ROLL NO : 22MH1A4228

1.EC2 : It is designed to make a web-scale cloud computing by allowing users to run a virtual servers with various configurations.

2.VPC : (virtual private cloud) where the Aws resources can be launched in a virtual network and we have the control over the ip addresses , rowte tables ,internet gateway ,and subnets.

3.S3 : (simple storage service)It can store and retrieve any amount of data at any time.

Elastic Block store : It provides persistent storage volumes attached to the EC2 instances which can used as a hard drive.

4.Key-pair : It is a duo of security creditials and it is used as identity to prove that your are the one who connecting to the ec2 instance.

5.Load balancer : .load balancer follows the round robin technique.

The load balancer is placed in between the internet gateway and the subnets.

It look for the target group but not for the ec2 instances.

Here same group of servers are consider as a cluster and the info of that cluster is given to the load balancer then the laod balancer understands the path easily and hit to that target server.

Load balancer always hit to the internal ip's not the public ip's.

6.Auto-scaling : It automatically adjusts the number of active instances.Also it has two types 1.horizontal scaling – in this type of scaling multiple instances are created from the existing image and not from the replication.There is “no single point of failure “ .

2.Vertical scaling – In this type of scaling there is a “single point of failure” which means if one fails the entire system fails.

7.SNS : (simple notification service)This service is used to get the notifications about the instances performance like whether the instance is running or not ,terminated or not etc.. This service plays a crucial role and we can link this service to the mail to get the notifications.

8.RDS : (Relational database)This service is used to manage the large amounts of data.We can create a database to store the data and whenever we needed we can retrieve also we can host the dynamic websites by creating database a database .It handles the several operations like creating,deleting,backup,recovery.

9.DynamoDB : A fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. It is ideal for applications that need consistent, single-digit millisecond latency at any scale.

10.Components of AWS :

Computing :Ec2 , ECS , Lambda services are used.

Networking : VPC

Storage : Elastic block store , S3 , rowte 53

Components of VPC :

Subnets: Divides the VPC's network range.

Route Tables: Directs traffic within the VPC.

Internet Gateway: Enables internet access for instances.

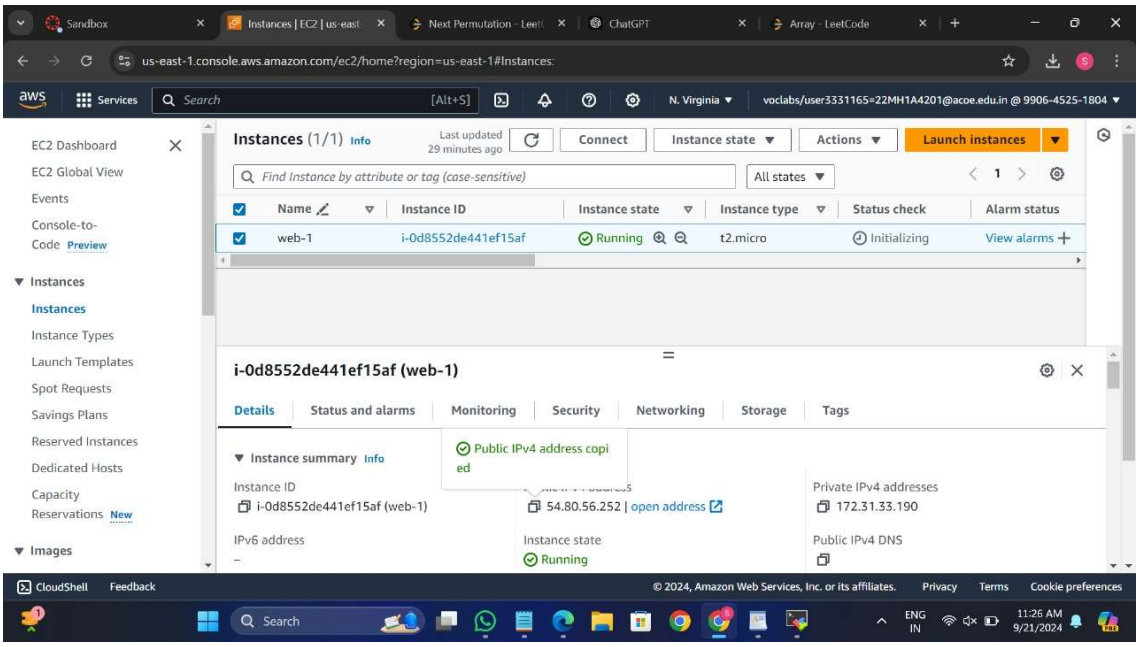
Components of Autoscaling : It manages the Ec2 instnces based on the scaling policies where these are used to remove or add the isntances based on the demand.

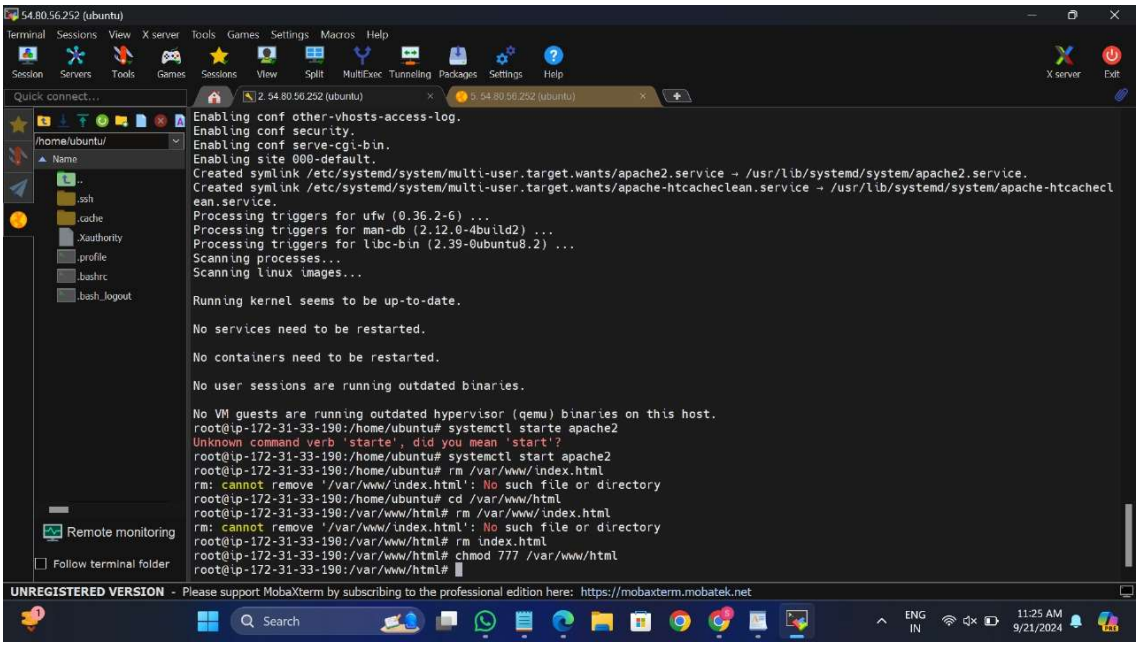
Port numbers : SFTP--22 , HTTP--80 ,HTTPS—443 , RDP—3389 , RDS--3306,

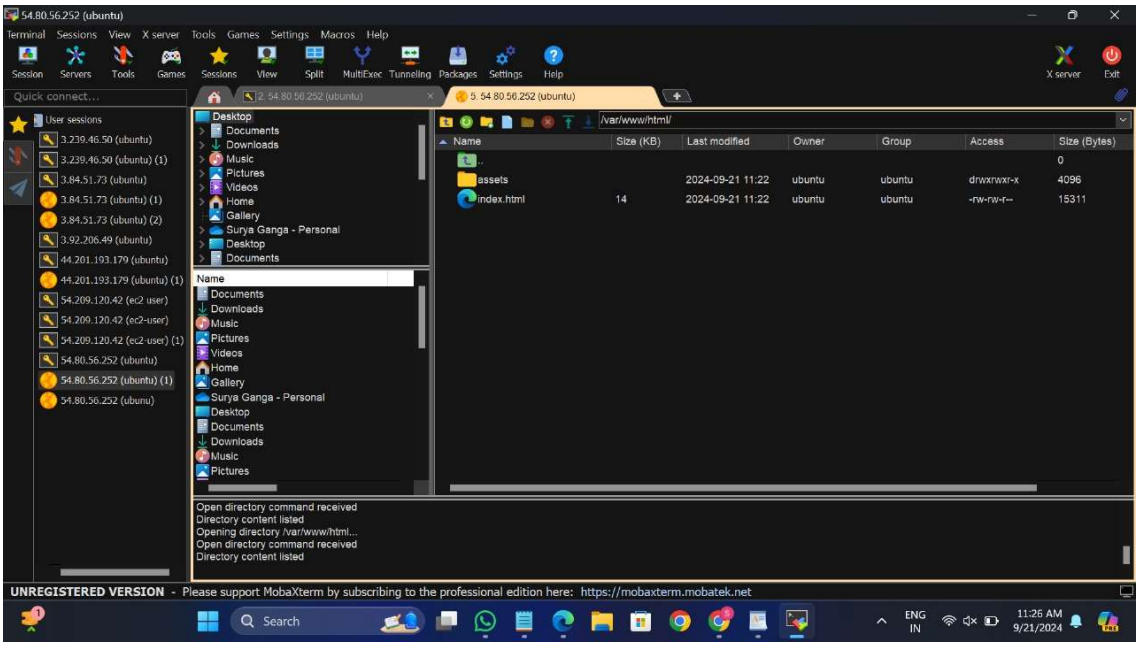
MY-SQL—3306, REDIS—6379

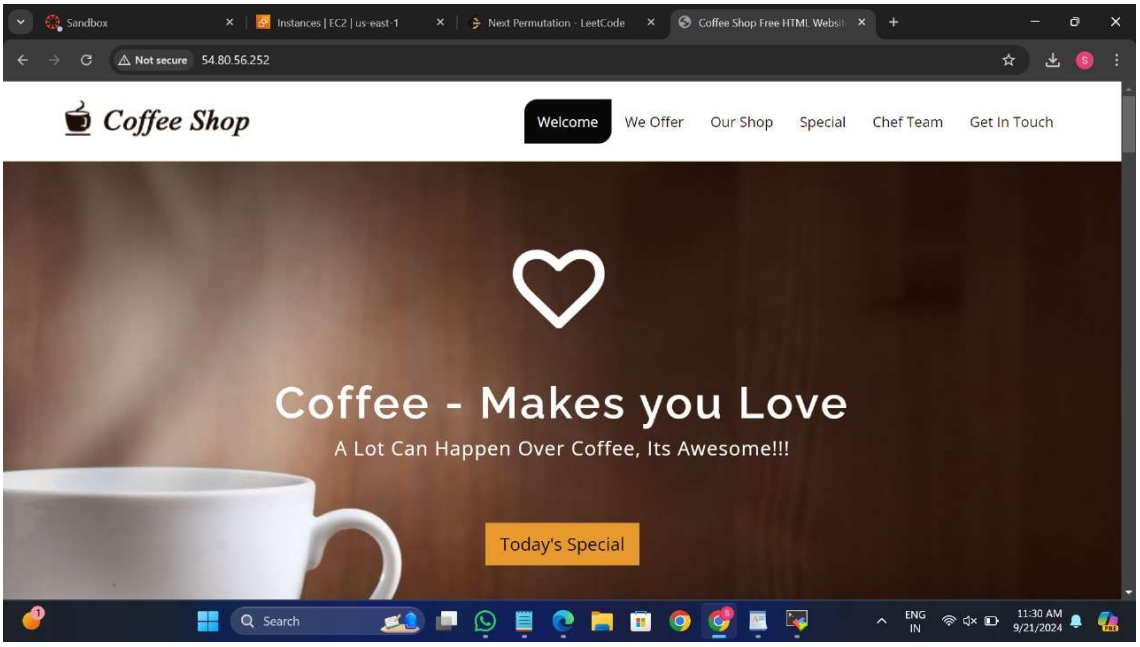
Practical :

1.Deploy a website on ec2 using sftp port:

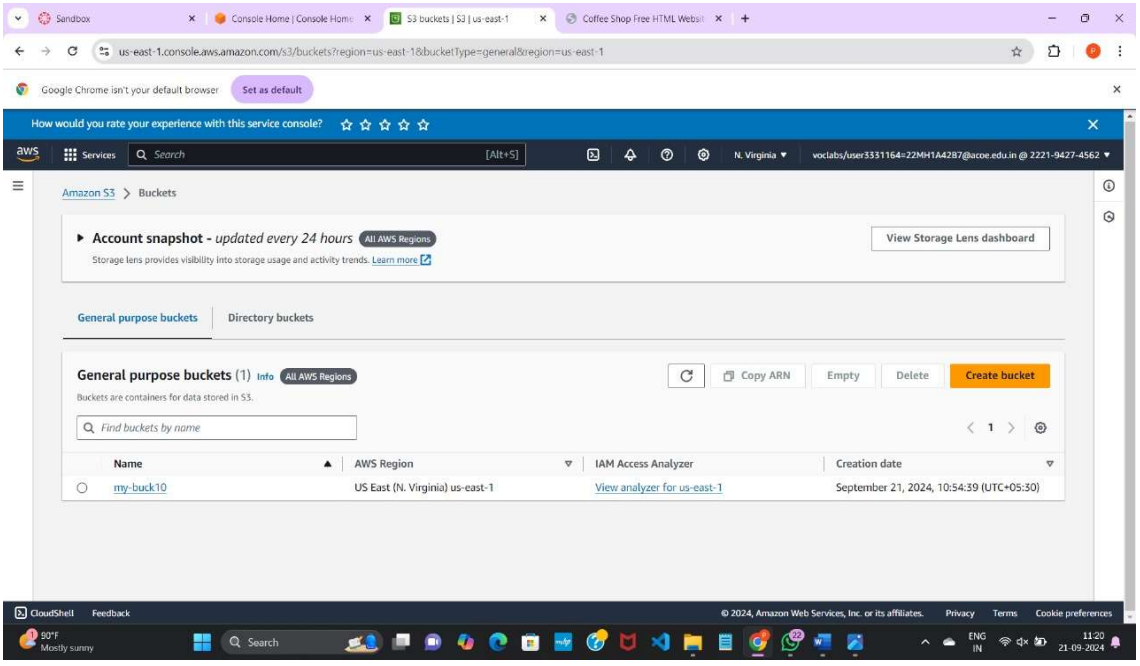


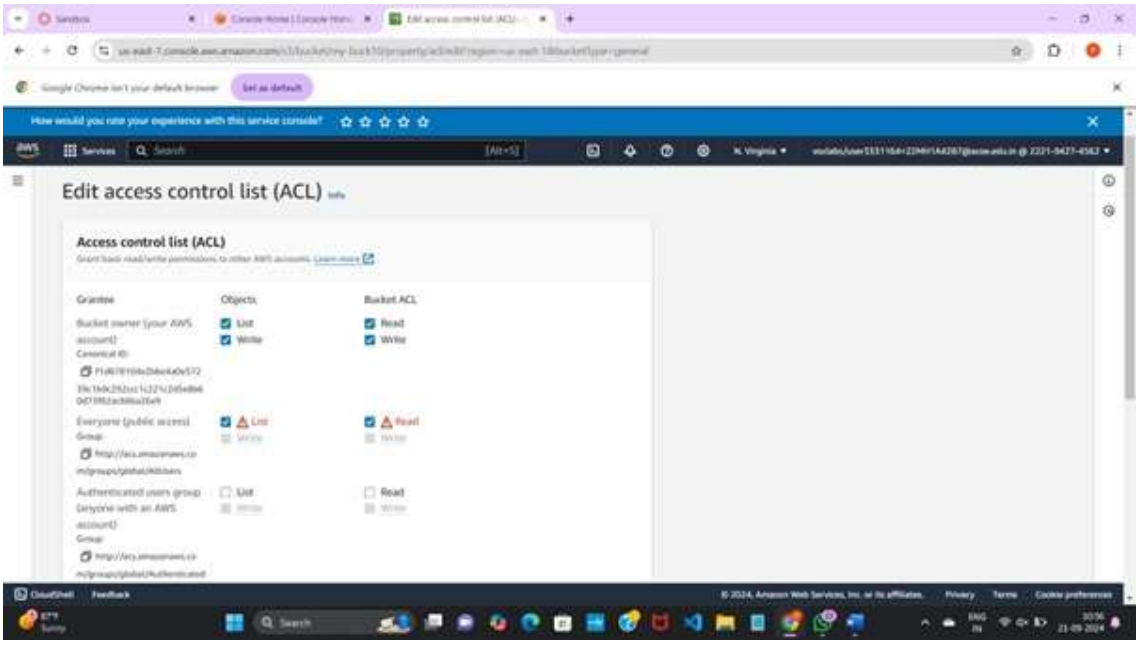


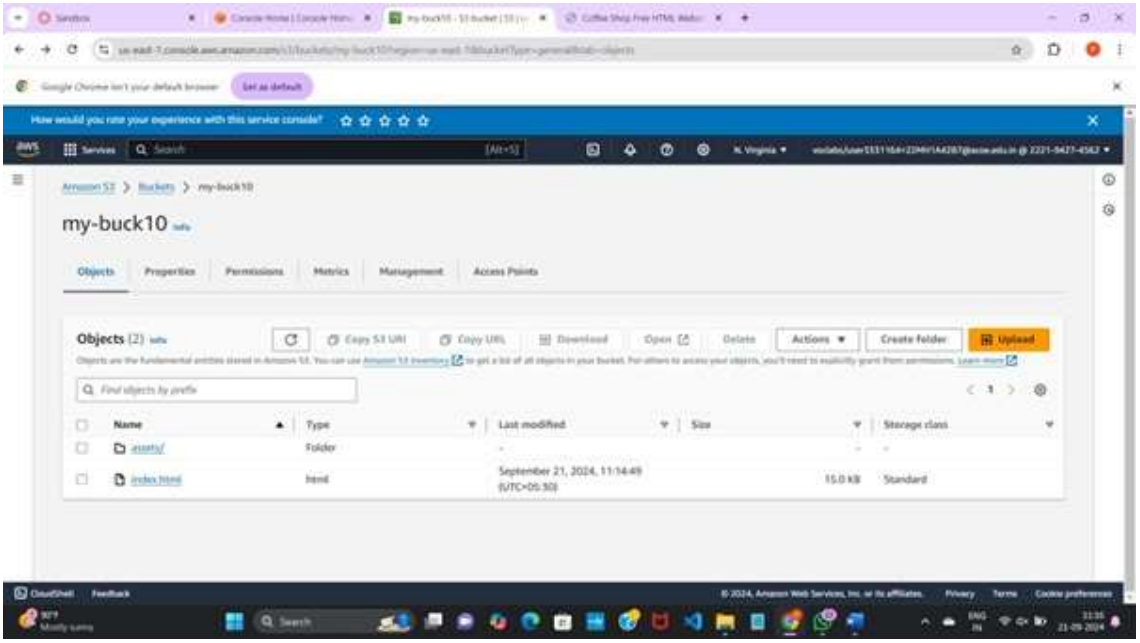


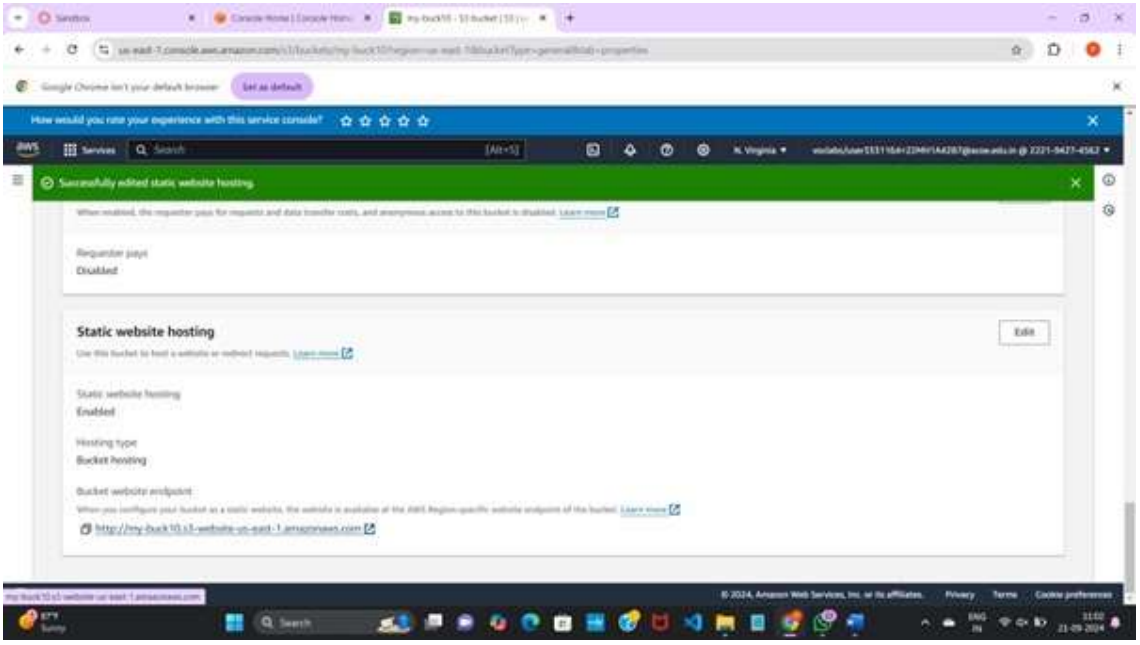


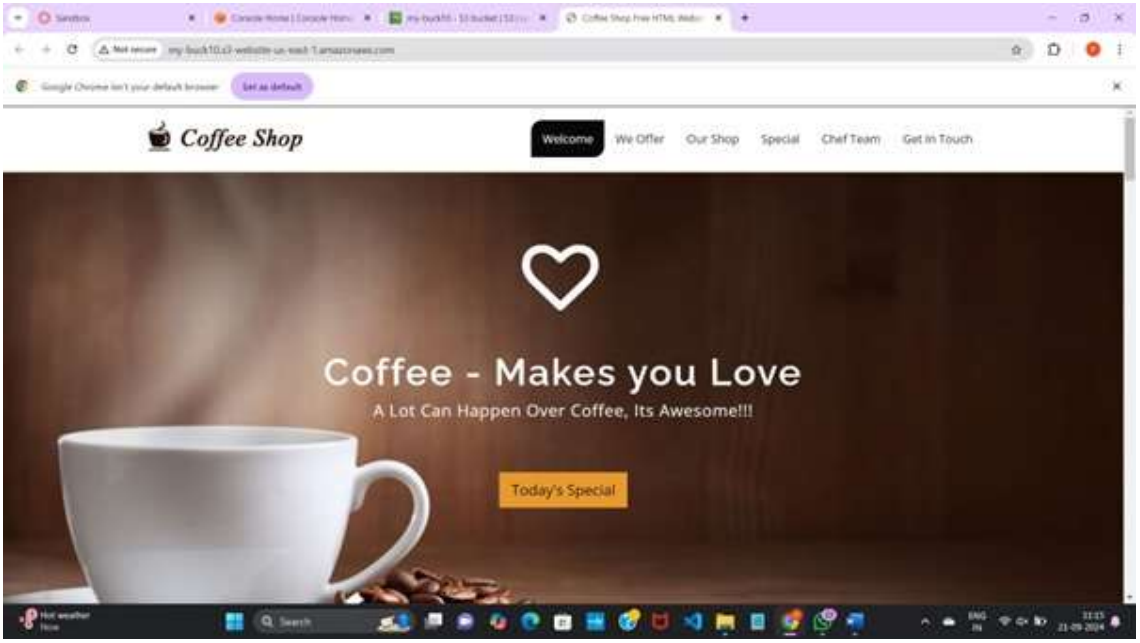
2.Static website on S3:


Sandbox
Console Home | Console Home
S3 buckets | S3 | us-east-1
Coffee Shop Free HTML Websit
us-east-1.console.aws.amazon.com/s3/buckets?region=us-east-1&bucketType=general&region=us-east-1
Google Chrome isn't your default browser
Set as default
How would you rate your experience with this service console?
Services
Search
[Alt+S]
N. Virginia
Amazon S3 > Buckets
Account snapshot - updated every 24 hours
All AWS Regions
Storage lens provides visibility into storage usage and activity trends. Learn more
View Storage Lens dashboard
General purpose buckets
Directory buckets
General purpose buckets (1) Info
All AWS Regions
Buckets are containers for data stored in S3.
Copy ARN
Empty
Delete
Create bucket
Find buckets by name
Name
AWS Region
IAM Access Analyzer
Creation date
my-buck10
US East (N. Virginia) us-east-1
View analyzer for us-east-1
September 21, 2024, 10:54:39 (UTC+05:30)
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
90°F
Mostly sunny
Search
ENG
IN
11:20
21-09-2024

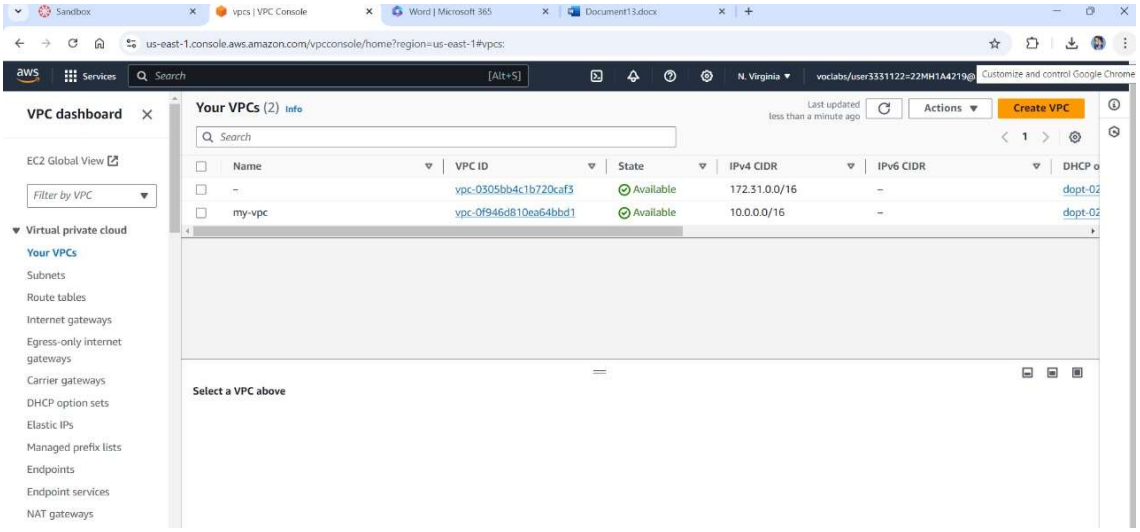

Edit access control list (ACL) Info
Access control list (ACL)
Grantee
Objects
Bucket ACL
Bucket owner (your AWS account)
List
Write
Read
Write
Everyone (public access)
Group
Authenticated users group (anyone with an AWS account)
Group
CloudShell
Feedback

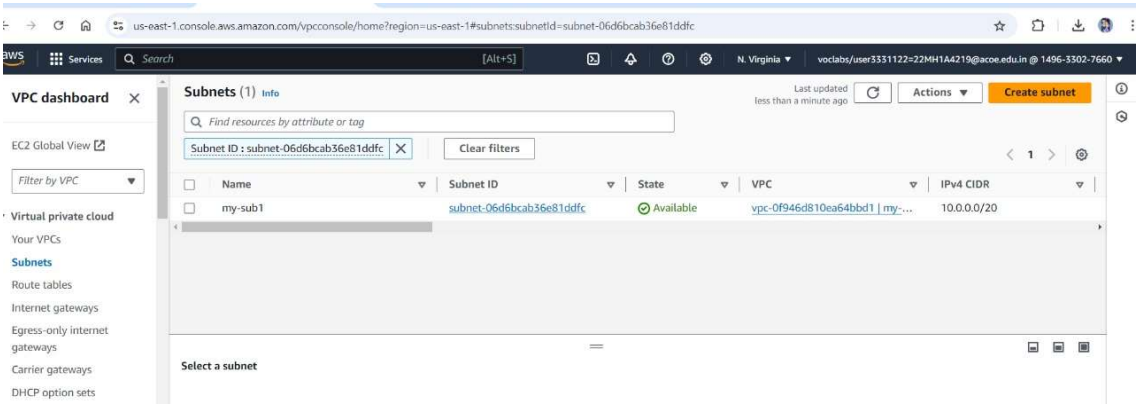

my-buck10
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (2)
Upload
Create folder
Actions
Name
Type
Last modified
Size
Storage class
assets/
Folder
index.html
html
September 21, 2024, 11:14:49 (UTC+05:30)
15.0 kB
Standard


Successfully edited static website hosting.
Requester pays
Disabled
Static website hosting
Edit
Static website hosting
Enabled
Hosting type
Bucket hosting
Bucket website endpoint
http://my-buck10.s3-website-us-east-1.amazonaws.com

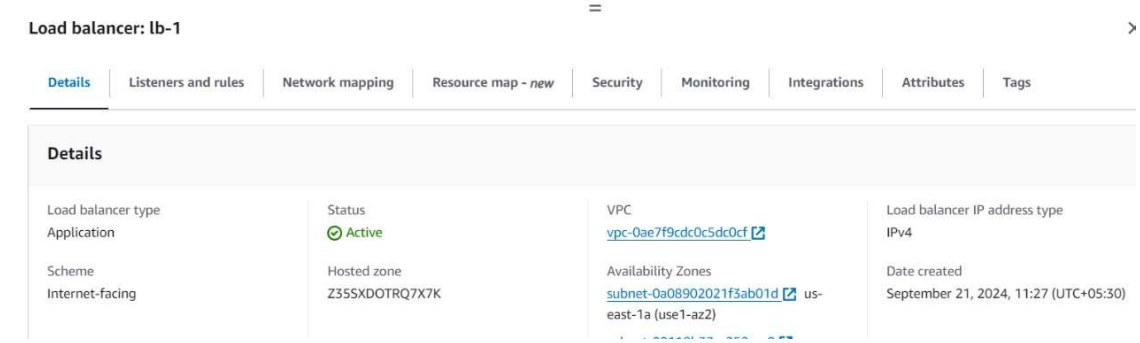

Coffee Shop
Welcome
We Offer
Our Shop
Special
Chef Team
Get In Touch
Coffee - Makes you Love
A Lot Can Happen Over Coffee, Its Awesome!!!
Today's Special

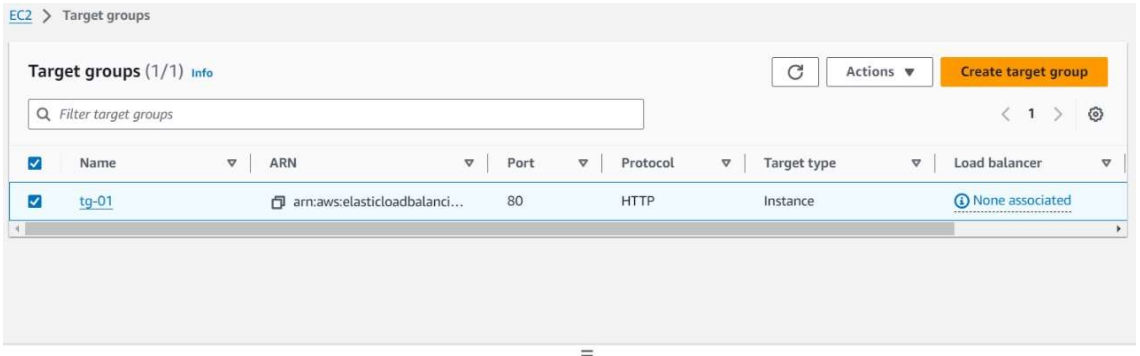
3.VPc

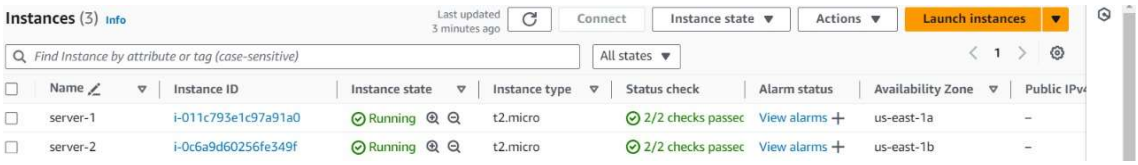

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#vpcs:
VPC dashboard
EC2 Global View
Filter by VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Your VPCs (2) Info
Actions
Create VPC
Name
VPC ID
State
IPv4 CIDR
IPv6 CIDR
vpc-0305bb4c1b720caf3
Available
172.31.0.0/16
my-vpc
vpc-0f946d810ea64bbd1
Available
10.0.0.0/16
Select a VPC above



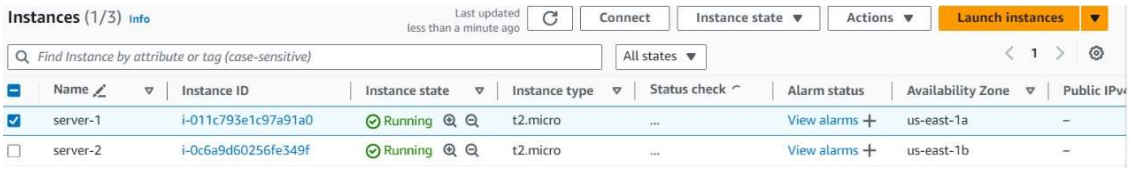
4.Load balancer

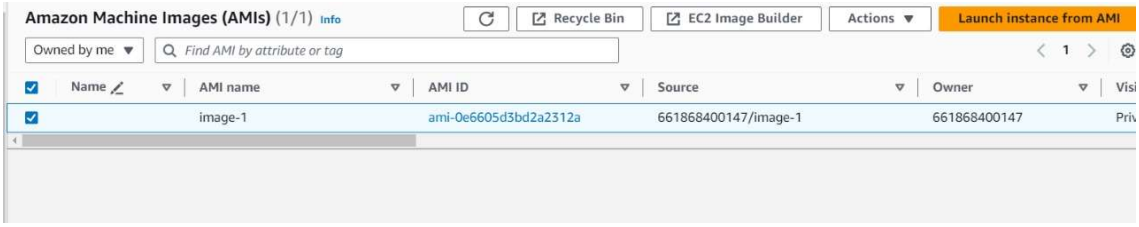


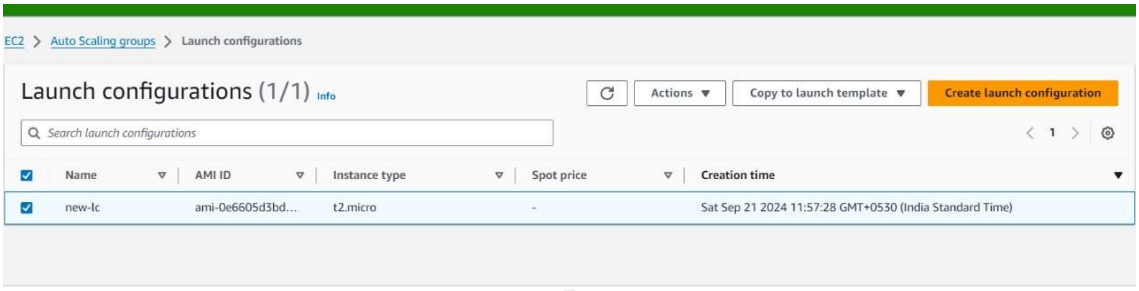


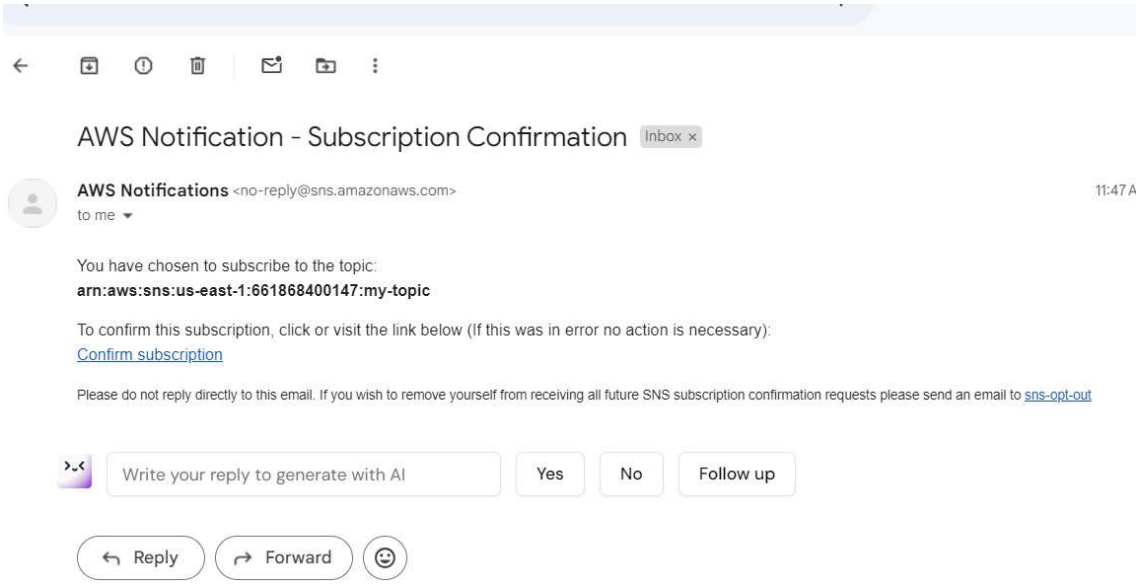

Instances (3) Info
Last updated 3 minutes ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
server-1
i-011c793e1c97a91a0
Running
t2.micro
2/2 checks passec
View alarms
us-east-1a
server-2
i-0c6a9d60256fe349f
Running
t2.micro
2/2 checks passec
View alarms
us-east-1b

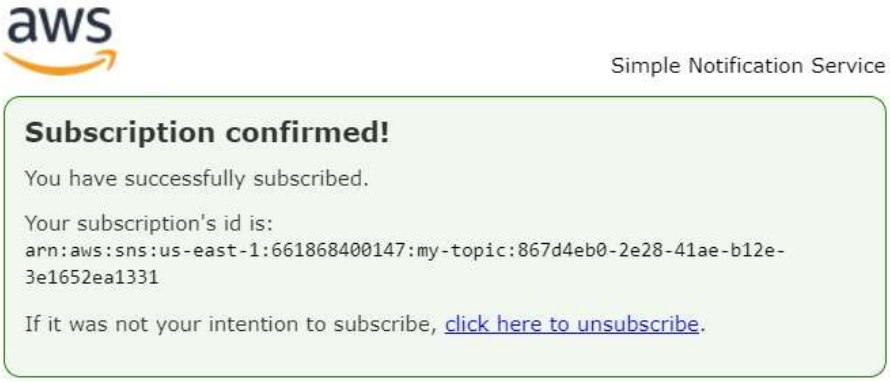
5.AMI


Instances (1/3) Info
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
server-1
i-011c793e1c97a91a0
Running
t2.micro
View alarms
us-east-1a
server-2
i-0c6a9d60256fe349f
Running
t2.micro
View alarms
us-east-1b


Amazon Machine Images (AMIs) (1/1) Info
Recycle Bin
EC2 Image Builder
Actions
Launch instance from AMI
Owned by me
Find AMI by attribute or tag
Name
AMI name
AMI ID
Source
Owner
image-1
ami-0e6605d3bd2a2312a
661868400147/image-1
661868400147


EC2
Auto Scaling groups
Launch configurations
Launch configurations (1/1) Info
Actions
Copy to launch template
Create launch configuration
Search launch configurations
Name
AMI ID
Instance type
Spot price
Creation time
new-lc
ami-0e6605d3bd...
t2.micro
-
Sat Sep 21 2024 11:57:28 GMT+0530 (India Standard Time)


AWS Notification - Subscription Confirmation
Inbox ×
AWS Notifications <no-reply@sns.amazonaws.com>
to me
11:47 A
You have chosen to subscribe to the topic:
arn:aws:sns:us-east-1:661868400147:my-topic
To confirm this subscription, click or visit the link below (If this was in error no action is necessary):
Confirm subscription
Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to sns-opt-out
Write your reply to generate with AI
Yes
No
Follow up
Reply
Forward


aws
Simple Notification Service
Subscription confirmed!
You have successfully subscribed.
Your subscription's id is:
arn:aws:sns:us-east-1:661868400147:my-topic:867d4eb0-2e28-41ae-b12e-3e1652ea1331
If it was not your intention to subscribe, click here to unsubscribe.