

# AWS-Virtual Private Cloud (VPC) Peering

Siddesh Mandhare || 18/09/24

## Name: - Virtual Private Cloud (VPC) peering

### Step 1: - Create 2 VPC as per below

Name	VPC_001	VPC_002
IP	172.10.0.0/16	172.20.0.0/16

**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.

VPC\_001

**IPv4 CIDR block** Info  
☒ IPv4 CIDR manual input  
☐ IPAM-allocated IPv4 CIDR block

**IPv4 CIDR**  
172.10.0.0/16  
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

**Your VPCs (3)** Info

Last updated less than a minute ago

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP op
<input type="checkbox"/>	-	vpc-05e4389d36eeff59f	Available	172.31.0.0/16	-	dopt-0dc
<input type="checkbox"/>	VPC_002	vpc-0ca47eaa26421ff6b	Available	172.20.0.0/16	-	dopt-0dc
<input type="checkbox"/>	VPC_001	vpc-0ff805abe106ef79b	Available	172.10.0.0/16	-	dopt-0dc

## Step 2: - Create Subnets in both VPC's

- Create two subnets in VPC\_001 as per below

Name	VPC_001_Public_Subnet	VPC_001_Private_Subnet
CIDR IP	172.10.1.0/25	172.10.2.0/25
Availability Zone	ap-south-1a	ap-south-1a

The screenshot shows the AWS VPC dashboard for VPC\_001. The 'Subnets (5)' section is active, displaying a table of subnets. The table has columns for Name, Subnet ID, State, VPC, and IPv4 CIDR. The subnets listed are:

Name	Subnet ID	State	VPC	IPv4 CIDR
-	subnet-058eb3168729fc1a5	Available	vpc-05e4389d36eeff59f	172.31.0.0/20
-	subnet-062da717e01ec096e	Available	vpc-05e4389d36eeff59f	172.31.16.0/20
-	subnet-068bc364b22a3ca06	Available	vpc-05e4389d36eeff59f	172.31.32.0/20
VPC_001_Private_Subnet	subnet-000352ffa14c2cac1	Available	vpc-0ff805abe106ef79b   VPC_...	172.10.2.0/25
VPC_001_Public_Subnet	subnet-0a013c5abb671d6f1	Available	vpc-0ff805abe106ef79b   VPC_...	172.10.1.0/25

- Create two subnets in VPC\_002 as per below

Name	VPC_002_Public_Subnet	VPC_002_Private_Subnet
CIDR IP	172.20.1.0/25	172.20.2.0/25
Availability Zone	ap-south-1a	ap-south-1a

The screenshot shows the AWS VPC dashboard for VPC\_001. The 'Subnets (7)' section is active, displaying a table of subnets. The table has columns for Name, Subnet ID, State, VPC, and IPv4 CIDR. The subnets listed are:

Name	Subnet ID	State	VPC	IPv4 CIDR
-	subnet-0b2da717e01ec096e	Available	vpc-05e4389d36eeff59f	172.31.16.0/20
-	subnet-068bc364b22a3ca06	Available	vpc-05e4389d36eeff59f	172.31.32.0/20
VPC_001_Private_Subnet	subnet-000352ffa14c2cac1	Available	vpc-0ff805abe106ef79b   VPC_...	172.10.2.0/25
VPC_001_Public_Subnet	subnet-0a013c5abb671d6f1	Available	vpc-0ff805abe106ef79b   VPC_...	172.10.1.0/25
VPC_002_Private_Subnet	subnet-0de3f07aebfc007dc	Available	vpc-0ca47eaa26421ff6b   VPC_...	172.20.2.0/25
VPC_002_Public_Subnet	subnet-07952e230fa1ac2dd	Available	vpc-0ca47eaa26421ff6b   VPC_...	172.20.1.0/25

## Step: -3 Create 2 Internet Gateway

- Create one Internet Gateway as “IGW\_VPC\_001” and attached this to “VPC\_001”

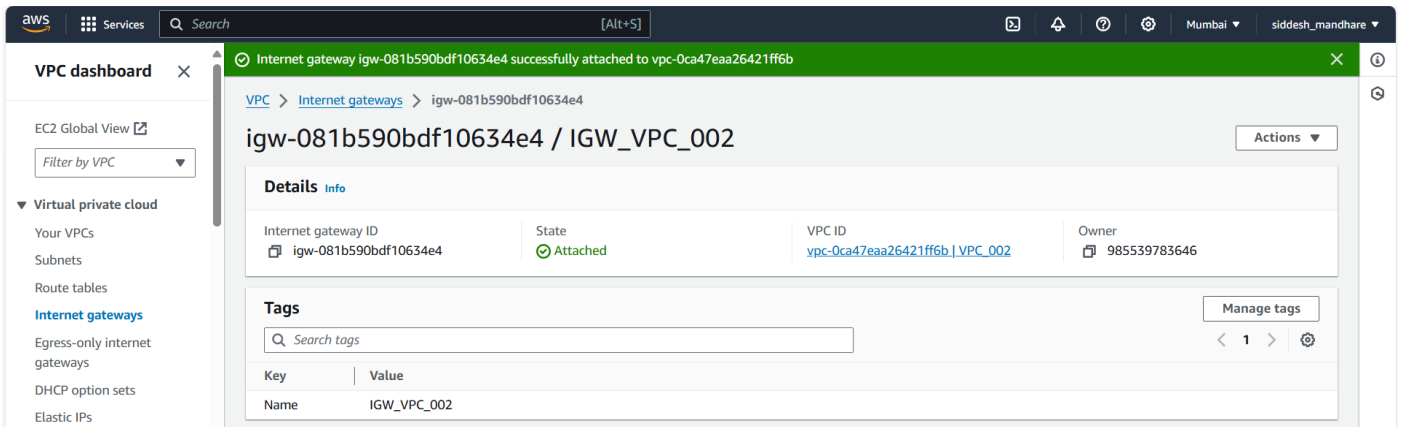
The screenshot shows the AWS VPC dashboard for VPC\_001. The 'Internet gateways' section is active, displaying the details of the Internet Gateway igw-072560a596c46b689. The details are as follows:

Internet gateway ID	State	VPC ID	Owner
igw-072560a596c46b689	Attached	vpc-0ff805abe106ef79b   VPC_001	985539783646

The 'Tags' section shows the following tag:

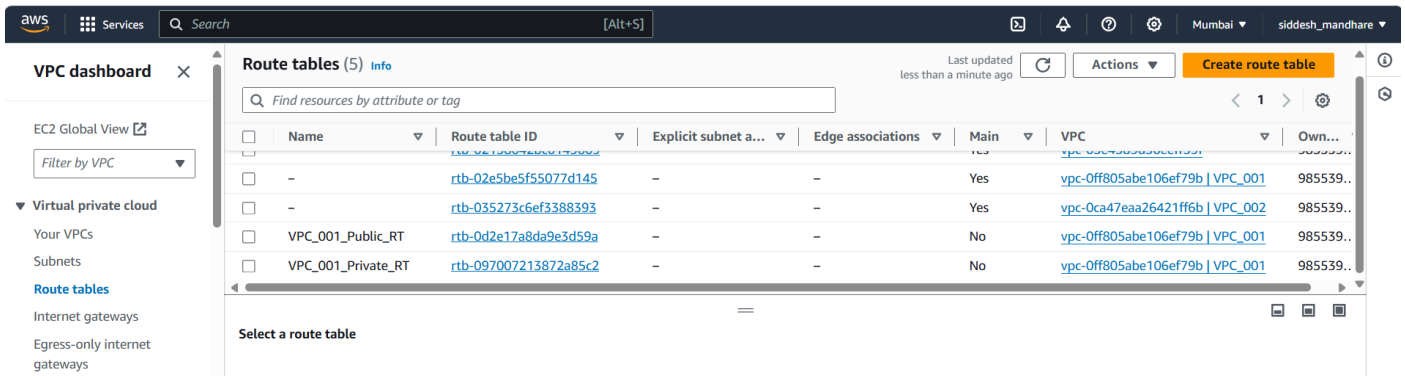
Key	Value
Name	IGW_VPC_001

- Create one Internet Gateway as “IGW\_VPC\_002” and attached this to “VPC\_002”

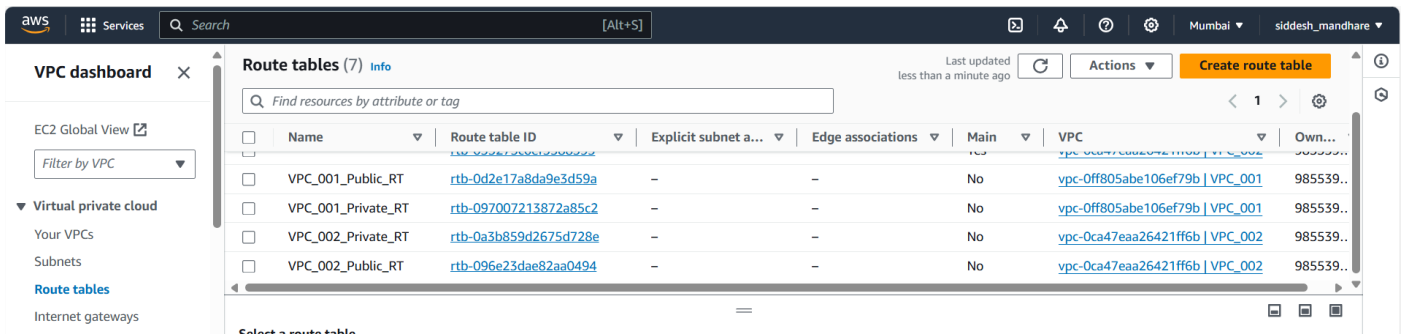


## Step 4: - Create 2 Route Table

- Create 2 Route Table in VPC\_001 as per below



- Create 2 Route Table in VPC\_002 as per below



## Step 5: - Add Route in Routs table

- Select VPC\_001\_Public\_RT & VPC\_002\_Public\_RT
- Go to Route then go to “Edit Route”
- Go to “Add route”
- Search for “0.0.0.0/0” and “Internet Gateway” and then search which we have created “IGW”

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**VPC dashboard**

EC2 Global View Filter by VPC

Virtual private cloud

- Your VPCs
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- Route tables**
- Internet gateways
- Egress-only internet gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services
- NAT gateways
- Peering connections

Security

- Network ACLs
- Security groups

Updated routes for rtb-0d2e17a8da9e3d59a / VPC\_001\_Public\_RT successfully

Details

VPC > Route tables > rtb-0d2e17a8da9e3d59a

rtb-0d2e17a8da9e3d59a / VPC\_001\_Public\_RT

Actions

**Details** Info

Route table ID rtb-0d2e17a8da9e3d59a	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-0ff805abe106ef79b   VPC_001	Owner ID 985539783646		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	igw-072560a596c46b689	Active	No
172.10.0.0/16	local	Active	No

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**VPC dashboard**

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Security

- Network ACLs
- Security groups

Updated routes for rtb-096e23dae82aa0494 / VPC\_002\_Public\_RT successfully

Details

VPC > Route tables > rtb-096e23dae82aa0494

rtb-096e23dae82aa0494 / VPC\_002\_Public\_RT

Actions

**Details** Info

Route table ID rtb-096e23dae82aa0494	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-0ca47eaa26421ff6b   VPC_002	Owner ID 985539783646		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	igw-081b590bdf10634e4	Active	No
172.20.0.0/16	local	Active	No

## Step 6: - Associate Subnet to internet Gateway

- In VPC\_001\_Public\_RT & VPC\_002\_Public\_RT, go to the “subnet association”
- Go to the “Edit subnet association” and select our “VPC\_001\_Public\_Subnet & ” VPC\_002\_Public\_Subnet”

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**VPC dashboard** x

EC2 Global View

Filter by VPC

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CloudShell Feedback

**Route tables (1/7) Info**

Last updated less than a minute ago

Actions Create route table

Find resources by attribute or tag

Name	Route table ID	Explicit subnet a...	Edge associations	Main	VPC	Own...
-	rtb-02158042bc0149609	-	-	Yes	vpc-05e4389d36eeff59f	985539...
-	rtb-02e5be5f5077d145	-	-	Yes	vpc-0ff805abe106ef79b   VPC_001	985539...
-	rtb-035273c6ef3388393	-	-	Yes	vpc-0ca47eaa26421ff6b   VPC_002	985539...
<input checked="" type="checkbox"/> VPC_001_Public_RT	rtb-0d2e17a8da9e3d59a	subnet-0a013c5abb...	-	No	vpc-0ff805abe106ef79b   VPC_001	985539...

**rtb-0d2e17a8da9e3d59a / VPC\_001\_Public\_RT**

Details Routes Subnet associations Edge associations Route propagation Tags

**Explicit subnet associations (1)**

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
VPC_001_Public_Subnet	subnet-0a013c5abb671d6f1	172.10.1.0/25	-

**Subnets without explicit associations (1)**

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

Find subnet association

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**VPC dashboard** x

EC2 Global View

Filter by VPC

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CloudShell Feedback

**Route tables (1/7) Info**

Last updated less than a minute ago

Actions Create route table

Find resources by attribute or tag

Name	Route table ID	Explicit subnet a...	Edge associations	Main	VPC	Own...
VPC_001_Public_RT	rtb-0d2e17a8da9e3d59a	-	-	No	vpc-0ff805abe106ef79b   VPC_001	985539...
VPC_001_Private_RT	rtb-097007213872a85c2	-	-	No	vpc-0ff805abe106ef79b   VPC_001	985539...
VPC_002_Private_RT	rtb-0a3b859d2675d728e	-	-	No	vpc-0ca47eaa26421ff6b   VPC_002	985539...
<input checked="" type="checkbox"/> VPC_002_Public_RT	rtb-096e23dae82aa0494	subnet-07952e230f...	-	No	vpc-0ca47eaa26421ff6b   VPC_002	985539...

**rtb-096e23dae82aa0494 / VPC\_002\_Public\_RT**

Details Routes Subnet associations Edge associations Route propagation Tags

**Explicit subnet associations (1)**

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
VPC_002_Public_Subnet	subnet-07952e230fa1ac2dd	172.20.1.0/25	-

**Subnets without explicit associations (1)**

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

Find subnet association

## Step 7: - Create NAT Gateway

- Give NAT Gateway name as “NAT\_VPC\_001” & “NAT\_VPC\_002”
- assignee public subnet
- Allocate Elastic IP

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**VPC dashboard** ×

EC2 Global View

Filter by VPC ▾

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- NAT gateways**
- Peering connections

▼ Security

- Network ACLs

VPC > NAT gateways > nat-01417ff8d0237b7a5

## nat-01417ff8d0237b7a5 / NAT\_VPC\_001

Actions ▾

**Details**

NAT gateway ID nat-01417ff8d0237b7a5	Connectivity type Public	State Pending	State message Info
NAT gateway ARN arn:aws:ec2:ap-south-1:985539783646:natgateway/nat-01417ff8d0237b7a5	Primary public IPv4 address -	Primary private IPv4 address 172.10.1.70	Primary network interface ID eni-0e794e6af2db29095
VPC vpc-0ff805abe106ef79b / VPC_001	Subnet subnet-0a013c5abb671d6f1 / VPC_001_Public_Subnet	Created Sunday, September 29, 2024 at 15:15:28 GMT+5:30	Deleted -

**Secondary IPv4 addresses** | Monitoring | Tags

Secondary IPv4 addresses

Search

Private IPv4 address | Allocation ID | Association ID | Public IPv4 address

Secondary IPv4 addresses are not available for this nat gateway.

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**VPC dashboard** ×

EC2 Global View

Filter by VPC ▾

▼ Virtual private cloud

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- Endpoint services
- NAT gateways**
- Peering connections

▼ Security

- Network ACLs
- Security groups

🟢 NAT gateway nat-01130d57ae437a567 | NAT\_VPC\_002 was created successfully.

VPC > NAT gateways > nat-01130d57ae437a567

## nat-01130d57ae437a567 / NAT\_VPC\_002

Actions ▾

**Details**

NAT gateway ID nat-01130d57ae437a567	Connectivity type Public	State Pending	State message Info
NAT gateway ARN arn:aws:ec2:ap-south-1:985539783646:natgateway/nat-01130d57ae437a567	Primary public IPv4 address -	Primary private IPv4 address -	Primary network interface ID -
VPC vpc-0ca47eaa26421ff6b / VPC_002	Subnet subnet-07952e230fa1ac2dd / VPC_002_Public_Subnet	Created Sunday, September 29, 2024 at 15:16:44 GMT+5:30	Deleted -

**Secondary IPv4 addresses** | Monitoring | Tags

Secondary IPv4 addresses

Search

Private IPv4 address | Network interface ID | Status | Failure message

Secondary IPv4 addresses are not available for this nat gateway.

## Step 8: - Configure Private Route Table

- In “VPC\_001\_Private\_RT” & “VPC\_002\_Private\_RT”, Go to Route then go to “Edit Route”
- Go to “Add route”
- Search for “0.0.0.0/0” and “NAT Gateway” and then search which we have created “NAT”

Updated routes for rtb-097007213872a85c2 / VPC\_001\_Private\_RT successfully

VPC > Route tables > rtb-097007213872a85c2

### rtb-097007213872a85c2 / VPC\_001\_Private\_RT

Details

Route table ID	rtb-097007213872a85c2	Main	No	Explicit subnet associations	-	Edge associations	-
VPC	vpc-0ff805abe106ef79b   VPC_001	Owner ID	985539783646				

Routes (2)

Destination	Target	Status	Propagated
0.0.0.0/0	nat-01417ff8d0237b7a5	Active	No
172.10.0.0/16	local	Active	No

Updated routes for rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT successfully

VPC > Route tables > rtb-0a3b859d2675d728e

### rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT

Details

Route table ID	rtb-0a3b859d2675d728e	Main	No	Explicit subnet associations	-	Edge associations	-
VPC	vpc-0ca47eaa26421ff6b   VPC_002	Owner ID	985539783646				

Routes (2)

Destination	Target	Status	Propagated
0.0.0.0/0	nat-01130d57ae437a567	Active	No
172.20.0.0/16	local	Active	No

- In “VPC\_001\_Private\_RT” & “VPC\_002\_Private\_RT”, go to the “subnet association”
- Go to the “Edit subnet association” and select our “VPC\_001\_Private\_Subnet” & VPC\_002\_Private\_subnet”

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**VPC dashboard**

EC2 Global View Filter by VPC

Virtual private cloud

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Security

- Network ACLs
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CloudShell Feedback

You have successfully updated subnet associations for rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT.

VPC > Route tables > rtb-0a3b859d2675d728e

rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT

Actions

**Details** Info

Route table ID rtb-0a3b859d2675d728e	Main No	Explicit subnet associations subnet-0de3f07aebfc007dc / VPC_002_Private_Subnet	Edge associations -
VPC vpc-0ca47eaa26421ff6b   VPC_002	Owner ID 985539783646		

Routes Subnet associations Edge associations Route propagation Tags

**Explicit subnet associations (1)** Edit subnet associations

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
VPC_002_Private_Subnet	subnet-0de3f07aebfc007dc	172.20.2.0/25	-

**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

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**VPC dashboard**

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CloudShell Feedback

You have successfully updated subnet associations for rtb-097007213872a85c2 / VPC\_001\_Private\_RT.

VPC > Route tables > rtb-097007213872a85c2

rtb-097007213872a85c2 / VPC\_001\_Private\_RT

Actions

**Details** Info

Route table ID rtb-097007213872a85c2	Main No	Explicit subnet associations subnet-000352ffa14c2cac1 / VPC_001_Private_Subnet	Edge associations -
VPC vpc-0ff805abe106ef79b   VPC_001	Owner ID 985539783646		

Routes Subnet associations Edge associations Route propagation Tags

**Explicit subnet associations (1)** Edit subnet associations

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
VPC_001_Private_Subnet	subnet-000352ffa14c2cac1	172.10.2.0/25	-

**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

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## Step 9: -

- In subnet, select “VPC\_001\_Public\_Subnet” & “VPC\_002\_Public\_Subnet” and go to “action” and select “edit subnet settings”
- Click on “Enable auto-assign public IPv4 address”



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VPC > Subnets > subnet-0a013c5abb671d6f1 > Edit subnet settings

## Edit subnet settings

**Subnet**

Subnet ID: subnet-0a013c5abb671d6f1 Name: VPC\_001\_Public\_Subnet

**Auto-assign IP settings**

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

☐ Enable auto-assign customer-owned IPv4 address

**Resource-based name (RBN) settings**

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

☐ Enable resource name DNS A record on launch

☐ Enable resource name DNS AAAA record on launch

Hostname type

☐ Resource name

☒ IP name

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## Step 10: - Create 4 instances

- Go to EC2 and give 1st instance name as “VPC\_001\_Public” and 2<sup>nd</sup> as “VPC\_002\_Public”
- In Network Setting, assigned VPC which we created earlier (VPC\_001& VPC\_002)
- Assigned subnet which is we created earlier (VPC\_001\_Public\_Subnet & VPC\_002\_Public\_Subnet)

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EC2 Dashboard EC2 Global View Events

**Instances**

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AMIs

AMI Catalog

**Elastic Block Store**

Volumes

Snapshots

Lifecycle Manager

**Network & Security**

**Instances (1/2)**

Last updated 1 minute ago

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public
<input checked="" type="checkbox"/> VPC_001_Public	i-0dff90f60116e3389	Running	t2.micro	Initializing	View alarms	ap-south-1a	-
<input type="checkbox"/> VPC_002_Public	i-0373b0167c60865fc	Running	t2.micro	Initializing	View alarms	ap-south-1a	-

**i-0dff90f60116e3389 (VPC\_001\_Public)**

Details Status and alarms Monitoring Security **Networking** Storage Tags

**Networking details**

Public IPv4 address: 13.233.97.131 | open address

Public IPv4 DNS: -

Subnet ID: subnet-0a013c5abb671d6f1 (VPC\_001\_Public\_Subnet)

Availability zone: ap-south-1a

Private IPv4 addresses: 172.10.1.51

Private IP DNS name (IPv4 only): ip-172-10-1-51.ap-south-1.compute.internal

IPv6 addresses: -

Carrier IP addresses (ephemeral): -

VPC ID: vpc-0ff805abe106ef79b (VPC\_001)

Secondary private IPv4 addresses: -

Outpost ID: -

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EC2 Dashboard EC2 Global View Events

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Instances (1/2) 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
VPC_001_Public	i-0dff90f60116e3389	Running	t2.micro	Initializing	View alarms	ap-south-1a	-
VPC_002_Public	i-0373b0167c60865fc	Running	t2.micro	Initializing	View alarms	ap-south-1a	-

i-0373b0167c60865fc (VPC\_002\_Public)

Details Status and alarms Monitoring Security Networking Storage Tags

Networking details info

Public IPv4 address

Private IPv4 addresses

Private IP DNS name (IPv4 only)

IPv6 addresses

Carrier IP addresses (ephemeral)

Subnet ID

Availability zone

VPC ID

Secondary private IPv4 addresses

Outpost ID

CloudShell Feedback

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- Go to EC2 and give 3rd instance name as “VPC\_001\_Private” & “VPC\_002\_Private”
- In Network Setting, assigned VPC which we created earlier (VPC\_001 & VPC\_002)
- Assigned subnet which is we created earlier (“VPC\_001\_Private\_Subnet” & “VPC\_002\_Private\_Subnet”)

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EC2 Dashboard EC2 Global View Events

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Instances (1/3) 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
VPC_001_Public	i-0dff90f60116e3389	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-
VPC_001_Private	i-078094c71cfbf8b43	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-
VPC_002_Public	i-0373b0167c60865fc	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-

i-078094c71cfbf8b43 (VPC\_001\_Private)

Details Status and alarms Monitoring Security Networking Storage Tags

Networking details info

Public IPv4 address

Private IPv4 addresses

Private IP DNS name (IPv4 only)

IPv6 addresses

Carrier IP addresses (ephemeral)

Subnet ID

Availability zone

VPC ID

Secondary private IPv4 addresses

Outpost ID

CloudShell Feedback

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The screenshot shows the AWS Management Console with the EC2 Dashboard selected. In the 'Instances' list, the instance 'VPC\_002\_Private' (ID: i-0cb948501132cec06) is highlighted. Below, the 'Networking details' for this instance are shown. The 'Subnet ID' is 'subnet-0de3f07aebfc007dc' (VPC\_002\_Private\_Subnet). The 'VPC ID' is 'vpc-0ca47eaa26421ff6b' (VPC\_002).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public
VPC_001_Public	i-0dff90f60116e3389	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-
VPC_001_Private	i-078094c71cfbf8b43	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-
VPC_002_Public	i-0373b0167c60865fc	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	-
VPC_002_Private	i-0cb948501132cec06	Running	t2.micro	Initializing	View alarms	ap-south-1a	-

**Networking details for i-0cb948501132cec06 (VPC\_002\_Private):**

- Public IPv4 address: -
- Public IPv4 DNS: -
- Subnet ID: subnet-0de3f07aebfc007dc (VPC\_002\_Private\_Subnet)
- Availability zone: ap-south-1a
- Private IPv4 addresses: 172.20.2.44
- Private IP DNS name (IPv4 only): ip-172-20-2-44.ap-south-1.compute.internal
- IPv6 addresses: -
- Carrier IP addresses (ephemeral): -
- VPC ID: vpc-0ca47eaa26421ff6b (VPC\_002)
- Secondary private IPv4 addresses: -
- Outpost ID: -

- **Note-** In Public subnet we get public as well as private Ips
- **Note-** In Private subnet we only get private IP

## Step 11 : - Creat peering connection between VPC\_001 & VPC\_002

The screenshot shows the 'Create peering connection' wizard in the AWS Management Console. The 'Peering connection settings' section is visible.

**Peering connection settings:**

- Name - optional:** VPC\_001\_TO\_VPC\_002
- Select a local VPC to peer with:**
  - VPC ID (Requester): vpc-0ff805abe106ef79b (VPC\_001)
  - VPC CIDRs for vpc-0ff805abe106ef79b (VPC\_001):
 

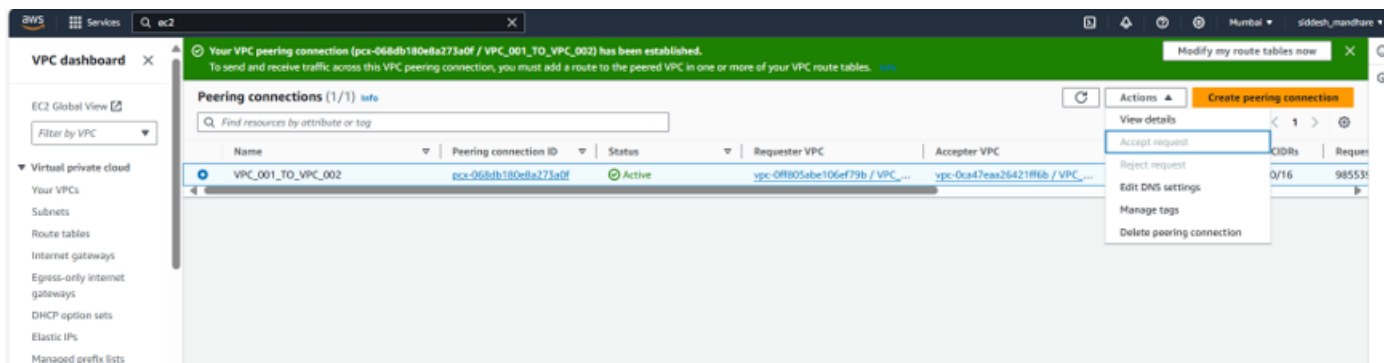
CIDR	Status	Status reason
172.10.0.0/16	Associated	-
- Select another VPC to peer with:**
  - Account: My account
  - Region: This Region (ap-south-1)
  - VPC ID (Acceptor): vpc-0ca47eaa26421ff6b (VPC\_002)
  - VPC CIDRs for vpc-0ca47eaa26421ff6b (VPC\_002):

- Peering connection is in pending state ., i.e yet to accept request from VPC002

The screenshot shows the 'Peering connections' list in the AWS Management Console. The connection 'VPC\_001\_TO\_VPC\_002' is shown with a status of 'Pending acceptance'.

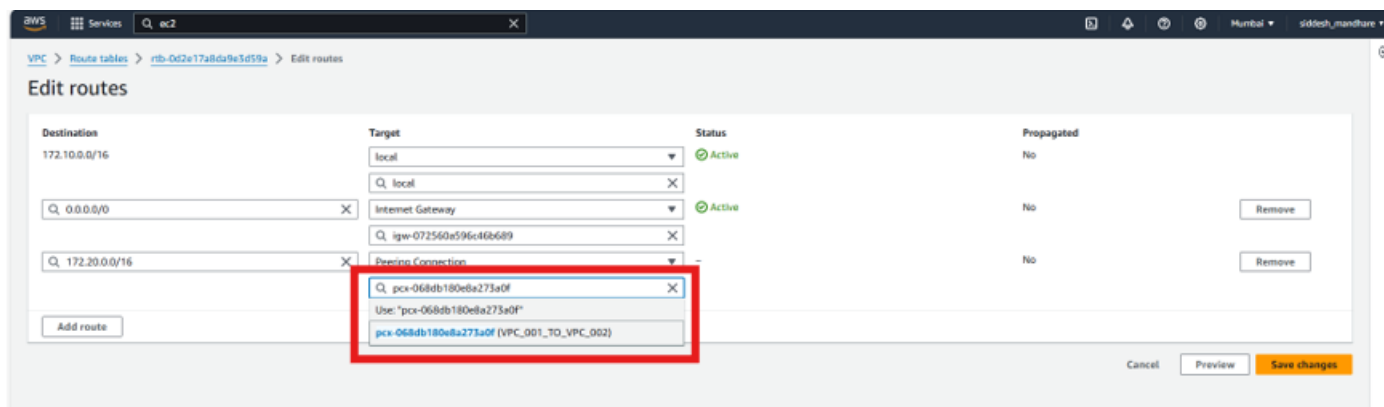
Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDRs	Acceptor CIDRs	Requester
VPC_001_TO_VPC_002	pcx-068db180e8a273a0f	Pending acceptance	vpc-0ff805abe106ef79b / VPC_...	vpc-0ca47eaa26421ff6b / VPC_...	172.10.0.0/16	-	985535

- After Accepting request it should change state to in "Active"

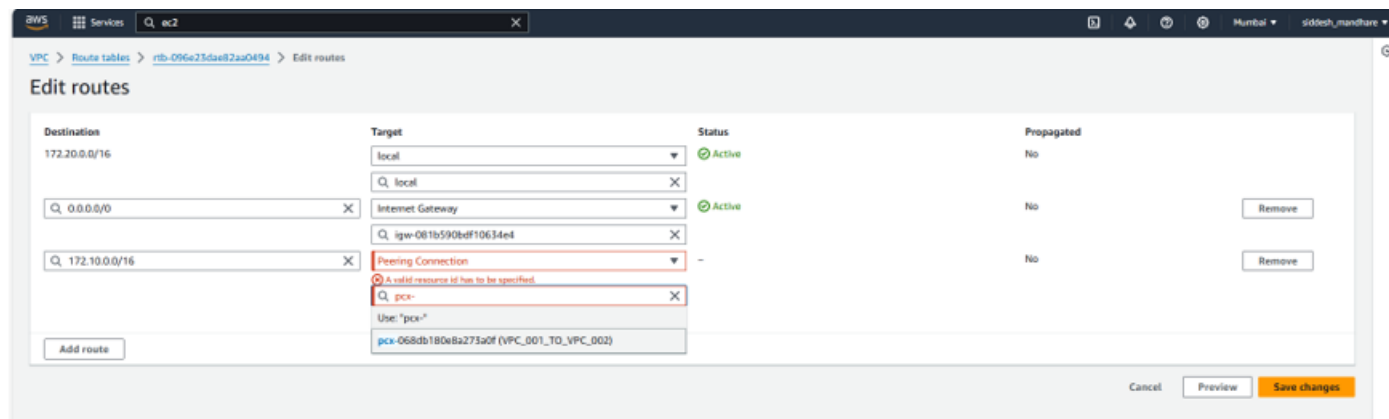


## Step 12 : - Modify Route tables

- Change "VPC001\_Public\_RT" Route setting -> Add route-> enter IP of VPC002 and select Peering connection(VPC001\_to\_VPC002)



- Change VPC002\_Private\_RT Route setting -> Add route-> enter IP of VPC001 and select Peering connection (VPC001\_to\_VPC002)



Updated routes for rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT successfully

VPC > Route tables > rtb-0a3b859d2675d728e

### rtb-0a3b859d2675d728e / VPC\_002\_Private\_RT

Actions

**Details** Info

Route table ID rtb-0a3b859d2675d728e	Main No	Explicit subnet associations subnet-0de3f07aebfc007dc / VPC_002_Private_Subnet	Edge associations -
VPC vpc-0ca47eaa26421ff6b / VPC_002	Owner ID 985539783646		

Routes Subnet associations Edge associations Route propagation Tags

**Routes (3)** Both Edit routes

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	nat-01130d57ae437a567	Active	No
172.10.0.0/16	pcx-05cefa85caa7bbfea	Active	No
172.20.0.0/16	local	Active	No

## Step 13: - Launch instance

- Using public IP launch public instance (VPC\_001\_Public)
- Check ping response

```
root@ip-172-10-1-51:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"

#_
~\####_ Amazon Linux 2023
~~\#####\
~~\####|
~~\#/ https://aws.amazon.com/linux/amazon-linux-2023
~~V~'-'>
~~~
~~~.
~~~/_m/'

[ec2-user@ip-172-10-1-51 ~]$ sudo su -
[root@ip-172-10-1-51 ~]# ping
ping: usage error: Destination address required
[root@ip-172-10-1-51 ~]# ping google.com
PING google.com (142.250.183.142) 56(84) bytes of data.
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=1 ttl=54 time=1.70 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=2 ttl=54 time=1.70 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=3 ttl=54 time=1.79 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=4 ttl=54 time=1.78 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=5 ttl=54 time=1.74 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=6 ttl=54 time=1.75 ms
^C
--- google.com ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5008ms
```

- Checking if package is installing or not ? (yum install httpd)

```
root@ip-172-10-1-51:~
rtt min/avg/max/mdev = 1.699/1.743/1.793/0.035 ms
[root@ip-172-10-1-51 ~]# sudo yum install httpd -y
Last metadata expiration check: 0:37:37 ago on Sun Sep 29 10:16:53 2024.
Dependencies resolved.

=====
Package                                Architecture      Version            Repository          Size
=====
Installing:
httpd                                  x86_64            2.4.62-1.amzn2023  amazonlinux         48 k
Installing dependencies:
apr                                    x86_64            1.7.2-2.amzn2023.0.2  amazonlinux         129 k
apr-util                              x86_64            1.6.3-1.amzn2023.0.1  amazonlinux         98 k
generic-logos-httpd                  noarch            18.0.0-12.amzn2023.0.3  amazonlinux         19 k
httpd-core                            x86_64            2.4.62-1.amzn2023  amazonlinux         1.4 M
httpd-filesystem                     noarch            2.4.62-1.amzn2023  amazonlinux         14 k
httpd-tools                           x86_64            2.4.62-1.amzn2023  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            2.4.62-1.amzn2023  amazonlinux         61 k

Transaction Summary
=====
Install 12 Packages

Total download size: 2.3 M
Installed size: 6.9 M
Downloading Packages:
(1/12): apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64.rpm 302 kB/s | 17 kB 00:00
(2/12): apr-1.7.2-2.amzn2023.0.2.x86_64.rpm 1.9 MB/s | 129 kB 00:00
```

## Step 12: - Access Private instance using public instance

- Create pem file in public instance (cat > ec2.pem) press enter and then pest. pem key in that file manually.

```
root@ip-172-10-1-51:~
Complete!
[root@ip-172-10-1-51 ~]# cat > VPC001.pem
-----BEGIN RSA PRIVATE KEY-----
MIIEPgIBAAKCAQEA4os4QbDto/aH7VQo5IV4haToDC0OKDWUOJJsKV/pIju7z+HU
zT/+A1JNF9CAJABK9fla3f4C4o55DxzOKnH0x1VY6lniHpl9d07Kf39ogb9zhNYn
iAwIXZxqsXfbjSYa0Eo7FDgXkIjPTT4g897bgci5tw29CqKHS39w4cEKhf9R0nMK
EKUrTXtytgNQtpY+iQj7H9kgYglaJ7p30V8B+/xoY7zgp8opunqmZ8rYoCf3Zm/w
905ua5MaxYzOmYaa0kt/hGTvt9k73AcyTPXlvWVEMURLFx38DHflaQ87/Rgu9J+U
vd5qcjOFZnODlQIWJl/gWg4X2W3vTWC6Me02rwIDAQABAoIBAQC3mdE8HCJcsh6z
j3Oc0Tc+SMnvpExG9jVsK+8RETQmlHbAIEyPc/9vvbHRTR+tEvxGoZKtO4InDwS5
5MSJzdVt/5OSSsphtk/i865V6nJORVVgIRfkWku/AlfoAK+le27DxIVg+7Hfy6EG
nwWh38nSwlUQMEg3aEXGidB4hjT7JslHrzIQWGHdORoyu4eDWKff/3+bED3Wjp9
gj4izbzEvOx2kXI6kqfh+2Q+m8xpXlgOLrKXoOp90+kIRF5yfvOe4WKCsxP2Kkgi
uy1U39TEFq7MAxJg4ZxUL9ROPDR7fRF451096/JHb5ENI6sefnCees28hNF65CoM
j1zU5QrBAoGBAPTdVV5z8IE4CEX5So+UnLYwmKhpKxJ+csphBMWzZF13Cpu4XbuQ
J+xMzYeLzivPB5TONqxzFQByZvGBjXKeVAPz0e8uwCcvIX59r3MpJjdHDr75obML
VRlsWezwr9nIRn4m+OrclP+9/O3Y8tSDKPu3/0XERv8+SAIUlq91S0Q/AoGBAOzY
mXuvoE3wXMkmd+Rzb6wOWwqMMgapRzVZFY3ZBIp9UjCsbD3Hg7CSJYJK0FPqG9t2
RJLFAU6Xu6mT+wIlMFm5QlJrMLWOp5KVOXzMs6uG6z8EoeXi6aUChI2ks+3xrmBB
LaT3qXIrAlD/LfSIQIp55dAk9lmc26OW+00Q5LGRAoGBAJXoMuliWWkingIC14zT
VKWNVsgz6ia2XZxcjQl7BmBcXMoCepcNLTLyEAlbREQ6/1EDYxR4Ben8jIEOE5l
c9X/nRSrMGRMFqEi52DIaxhtR9hwIbWd0DbPqp6J45SuCVfQqC2blmrPH94hCFq
Mtr4KEXUBgsZXAg6Lby5OF0NAoGBAMwIF8hWVmlt2/Coal5qF1SIFWOzvFDCuQY7
FPdacbAAH7Kwhpp96nNMoyVn36m6bn8TliU9s0+KJO8D/OMvOETC9GBd2Ns+5hq/
lINvMIReOP/TtMh+PrqYvanrrdkYLxjabUDE3WLtrPC0s1kJmlfvhMtXXCVmNmHp
6djM6cYRAoGBANDIFmjYyeINFJKNbn+gTlZVW5iyru8LoVltYGVCnyQInKjdBdr
pENRkrzls+4XBWsqArFnbB+2Z12CdXi9aY/yE8tSWfLUl28yR+EE5z25FCFXtce4
2OR8gwQ1YL5tpDACWekrc2BTOE+JrmQ75R8VHl/Z24PnwtrDjMOq+Fuz
-----END RSA PRIVATE KEY-----[root@ip-172-10-1-51 ~]# ls -lrt
total 4
-rw-r--r--. 1 root root 1678 Sep 29 11:17 VPC001.pem
[root@ip-172-10-1-51 ~]#
```



- ```
ec2-user@ip-172-20-1-59:~
QcPs2T9R4BjCYyLAToh5V+tHveyQ+qc7oOBov2v6aGnZ96i+7Ca+HkShL7FESJnm
TWVh06u4JI8xR7vWjtMjkv/pBu8A/6OpcMnD7sneNZ/iWKxpy/jiJyApvYXor2gd
yA5cpBvY0ZQqpGUrOnHqWlKxmRKcrgeNMP007t3TH9k4o3dw73B/rTsiocTy9LhV
uU2MOWNyVqxXmxQYEUZHSKNGMV9FulZE7gslRxHvIYELPDGSxoti+Pq3MFDMOXeD
pH/qED2UQMuqzCd/BET07Rn1qZhZq8u8Z7udLq7wK4YaG/xFEFhtleuHcJdqLP4j
pZhCrnECgYEAyqnel8H1uyJ5YojmttHlups97GX6LLD0G+gFRKDNXY1jQydQWmdt
LKmlKu+6DgHhnqIjkQmLTrxi9qReiPl8CgVuulwGnvWTTWwPXQZ6W00cndTwN8Q+g
akTcW4qisTelP4u7Z9xbK3YHl+DotDJdS1+00HZ1d3swamkN4zbTvPMCgYEAxjLU
b8GdkYSueSpXETKMe+N2WxuTjBxeVjswiq5ZV21XfDVWG6Ga+ixsYo4NVdy6WtF/
cwB9Op67W7kp37Z1BPK469xxC8GxF1Y0aDvTIug0cQFh2D/0hHE2ym2DmgmsDm81
QXtK2dLCVDX1tjLaVCx+J+1YEJsS01bkegcovhKcGyAR/pE4Ek26Ru5WNGef1fu6
4tgWNFvJohECpVBKbqr8YIBuxv/YdxR3gbybmlt/wOUCi8zypNFMtWdoFOIb8WL1
FNRnKF2iIZXq3+Vt+yHTMp8rRqDKRaPtq52RNzcI2zL9+G80Yplpu3ojHx/bWhl0
cBkC5XG6oSKEYD2ObiDQxwKBGA0ASpUmIYZLKNLD50A2i6aYziu9zFj1h26qpU2D
kFK+1mlMZmCbojnk7hss7E0ElKjeczjNAGn2/Z1PsSJ+qXPapea8iCHYS9CXFAR+
WaRbJScYix2PXG/PqWNV+aECH2o2+0xXVRqiy6KQgoElrsK0xHXDxcYZFgWM+CHU
pz0JAoGAMSSAfveHHguSMCjnP1RvrMxTbg/z3+0G5KLlqXlpwqFqZAwQci36QFma
tqh/dgOl8BTrR6TfPp3OB3afhKI0+m98jGEWmaD2g7QhCEZmJEmmihK6D8fKmaO
vkBzeiYY+7HNwAnCVoxe25aA7UKAvEh+8CBNu8jbVinKZpPou9A=
-----END RSA PRIVATE KEY-----
[ec2-user@ip-172-20-1-59 ~]$ chmod 400 VPC001.pem
[ec2-user@ip-172-20-1-59 ~]$ ssh -i VPC001.pem ec2-user@172.10.2.33
ssh: connect to host 172.10.2.33 port 22: Connection timed out
[ec2-user@ip-172-20-1-59 ~]$
```

- Check Hostname

```
[ec2-user@ip-172-20-2-69 ~]$ hostname
ip-172-20-2-69.ap-south-1.compute.internal
[ec2-user@ip-172-20-2-69 ~]$ ping chrome.com
PING chrome.com (216.239.32.27) 56(84) bytes of data:
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=1 ttl=112 time=1.57 ms
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=2 ttl=112 time=1.36 ms
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=3 ttl=112 time=1.34 ms
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=4 ttl=112 time=1.30 ms
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=5 ttl=112 time=1.67 ms
64 bytes from any-in-201b.1e100.net (216.239.32.27): icmp_seq=6 ttl=112 time=1.37 ms
```