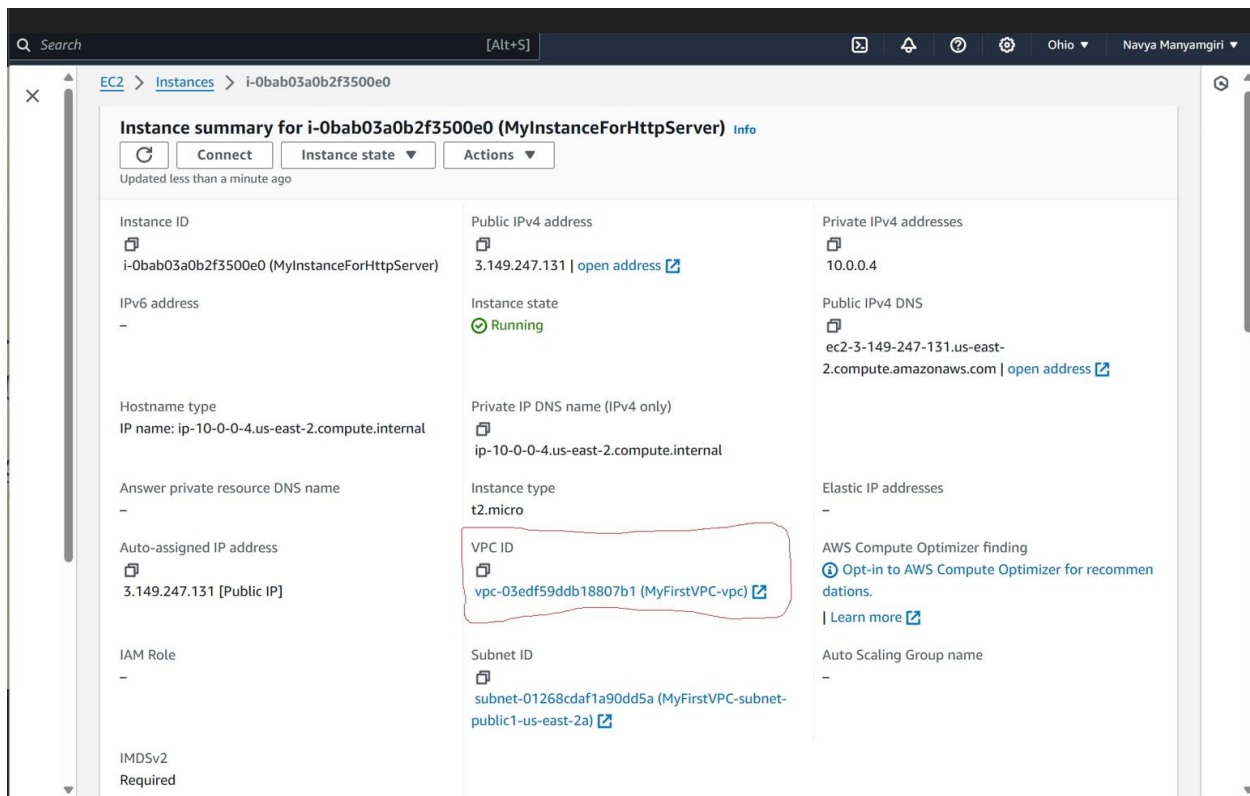
Inbound rules Outbound rules Subnet associations Tags

Inbound rules (2) Edit inbound rules

Filter inbound rules

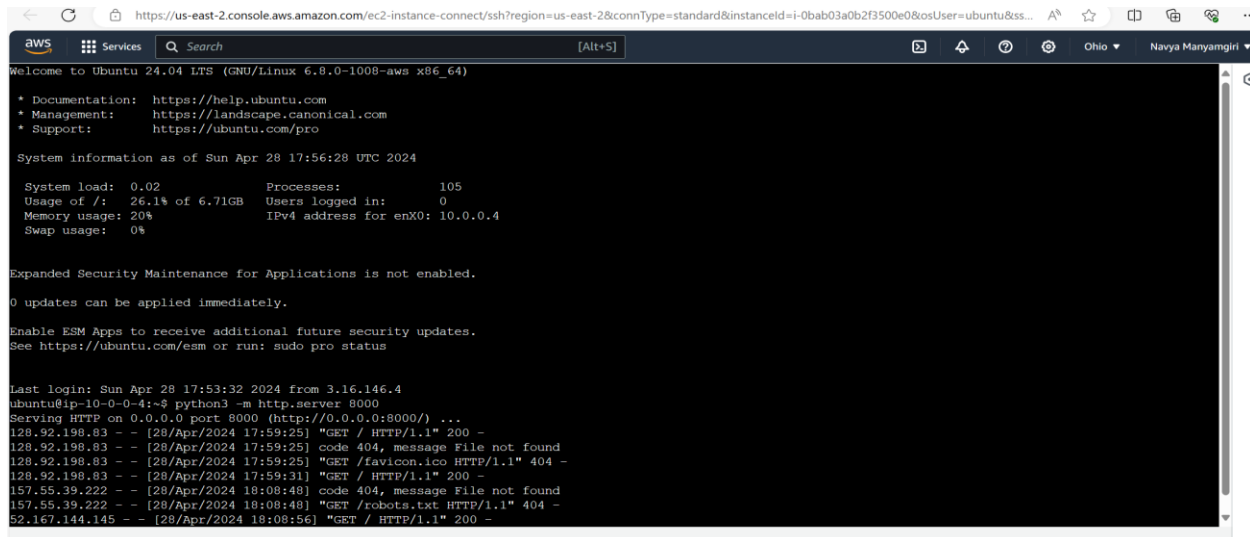
Rule number	Type	Protocol	Port range	Source	Allow/Deny
100	All traffic	All	All	0.0.0.0/0	Allow
*	All traffic	All	All	0.0.0.0/0	Deny

Step 2: Launch an EC2 Instance On to your VPC. Assign a public IP to your Instance.



The default Security Group for EC2 Instance is All Inbound traffic is blocked. Except port 22 for SSH.

Step3: Hosting a http server on ec2.



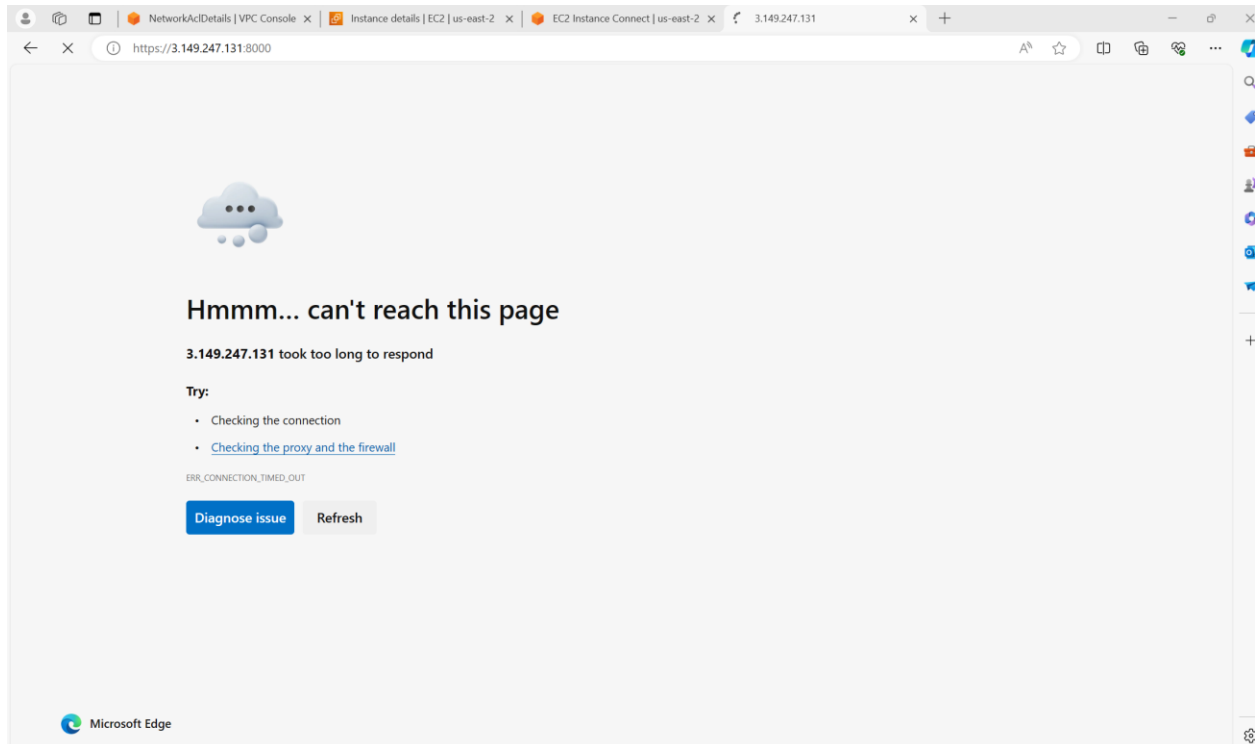
Step 4: Accessing the http server.

CASE1:

NACL: allow

SG: block

Access: Failed



Access failed because Security group blocks all incoming traffic by default.

CASE 2:

NACL: allow

SG: allow

Access: Successful

The screenshot shows the AWS Management Console interface for a security group. The breadcrumb navigation indicates the path: EC2 > Security Groups > sg-06ed5af960e264f5b - launch-wizard-1. The main heading is 'sg-06ed5af960e264f5b - launch-wizard-1' with an 'Actions' dropdown menu. Below this is a 'Details' section with a grid of information:

Security group name launch-wizard-1	Security group ID sg-06ed5af960e264f5b	Description launch-wizard-1 created 2024-04-28T17:44:18.486Z	VPC ID vpc-03edf59ddb18807b1
Owner 471112857302	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Below the details are tabs for 'Inbound rules', 'Outbound rules', and 'Tags'. The 'Inbound rules' tab is active, showing 'Inbound rules (2)'. It includes a search bar and a table of rules:

	Name	Security group rule...	IP version	Type	Protocol
<input type="checkbox"/>	-	sgr-010fd67206e6e6878	IPv4	SSH	TCP
<input type="checkbox"/>	-	sgr-0f6d930a7a24bcb69	IPv4	Custom TCP	TCP

Http server Access Successful.

The screenshot shows a web browser window with the address bar displaying 'Not secure | 3.149.247.131:8000'. The browser tabs include 'NetworkAcclDetails | VPC Console', 'Instance details | EC2 | us-east-2', 'EC2 Instance Connect | us-east-2', and 'Directory listing for /'. The main content area is titled 'Directory listing for /' and displays a list of files and directories:

- [.bash_history](#)
- [.bash_logout](#)
- [.bashrc](#)
- [.cache/](#)
- [.profile](#)
- [.ssh/](#)
- [.sudo_as_admin_successful](#)

Case 3:





NACL : block

SG: allow

Access: Failed

Q Search

[Alt+S]



Ohio

Navya Manyamgiri

You have successfully updated inbound rules for acl-0fb8b8a2821c4f0eb

VPC > Network ACLs > acl-0fb8b8a2821c4f0eb

acl-0fb8b8a2821c4f0eb

Actions

Details

Info

Network ACL ID

acl-0fb8b8a2821c4f0eb

Associated with

subnet-01268cdf1a90dd5a / MyFirstVPC-subnet-public1-us-east-2a

Default

Yes

VPC ID

vpc-03edf59ddb18807b1 / MyFirstVPC-vpc

Owner

471112857302

Inbound rules

Outbound rules

Subnet associations

Tags

Inbound rules (2)

Edit inbound rules

Filter inbound rules

Rule number	Type	Protocol	Port range	Source	Allow/Deny
100	All traffic	All	All	0.0.0.0/0	Deny
*	All traffic	All	All	0.0.0.0/0	Deny


NetworkAclDetails | VPC Console

Instance details | EC2 | us-east-2

EC2 Instance Connect | us-east-2

3.149.247.131

3.149.247.131:8000



Hmmm... can't reach this page

3.149.247.131 took too long to respond

Try:

- Search the web for [3 149 247 131](#)
- Checking the connection
- [Checking the proxy and the firewall](#)

ERR_CONNECTION_TIMED_OUT

Diagnose issue

Refresh

Case 4:

NACL: block

SG: block

Access: Failed

