

VPC RESOURCE MAP:

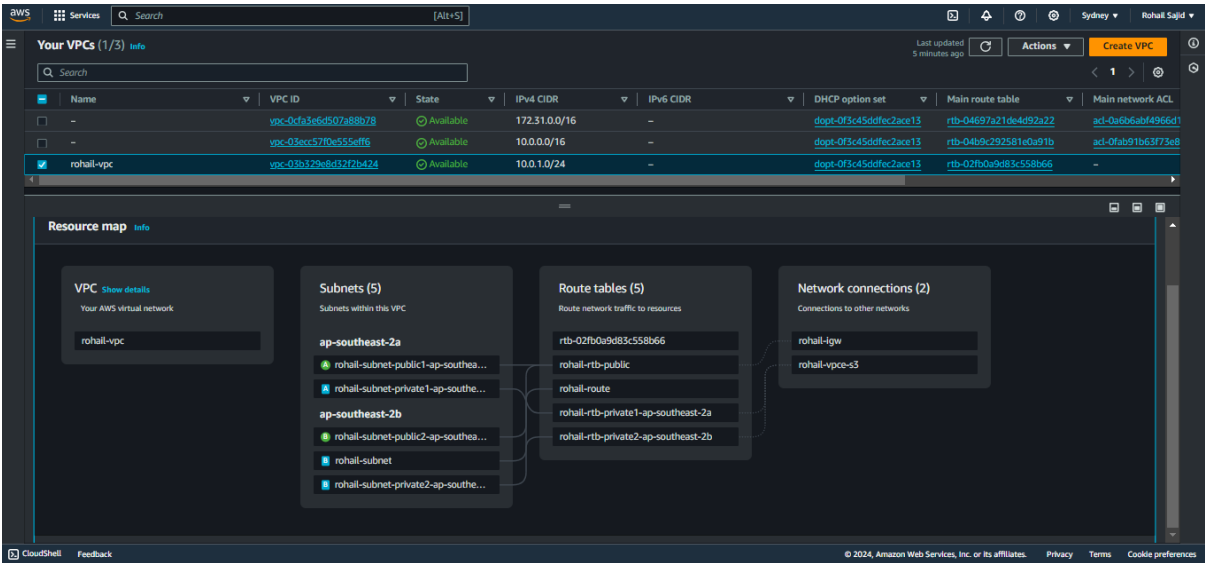


Figure 1VPC RESOURCE MAP

CONFIGURATION OF INSTANCE:

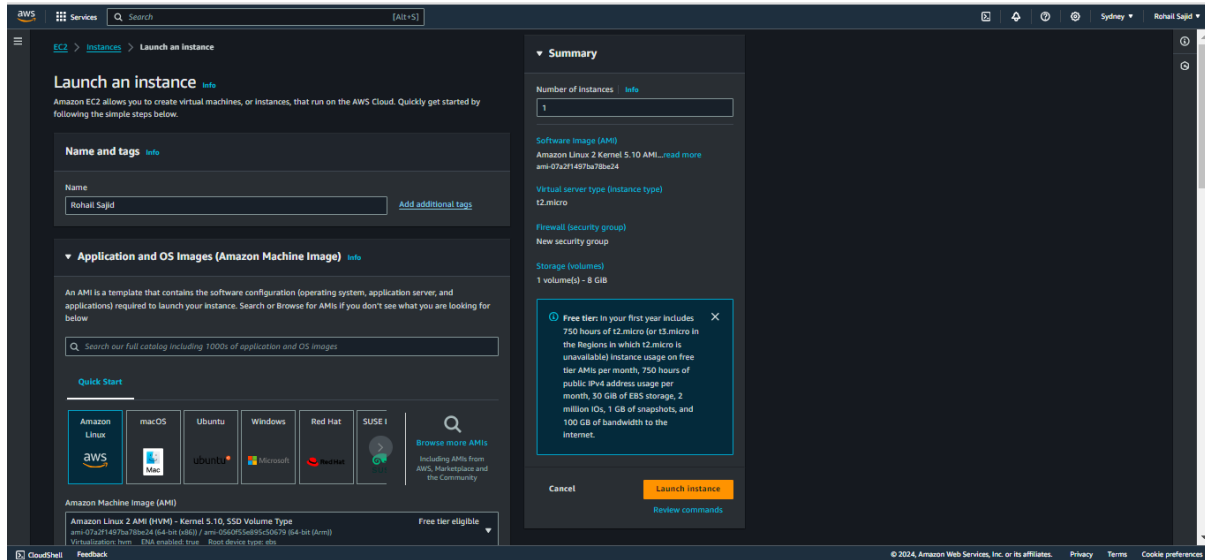


Figure 2 CONFIGURATION OF INSTANCE

SELECTING THE INSTANCE TYPE & KEY PAIR:

▼ Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro

Family: t2 · 1 vCPU · 1 GiB Memory · Current generation: true

On-Demand Windows base pricing: 0.0198 USD per Hour

On-Demand SUSE base pricing: 0.0152 USD per Hour

On-Demand RHEL base pricing: 0.0296 USD per Hour

On-Demand Linux base pricing: 0.0152 USD per Hour

Free tier eligible

All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

connection-pair

[Create new key pair](#)

Figure 3 SETTING INSTANCE TYPE AND KEY PAIR

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

rehall-vc-connection

[Create new key pair](#)

▼ Network settings [Info](#) [Edit](#)

Network [Info](#)

vpc-0cfa3ef6d507a88b78

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow SSH traffic from

Anywhere

Helps you connect to your instance

☐ Allow HTTPS traffic from the internet

Number of instances [Info](#)

1

Software image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)

ami-07a2f1497ba78ae24

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Launch instance

[Review commands](#)

EC2 INSTANCE RUNNING STATE:

This step shows the running of the ec2 instance which shows all the configurations are set properly.

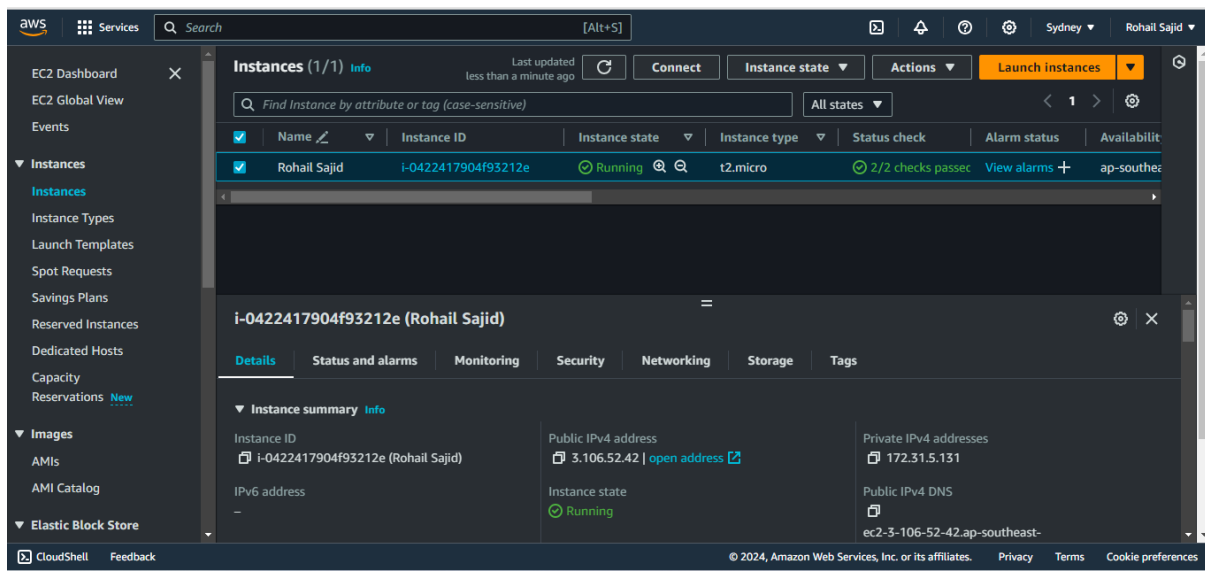



Figure 4 INSTANCE CREATION AND STATE

INSTANCE SUMMARY:

This summary shows the detailed view of the running instance summary with the public ip detail. For the instance Rohail Sajid

EC2 > Instances > i-037a6a6ccc23e5b89

Instance summary for i-037a6a6ccc23e5b89 (Rohail Sajid) info


[Connect](#)
[Instance state ▼](#)
[Actions ▼](#)

Updated less than a minute ago





Instance ID i-037a6a6ccc23e5b89 (Rohail Sajid)	Public IPv4 address 18.182.63.224 open address	Private IPv4 addresses 10.0.1.200
IPv6 address	Instance state  Running	Public IPv4 DNS
Hostname type IP name:ip-10-0-1-200.ap-northeast-1.compute.internal	Private IP DNS name (IPv4 only) ip-10-0-1-200.ap-northeast-1.compute.internal	
Answer private resource DNS name	Instance type t2.micro	Elastic IP addresses
Auto-assigned IP address  18.182.63.224 [Public IP]	VPCID  vpc-Ofc8808b2d144c6bb (Rohail 🔗)	AWS Compute Optimizer finding  Opt-in to Aws Compute Optimizer for recommendations. Learn more 🔗
IAM Role	Subnet ID	Auto Scaling Group name

Figure 5 INSTANCE SUMMERY

SSH INSTANCE CONNECTION:

This shows the processing of the connectivity for the public ip which is discovered from the subnet.


```
aws Services Q Search
Amazon Linux 2023, GA and supported until
https://aws.amazon.com/linux/amazon-linu

[ec2-user@ip-172-31-5-131 ~]$ ping 3.106.52.42
PING 3.106.52.42 (3.106.52.42) 56(84) bytes of data.
64 bytes from 3.106.52.42: icmp_seq=407 ttl=254 time=0.892 ms
64 bytes from 3.106.52.42: icmp_seq=408 ttl=254 time=0.754 ms
64 bytes from 3.106.52.42: icmp_seq=409 ttl=254 time=1.41 ms
64 bytes from 3.106.52.42: icmp_seq=410 ttl=254 time=1.29 ms
64 bytes from 3.106.52.42: icmp_seq=411 ttl=254 time=0.773 ms
64 bytes from 3.106.52.42: icmp_seq=412 ttl=254 time=1.79 ms
64 bytes from 3.106.52.42: icmp_seq=413 ttl=254 time=1.03 ms
64 bytes from 3.106.52.42: icmp_seq=414 ttl=254 time=1.12 ms
64 bytes from 3.106.52.42: icmp_seq=415 ttl=254 time=1.36 ms
64 bytes from 3.106.52.42: icmp_seq=416 ttl=254 time=0.533 ms
64 bytes from 3.106.52.42: icmp_seq=417 ttl=254 time=1.40 ms
64 bytes from 3.106.52.42: icmp_seq=418 ttl=254 time=1.48 ms
64 bytes from 3.106.52.42: icmp_seq=419 ttl=254 time=1.57 ms
64 bytes from 3.106.52.42: icmp_seq=420 ttl=254 time=0.608 ms
64 bytes from 3.106.52.42: icmp_seq=421 ttl=254 time=1.31 ms
64 bytes from 3.106.52.42: icmp_seq=422 ttl=254 time=0.820 ms
64 bytes from 3.106.52.42: icmp_seq=423 ttl=254 time=0.279 ms
64 bytes from 3.106.52.42: icmp_seq=424 ttl=254 time=1.25 ms

i-0422417904f93212e (Rohail Sajid)
PublicIPs: 3.106.52.42 PrivateIPs: 172.31.5.131

Microsoft Windows [Version 10.0.22631.4037]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Lenovo L14>ping 3.106.52.42

Pinging 3.106.52.42 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 3.106.52.42:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\Lenovo L14>ping 3.106.52.42

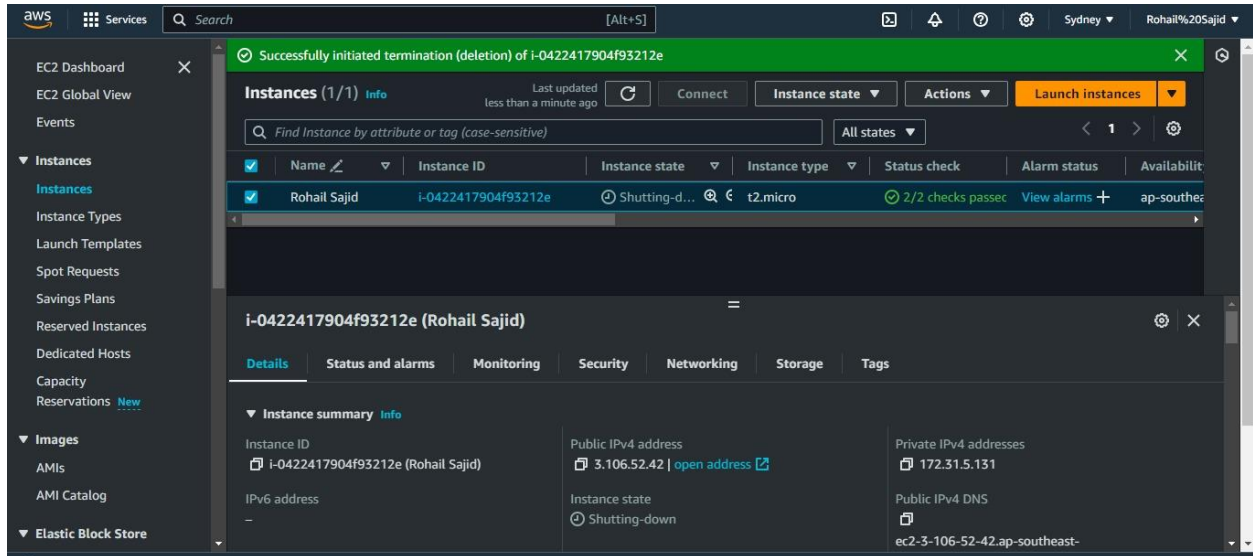
Pinging 3.106.52.42 with 32 bytes of data:
Reply from 3.106.52.42: bytes=32 time=199ms TTL=243
Reply from 3.106.52.42: bytes=32 time=199ms TTL=243
Reply from 3.106.52.42: bytes=32 time=199ms TTL=243
Reply from 3.106.52.42: bytes=32 time=199ms TTL=243

Ping statistics for 3.106.52.42:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 199ms, Maximum = 199ms, Average = 199ms

C:\Users\Lenovo L14>
```

Figure 7PING STATUS OF PUBLIC IP

TERMINATION OF INSTANCE:



Create an S3 Bucket

In this step, first we have to create an s3 bucket with the unique name of student

Screenshot of the S3 bucket creation:

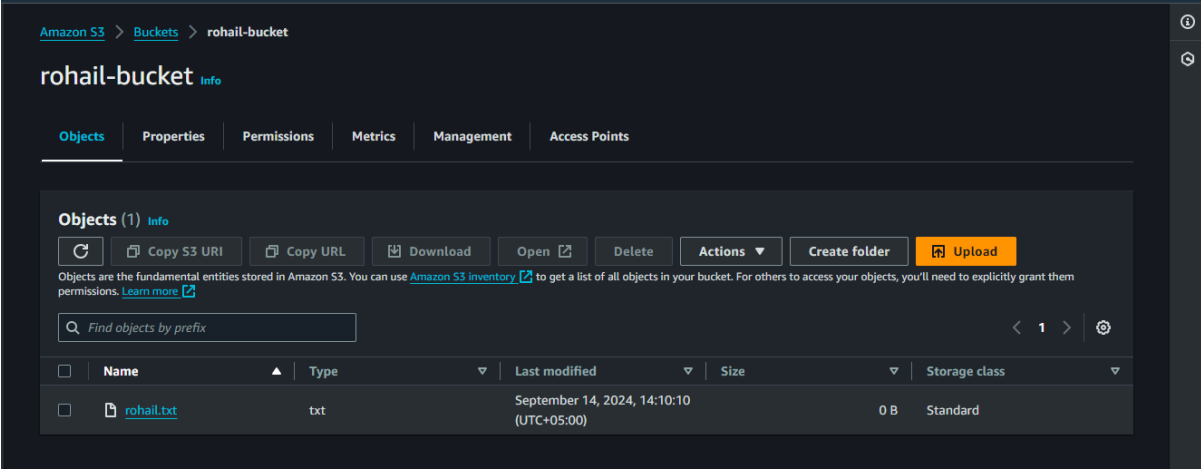


Figure 8 S3 BUCKET CREATION

UPLOADING FILE

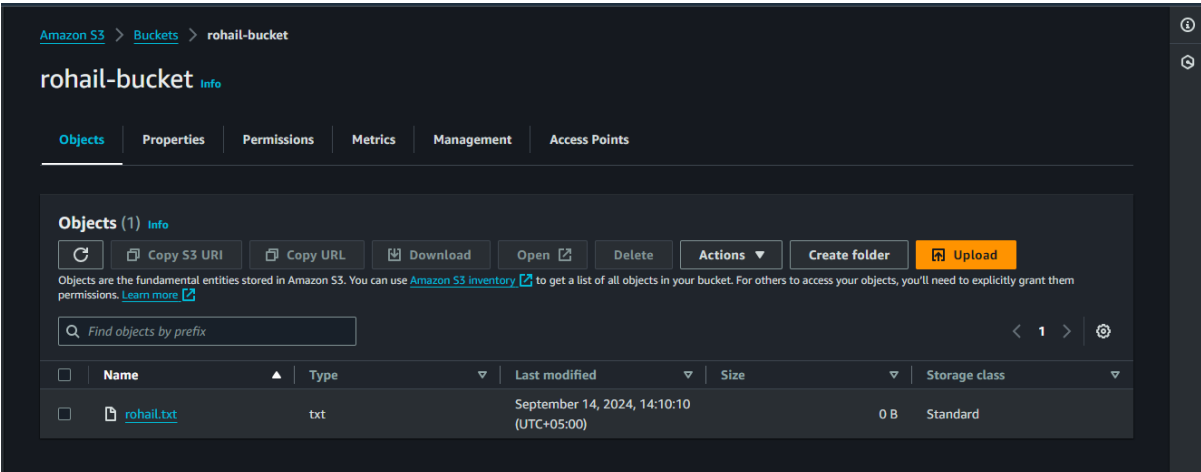


Figure 9 UPLOADING FILE

Upload Files to S3

We have configured the s3 bucket s3 bucket contains the detail step and images of uploaded index file and with the image of table.

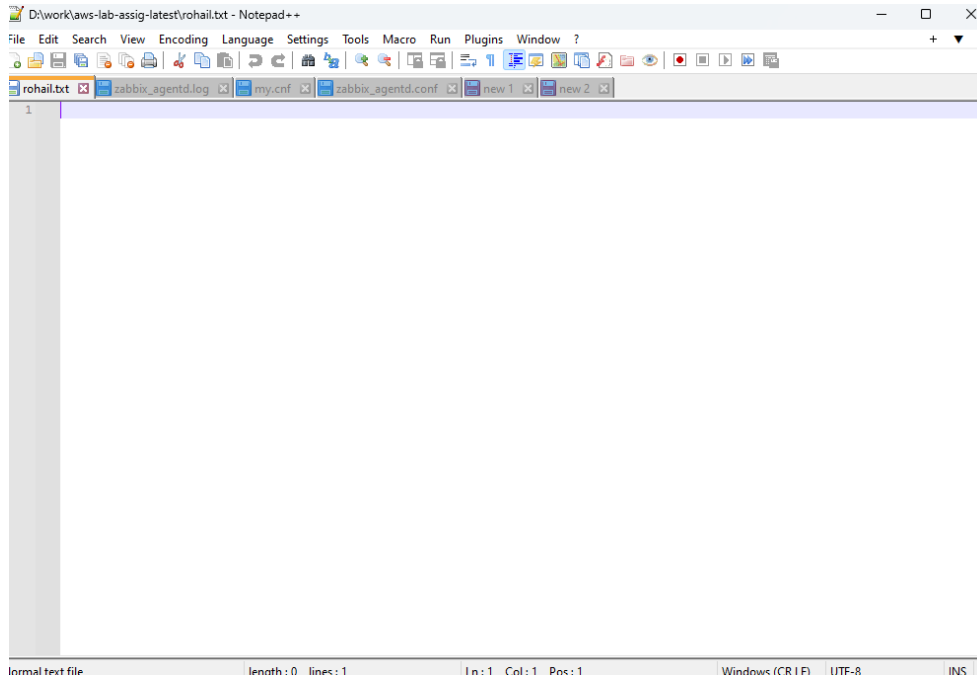


Figure 10 EMPTY FILE UPLOADED ON S3

Set Bucket Permissions

In this step we have updated the bucket permission to public and all files are step as public so website is accessible.

Screenshot of the permissions setup:

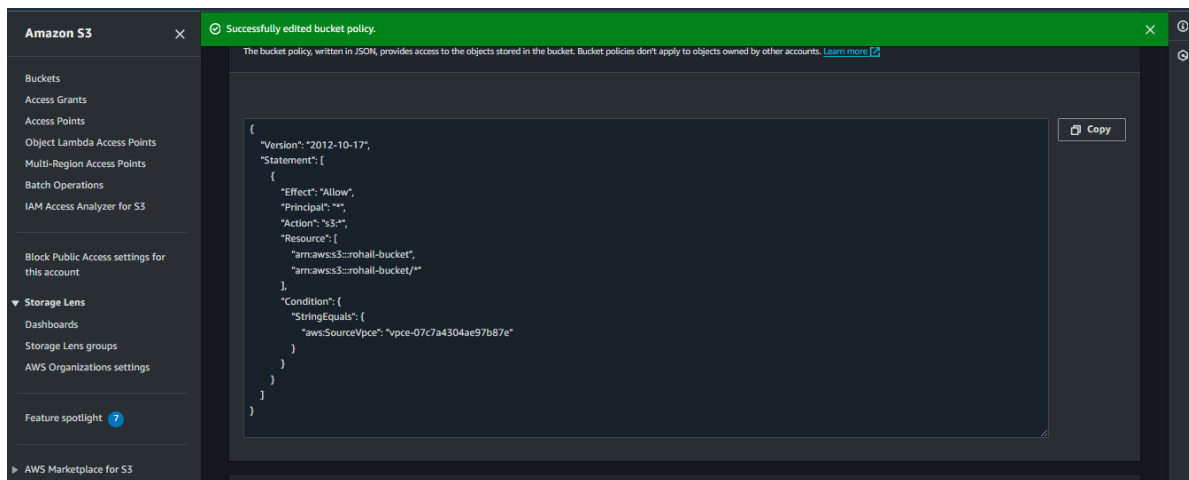


Figure 11 BUCKET PERMISSION

Endpoint Creation Resource Map

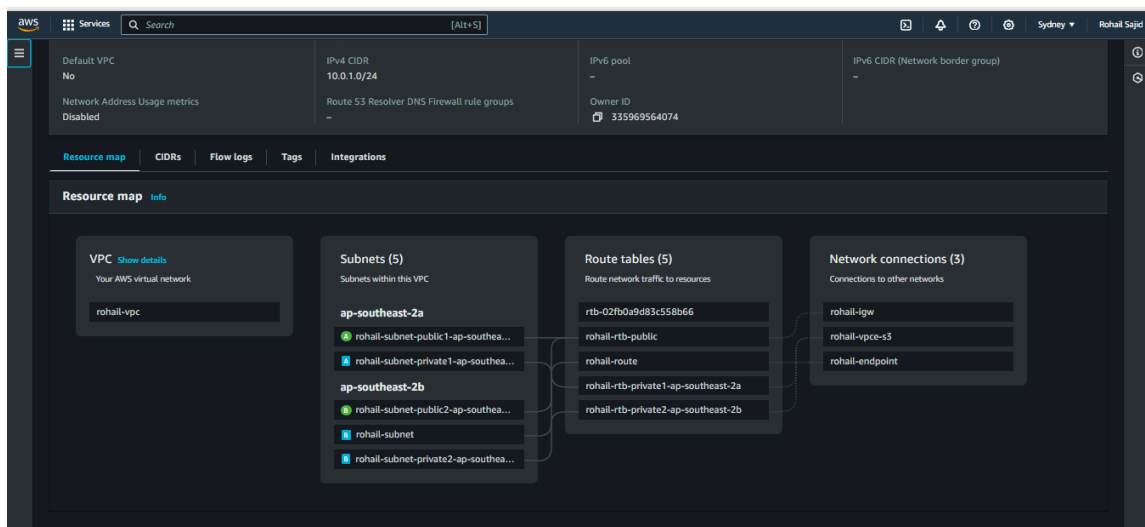


Figure 12 RESOURCE MAPPING WITH ENDPOINT CREATION

ROLE CREATION

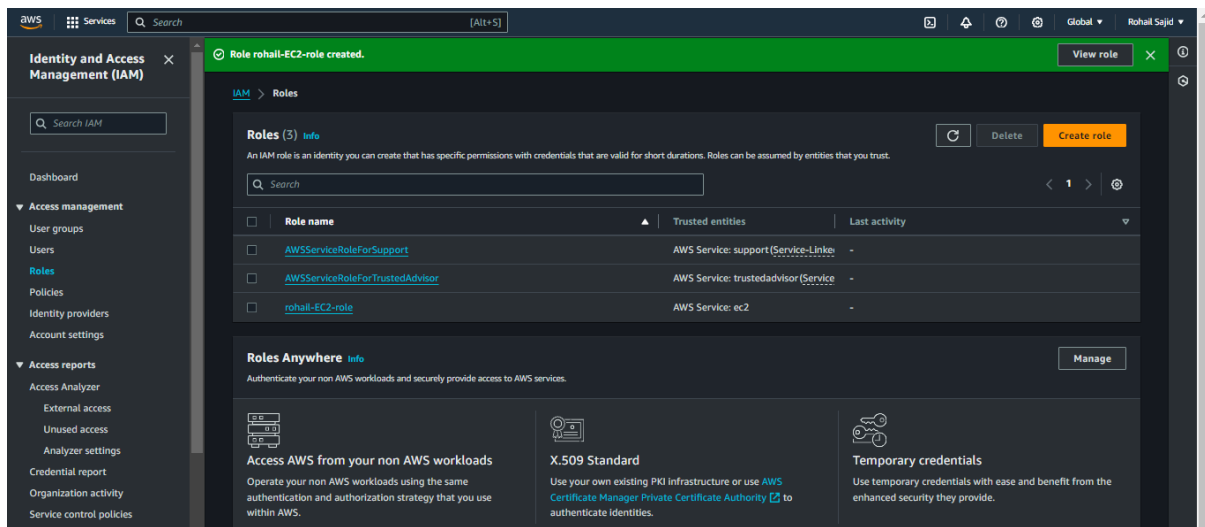


Figure 13 ROLE CREATION

UPDATED IAM ROLE

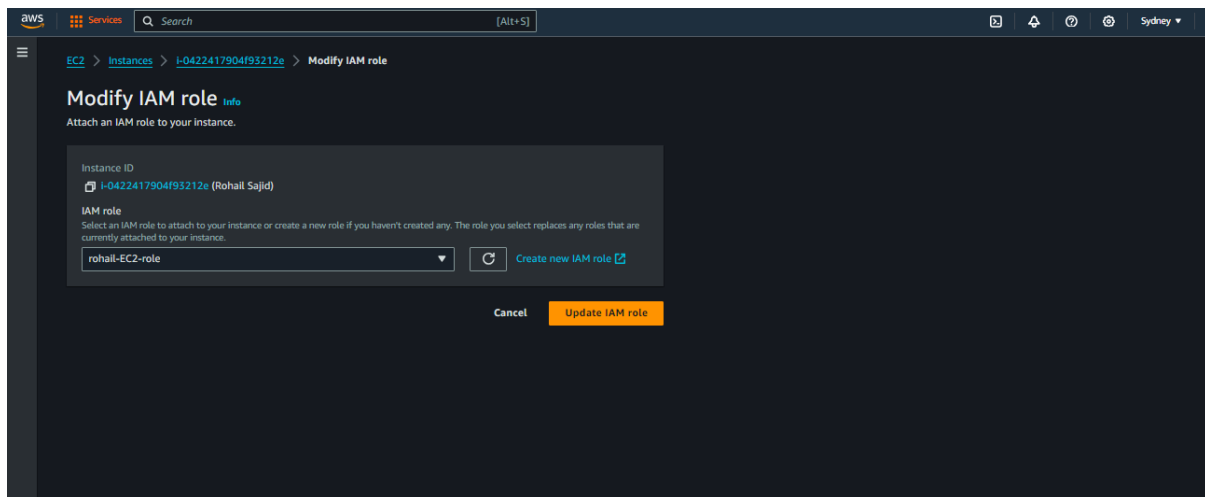


Figure 14 UPDATED IAM ROLE

UPDATED BUCKET POLICY

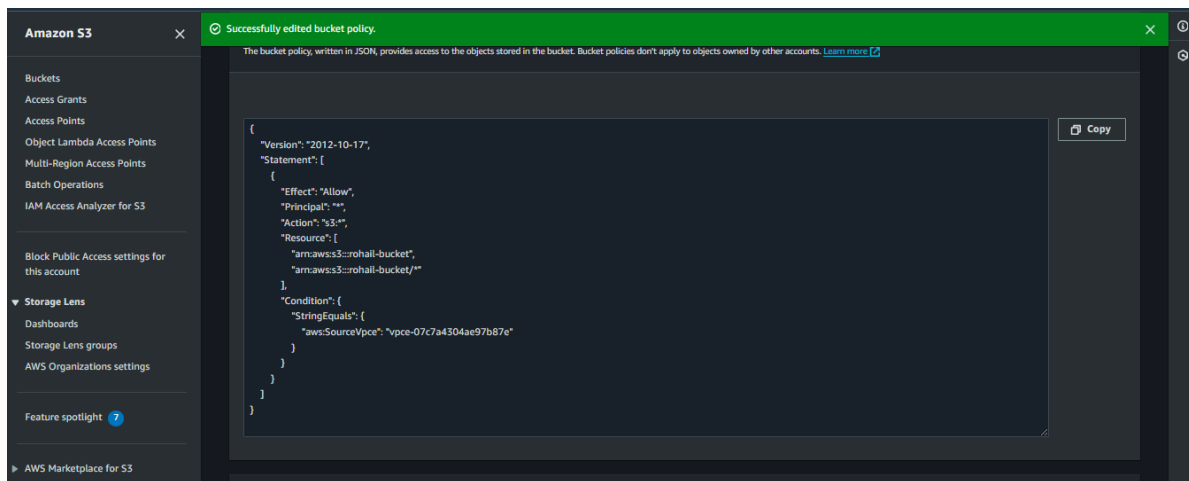


Figure 15 UPDATED BUCKET POLICY

COMMAND EXECUTIONS ON BUCKET

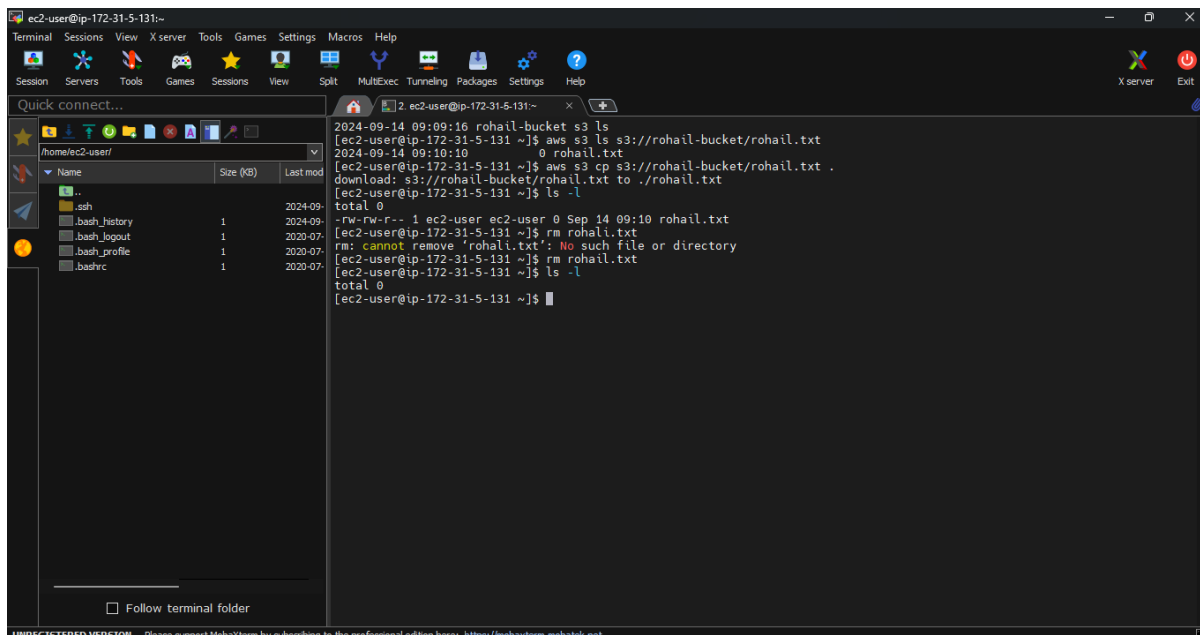


Figure 16 COMMAND EXECUTION ON BUCKET

Question 1: Explain briefly in your report, what are the TWO main differences between the updated bucket policy in step 6, and the previous policy that was used in step 2 (4marks)

Answer:

Scope of Accessing:

The previous Policy was open to the public, allowing anyone to read objects.

Current Policy is restricted to a specific VPC endpoint, allowing access only from resources within the VPC.

Access Level:

Previous Policy: Read-only (Get Object) access.

Current Policy: Full S3 access , including upload, delete, and modify actions, but limited to the VPC endpoint.