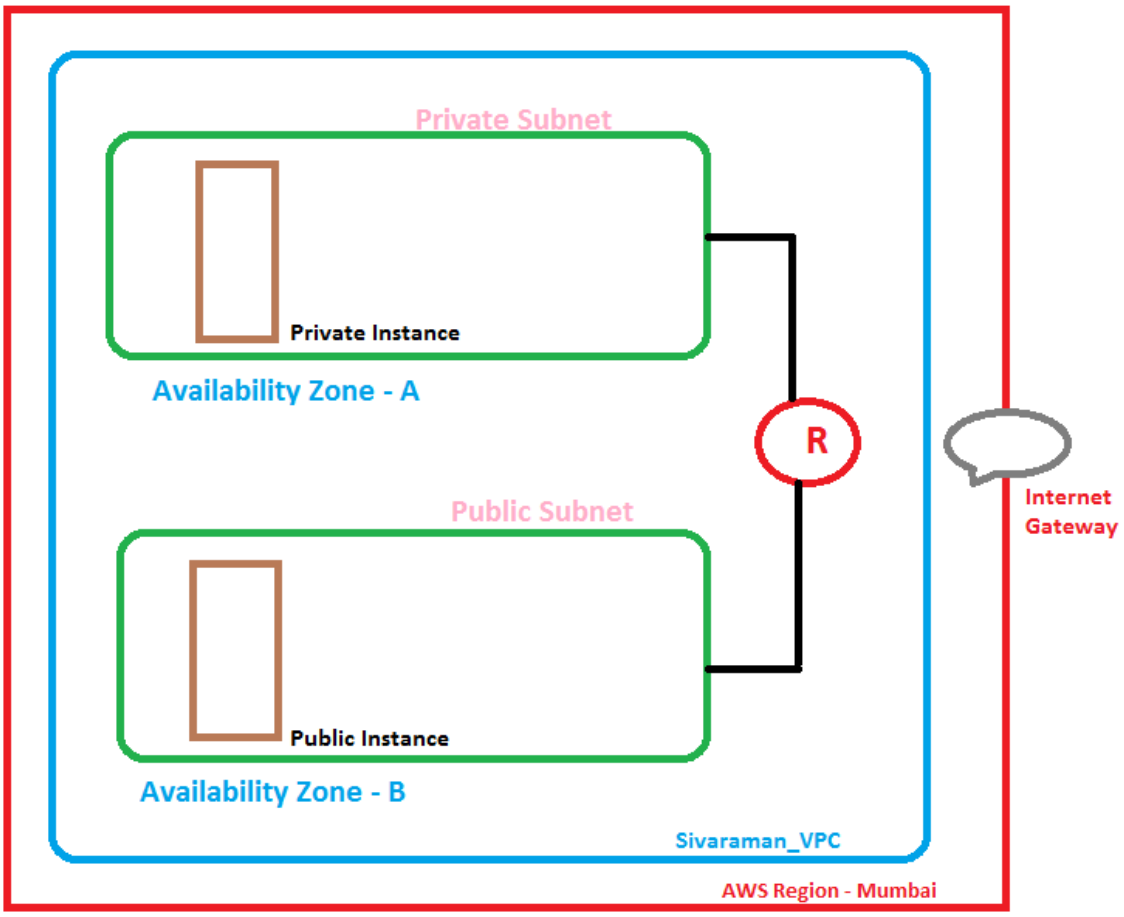
Lab: Need to access public network from Public subnet and access Public subnet from Public network.

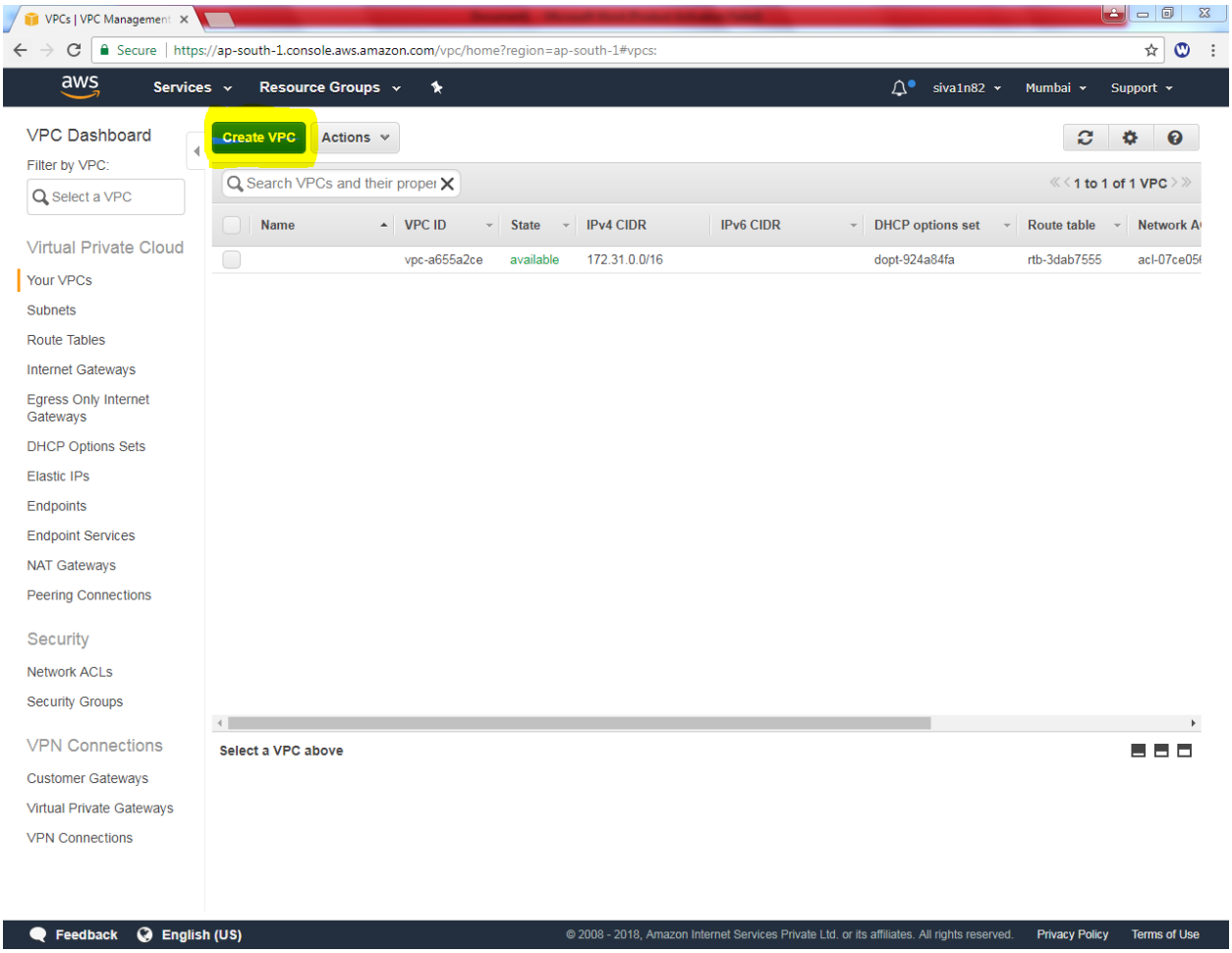
Scenario:



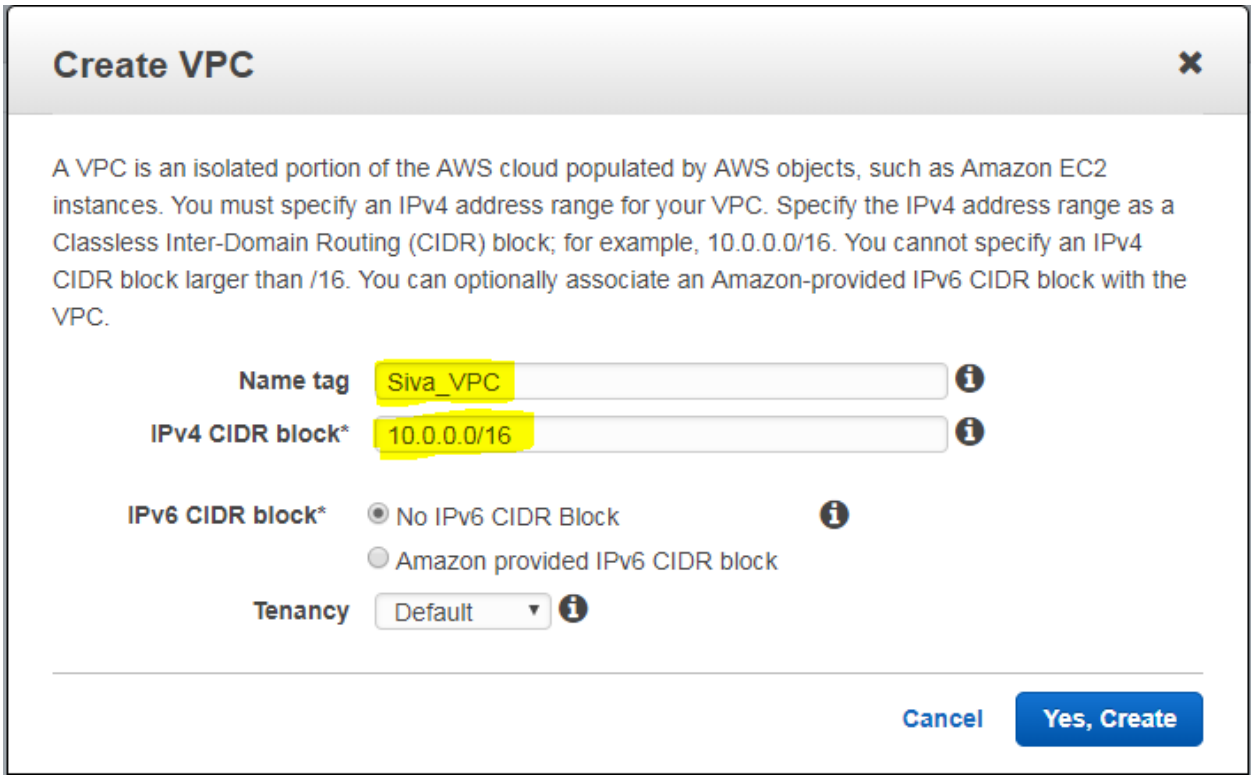
In Mumbai Region, We have required to create a VPC as “Sivaraman VPC”. In Sivaraman VPC, we need to create two subnets i.e. Private Subnet and Public Subnet. In public subnet we need to create an instance and private subnet also we need to create an instance. By default both availability zone will be communicate by using a router. Now we need to design VPC, Subnet and Subnet routing table and instances for the above scenario.

Please login to the aws console, https://aws.amazon.com by using your login credentials.

- While logged on to the AWS portal, please go to **Networking & Content Delivery**
  Then select "VPC"

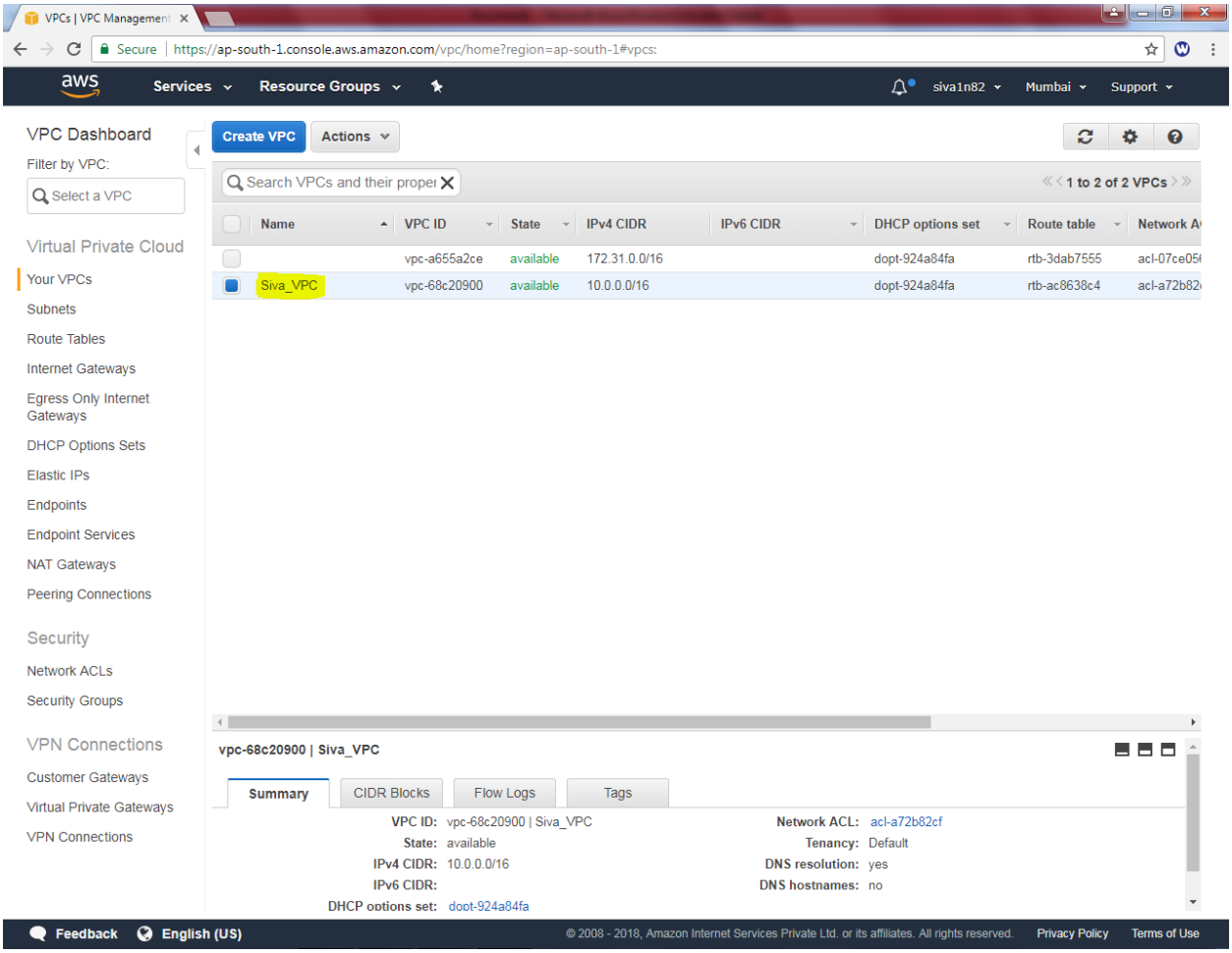


Click "Create VPC"



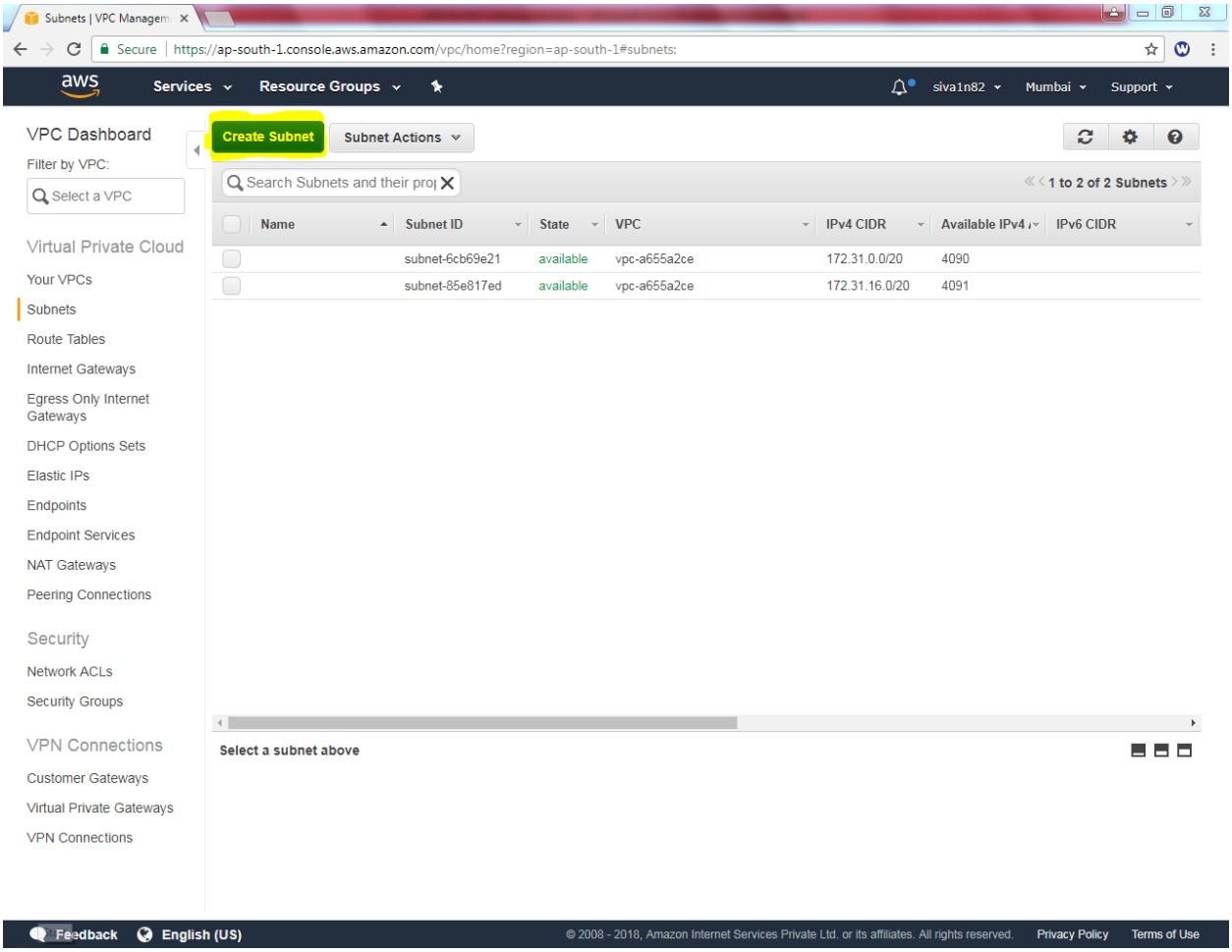
While creating VPC, in Name Tag "Siva_VPC"and IPV4 CIDR block "10.0.0.0/16". Then click "Yes create" button.

Now you can able to view the Siva VPC in VPC option.



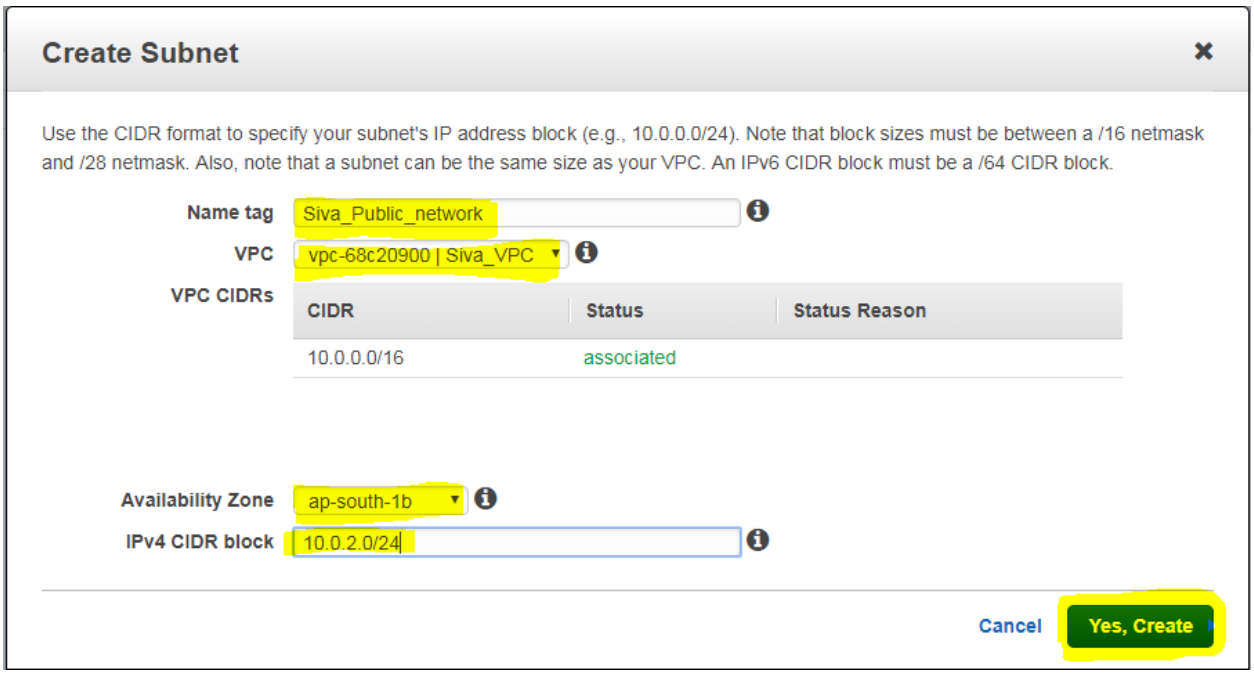
Then we need to create subnet for VPC, i.e. Public Subnet and Private Subnet.

In Under VPC dashboard, "Subnets" option is there



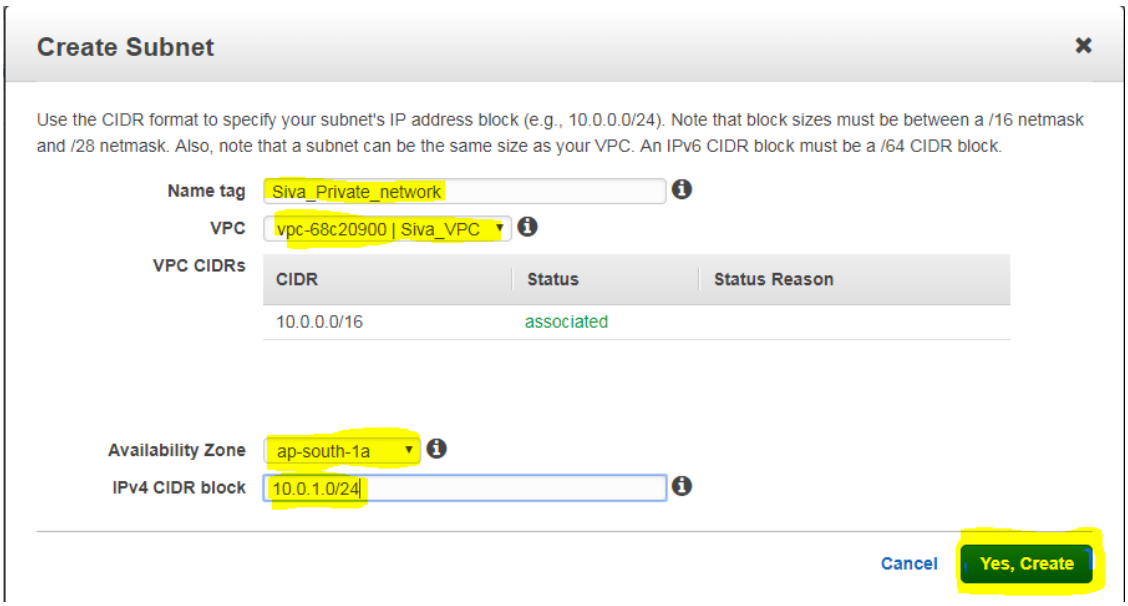
Select "Create Subnet"

In Name Tag "Siva_Public_Network" , VPC Select "Siva_VPC", Availablility Zone select "1B" and IPV4 CIDR BLOCK 10.0.2.0/24.



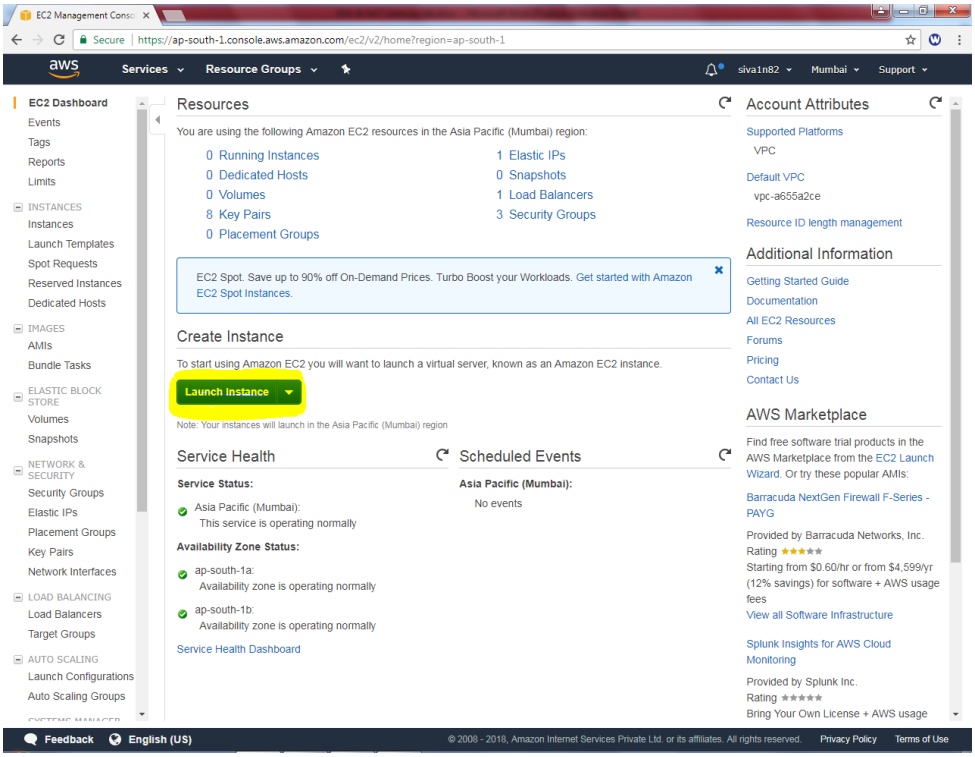
Then click "Yes, Create".

In Name Tag "Siva_Private_Network" , VPC Select "Siva_VPC", Availablility Zone select "1A" and IPV4 CIDR BLOCK 10.0.1.0/24.

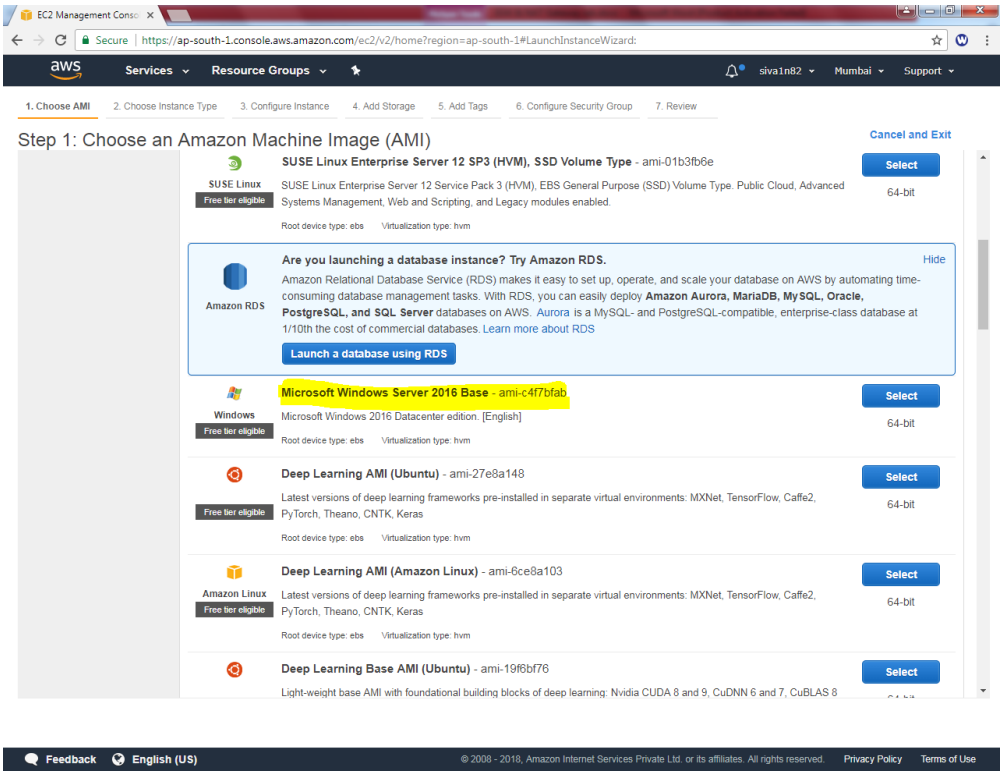


Then click "Yes, Create".

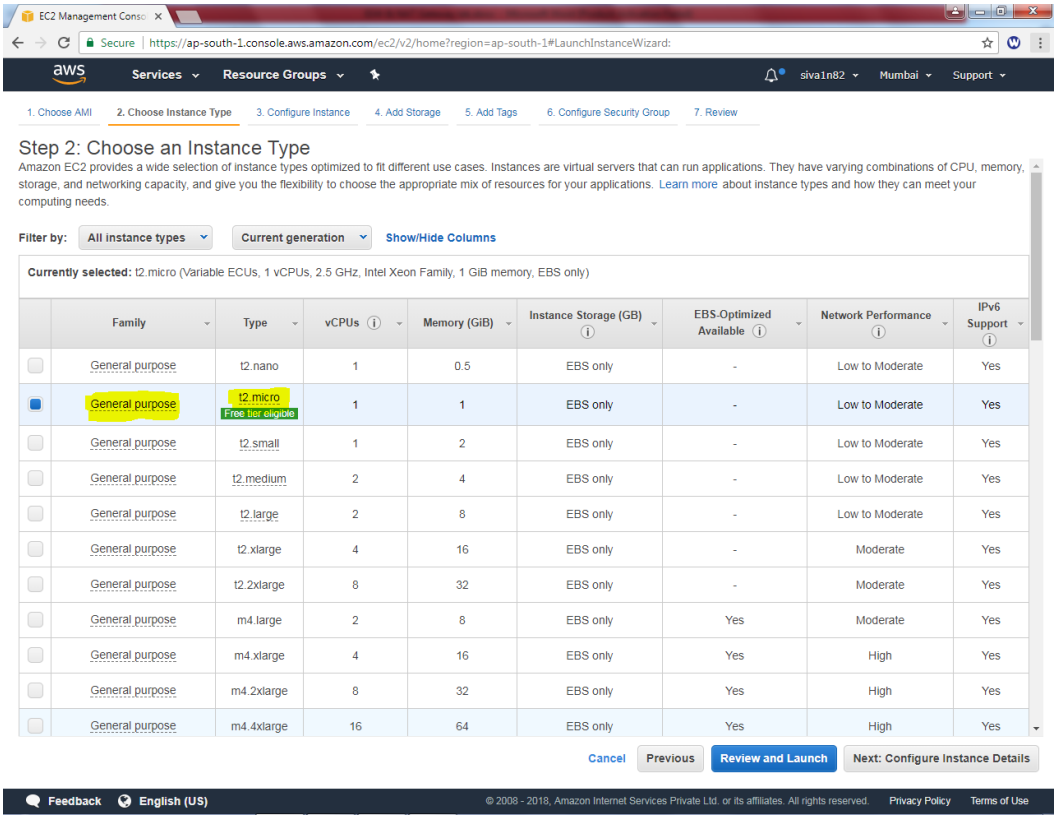
Now we need to create an instance, on public network. Click Launch Instance



Select "AMI"



Select “General Purpose – t2 micro” then click “Next”


EC2 Management Conso
Secure | https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:
aws
Services
Resource Groups
sivaln82
Mumbai
Support
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 2: Choose an Instance Type
Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.
Filter by:
All instance types
Current generation
Show/Hide Columns
Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)
Family
Type
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
IPv6 Support
General purpose t2.nano 1 0.5 EBS only - Low to Moderate Yes
General purpose t2.micro Free tier eligible 1 1 EBS only - Low to Moderate Yes
General purpose t2.small 1 2 EBS only - Low to Moderate Yes
General purpose t2.medium 2 4 EBS only - Low to Moderate Yes
General purpose t2.large 2 8 EBS only - Low to Moderate Yes
General purpose t2.xlarge 4 16 EBS only - Moderate Yes
General purpose t2.2xlarge 8 32 EBS only - Moderate Yes
General purpose m4.large 2 8 EBS only Yes Moderate Yes
General purpose m4.xlarge 4 16 EBS only Yes High Yes
General purpose m4.2xlarge 8 32 EBS only Yes High Yes
General purpose m4.4xlarge 16 64 EBS only Yes High Yes
Cancel
Previous
Review and Launch
Next: Configure Instance Details
Feedback
English (US)
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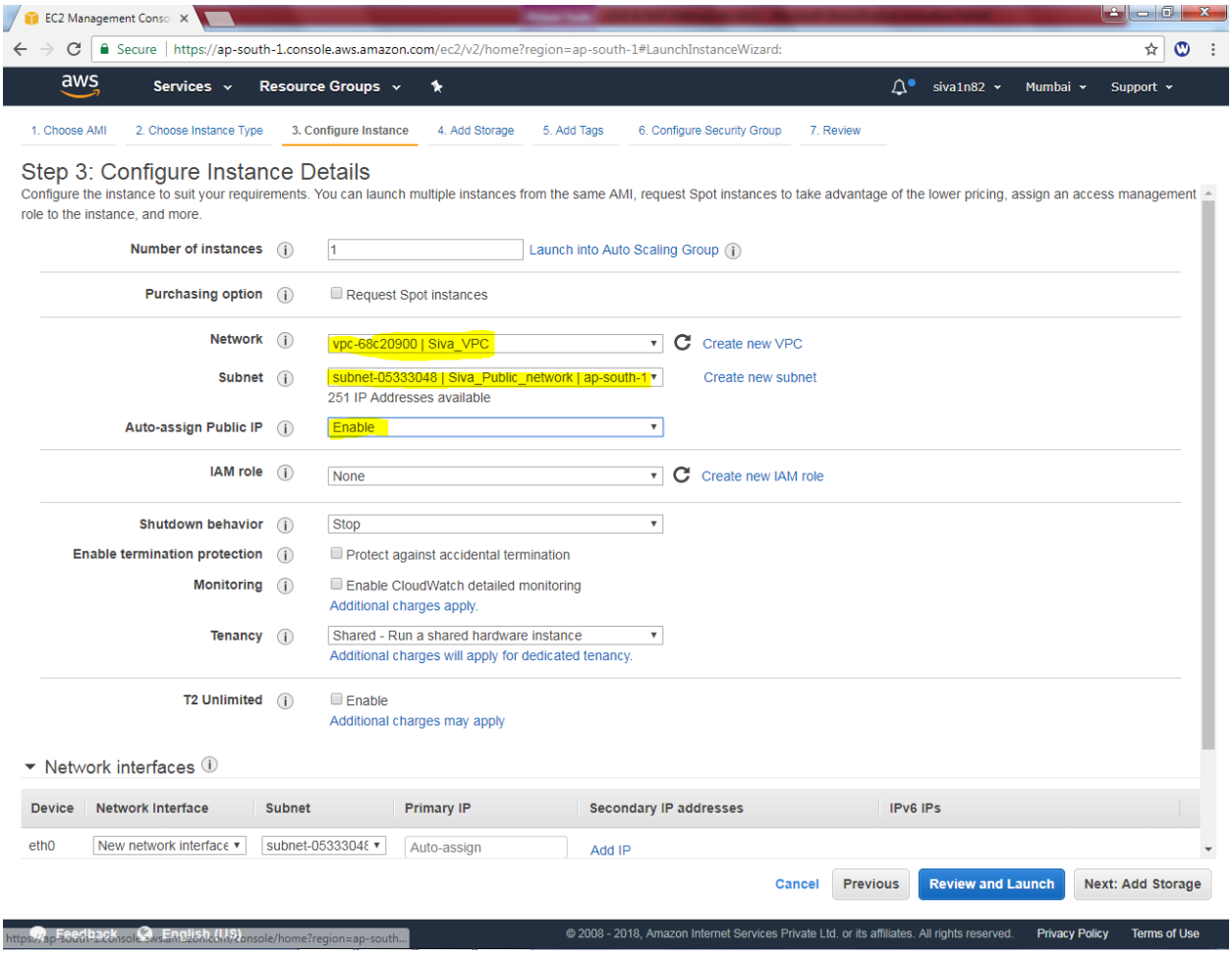
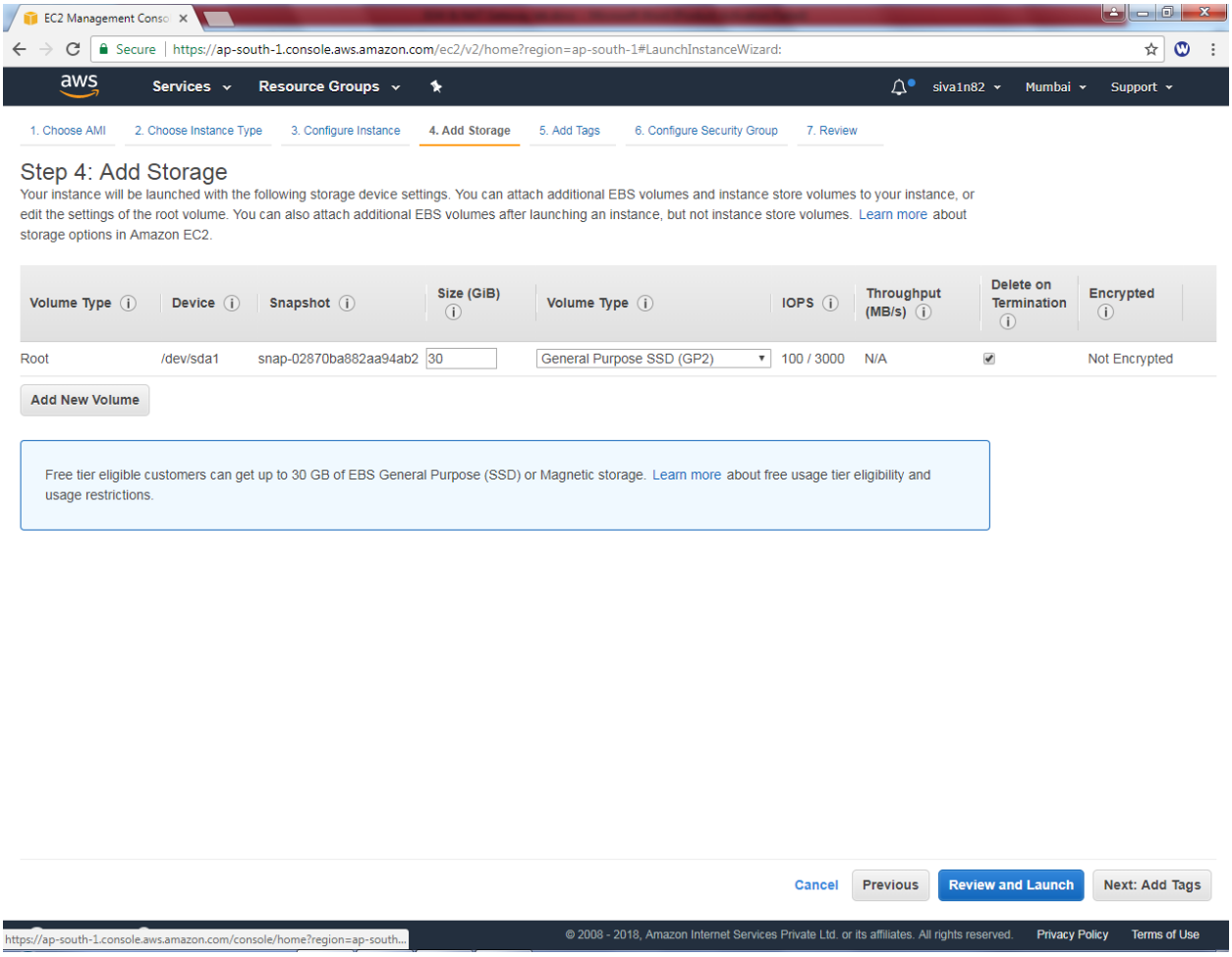
In Network, select "Siva_VPC", in subnet select "Siva_Public_network" and in Auto assign Public IP "Enable".



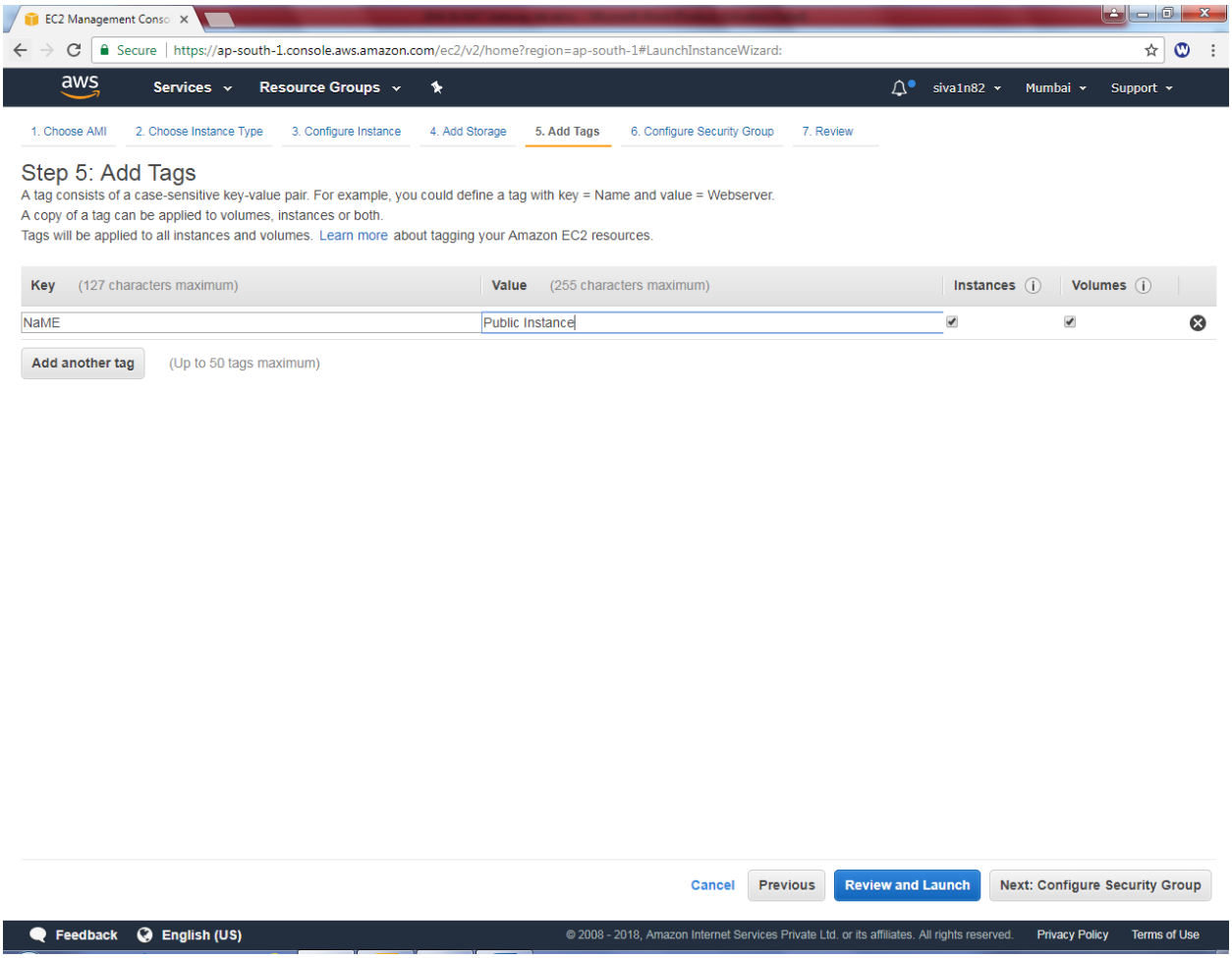
Then click "Next"

Leave this setting by default.



Then Click “Next”.

In Key “name” and in value “Public Instance”.

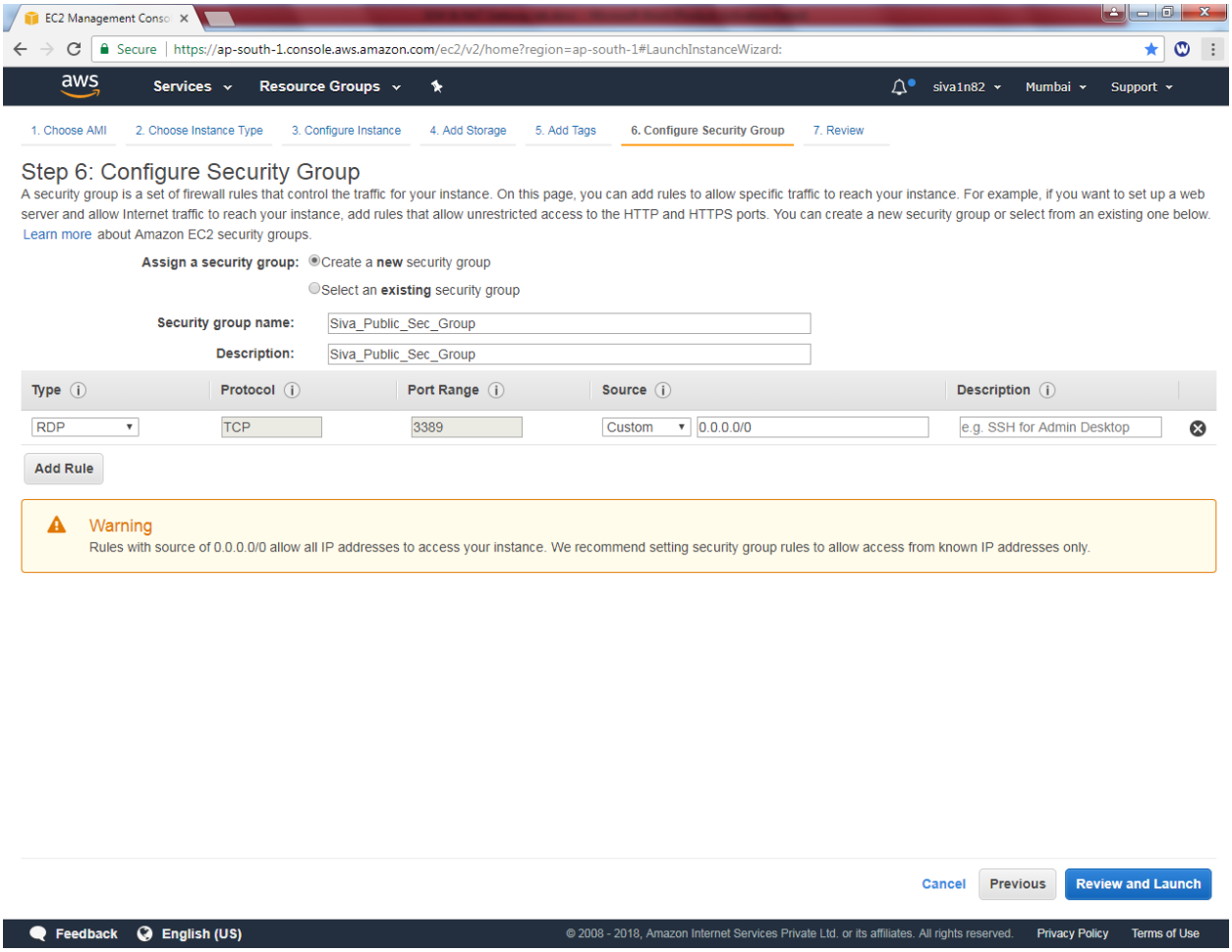


Then click “Next”.

In Assign a Security group click “Create a new security Group”

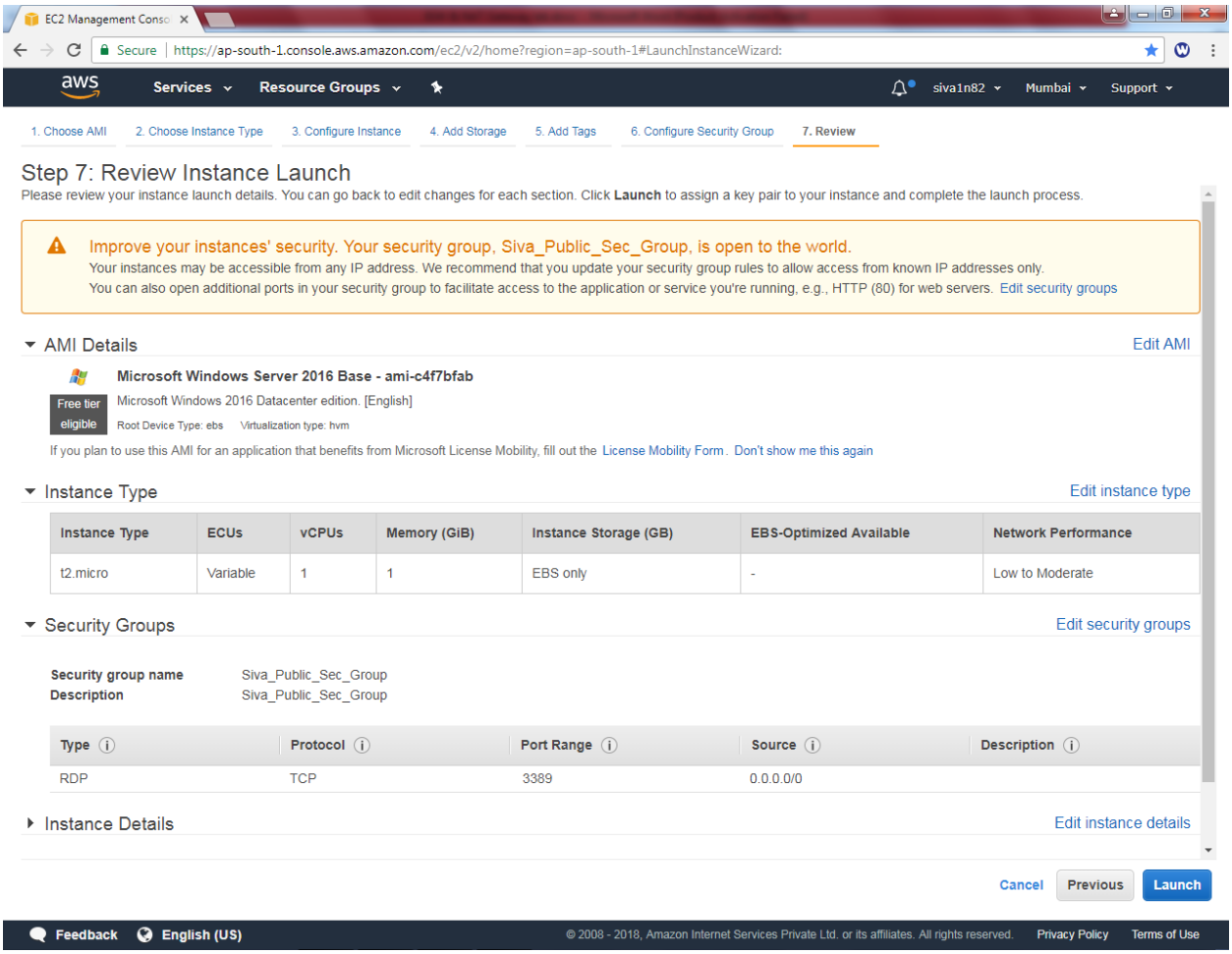
Security Group name: Siva_Public_Sec_Group

Description: Siva_Public_Sec_Group



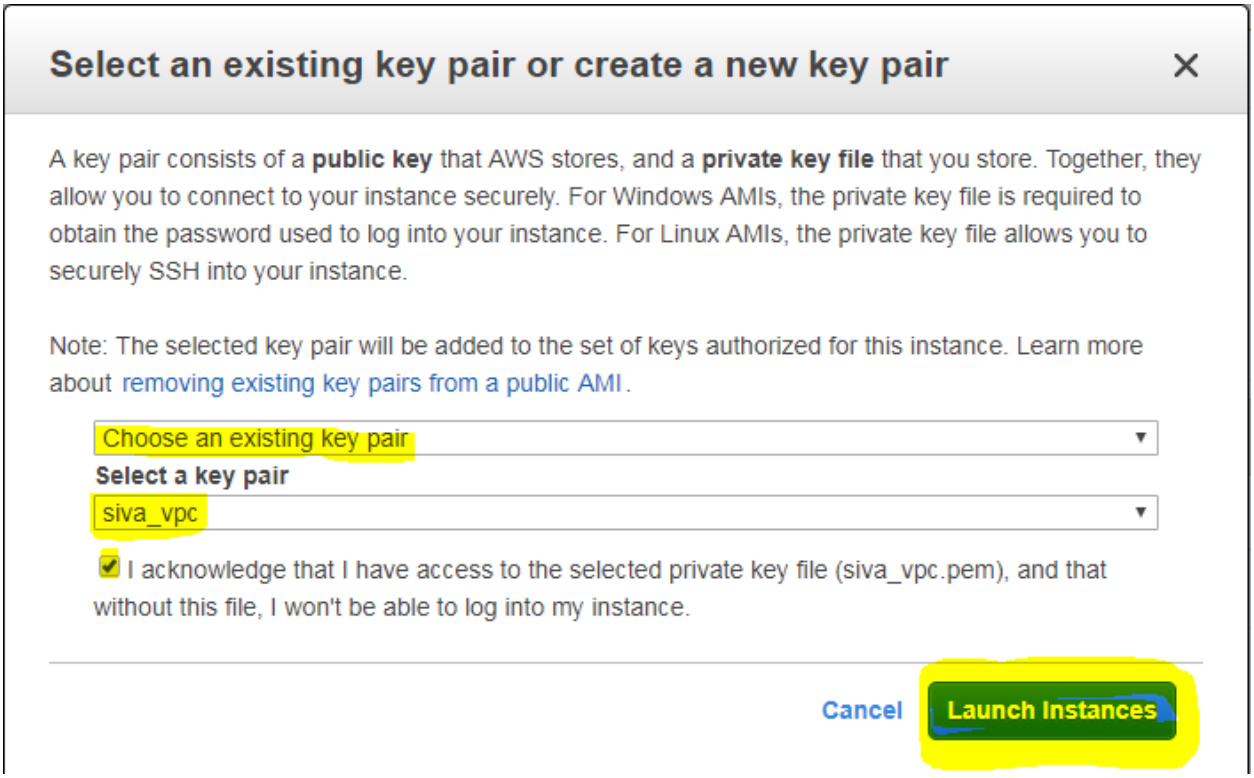
Click Review and Launch.

Leave the settings default.



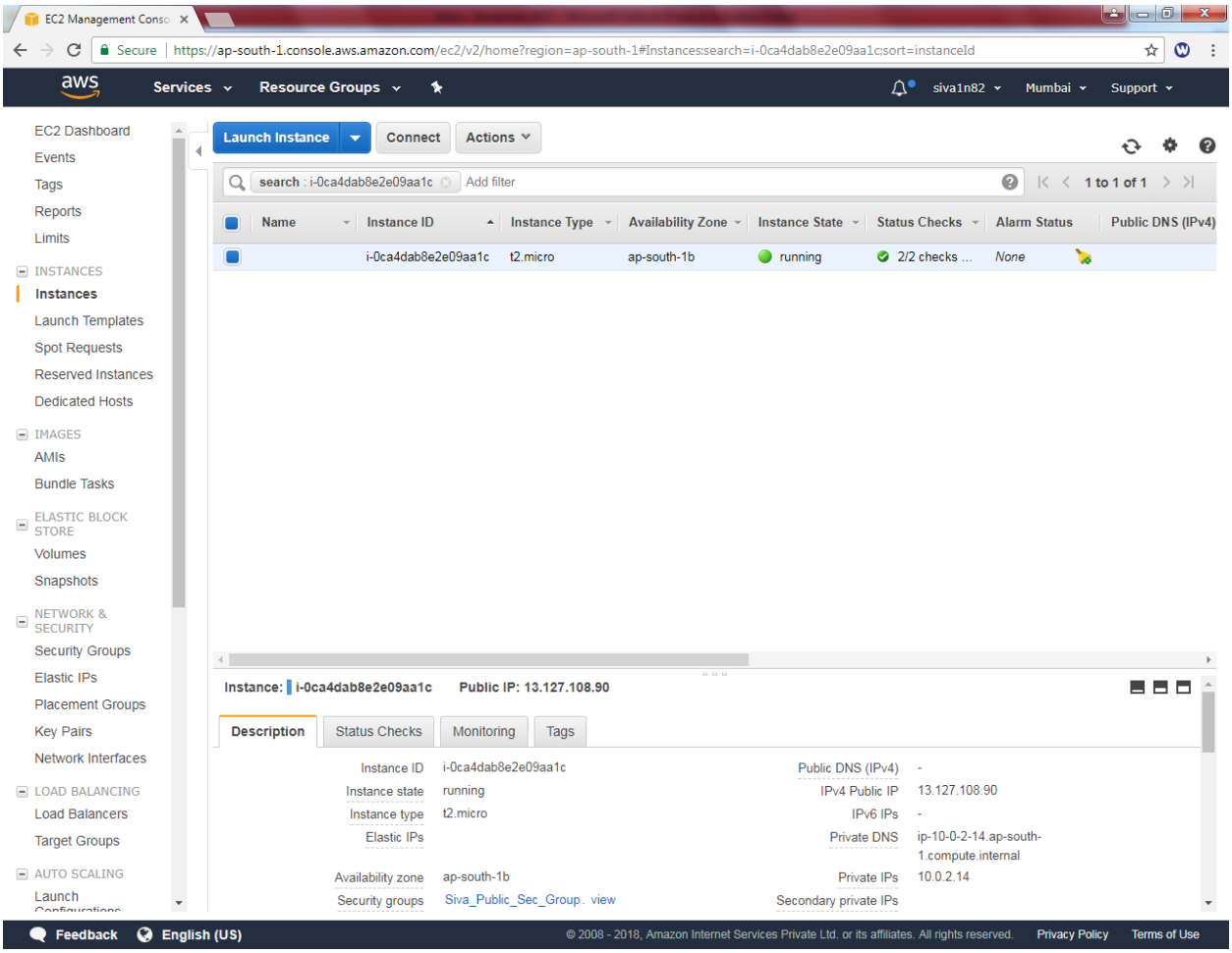
Click Launch.

While click launch, need to select the Choose an existing key pair and select the key pair as “siva_vpc” and Select the option I acknowledge.

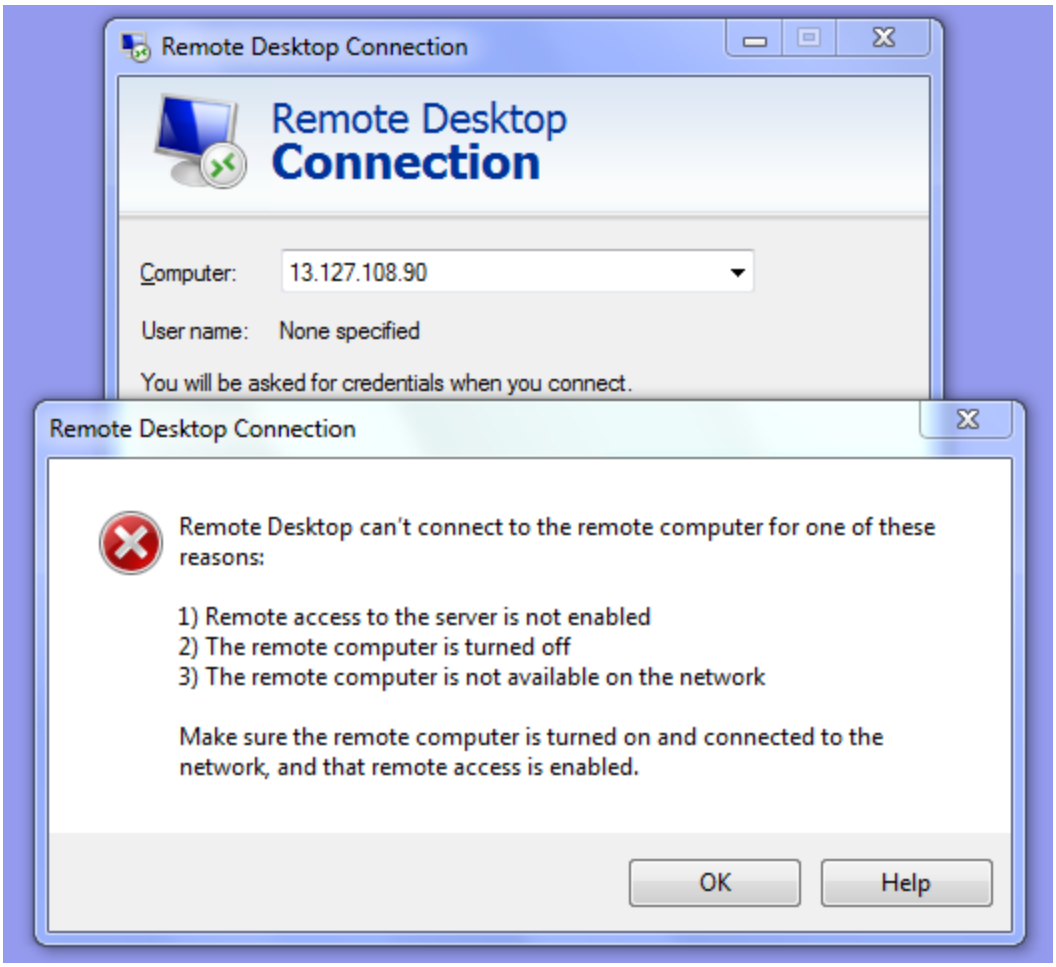


Then click launch instance.

Now, public instance is ready and we have got public IP also.



Now we can try to RDP for 13.127.108.90 IP.

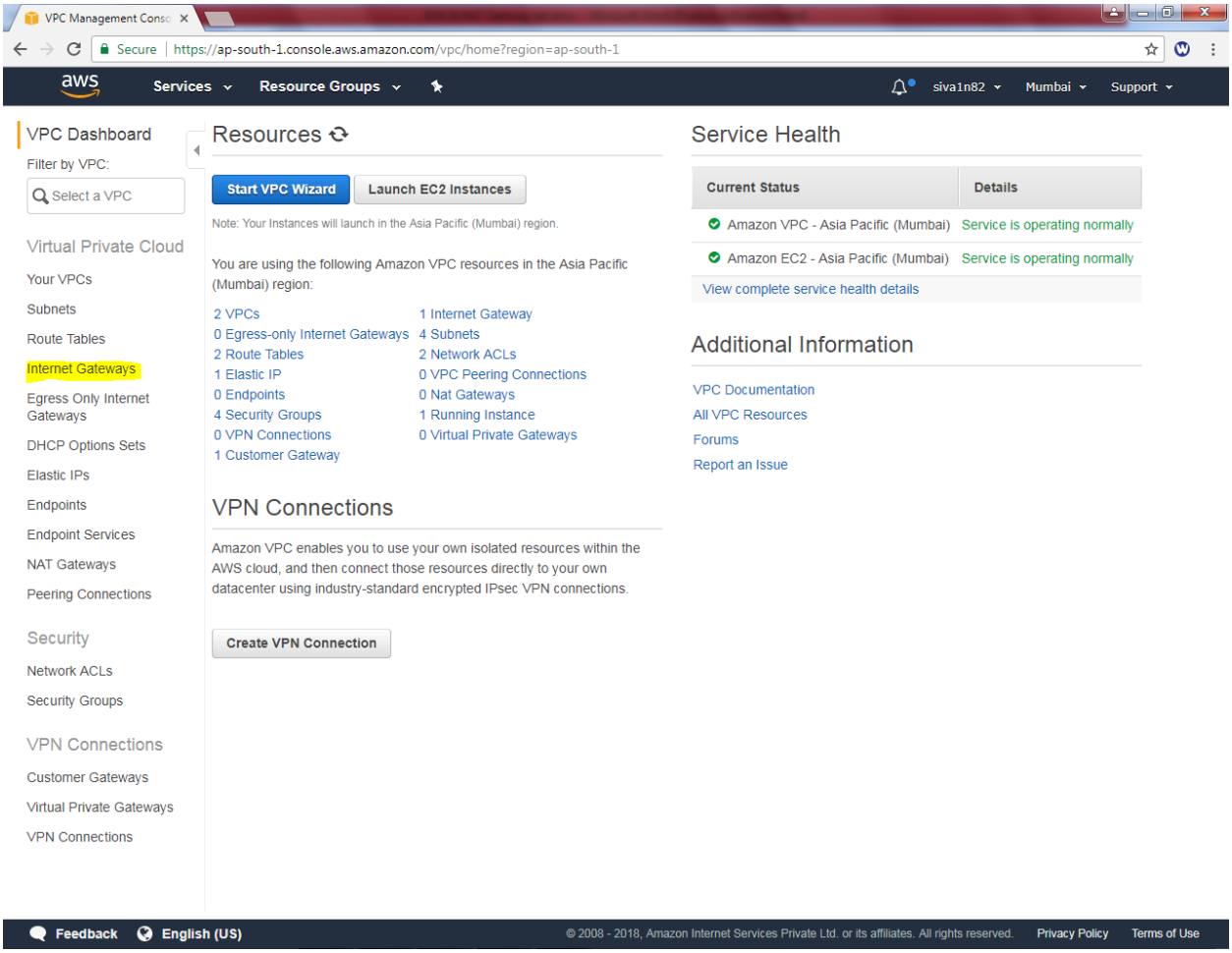


While try to connect 13.127.108.90 IP, we are getting an above error message.

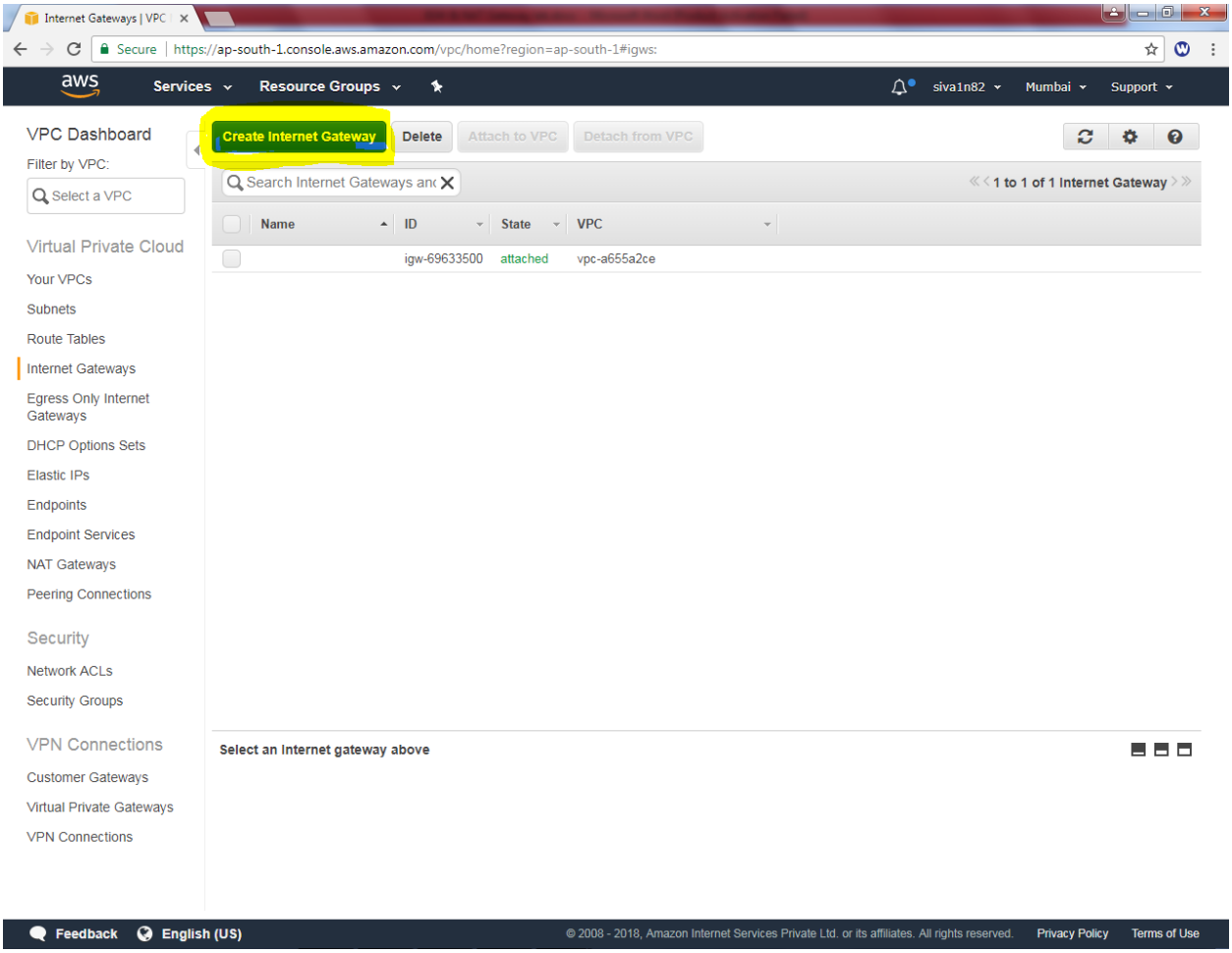
What could be the reason of unable to connect RDP?

We have required Internet gateway to connect outside network from Public Subnet. Hence we need to create an internet gateway.

Goto VPC Dashboard, we can able to see an Internet Gateways option.

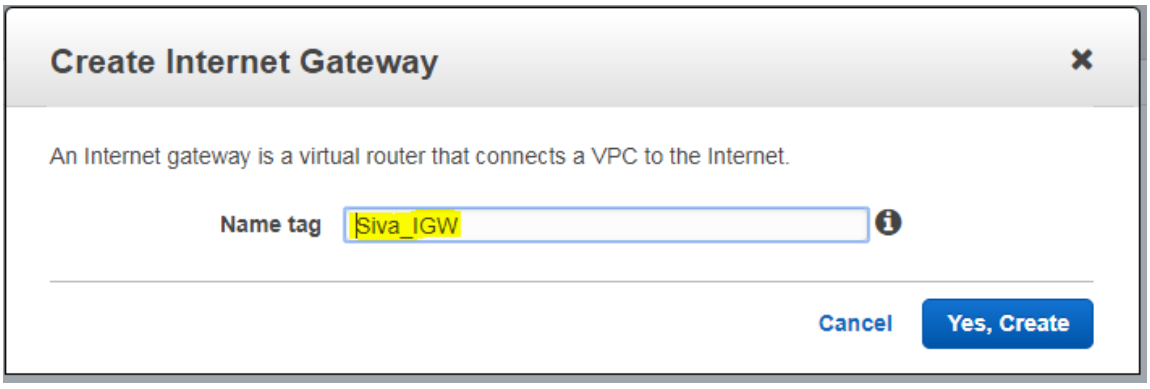


Click the Internet Gatweways in VPC Dashboard,



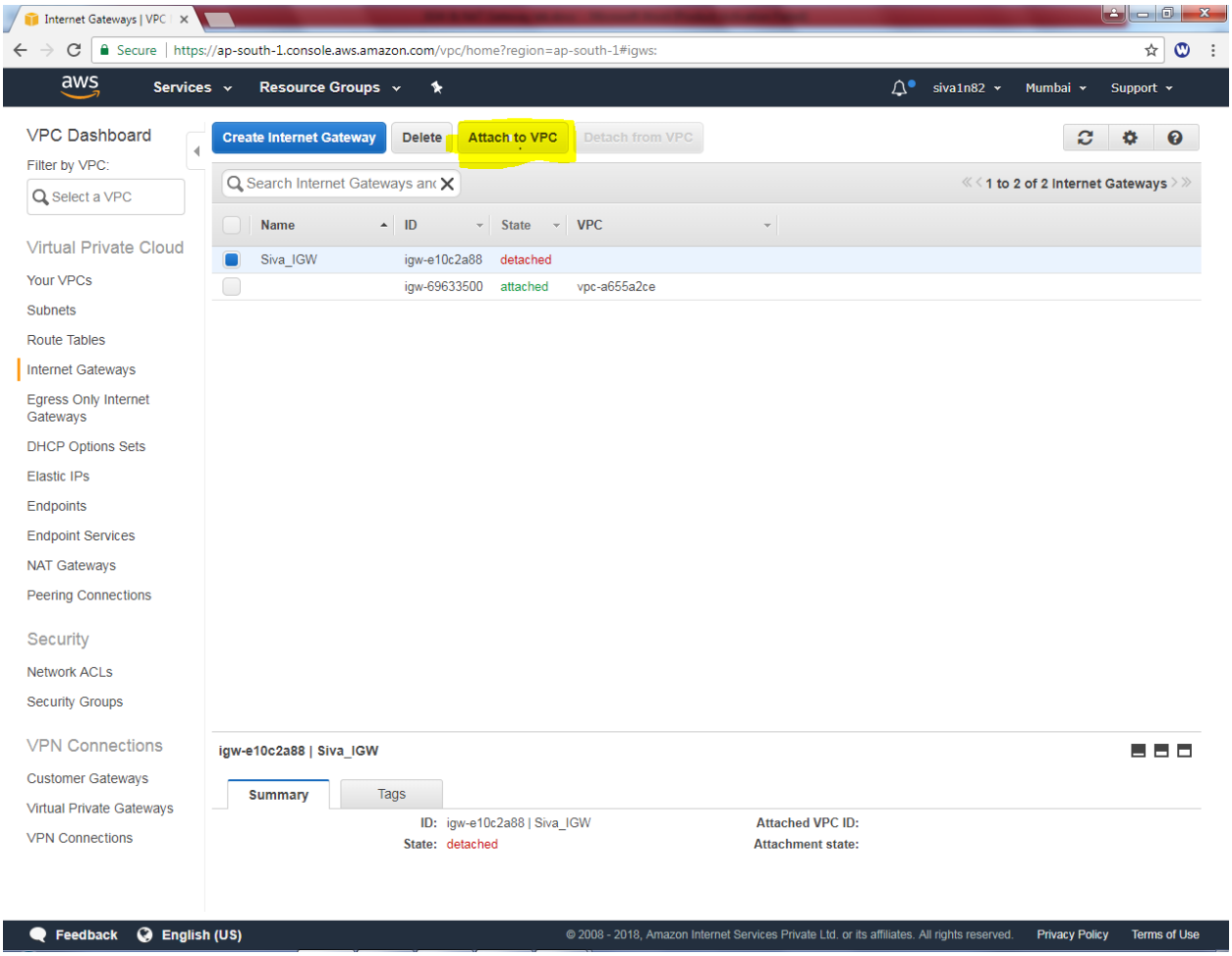
Click “create Internet Gateway”.

In Name Tag, Type “Siva IGW”.



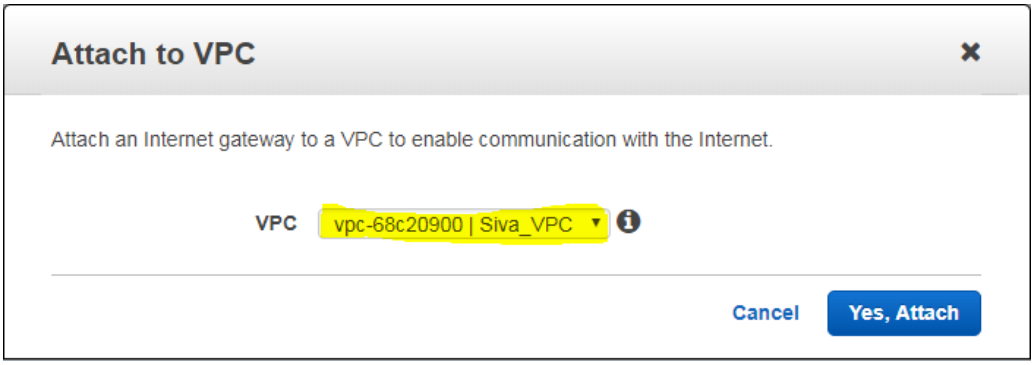
Then click “Yes, Create”.

We can able to see “Siva IGW” option. But it is detached mode.



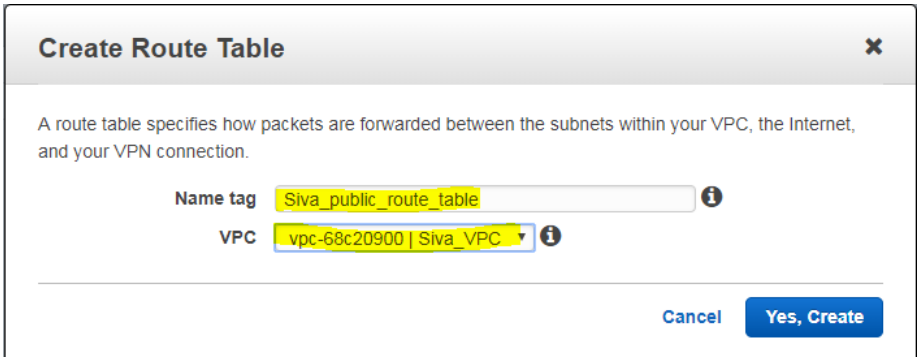
We need to attach VPC into that i.e. Siva_VPC.

In Attach to VPC, Siva_VPC is selected,



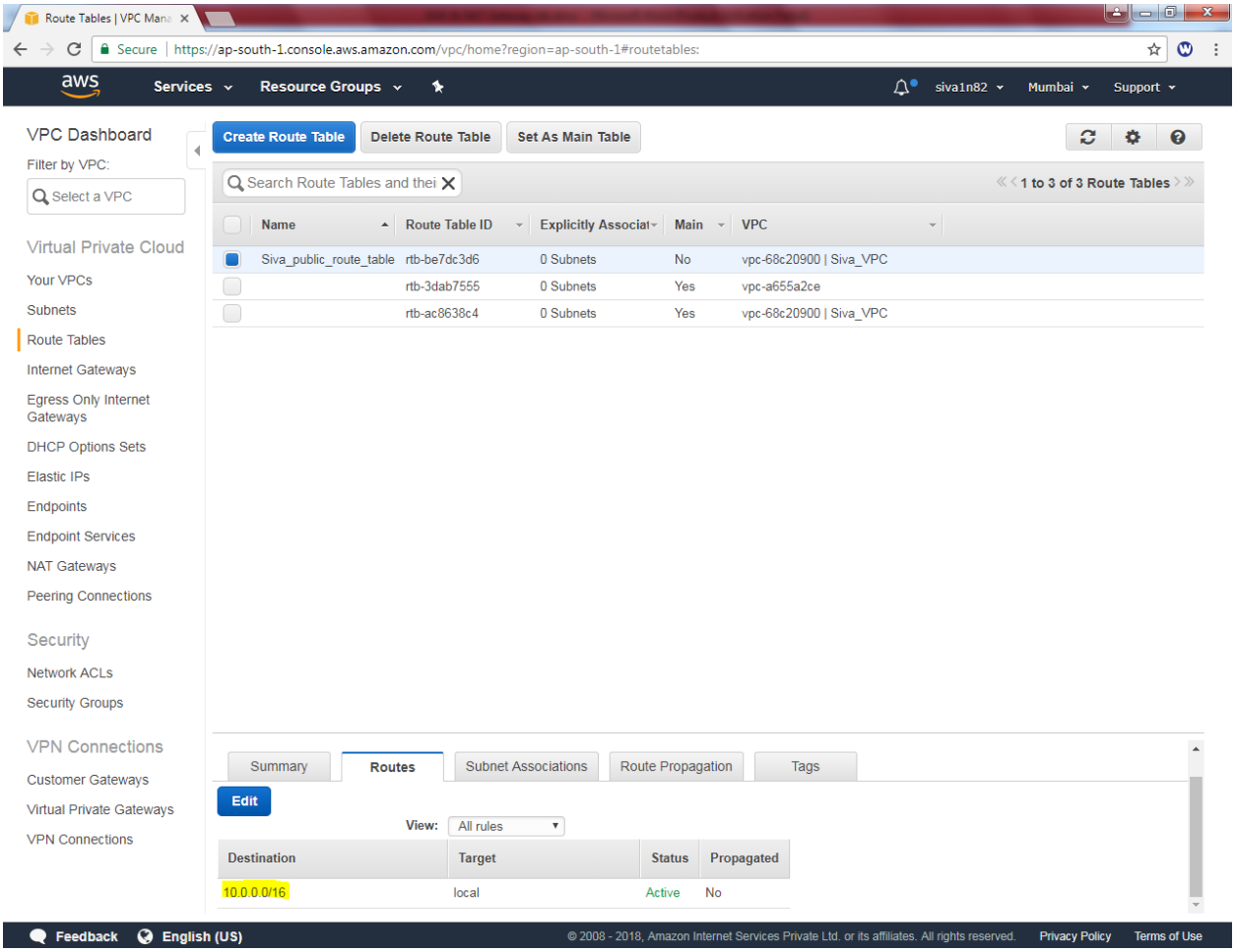
Click Yes, Attach button.

We need to create route table for Public subnet. In Name tag "Siva_Public_route_table". Then select VPC as "Siva VPC".



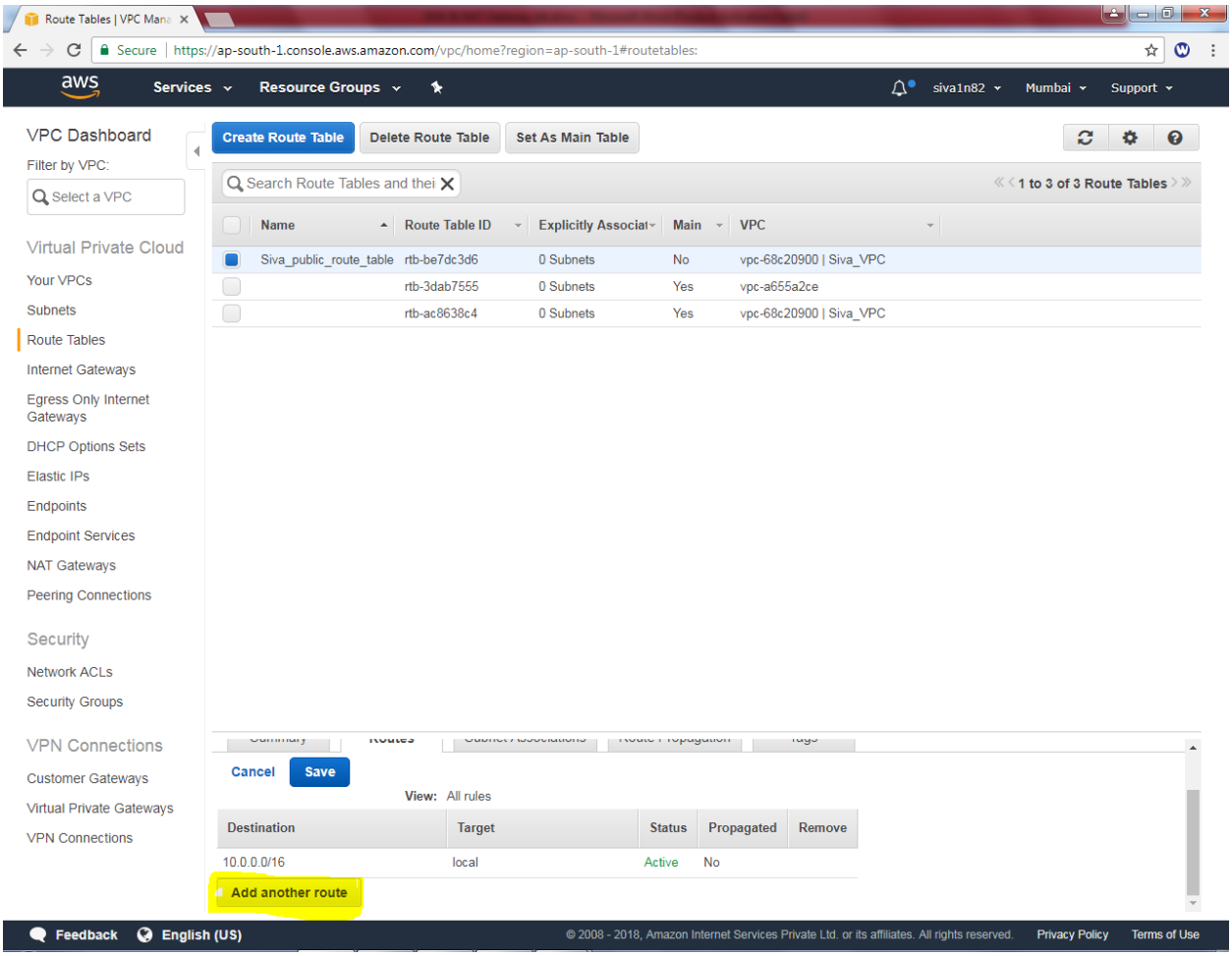
Click "yes, create".

By default, 10.0.0.0/16 subnet route only available.



Click Edit option in route table.

Then click “add another route”.


Route Tables | VPC Mana
Secure | https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#routetables:
aws
Services
Resource Groups
siva1n82
Mumbai
Support
VPC Dashboard
Filter by VPC:
Select a VPC
Virtual Private Cloud
Your VPCs
Subnets
Route Tables
Internet Gateways
Egress Only Internet Gateways
DHCP Options Sets
Elastic IPs
Endpoints
Endpoint Services
NAT Gateways
Peering Connections
Security
Network ACLs
Security Groups
VPN Connections
Customer Gateways
Virtual Private Gateways
VPN Connections
Create Route Table
Delete Route Table
Set As Main Table
Search Route Tables and thei
1 to 3 of 3 Route Tables
Name
Route Table ID
Explicitly Associat
Main
VPC
Siva_public_route_table
rtb-be7dc3d6
0 Subnets
No
vpc-68c20900 | Siva_VPC
rtb-3dab7555
0 Subnets
Yes
vpc-a655a2ce
rtb-ac8638c4
0 Subnets
Yes
vpc-68c20900 | Siva_VPC
Cancel
Save
View: All rules
Destination
Target
Status
Propagated
Remove
10.0.0.0/16
local
Active
No
Add another route
Feedback
English (US)
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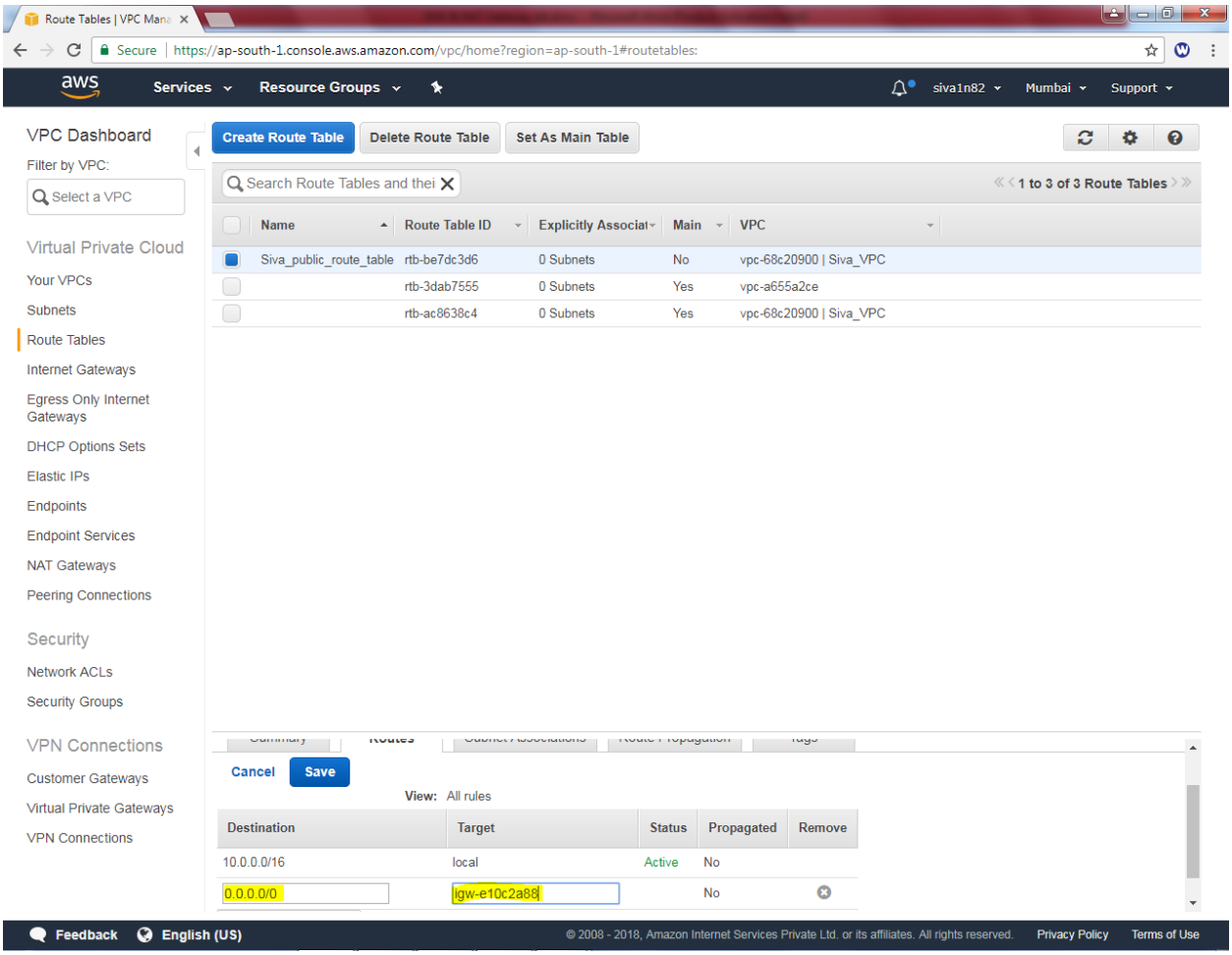
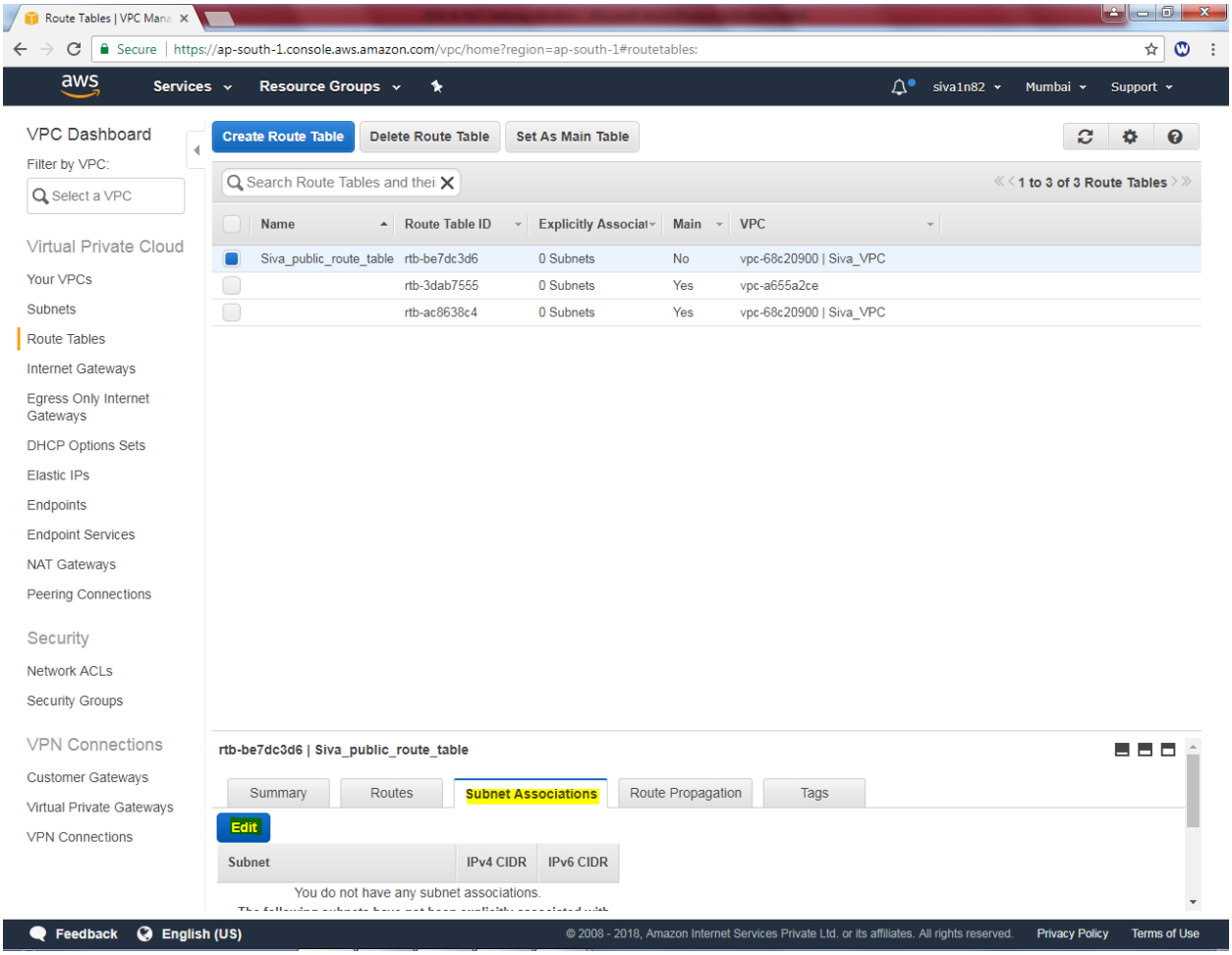
In Public route table, add default route 0.0.0.0/0 with next hop address as igw (internet gateway).

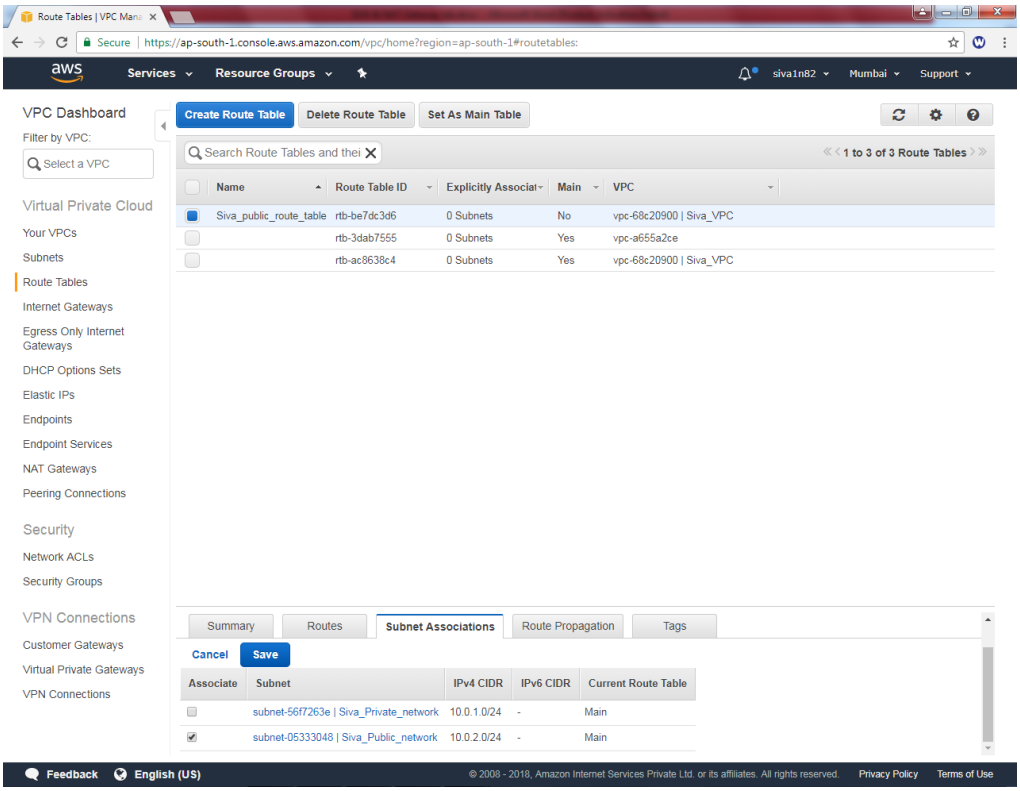


Then Click “Save”.

In Subnet associations, click edit option.

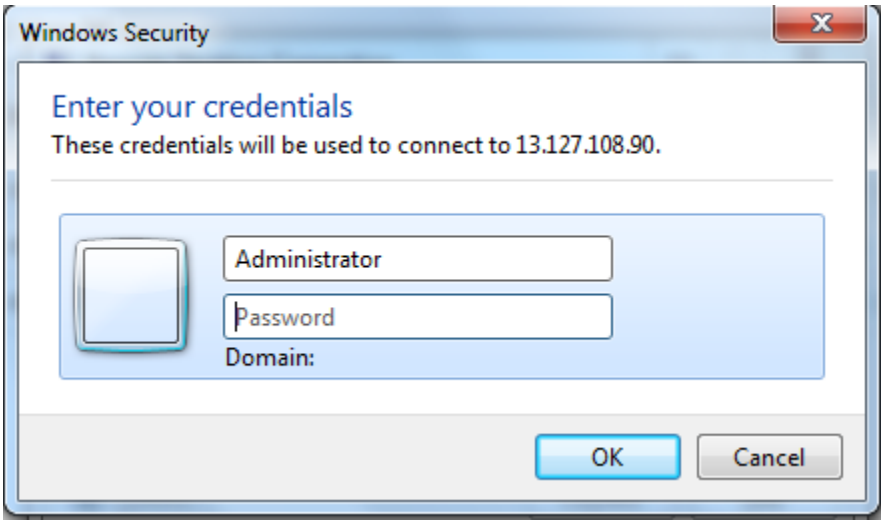


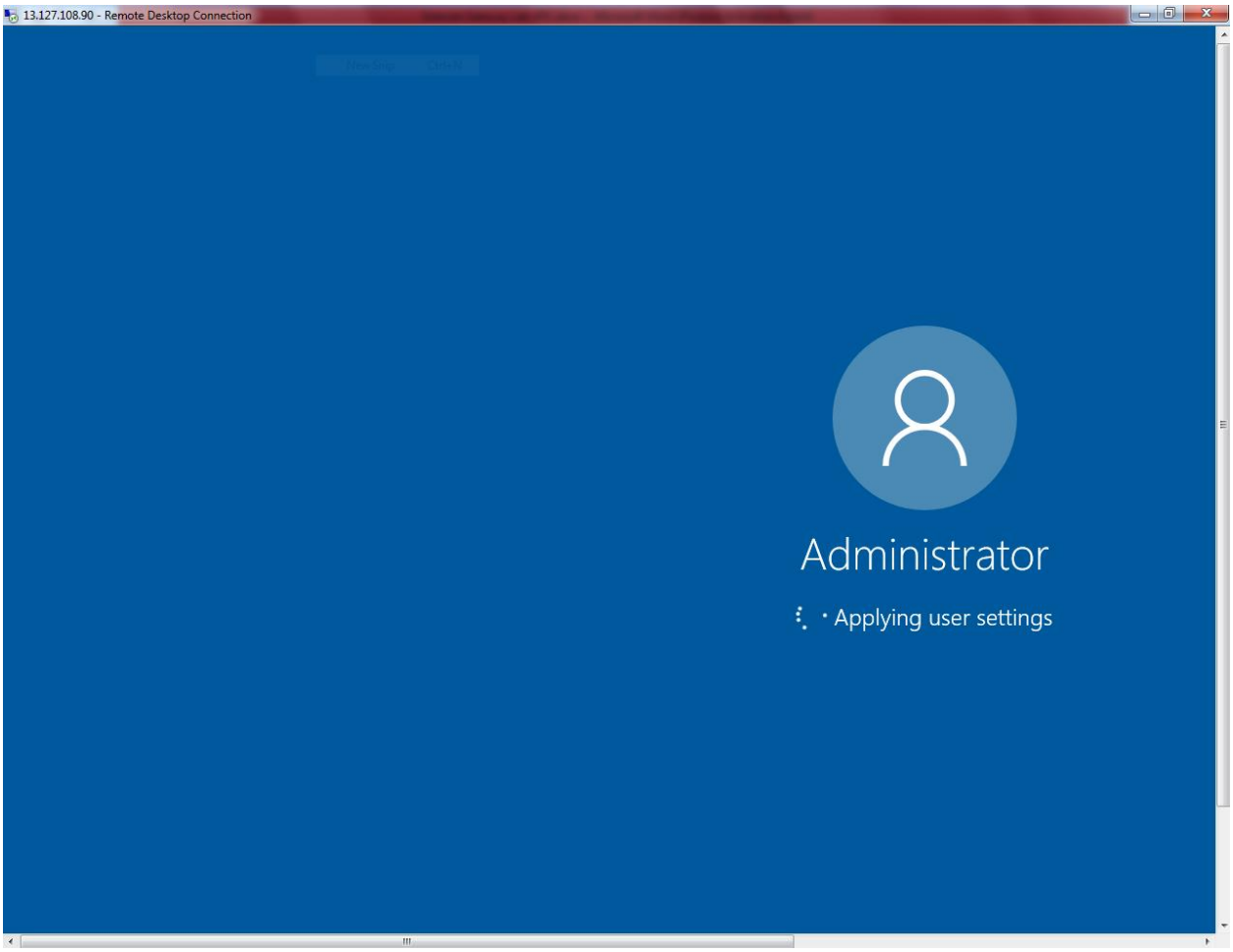
In Edit option, select “Siva_Public_network”.



Then click save.

Now you Can try to connect internet, it will work.





You have successfully logged into the public server (windows server 2016).