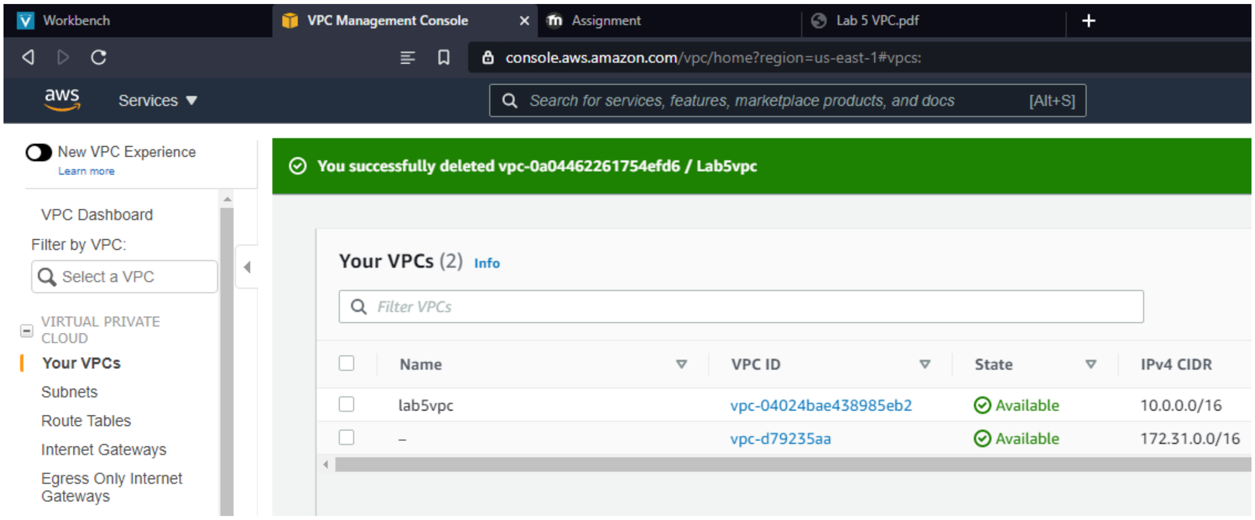
Cloud Computing – Lab 4
Anudit Nagar – E18CSE024

Scenario 1

Create a Custom VPC in an Availability Zone at one region and Create all its necessary components such as Subnet, IGW and Route Table.

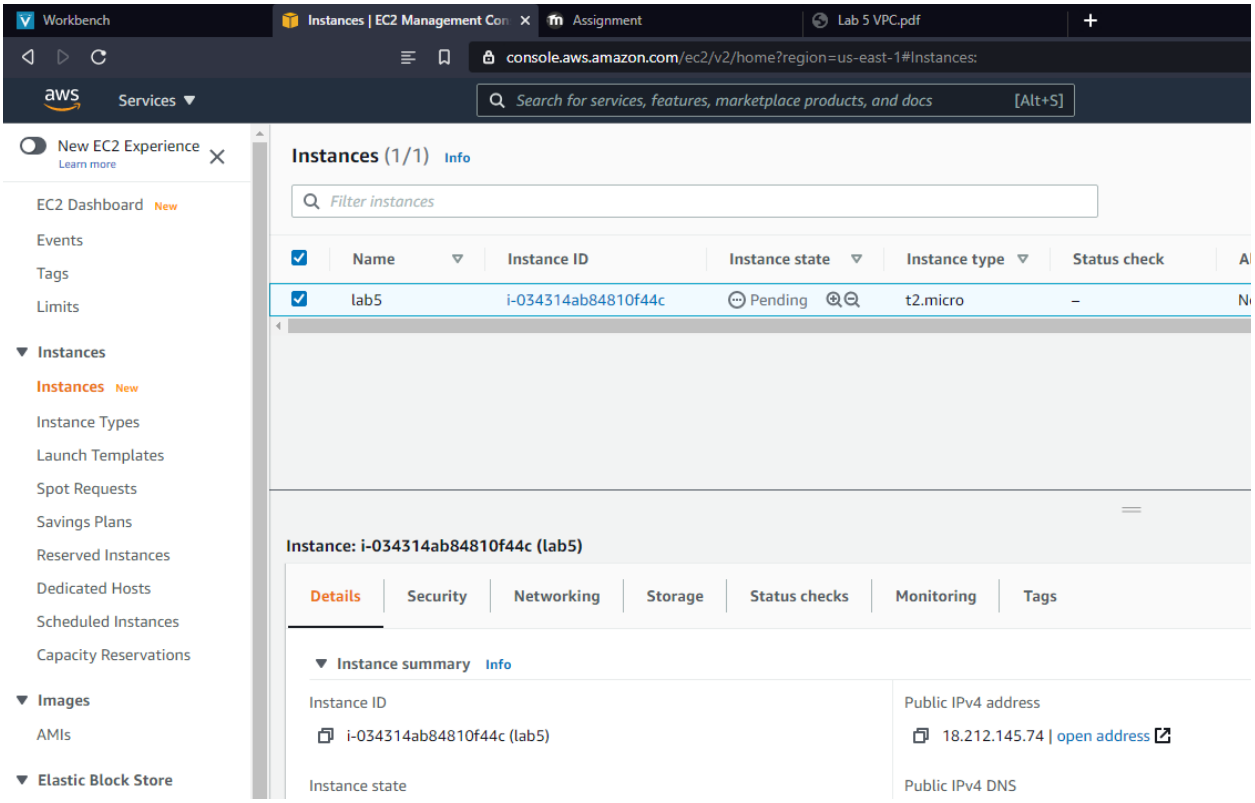


You successfully deleted vpc-0a04462261754efd6 / Lab5vpc

Your VPCs (2)

□	Name	VPC ID	State	IPv4 CIDR
□	lab5vpc	vpc-04024bae438985eb2	Available	10.0.0.0/16
□	–	vpc-d79235aa	Available	172.31.0.0/16

Launch a linux server free tier t2.micro in the public subnet only and allow all traffic.



Instances (1/1)

☑	Name	Instance ID	Instance state	Instance type	Status check	Al
☑	lab5	i-034314ab84810f44c	Pending	t2.micro	–	N

Instance: i-034314ab84810f44c (lab5)

Instance summary

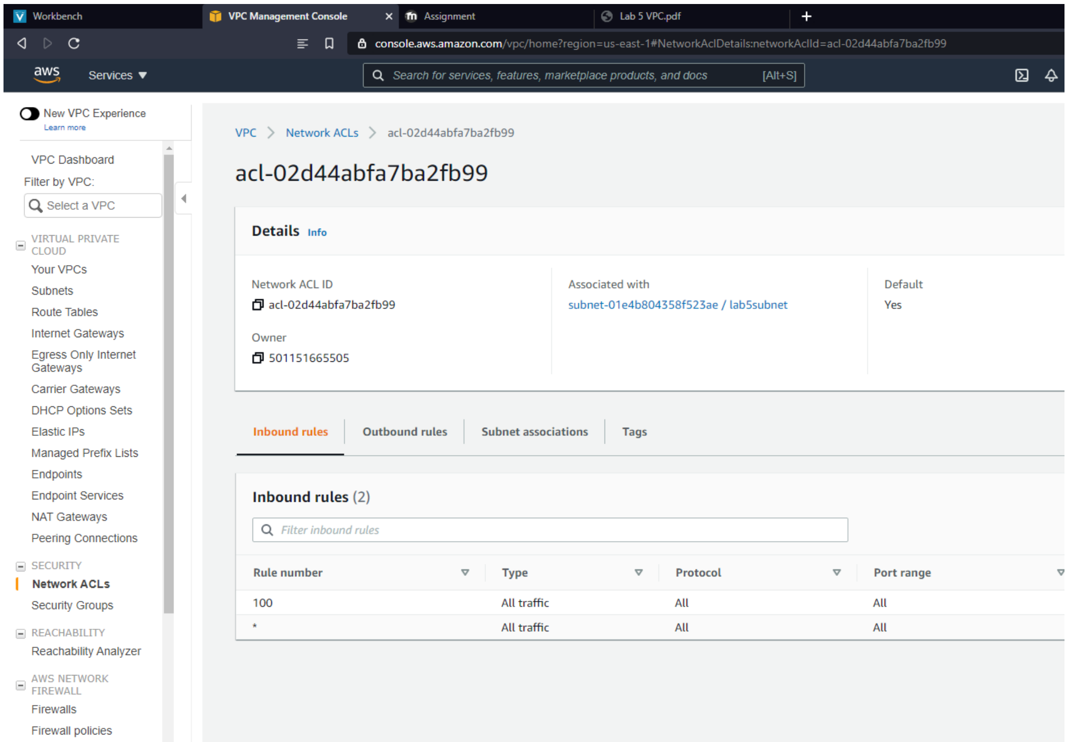
Instance ID: i-034314ab84810f44c (lab5)

Public IPv4 address: 18.212.145.74 | open address

Instance state

Public IPv4 DNS

Create a custom Network ACL and attach the subnet of default NACL



acl-02d44abfa7ba2fb99

Details Info

Network ACL ID: acl-02d44abfa7ba2fb99

Owner: 501151665505

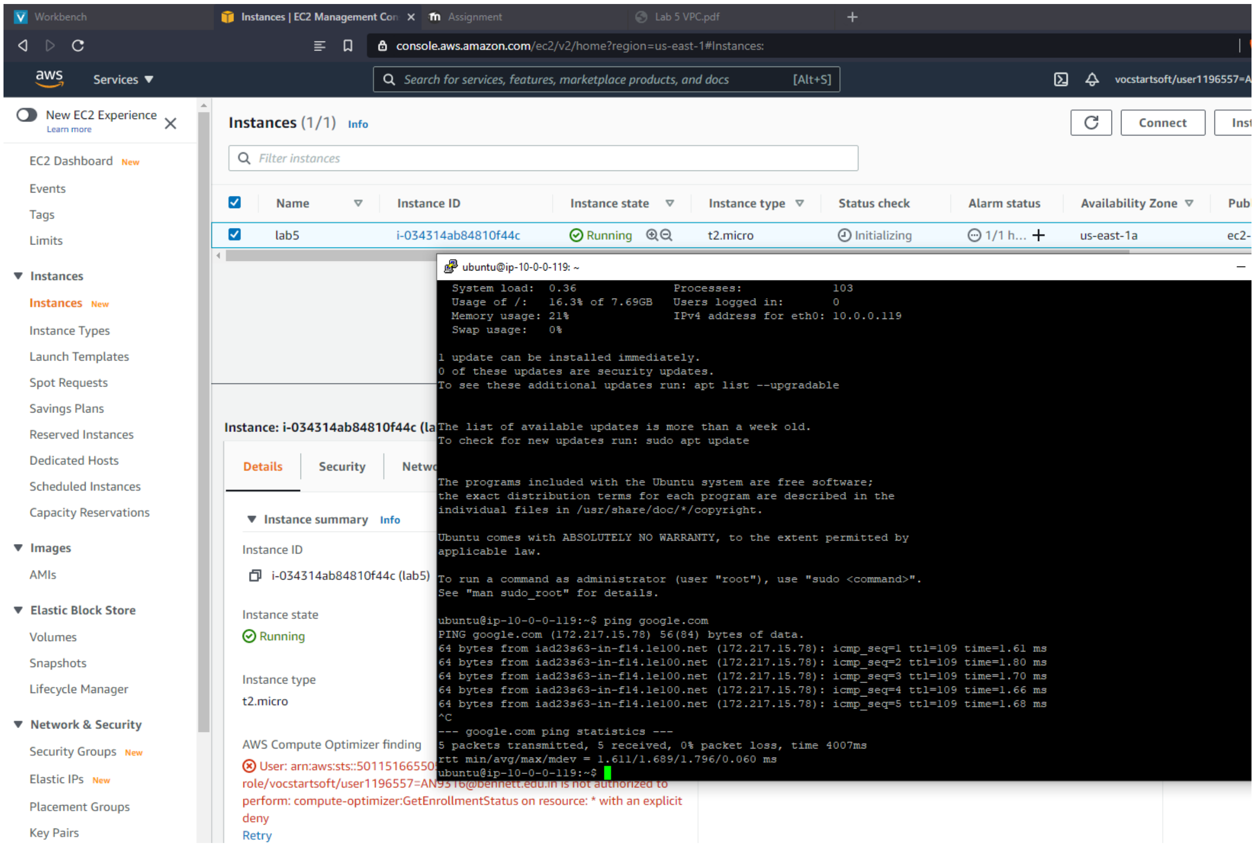
Associated with: subnet-01e4b804358f523ae / lab5subnet

Default: Yes

Inbound rules (2)

Rule number	Type	Protocol	Port range
100	All traffic	All	All
*	All traffic	All	All

Check the internet connectivity using CMD or Browser.



Instances (1/1) Info

☑	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Pub
☑	lab5	i-034314ab84810f44c	Running	t2.micro	Initializing	1/1 h...	us-east-1a	ec2-

Instance: i-034314ab84810f44c (la

Instance summary Info

Instance ID: i-034314ab84810f44c (lab5)

Instance state: Running

Instance type: t2.micro

AWS Compute Optimizer finding

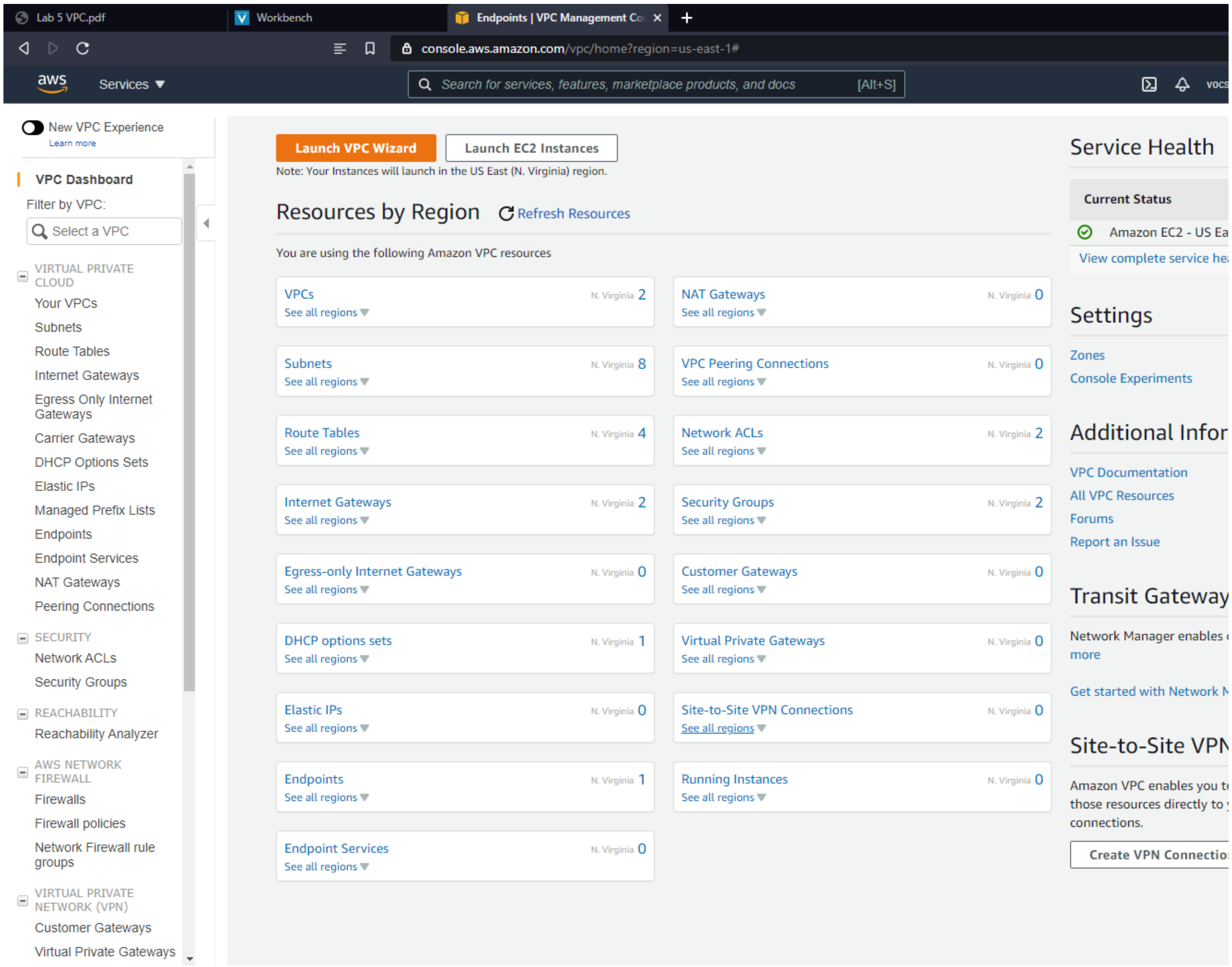
User: arn:aws:sts::50115166550 role/vocstartsoft/user1196557=AN9316@bennett.edu.in is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * with an explicit deny

Retry

```
  System load:  0.36              Processes:           103
  Usage of /:   16.3% of 7.69GB   Users logged in:     0
  Memory usage: 21%               IPv4 address for eth0: 10.0.0.119
  Swap usage:   0%

1 update can be installed immediately.
0 of these updates are security updates.
To see these additional updates run: apt list --upgradable


The list of available updates is more than a week old.
To check for new updates run: sudo apt update


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-0-119:~$ ping google.com
PING google.com (172.217.15.78) 56(84) bytes of data.
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=1 ttl=109 time=1.61 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=2 ttl=109 time=1.80 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=3 ttl=109 time=1.70 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=4 ttl=109 time=1.66 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=5 ttl=109 time=1.68 ms
^C
--- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4007ms
rtt min/avg/max/mdev = 1.611/1.689/1.796/0.060 ms
ubuntu@ip-10-0-0-119:~$
```

Scenario 2

Create VPC by creating 2 subnets in it (one private and one public). (Other components IGW, Route Tables will also be there)



Note: Your Instances will launch in the US East (N. Virginia) region.

Resources by Region

You are using the following Amazon VPC resources

VPCs	N. Virginia 2	NAT Gateways	N. Virginia 0
Subnets	N. Virginia 8	VPC Peering Connections	N. Virginia 0
Route Tables	N. Virginia 4	Network ACLs	N. Virginia 2
Internet Gateways	N. Virginia 2	Security Groups	N. Virginia 2
Egress-only Internet Gateways	N. Virginia 0	Customer Gateways	N. Virginia 0
DHCP options sets	N. Virginia 1	Virtual Private Gateways	N. Virginia 0
Elastic IPs	N. Virginia 0	Site-to-Site VPN Connections	N. Virginia 0
Endpoints	N. Virginia 1	Running Instances	N. Virginia 0
Endpoint Services	N. Virginia 0		

Service Health

Current Status

Amazon EC2 - US Ea

View complete service he

Settings

Zones

Console Experiments

Additional Infor

VPC Documentation

All VPC Resources

Forums

Report an Issue

Transit Gateway

Network Manager enables
more

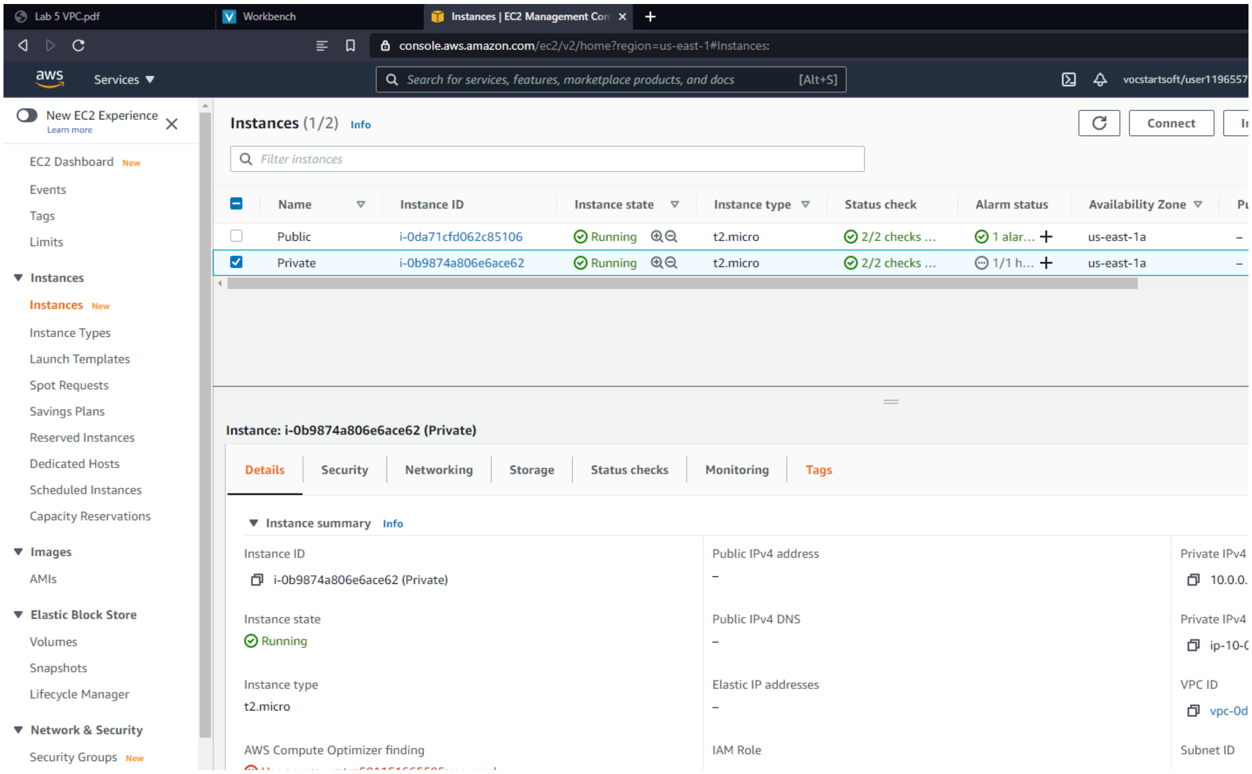
Get started with Network M

Site-to-Site VPN

Amazon VPC enables you t
those resources directly to
connections.

Create VPN Connectio

Launch two EC2 Linux server in the subnet one for one and Create a VPC Endpoint and associate it in private subnet.



Instances (1/2) Info

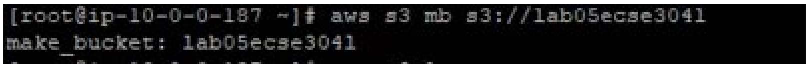
	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Pu
□	Public	i-0da71cfd062c85106	✓ Running	t2.micro	✓ 2/2 checks ...	✓ 1 alar... +	us-east-1a	–
☑	Private	i-0b9874a806e6ace62	✓ Running	t2.micro	✓ 2/2 checks ...	1/1 h... +	us-east-1a	–

Instance: i-0b9874a806e6ace62 (Private)

▼ Instance summary Info

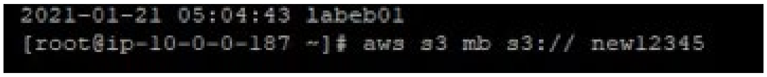
Instance ID i-0b9874a806e6ace62 (Private)	Public IPv4 address –	Private IPv4 10.0.0.
Instance state ✓ Running	Public IPv4 DNS –	Private IPv4 ip-10-(
Instance type t2.micro	Elastic IP addresses –	VPC ID vpc-0d
AWS Compute Optimizer finding	IAM Role	Subnet ID

Select the S3 Service. Verify VPC Endpoint Access to S3, Check the route table to make sure you see a route using the VPC endpoint to S3.



```
[root@ip-10-0-0-187 ~]# aws s3 mb s3://lab05ecse3041
make_bucket: lab05ecse3041
```

To verify, SSH into the public instance, SSH into the private instance, Check the accessibility of the AWS resources privately and confirm that the S3 buckets is in our environment.



```
2021-01-21 05:04:43 labeb01
[root@ip-10-0-0-187 ~]# aws s3 mb s3:// new12345
```