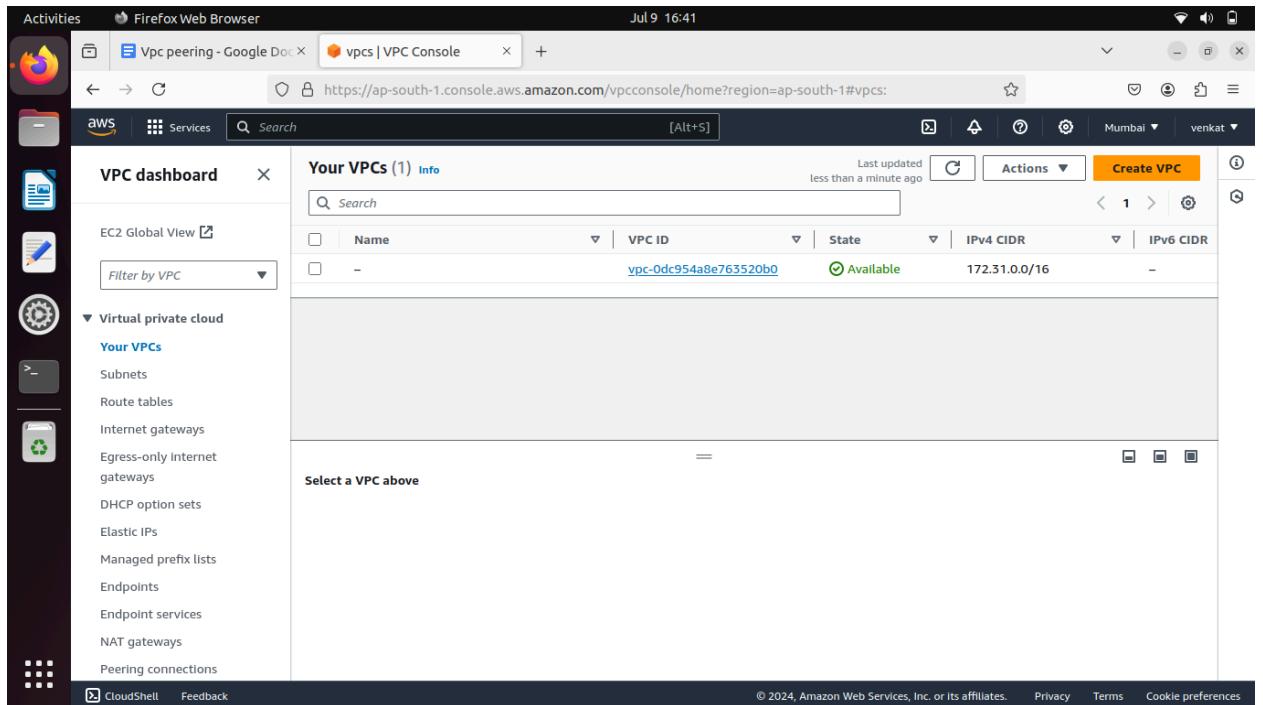


vpc - transit gateway

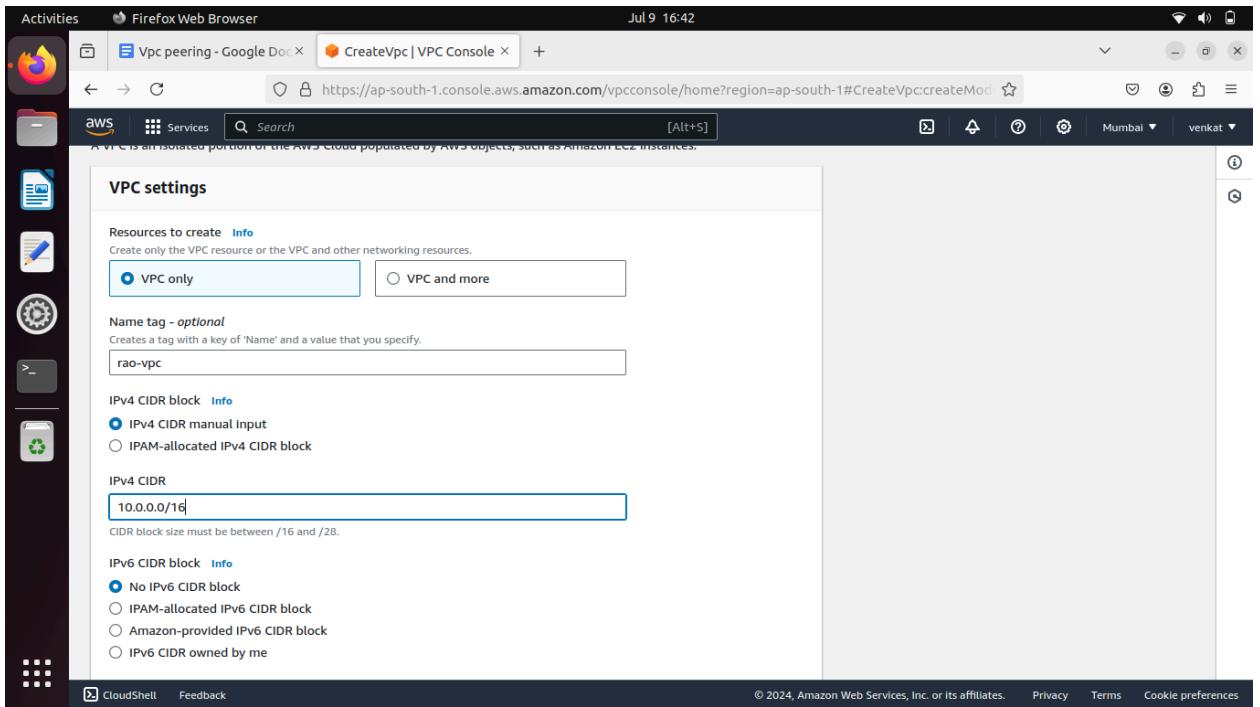
- 1) Connect only 2 vpcs using vpc-peering connect mornthen 2 vpc using vpc transit gateway
- 2) Here create 3 vpc and use those 3vpcs create 3 servers and install nginx and create transit gateway and create transit attachments and add route table the process done
- 3) Vpc→ create vpc



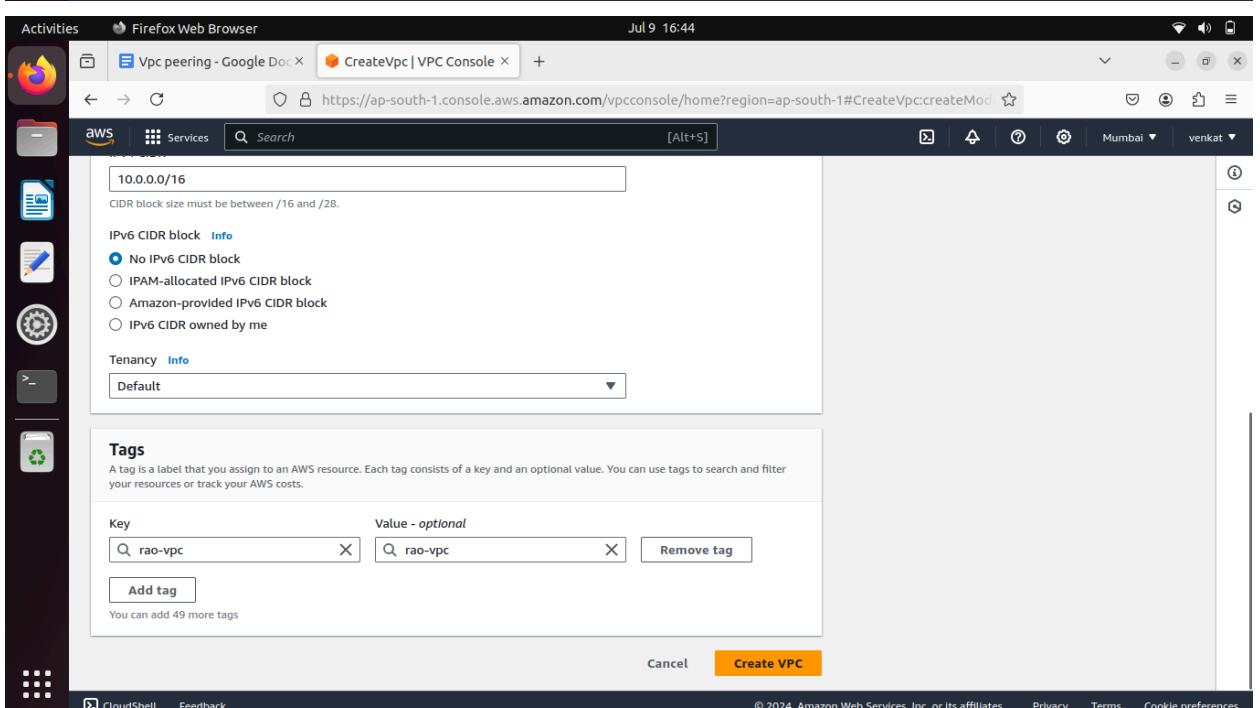
The screenshot shows the AWS VPC Dashboard in the AWS Management Console. The left sidebar has a dark theme with icons for various services. The main content area is titled "Your VPCs (1)" and shows a table with one row of data. The columns are Name, VPC ID, State, IPv4 CIDR, and IPv6 CIDR. The single entry is "Name: - VPC ID: vpc-0dc954a8e763520b0 State: Available IPv4 CIDR: 172.31.0.0/16 IPv6 CIDR: -". Below the table, it says "Select a VPC above". At the bottom of the page, there are links for CloudShell, Feedback, and a footer with copyright information.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	vpc-0dc954a8e763520b0	Available	172.31.0.0/16	-

- 4)
- 5) Select vpc only
- 6) name= rao-vpc
- 7) ipv4CIDR= 10.0.0.0/16



8)



9)

10) Click create vpn

Your VPCs (1/2) [Info](#)

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	vpc-0dc954a8e763520b0	Available	172.31.0.0/16	-
rao-vpc	vpc-0c8cd33aa4681f099	Available	10.0.0.0/16	-

vpc-0c8cd33aa4681f099 / rao-vpc

[Details](#) [Resource map](#) [CIDRs](#) [Flow logs](#) [Tags](#) [Integrations](#)

Details

VPC ID vpc-0c8cd33aa4681f099	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy	DHCP option set	Main route table	Main network ACL

11)

12) Now go to internet gateway

13) Click create internet gateway

Internet gateways (1) [Info](#)

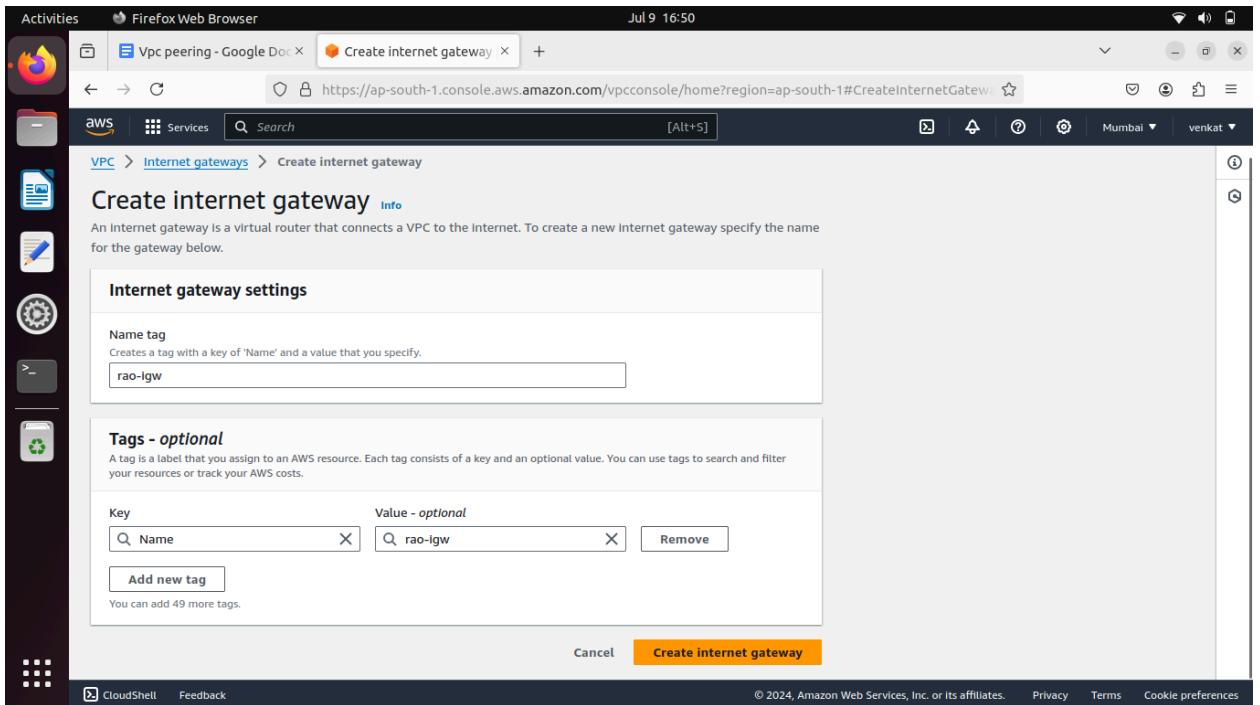
Name	Internet gateway ID	State	VPC ID
-	igw-03fa492fa7003b207	Attached	vpc-0dc954a8e763520b0

Select an internet gateway above

14)

15) Give name = rao-igw

16) Crate igw



17)

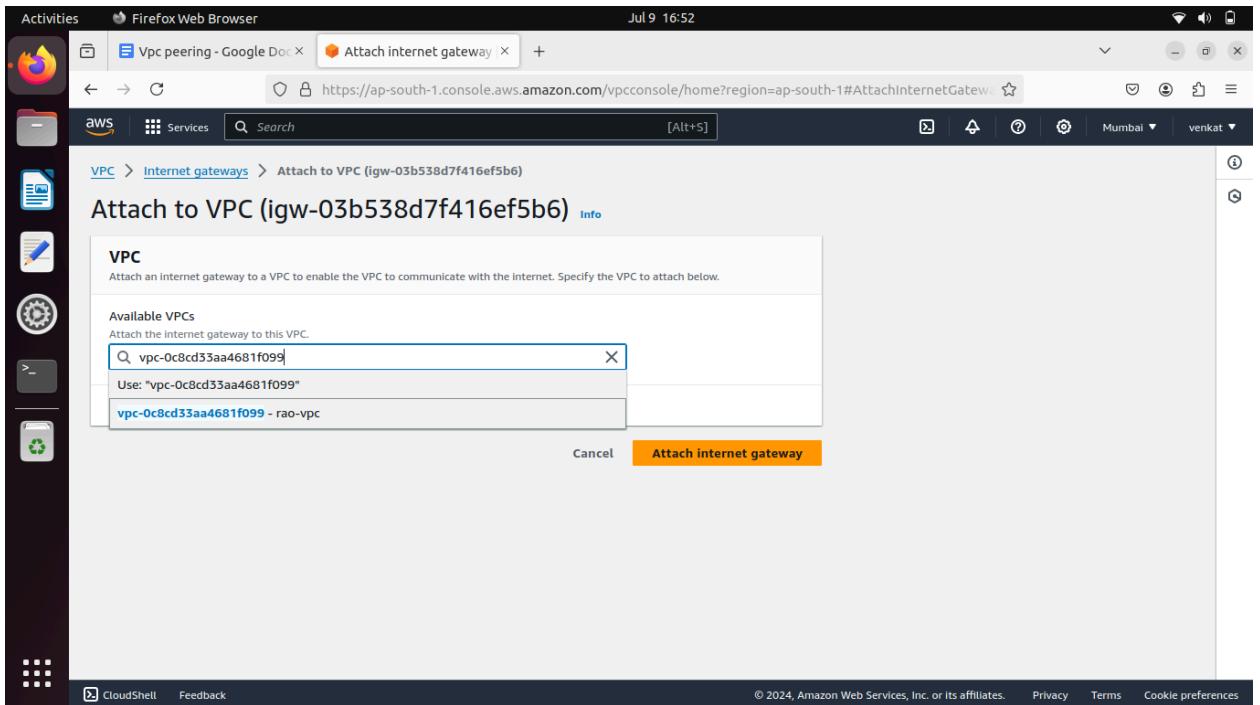
18) Now select rao-lgw click on actions

19) Click attach to vpc

Name	Internet gateway ID	Actions
-	igw-03fa492fa7003b207	View details
<input checked="" type="checkbox"/> rao-lgw	igw-03b538d7f416ef5b6	Attach to VPC Detach from VPC Manage tags Delete Internet gateway

20)

21) Now select rao-vpc and click attach igw



22)

23) Go to subnets and create one public and one private subnet

Activities Firefox Web Browser Jul 9 16:54

Vpc peering - Google Doc X subnets | VPC Console +

https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#subnets:

AWS Services Search [Alt+S]

Mumbai venkat

VPC dashboard

Subnets (3) Info Last updated 13 minutes ago Actions Create subnet

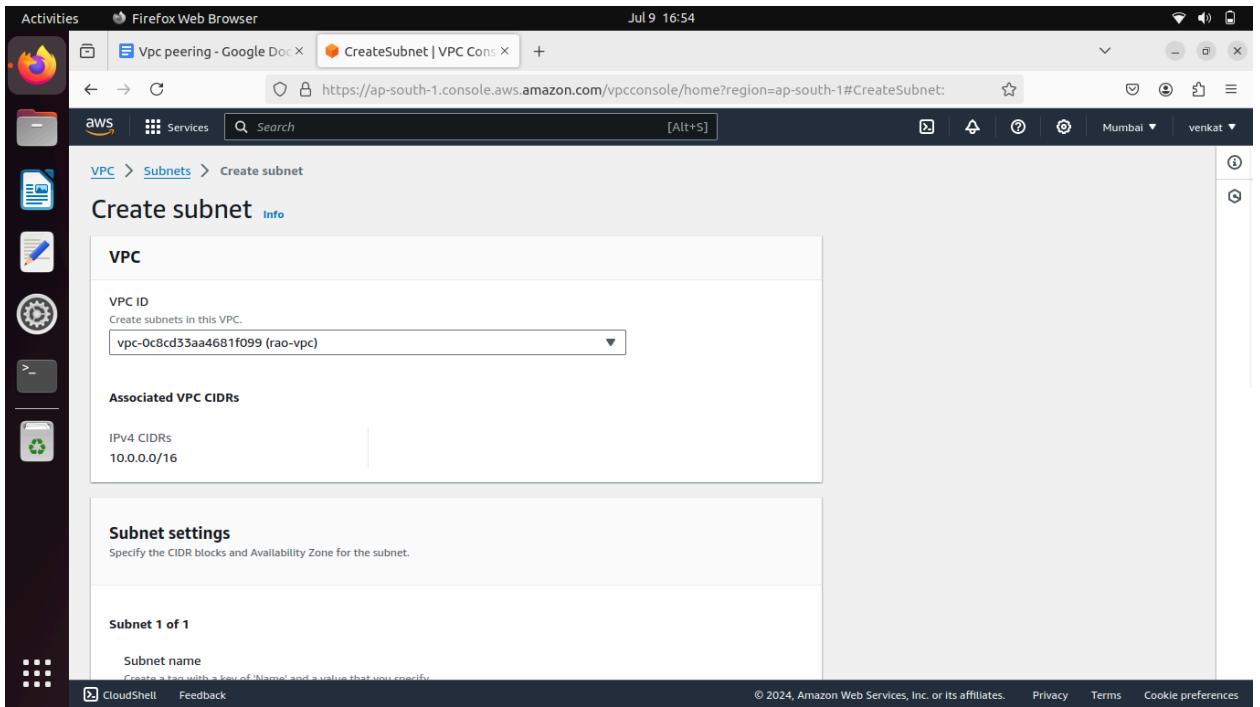
Name	Subnet ID	State	VPC
-	subnet-0af2451fdcc291bf0	Available	vpc-0dc954a8e763520b0
-	subnet-0201cee82b4b92500	Available	vpc-0dc954a8e763520b0
-	subnet-049d8679363acd1ce	Available	vpc-0dc954a8e763520b0

Select a subnet

24)

25) Click create subnet

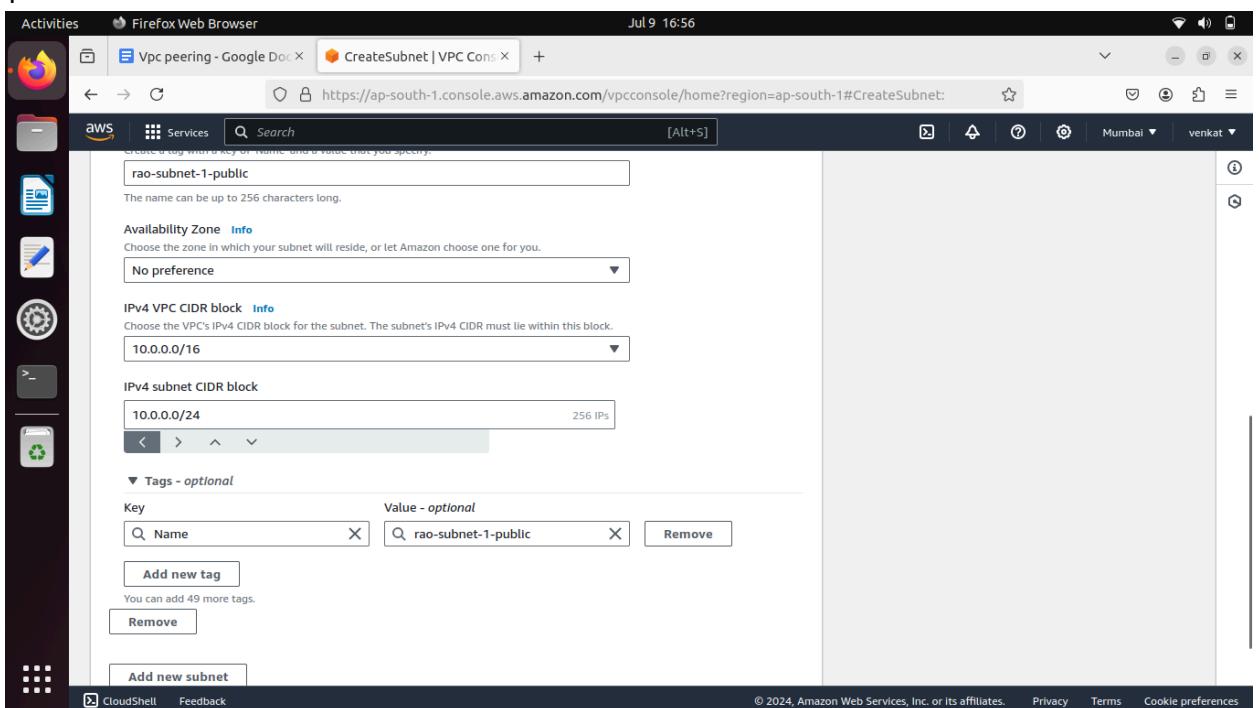
26) **vpc= rao-vpc**



27)

28) name= rao-subnet-1-public

29) ipv4 subnet cidr block= 10.0.0.0/24



30)

31) Click create subnet

The screenshot shows the AWS VPC dashboard. A green success message at the top states: "You have successfully created 1 subnet: subnet-01a33beba708fa57d". Below this, the "Subnets (1)" section is displayed. A table lists one subnet:

Name	Subnet ID	State	VPC
rao-subnet-1-public	subnet-01a33beba708fa57d	Available	vpc-0c8cd33aa4681f099 rao-vpc

On the left sidebar, under "Virtual private cloud", the "Subnets" option is selected. At the bottom of the page, there are links for CloudShell, Feedback, and a footer with copyright information.

32)

- 33) Create same way private subnet
- 34) Create subnet
- 35) vpc= rao-vpc
- 36) name= rao-subnet-2-private
- 37)Ipv4 subnet cidr block= 10.0.3.0/24
- 38) Click on create subnet

The screenshot shows the "Create Subnet" wizard, step 1 of 1. The form fields are as follows:

- Subnet name:** rao-subnet-2-private
- Availability Zone:** No preference
- IPv4 VPC CIDR block:** 10.0.0/16
- IPv4 subnet CIDR block:** 10.0.20/24
- Tags - optional:** Key: Name, Value: rao-subnet-2-private

At the bottom, there are "Next Step" and "Cancel" buttons.

39)

The screenshot shows the AWS VPC dashboard with the Subnets section selected. A success message at the top states: "You have successfully created 1 subnet: subnet-0204d5aaca7099493". The Subnets table lists five subnets:

Name	Subnet ID	State	VPC
-	subnet-0af2451fdcd291bf0	Available	vpc-0dc954a8e763520b0
-	subnet-0201cee82b4b92500	Available	vpc-0dc954a8e763520b0
-	subnet-049d8679363acd1ce	Available	vpc-0dc954a8e763520b0
rao-subnet-1-public	subnet-01a33beba708fa57d	Available	vpc-0c8cd33aa4681f099 rao-vpc
rao-subnet-2-private	subnet-0204d5aaca7099493	Available	vpc-0c8cd33aa4681f099 rao-vpc

40)

41) Now go to route tables and create one public and private routetable

The screenshot shows the AWS VPC dashboard with the Route tables section selected. A success message at the top states: "Route tables (1) Info". The Route tables table lists one route table:

Name	Route table ID	Explicit subnet associ...	Main
-	rtb-08b0525906d1551ab	-	- Yes

42)

43) Click create routetable

44) name=rao-route-1-public

45) vpc= rao-vpc

46) Click create route

47)

Route table settings

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

VPC
The VPC to use for this route table.

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
<input type="text" value="Name"/>	<input type="text" value="rao-route-1-public"/>

Create route table

48)

Route tables (3) Info

Name	Route table ID	Explicit subnet associ...	Edge associations	Main
-	rtb-08b0525906d1551ab	-	-	Yes
-	rtb-0463b061406c3d353	-	-	Yes
rao-route-1-public	rtb-0f6c20ca400e4bd60	-	-	No

Select a route table

49) Create private route same as above

50) Name = rao-route-2-private

51) vpc=rao-vpc

52) Click create route

Activities Firefox Web Browser Jul 9 17:09

Vpc peering - Google Doc X RouteTables | VPC Consol X + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#RouteTables: AWS Services Search [Alt+S] Mumbai venkat

VPC dashboard × EC2 Global View Find resources by attribute or tag

Route tables (4) Info Last updated less than a minute ago Actions Create route table

Name	Route table ID	Explicit subnet assoc...	Main
-	rtb-08b0525906d1551ab	-	Yes
-	rtb-0463b061406c3d353	-	Yes
rao-route-1-public	rtb-0f6c20ca400e4bd60	-	No
rao-route-2-private	rtb-00ae8063c32314a4a	-	No

Select a route table

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

53)

54) Select rao-route-1-public click actions

55) Click edit subnet associations'

Activities Firefox Web Browser Jul 9 17:11

Vpc peering - Google Doc X RouteTables | VPC Consol X + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#RouteTables: AWS Services Search [Alt+S] Mumbai venkat

VPC dashboard × EC2 Global View Find resources by attribute or tag

Route tables (1/4) Info Last updated 2 minutes ago Actions Create route table

Name	Route table ID	Explicit subnet assoc...	Main
-	rtb-08b0525906d1551ab	-	Yes
-	rtb-0463b061406c3d353	-	Yes
<input checked="" type="checkbox"/> rao-route-1-public	rtb-0f6c20ca400e4bd60	-	No
<input type="checkbox"/> rao-route-2-private	rtb-00ae8063c32314a4a	-	No

rtb-0f6c20ca400e4bd60 / rao-route-1-public

Details Routes Subnet associations Edge associations Route propagation Tags

Explicit subnet associations (0) Edit subnet associations

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
No subnet associations			

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

56)

57) Select rao-subnet-1-public and clic save associations

Activities Firefox Web Browser Jul 9 17:13

Vpc peering - Google Doc X EditRouteTableSubnetAs X + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#EditRouteTableSubnetAssociations

AWS Services Search [Alt+S] Mumbai venkat

VPC > Route tables > rtb-0f6c20ca400e4bd60 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
rao-subnet-1-public	subnet-01a33beba708fa57d	10.0.0/24	-	rtb-0f6c20ca400e4bd60 / rao-route-1-public
rao-subnet-2-private	subnet-0204d5aaca7099493	10.0.3.0/24	-	Main (rtb-0463b061406c3d353)

Selected subnets

- subnet-01a33beba708fa57d / rao-subnet-1-public X

Cancel Save associations

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

58)

59) Select rao-route-1-public click actions

60) Click edit routes

61) Click add route

62) Attach rao -igw

Activities Firefox Web Browser Jul 9 17:14

Vpc peering - Google Doc X RouteTables | VPC Console X + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#RouteTables

AWS Services Search [Alt+S] Mumbai venkat

VPC dashboard X Route tables (1/4) Info Last updated 1 minute ago Actions Create route table

Name	Route table ID	Explicit subnet associations
-	rtb-08b0525906d1551ab	-
-	rtb-0463b061406c3d353	-
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beba708fa57d
rao-route-2-private	rtb-00ae8063c32314a4a	-

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

rtb-0f6c20ca400e4bd60 / rao-route-1-public

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Route table ID rtb-0f6c20ca400e4bd60	Main No	Explicit subnet associations subnet-01a33beba708fa57d / rao-subnet-1-public	Edge associations -
---	------------	--	------------------------

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

63)

64)

The screenshot shows the 'Edit routes' page for a specific route table. A single route entry is present:

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No

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

65)

The screenshot shows the 'Edit routes' page for a specific route table. A new route entry is being configured:

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No
0.0.0.0/0	Internet Gateway	-	No

The 'Target' dropdown is set to 'Internet Gateway'. A search bar shows 'igw-' and a suggestion 'igw-03b538d7f416ef5b6 (rao-igw)' is visible. A 'Remove' button is also present.

- 66) Click save changes
67) Now select rao-subnet-2-private click actions click edit subnet assassins and select rao-subnet-2-private click save associations

68)

Name	Route table ID	Explicit subnet associations
-	rtb-08b0525906d1551ab	-
-	rtb-0463b061406c3d353	-
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beba
<input checked="" type="checkbox"/> rao-route-2-private	rtb-00ae8063c32314a4a	-

69)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
rao-subnet-1-public	subnet-01a33beba708fa57d	10.0.0.0/24	-	rtb-0f6c20ca400e4bd60 / rao-route-1-public
<input checked="" type="checkbox"/> rao-subnet-2-private	subnet-0204d5aaca7099493	10.0.3.0/24	-	Main (rtb-0463b061406c3d353)

- 70) Now create **vpn2** same way but use different ip range
- 71) Vpc click create vpc
- 72) name=**baby-vpc**
- 73) **Ipv4 cidr= 198.0.0.0/16**
- 74) Create vpc

75)

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.
baby-vpc

IPv4 CIDR block Info
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block

IPv4 CIDR
198.0.0.0/16
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
Default

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

76)

VPC dashboard

Your VPCs (1/3) Info

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	vpc-0dc954a8e763520b0	Available	172.31.0.0/16	-
rao-vpc	vpc-0cfd33aa4681f099	Available	10.0.0.0/16	-
baby-vpc	vpc-0950e61710b02ae7d	Available	198.0.0.0/16	-

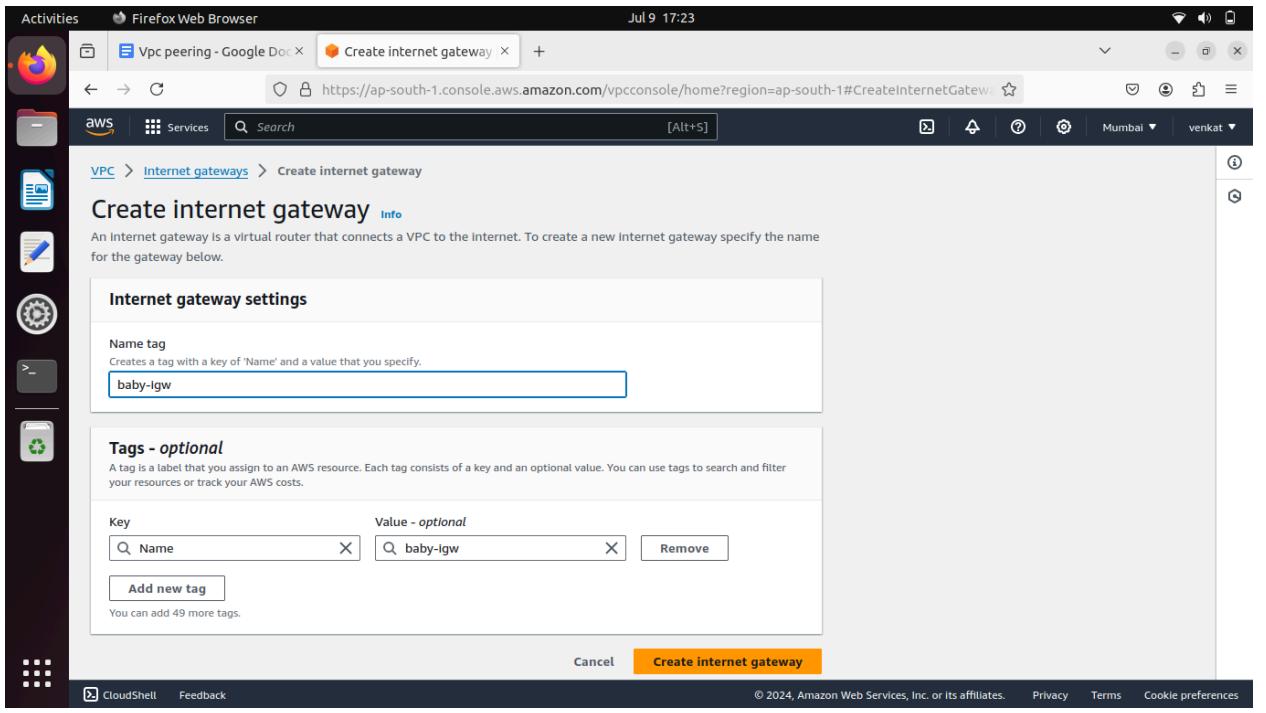
vpc-0950e61710b02ae7d / baby-vpc

Details | Resource map | CIDs | Flow logs | Tags | Integrations

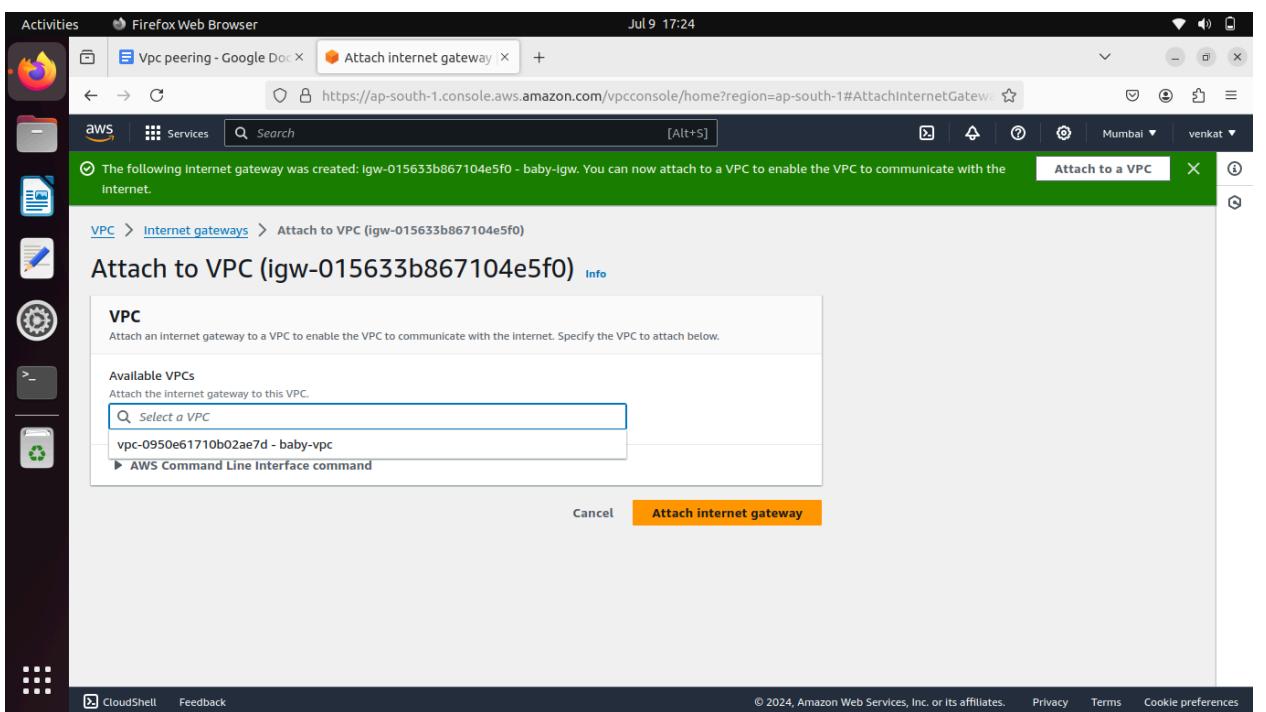
Details				
VPC ID vpc-0950e61710b02ae7d	State Available	DNS hostnames Disabled	DNS resolution Enabled	
Tenancy	DHCP option set	Main route table	Main network ACL	

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

77) Now baby-igw and attach to baby-vpc

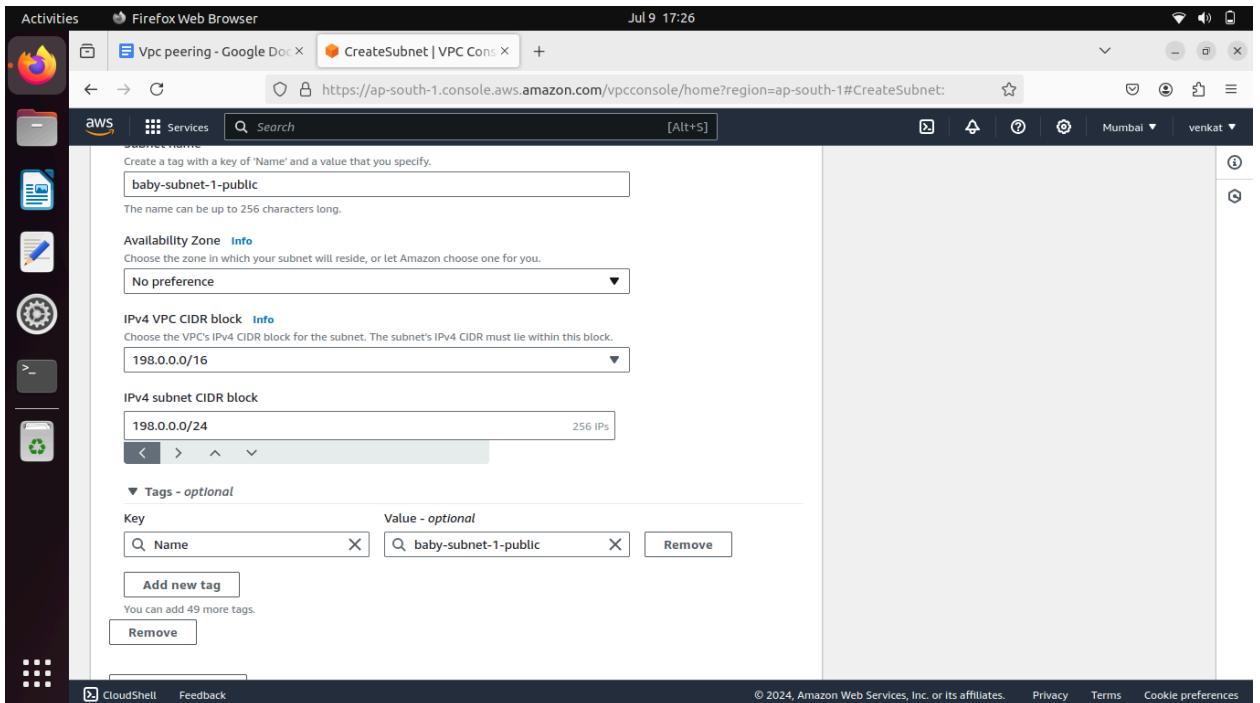


78)



79)

- 80) Now create baby-subnet-1-public
- 81) vpc= baby-vpc
- 82)Ipv4 subnet range=198.0.0.0/24 and click create subnet

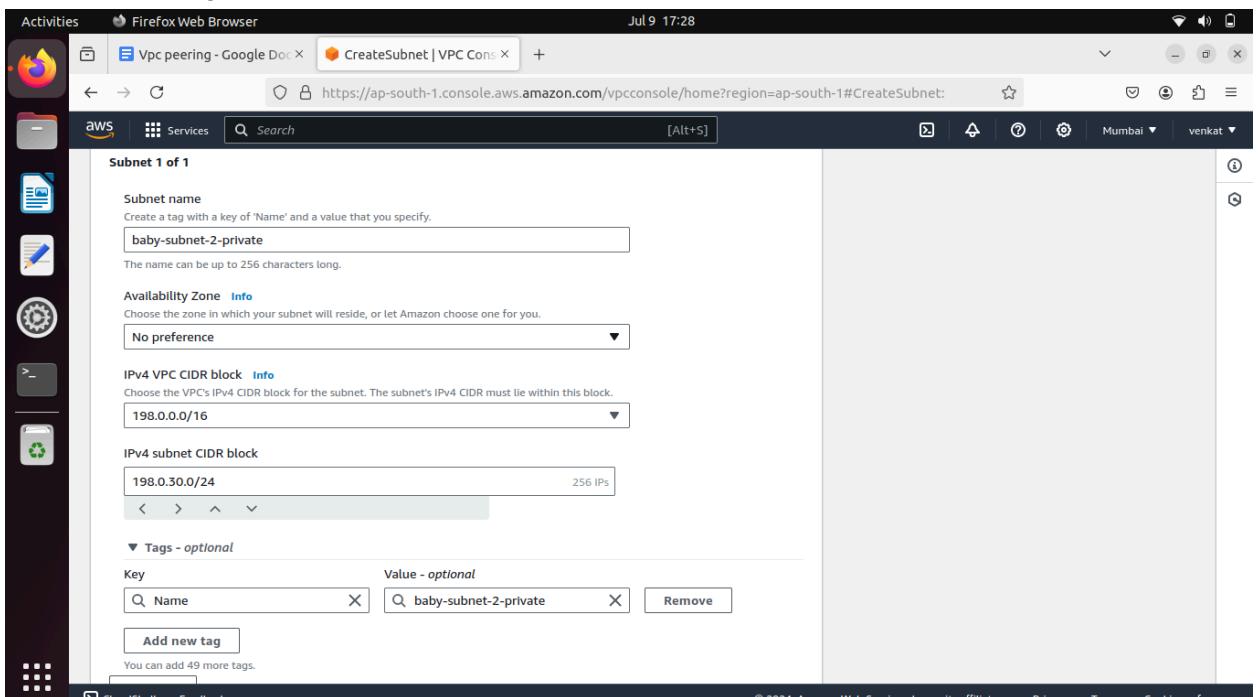


83)

84) Now create baby-subnet-2-private

85) `vpc= baby-vpc`

86) `Ipv4 subnet range=198.0.30.0/24` and click create subnet



87)

Activities Firefox Web Browser Jul 9 17:32

Vpc peering - Google Doc + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#subnets: Mumbai venkat

VPC dashboard

Subnets (7) info

Last updated 3 minutes ago

Actions Create subnet

Name	Subnet ID	State	VPC
rao-subnet-1-public	subnet-01a53beba708fa57d	Available	vpc-0c8cd33aa4681f099 rao-vpc
rao-subnet-2-private	subnet-0204d5aaca7099493	Available	vpc-0c8cd33aa4681f099 rao-vpc
baby-subnet-1-public	subnet-0bc2c92a58d7fac96	Available	vpc-0950e61710b02ae7d bab...
baby-subnet-2-private	subnet-01d5918ce75d64e58	Available	vpc-0950e61710b02ae7d bab...

Select a subnet

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

88)

89) Create route tables private and public

90) Go to route table

91) name=baby-route-1-public select vpc= baby-vpc create route table

Activities Firefox Web Browser Jul 9 17:33

Vpc peering - Google Doc + https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#CreateRouteTable: Mumbai venkat

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.

VPC
The VPC to use for this route table.

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
<input type="text" value="Name"/>	<input type="text" value="baby-route-1-public"/> Remove

Add new tag
You can add 49 more tags.

Cancel Create route table

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

92)

93) Create route 2 name=baby-route-2-private select vpc=baby-vpc click create route table

94)

Route table settings

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

VPC
The VPC to use for this route table.

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
<input type="text" value="Name"/>	<input type="text" value="baby-route-2-private"/>

Create route table

95)

Route tables (7) Info

Name	Route table ID	Explicit subnet associations	Edge associations	Main
rao-route-2-private	rtb-00ae8063c32314a4a	subnet-0204d5aaca7099...	-	No
-	rtb-08b0525906d1551ab	-	-	Yes
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beba708fa...	-	No
baby-route-1-public	rtb-01c9d2bf4e0818d9d	-	-	No
-	rtb-0174ff92d17c30101	-	-	Yes
baby-route-2-private	rtb-0aee52ec1eb6f2d7e	-	-	No

Select a route table

- 96) Select baby-route-1-public and click actions and select edit subnet associations and select baby-subnet-1-public and click save associates

97)

The screenshot shows the AWS VPC dashboard with the 'Route tables' section selected. A context menu is open over the row for 'baby-route-1-public'. The 'Actions' dropdown is expanded, and 'Edit subnet associations' is highlighted.

Name	Route table ID	Explicit subnet associations
-	rtb-0463b061406c3d353	-
rao-route-2-private	rtb-00ae0063c32314a4a	subnet-0204d5aa
-	rtb-08b0525906d1551ab	-
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beb
baby-route-1-public	rtb-01c9d2bf4e0818d9d	-
-	rtb-0174ff92d17c30101	-

98)

The screenshot shows the 'Edit subnet associations' dialog. It lists 'Available subnets' and 'Selected subnets'. The 'Selected subnets' list contains one item: 'subnet-0bc2c92a58d7fac96 / baby-subnet-1-public'. At the bottom right are 'Cancel' and 'Save associations' buttons.

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
baby-subnet-1-public	subnet-0bc2c92a58d7fac96	198.0.0.0/24	-	Main (rtb-0174ff92d17c30101)
baby-subnet-2-private	subnet-01d5918ce75d64e58	198.0.30.0/24	-	Main (rtb-0174ff92d17c30101)

- 99) Select baby-route-2- private and click actions and select edit subnet associations and select baby-subnet-2-private and click save associates

100)

Activities Firefox Web Browser

Route tables | VPC Manager X Vpc peering - Google Doc X Jul 9 17:39

https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#RouteTables:

VPC dashboard

You have successfully updated subnet associations for rtb-01c9d2bf4e0818d9d / baby-route-1-public.

Route tables (1/7) info

Name	Route table ID	Explicit subnet associations
rao-route-2-private	rtb-00ae8063c52314a4a	subnet-0204d5aa
-	rtb-08b0525906d1551ab	-
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beb
baby-route-1-public	rtb-01c9d2bf4e0818d9d	subnet-0bc2c92a5
-	rtb-0174ff92d17c30101	-
<input checked="" type="checkbox"/> baby-route-2-private	rtb-0aee32ec1eb6f2d7e	-

Actions ▾ Create route table

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

rtb-0aee32ec1eb6f2d7e / baby-route-2-private

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Route table ID Main Explicit subnet associations Edge associations

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

101)

Activities Firefox Web Browser

EditRouteTableSubnetAssociations X Vpc peering - Google Doc X Jul 9 17:40

https://ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#EditRouteTableSubnetAssociations:

VPC > Route tables > rtb-0aee32ec1eb6f2d7e > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
baby-subnet-1-public	subnet-0bc2c92a58d7fac96	198.0.0.0/24	-	rtb-01c9d2bf4e0818d9d / baby-route-1-public
<input checked="" type="checkbox"/> baby-subnet-2-private	subnet-01d5918ce75d64e58	198.0.30.0/24	-	Main (rtb-0174ff92d17c30101)

Selected subnets

subnet-01d5918ce75d64e58 / baby-subnet-2-private X

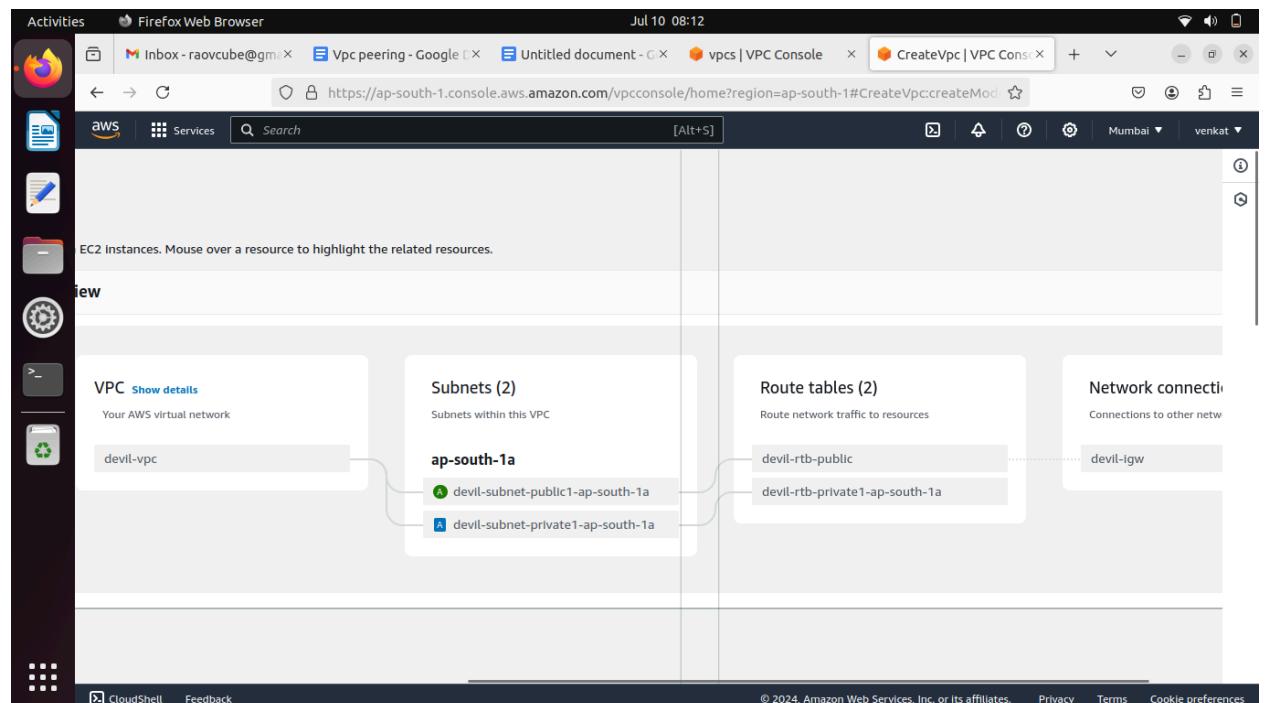
Cancel Save associations

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

You have successfully updated subnet associations for rtb-0aee32ec1eb6f2d7e / baby-route-2-private.

Name	Route table ID	Explicit subnet assoc...	Edge associations	Main
rao-route-2-private	rtb-00ae08063c52314a4a	subnet-0204d5aaca7099...	-	No
-	rtb-08b0525906d1551ab	-	-	Yes
rao-route-1-public	rtb-0f6c20ca400e4bd60	subnet-01a33beba708fa...	-	No
baby-route-1-public	rtb-01c9d2bf4e081bd9d	subnet-0bc2c92a58d7fac...	-	No
-	rtb-0174ff92d17c30101	-	-	Yes
<input checked="" type="checkbox"/> baby-route-2-private	rtb-0aee32ec1eb6f2d7e	subnet-01d5918ce75d64...	-	No

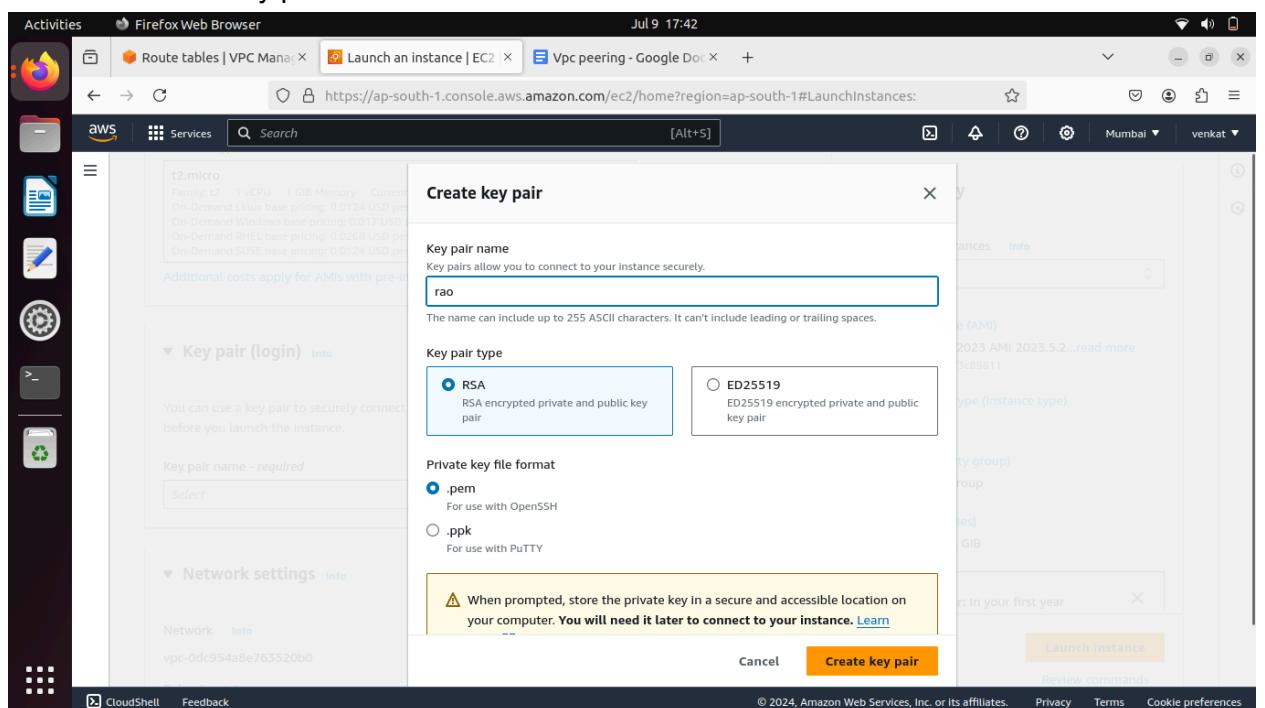
- 102)
- 103) Now crate 3rd vpc
- 104) name= devil
- 105) Ip range 120.0.0.0/16
- 106) Create and add subnets route stables and internet gateway same as above steps and associate routes and subnets also



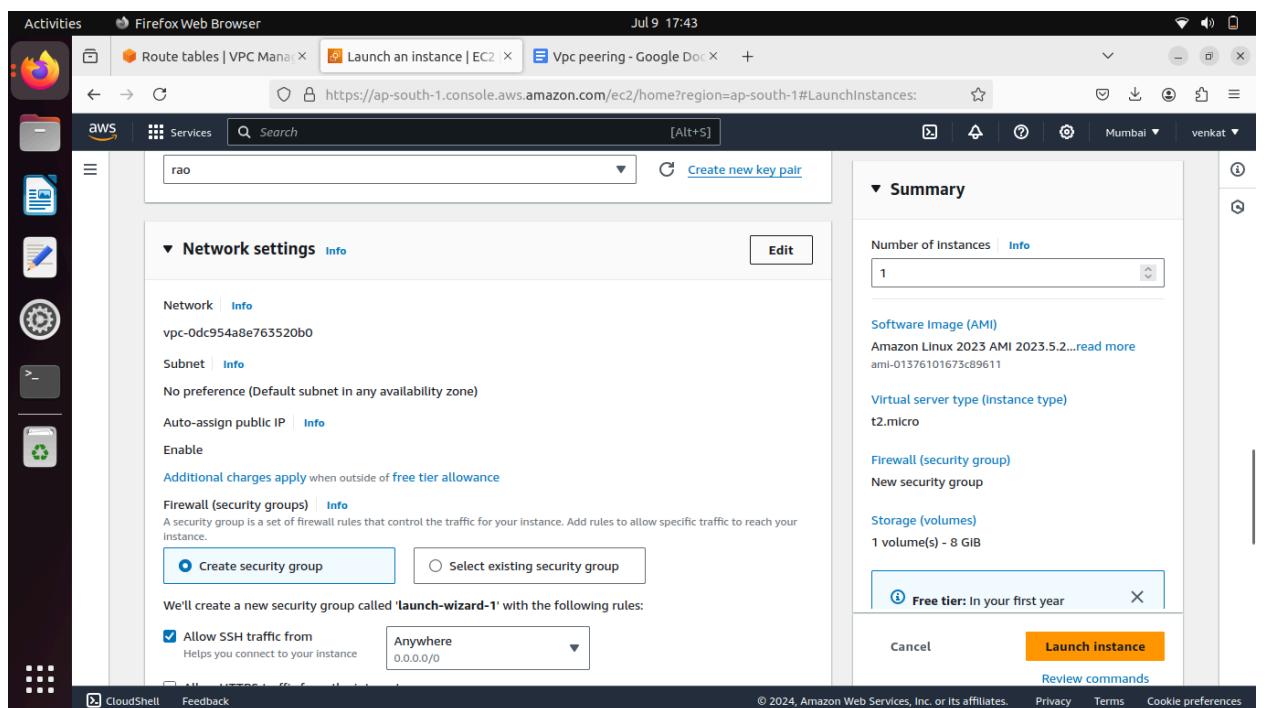
- 107)
- 108) Now go to ec2 and create ec2 instance using rao-vpc and login it
- 109) Ec2 and click launch instance

110) name=rao

111) Click create new key pair name=rao create



112)

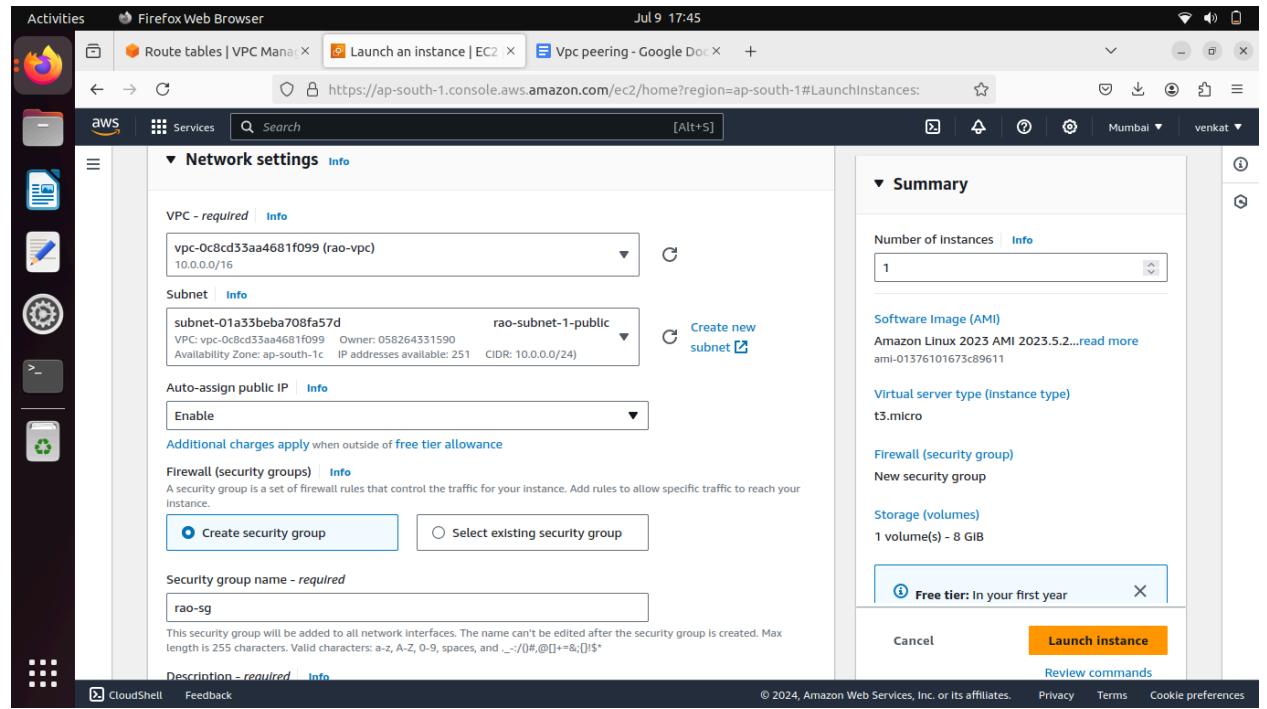


113)

114) Click edit networking settings

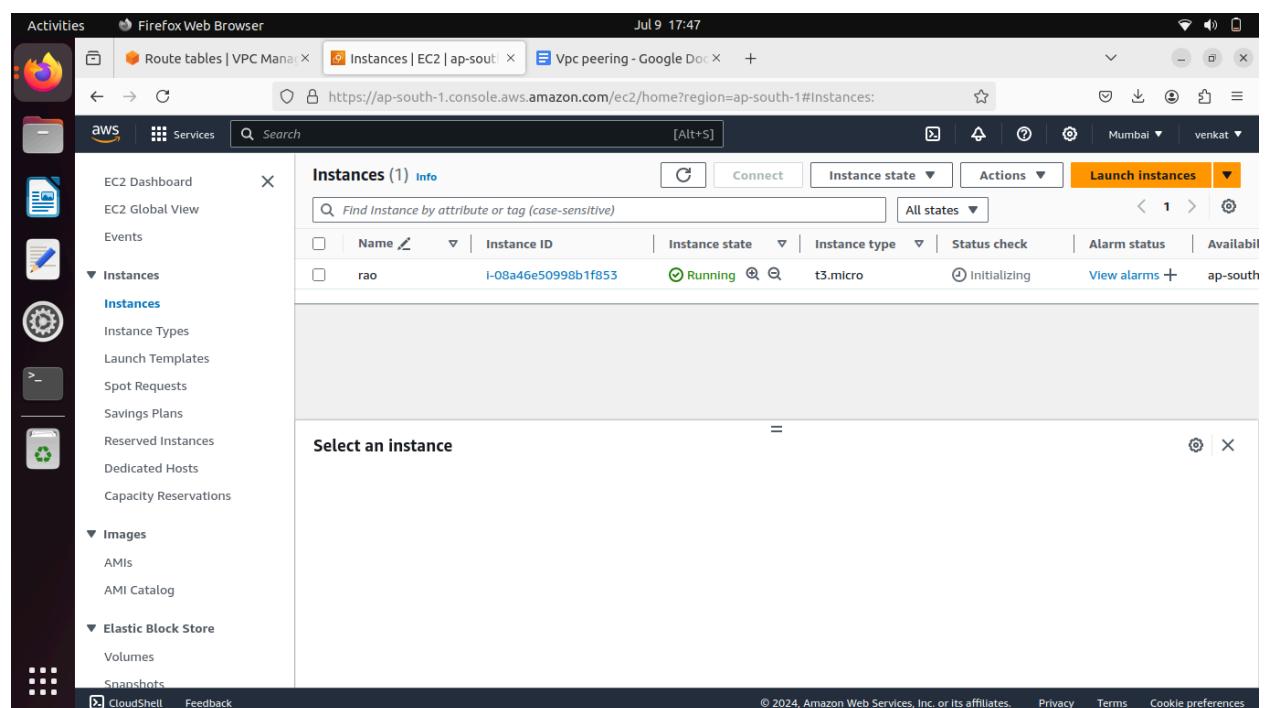
115) `vpc=rao-vpc`

116) Subnet = public one and select associate ip = enable and create security group
name=rao-sg



117)

118) Click launch instance



119)

120) Login it

121) And install nginx

Activities Terminal ec2-user@ip-10-0-0-137:~ Jul 9 17:50

```
challa@challa-HP-Laptop-15-da0xxx:~/Downloads$ cd Downloads/
challa@challa-HP-Laptop-15-da0xxx:~/Downloads$ ll
total 12
drwxr-xr-x  2 challa challa 4096 Jul  9 17:42 .
drwxr-x--- 17 challa challa 4096 Jul  9 14:32 ..
-rw-rw-r--  1 challa challa 1678 Jul  9 17:42 rao.pem
challa@challa-HP-Laptop-15-da0xxx:~/Downloads$ chmod 400 rao.pem
challa@challa-HP-Laptop-15-da0xxx:~/Downloads$ ssh -i "rao.pem" ec2-user@15.207.101.200
The authenticity of host '15.207.101.200 (15.207.101.200)' can't be established.
ED25519 key fingerprint is SHA256:UMLz0l70sc70D8kAPdK74cEApCbQRw/2BJHT+8YWcg.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '15.207.101.200' (ED25519) to the list of known hosts.
```

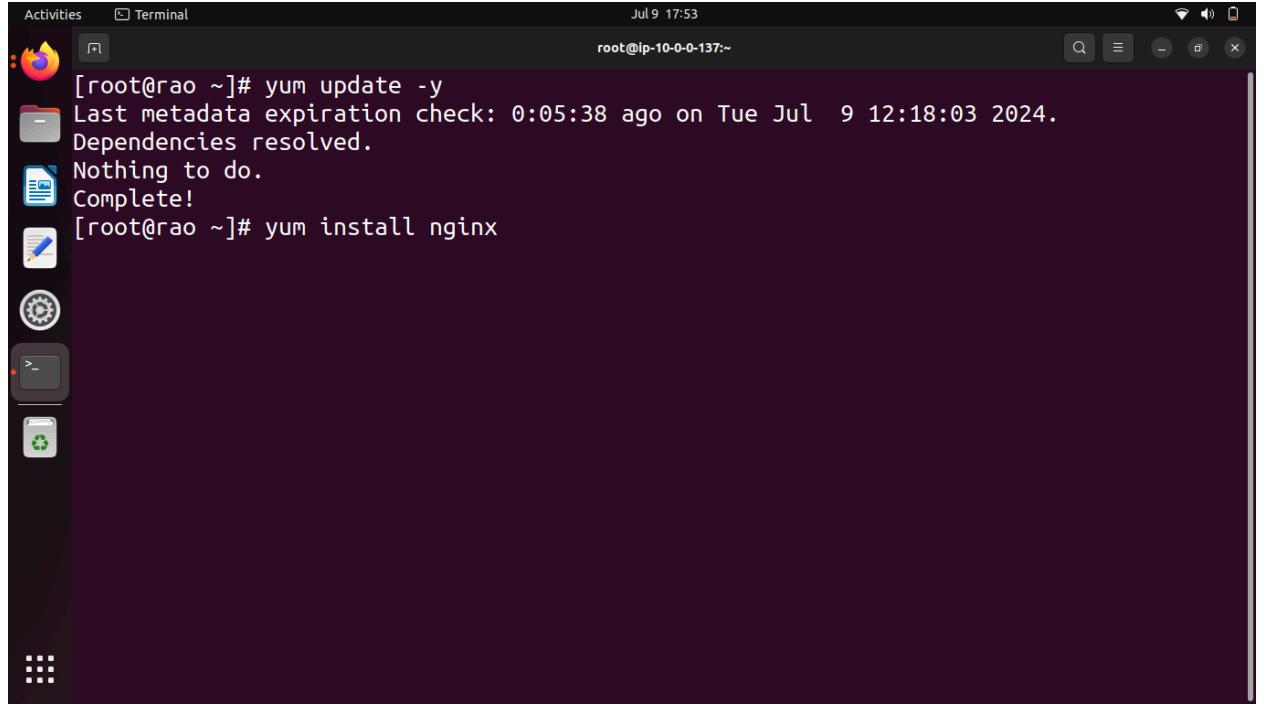
122)

Activities Terminal root@ip-10-0-0-137:~ Jul 9 17:51

```
[ec2-user@ip-10-0-0-137 ~]$ sudo -i
[root@ip-10-0-0-137 ~]# hostnamectl set-hostname rao
[root@ip-10-0-0-137 ~]# exec bash
[root@rao ~]#
```

123)

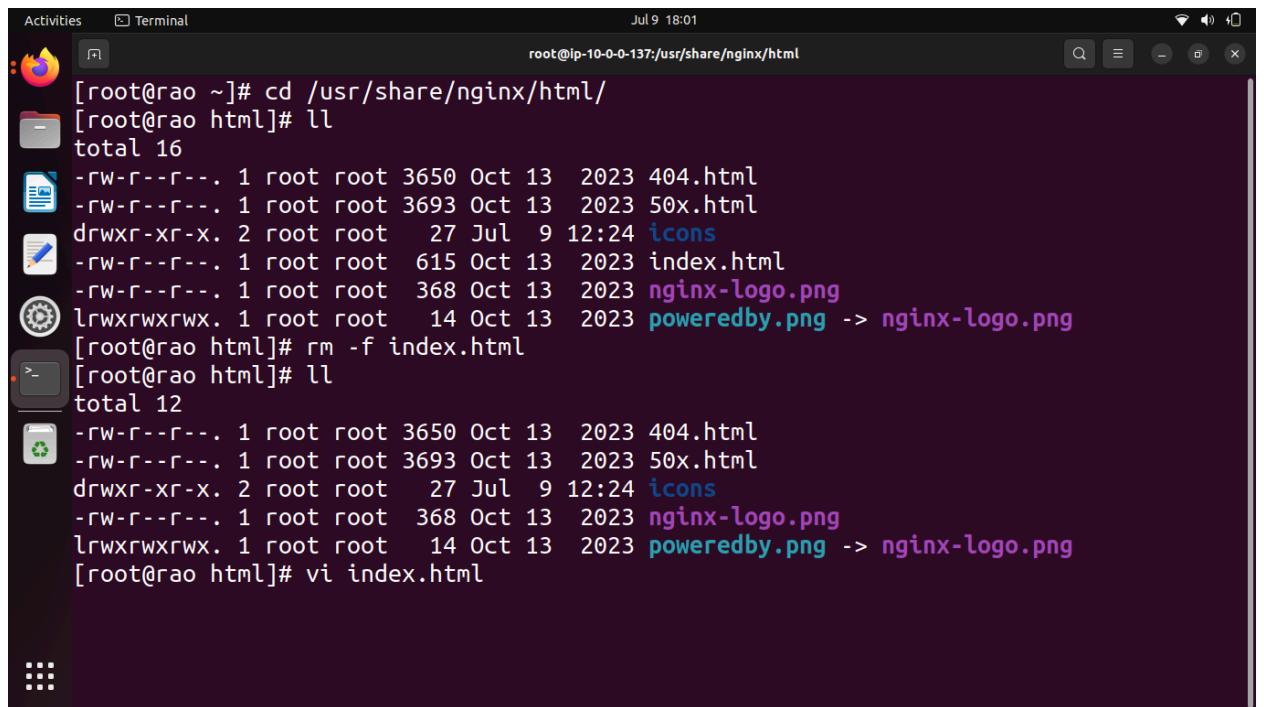
124) #yum update -y



A screenshot of a Linux desktop environment. On the left is a vertical dock with icons for a browser, file manager, terminal, and system settings. The main area shows a terminal window titled 'Terminal' with the command 'root@ip-10-0-0-137:~#'. The output of the terminal shows:

```
[root@rao ~]# yum update -y
Last metadata expiration check: 0:05:38 ago on Tue Jul  9 12:18:03 2024.
Dependencies resolved.
Nothing to do.
Complete!
[root@rao ~]# yum install nginx
```

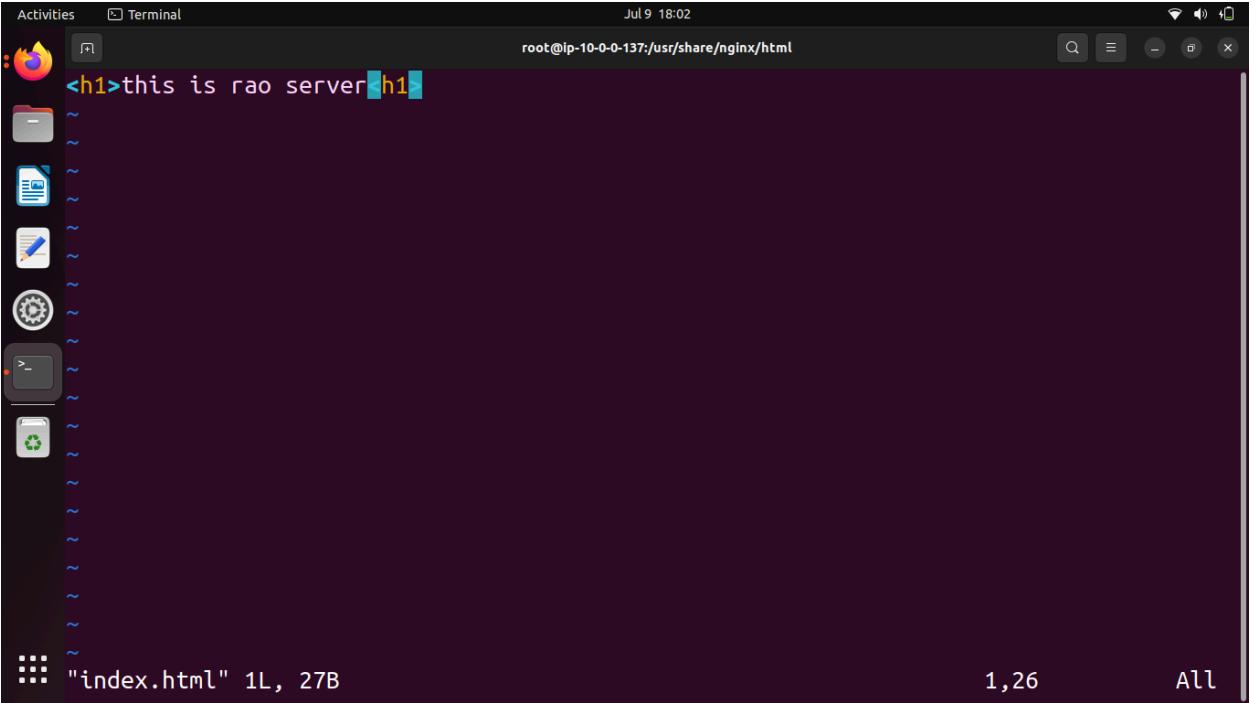
- 125)
- 126) #yum nginx -y
- 127) Now go to #cd /user/share/nginx/html
- 128) #rm -f index.html
- 129) #vi index.html (inside write <h1>this rao server<h1>) and save it



A screenshot of a Linux desktop environment. On the left is a vertical dock with icons for a browser, file manager, terminal, and system settings. The main area shows a terminal window titled 'Terminal' with the command 'root@ip-10-0-0-137:/usr/share/nginx/html#'. The output of the terminal shows:

```
[root@rao ~]# cd /usr/share/nginx/html/
[root@rao html]# ll
total 16
-rw-r--r--. 1 root root 3650 Oct 13 2023 404.html
-rw-r--r--. 1 root root 3693 Oct 13 2023 50x.html
drwxr-xr-x. 2 root root   27 Jul  9 12:24 icons
-rw-r--r--. 1 root root  615 Oct 13 2023 index.html
-rw-r--r--. 1 root root  368 Oct 13 2023 nginx-logo.png
lrwxrwxrwx. 1 root root   14 Oct 13 2023 poweredby.png -> nginx-logo.png
[root@rao html]# rm -f index.html
[root@rao html]# ll
total 12
-rw-r--r--. 1 root root 3650 Oct 13 2023 404.html
-rw-r--r--. 1 root root 3693 Oct 13 2023 50x.html
drwxr-xr-x. 2 root root   27 Jul  9 12:24 icons
-rw-r--r--. 1 root root  368 Oct 13 2023 nginx-logo.png
lrwxrwxrwx. 1 root root   14 Oct 13 2023 poweredby.png -> nginx-logo.png
[root@rao html]# vi index.html
```

- 130)



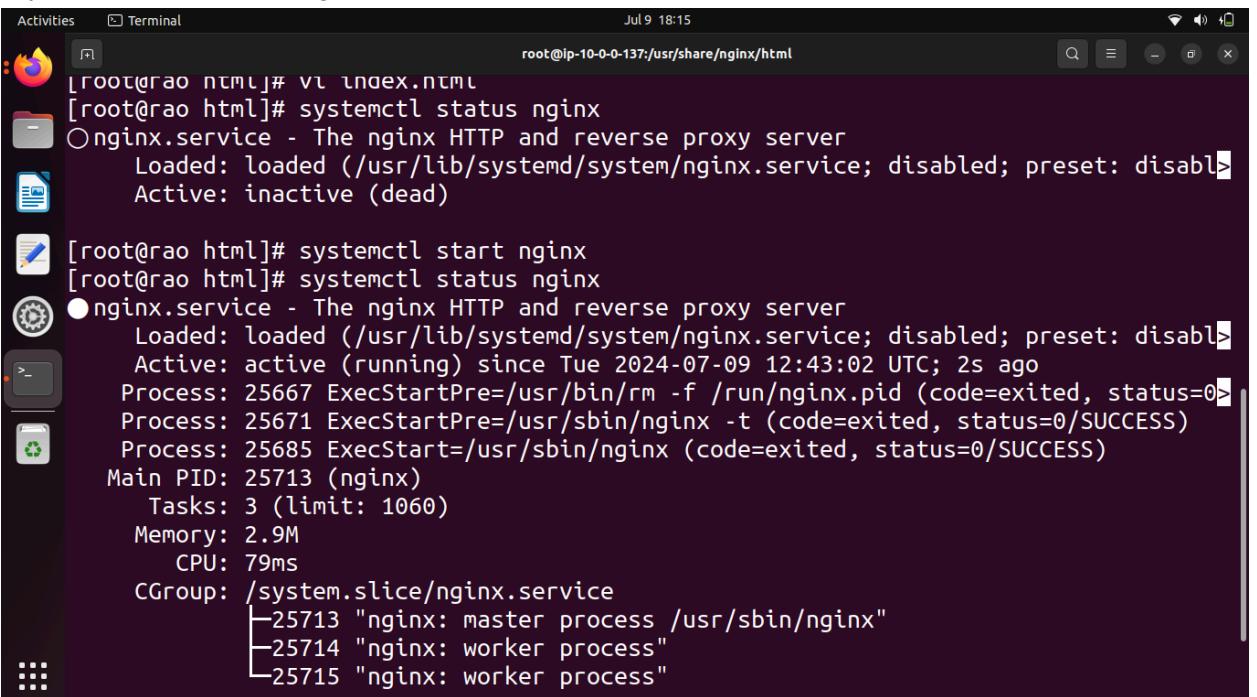
Activities Terminal Jul 9 18:02
root@ip-10-0-0-137:/usr/share/nginx/html

```
<h1>this is rao server</h1>
```

131) "index.html" 1L, 27B 1,26 All

132) Now check #systemctl status nginx

133) #systemctl restart/start nginx



Activities Terminal Jul 9 18:15
root@ip-10-0-0-137:/usr/share/nginx/html

```
[root@rao ~]# vi index.html
[root@rao html]# systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; preset: disabled)
   Active: inactive (dead)

[root@rao html]# systemctl start nginx
[root@rao html]# systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; preset: disabled)
   Active: active (running) since Tue 2024-07-09 12:43:02 UTC; 2s ago
     Process: 25667 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
     Process: 25671 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
     Process: 25685 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
   Main PID: 25713 (nginx)
      Tasks: 3 (limit: 1060)
     Memory: 2.9M
        CPU: 79ms
      CGroup: /system.slice/nginx.service
              └─25713 "nginx: master process /usr/sbin/nginx"
                  ├─25714 "nginx: worker process"
                  ├─25715 "nginx: worker process"
```

134)

135) Select rao server click security

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with various services like EC2 Dashboard, EC2 Global View, Events, Instances (selected), Images, and Elastic Block Store. The main area displays a table with one row for an instance named 'rao'. The instance details are as follows:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
rao	i-08a46e50998b1f853	Running	t3.micro	2/2 checks passed	View alarms

Below the table, there's a detailed view for the instance 'i-08a46e50998b1f853 (rao)'. Under the 'Security' tab, it shows the IAM Role (empty) and Owner ID (058264331590). Under 'Launch time', it shows Tue Jul 09 2024 17:47:20 GMT+0530 (India Standard Time).

- 136)
- 137) Click rao-sg
- 138) Click edit inbound rules
- 139) Add rule add http port 80 save changes

The screenshot shows the same AWS EC2 Instances page as before, but now the 'Inbound rules' section is visible at the bottom of the instance details. It includes a search bar labeled 'Filter rules'.

- 140)

141)

The screenshot shows the AWS EC2 Security Groups Details page for a security group named 'rao-sg'. The 'Inbound rules' tab is selected, displaying one rule: 'sgr-0b690a029204f0956' allowing SSH traffic (TCP port 22) from '0.0.0.0/0'. The 'Outbound rules' and 'Tags' tabs are also visible.

Name	Security group rule ID	IP version	Type	Protocol
-	sgr-0b690a029204f0956	IPv4	SSH	TCP

142)

The screenshot shows the 'Edit inbound rules' page for the same security group. A single rule is listed: 'sgr-0b690a029204f0956' allowing SSH traffic (TCP port 22) from '0.0.0.0/0'. A warning message at the bottom notes that rules with source '0.0.0.0/0' or '::/0' allow all IP addresses. Buttons for 'Cancel', 'Preview changes', and 'Save rules' are at the bottom right.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0b690a029204f0956	SSH	TCP	22	Cus... 0.0.0.0/0	Info

Inbound rules

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0b690a029204f0956	SSH	TCP	22	Cus... 0.0.0.0/0	Info Delete
-	HTTP	TCP	80	Any... 0.0.0.0/0	Info Delete

Add rule

Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

143)

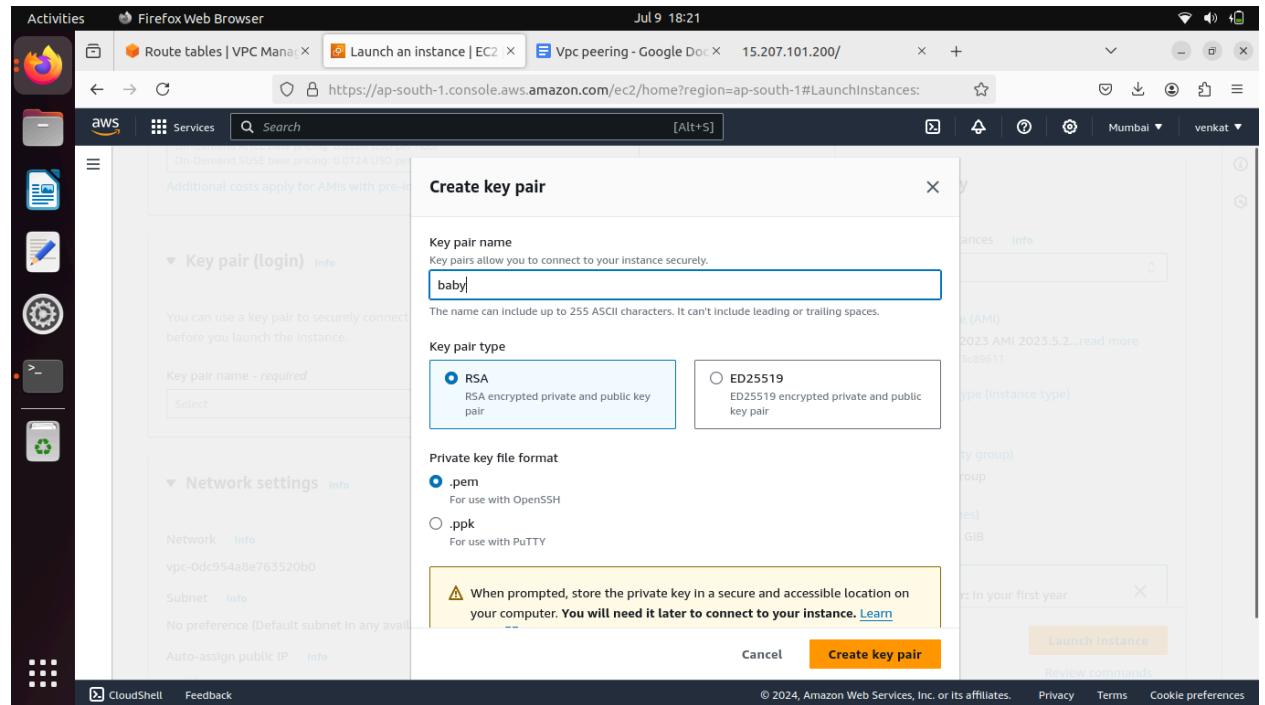
144) Now take rao public ip and paste in google 15.207.101.200:80 enter

this is rao server

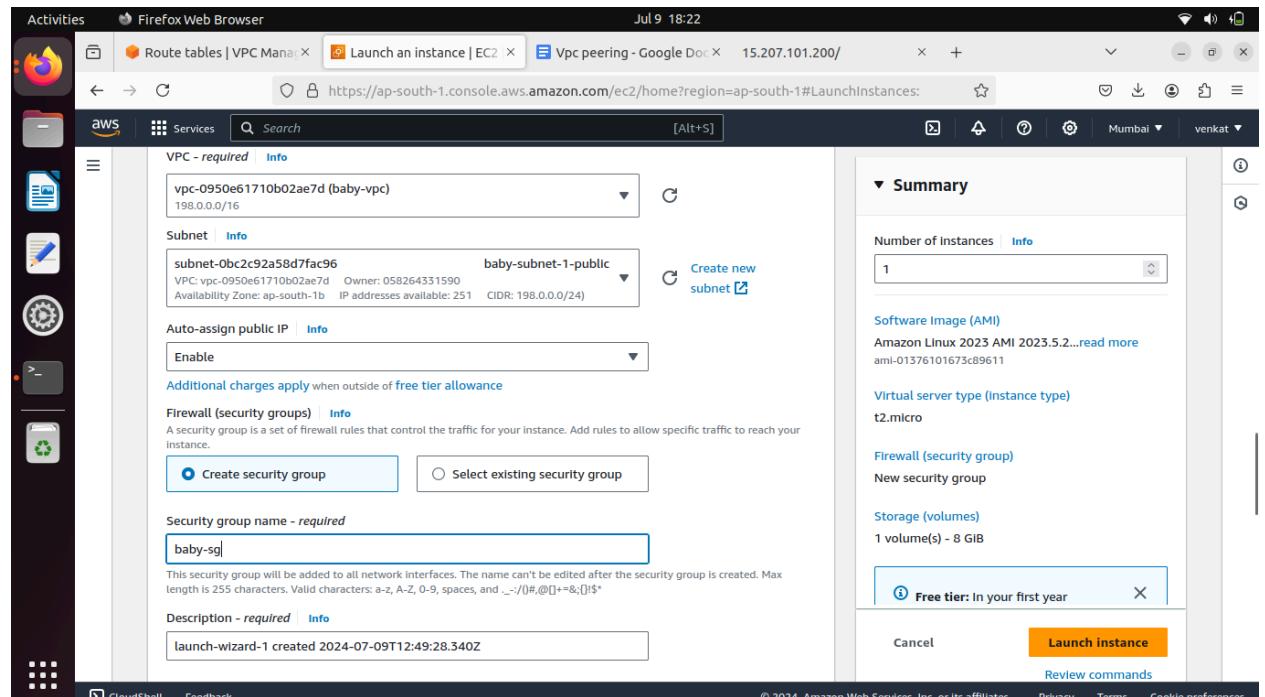
145)

146) Now create another server and attach with baby vpc and connect and install nginx
147) name=baby

148)

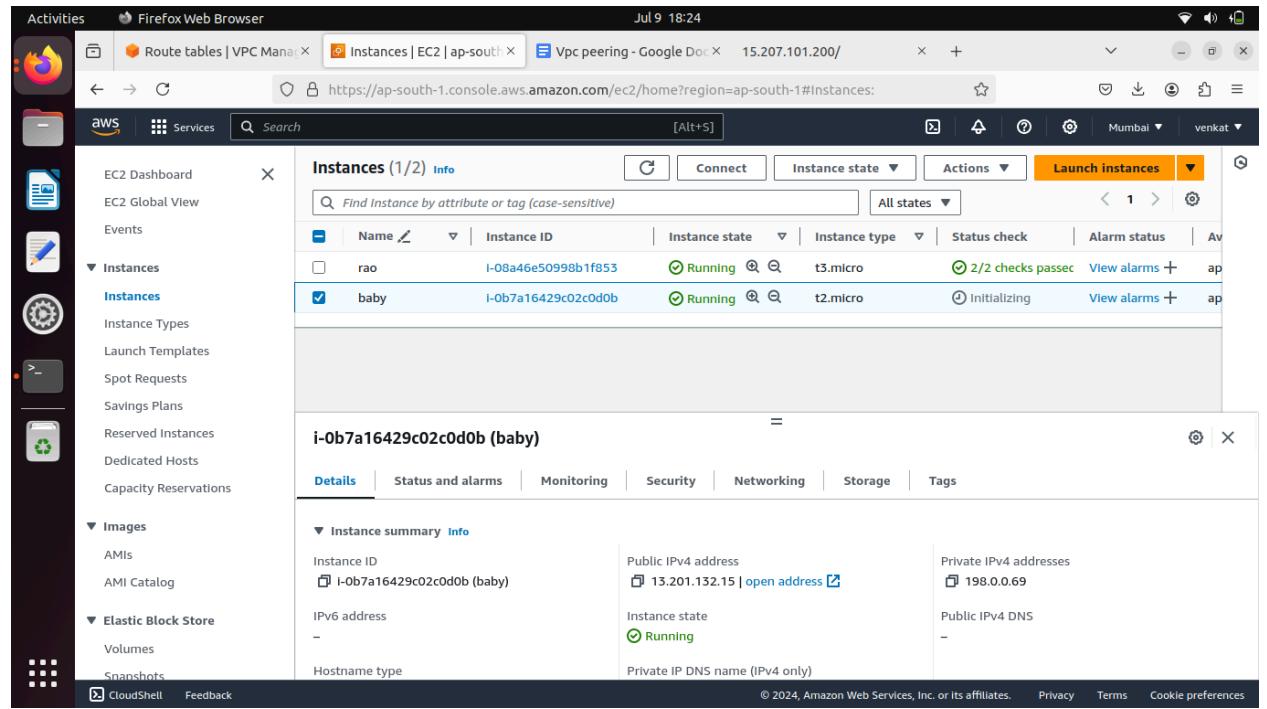


149)



150)

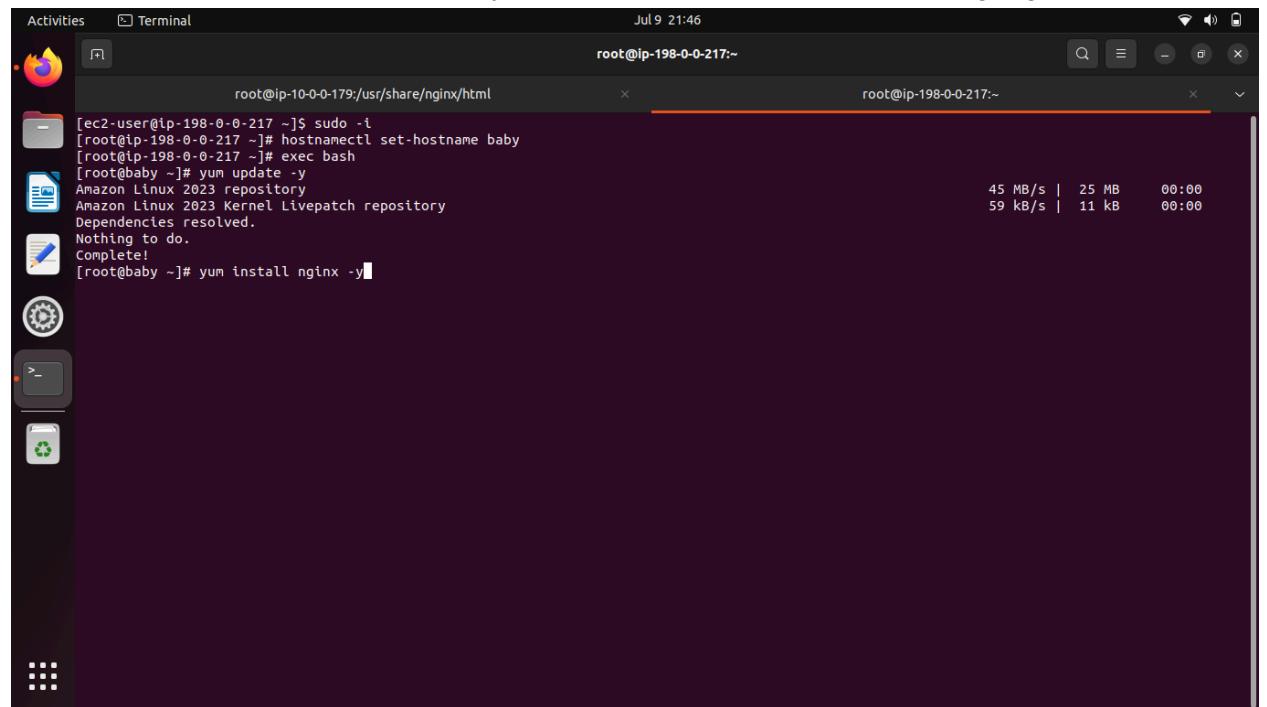
Click add rule in sg add http and launch instance



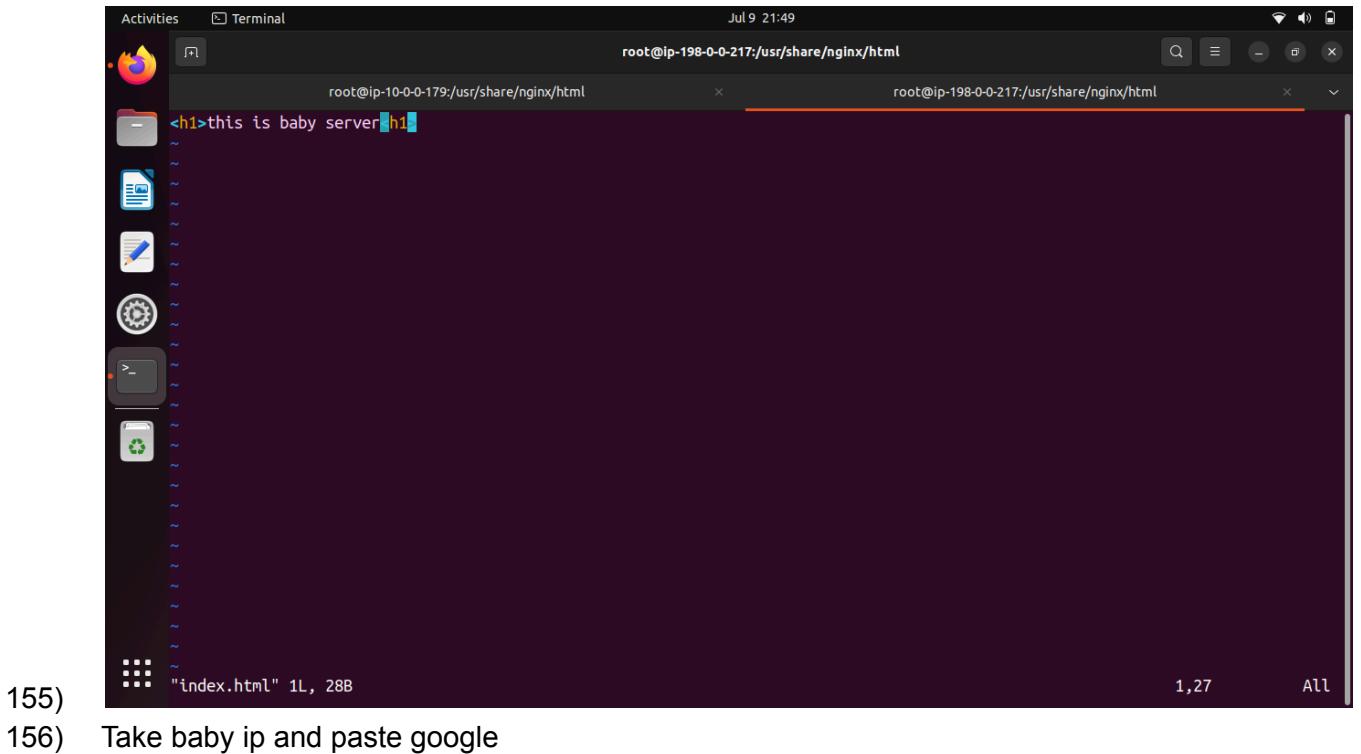
151)

152) Connect it install nginx

153) And remove old index file and create your index file take public ip check in google



154)

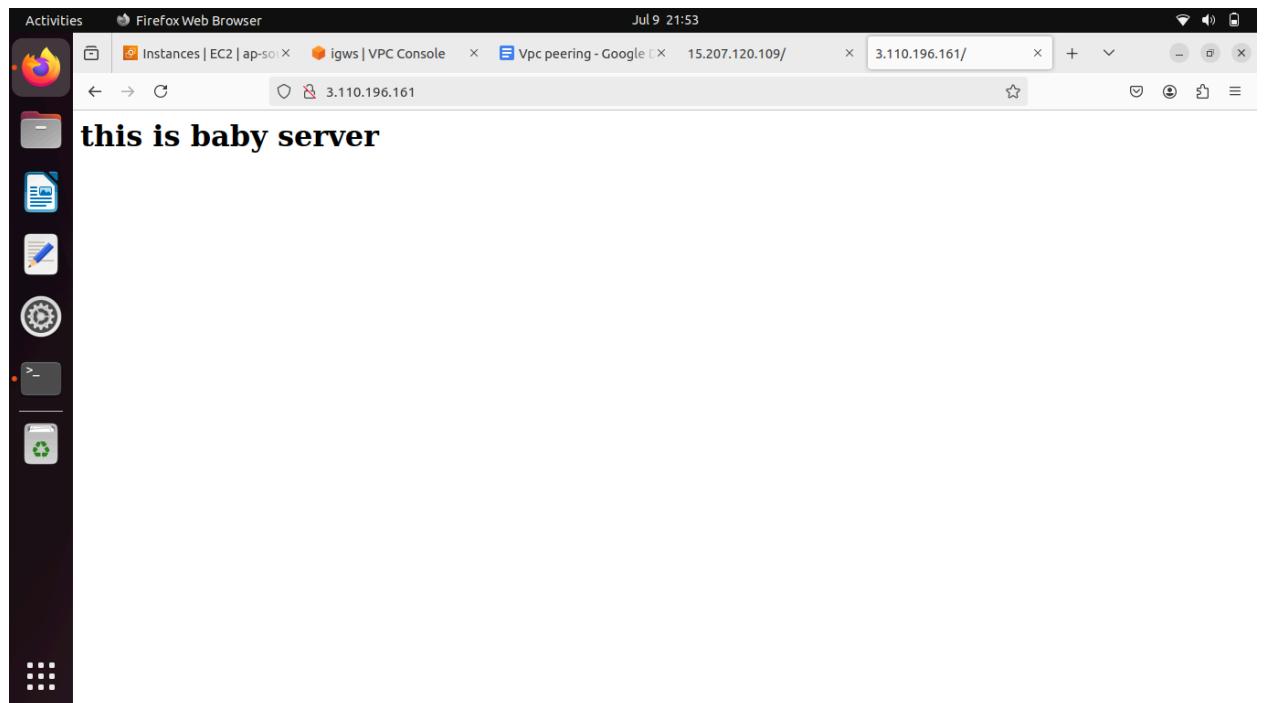


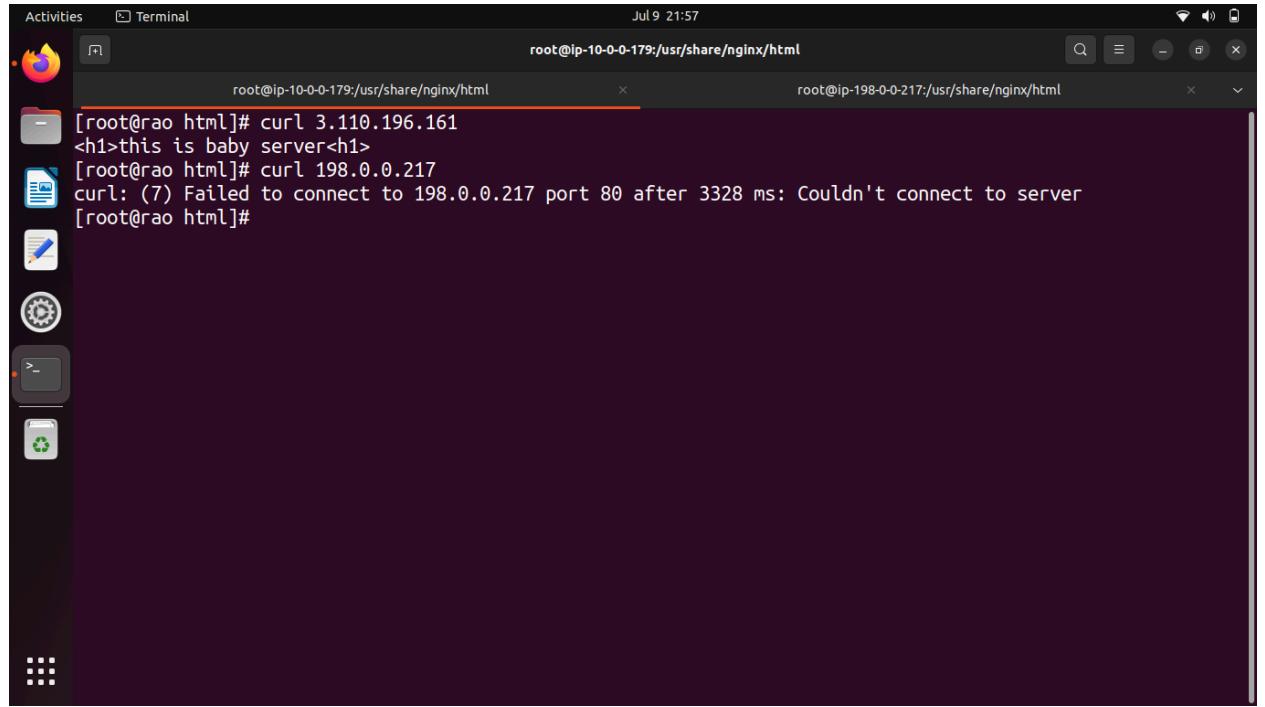
155)

156) Take baby ip and paste google

157)

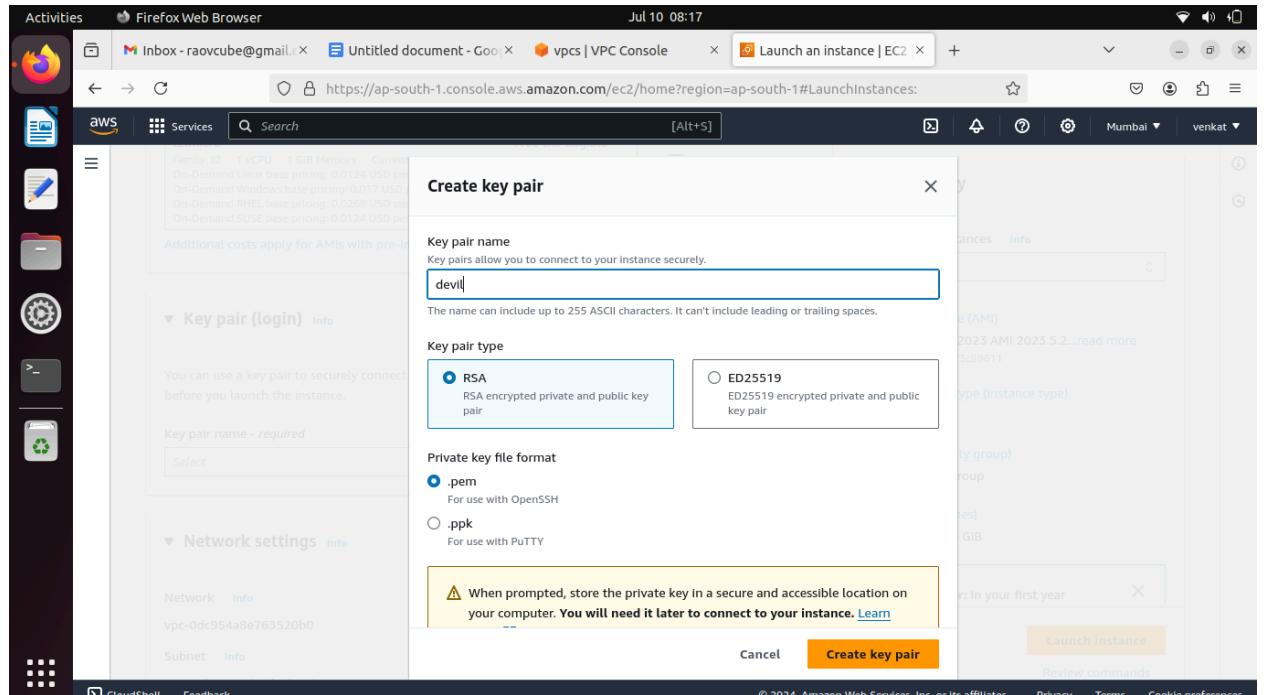
158) Now take private ip login rao server #curl baby sever private ip its ping connection establish other wise not establish





```
[root@rao html]# curl 3.110.196.161
<h1>this is baby server<h1>
[root@rao html]# curl 198.0.0.217
curl: (7) Failed to connect to 198.0.0.217 port 80 after 3328 ms: Couldn't connect to server
[root@rao html]#
```

- 159)
- 160) Now launch one more server devil using devil-vpc
- 161) Vpc name =devil
- 162) Keypair name = devil



- 163)
- 164) vpc= devil vpc
- 165) Subnet public one
- 166) Ip enable
- 167) sg= devil-sg

168) Add rule = http cidr 0.0.0.0/0 click launch instances

Activities Firefox Web Browser Jul 10 08:20

Inbox - raovcube@gmail.com Untitled document - Google vpcs | VPC Console Launch an instance | EC2 +

aws Services Search [Alt+S]

VPC - required info

vpc-0d9897c7151097df5 (devil-vpc) 120.0.0.16

Subnet Info

subnet-006e7cd1c70db8b12c devil-subnet-public1-ap-south-1a

VPC: vpc-0d9897c7151097df5 Owner: 05264331590 Availability Zone: ap-south-1a IP addresses available: 4091 CIDR: 120.0.0.16

Create new subnet

Auto-assign public IP Info

Enable Additional charges apply when outside of free tier allowance

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

devil-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-~!@#\$%^&_!\$^

Description - required Info

launch-wizard-1 created 2024-07-10T02:46:34.956Z

Inbound Security Group Rules

https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#CreateSubnet: © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Summary

Number of Instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.5.2...read more ami-01376101673c89611

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GB

Free tier: In your first year

Cancel Launch instance Review commands

Activities Firefox Web Browser Jul 10 08:20

Inbox - raovcube@gmail.com Untitled document - Google vpcs | VPC Console Launch an instance | EC2 +

aws Services Search [Alt+S]

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type Info Protocol Info Port range Info

ssh TCP 22

Source type Info Source Info Description - optional Info

Anywhere Add CIDR, prefix list or security group e.g. SSH for admin desktop

0.0.0.0/0 X

Security group rule 2 (TCP, 80, 0.0.0.0/0)

Type Info Protocol Info Port range Info

HTTP TCP 80

Source type Info Source Info Description - optional Info

Custom Add CIDR, prefix list or security group e.g. SSH for admin desktop

0.0.0.0/0 X

CloudShell Feedback

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Summary

Number of Instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.5.2...read more ami-01376101673c89611

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GB

Free tier: In your first year

Cancel Launch instance Review commands

169) Click launch instance

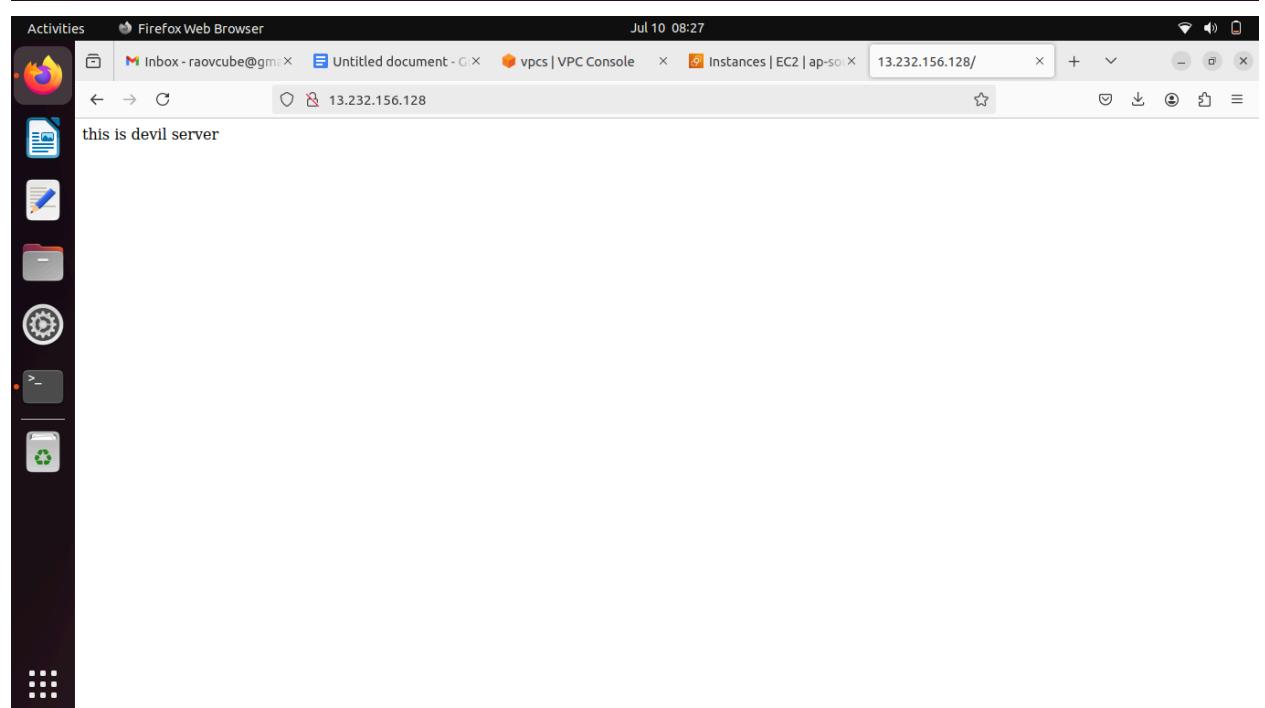
170) Connect it and set host name and install nginx and set index file this is devil

171) Check using public ip through google

172)

```
Activities Terminal Jul 10 08:24
root@ip-120-0-13-118:~$ sudo -i
[ec2-user@ip-120-0-13-118 ~]# hostnamectl set-hostname devil
[ec2-user@ip-120-0-13-118 ~]# exec bash
[root@devil ~]# yum update -y
Last metadata expiration check: 0:02:34 ago on Wed Jul 10 02:51:53 2024.
Dependencies resolved.
Nothing to do.
Complete!
[root@devil ~]# yum install nginx -y
```

173)



174)

Now take private ip of baby or rao server do curl it get or not

175) We are not getting it shows error

```
Activities Terminal Jul 10 08:40
root@ip-120-0-13-118:/usr/share/nginx/html#
[root@devil ~]# cd /usr/share/nginx/html/
[root@devil html]# ll
total 16
-rw-r--r--. 1 root root 3650 Oct 13 2023 404.html
-rw-r--r--. 1 root root 3693 Oct 13 2023 50x.html
drwxr-xr-x. 2 root root 27 Jul 10 02:54 icons
-rw-r--r--. 1 root root 615 Oct 13 2023 index.html
-rw-r--r--. 1 root root 368 Oct 13 2023 nginx-logo.png
lrwxrwxrwx. 1 root root 14 Oct 13 2023 poweredby.png -> nginx-logo.png
[root@devil html]# rm -f index.html
[root@devil html]# vi index.html
[root@devil html]# systemctl restart nginx
[root@devil html]# curl 13.232.156.128
this is devil server
[root@devil html]# curl 10.0.0.179
curl: (28) Failed to connect to 10.0.0.179 port 80 after 132569 ms: Couldn't connect to server
[root@devil html]#
```

176)

177) Now start transit gateway peering

178) Vpc go to transit gateway create transit gateway name rao-baby-devil

179) Click create create

The screenshot shows the 'Create transit gateway' page in the AWS VPC service. The 'Details - optional' section contains a 'Name tag' field with the value 'rao-baby-devil'. The 'Configure the transit gateway' section includes fields for 'Amazon side Autonomous System Number (ASN)' (set to 'ASN'), 'DNS support' (checked), and 'VPN ECMP support' (checked). The page header shows the URL as https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#CreateTransitGateway: and the browser title as 'VPC | ap-south-1'.

180)

The screenshot shows the AWS VPC dashboard. On the left, there's a sidebar with icons for EC2 Global View, Virtual private cloud, and other VPC-related services. The main area is titled 'Transit gateways (1)'. It shows a table with one row for 'rao-baby-devil' (tgw-04da7866a871aeaca), which is marked as 'Available'. A message at the top says, 'You can visualize and monitor your Transit Gateway(s) from the AWS Network Manager. Register your Transit Gateway by creating a global network to get started.'

181)

182) Now go to **transit gateway attachments**

183) Click **create transit gateway attachments**

The screenshot shows the AWS Services page with the 'Transit gateway attachments' section selected. The sidebar includes options like Verified Access endpoints, Transit gateways, Traffic Mirroring, and VPC Lattice. The main area displays a message: 'No transit gateway attachments' and 'You do not have any transit gateway attachments in this region'. A 'Create transit gateway attachment' button is visible.

184)

185) Name =rao transite gateway = rao-baby-devil and vpc =rao and click click attachments

Activities Firefox Web Browser Jul 10 08:59

Inbox - raovcube@gmail.com Untitled document - G VPC | ap-south-1 Instances | EC2 | ap-south-1 13.232.156.128/

aws Services Search [Alt+S]

VPC > Transit gateway attachments > Create transit gateway attachment

Create transit gateway attachment Info

A transit gateway (TGW) is a network transit hub that interconnects attachments (VPCs and VPNs) within the same AWS account or across AWS accounts.

Details

Name tag - optional
Creates a tag with the key set to Name and the value set to the specified string.

Transit gateway ID Info

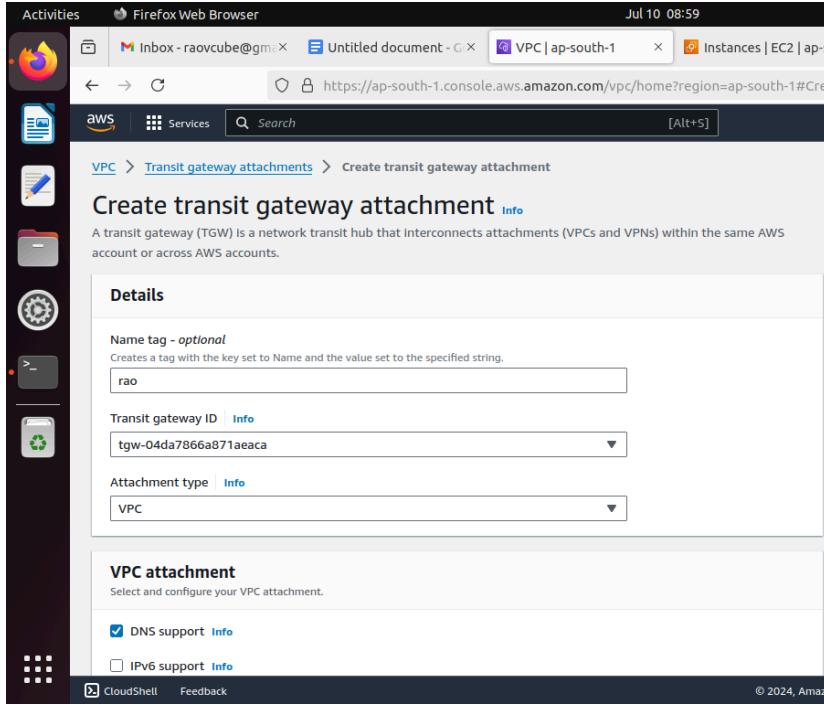
Attachment type Info

VPC attachment
Select and configure your VPC attachment.

DNS support Info
 IPv6 support Info

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

186)



Activities Firefox Web Browser Jul 10 08:59

Inbox - raovcube@gmail.com Untitled document - G VPC | ap-south-1 Instances | EC2 | ap-south-1 13.232.156.128/

aws Services Search [Alt+S]

VPC attachment

Select and configure your VPC attachment.

DNS support Info
 IPv6 support Info
 Appliance Mode support Info

VPC ID
Select the VPC to attach to the transit gateway.

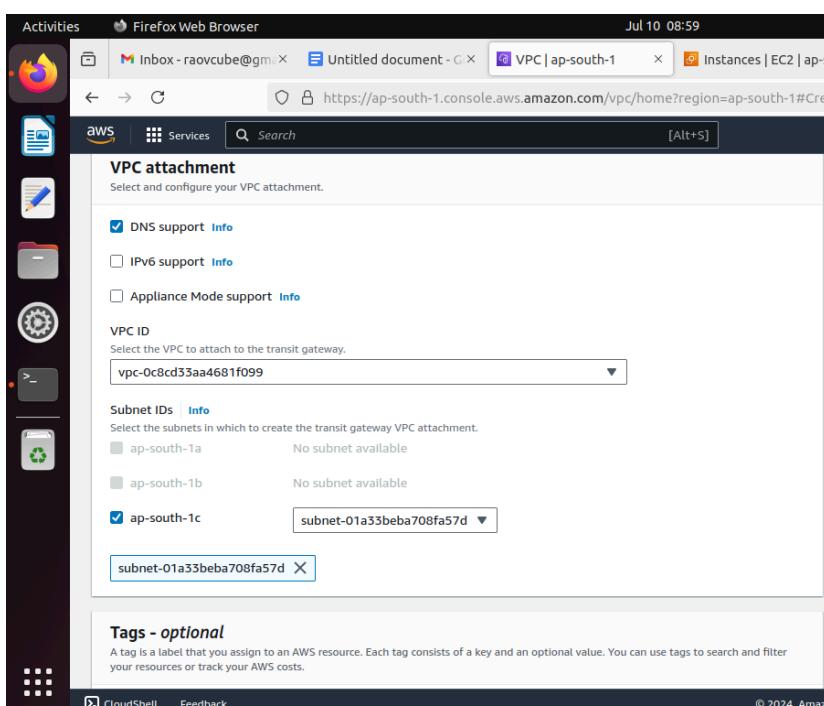
Subnet IDs Info
Select the subnets in which to create the transit gateway VPC attachment.

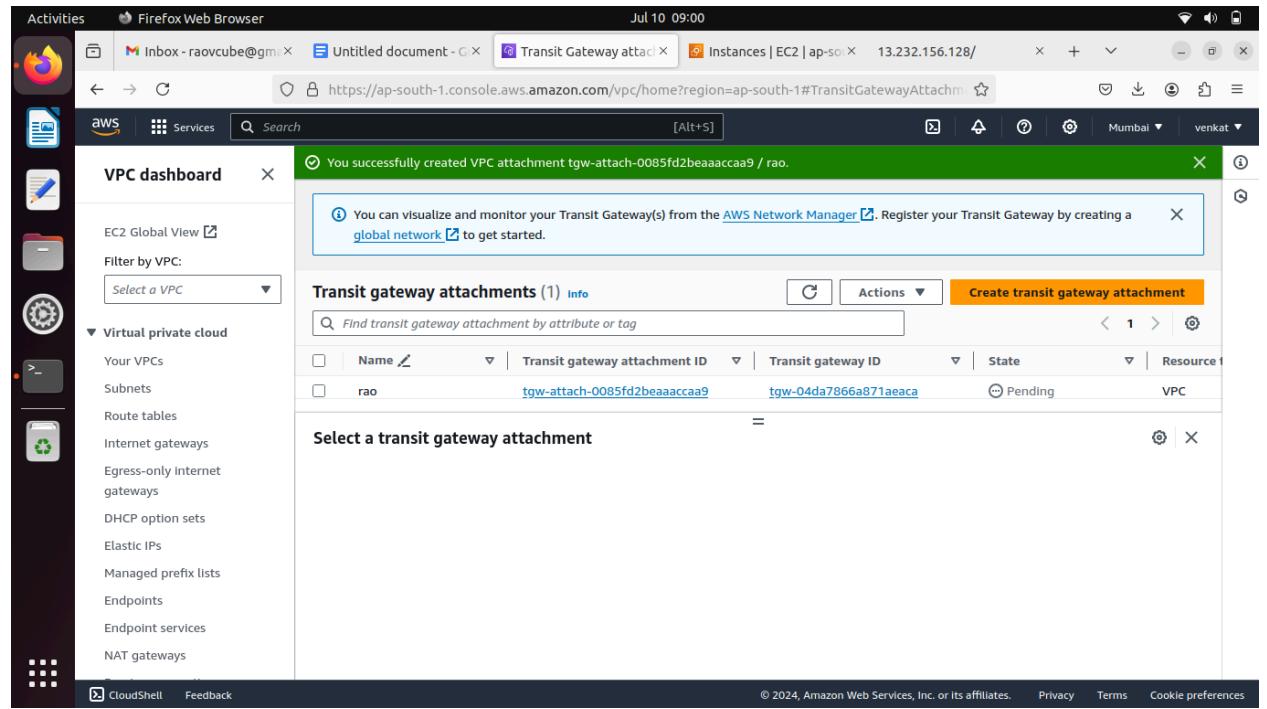
ap-south-1a No subnet available
 ap-south-1b No subnet available
 ap-south-1c X

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.

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

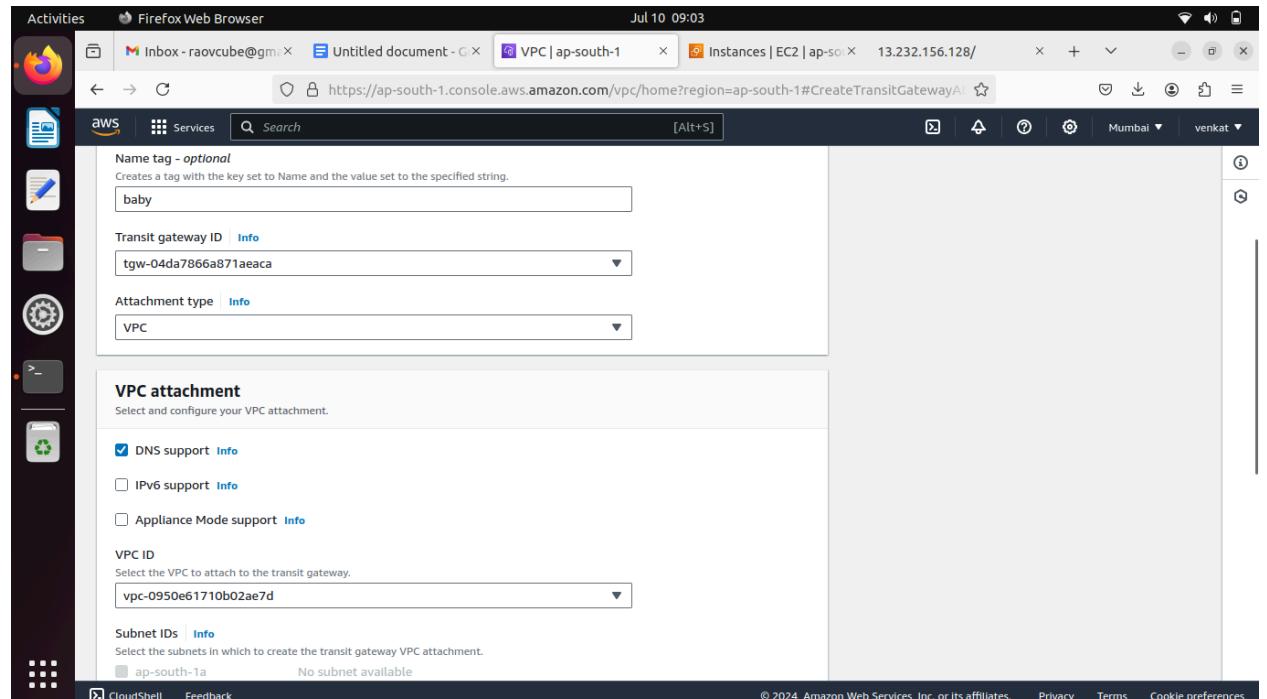
187)





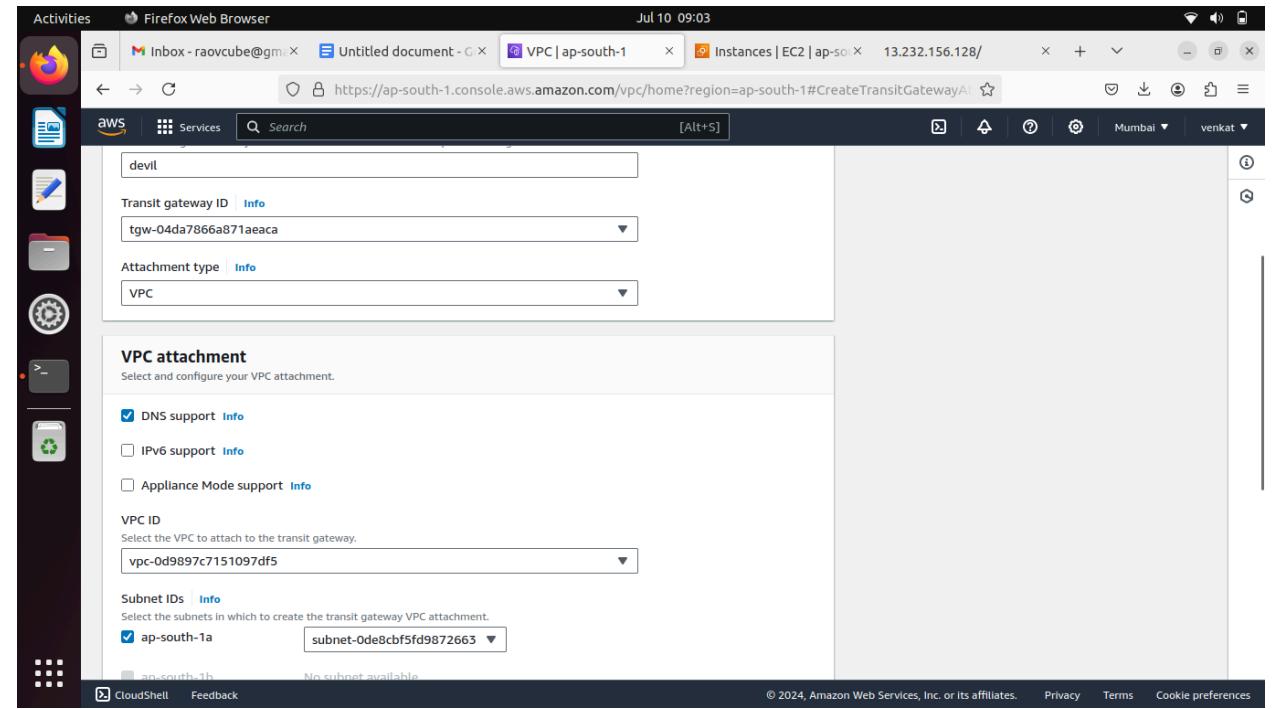
188)

- 189) Name =baby transite gateway = rao-baby-devil and vpc =rao and click click attachments

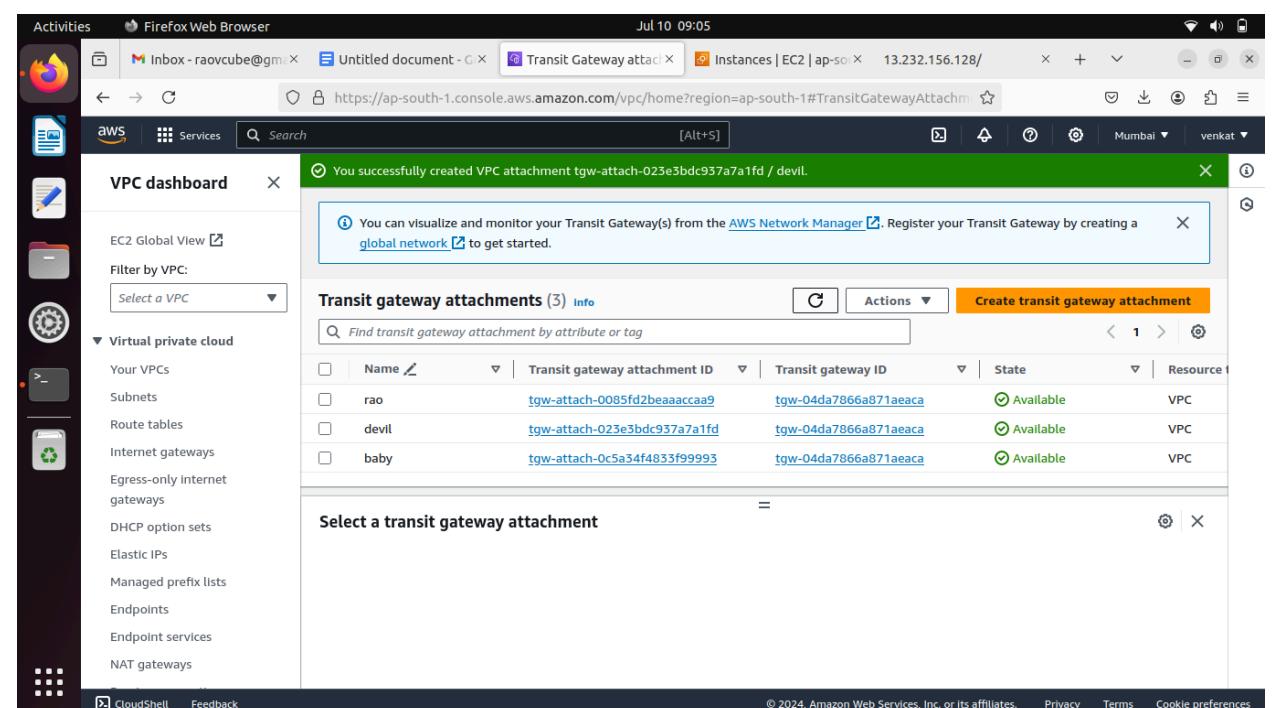


190)

- 191) Name =devil transite gateway = rao-baby-devil and vpc =rao and click click attachments



192)



193)

194) Now go to route table and add routes transit gateway all public and private total 6 routes

195) Now go to route table

196) Select rao-route-1-public click actions edit rotes and add route duration=use here
baby vpc ip and devil vpc ip both rules add target=transit gateway select baby-rao-devil
save changes

197)

- 198) Select rao-route-2-private click actions edit routes and add route duration=use here
baby vpc ip and devil vpc ip both rules add target=transit gateway select baby-rao-devil
save changes

199)

- 200) Select baby-route-1-public click actions edit routes and add route duration=use here
rao vpc ip and devil vpc ip both rules add target=transit gateway select baby-rao-devil
save changes

Activities Firefox Web Browser Jul 10 10:01

Inbox - raovcube@gmail.com Untitled document - Goo EditRoutes | VPC Console Problem loading page +

aws Services Search [Alt+S]

VPC > Route tables > rtb-01c9d2bf4e0818d9d > Edit routes

Edit routes

Destination	Target	Status	Propagated
198.0.0.0/16	local	Active	No
10.0.0.0/16	Transit Gateway	Active	No
120.0.0.0/16	Transit Gateway	Active	No
0.0.0.0/0	Internet Gateway	Active	No

Add route Cancel Preview Save changes

201)

- 202) Select baby-route-2-private click actions edit routes and add route duration=use here rao vpc ip and devil vpc ip both rules add target=transit gateway select baby-rao-devil save changes

Activities Firefox Web Browser Jul 10 10:02

Inbox - raovcube@gmail.com Untitled document - Goo EditRoutes | VPC Console Problem loading page +

aws Services Search [Alt+S]

VPC > Route tables > rtb-0aee32ec1eb6f2d7e > Edit routes

Edit routes

Destination	Target	Status	Propagated
198.0.0.0/16	local	Active	No
10.0.0.0/16	Transit Gateway	Active	No
120.0.0.0/16	Transit Gateway	Active	No
0.0.0.0/0	Internet Gateway	Active	No

Add route Cancel Preview Save changes

203)

- 204) Select devil-route-1-public click actions edit routes and add route duration=use here baby vpc ip and rao vpc ip both rules add target=transit gateway select baby-rao-devil save changes

Destination	Target	Status	Propagated
198.0.0.0/16	local	Active	No
10.0.0.0/16	Transit Gateway	Active	No
120.0.0.0/16	Transit Gateway	Active	No

205)

206) Select rao-route-2-private click actions edit routes and add route duration=use here
baby vpc ip and rao vpc ip both rules add target=transit gateway select baby-rao-devil
save changes

207)

208) Now login devil server and use curl rao server private ip :80
209) curl 10.0.0.179:80

```
[root@devil ~]# curl 10.0.0.179:80
<h1>this rao server<h1>
[root@devil ~]# curl 120.0.13.118:80
this is devil server
[root@devil ~]# curl 198.0.0.217:80
<h1>this is baby server<h1>
[root@devil ~]#
```

210)

211) If you connect one to another your connection success full

=====