Module 5: Case Study - 1

Problem Statement:

You work for XYZ Corporation and based on the expansion requirements of your corporation you have been asked to create and set up a distinct Amazon VPC for the production and development team. You are expected to perform the following tasks for the respective VPCs.

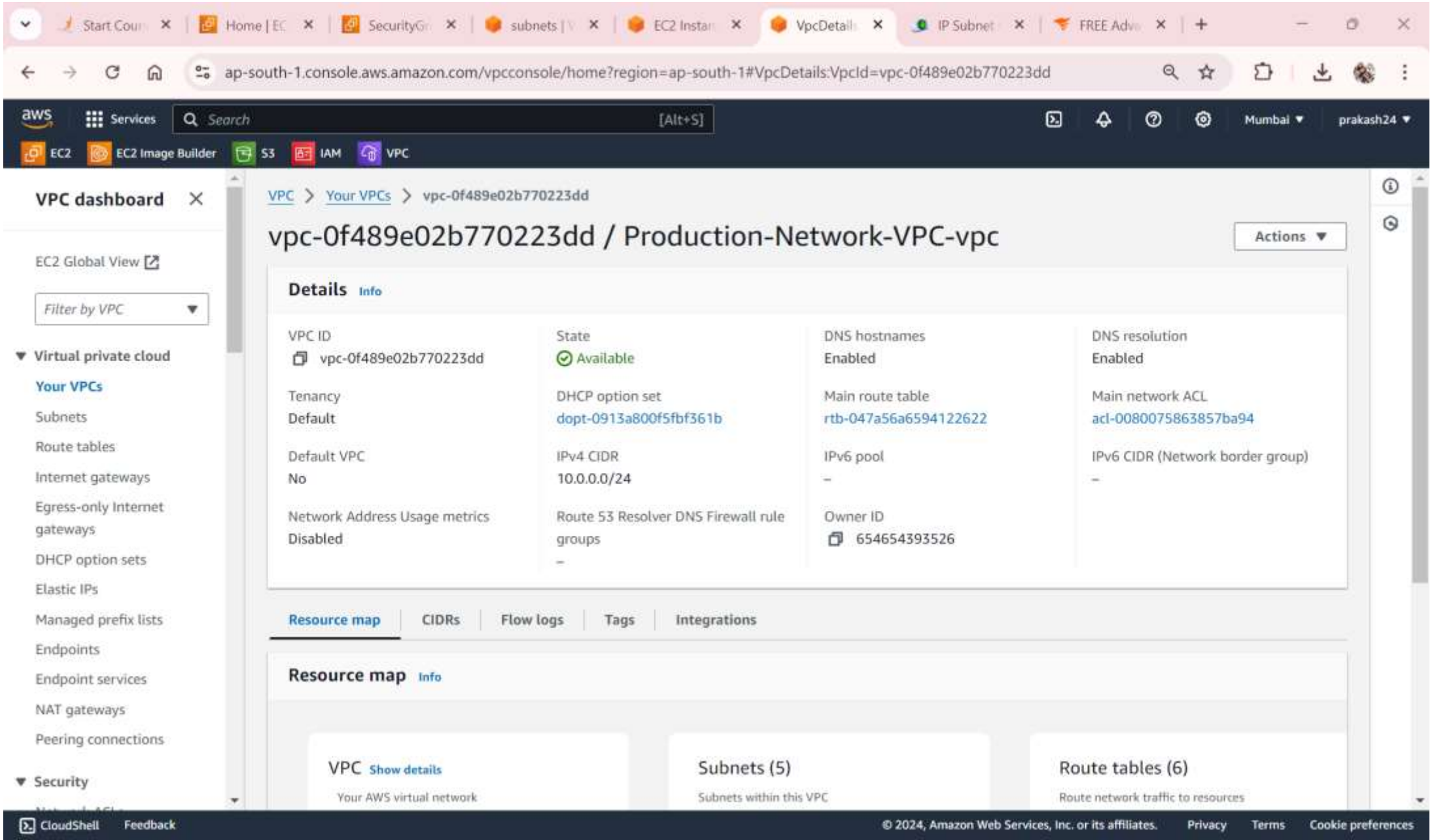
Production Network:

1. Design and build a 4-tier architecture.
2. Create 5 subnets out of which 4 should be private named app1, app2, dbcache and db and one should be public, named web.
3. Launch instances in all subnets and name them as per the subnet that they have been launched in.
4. Allow dbcache instance and app1 subnet to send internet requests.
5. Manage security groups and NACLs.

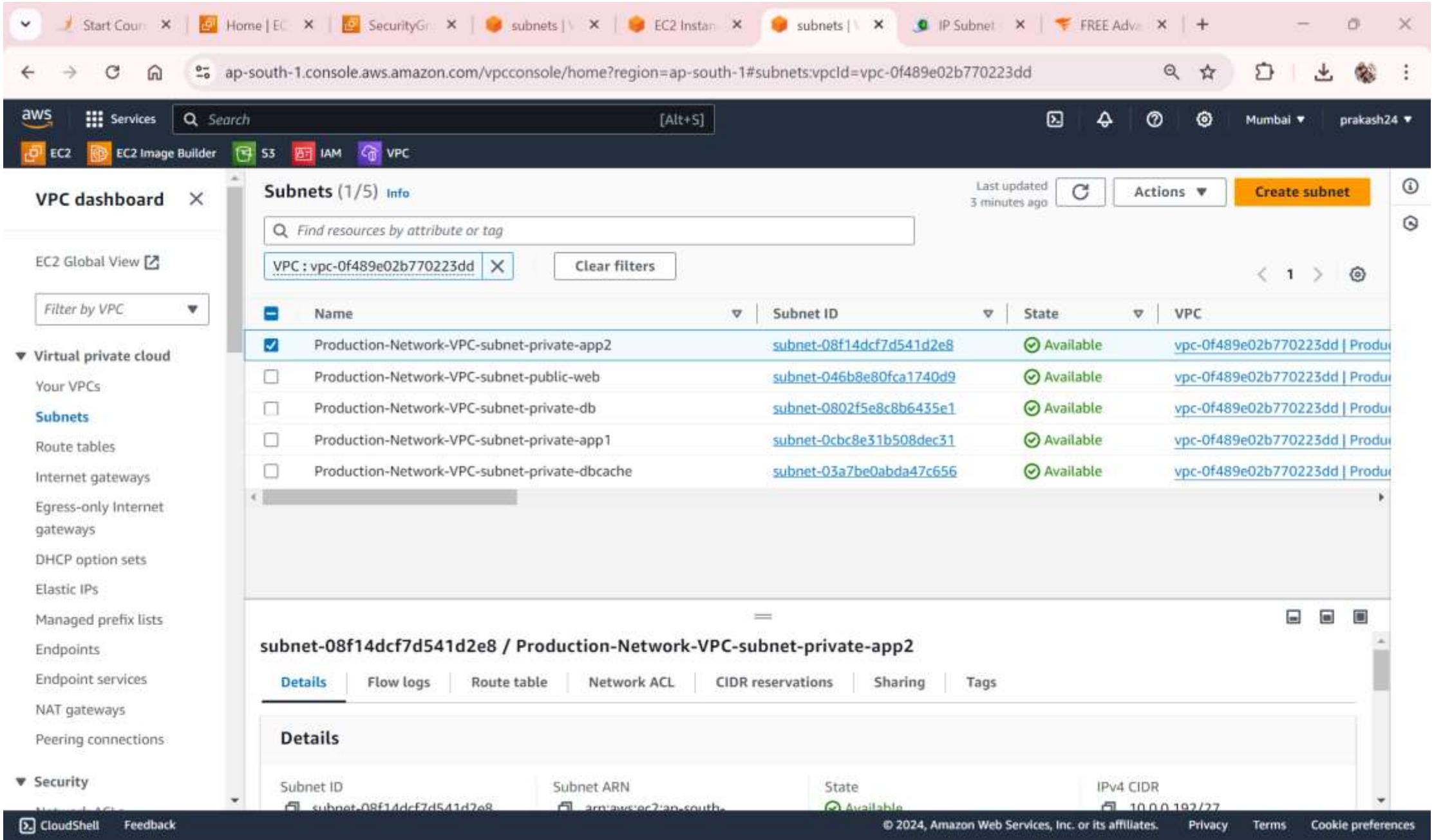
Development Network:

1. Design and build 2-tier architecture with two subnets named web and db and launch instances in both subnets and name them as per the subnet names.
2. Make sure only the web subnet can send internet requests.
3. Create peering connection between production network and development network.
4. Setup connection between db subnets of both production network and development network respectively.

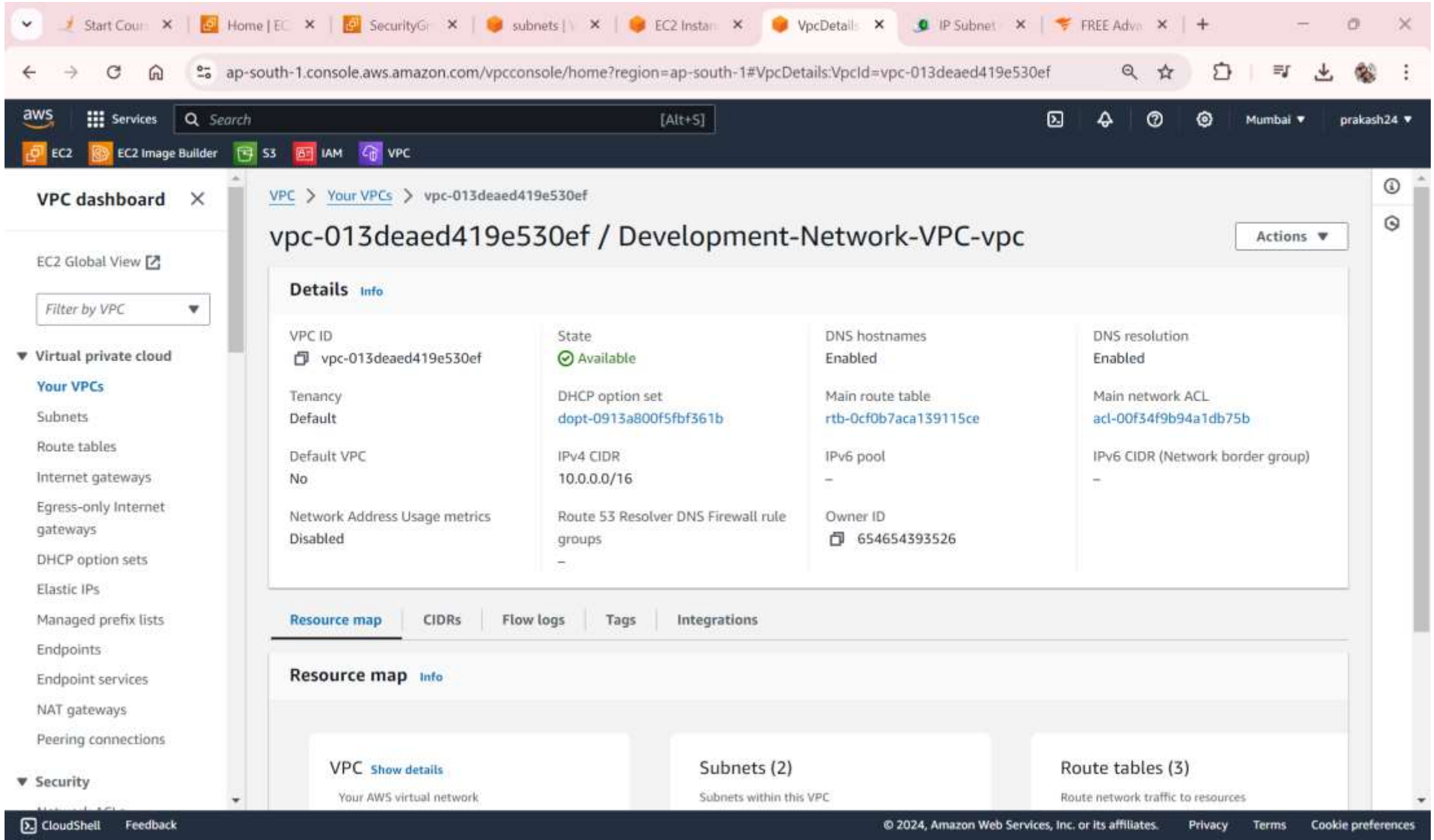
Created a VPC with name Production-Network-VPC



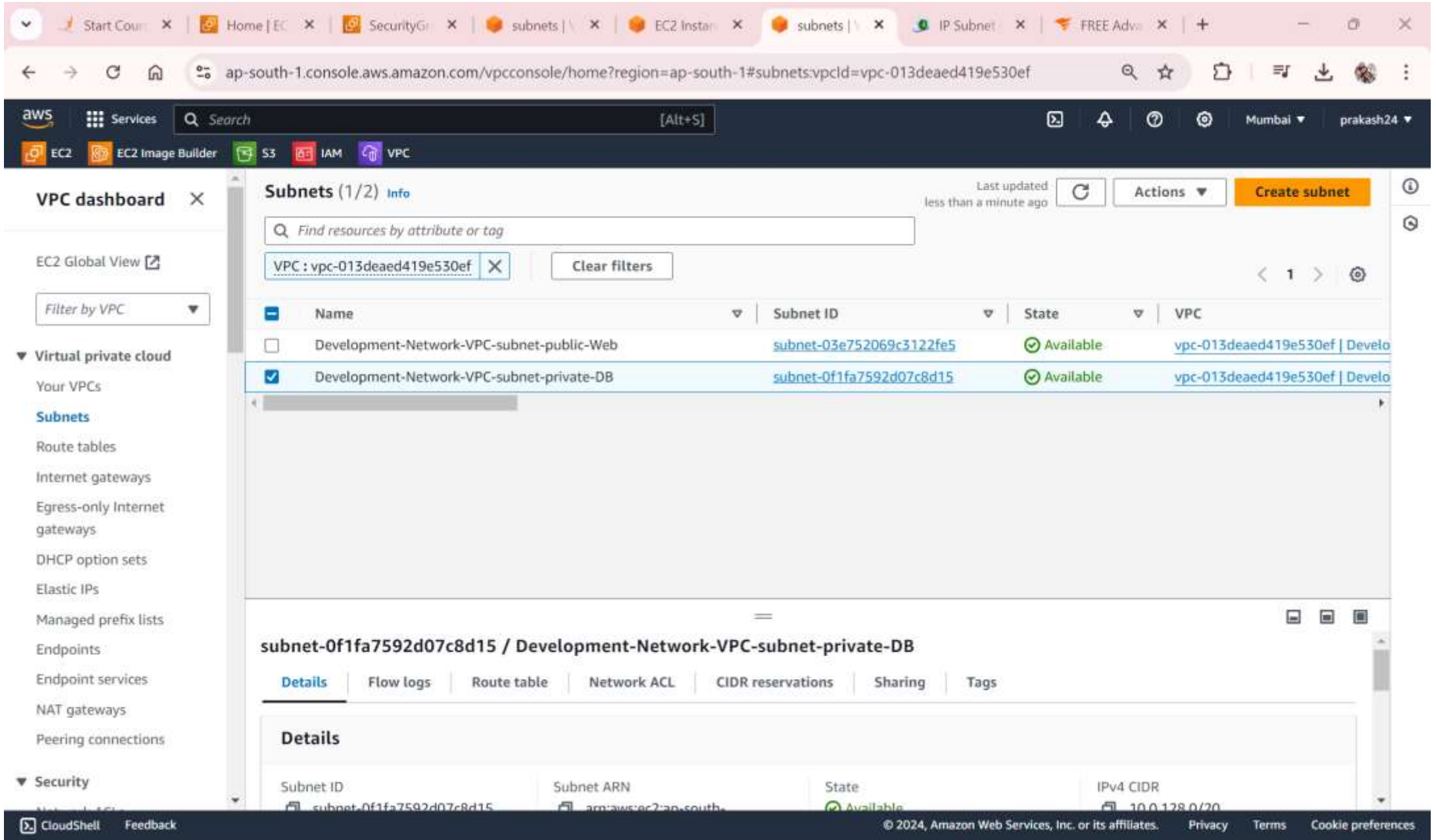
Created 5 subnet in the Production-Network-VPC app1, app2, dbcache and db (Private) and web (Public).



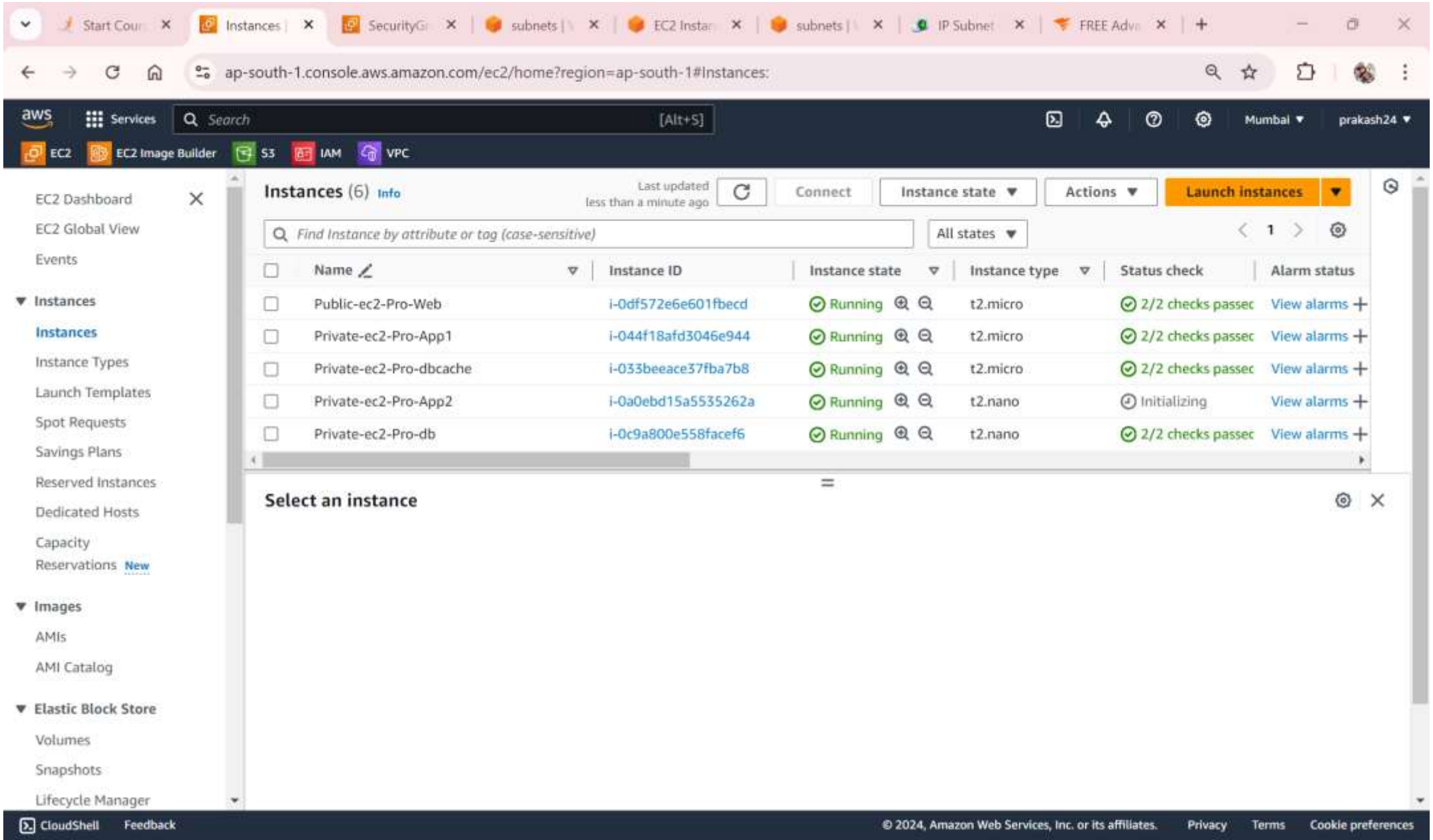
Created a VPC with name Development-Network-VPC



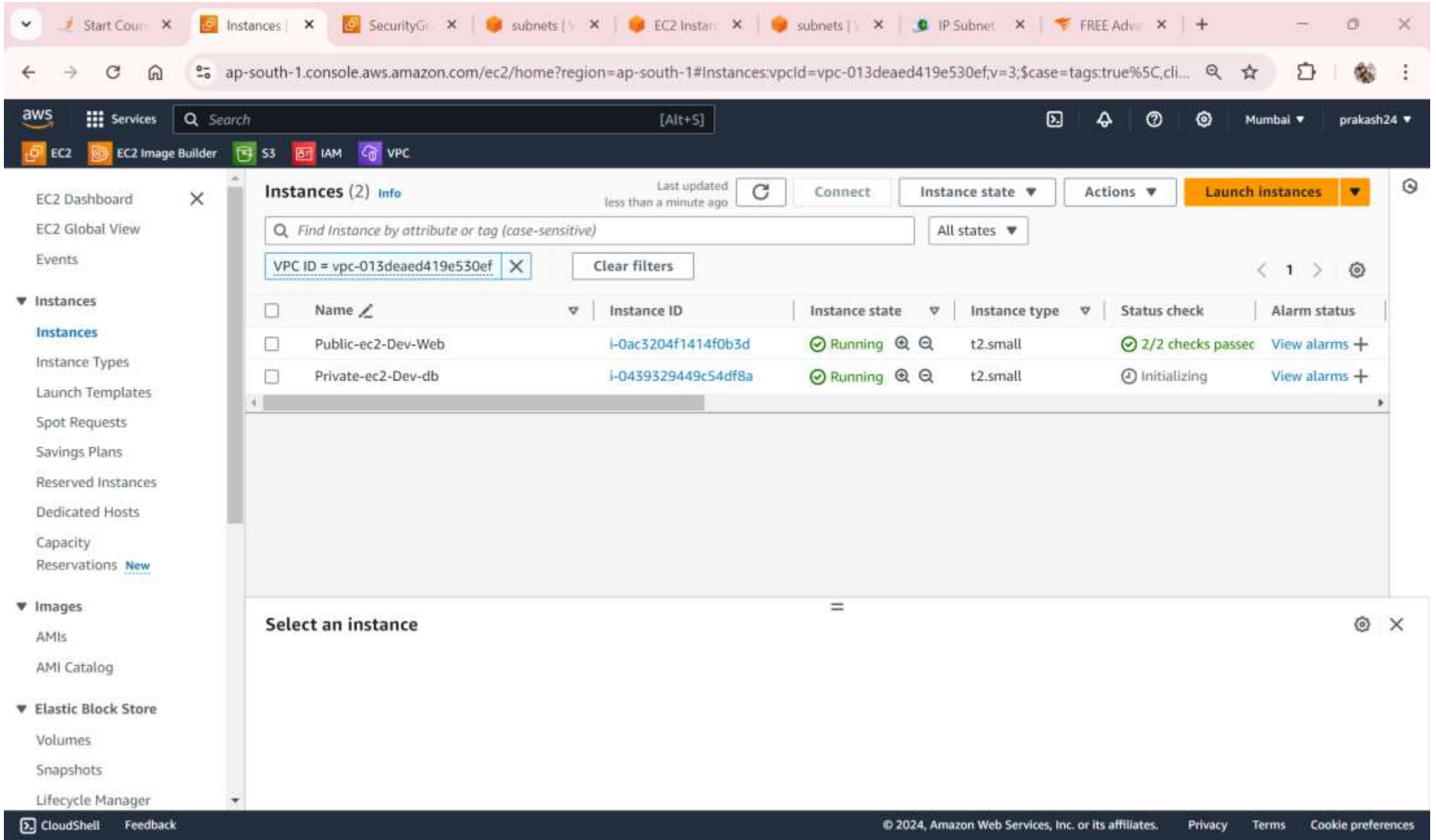
Created 2 subnet inside Development-Network-VPC with name of DB (private) and Web (Public)



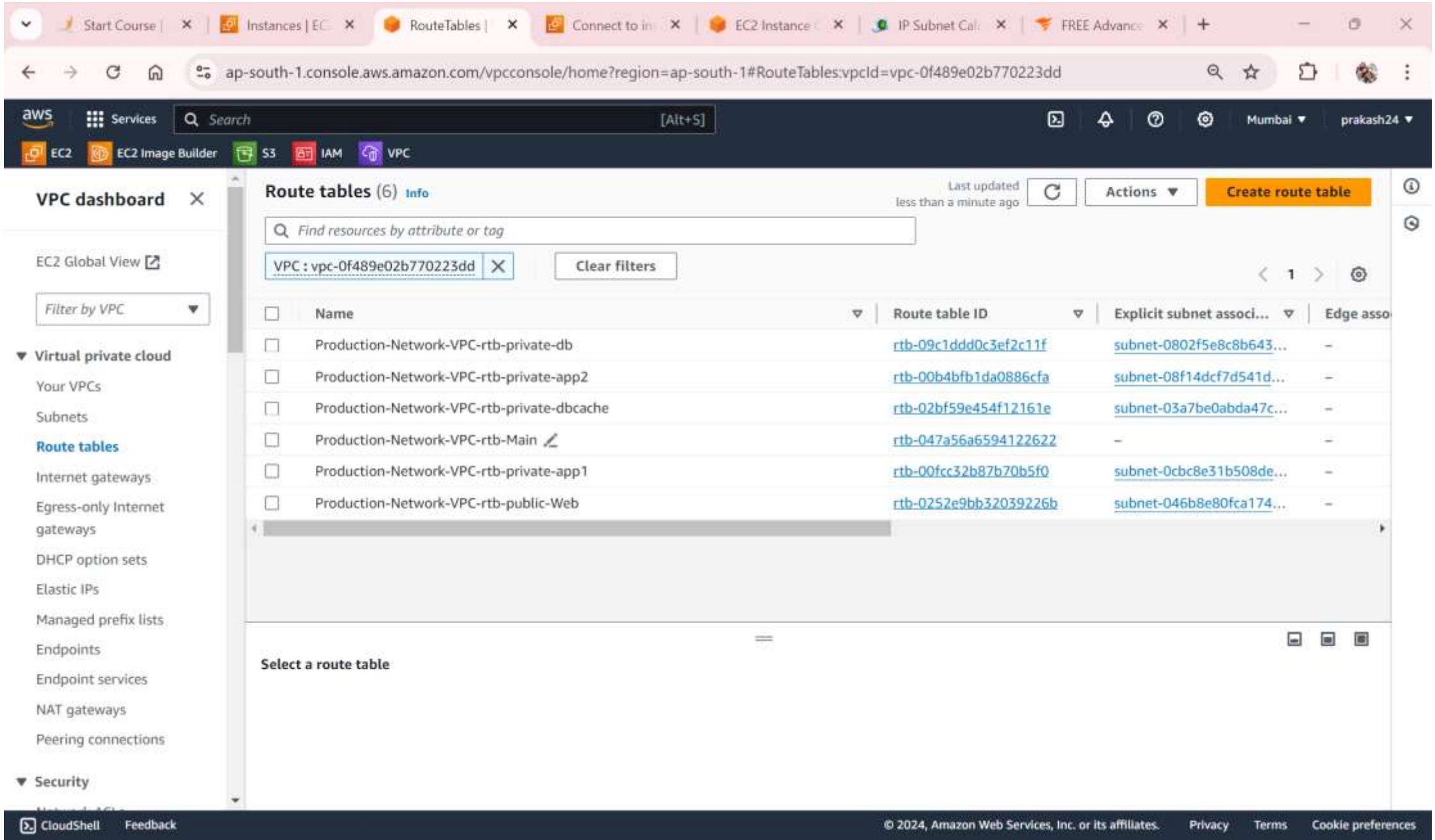
Launch instances in all 5 subnet in Production-Network-VPC



Launch instances in all 2 subnet in Development-Network-VPC



List of all route tables in Production-Network-VPC



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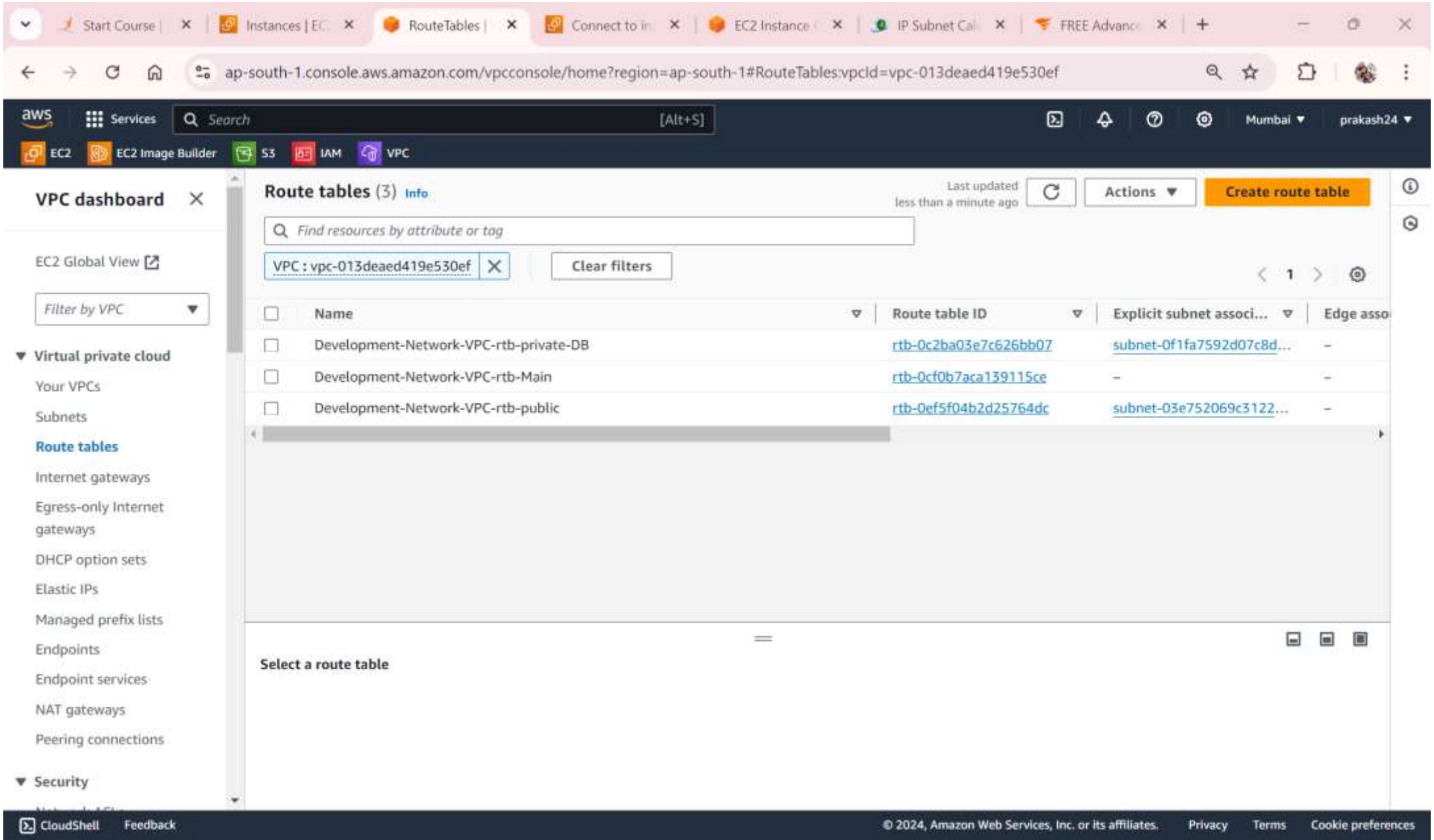
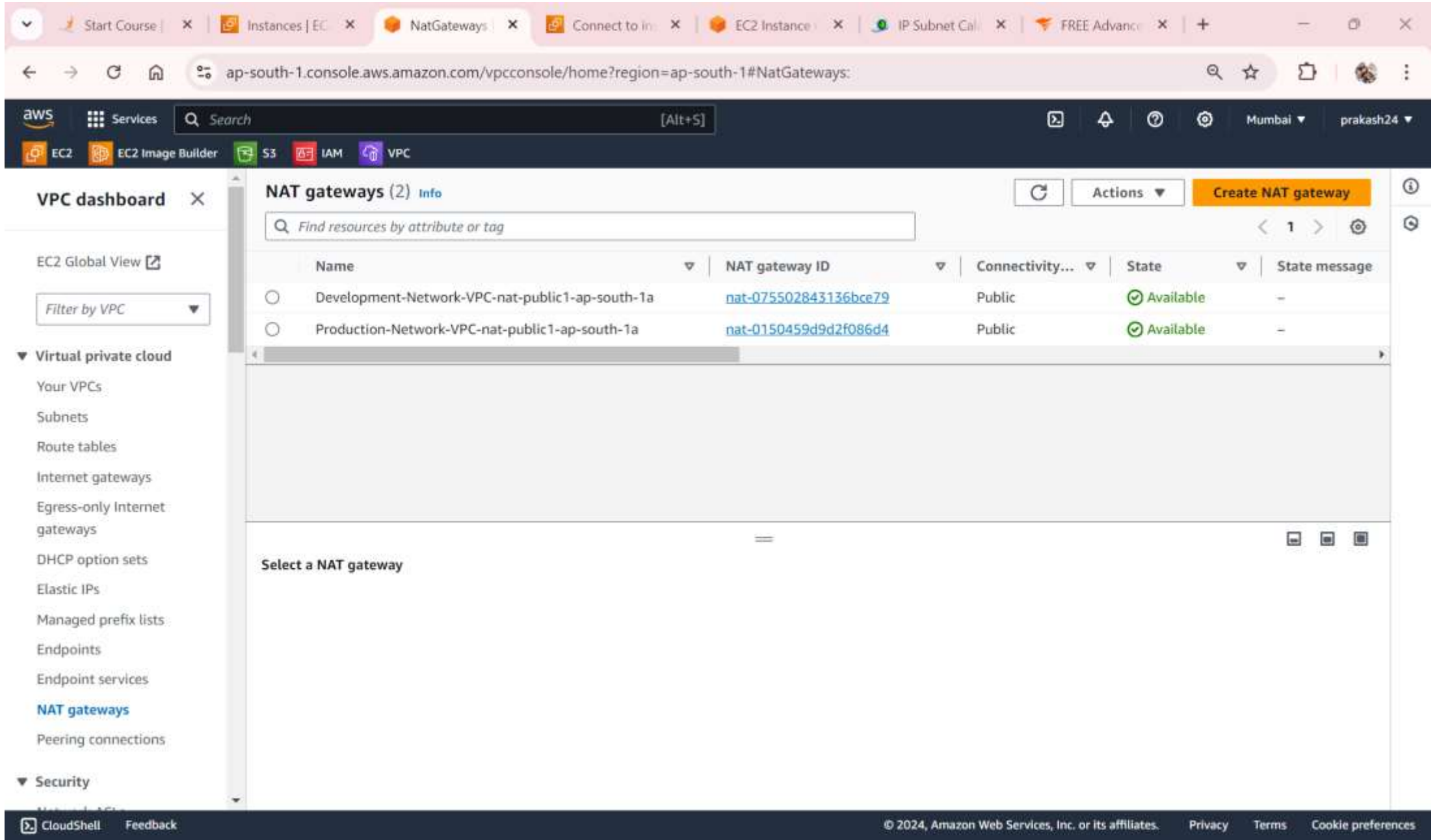
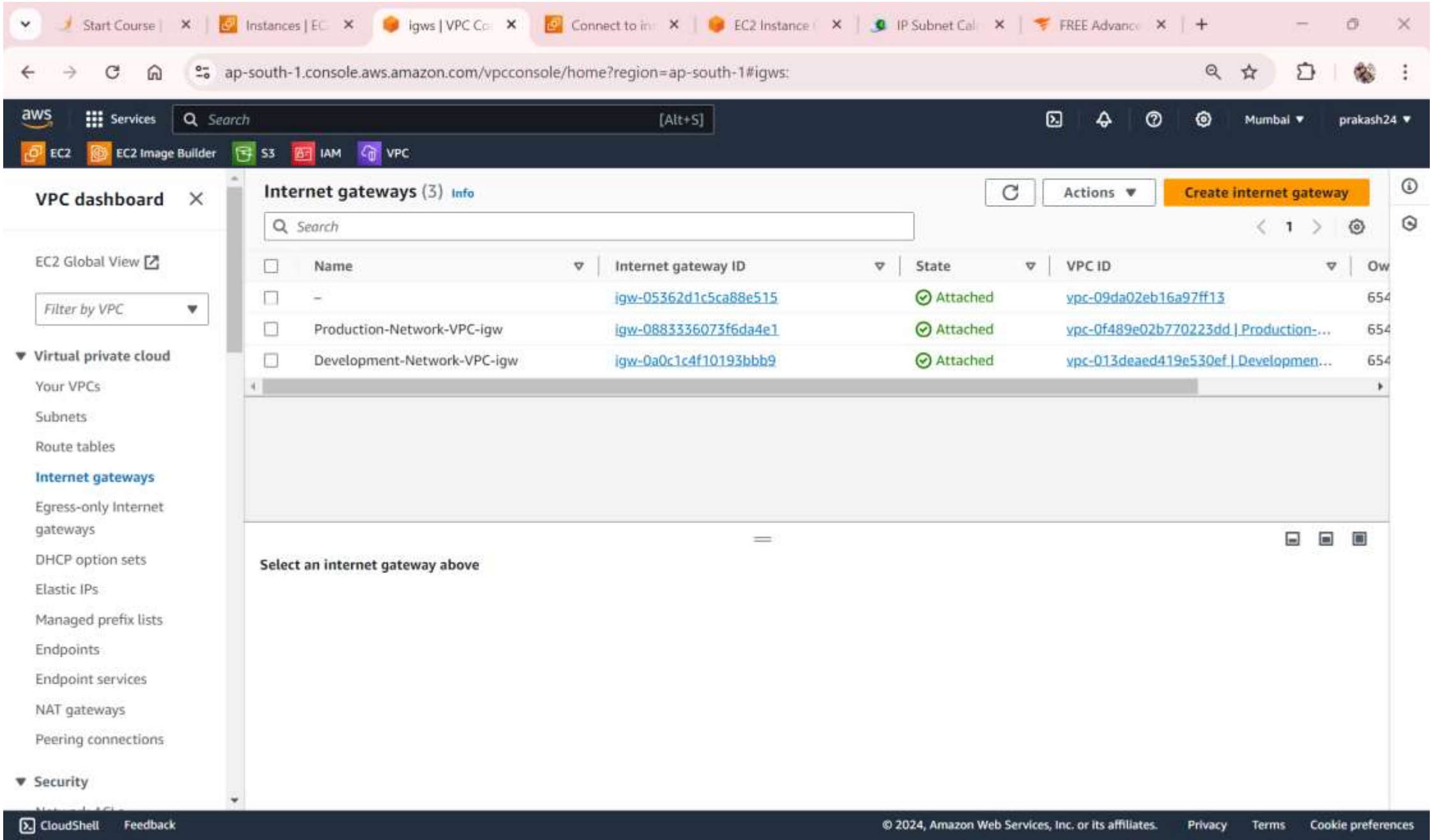


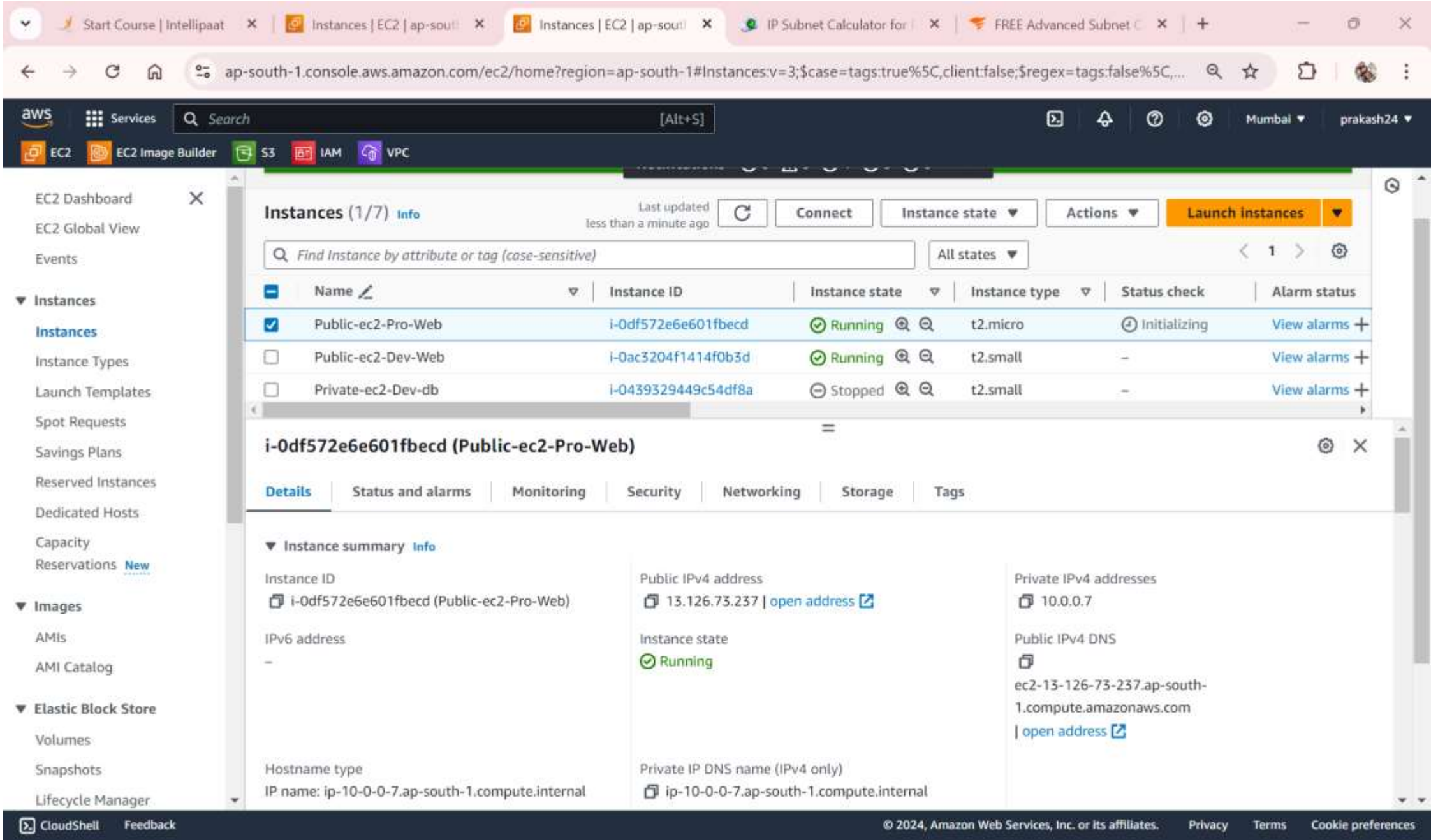
List of all NAT Gateway for both the network



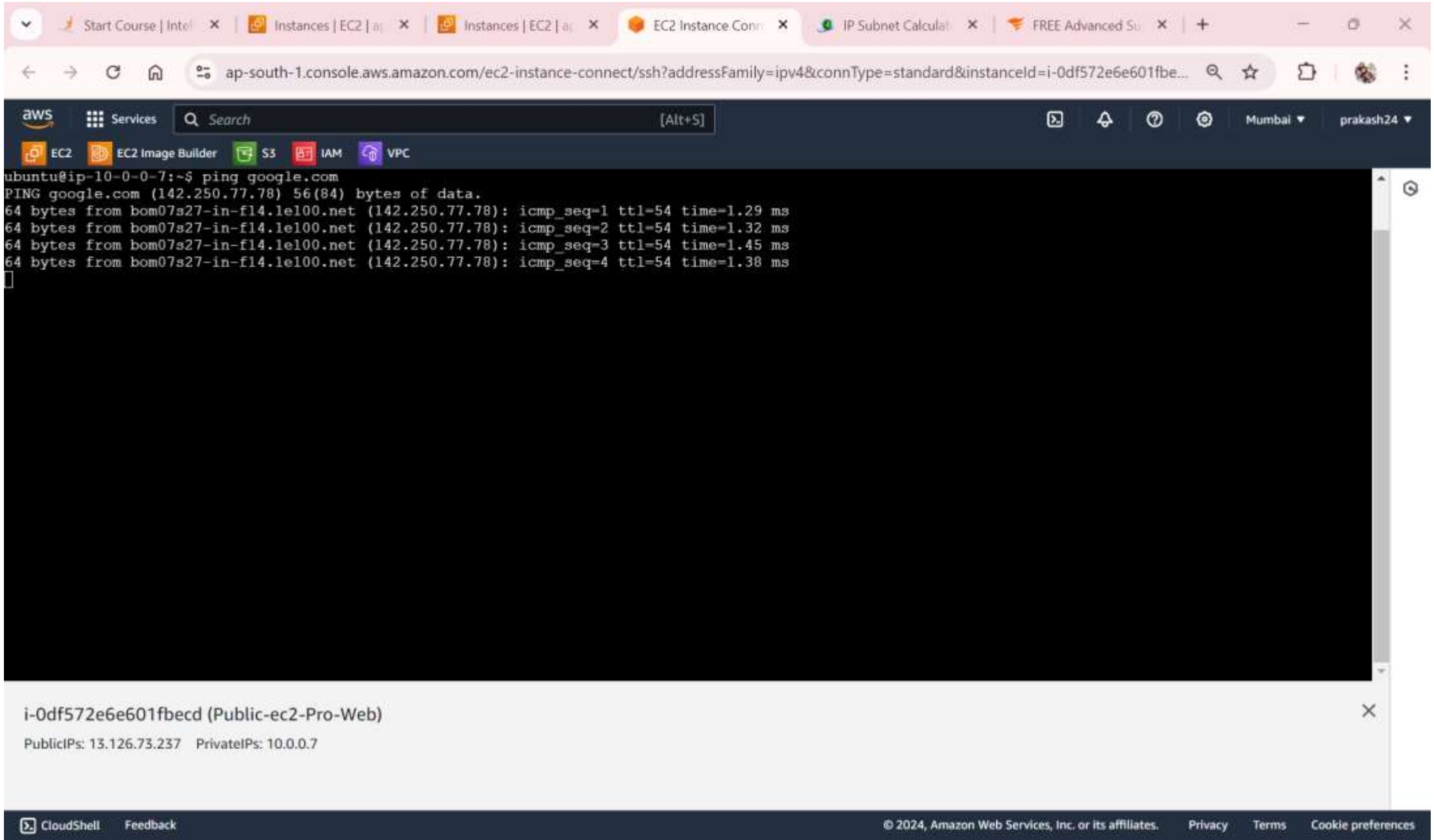
List of all Internet Gateway for both the network



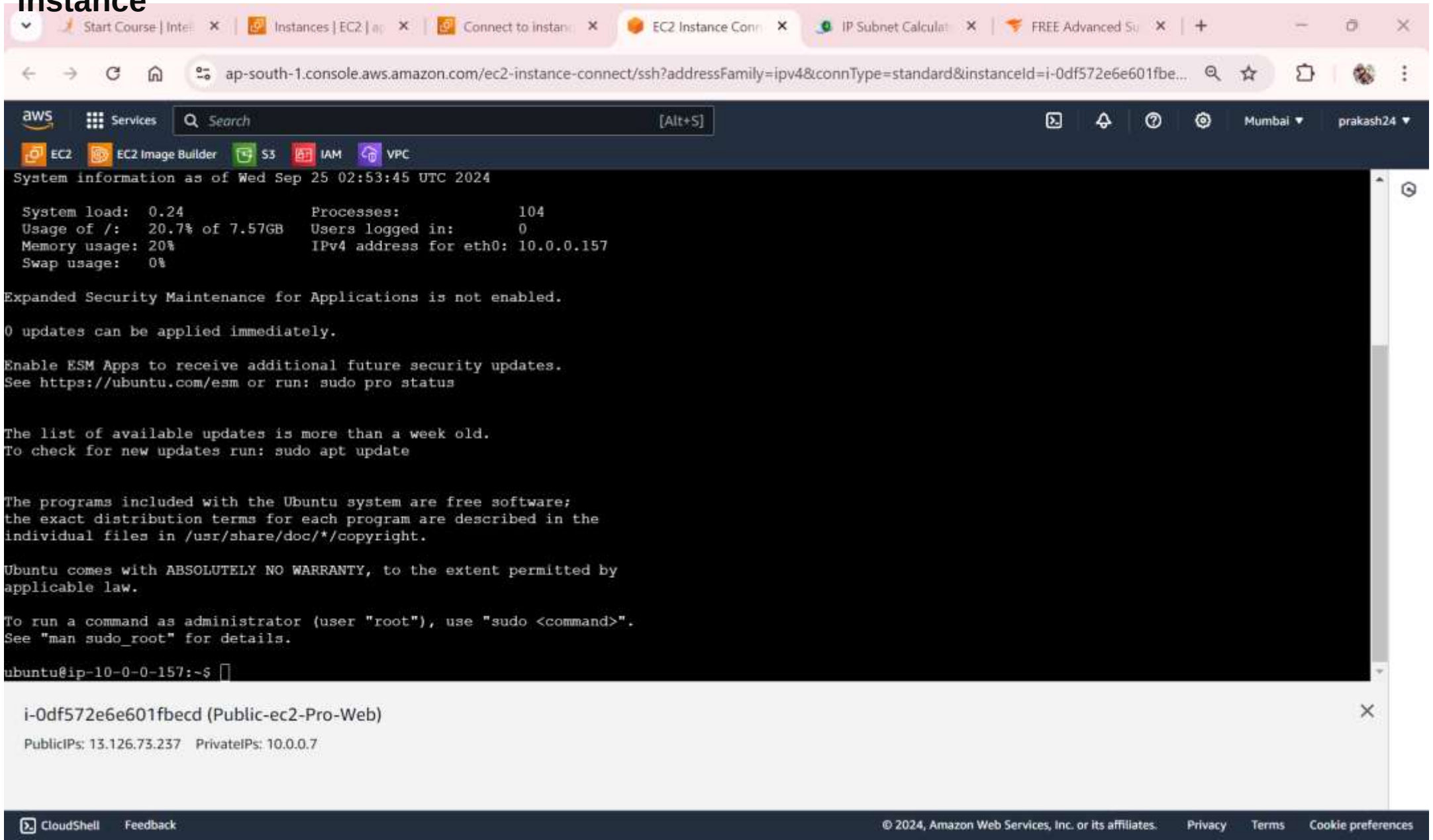
Public instance of Production-Network-VPC



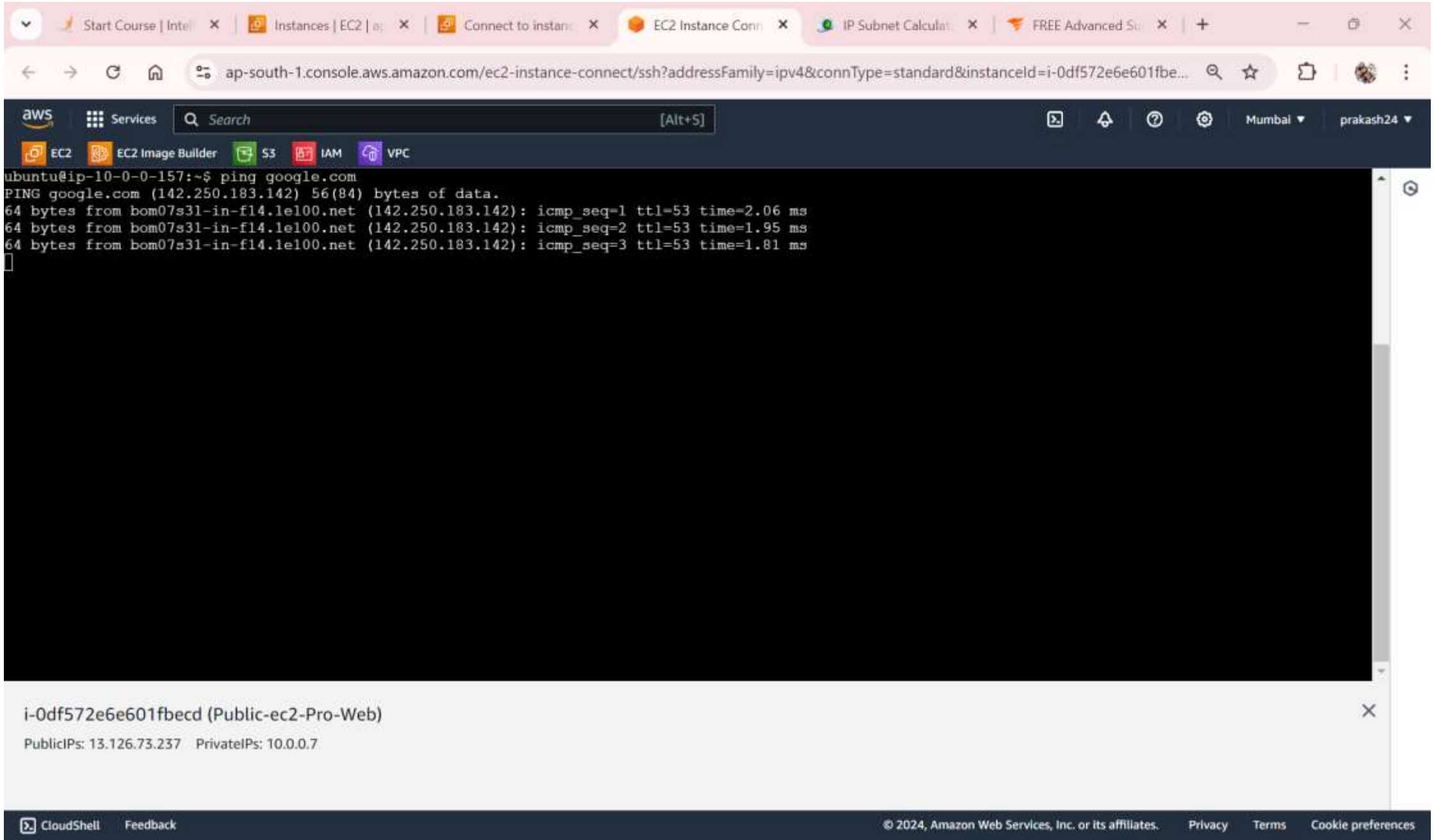
We can see the public instance of Production-Network-VPC able to ping google.com mean having internet connectivity



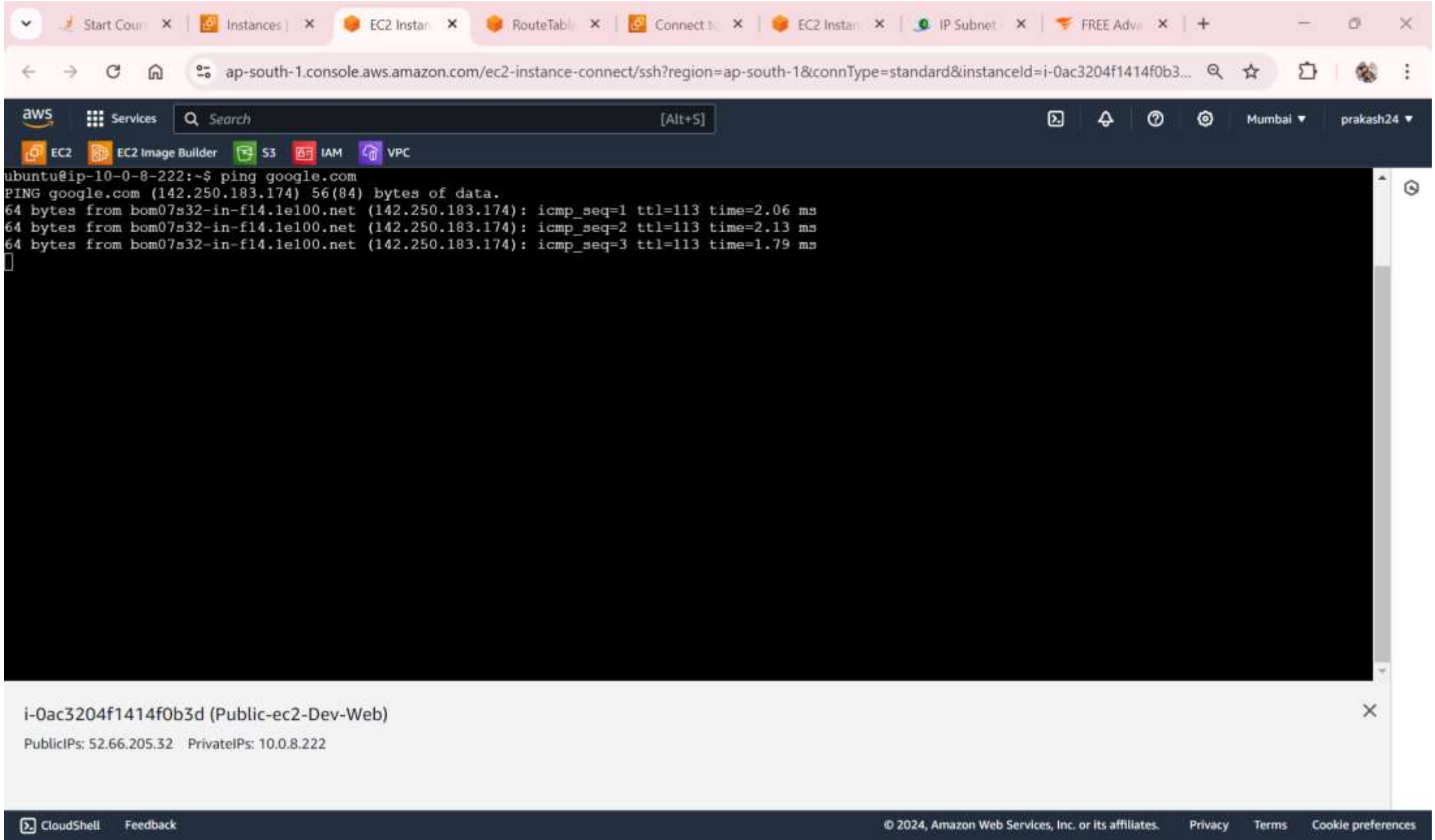
We can Connect to your instance i-044f18afd3046e944 (Private-ec2-Pro-App1) using public instance



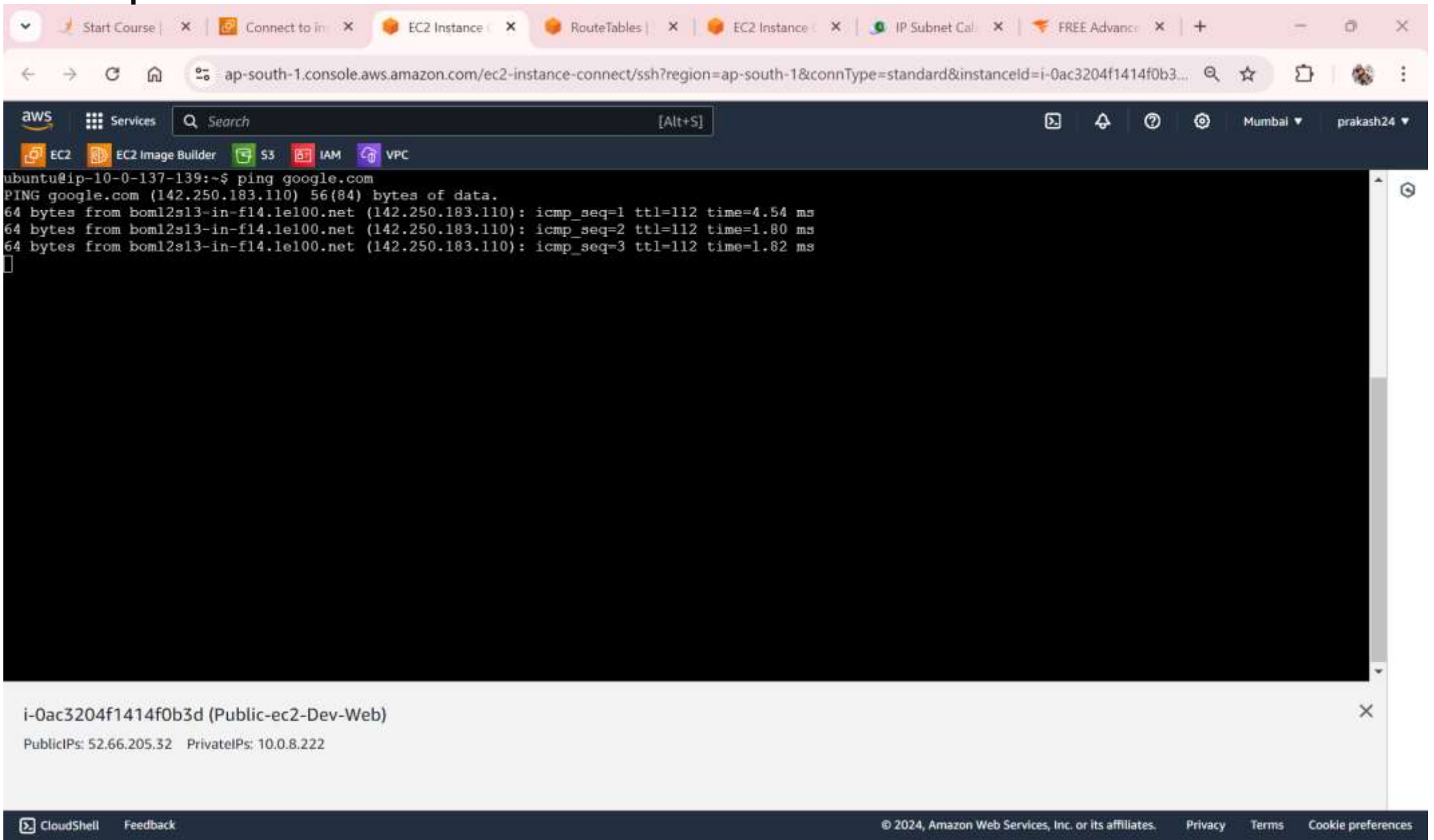
Allow inter (Private-ec2-Pro-App1) using NAT Gateway



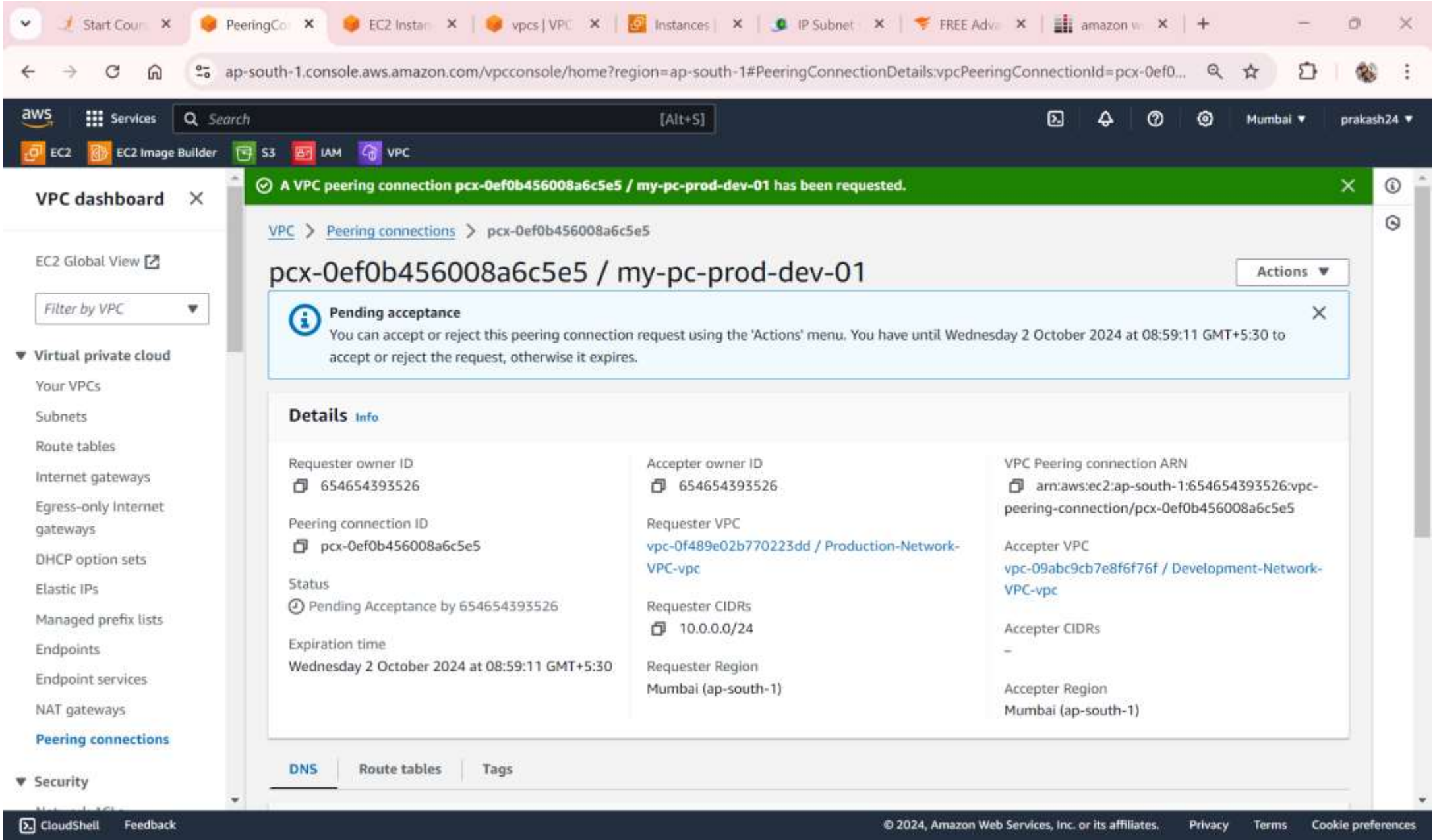
We can see the public instance of Development-Network-VPC able to ping google.com mean having internet connectivity i-0ac3204f1414f0b3d (Public-ec2-Dev-Web)



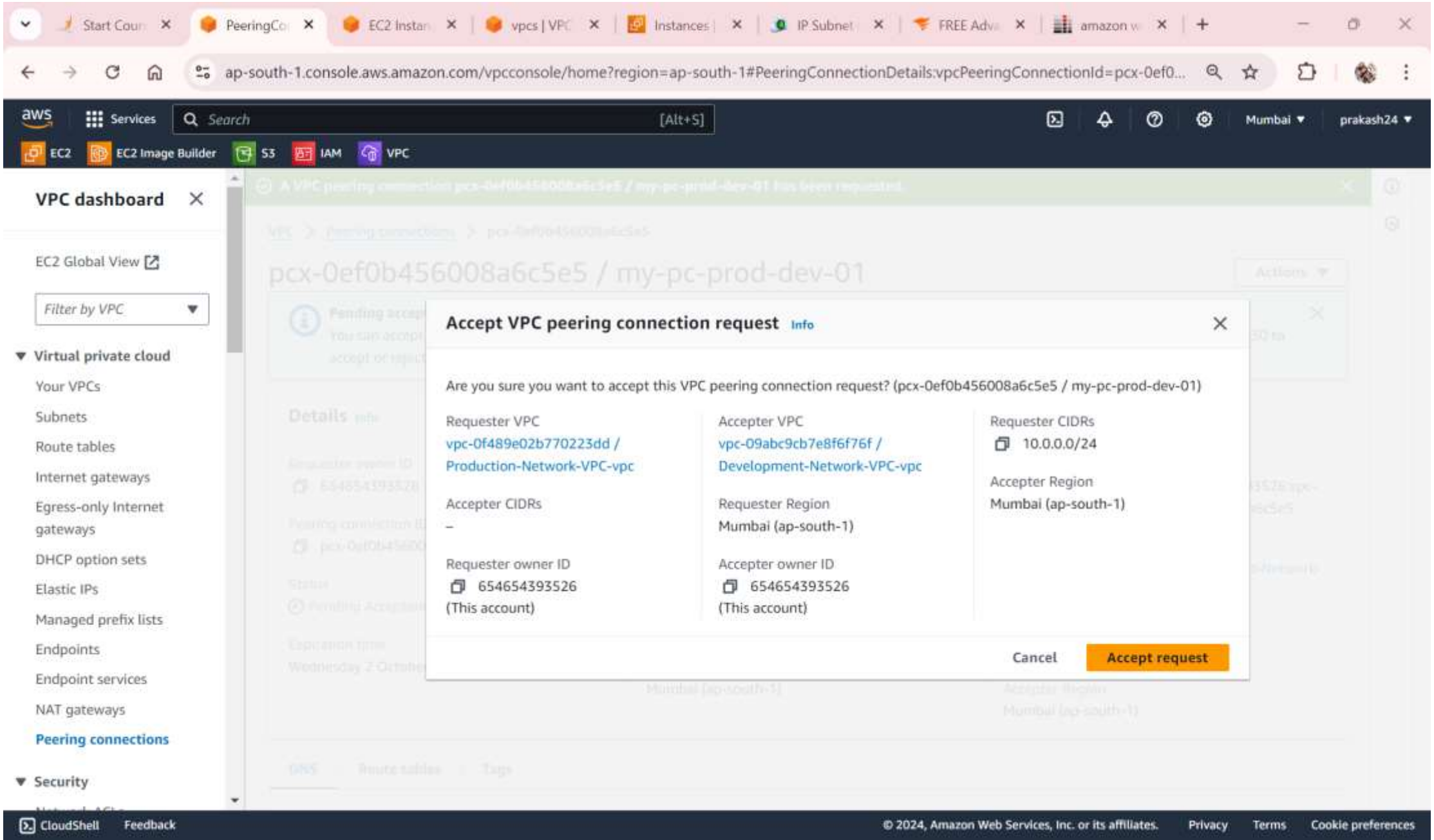
Connect to your instance i-0439329449c54df8a (Private-ec2-Dev-db) using any of these options



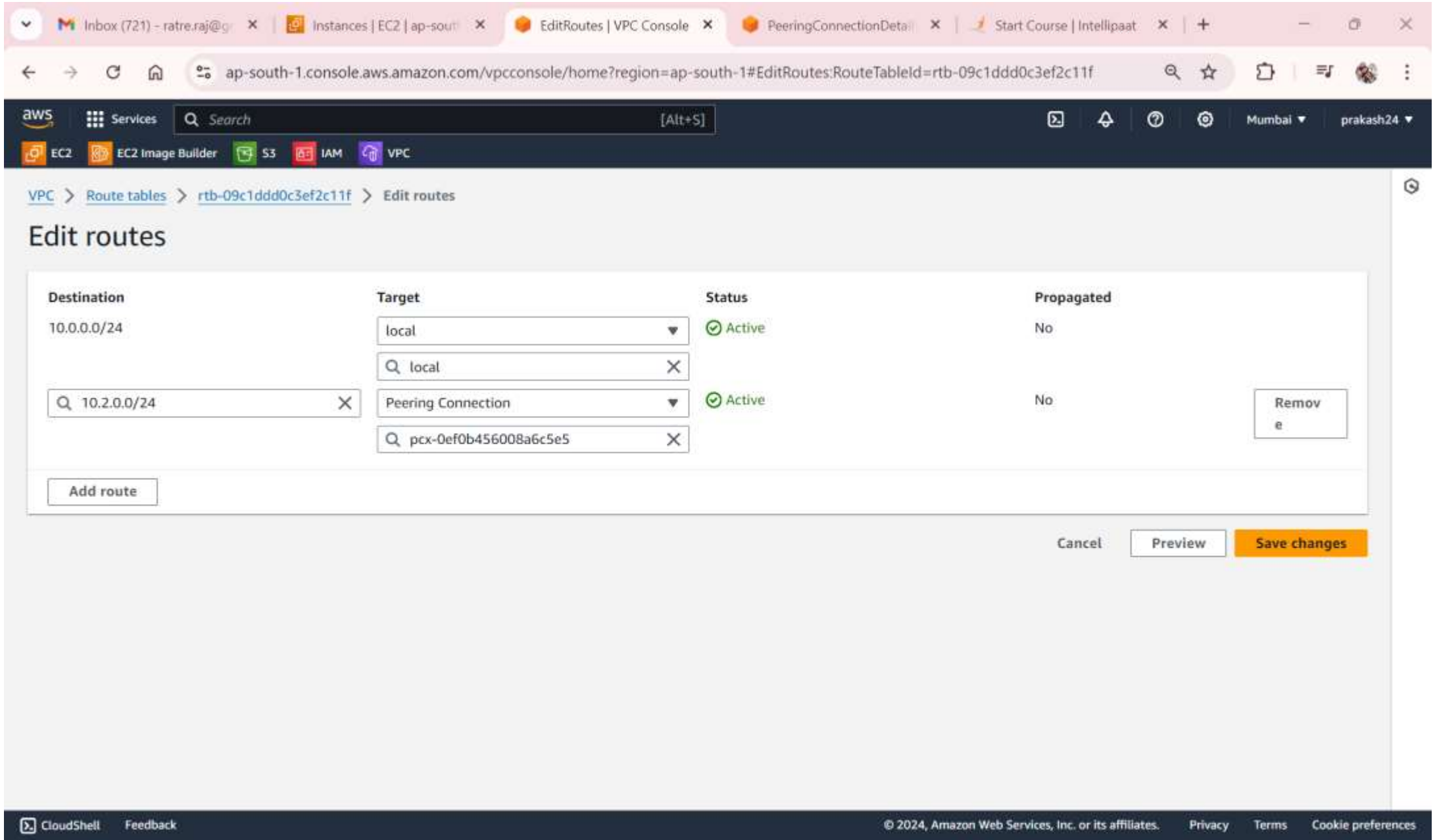
A Perring Connection to connect both of VPC Production Network and Development Network



Accepting a Perring Connection to by request VPC



Defining a routes to communicate both DB Private subnet of both VPC



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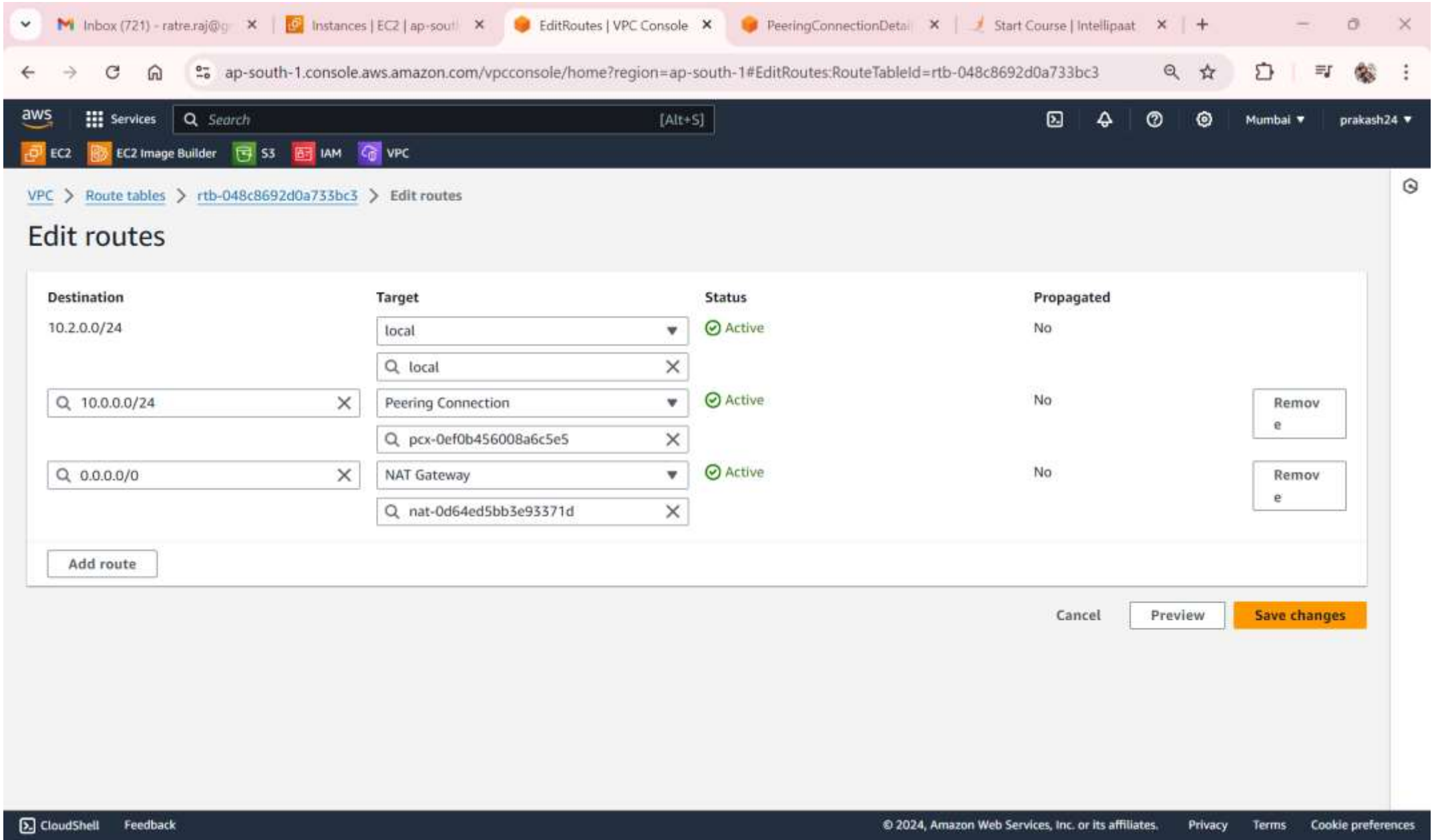
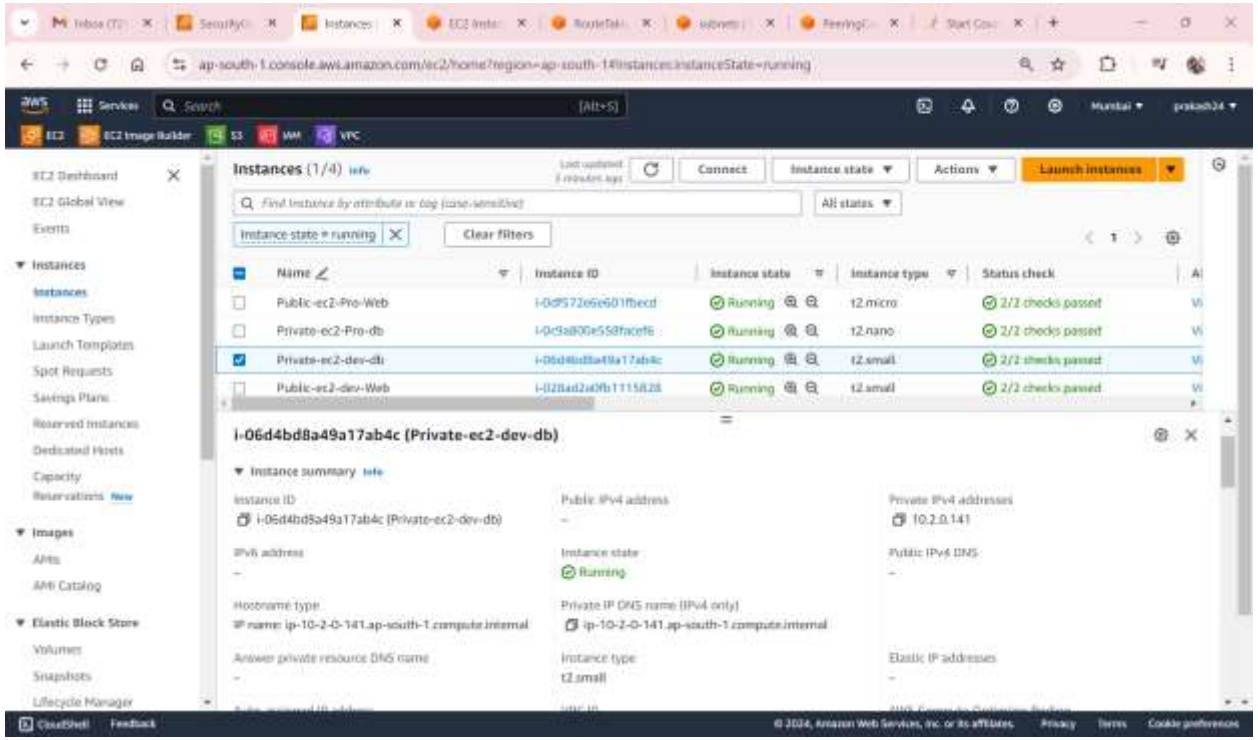
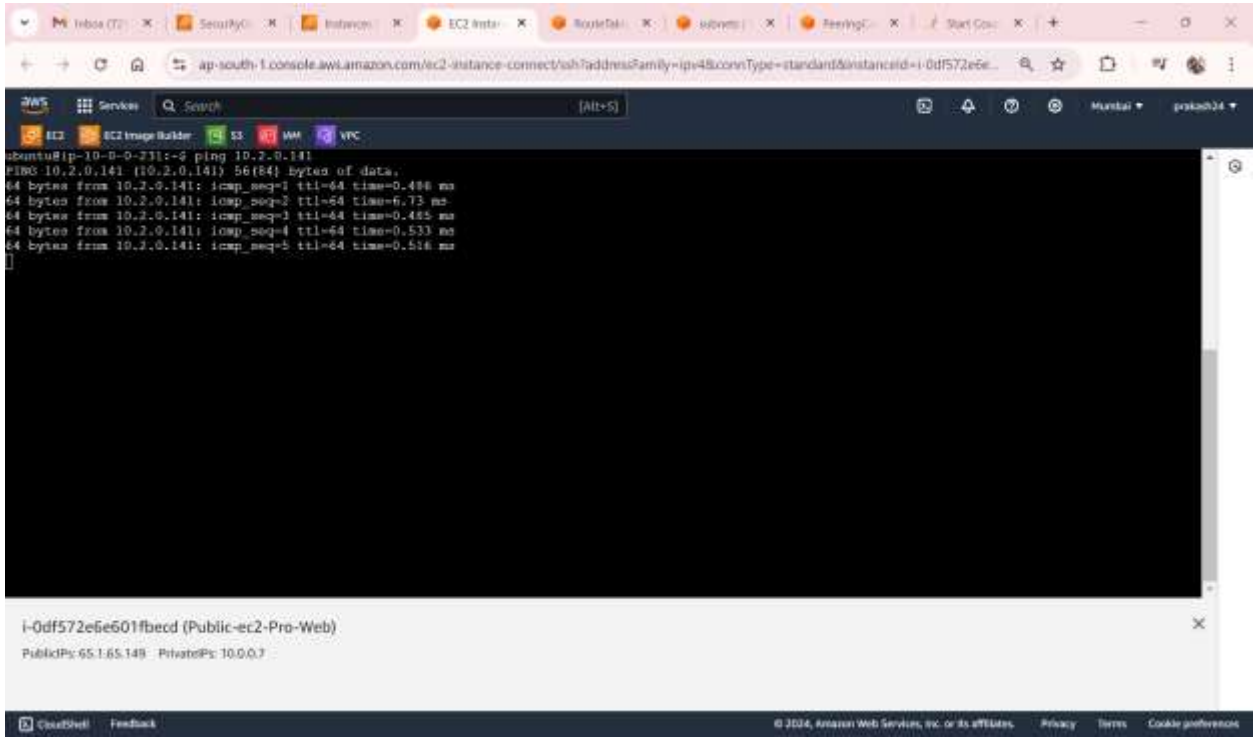


We can see we can able to ping the private instance of Dev db subnet by using Private instance of production Db Subnet





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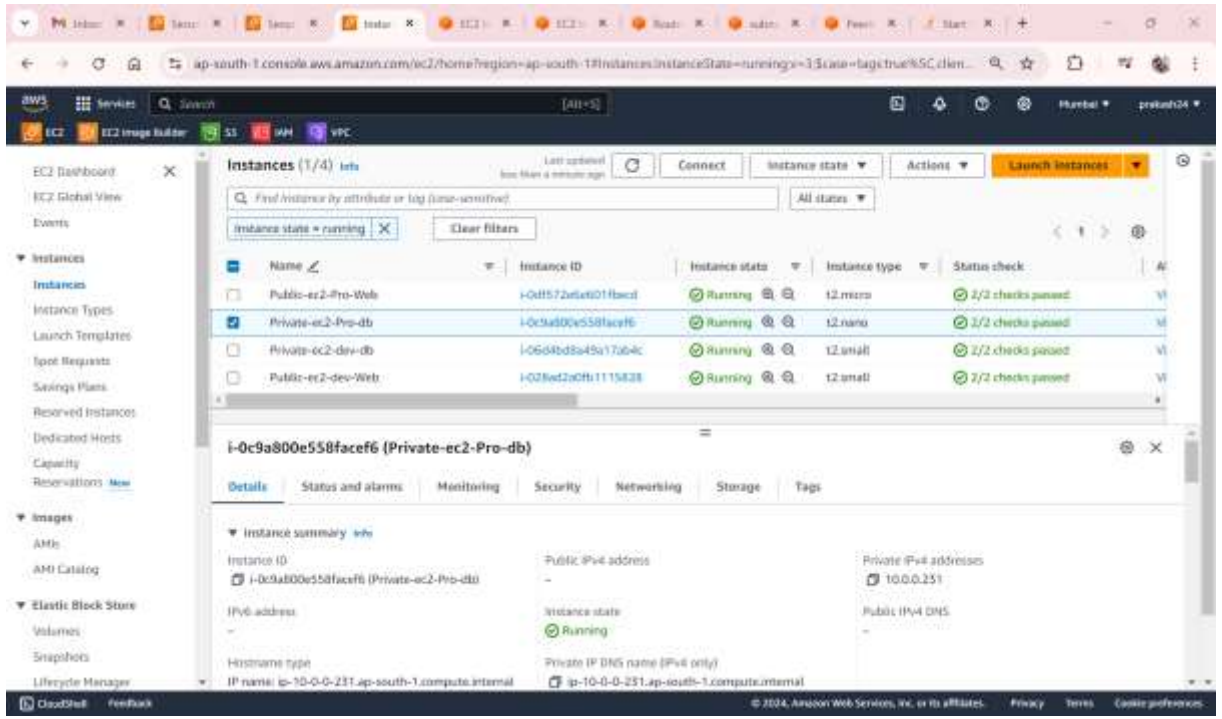
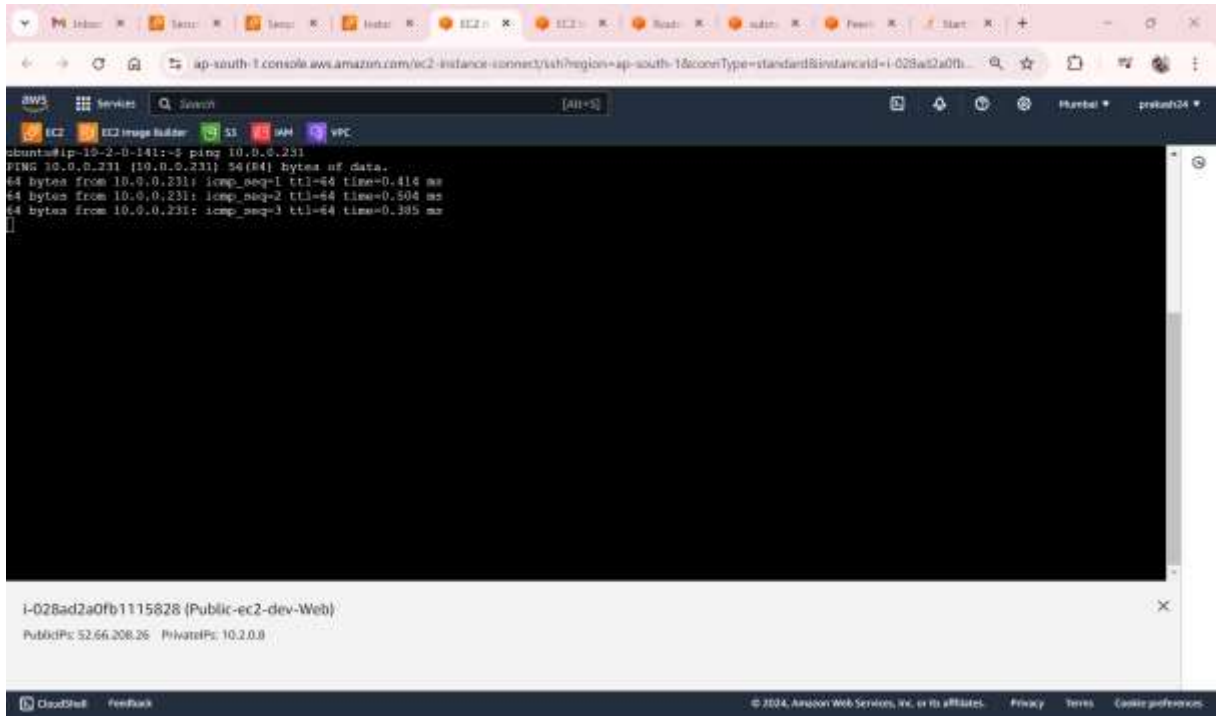
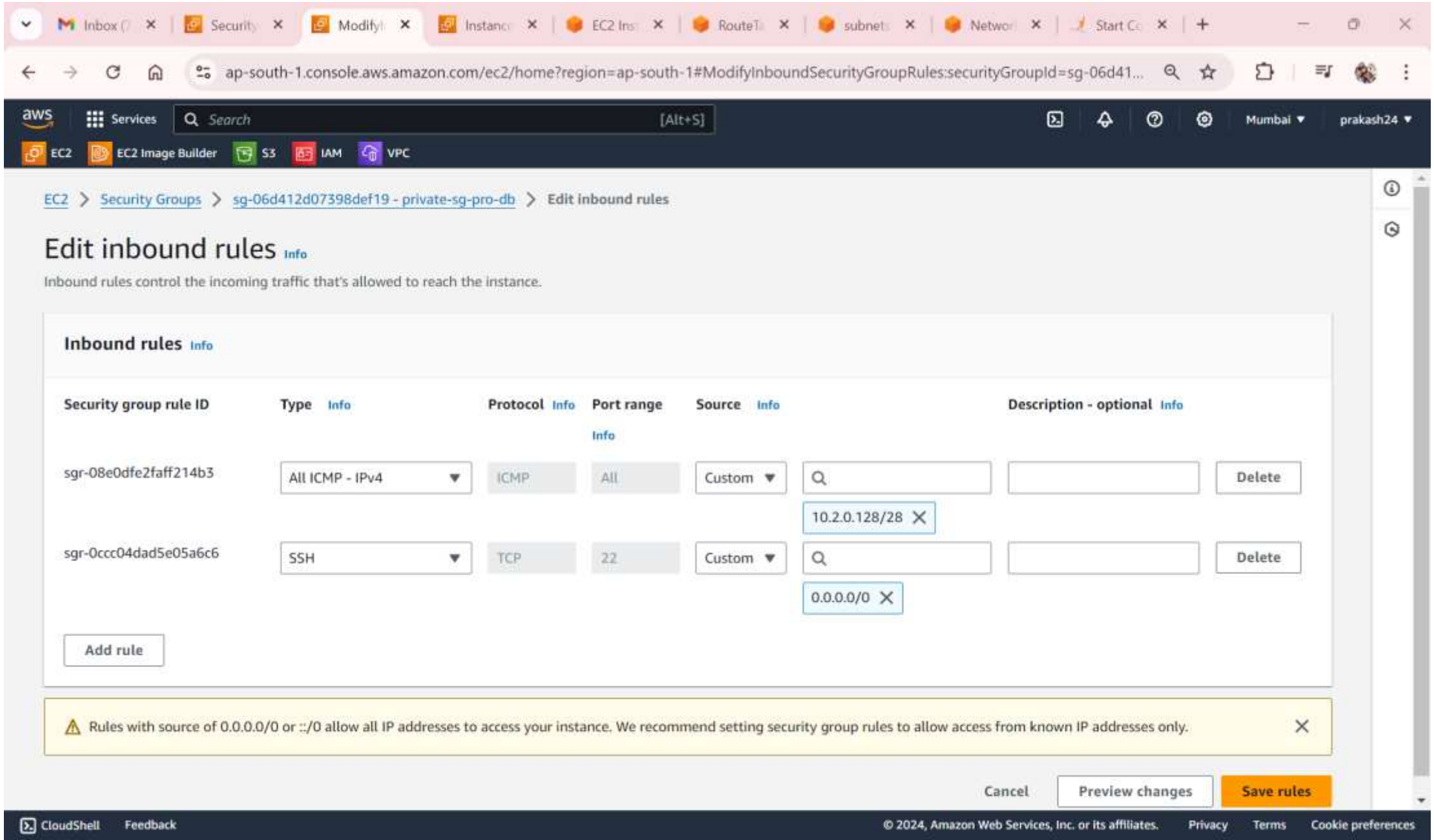
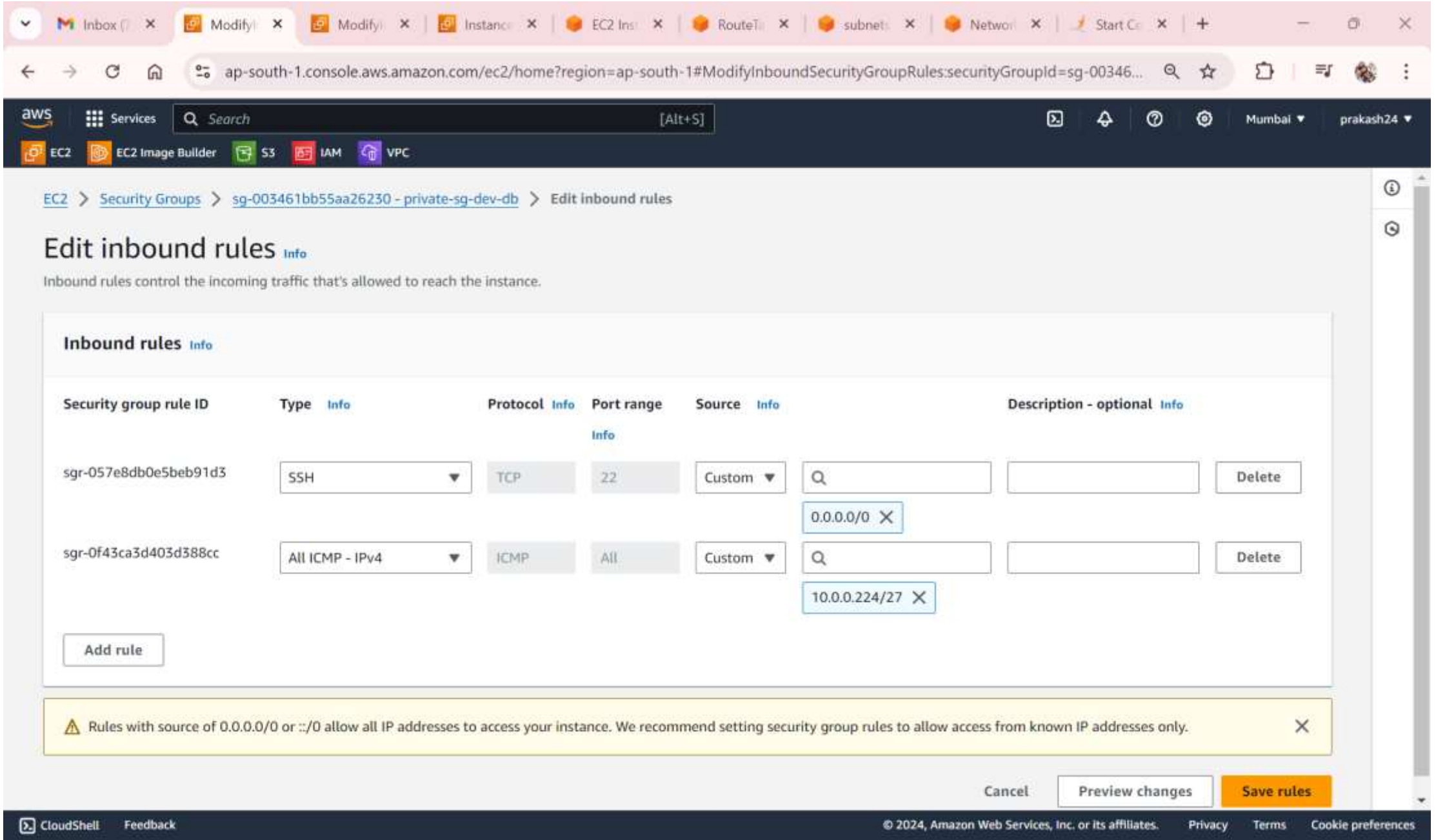




In SG allow inbound rule ping using ALL ICMP IP4 by private production db



In SG allow inbound rule ping using ALL ICMP IP4 by private development db



Using NACL we having allow the all traffic