AWS CASE STUDY

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Company XYZ need to make their Database and Database Server private from the world so that not one will be able to get any information about it and only authorized person and the services can access them. They want AWS to perform with operation. Write how you are going to solve this problem using AWS architect knowledge.

Company XYZ need to access RDS and EC2(which are in VPC-Backend) from VPC-Frontend.

VPC-Frontend should have Bastion server (Linux) to connect with RDS and EC2(Linux) in VPC-Backend,

Make sure the VPC-Frontend will be a public VPC and the VPC-Backend should be private VPC.

Consider the proper CIDR and subnetting. Each VPC will have only 1 subnet.

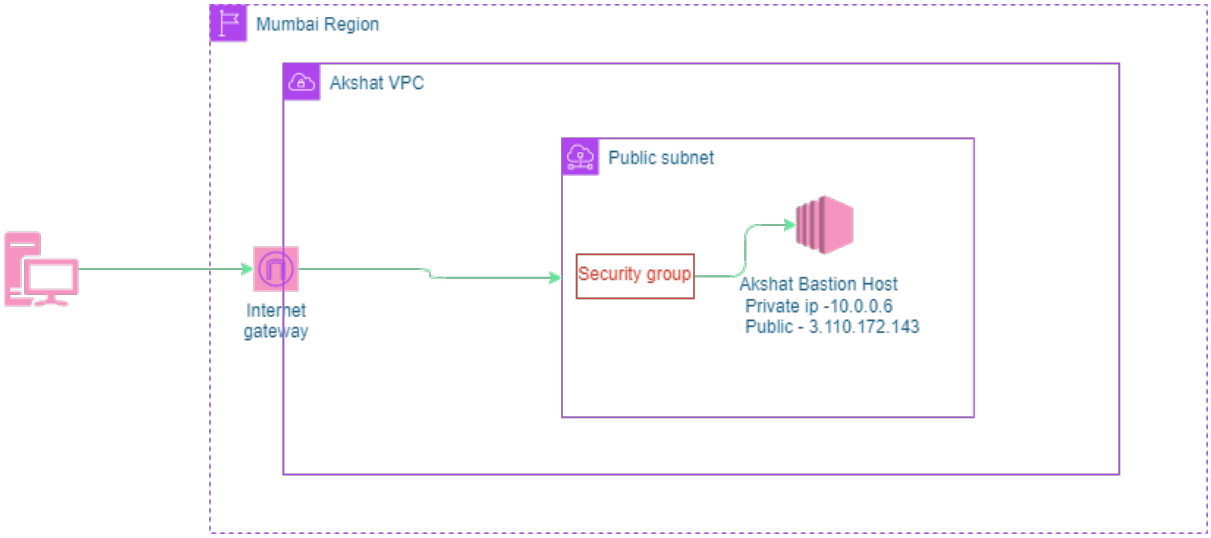
Perform the following activities and write the details notes on the case study.

1) SSH from your local system to Bastion server

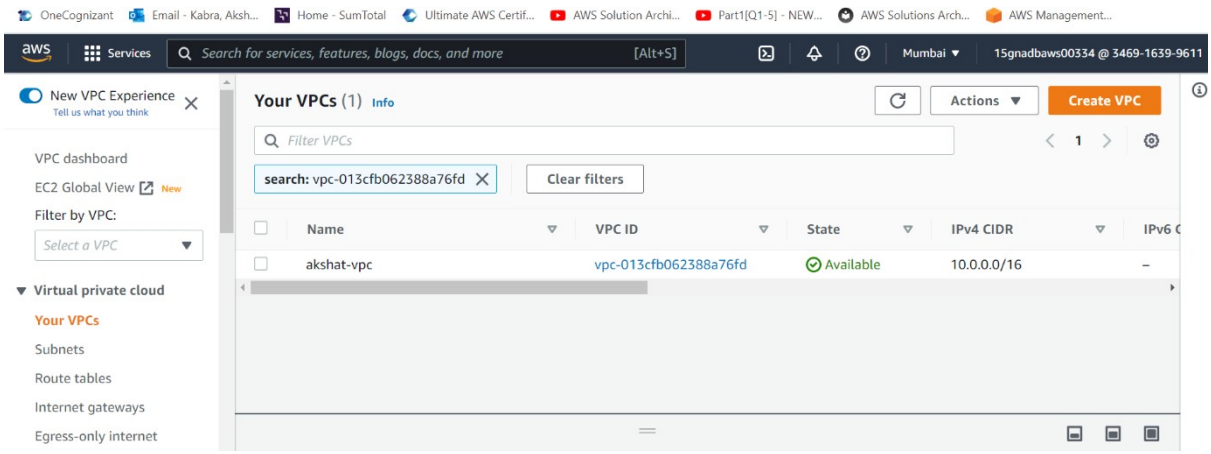
2) From Bastion connect to private EC2 in VPC-Backend.

3) From Local system connect to RDS (Through Bastion Server)

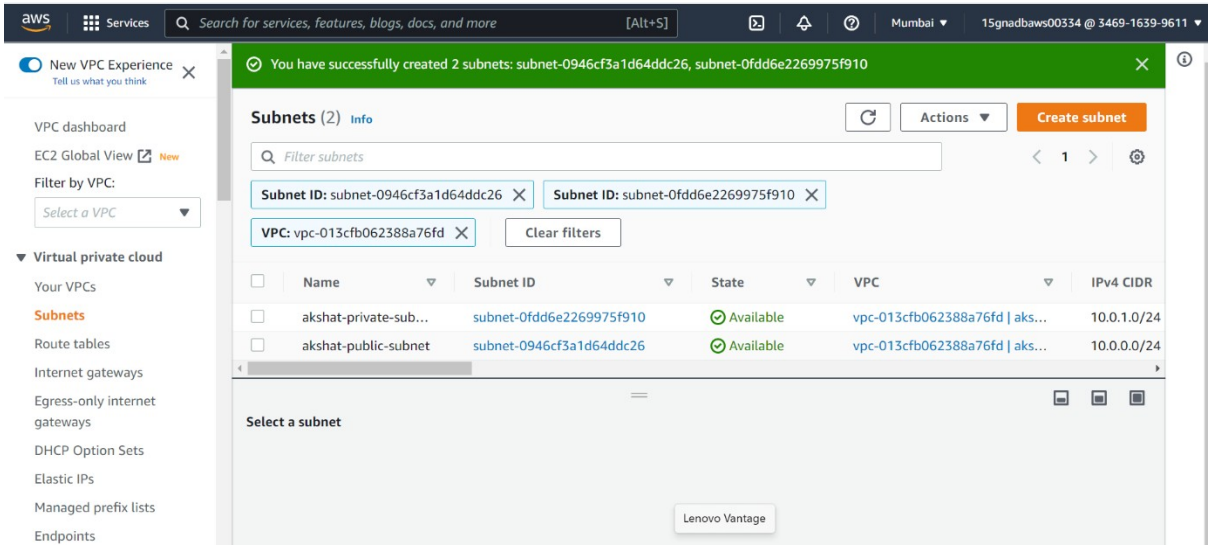
SSH FROM LOCAL SYSTEM TO BASTION SERVER



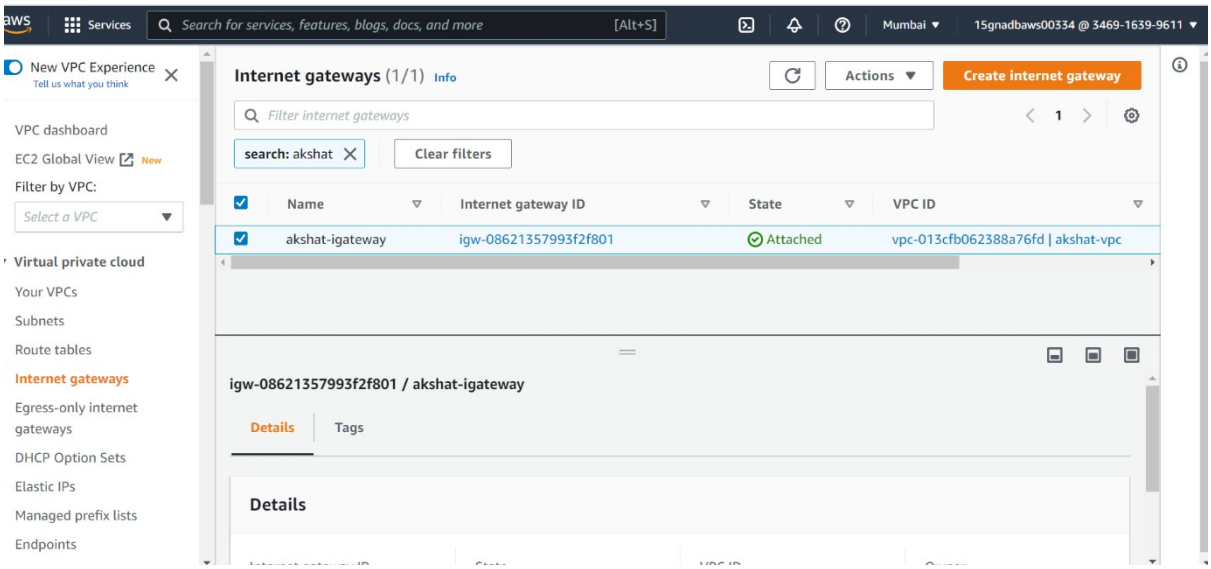
Step-1 Create new VPC



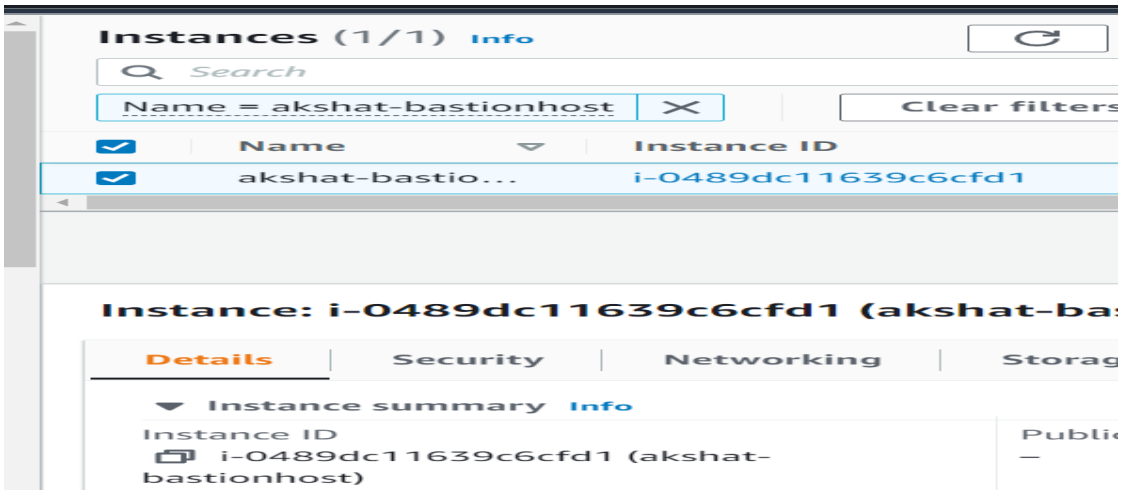
Step-2 Create subnet



Step-3 Create Internet gateway



Step- 4 Create an Ec2 instance in vpc using key pair

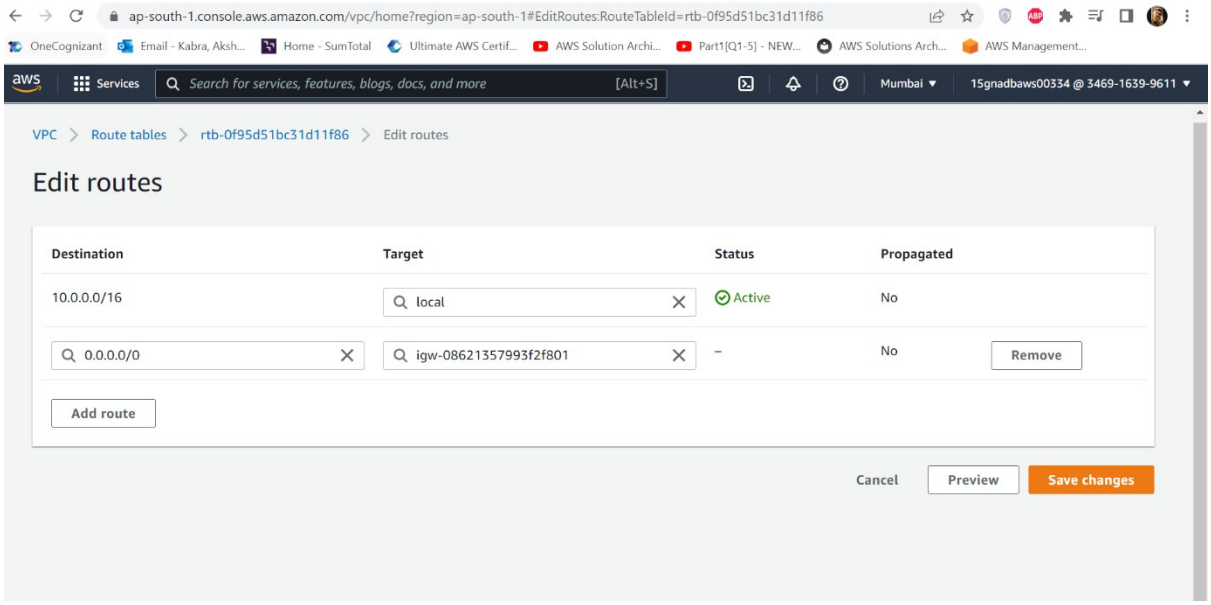


Step 5- Open PuTTY by clicking on the desktop icon or the **putty.exe** file in the PuTTY folder.

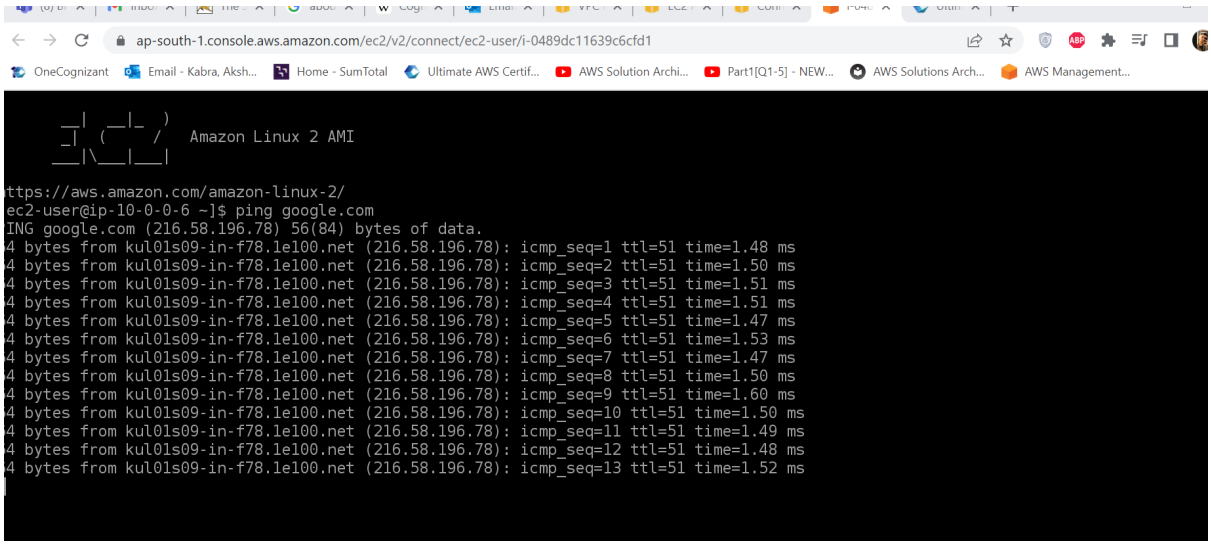
1. In the *Host Name ()* box, type public IP of instance
2. And in SSH select the key pair
3. Or directly connect through AWS

Step – 6

Set route for the internet gateway



Step 7 Finally you are connected to your ec2 instance



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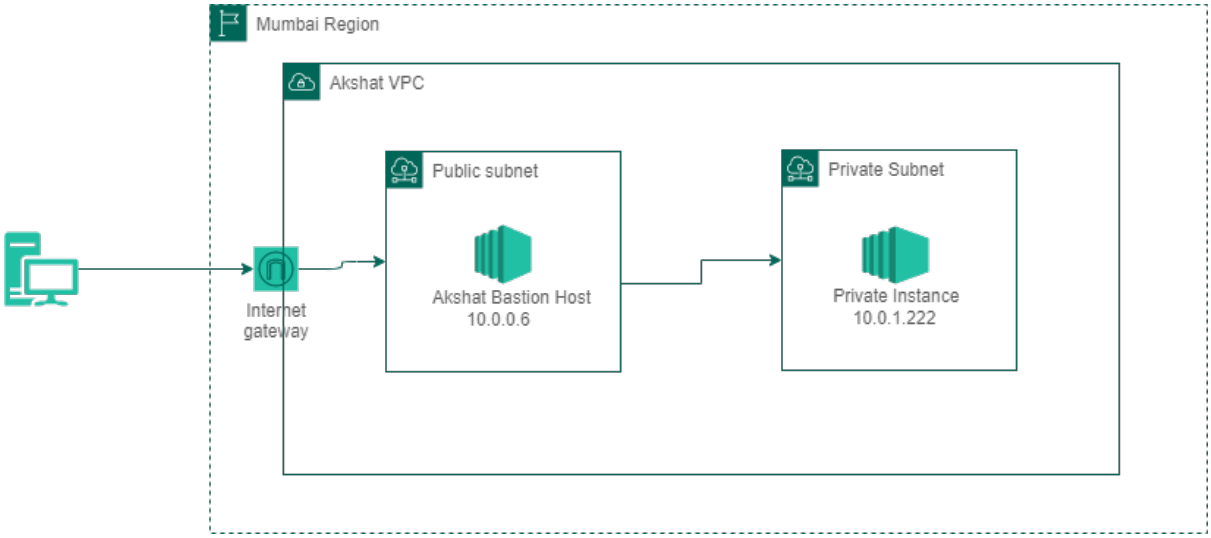
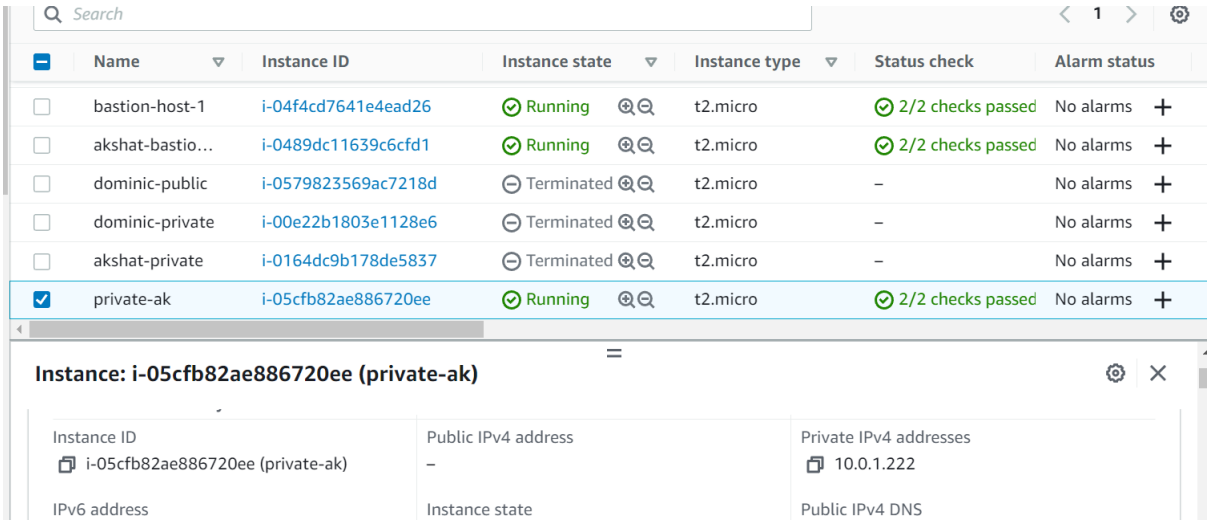
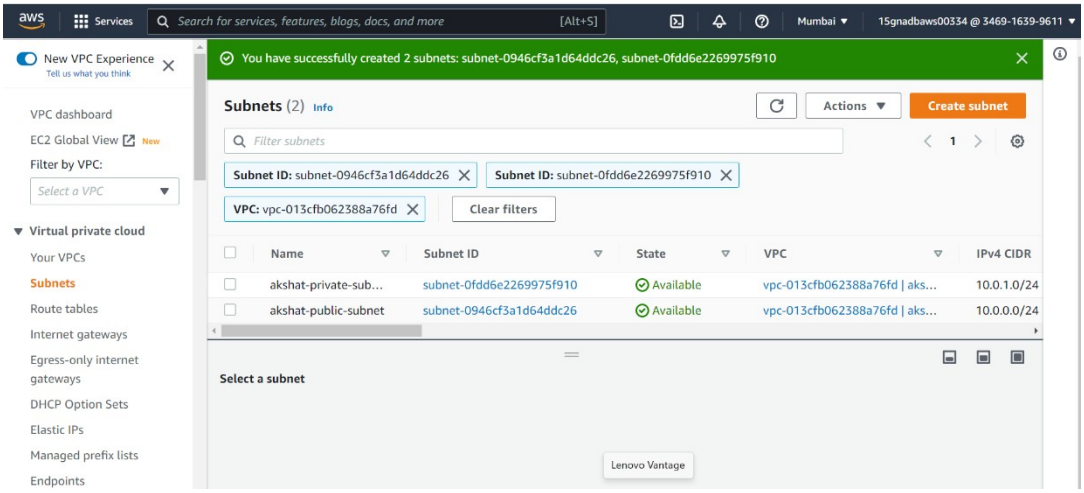
From Bastion connect to private EC2 in VPC-Backend.



To connect private instance using Bastion

1. Create a private Instance in VPC and add a private subnet ,you can use Key pair as same as Bastion server or can create a new one.

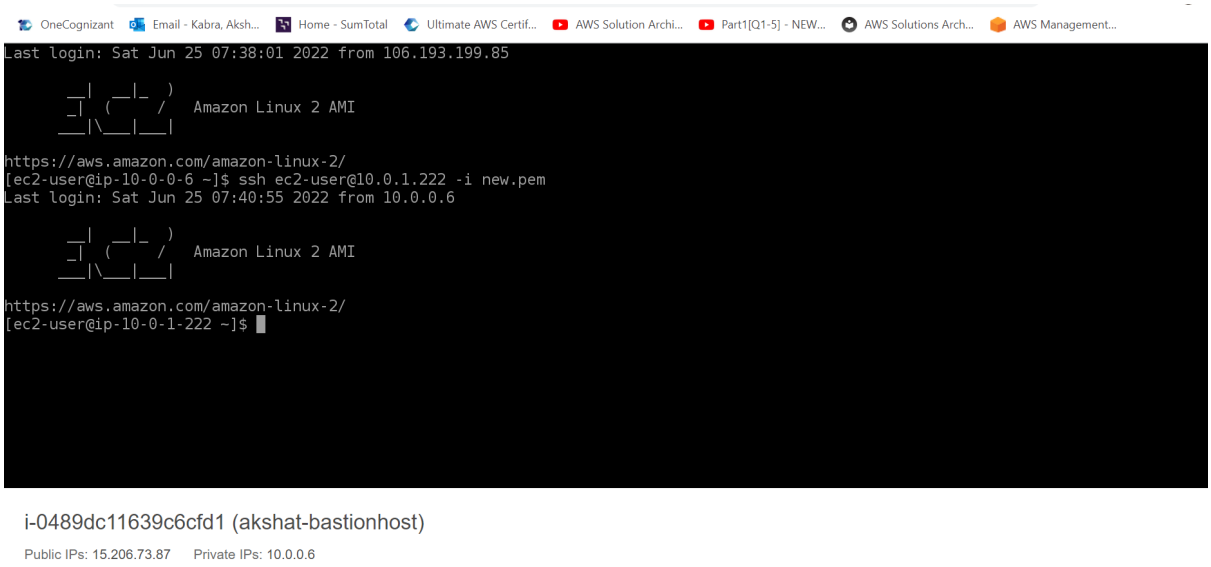




2. And in Security group, allow traffic from the security group of bastion server.
3. Make sure that private instance don't have a public IP(Auto Assign Public option is DISABLED)
4. Then follow the below Step.

First connect to Bastion Host then type –

"ssh ec2-user@private IP -I key file of instance"



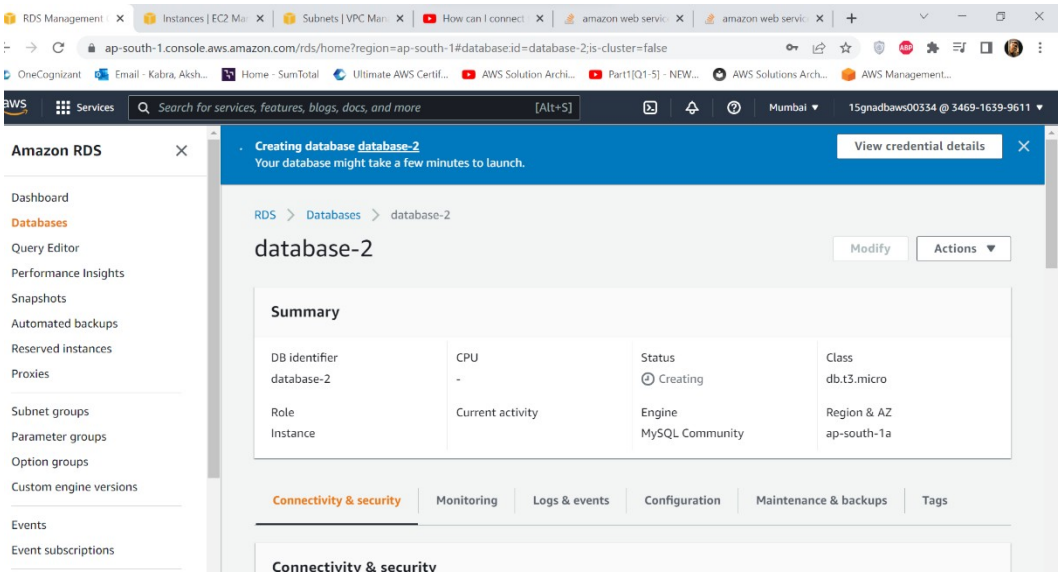
i-0489dc11639c6cfd1 (akshat-bastionhost)

Public IPs: 15.206.73.87 Private IPs: 10.0.0.6

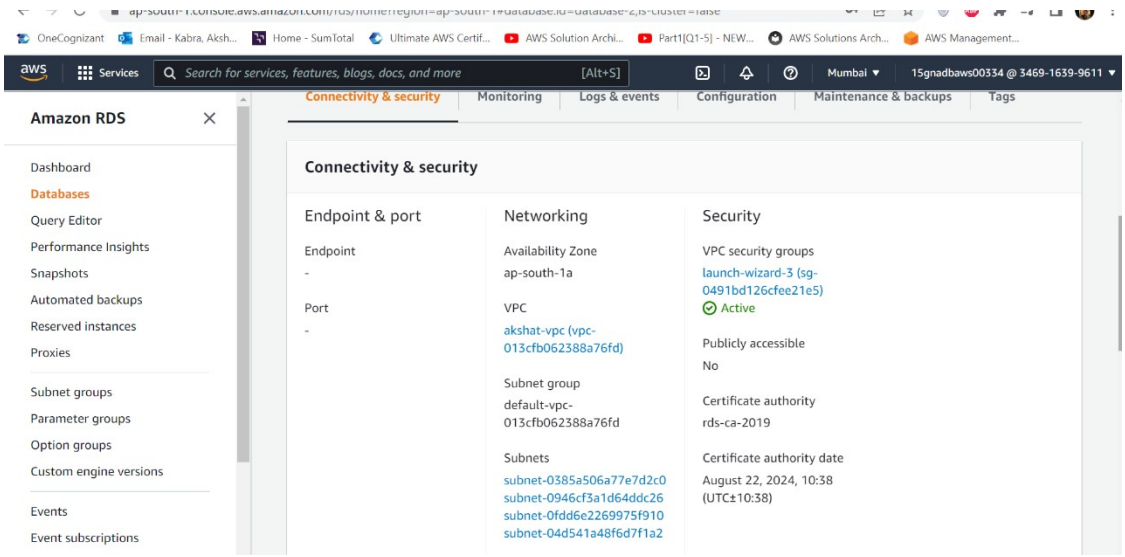
Now, you can able to connect to private instance from Bastion Host.

From Local system connect to RDS (Through Bastion Server)

1. To connect Bastion Server to RDS ,First create RDS using any DB engine (MySQL)

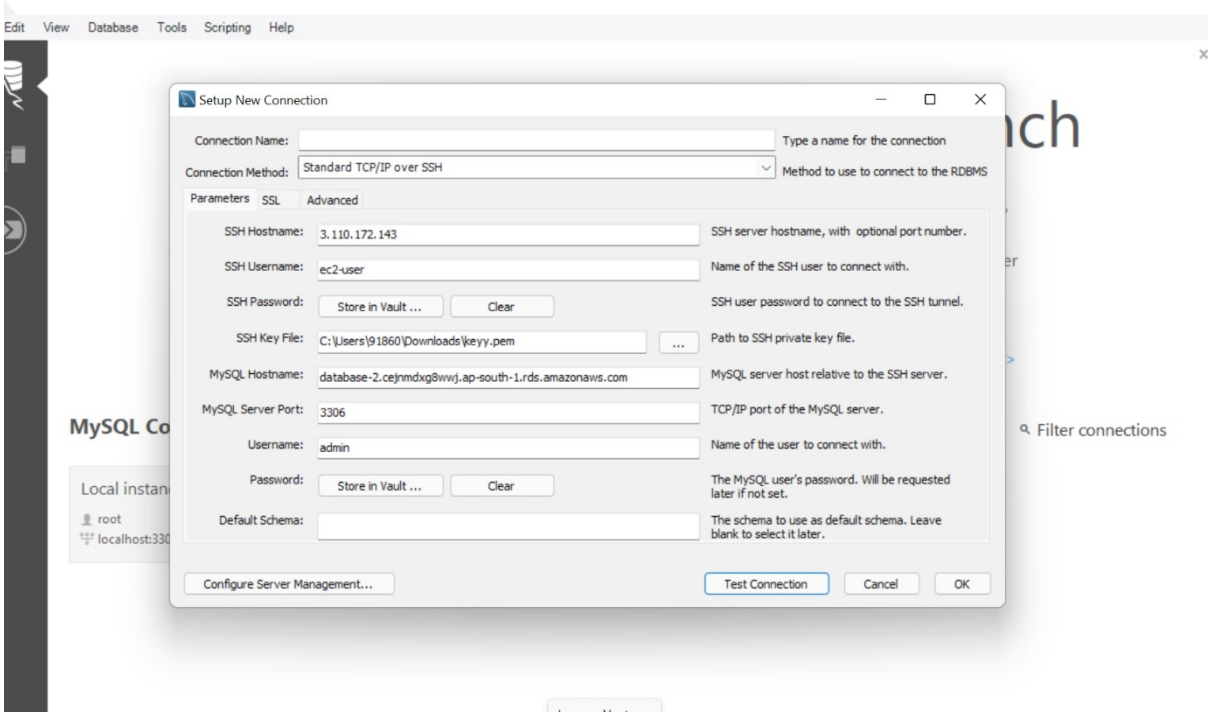


2. Make sure that RDS VPC is same as Bastion Host's VPC.



3. After creating RDS open MySQL workbench.
4. Setup new connection using connection method- Standard TCP/IP Over SSH.
5. In SSH Host name type the IP of Bastion Instance and in MYSQL host name type the end point of RDS DB
6. Then type the id password (used at the time of creation of RDS)

7.



Then click test connection and then click “ok” you can able to connect.

Problem I’ve faced and its Solutions

While connecting to private instance I was getting an error “Permission Denied” then I’ve gone through various Youtube videos and followed their steps for connecting.