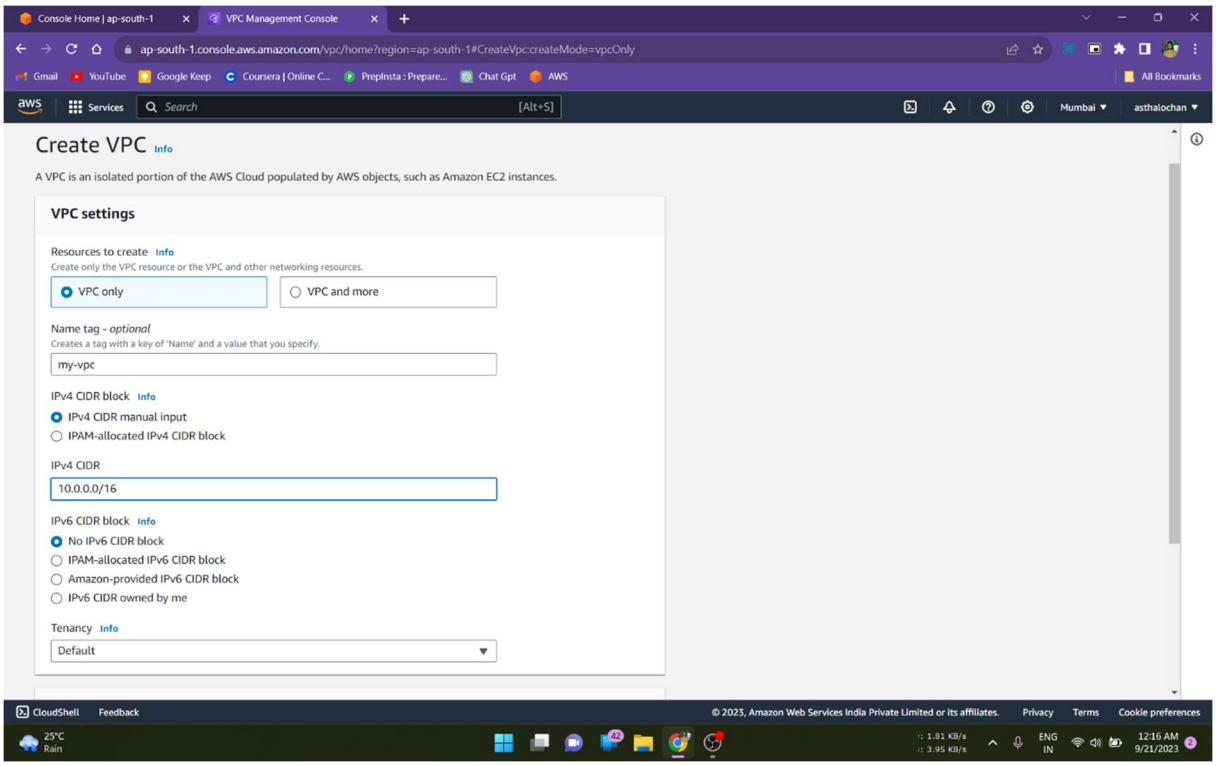
AWS MASTER FINAL PROJECT

ASTHALOCHAN MOHANTA

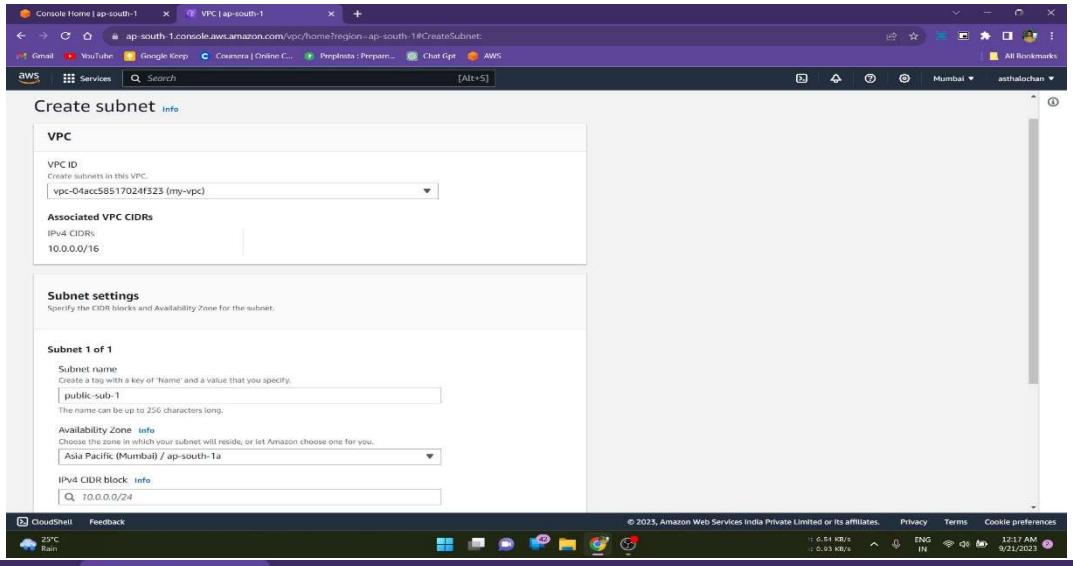
MSC DATASCIENCE

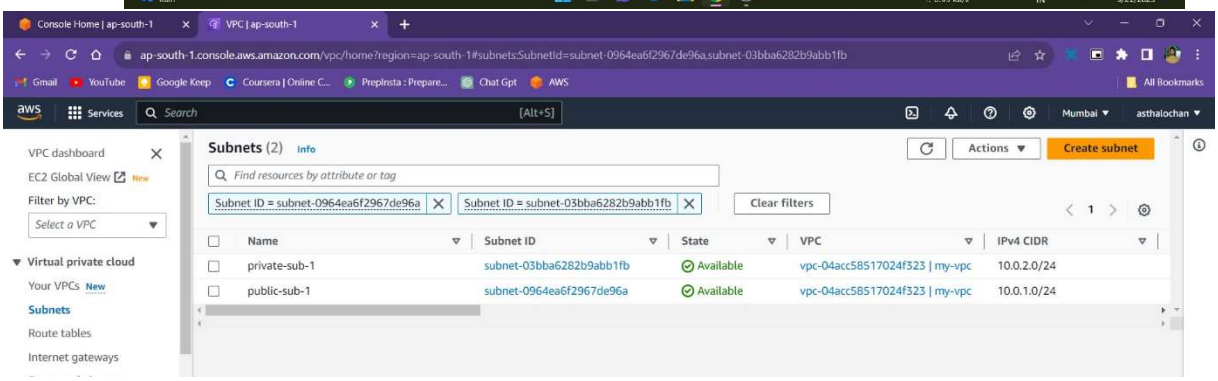
22MDSA53

1. CREATE YOUR OWN VPC



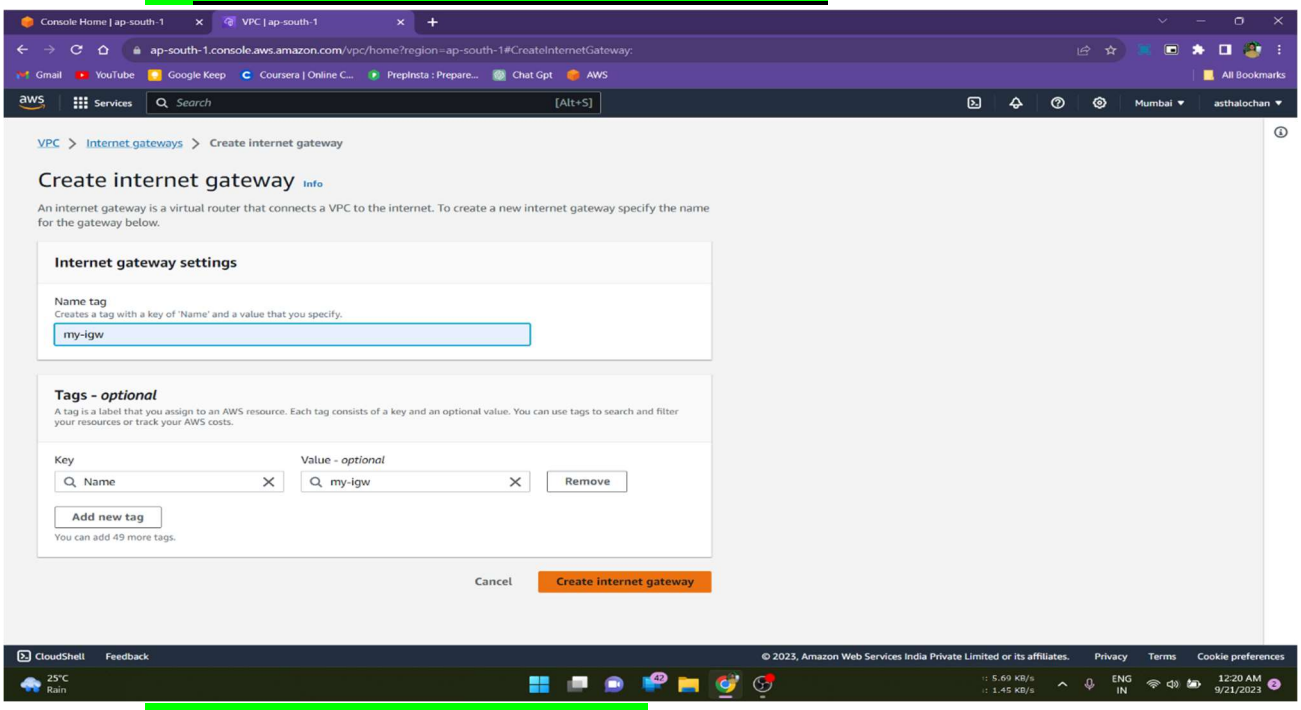
2. CREATE SUBNET (PRIVATE + PUBLIC) IN OUR OWN VPC



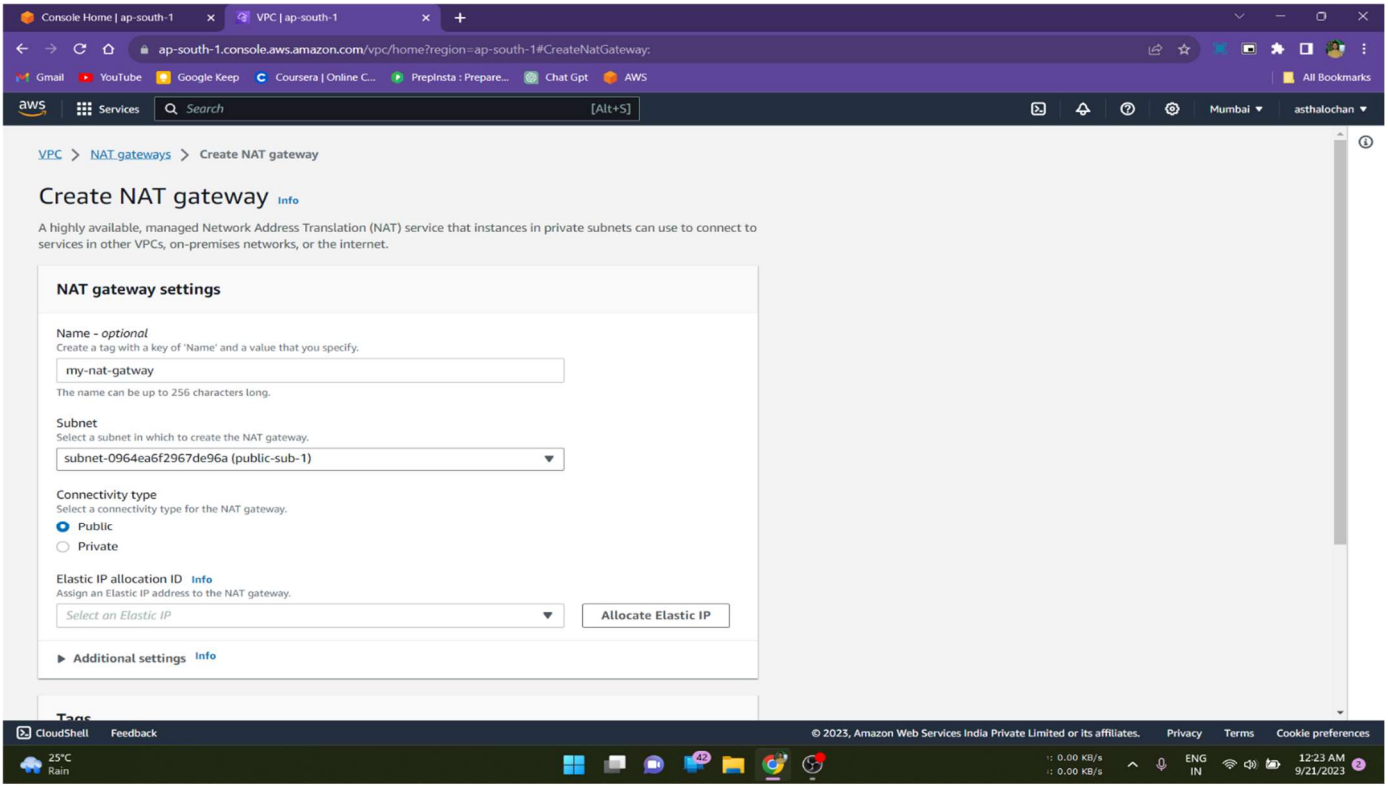


(As the requirements of two region in case of load balancer and RDS subnet group so we have to create total 4 subnet (2 private & 2 public) in 2 different region of corresponding subnet)

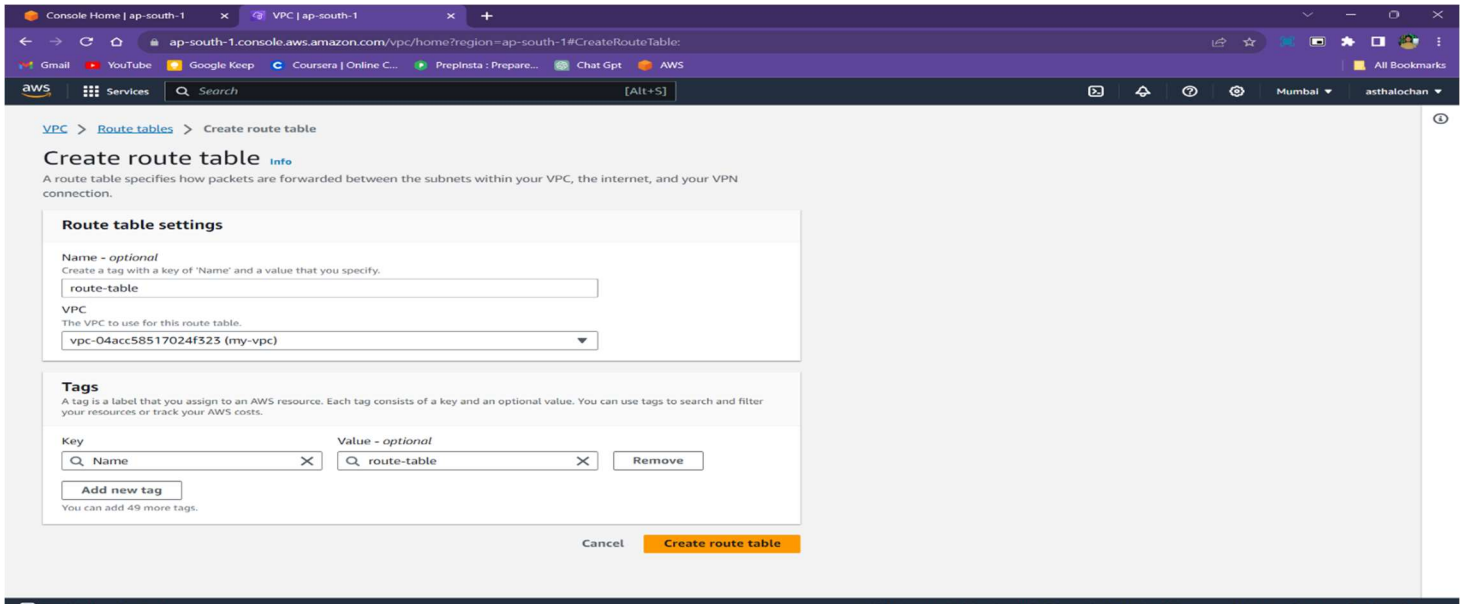
3. CREATING AN INTERNET GATWAY

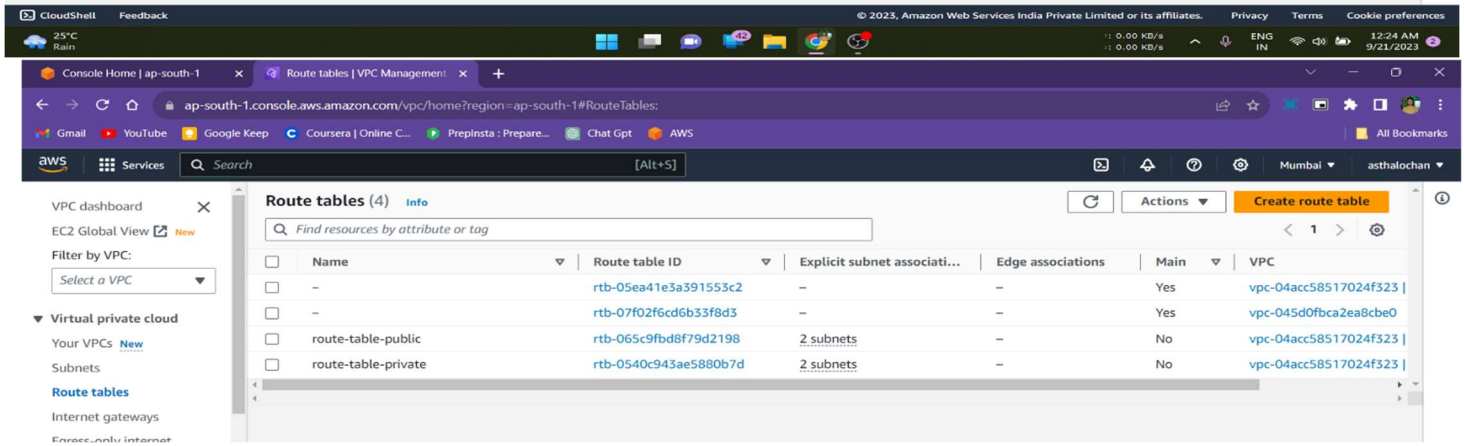


4. CREATING NAT GATWAY

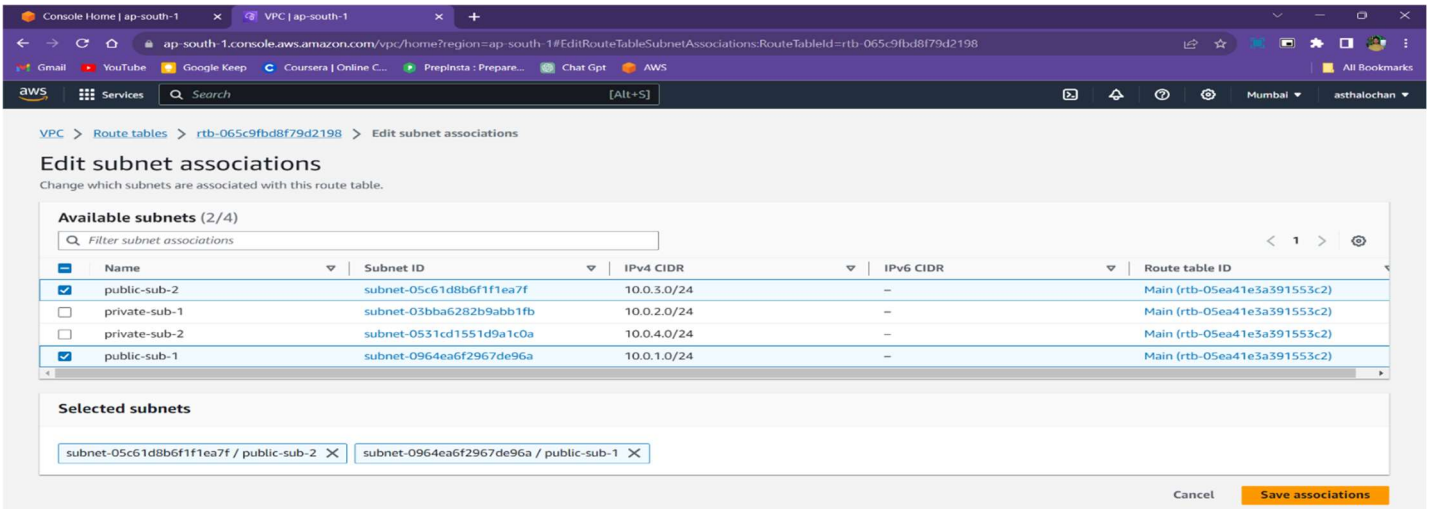


5. CREATING TWO ROUTE TABLE

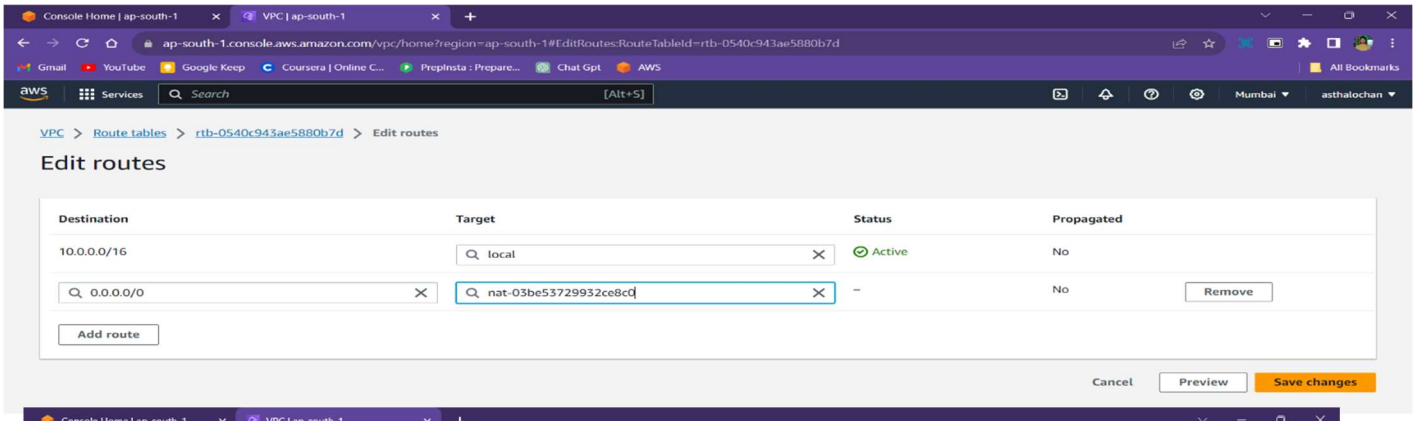




6. EDIT SUBNET ASSOCIATIONS



7. EDIT ROUTE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VPC | ap-south-1
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Mumbai asthalochan
VPC > Route tables > rtb-0540c943ae5880b7d > Edit routes
Edit routes
Destination
Target
Status
Propagated
10.0.0.0/16
local
Active
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0.0.0.0/0
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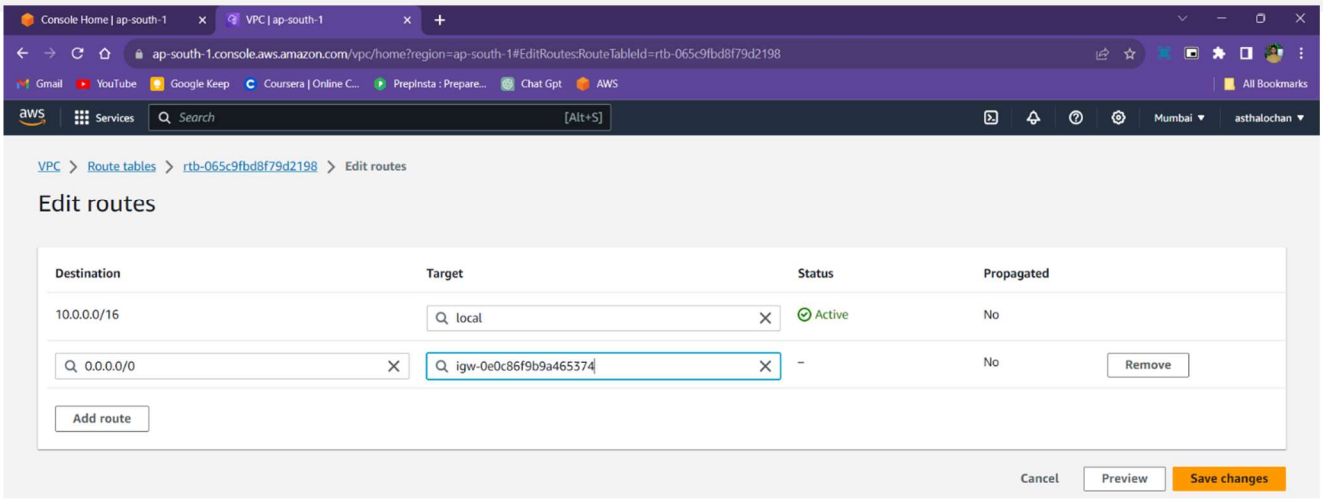
-
No
Remove
Add route
Cancel
Preview
Save changes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VPC | ap-south-1
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All Bookmarks
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Edit routes
Destination
Target
Status
Propagated
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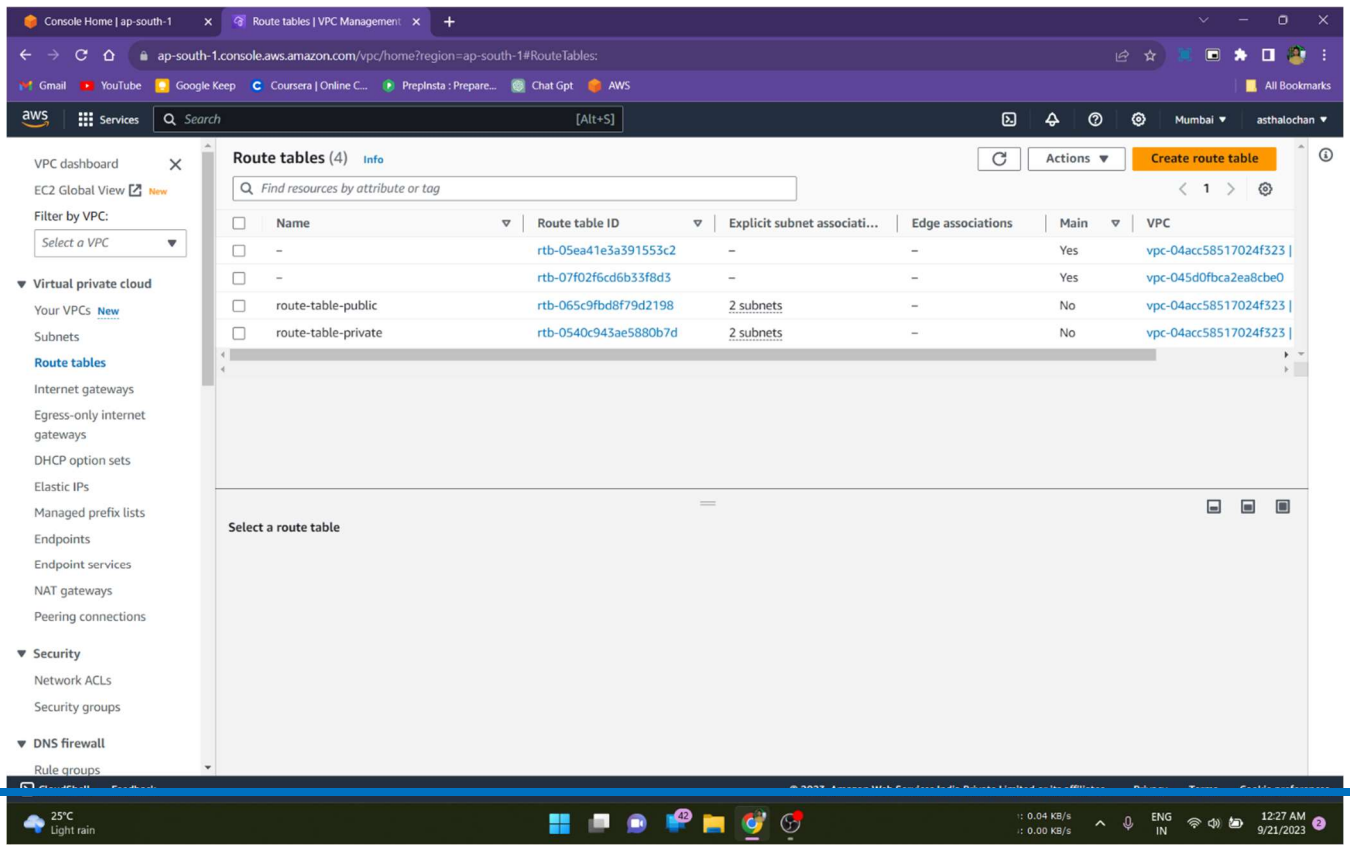
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Route tables | VPC Management
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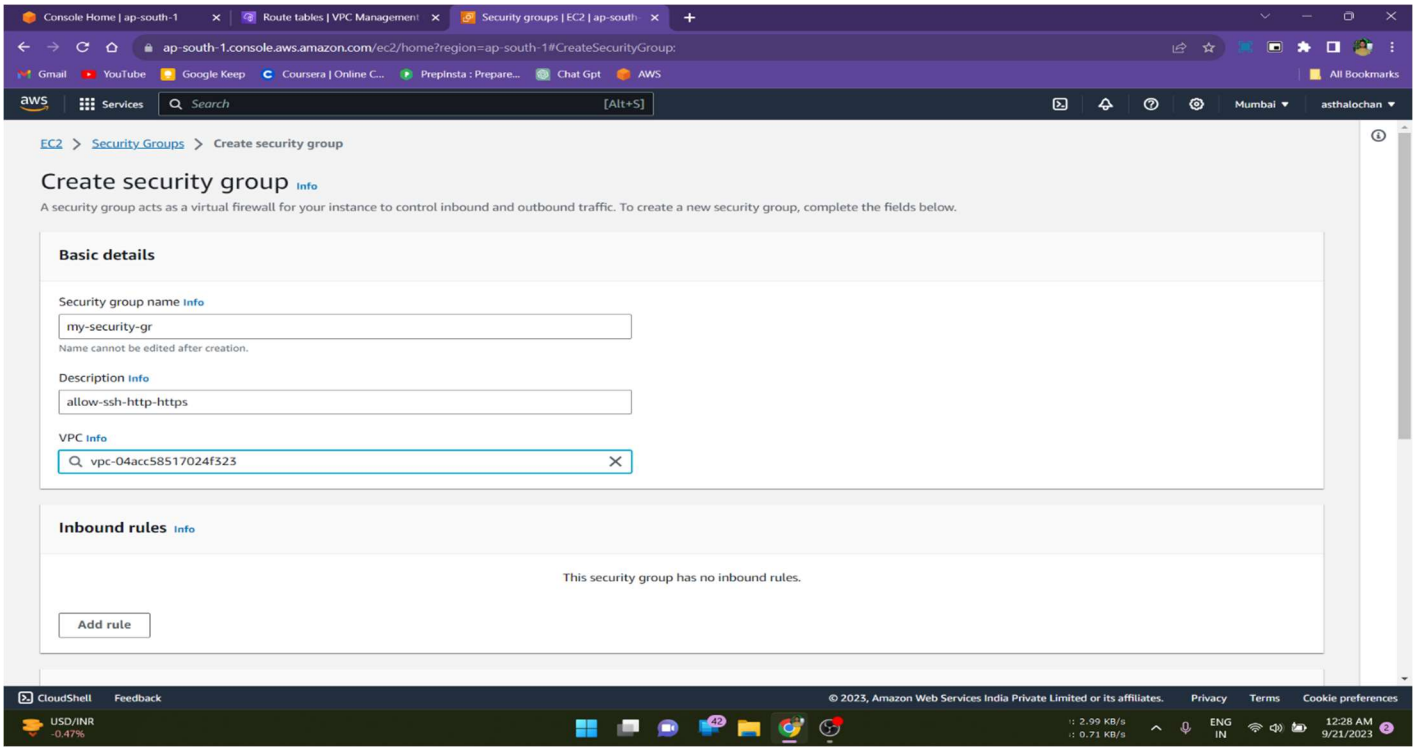
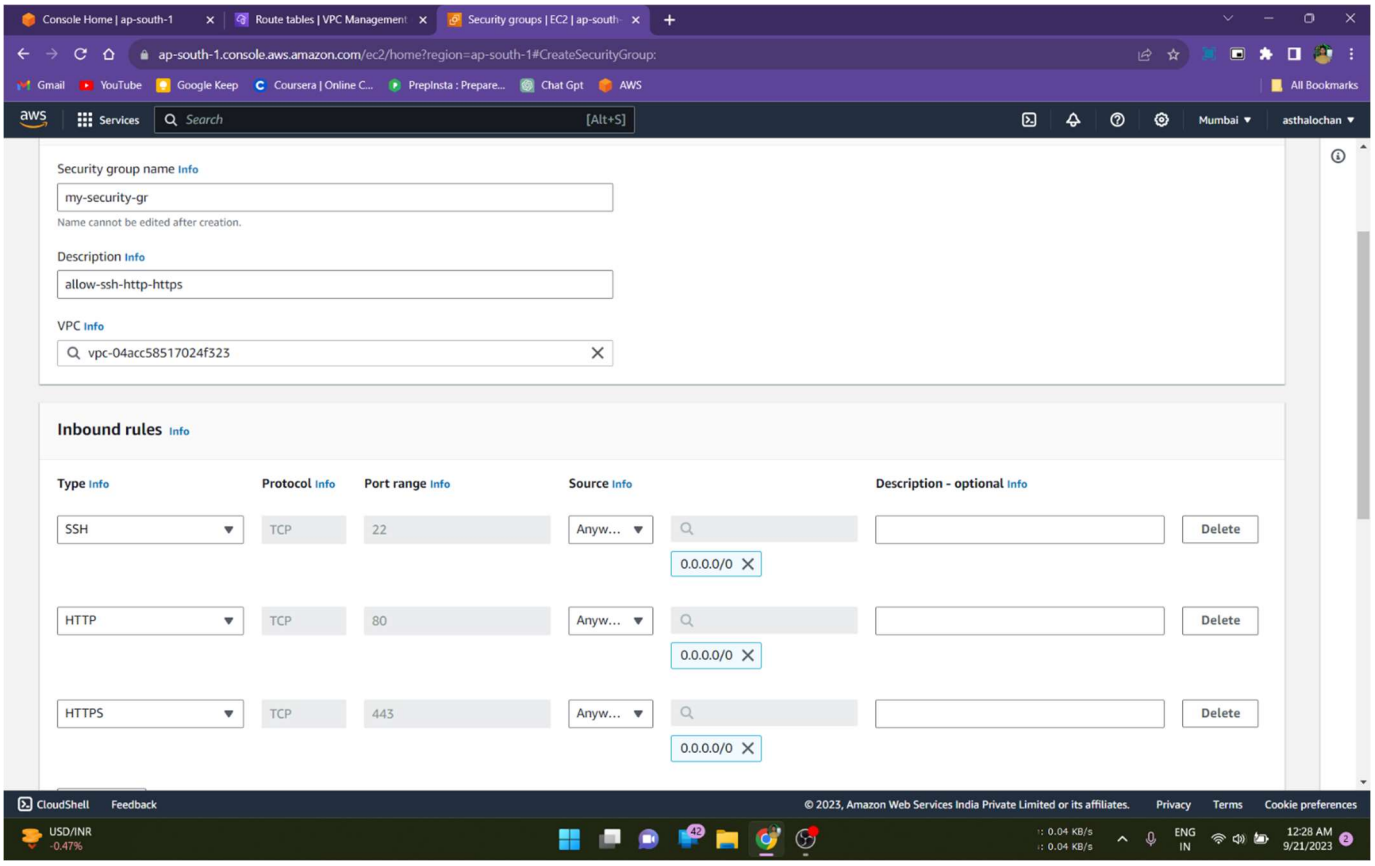
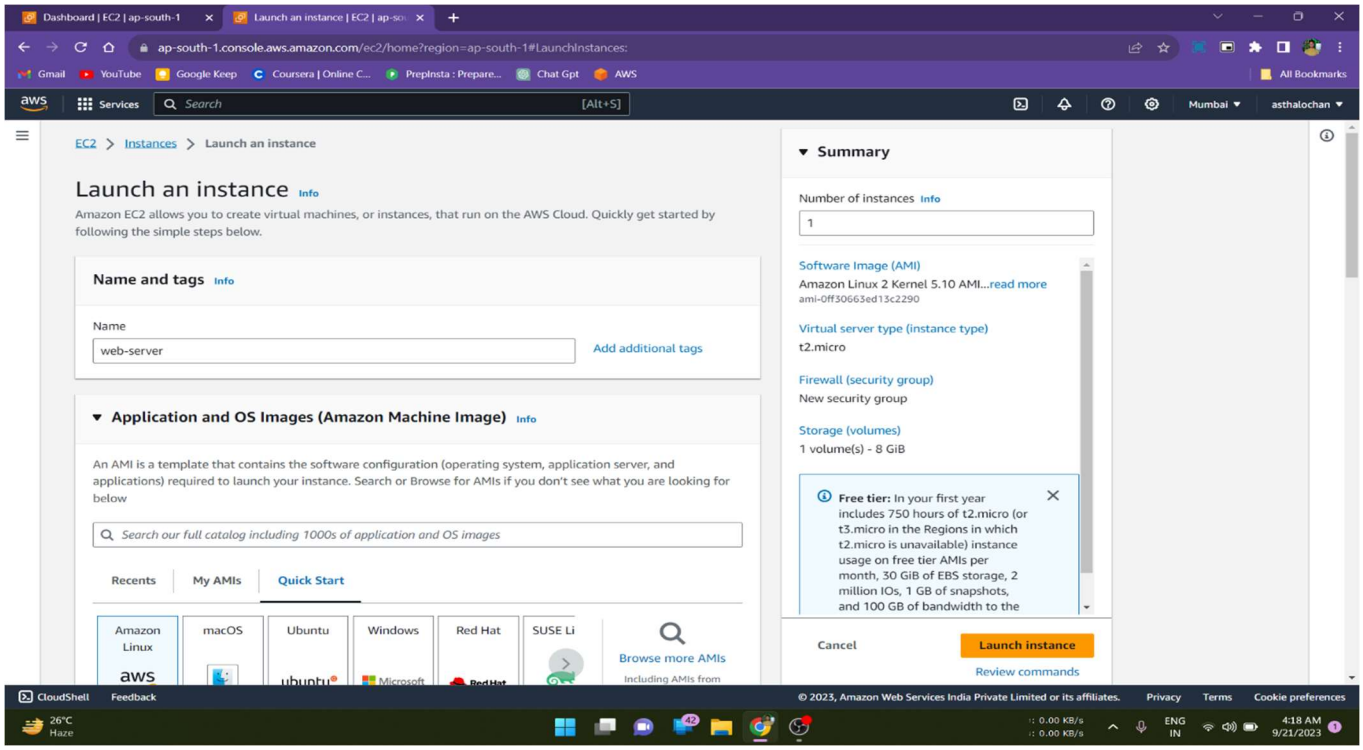
Gmail YouTube Google Keep Coursera | Online C... PrepInsta : Prepare... Chat Gpt AWS
All Bookmarks
aws Services Search [Alt+S]
Mumbai asthalochan
VPC dashboard
EC2 Global View New
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs New
Subnets
Route tables
Internet gateways
Egress-only internet gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
Network ACLs
Security groups
DNS firewall
Rule groups
Route tables (4) Info
Actions
Create route table
Find resources by attribute or tag
Name
Route table ID
Explicit subnet associati...
Edge associations
Main
VPC
rtb-05ea41e3a391553c2
rtb-07f02f6cd6b33f8d3
route-table-public
rtb-065c9fbd8f79d2198
2 subnets
route-table-private
rtb-0540c943ae5880b7d
vpc-04acc58517024f323
vpc-045d0fbca2ea8cbe0
Select a route table
25°C
Light rain
ENG
IN
12:27 AM
9/21/2023

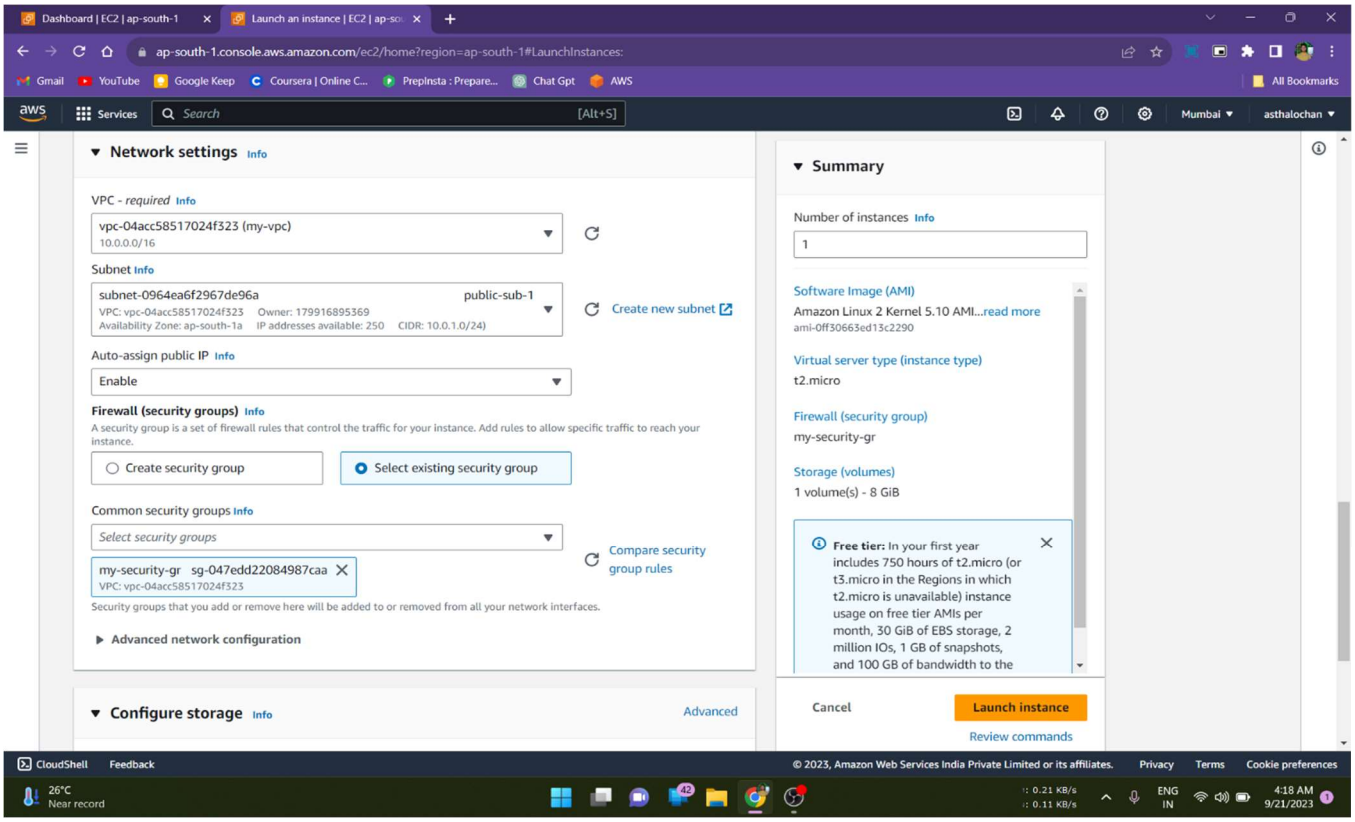
8. CREATE A SECURITY GROUP

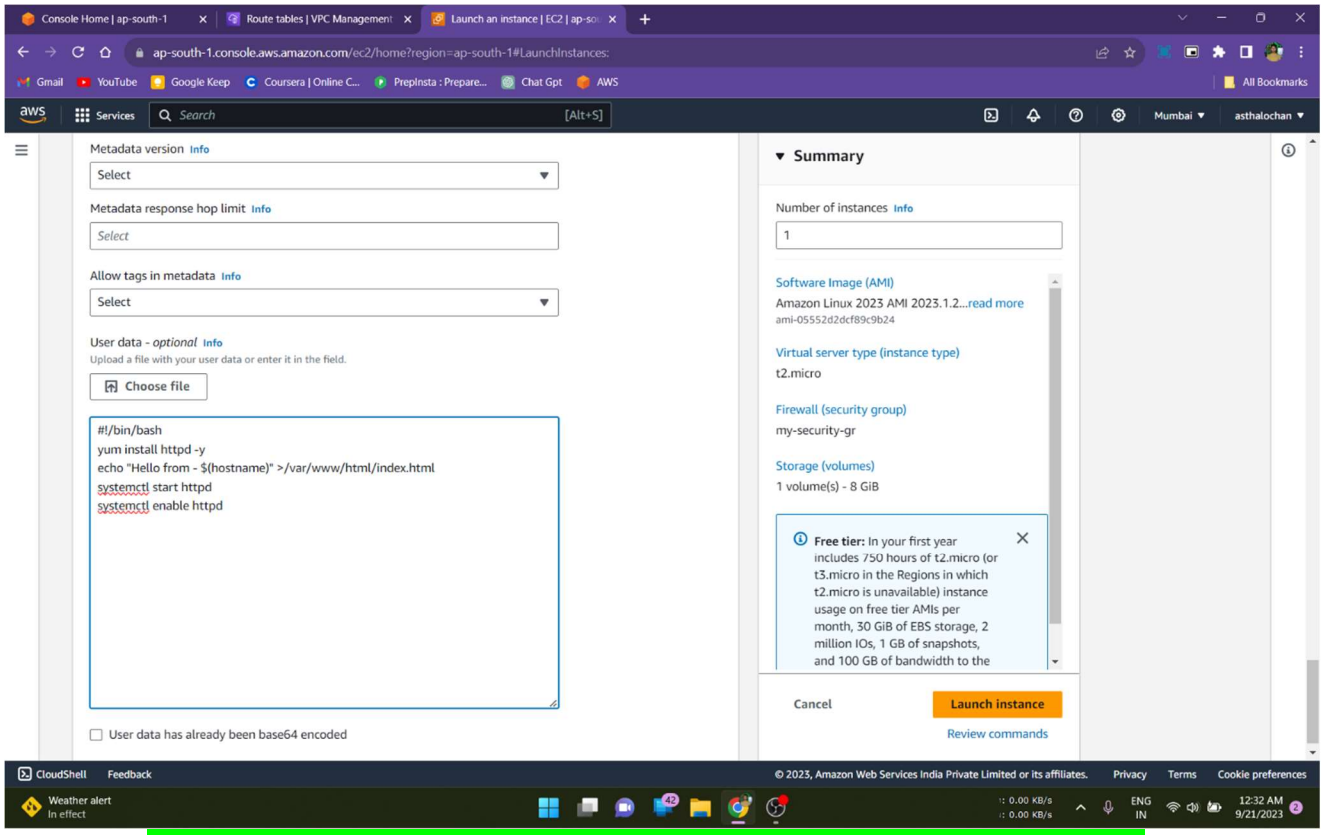




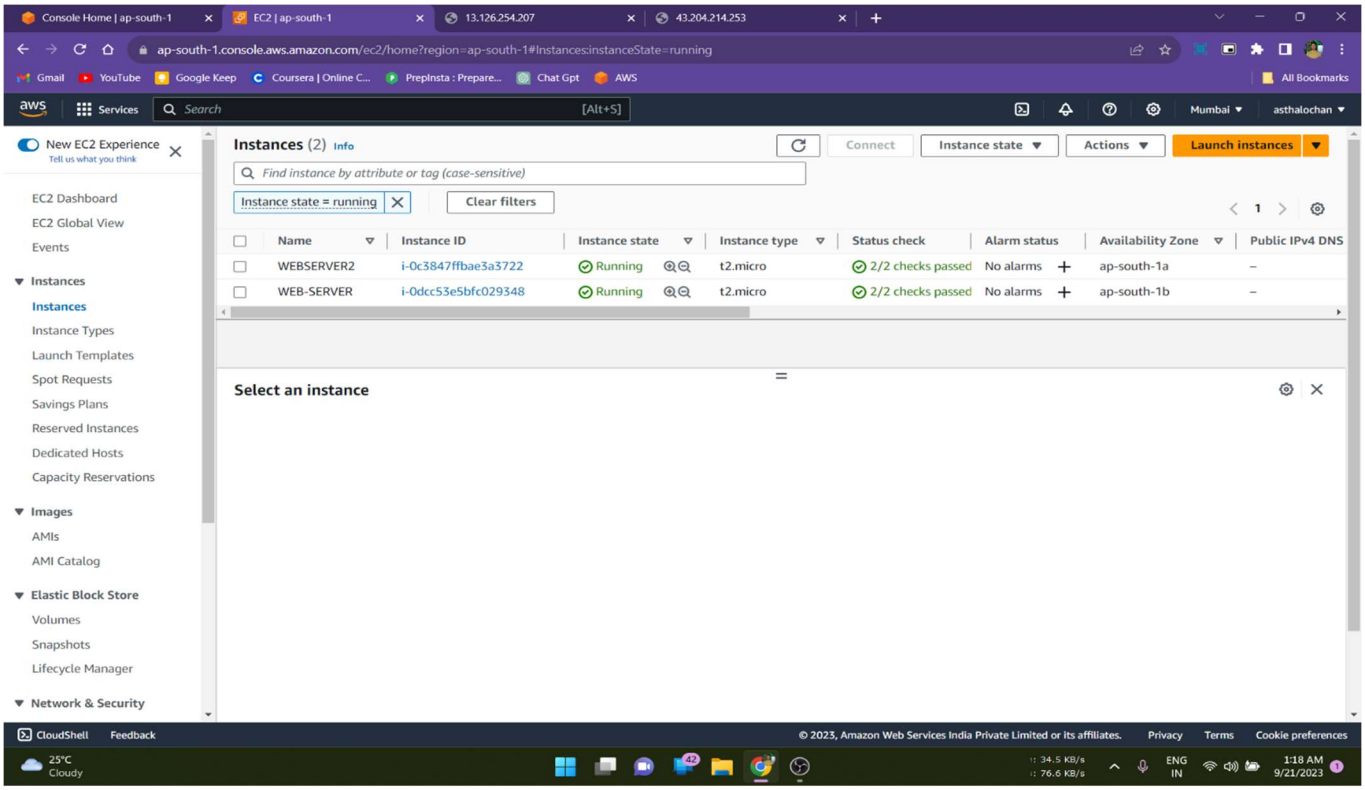
9. CREATE EC2 INSTANCE IN PUBLIC SUBNET WITH THE CREATED SECURITY GROUP



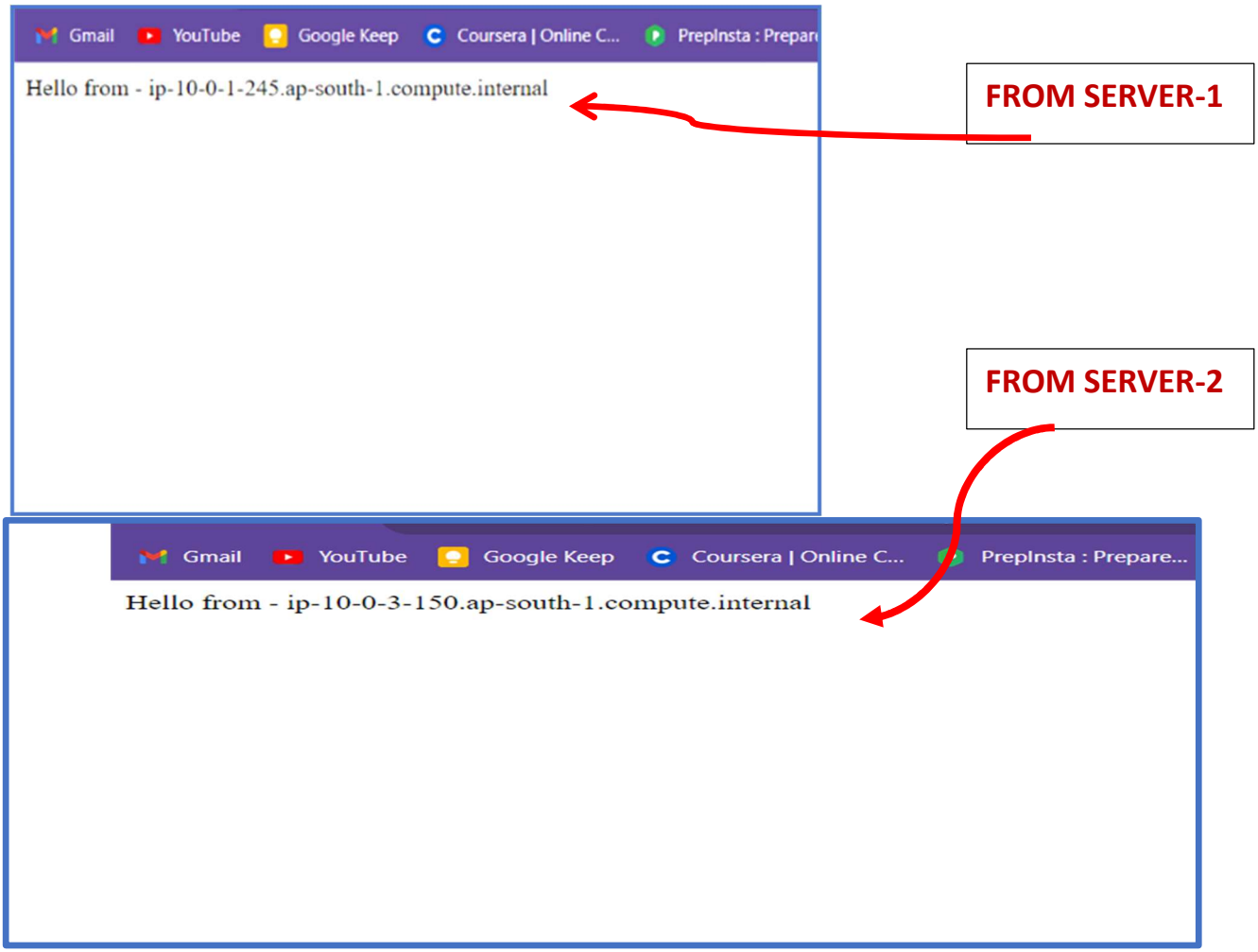




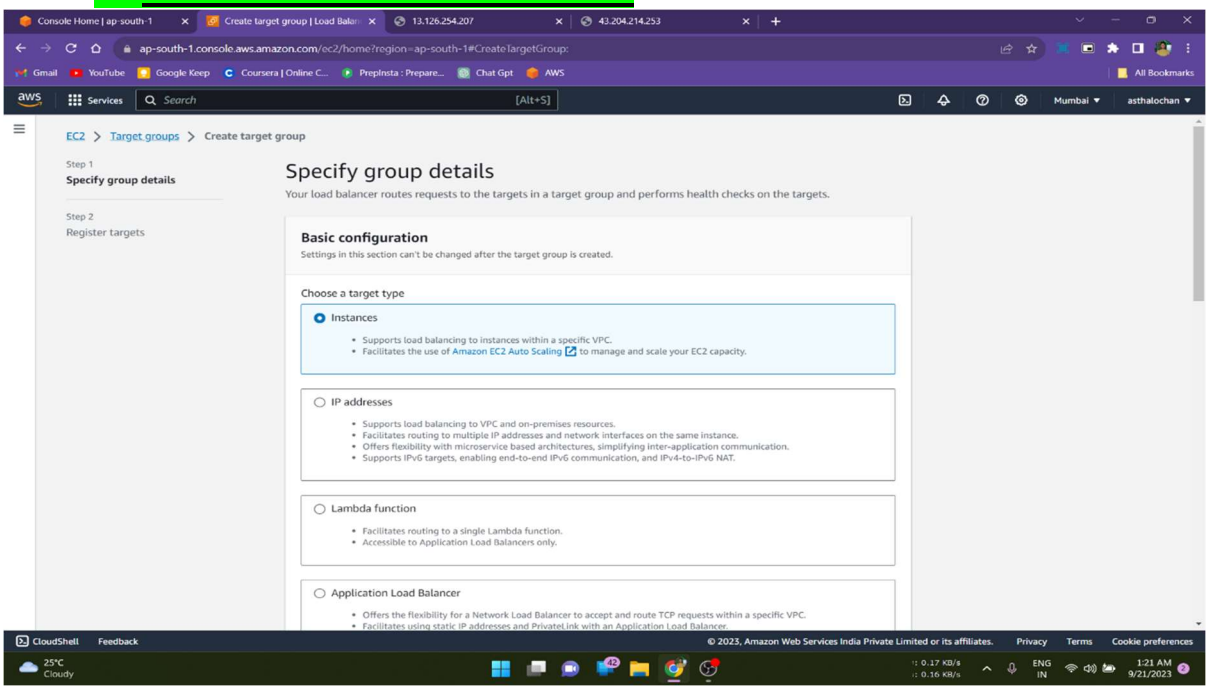
10.SUCCESSFULLY CREATE TWO EC2 INSTANCES AND INSTALL HTTPD WITH HOST NAME

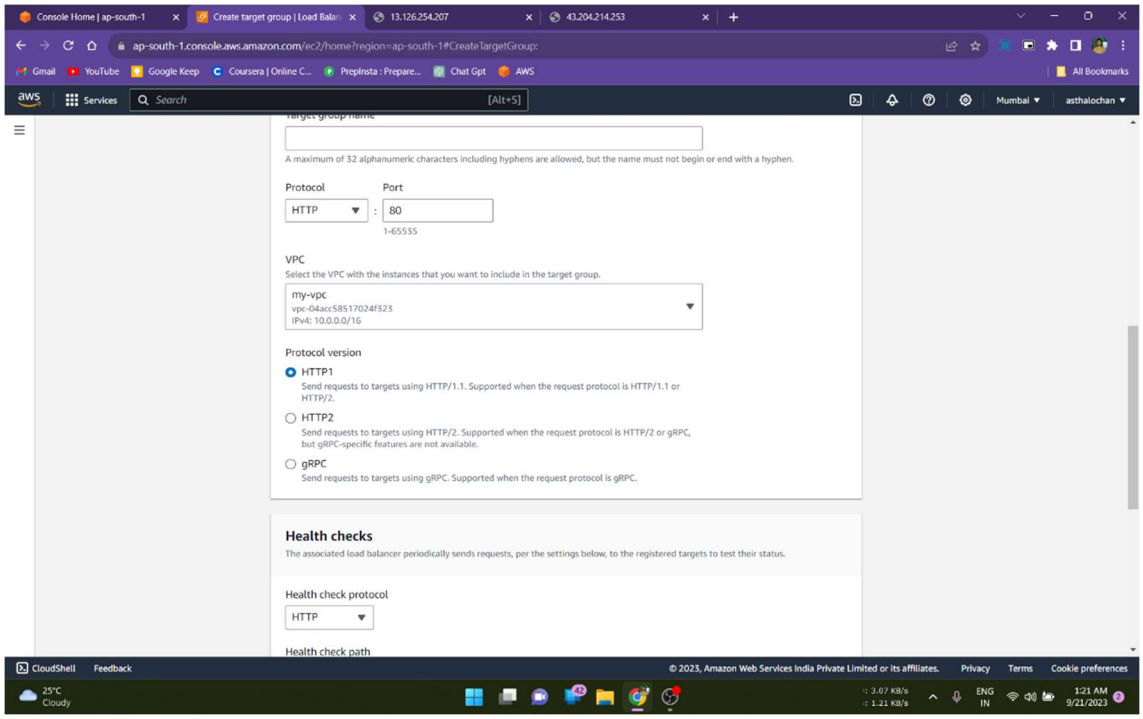


11.WHEN HIT THE PUBLIC IP

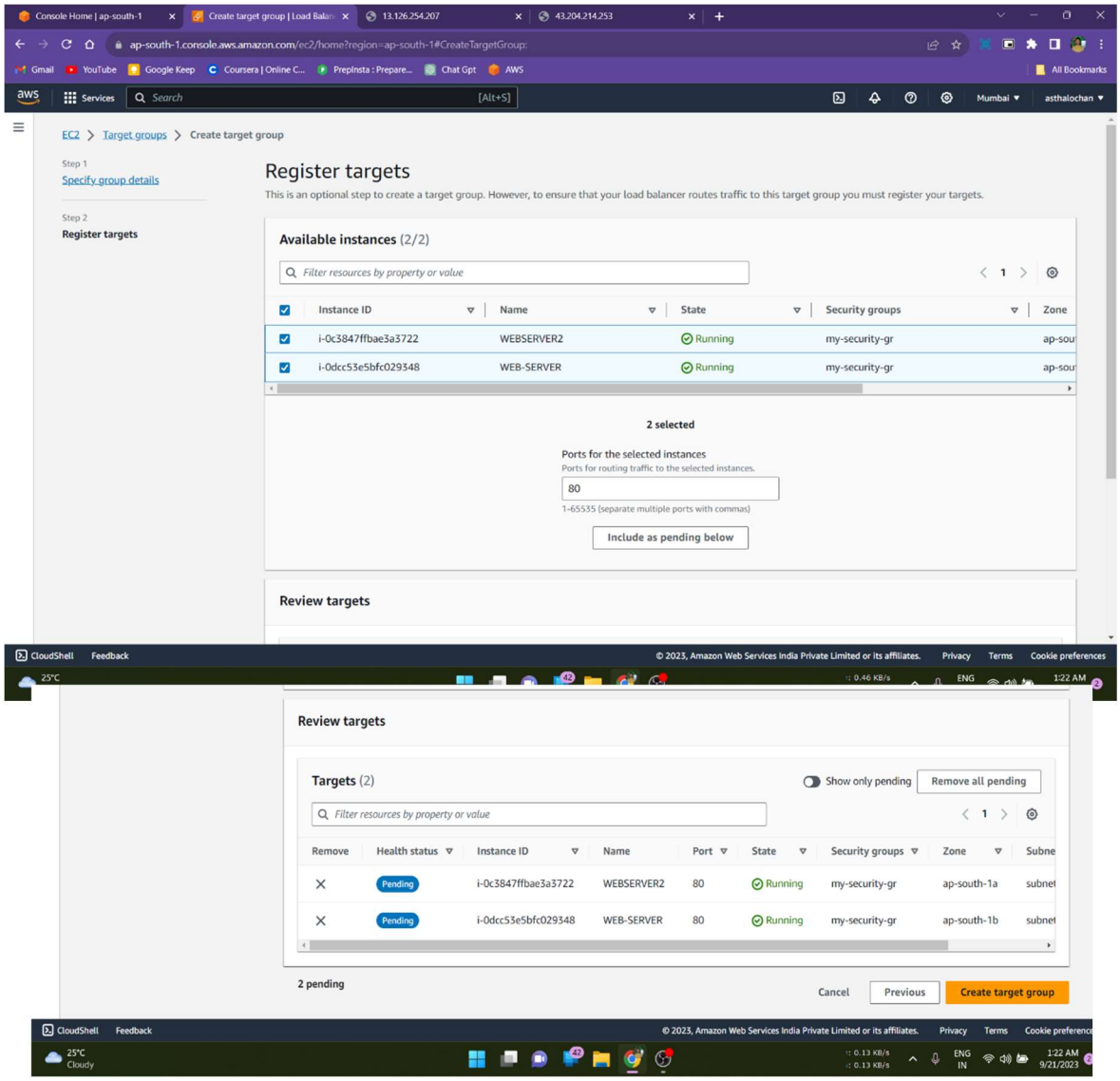


12.CREATE A TARGET GROUP

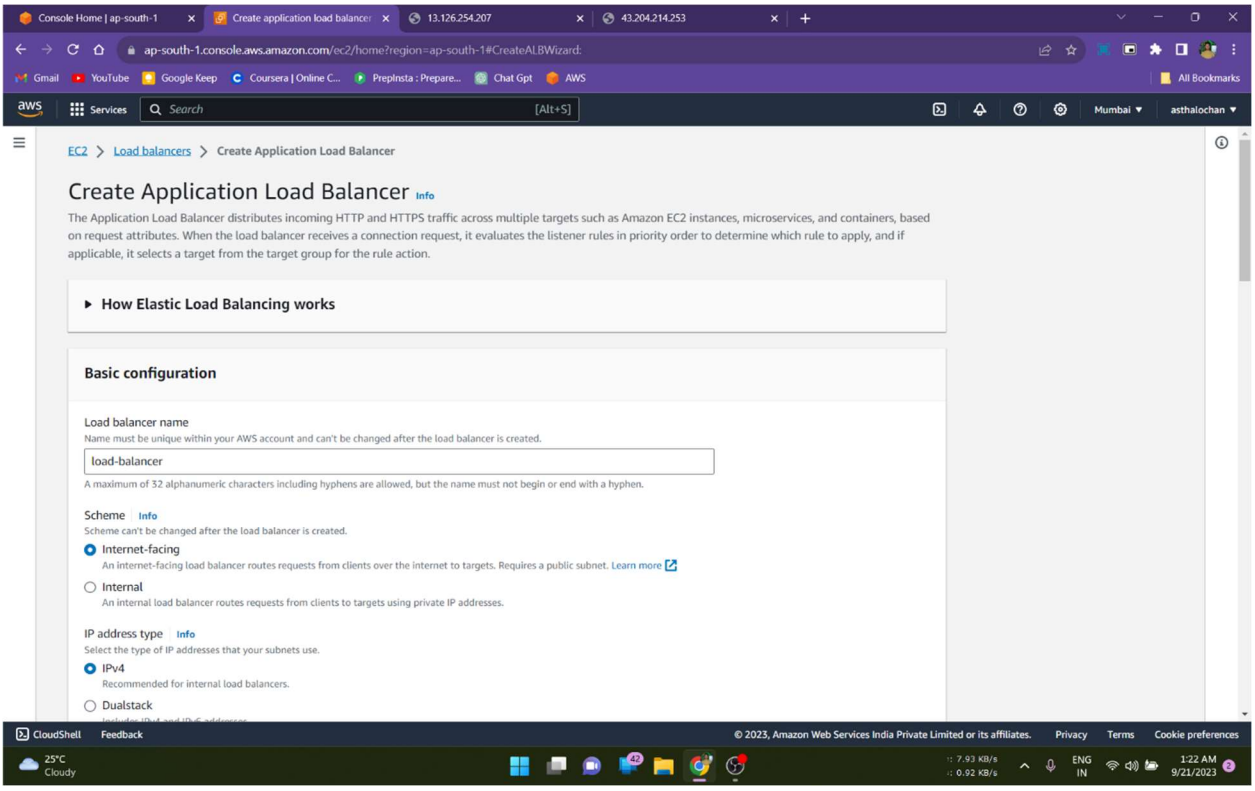


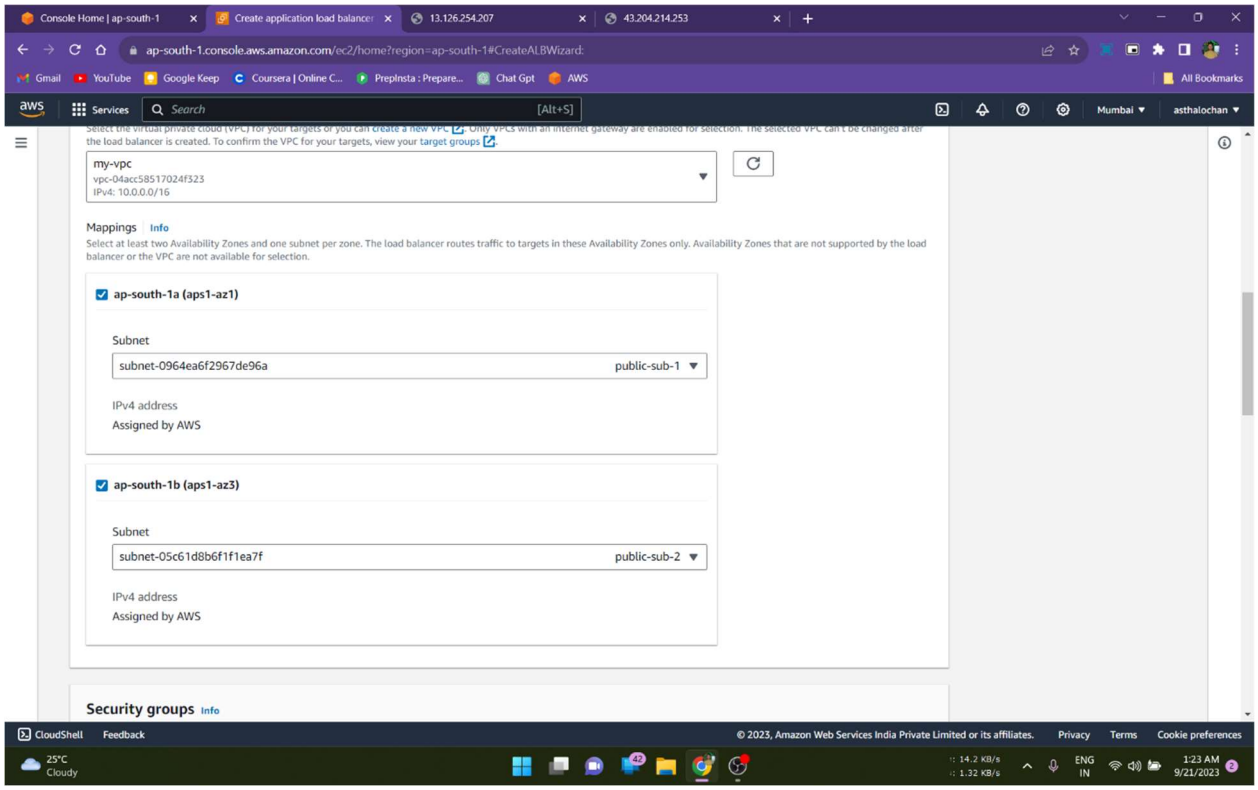


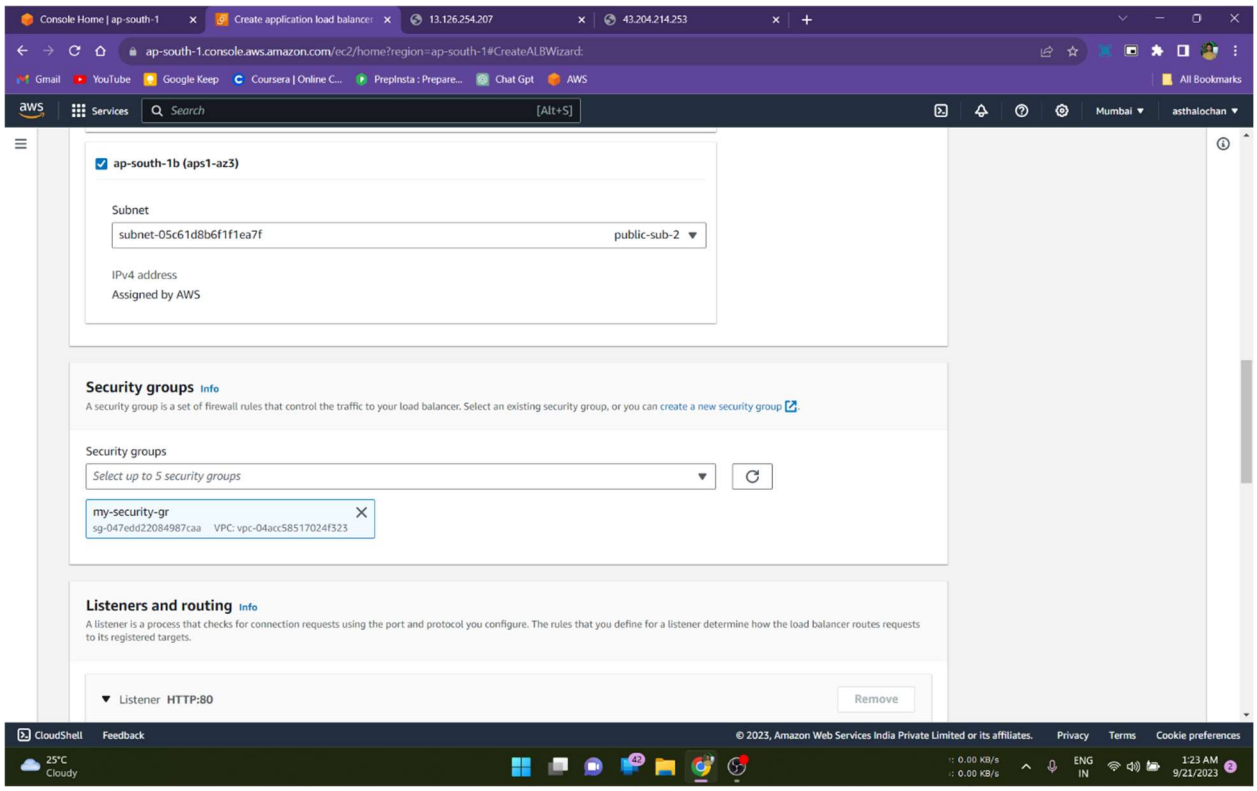
13.REGISTER THE TWO PREVIOUSLY CREATED EC2 INSTANCE AS A TARGET



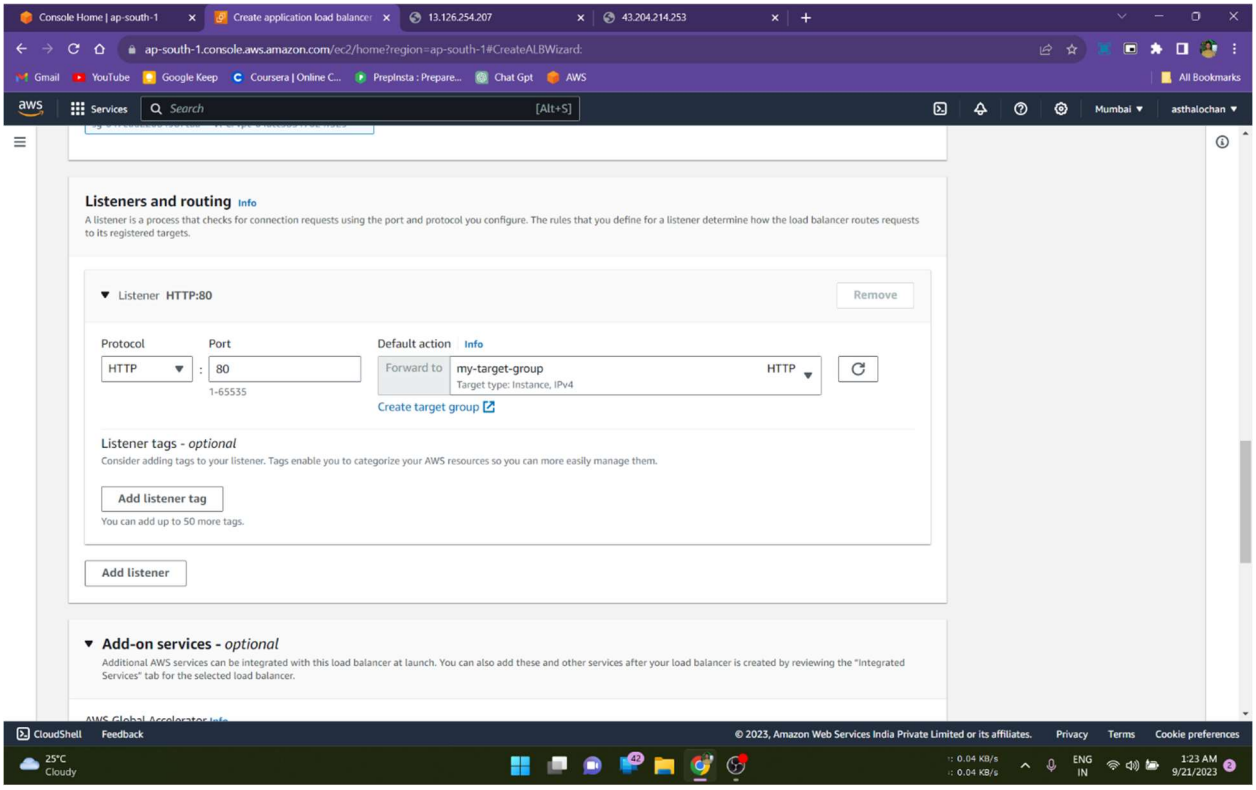
14.CREATE AN APPLICATION LOAD BALANCER



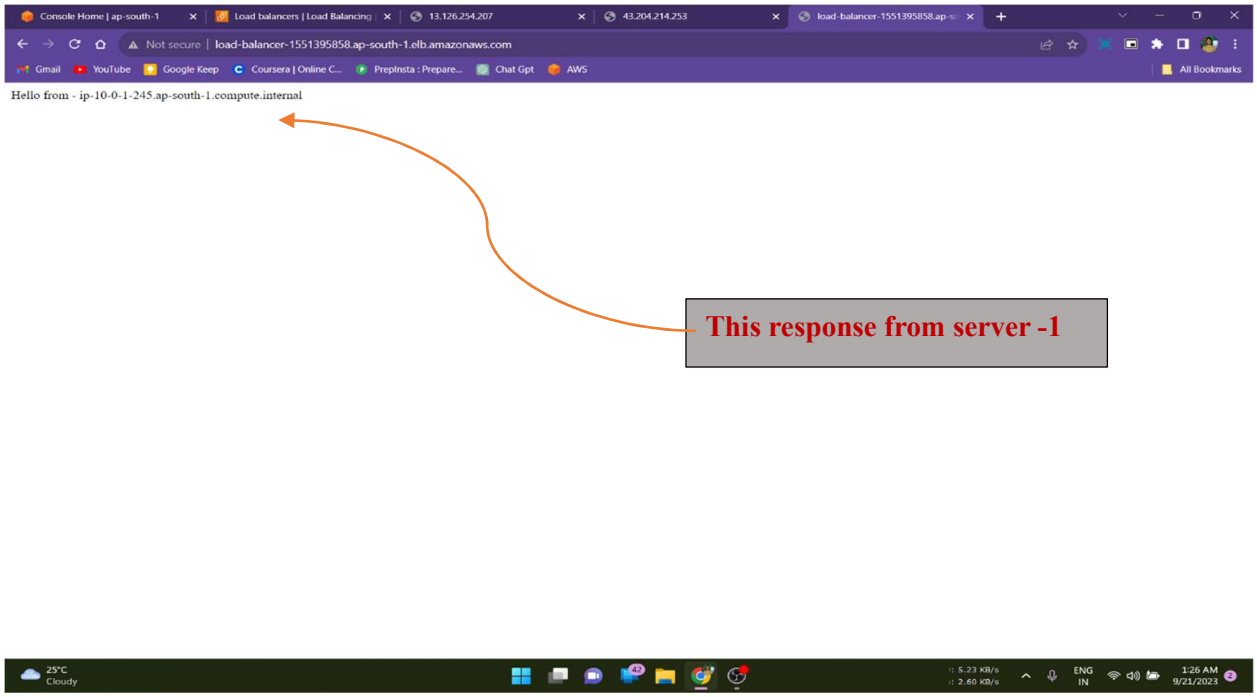




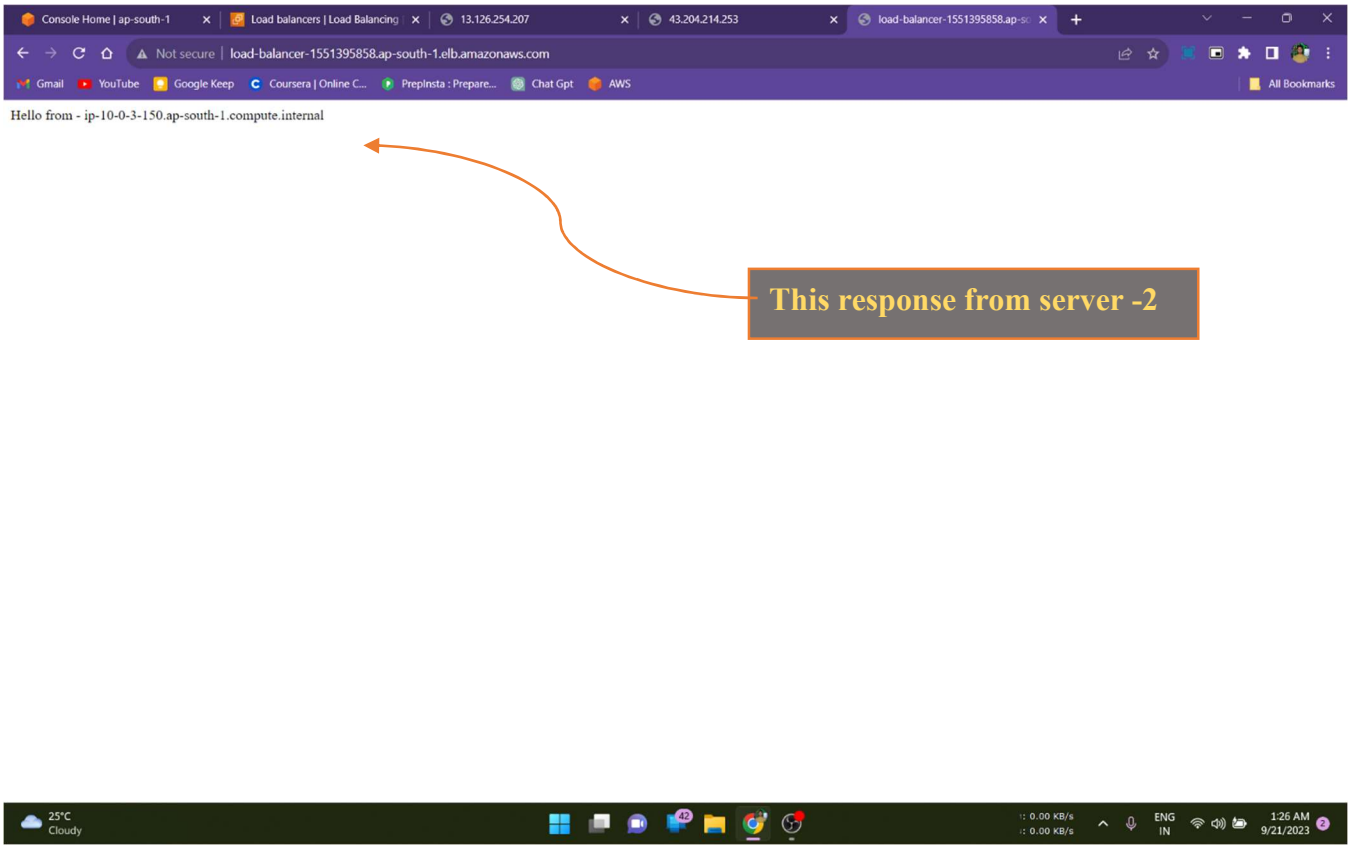
15.ATTACH THE PREVIOUSLY CREATED TARGET GROUP



16.HIT THE LOAD BALANCER DNS SERVER

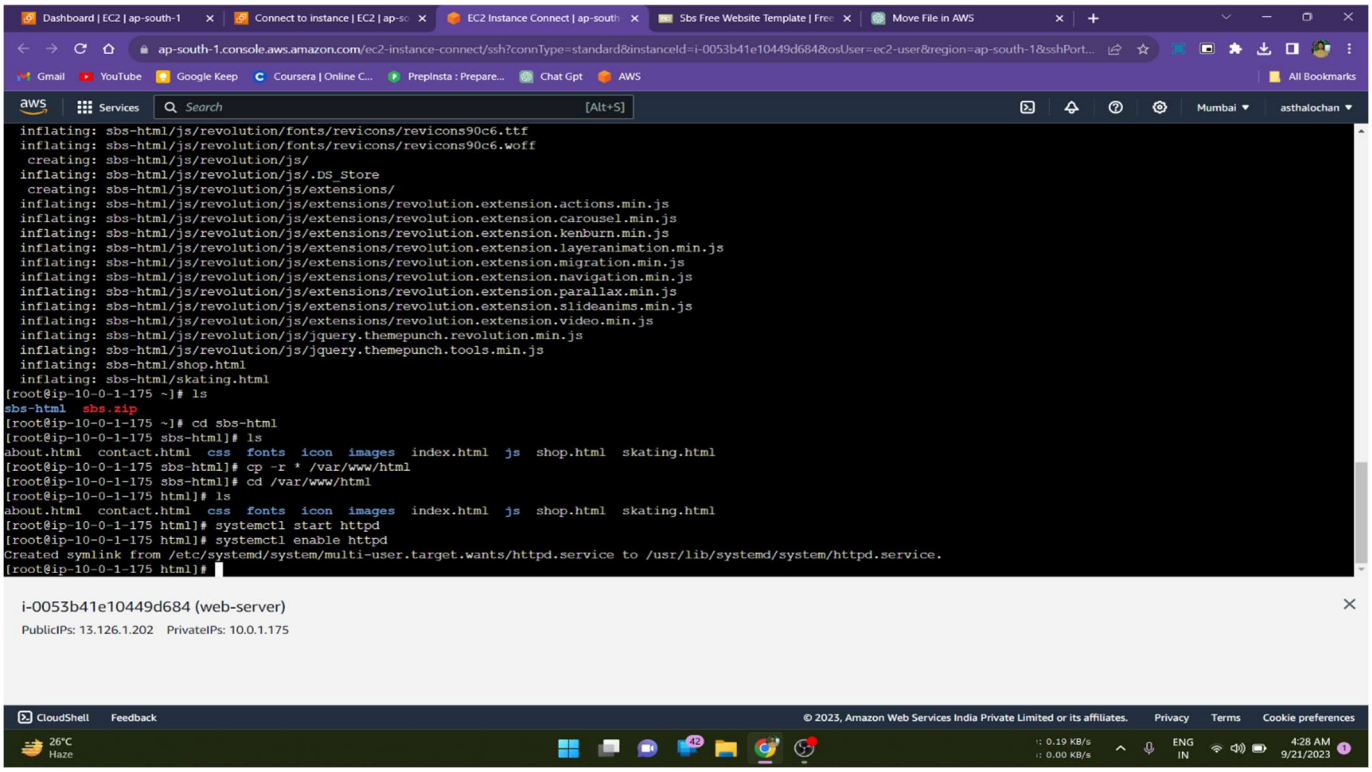


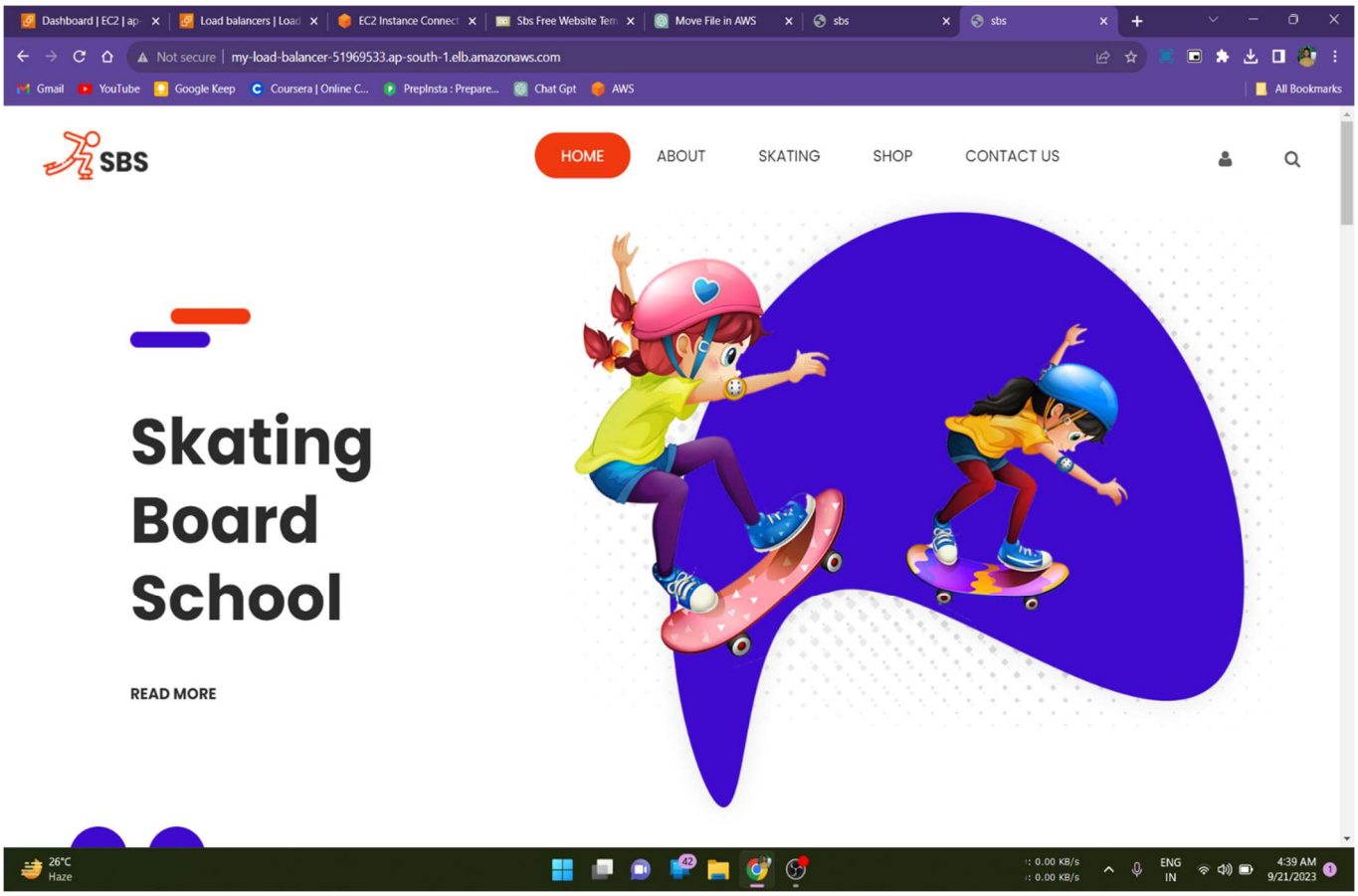
AFTER REFRESH ->



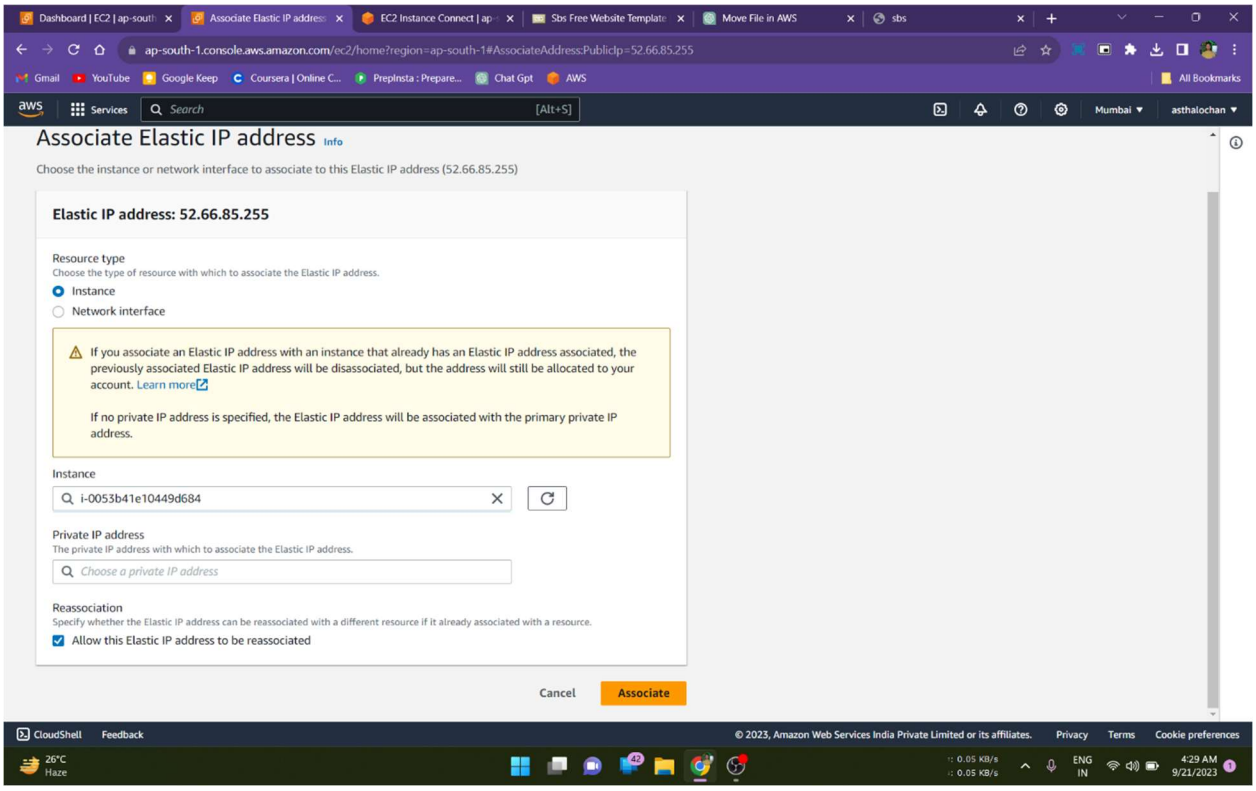
THIS MEANS OUR LOAD BALANCER PERFECTLY WORKING

17.CONFIGURE A SAMPLE WEBSITE IN PREVIOUSLY CREATED EC2 INSTANCE

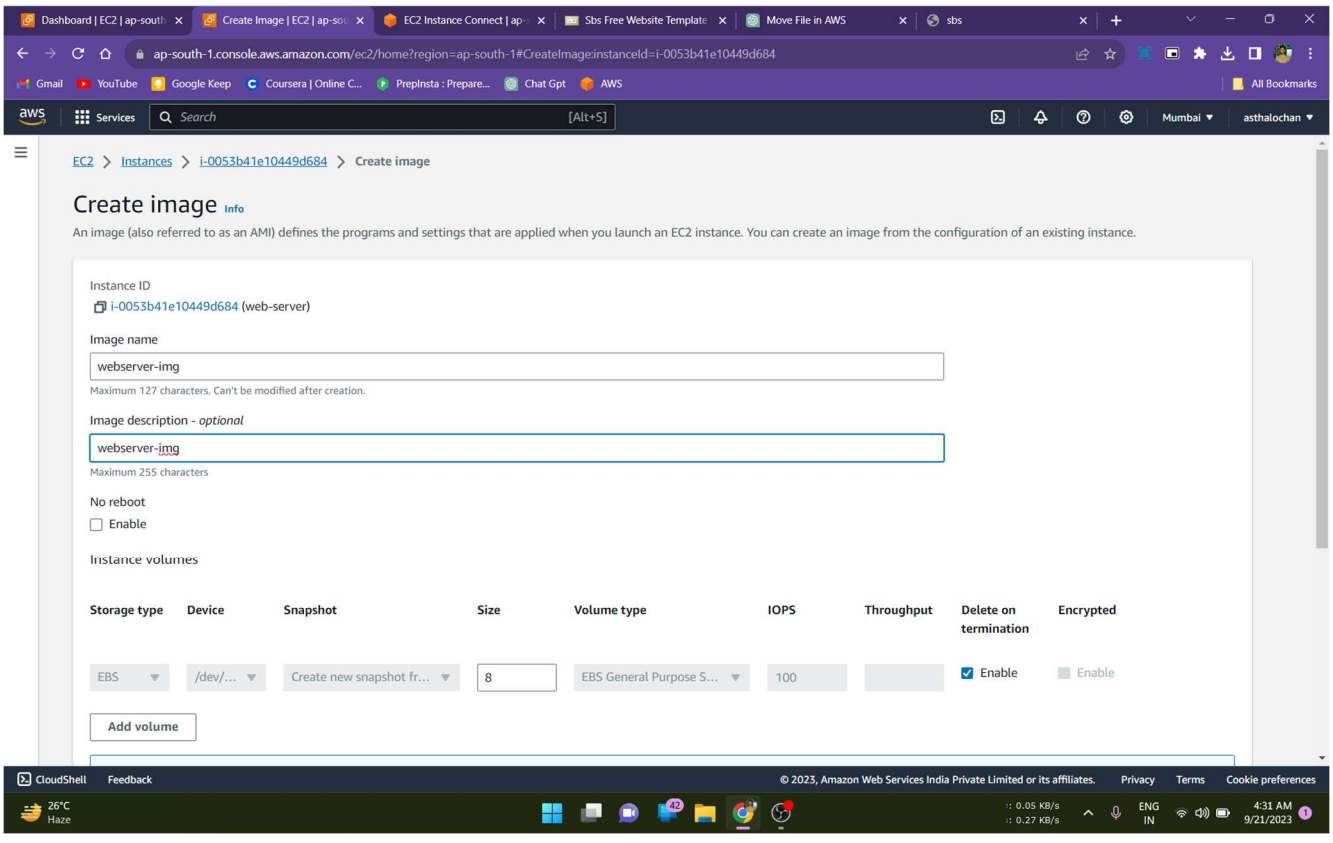




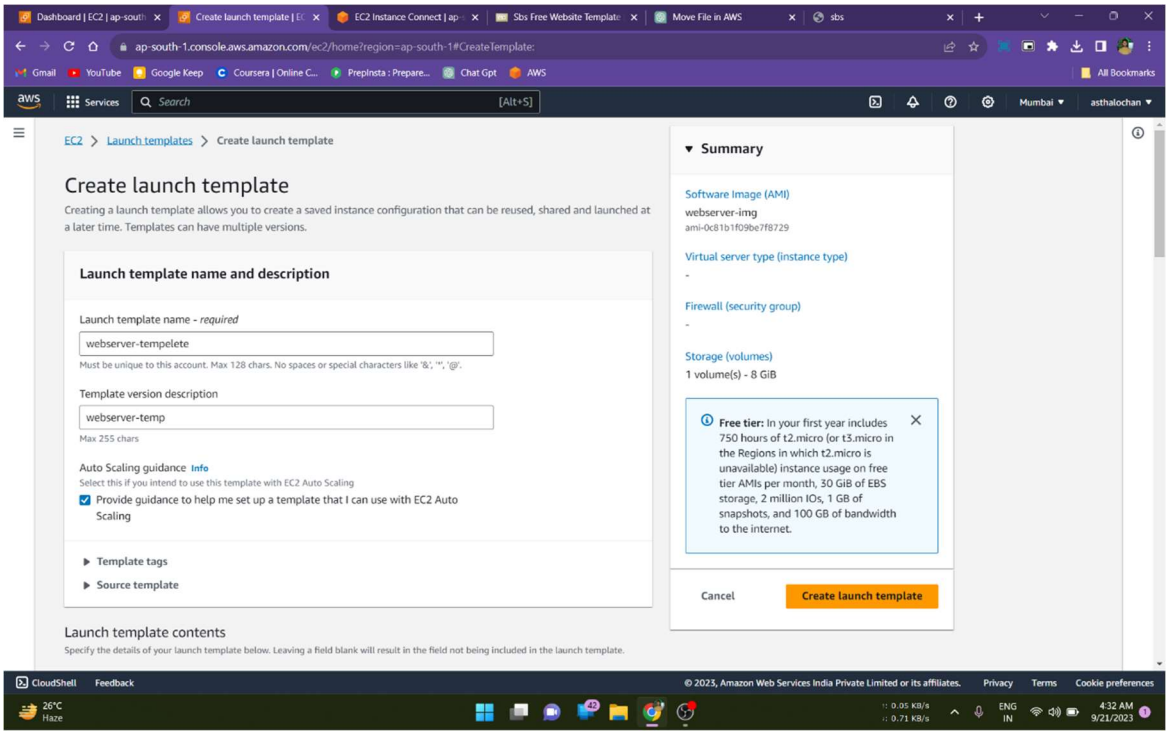
18. ASSOCIATE AN ELASTIC IP WITH THE EC2 INSTANCE (WEBSERVER)

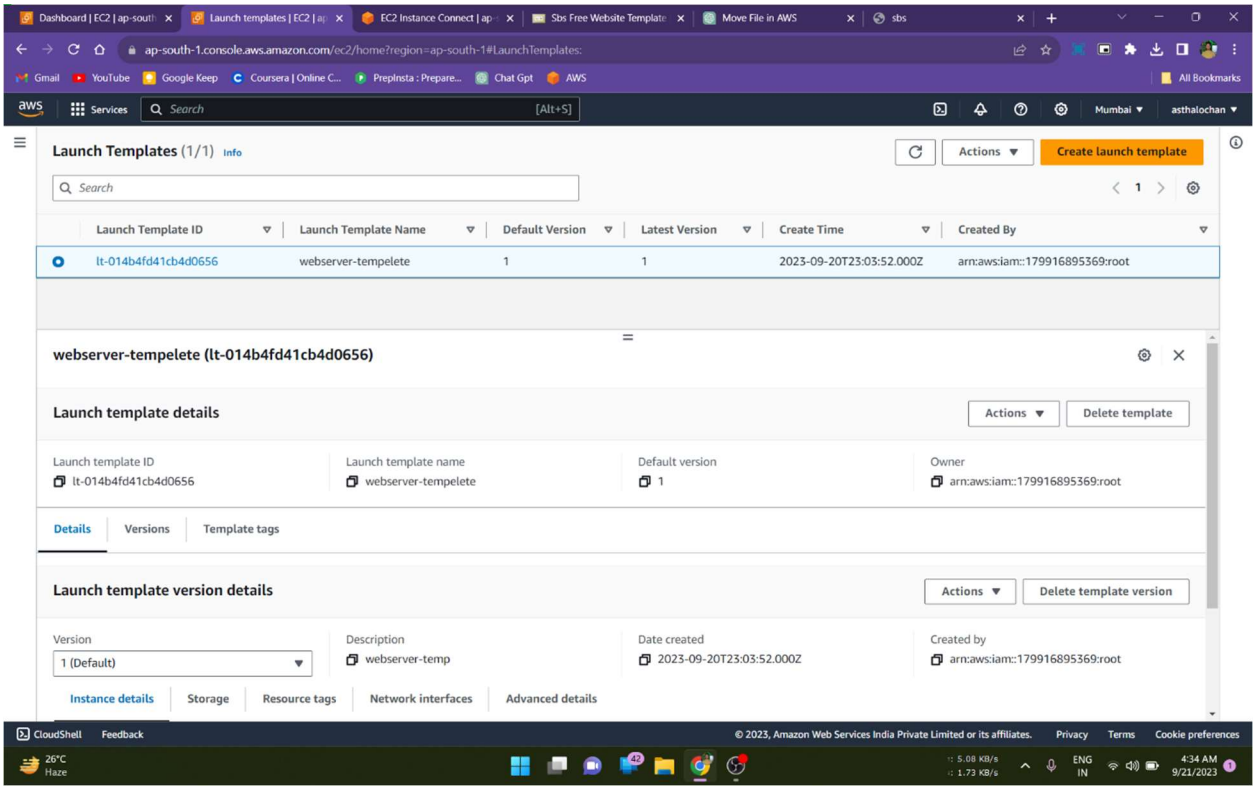


19.CREATE IMAGE OF THE EC2-INSTANCE(WEBSERVER)

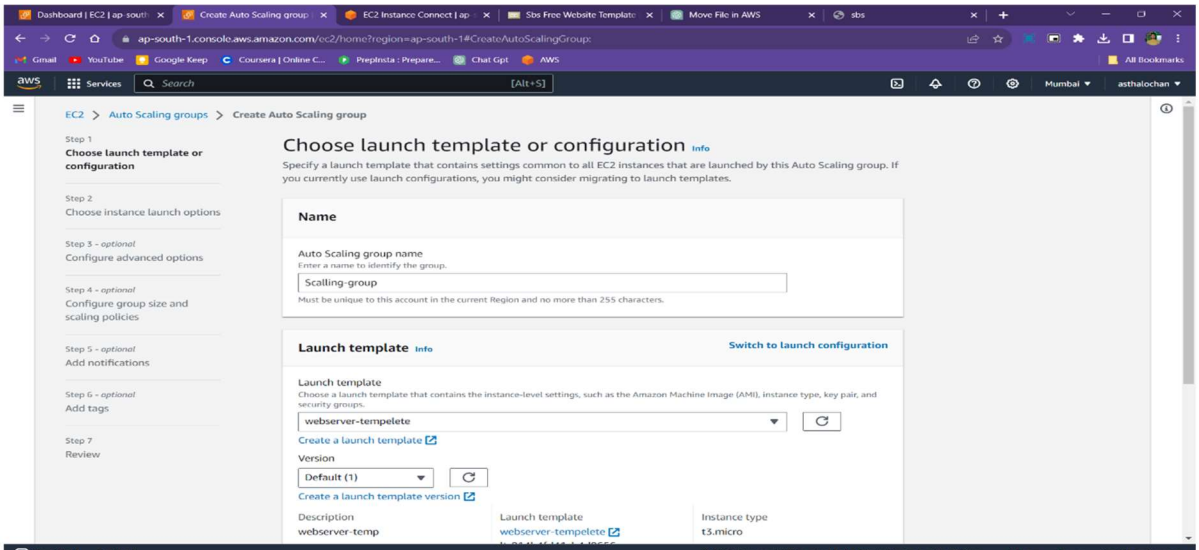


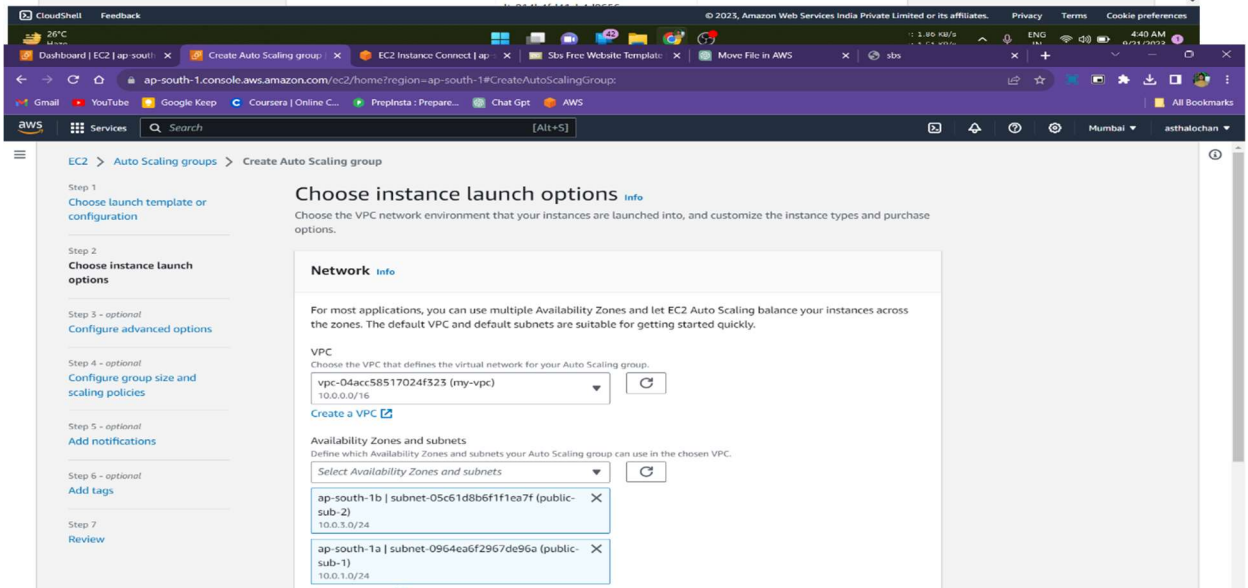
20.CREATE A TEMPLATE WITH THE EC2 IMAGE ,

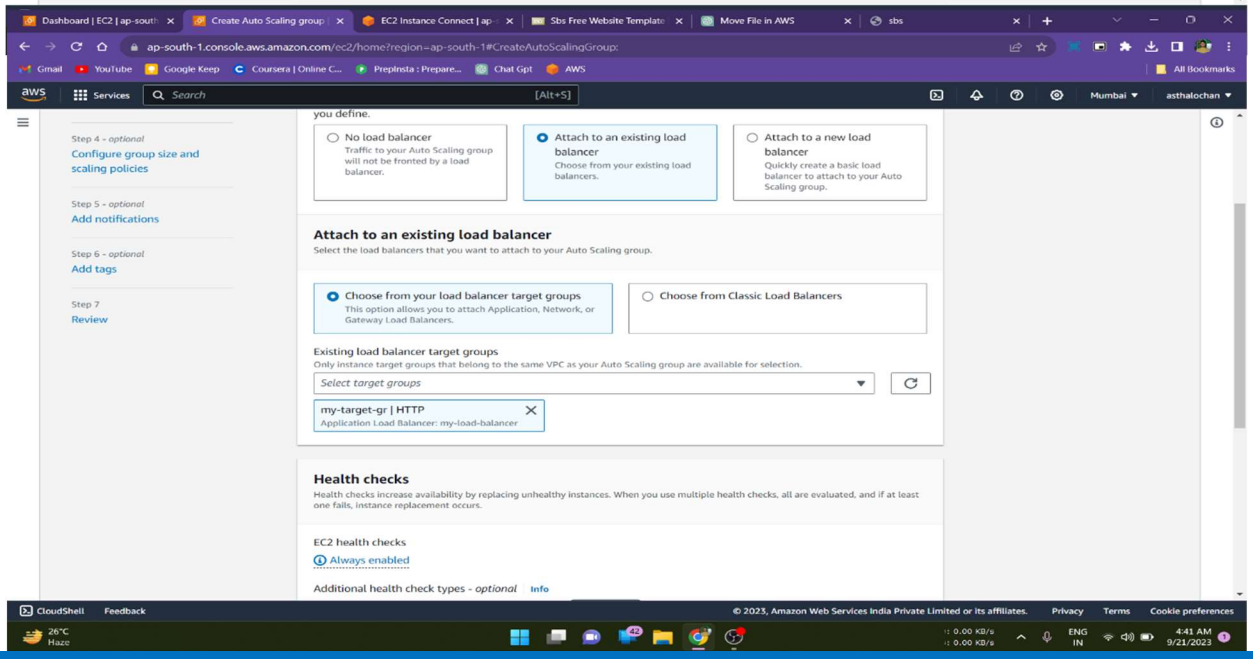


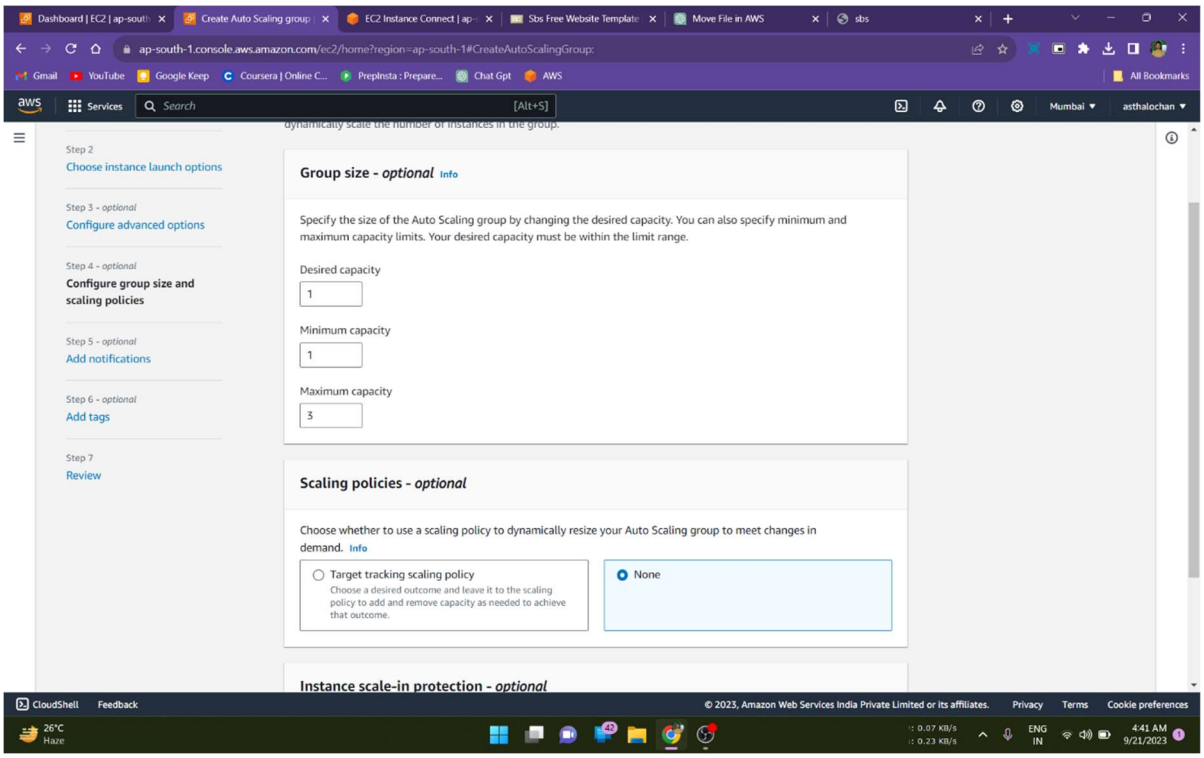


21.SETUP AUTO SCALING GROUP








Dashboard | EC2 | ap-south
Create Auto Scaling group
EC2 Instance Connect | ap-
Sbs Free Website Template
Move File in AWS
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Gmail
YouTube
Google Keep
Coursera | Online C...
PrepInsta : Prepare...
Chat Gpt
AWS
All Bookmarks
Services
Search
[Alt+S]
Mumbai
asthalochan
dynamically scale the number of instances in the group.
Step 2
Choose instance launch options
Step 3 - optional
Configure advanced options
Step 4 - optional
Configure group size and scaling policies
Step 5 - optional
Add notifications
Step 6 - optional
Add tags
Step 7
Review
Group size - optional Info
Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.
Desired capacity
1
Minimum capacity
1
Maximum capacity
3
Scaling policies - optional
Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. Info
Target tracking scaling policy
Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.
None
Instance scale-in protection - optional
CloudShell
Feedback
© 2023, Amazon Web Services India Private Limited or its affiliates.
Privacy
Terms
Cookie preferences
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0.07 KB/s
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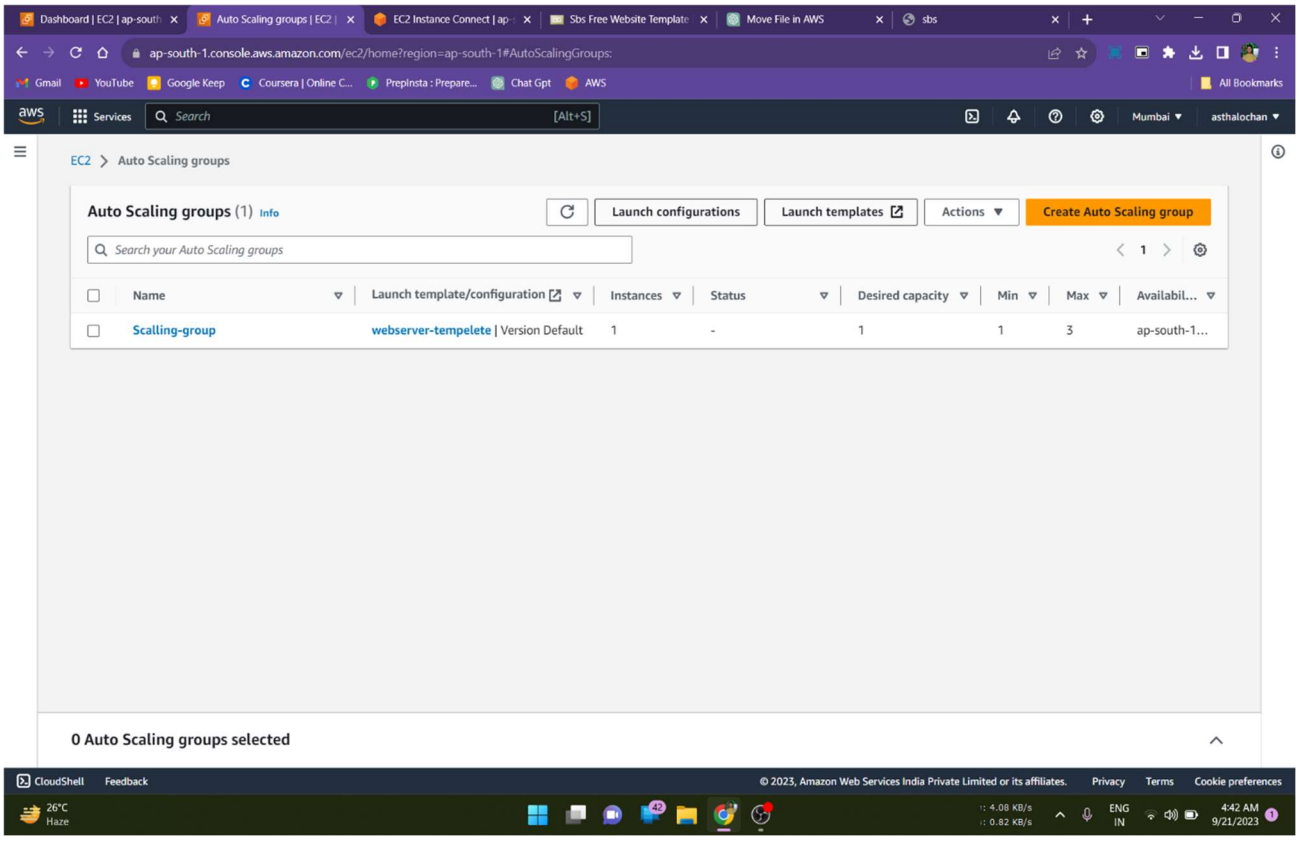
9/21/2023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Auto Scaling groups | EC2 |
EC2 Instance Connect | ap-
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Gmail
YouTube
Google Keep
Coursera | Online C...
PrepInsta : Prepare...
Chat Gpt
AWS
All Bookmarks
Services
Search
[Alt+S]
Mumbai
asthalochan
EC2 > Auto Scaling groups
Auto Scaling groups (1) Info
Launch configurations
Launch templates
Actions
Create Auto Scaling group
Search your Auto Scaling groups
1
Name
Launch template/configuration
Instances
Status
Desired capacity
Min
Max
Availabil...
Scalling-group
webserver-tempelete | Version Default
1
-
1
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3
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CloudShell
Feedback
© 2023, Amazon Web Services India Private Limited or its affiliates.
Privacy
Terms
Cookie preferences
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Haze
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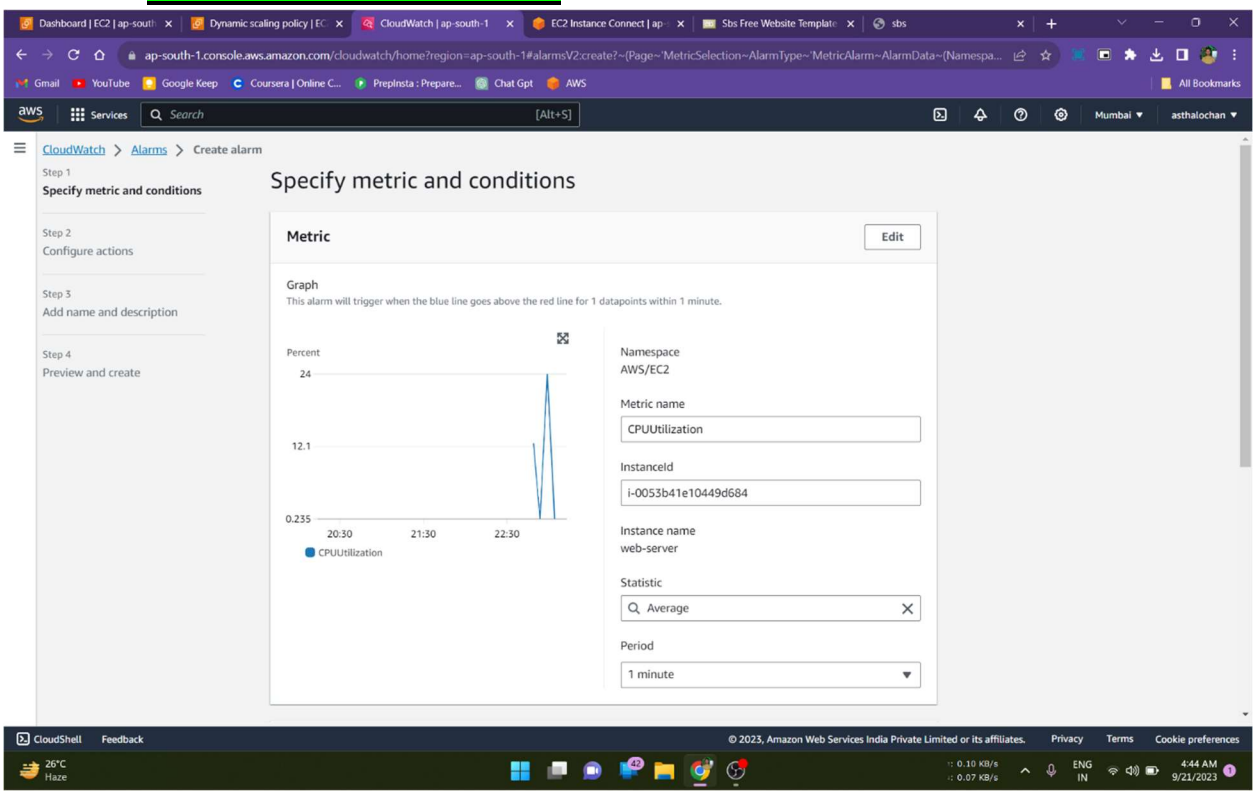
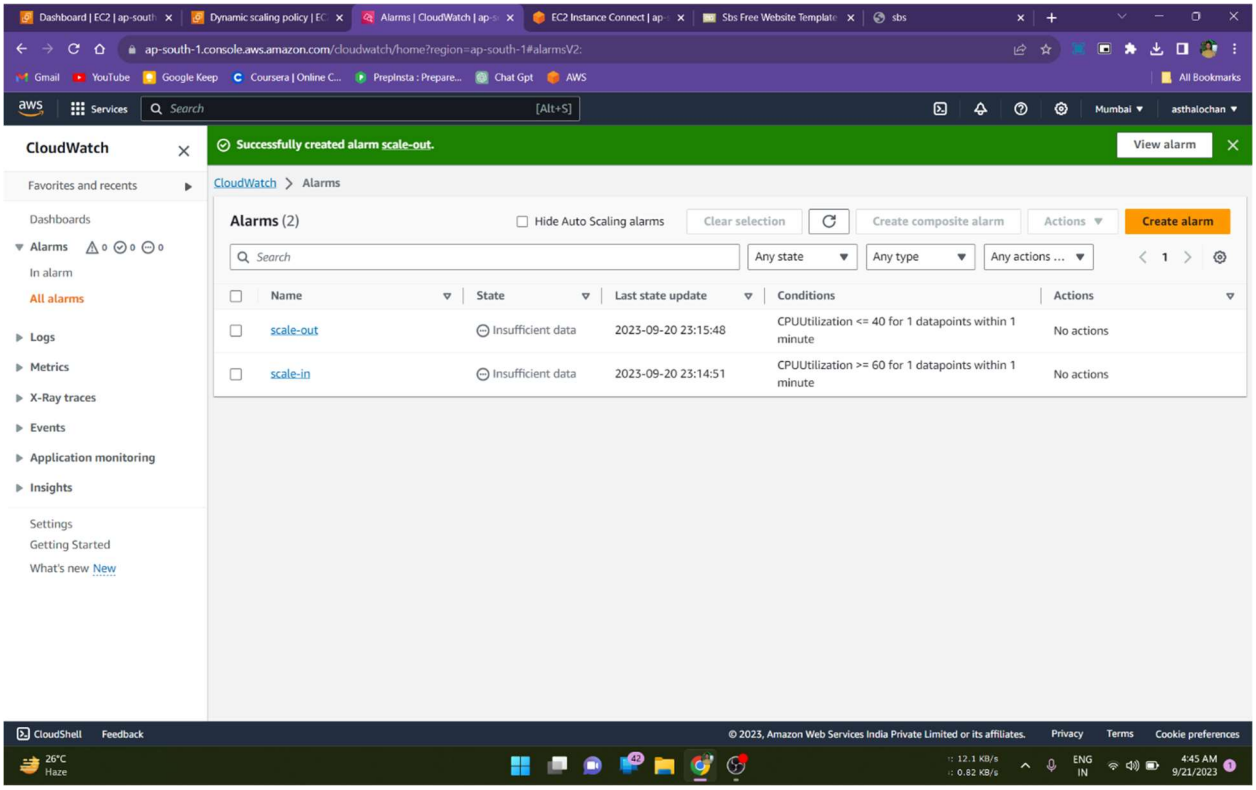
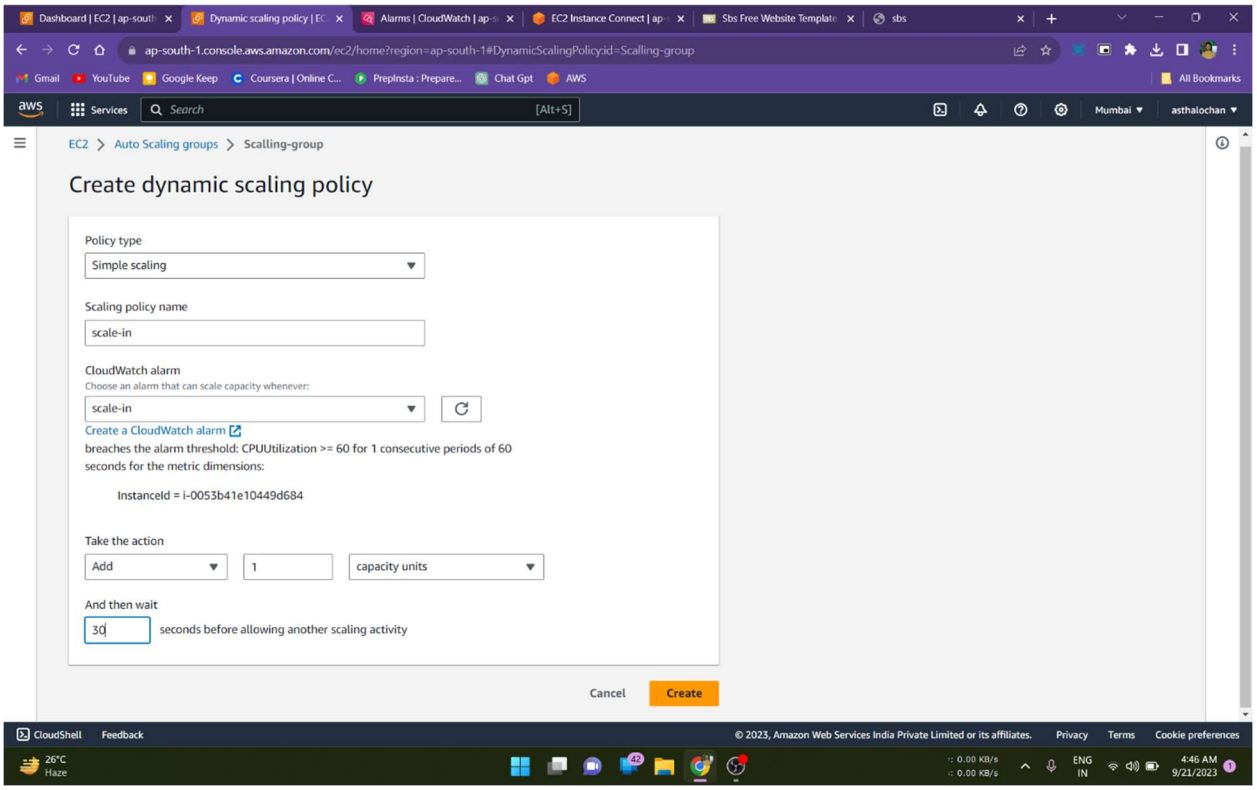
9/21/2023

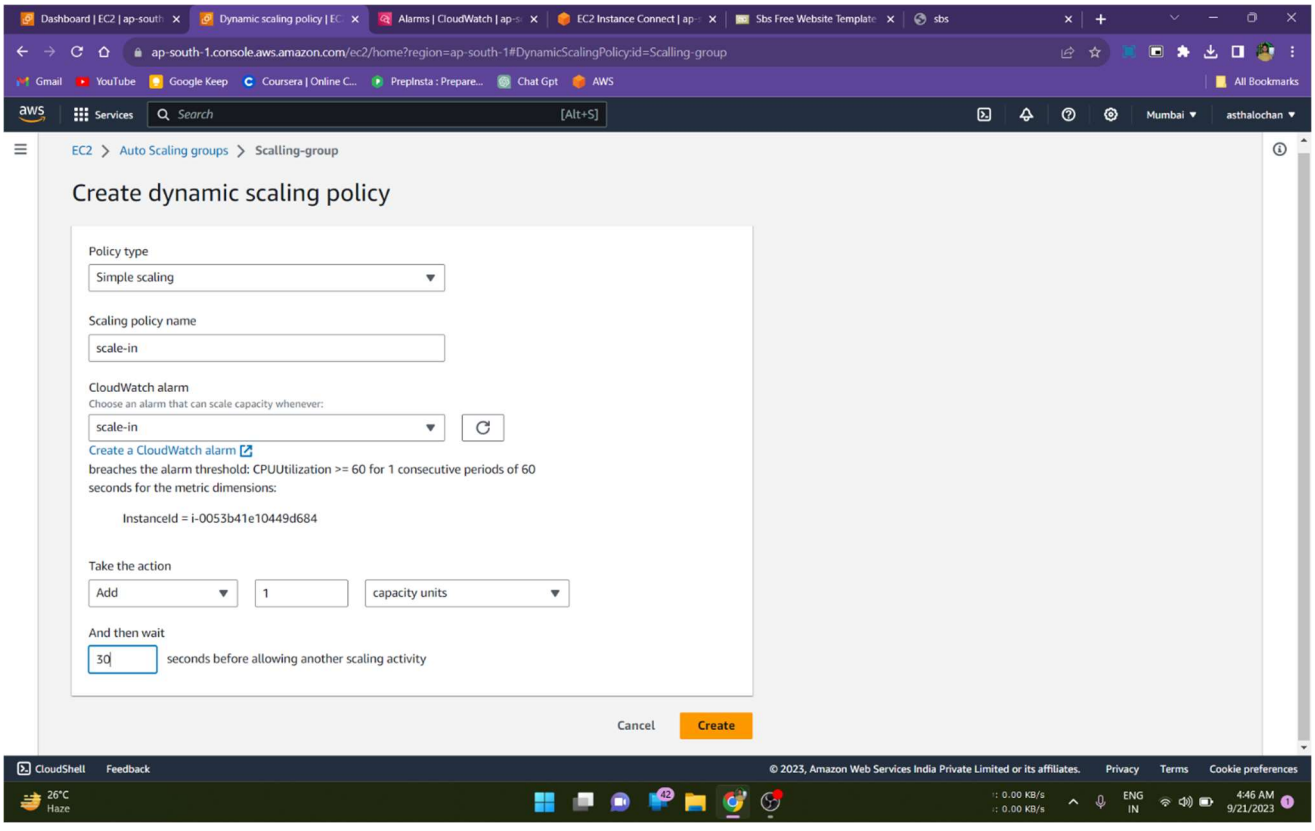
22.CREATE TWO CLOUD WATCH ALARMS USING CPU UTILIZATION METRIC

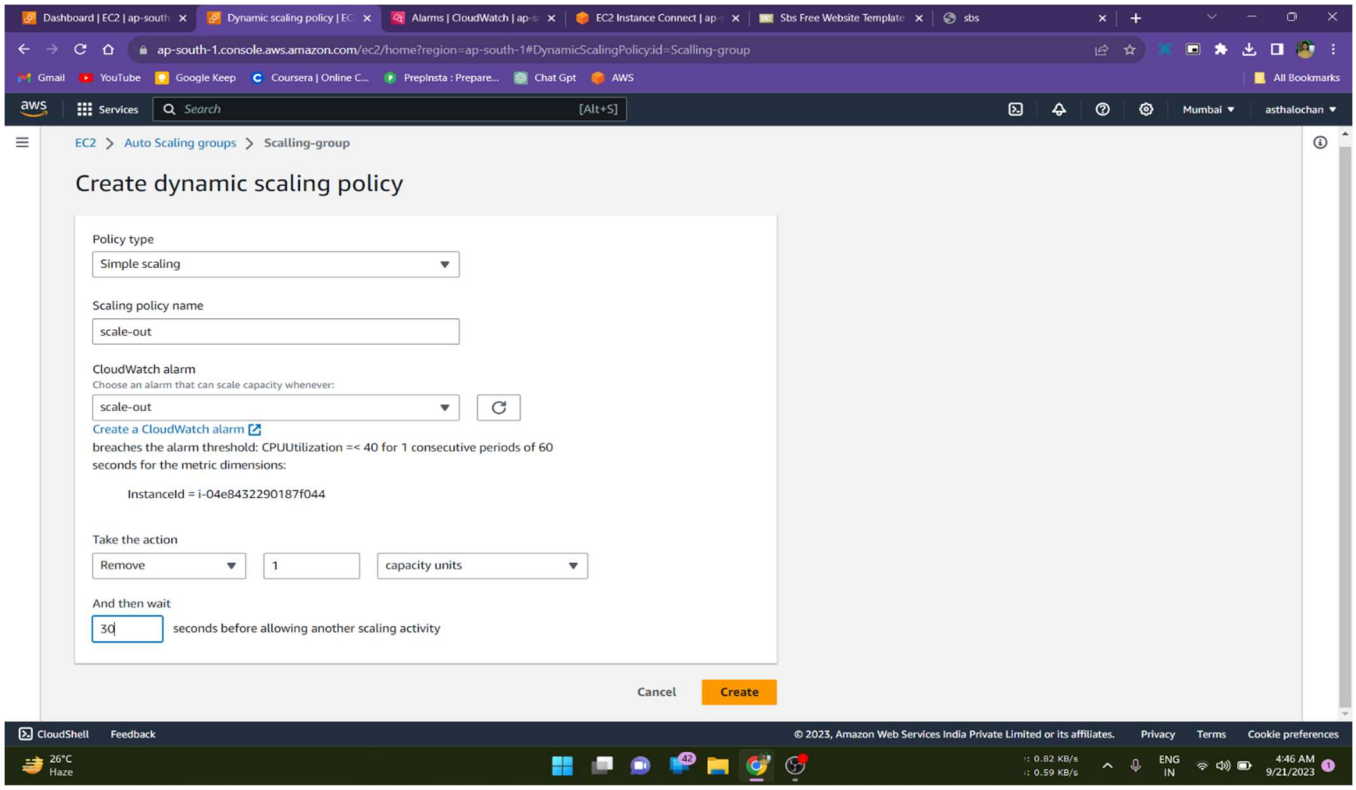




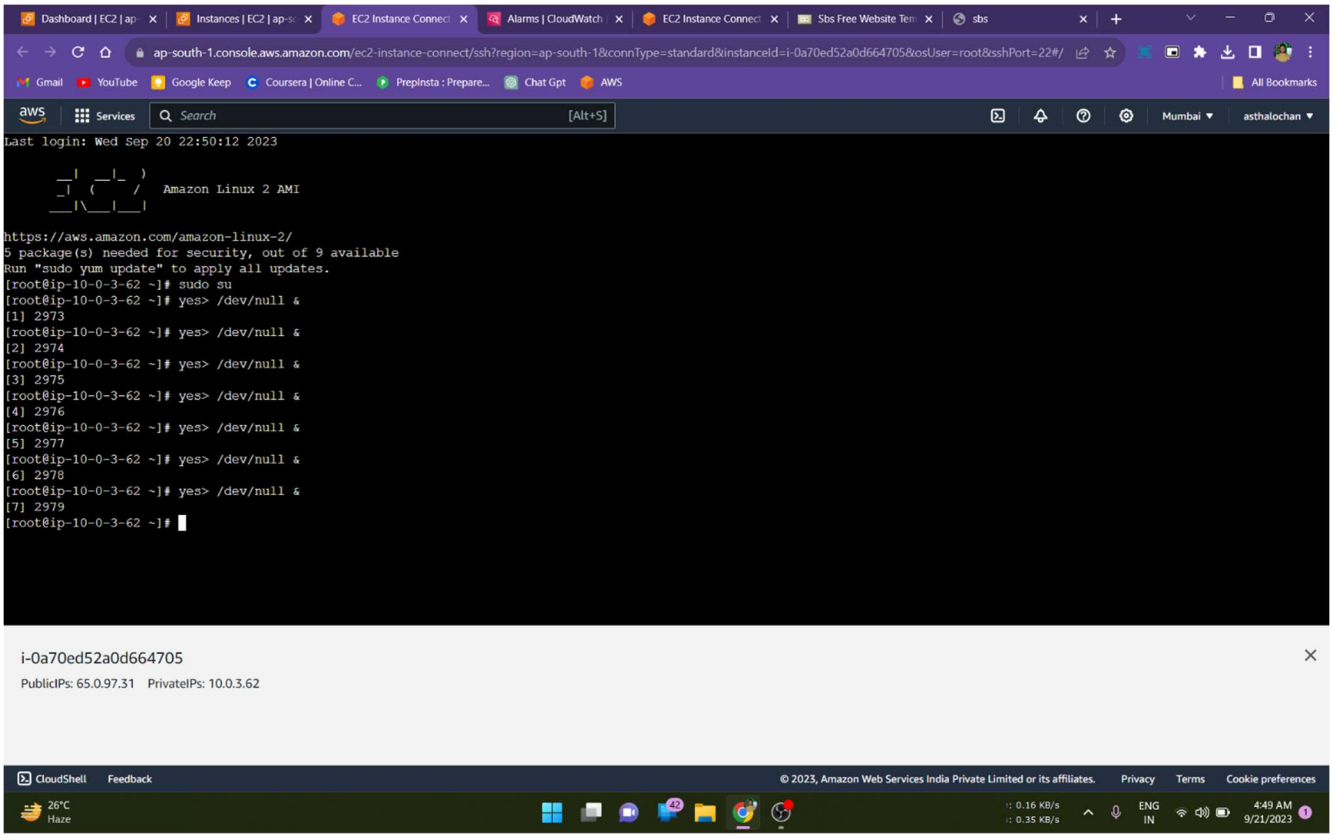
23.ATTACH TWO DYNAMIC POLICY IN AUTO SCALING GROUP (SCALE IN & SCALE OUT)





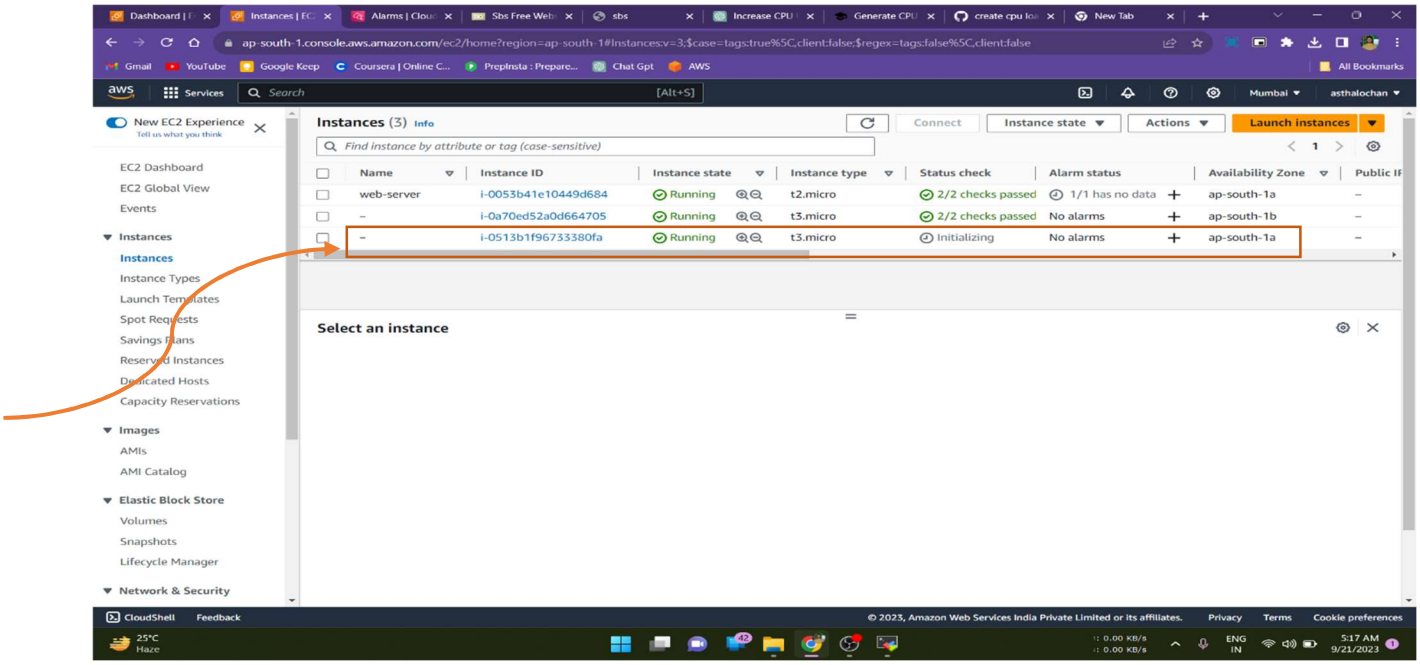


24. INCREASE THE CPU UTILIZATION FOR CHECKING AUTO SCALLING

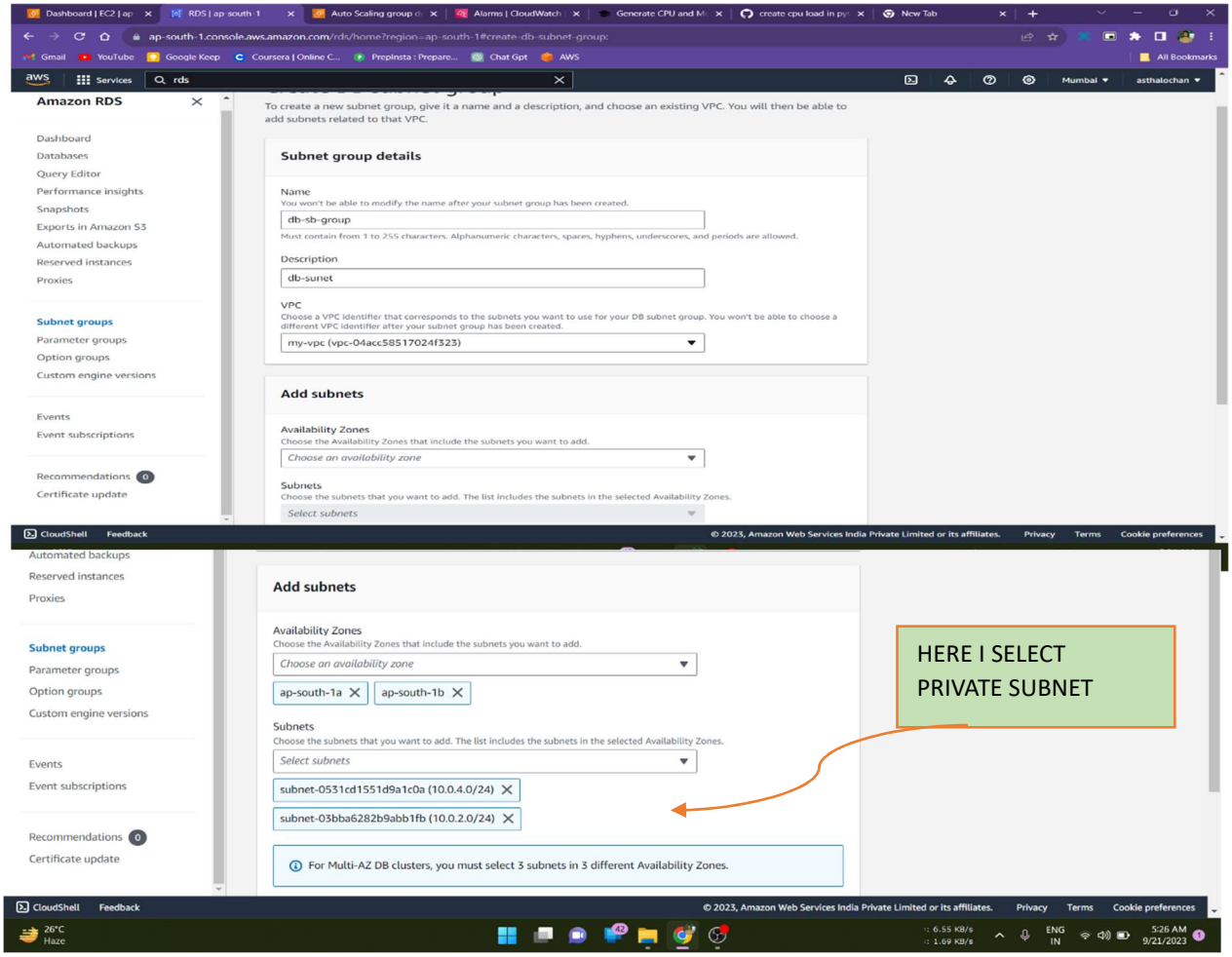


ONE EC2-INSTANCE AUTOMATICALLY CREATED AND RUN

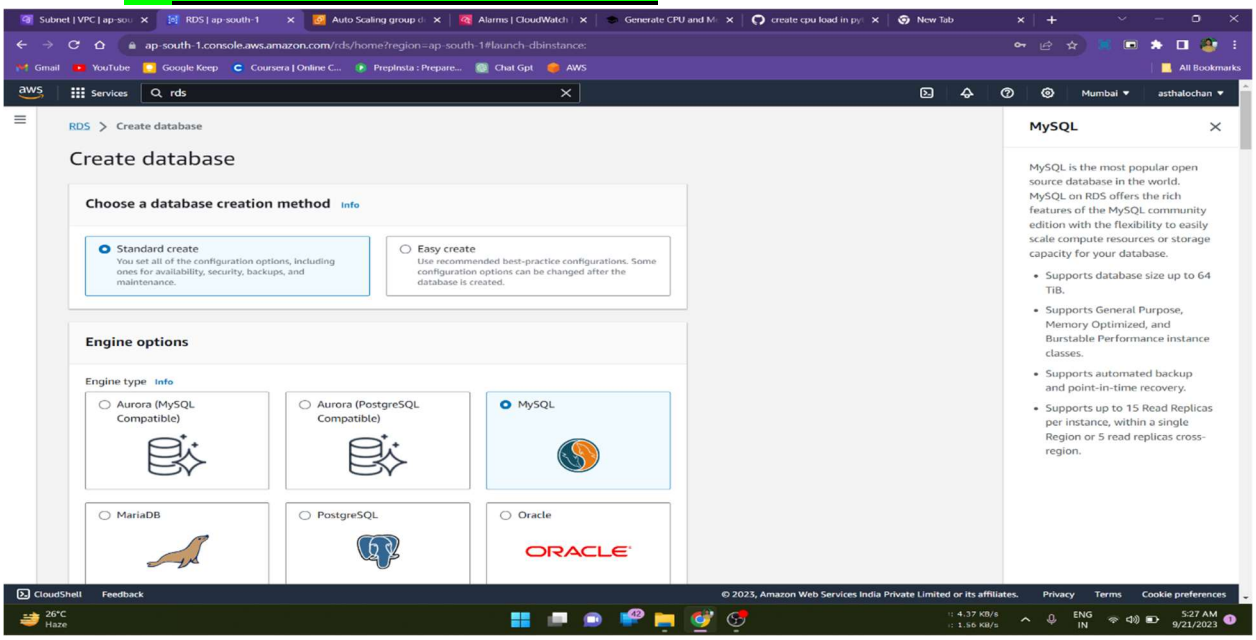
(IT MEANS OUR AUTO SCALLING GROUP WORKING PERFECTLY)

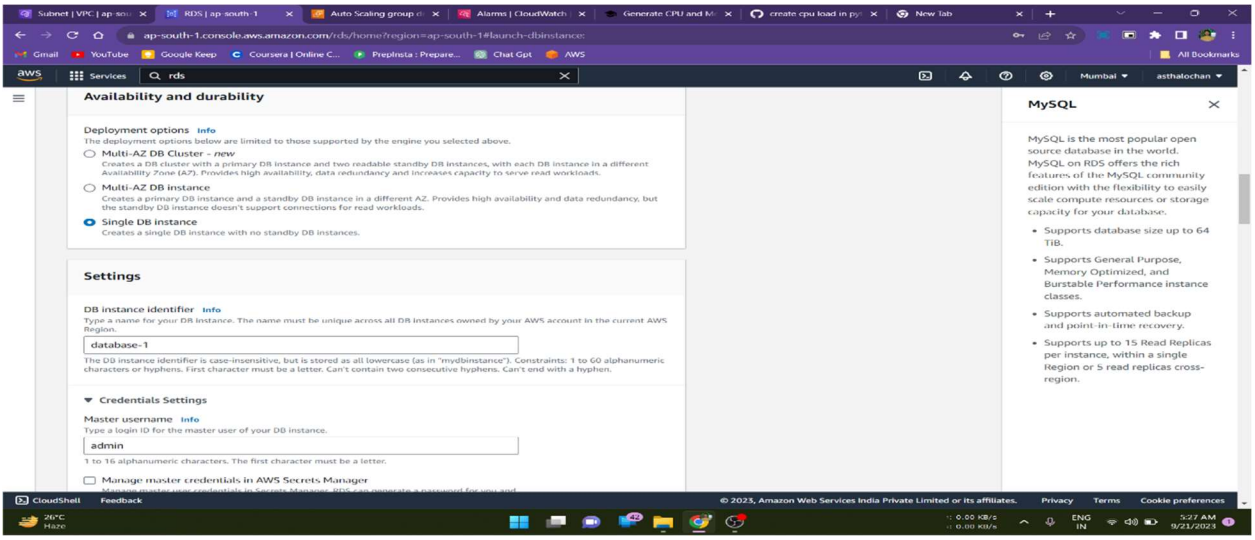


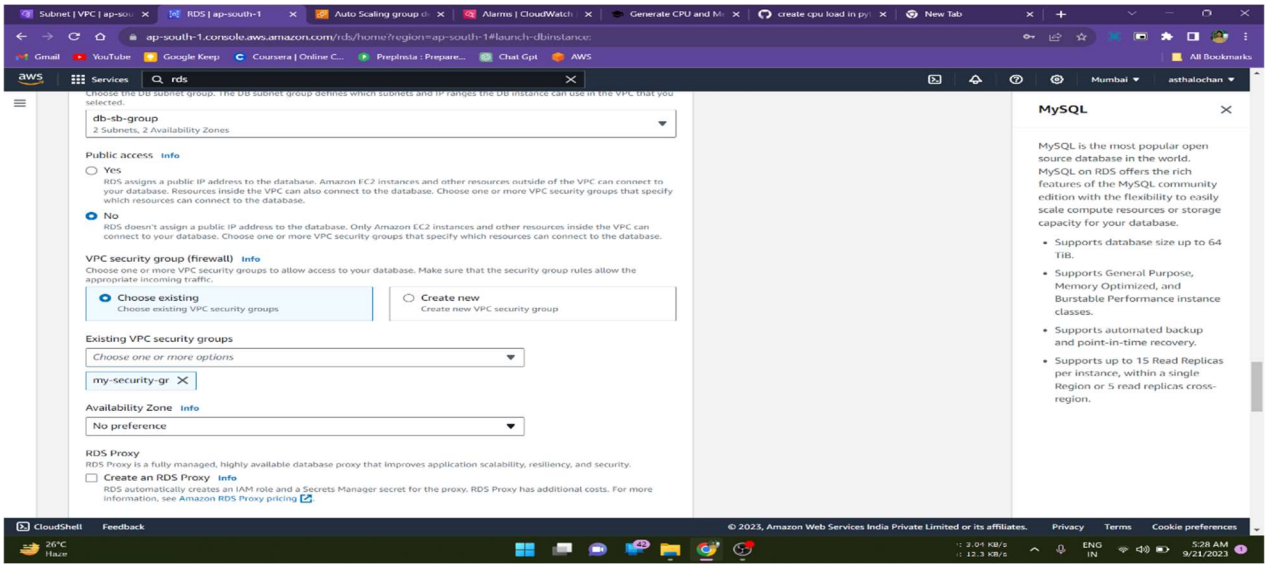
25. CREATE A SUBNET GROUP IN AMAZON RDS DASHBOARD

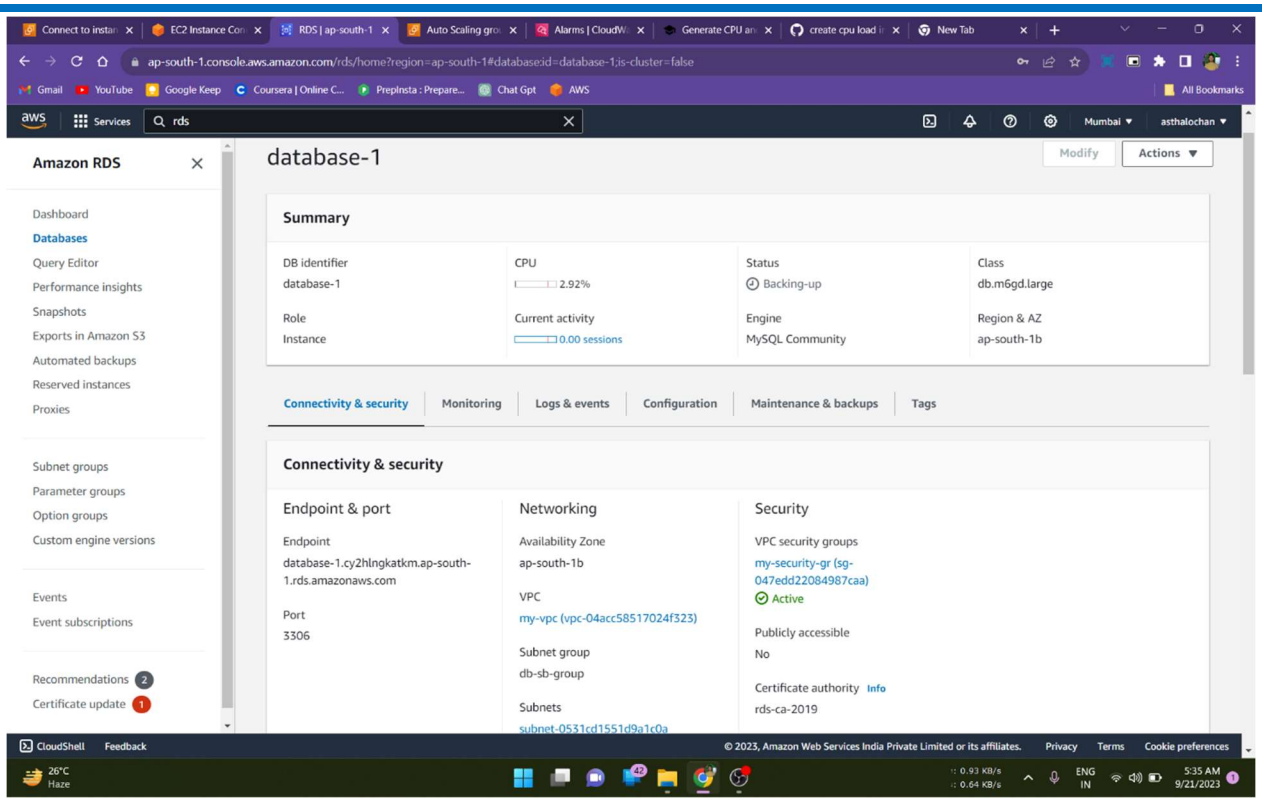


26. CREATE A RDS DATABASE

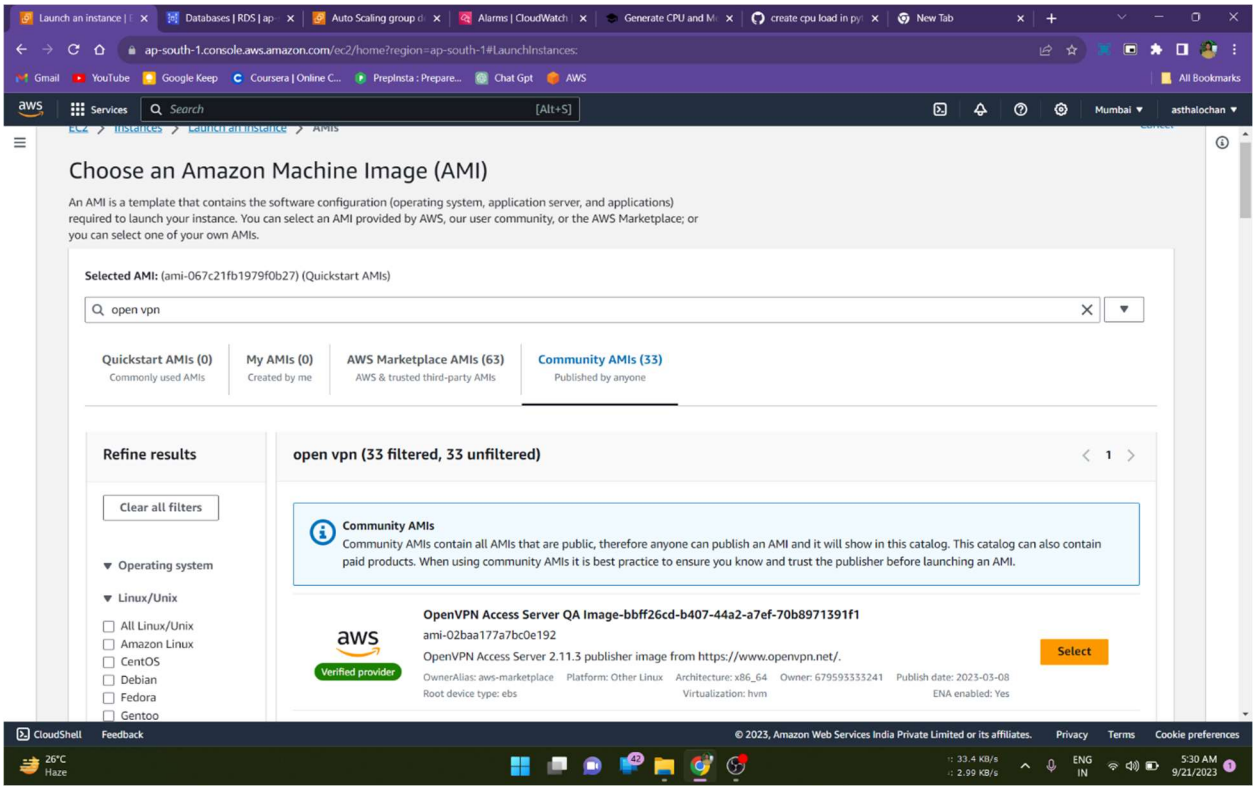


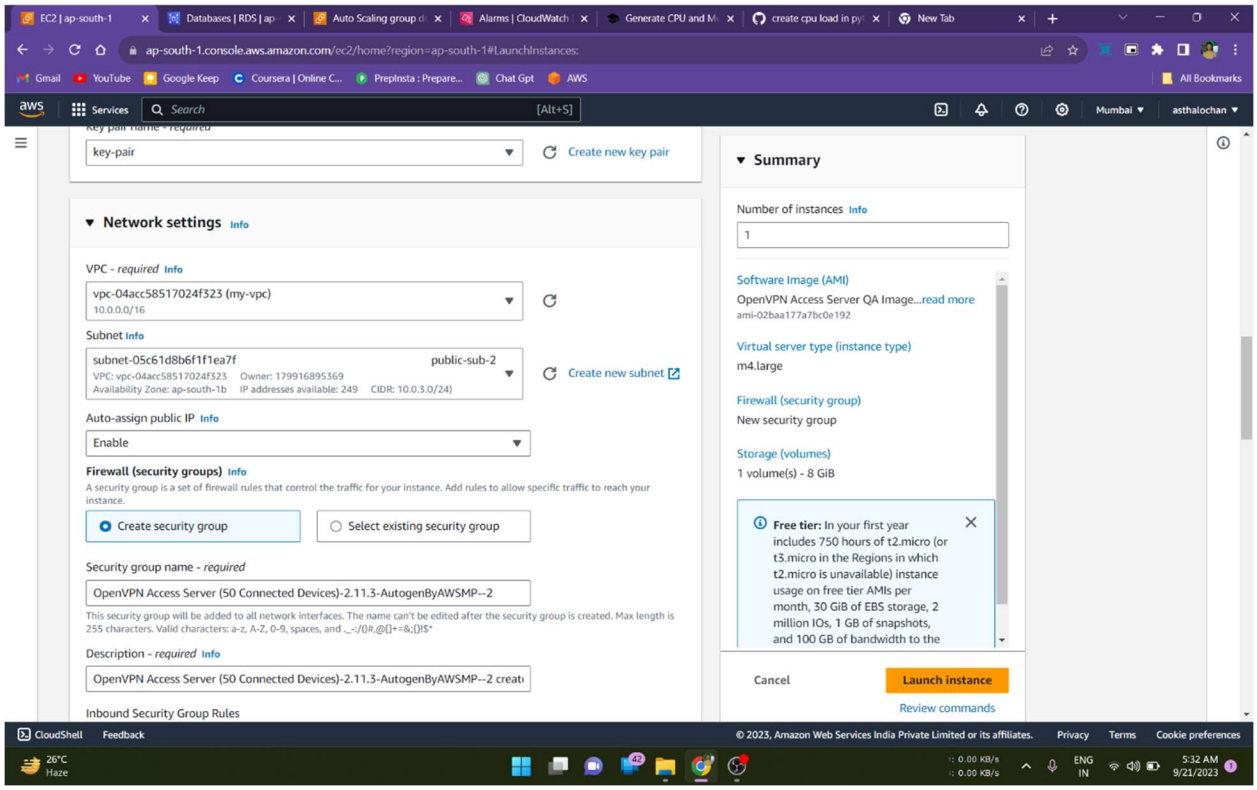




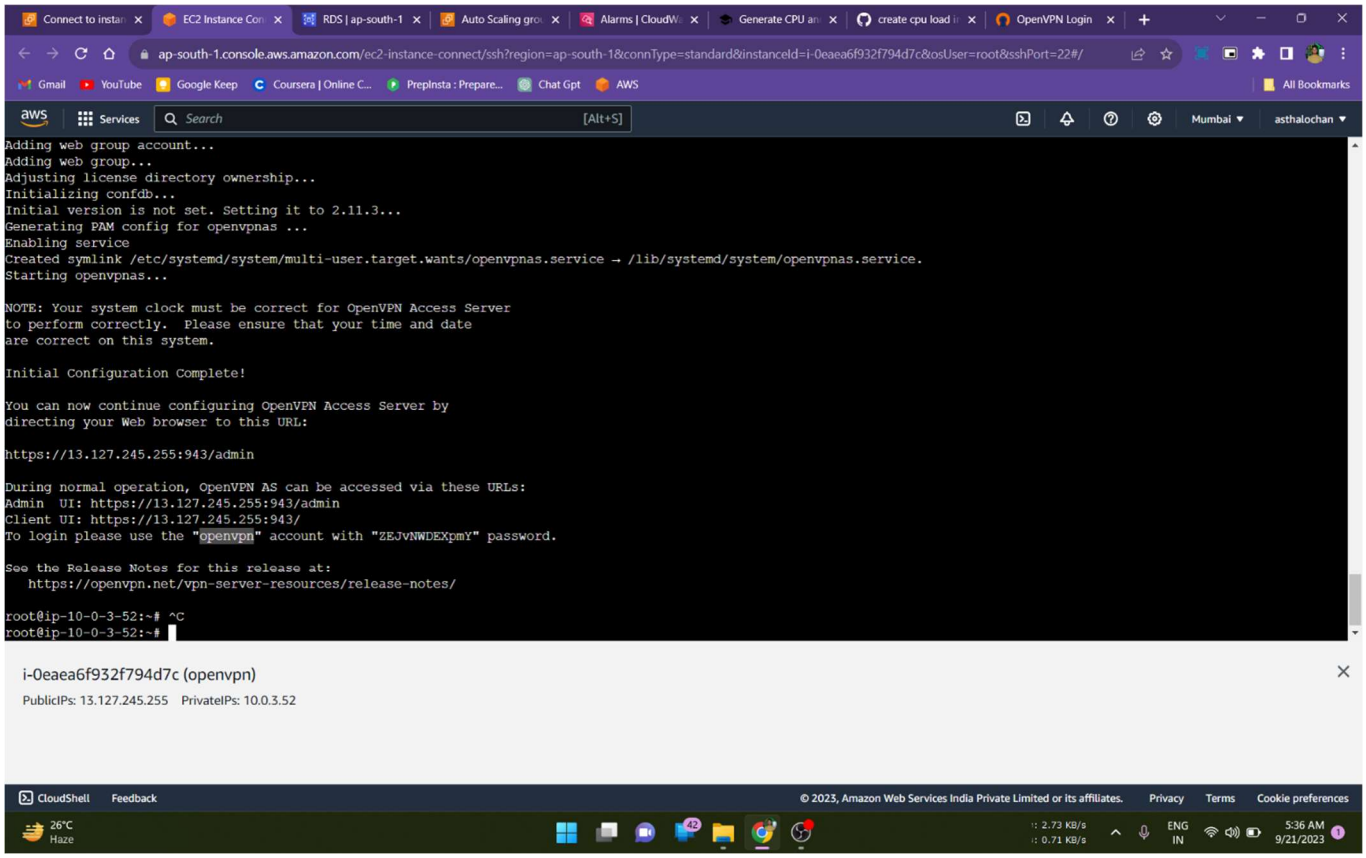


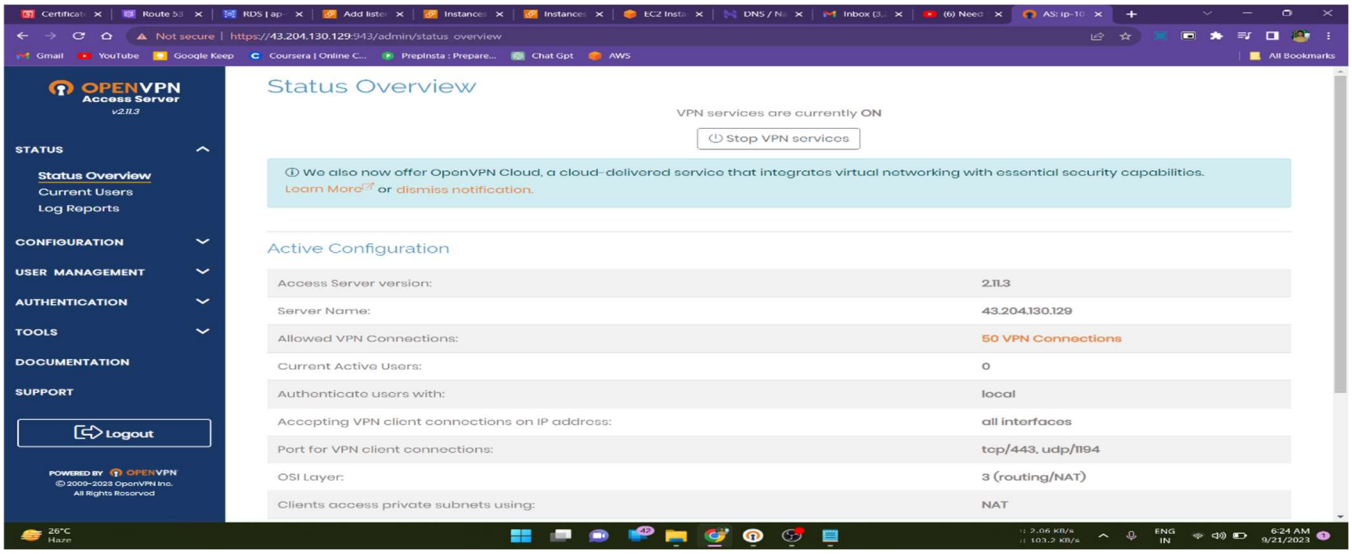
27.TO CONNECT OUR DATABASE WITH OUR LOCAL SYSTEM I HAVE TO LUNCH A VPN EC2-INSTANCE WITH OUR PUBLIC SUBNET

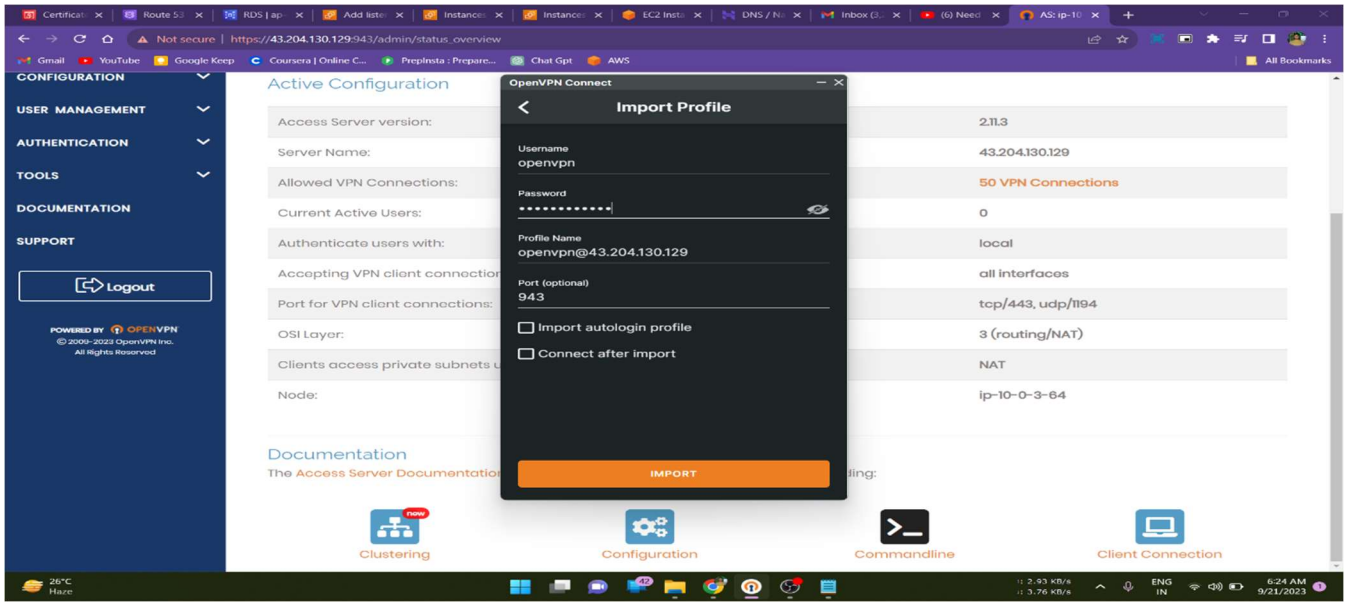


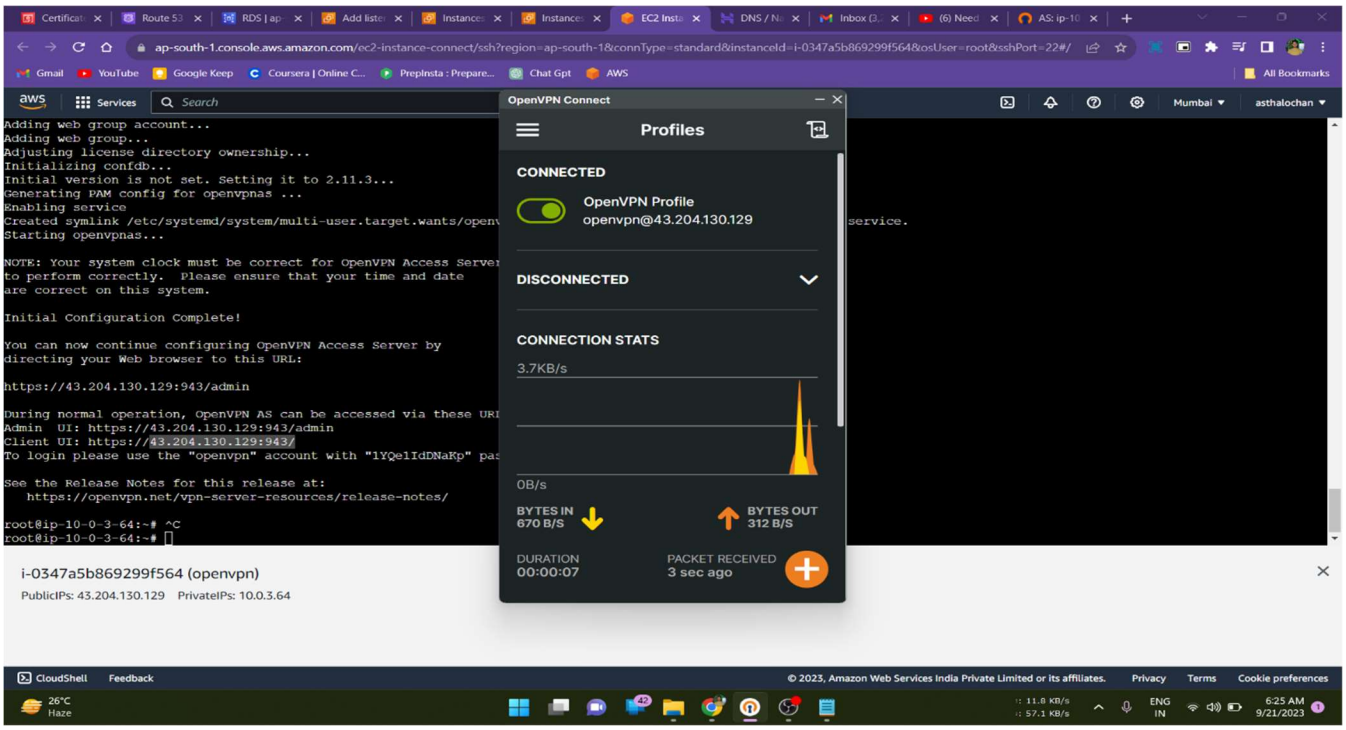


28. CONNECT THE VPN SERVER EC2-INSTANCE AND SETUP IT

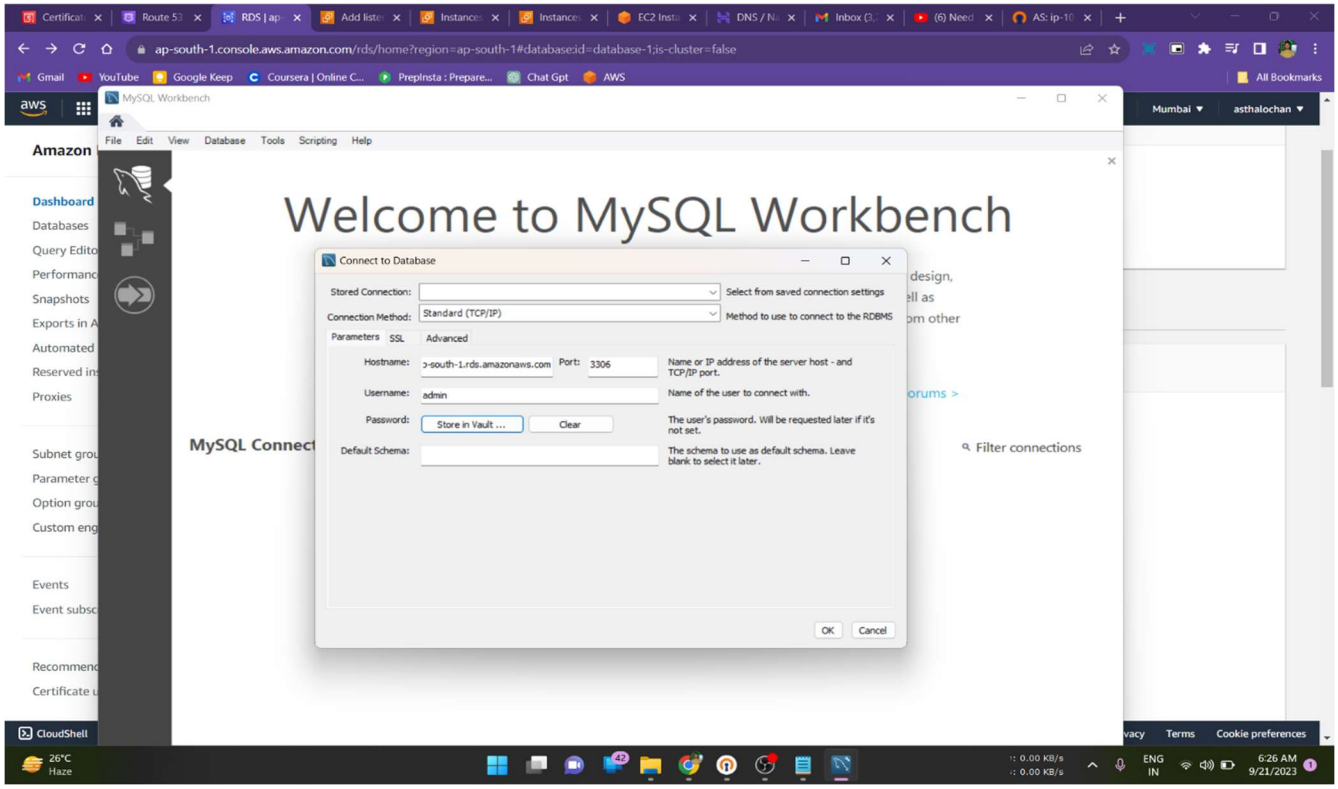


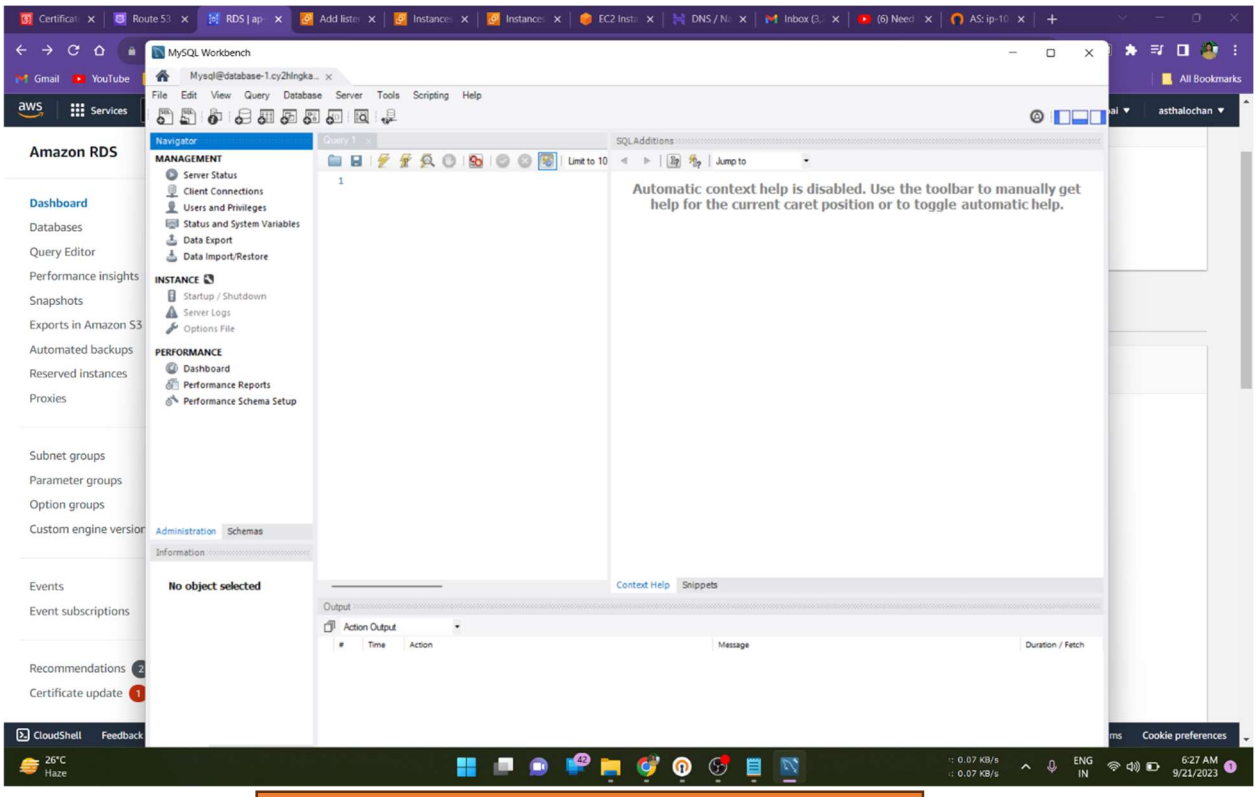

Not secure | https://43.204.130.129:943/admin/status_overview
OPENVPN Access Server v2.11.3
STATUS
Status Overview
Current Users
Log Reports
CONFIGURATION
USER MANAGEMENT
AUTHENTICATION
TOOLS
DOCUMENTATION
SUPPORT
Logout
Status Overview
VPN services are currently ON
Stop VPN services
We also now offer OpenVPN Cloud, a cloud-delivered service that integrates virtual networking with essential security capabilities.
Learn More or dismiss notification.
Active Configuration
Access Server version: 2.11.3
Server Name: 43.204.130.129
Allowed VPN Connections: 50 VPN Connections
Current Active Users: 0
Authenticate users with: local
Accepting VPN client connections on IP address: all interfaces
Port for VPN client connections: tcp/443, udp/1194
OSI Layer: 3 (routing/NAT)
Clients access private subnets using: NAT


OpenVPN Connect
Import Profile
Username
openvpn
Password
Profile Name
openvpn@43.204.130.129
Port (optional)
943
Import autologin profile
Connect after import
IMPORT
Active Configuration
Documentation
Clustering
Configuration
Commandline
Client Connection


ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instanceId=i-0347a5b869299f564&osUser=root&sshPort=22#/
Adding web group account...
Adding web group...
Adjusting license directory ownership...
Initializing confdb...
Initial version is not set. Setting it to 2.11.3...
Generating PAM config for openvpnas ...
Enabling service
Starting openvpnas...
NOTE: Your system clock must be correct for OpenVPN Access Server
to perform correctly. Please ensure that your time and date
are correct on this system.
Initial Configuration Complete!
You can now continue configuring OpenVPN Access Server by
directing your Web browser to this URL:
https://43.204.130.129:943/admin
Admin UI: https://43.204.130.129:943/admin
Client UI: https://43.204.130.129:943/
To login please use the "openvpn" account with "1YQe1IdDNaKp"
See the Release Notes for this release at:
https://openvpn.net/vpn-server-resources/release-notes/
root@ip-10-0-3-64:~# ^C
root@ip-10-0-3-64:~#
OpenVPN Connect
Profiles
CONNECTED
OpenVPN Profile
openvpn@43.204.130.129
DISCONNECTED
CONNECTION STATS
3.7KB/s
0B/s
BYTES IN 670 B/S
BYTES OUT 312 B/S
DURATION 00:00:07
PACKET RECEIVED 3 sec ago
i-0347a5b869299f564 (openvpn)
PublicIPs: 43.204.130.129 PrivateIPs: 10.0.3.64
CloudShell
Feedback
© 2023, Amazon Web Services India Private Limited or its affiliates.
Privacy
Terms
Cookie preferences

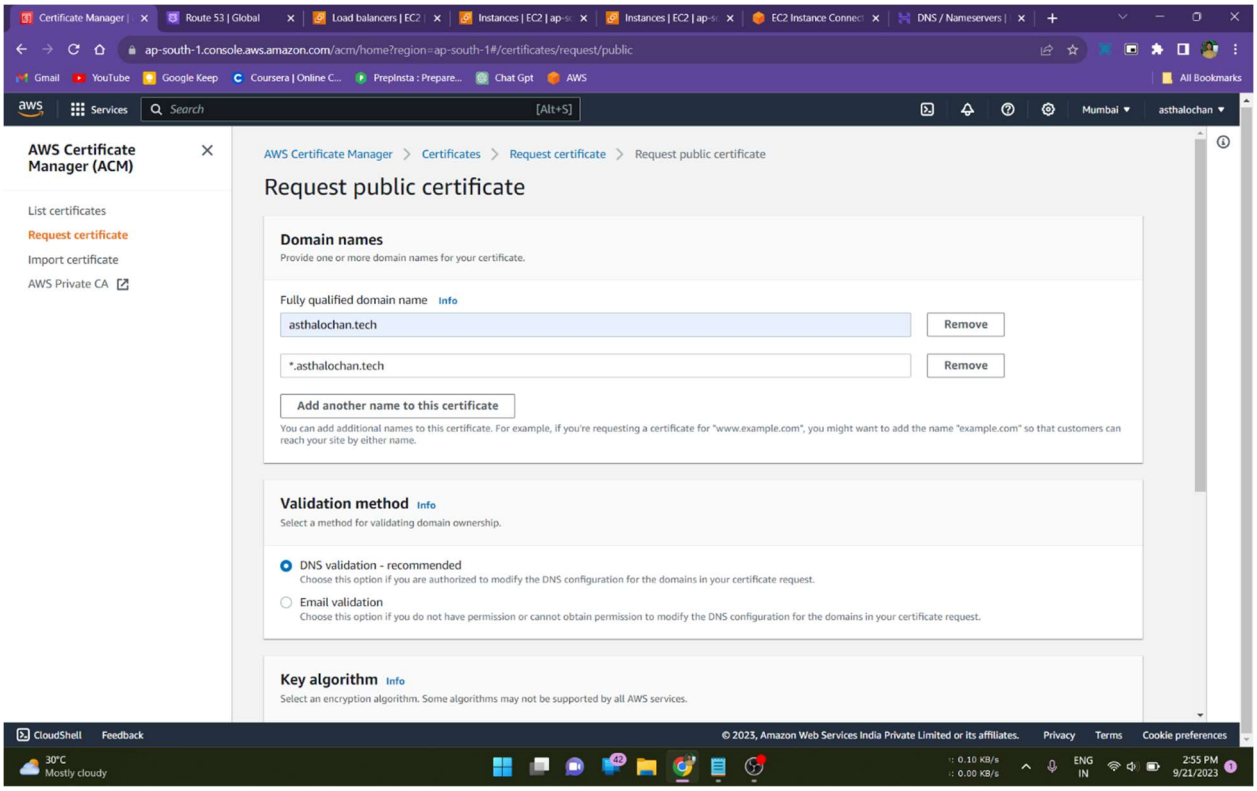
29.AFTER CONNECTING VPN ,
OPEN MYSQL WORK BENCH IN
LOCAL SYSTEM AN CONNECT IT WITH THE HELP OF
RDS DATABASE ENDPOINT PORT AND LOGIN CREDITIONLS

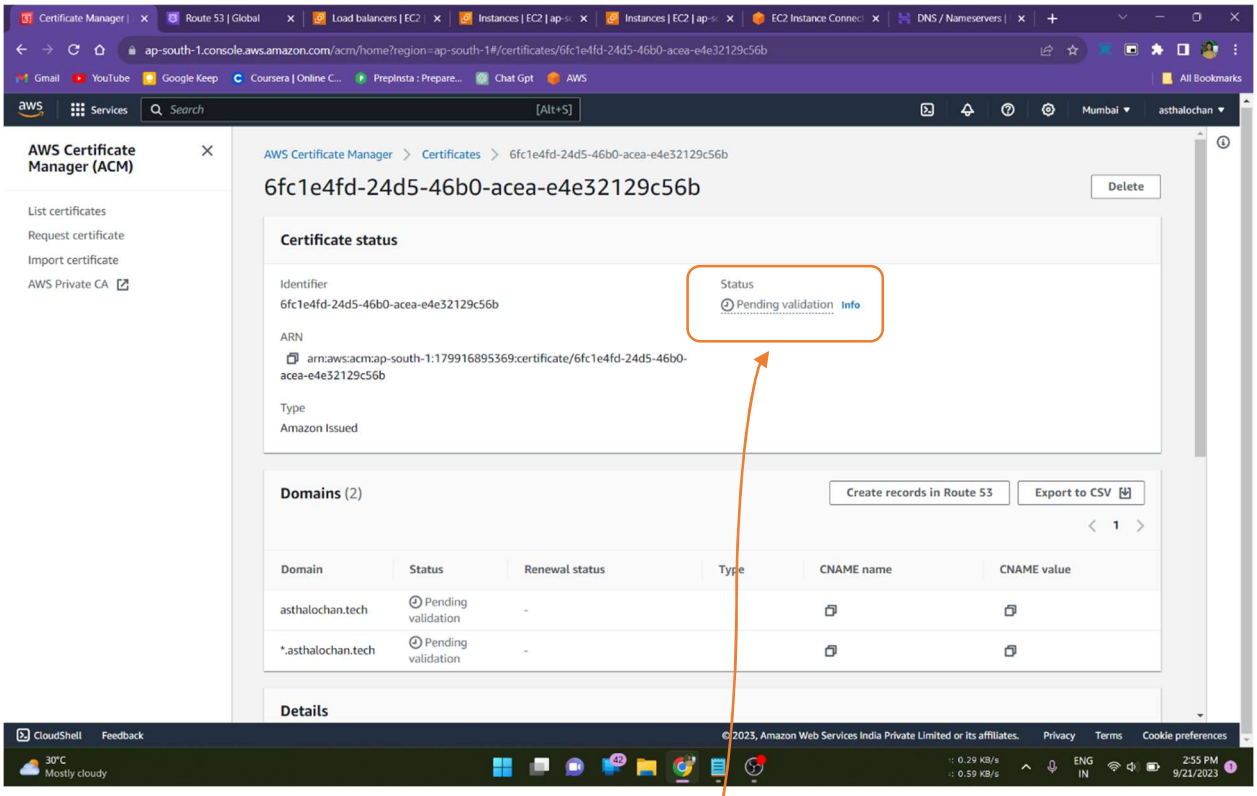




RDS MYSQL DATABASE SUCESSFULLY CONNECTED

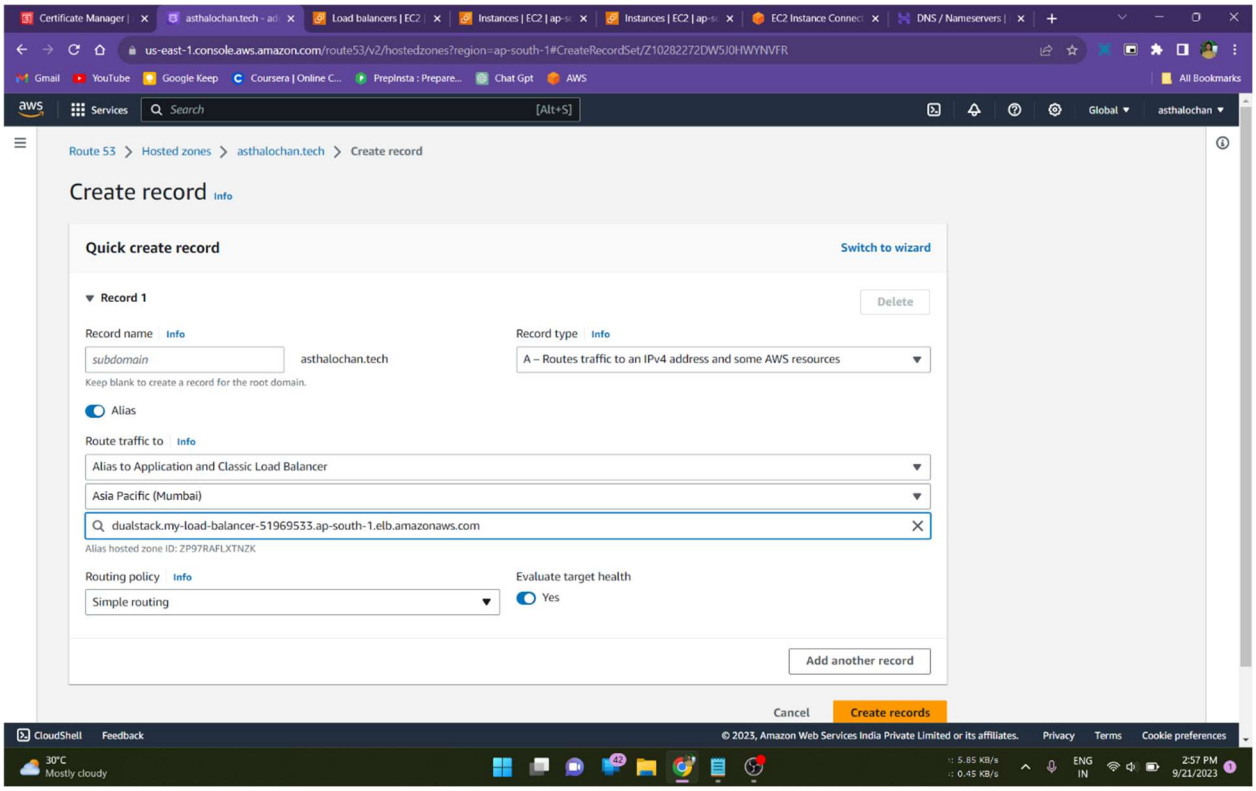
30.REQUEST A PUBLIC CERTIFICATE WITH OWN DOMAIN NAME



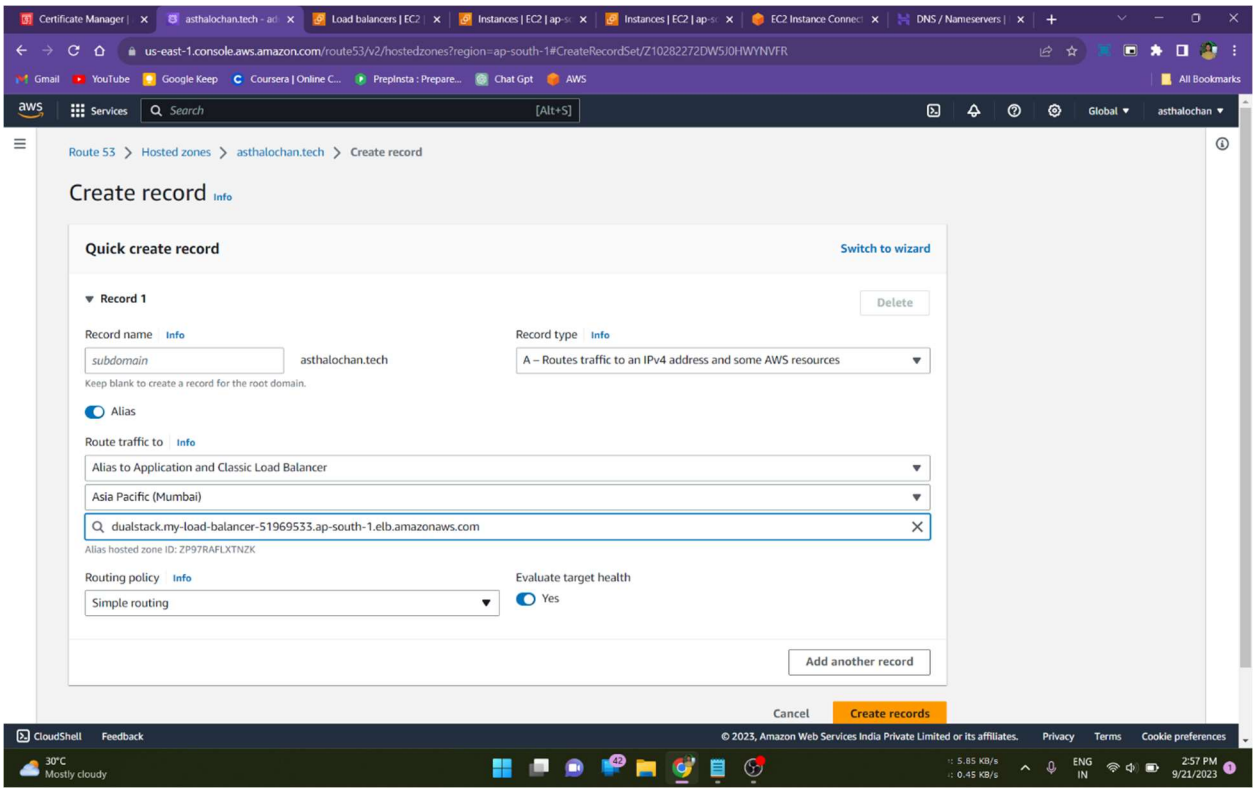


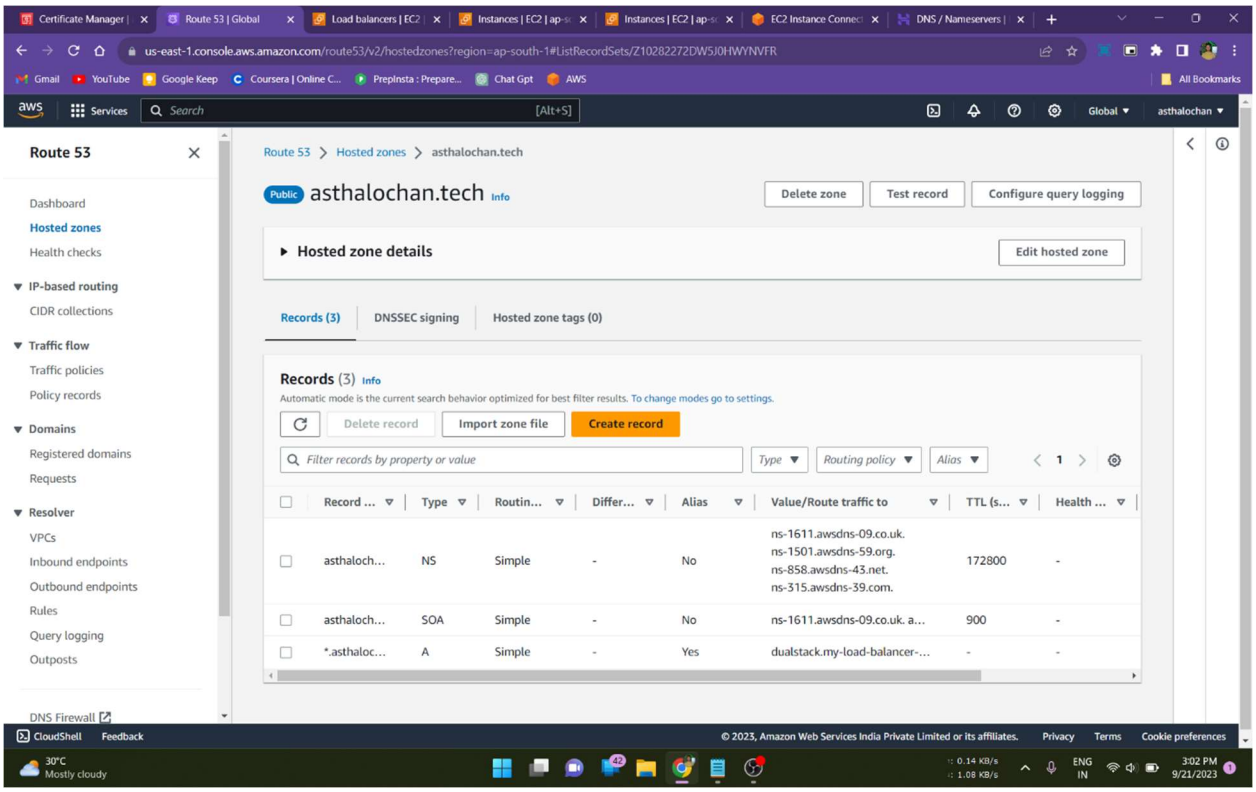
VALIDATION PENDING

31.CREATE A HOSTED ZONE IN AWS ROUTE 53

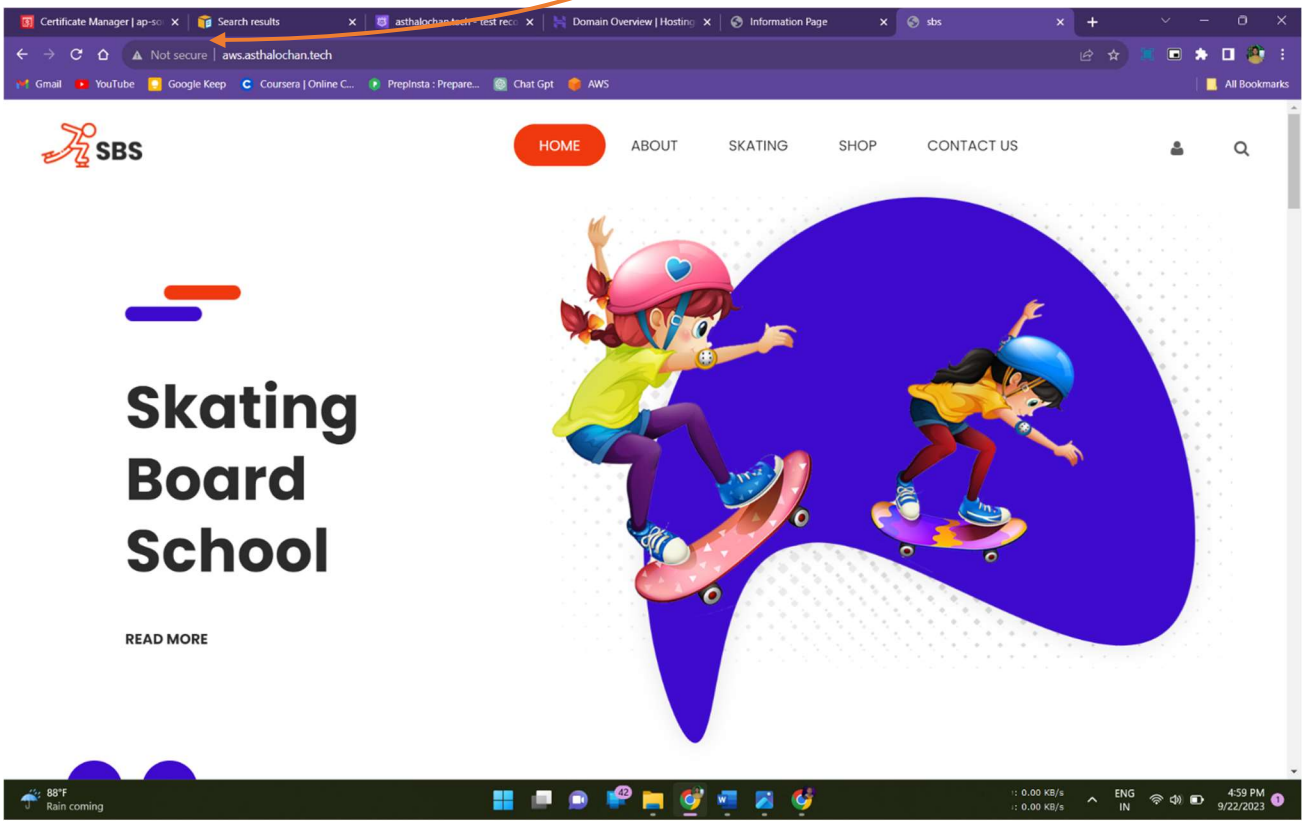


32. CREATE RECORD WITH LOAD BALANCER





33.as our ssl certificate not issued so it's showing insecure



34.ADD LISTNER IN LOAD BALANCER