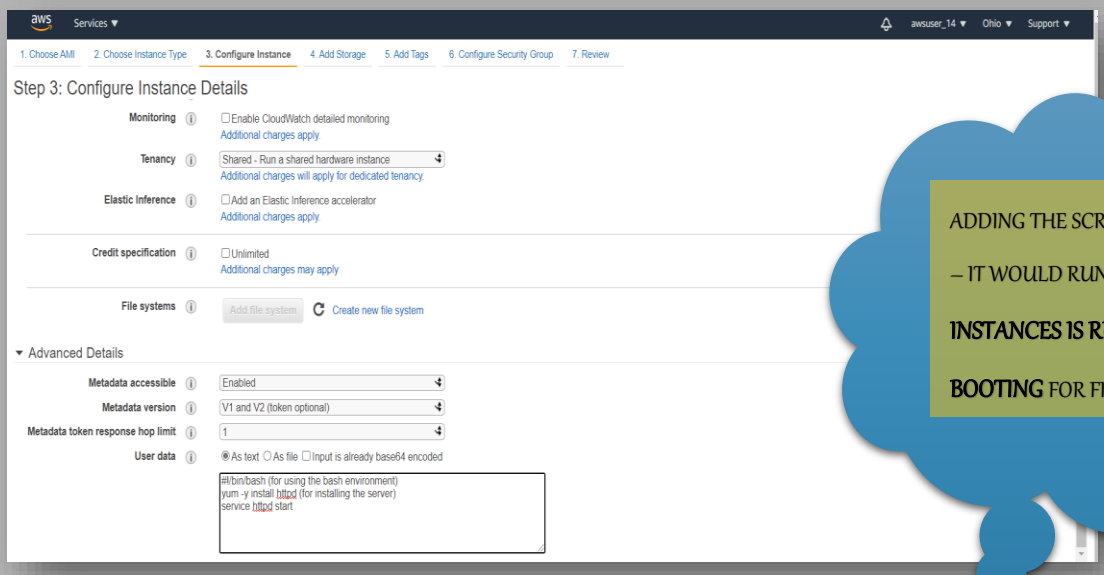
ASSIGNMENT NO-01

Project no – 01

A. Working with IAM Roles with S3 and bootstrapping with EC2.

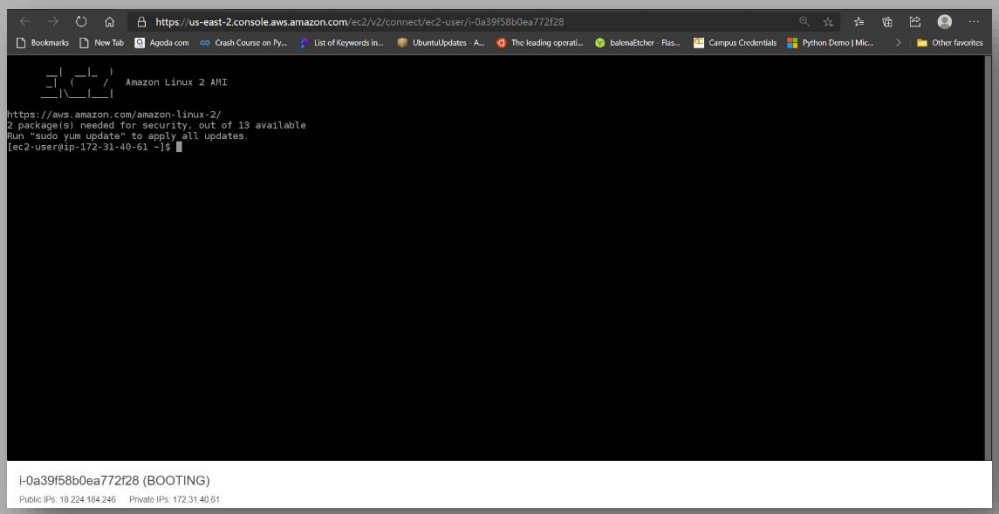
Task1: Creating a bootstrapped instance

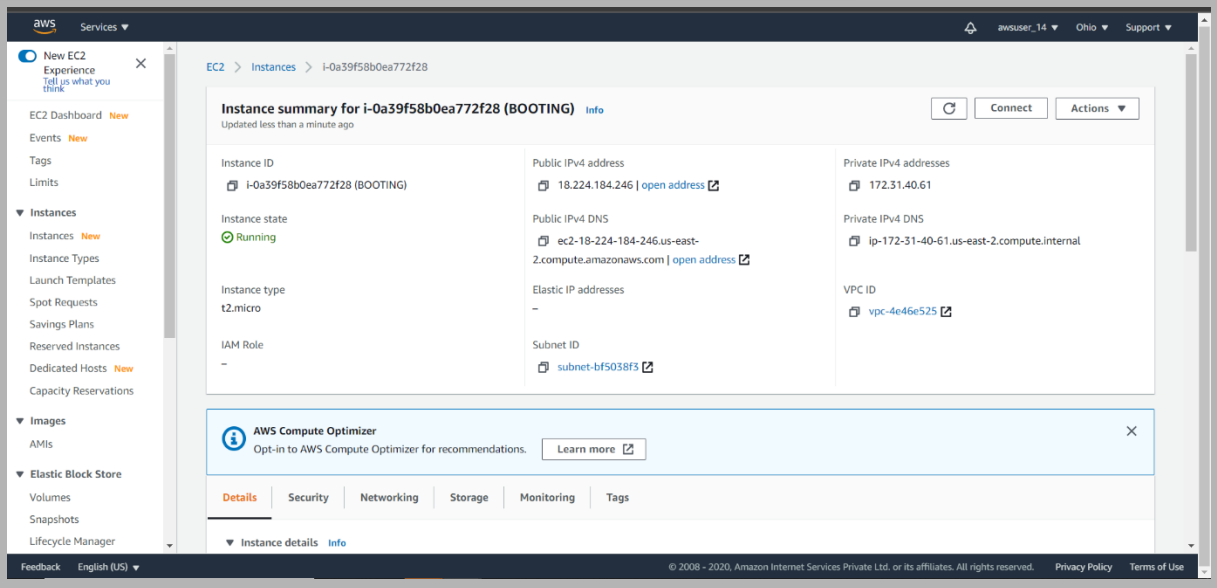
- Firstly going to **EC2 Console**.
- Create **a linux instance** and then in that….in **USER DATA** section add the script



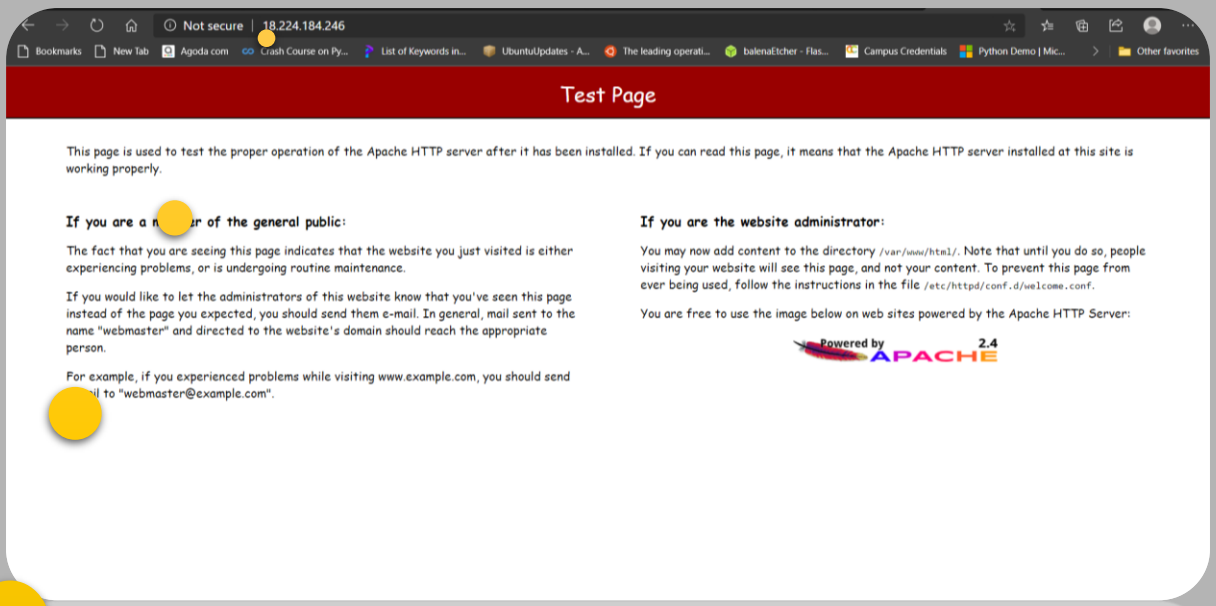
ADDING THE SCRIPT IN USER DATA – IT WOULD RUN, WHEN THE **INSTANCES IS RUNNING** (I.E **BOOTING** FOR FIRST TIME)

which is **CLI** concept.





- Then **Launch** it……

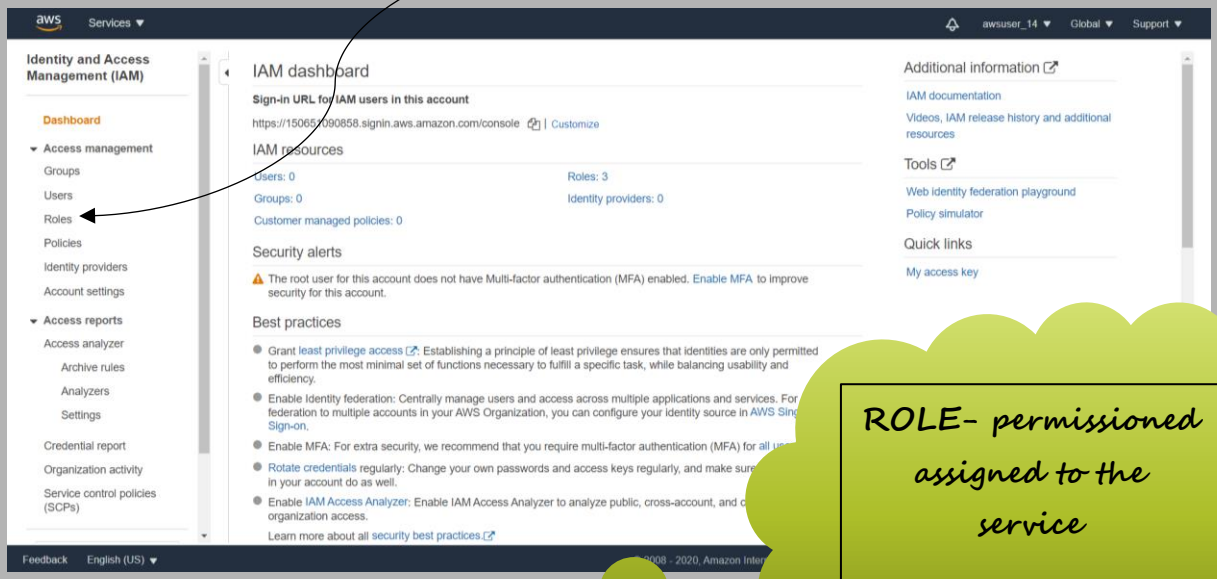


OUTPUT-

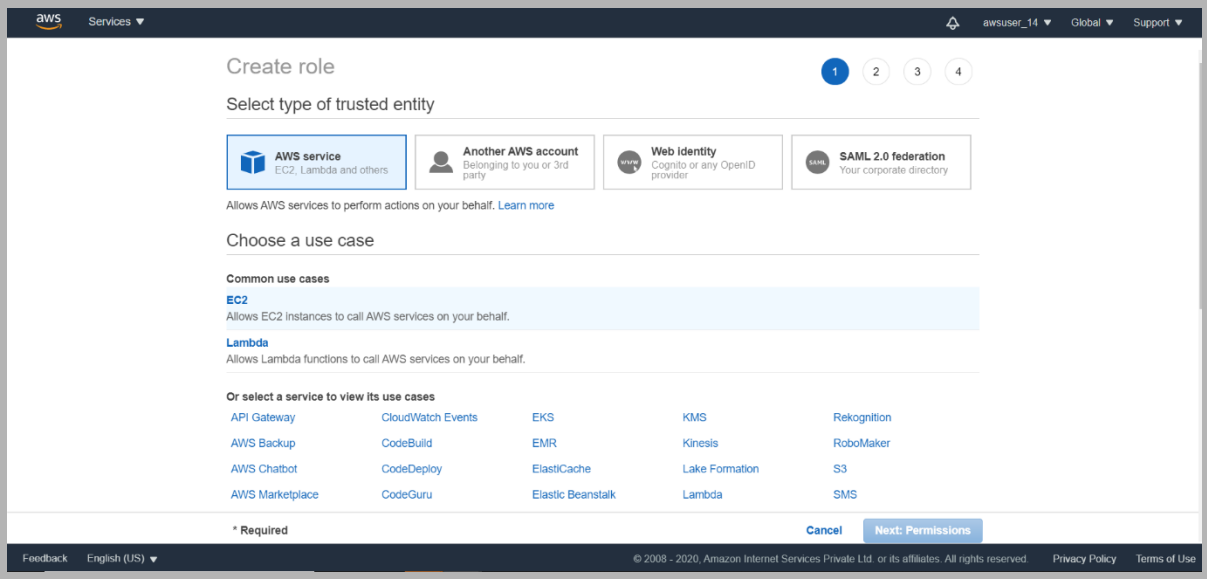
BOOTING

Task 2:Checking bucket list and creating a new bucket from EC2 using IAM ROLES.

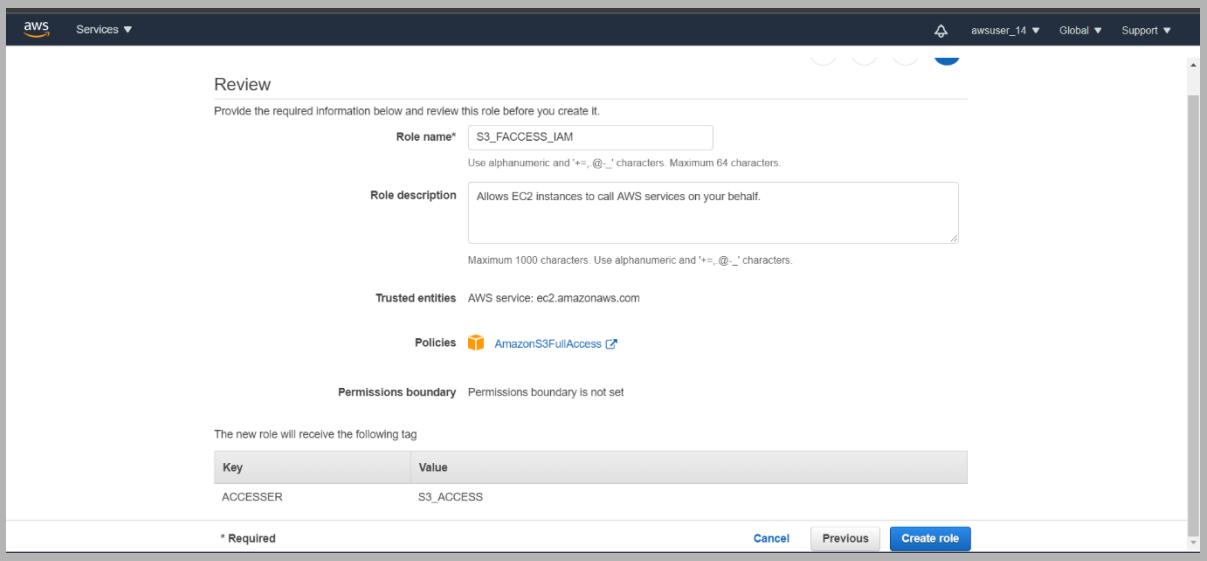
- INTIALLY Go to the IAM section under the security, identity & compliance.
- Then select IAM in that ROLES section.



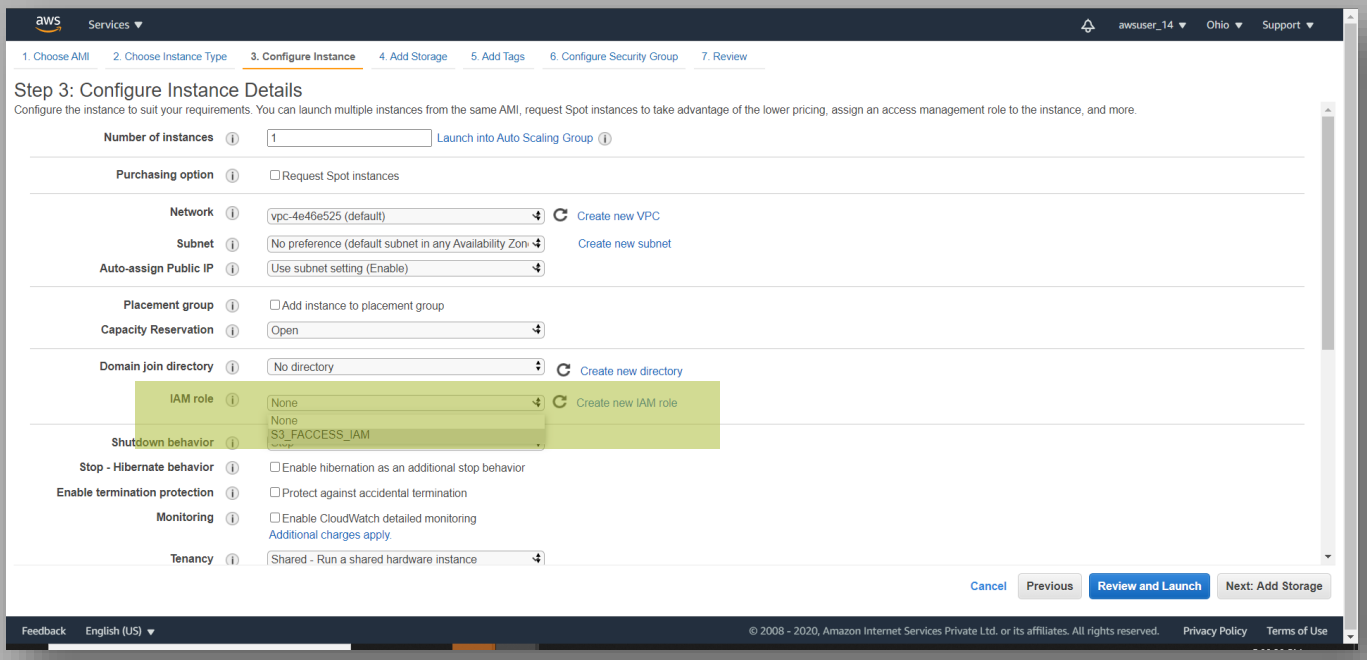
- Create role.
- Choosing ec2 service.



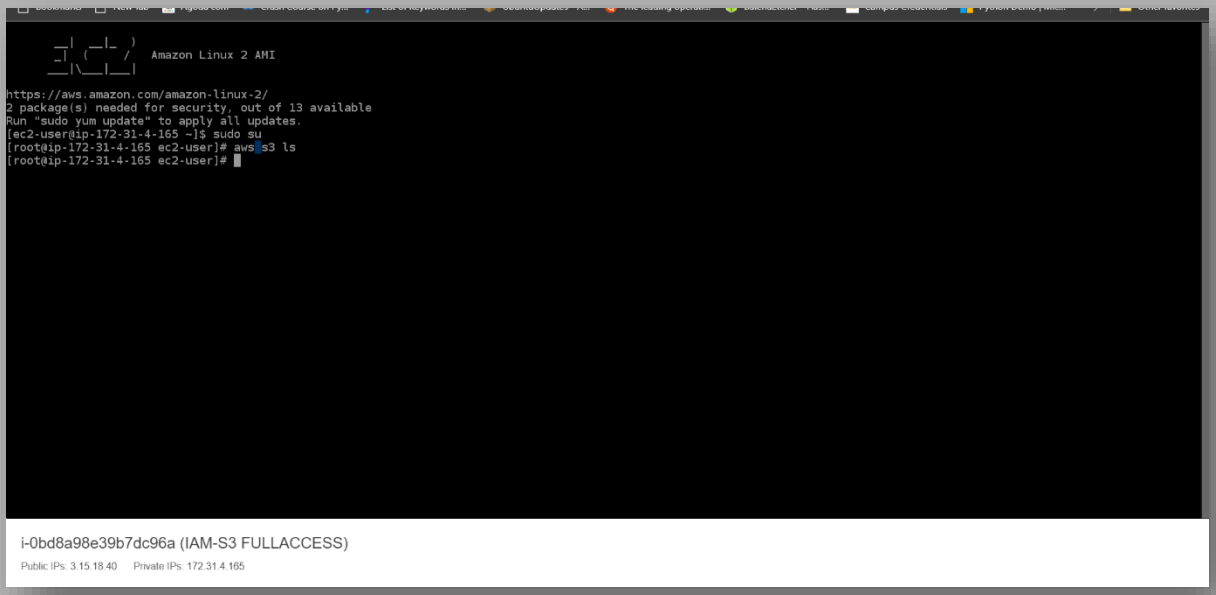
- Giving a role the Name
- I.e- S3_FACCESS_IAM



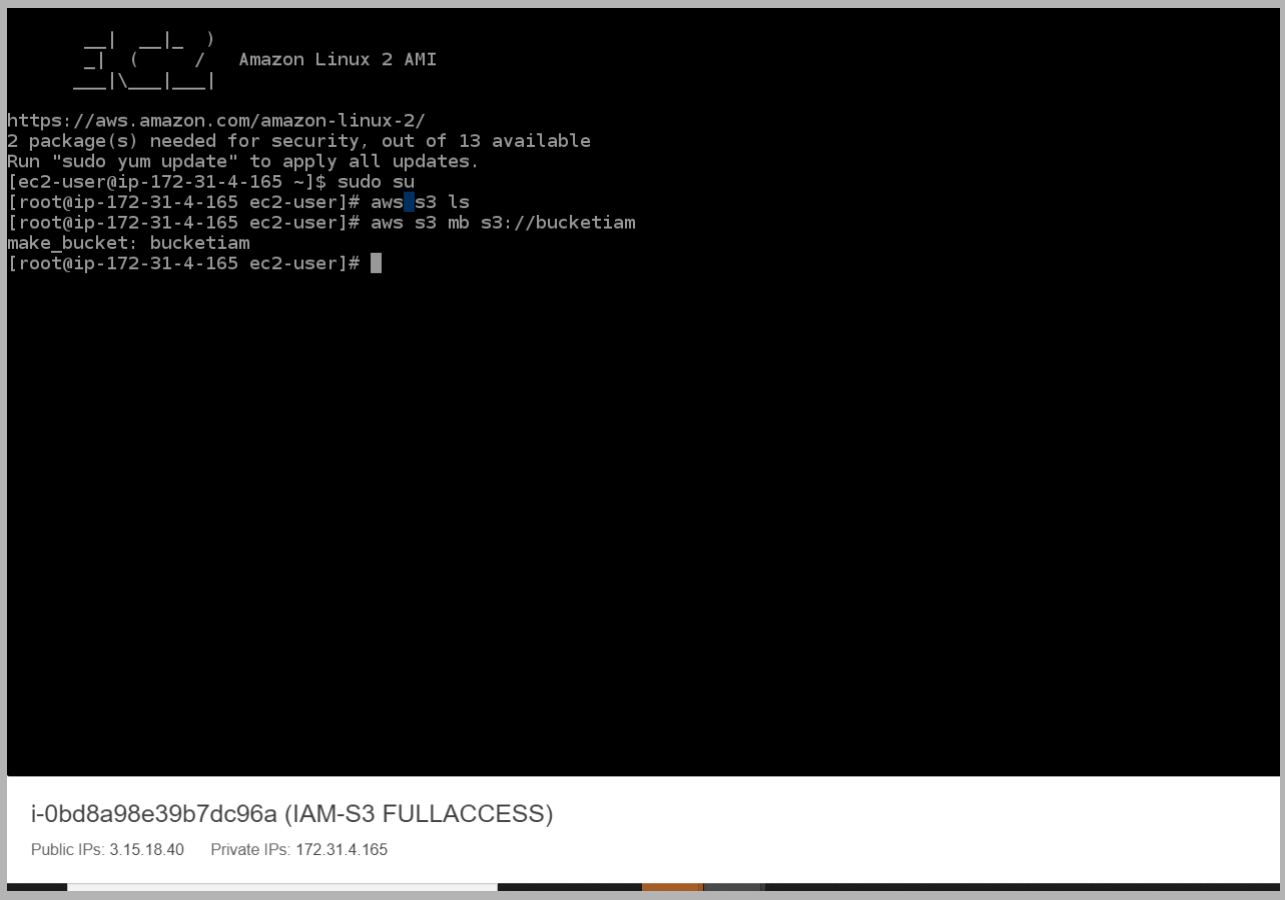
- THERE are readily available policies choose only one of them – **S3_full_access**.
- Then create **LINUX** instances



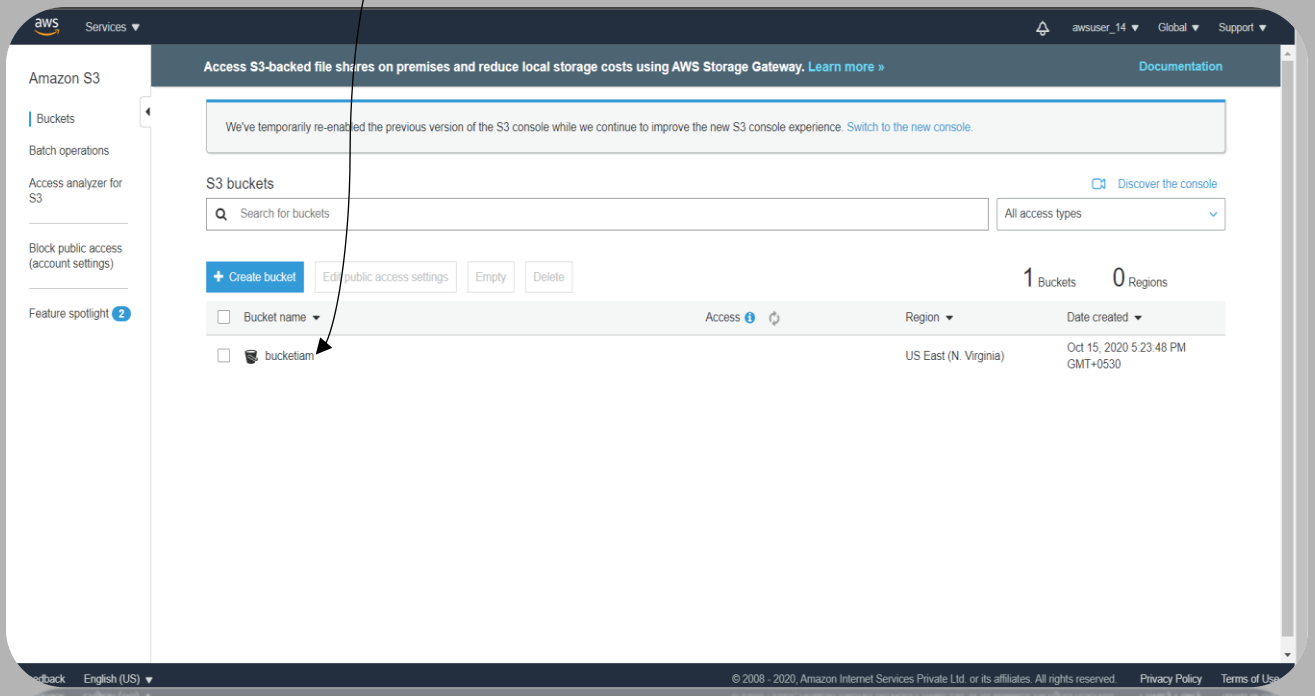
- **Launch an instances.**
- And giving permission to S3 as root user.

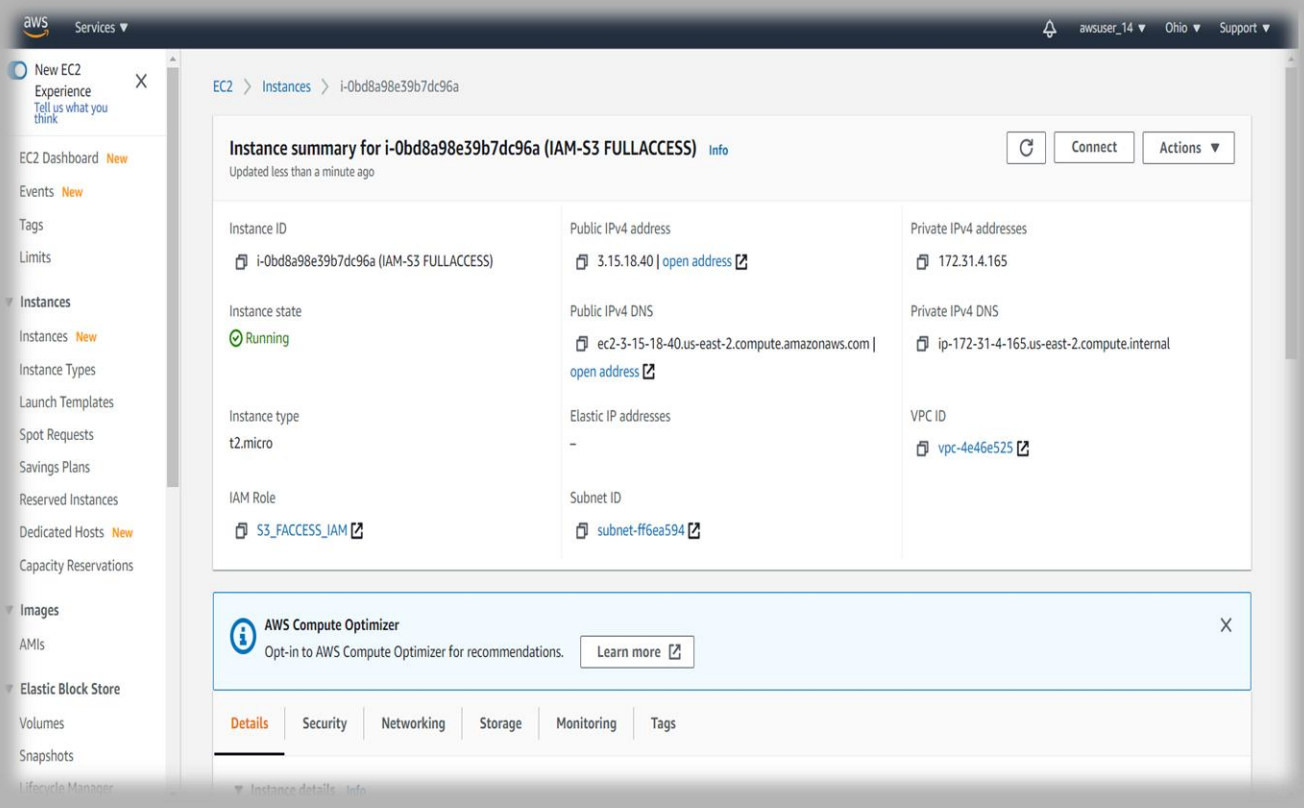


- Here's the code
- **#!/bin/bash (for using the bash environment)**
- **yum -y install httpd (for installing the server)**
- **service httpd start**



✓ **BUCKET** is created (i.e- bucketiam)





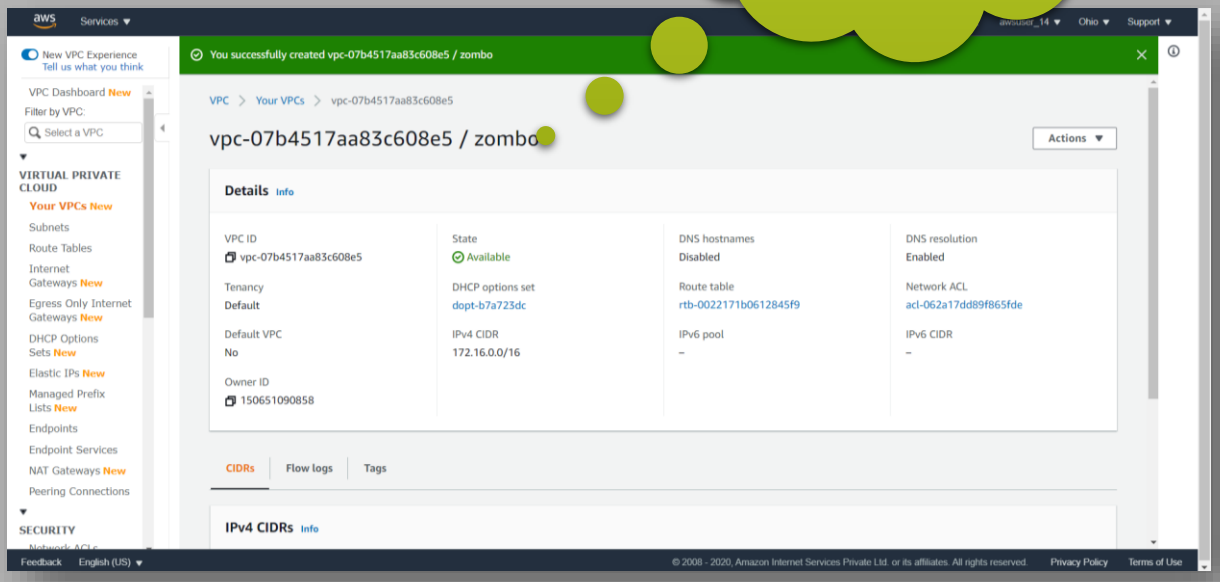
PROJECT 2:

Creating an EC2 instance in custom VPC

Task1: Create a VPC

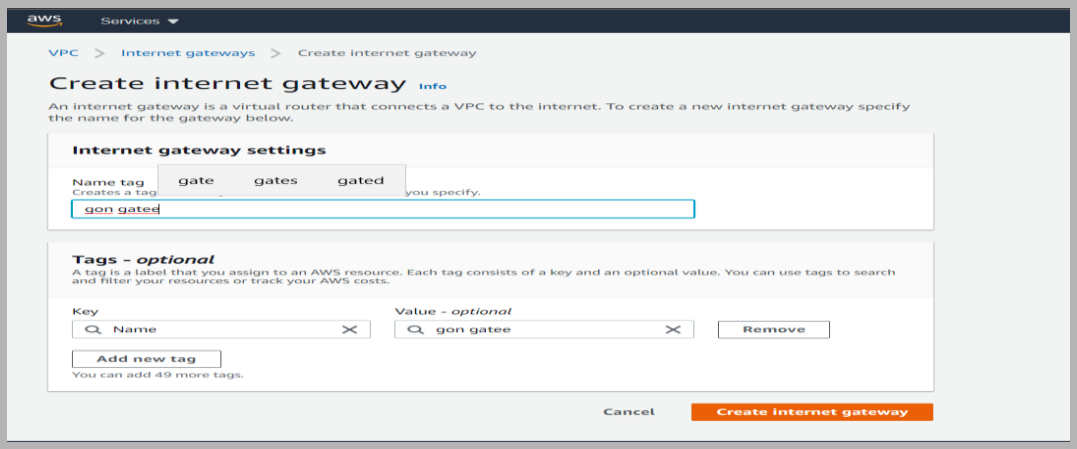
- Go to VPC and create our own vpc.
- Then give the name tag.
- IP Address-**172.16.0.0/16**

VPC NAME

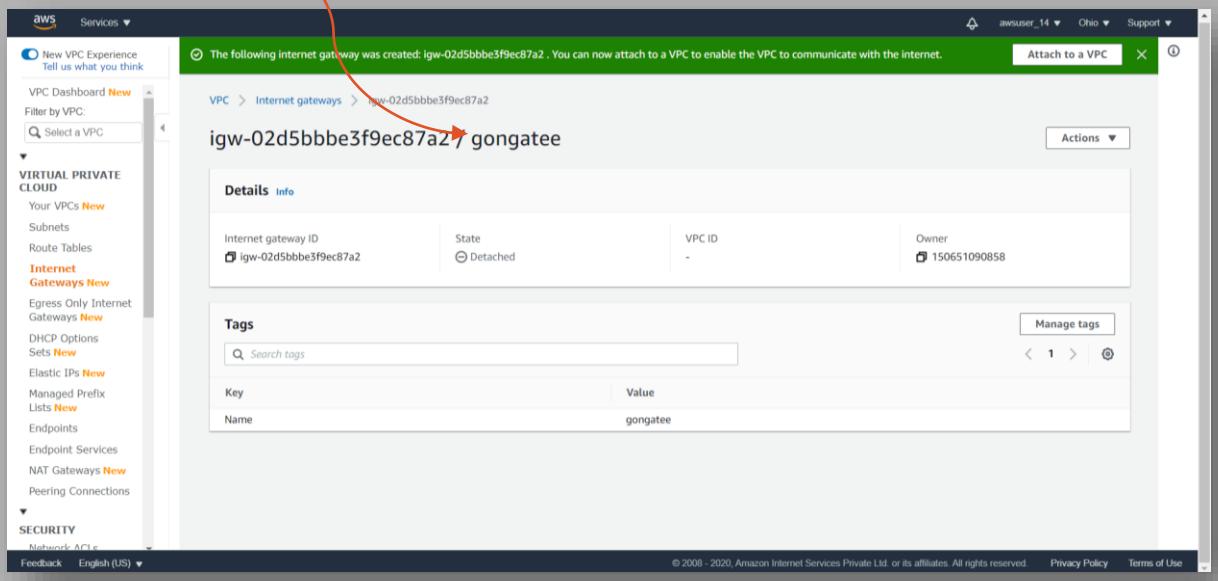


Task 2: Create an Internet gateway

- GOING TO **INTERNET GATEWAY** SECTION
- CREATING IGW.
- Giving the tag name
- **i.e- gongatee**

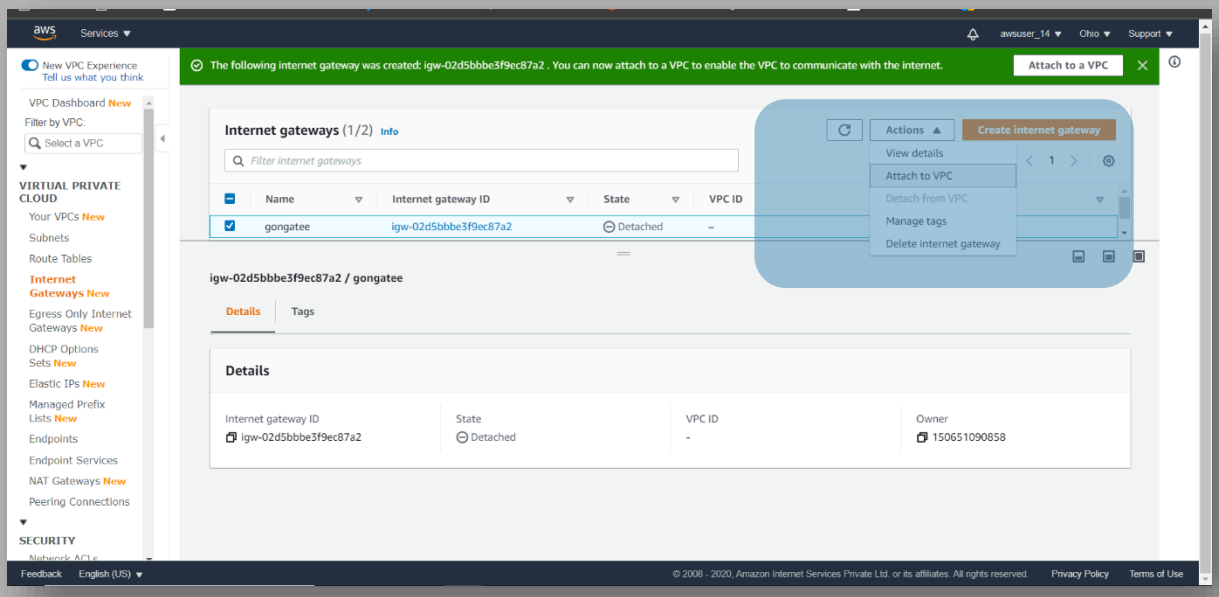


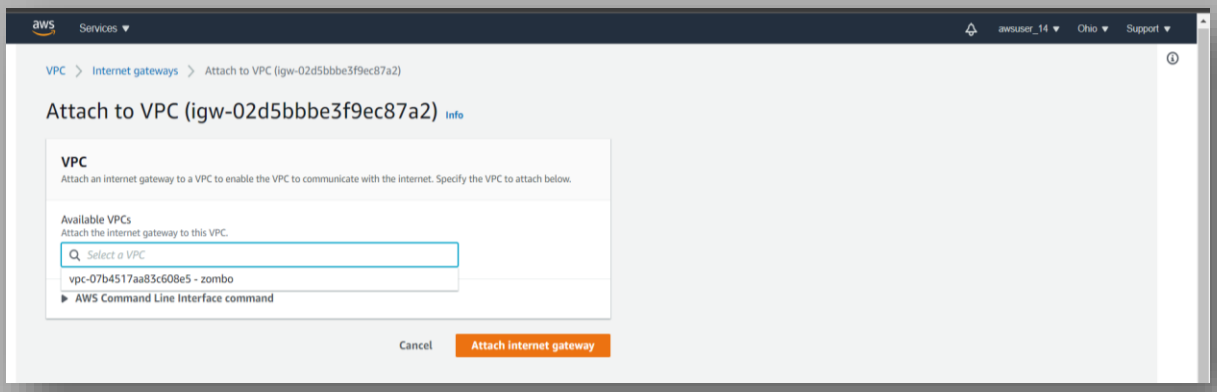
- IGW CREATED



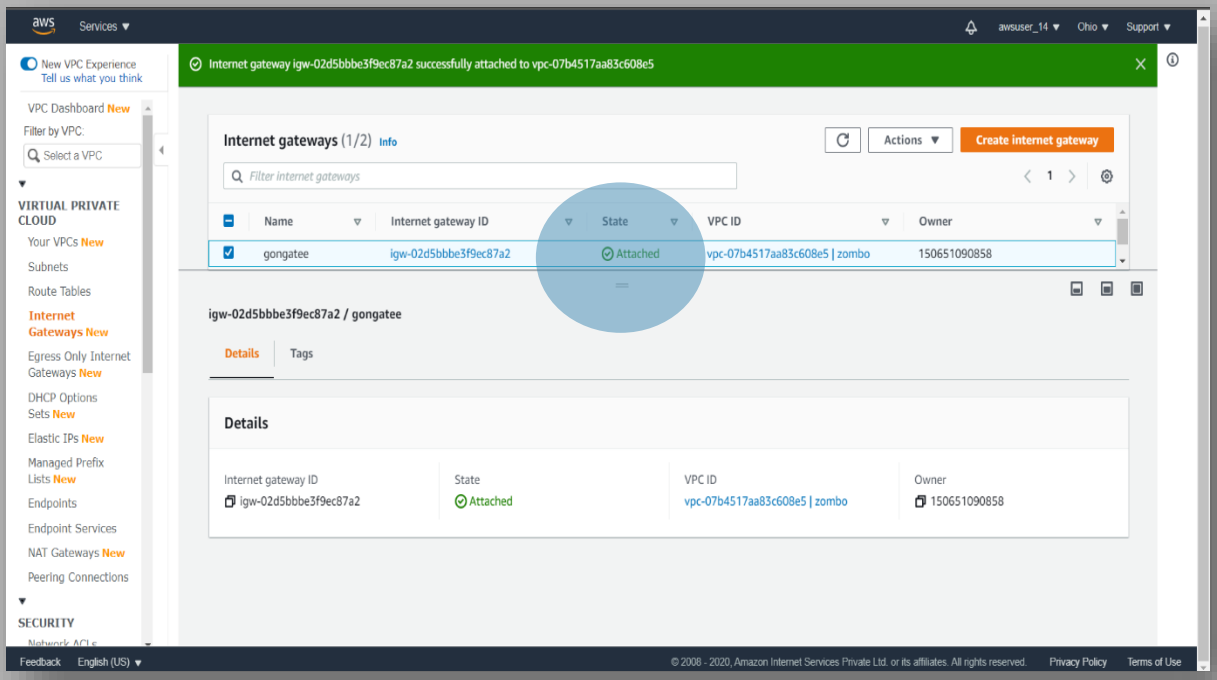
- **FURTHER STEPS-**

1.




Services
awsuser_14
Ohio
Support
VPC > Internet gateways > Attach to VPC (igw-02d5bbbe3f9ec87a2)
Attach to VPC (igw-02d5bbbe3f9ec87a2) Info
VPC
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.
Available VPCs
Attach the internet gateway to this VPC.
Select a VPC
vpc-07b4517aa83c608e5 - zombo
AWS Command Line Interface command
Cancel
Attach internet gateway

2.
3.


Services
awsuser_14
Ohio
Support
New VPC Experience
Tell us what you think
Internet gateway igw-02d5bbbe3f9ec87a2 successfully attached to vpc-07b4517aa83c608e5
VPC Dashboard New
Filter by VPC:
Select a VPC
VIRTUAL PRIVATE CLOUD
Your VPCs New
Subnets
Route Tables
Internet Gateways New
Egress Only Internet Gateways New
DHCP Options Sets New
Elastic IPs New
Managed Prefix Lists New
Endpoints
Endpoint Services
NAT Gateways New
Peering Connections
SECURITY
Internet gateways (1/2) Info
Actions
Create internet gateway
Filter internet gateways
Name
Internet gateway ID
State
VPC ID
Owner
gongatee
igw-02d5bbbe3f9ec87a2
Attached
vpc-07b4517aa83c608e5 | zombo
150651090858
igw-02d5bbbe3f9ec87a2 / gongatee
Details
Tags
Details
Internet gateway ID
igw-02d5bbbe3f9ec87a2
State
Attached
VPC ID
vpc-07b4517aa83c608e5 | zombo
Owner
150651090858
Feedback
English (US)
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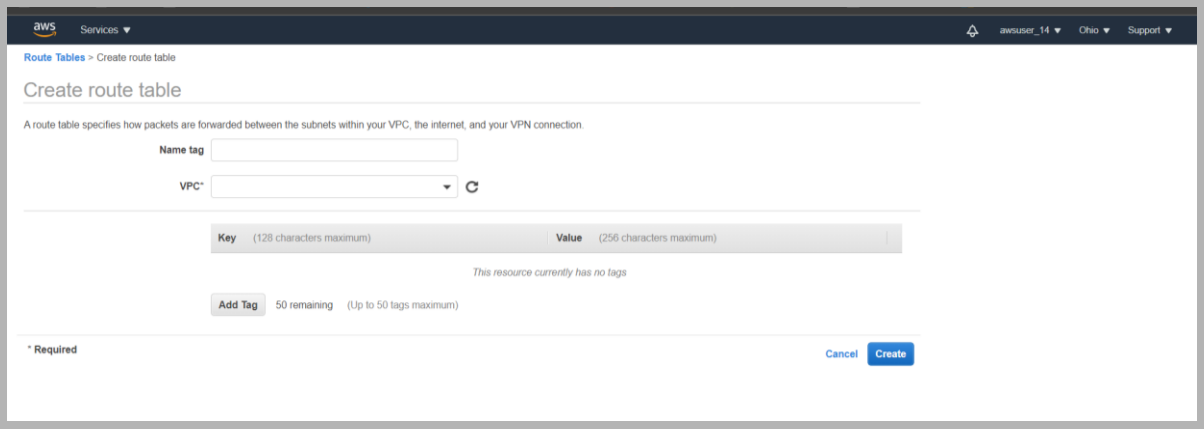
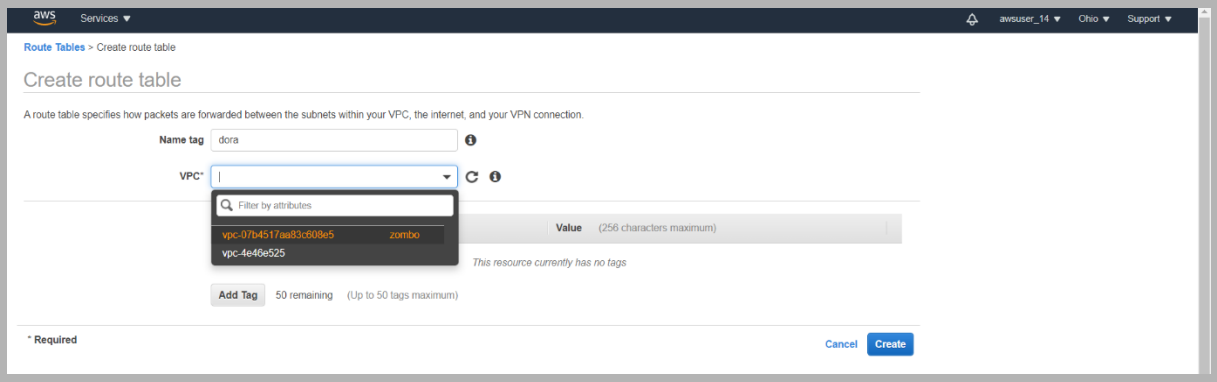
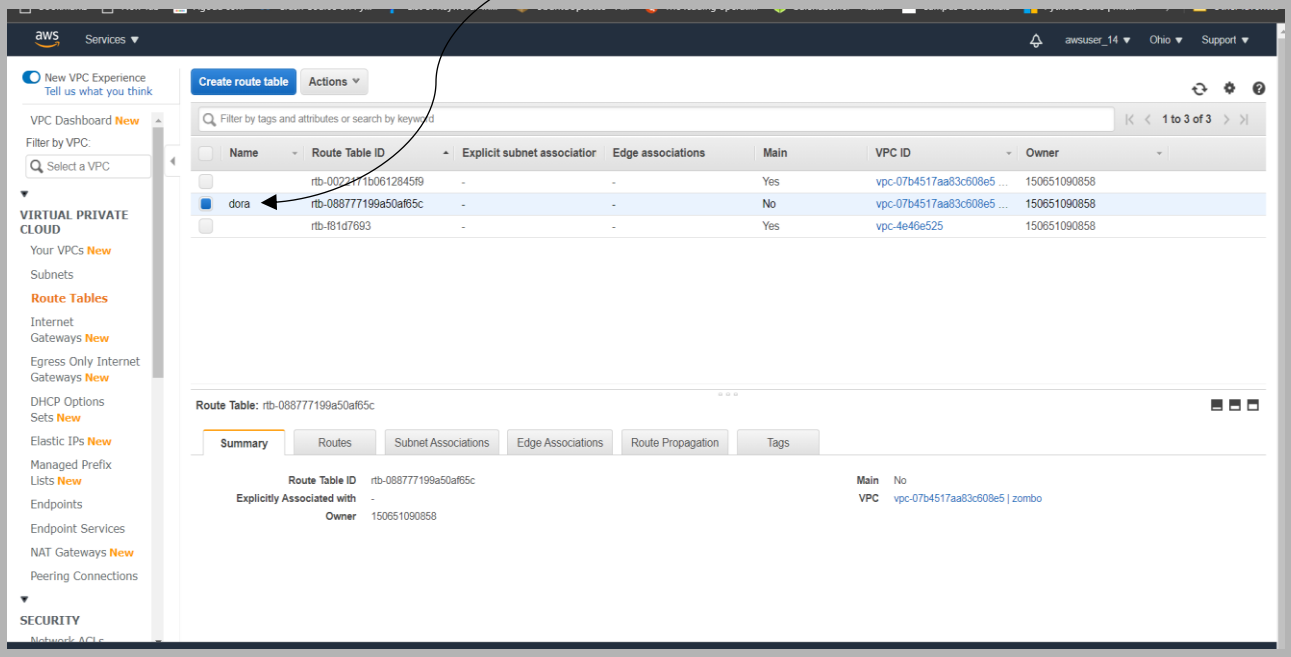
• 2-CREATING A ROUTE TABLE

Task3: Create a route table

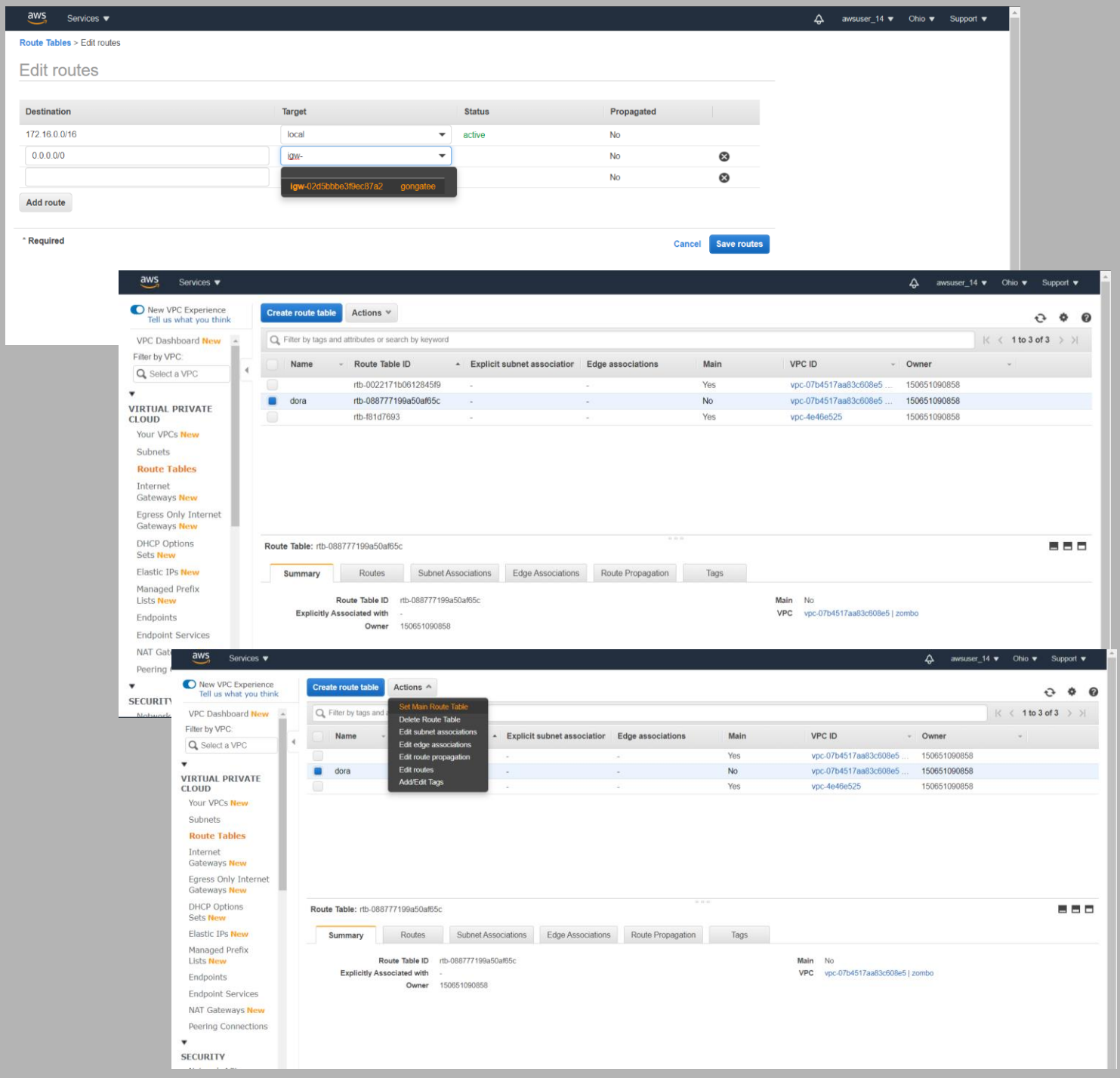




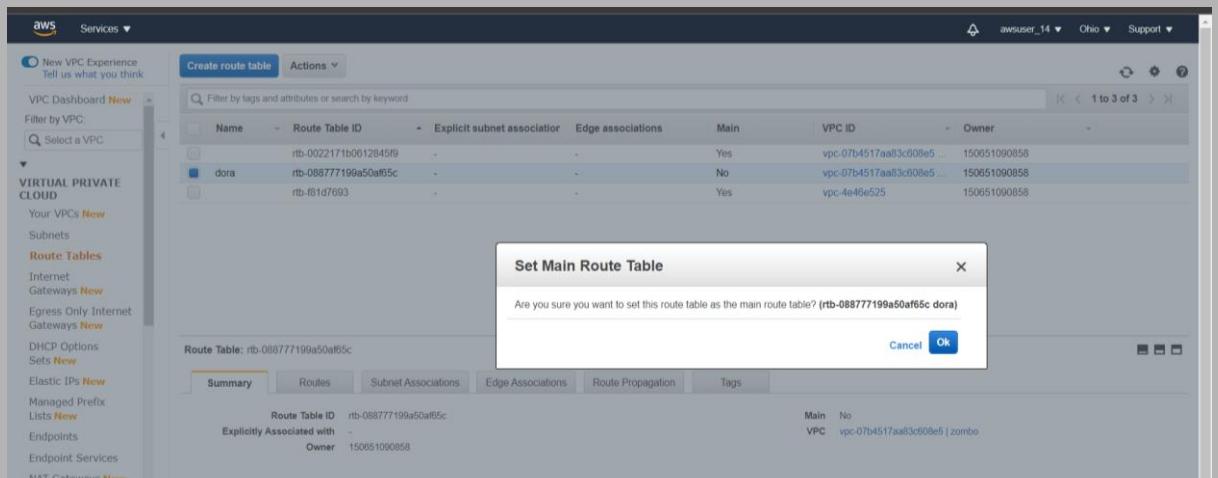
ROUTE TABLE NAME – DORA

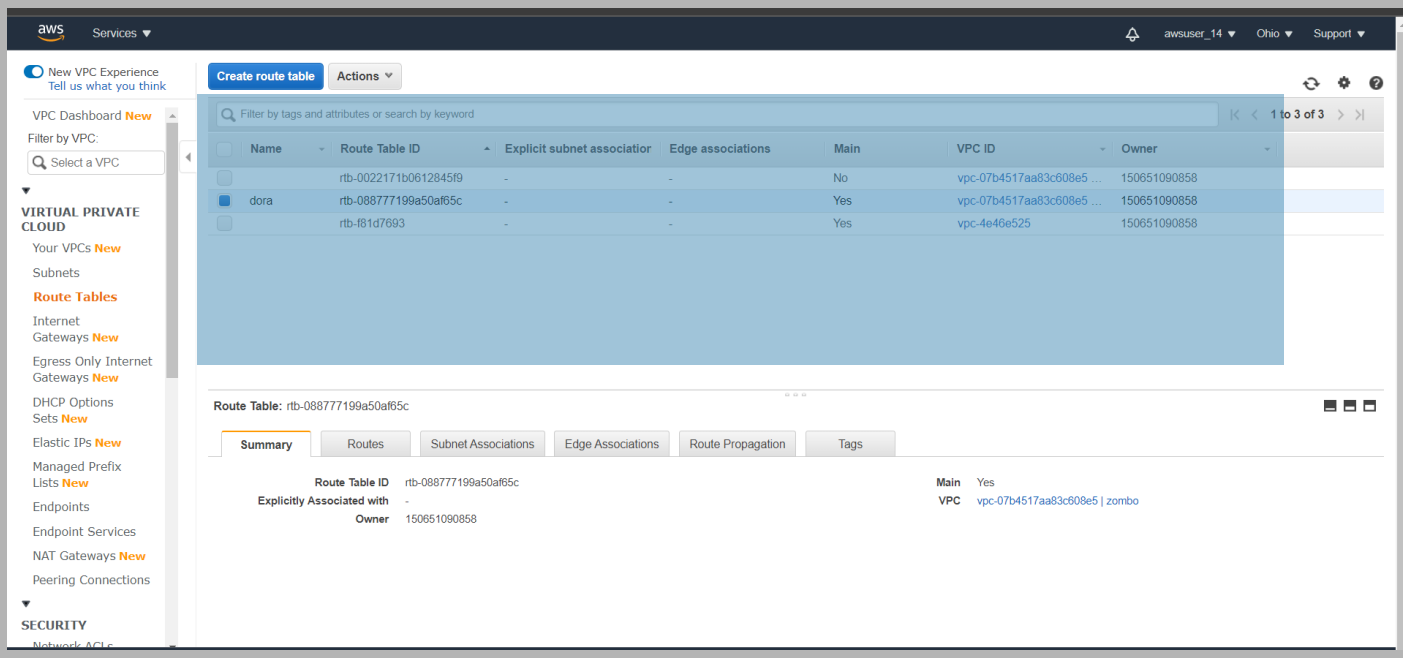


- **THEN EDIT THE ROUTES BY GOING ACTION MENU.**



- **SETTING ROUTE TABLE AS A MAIN**

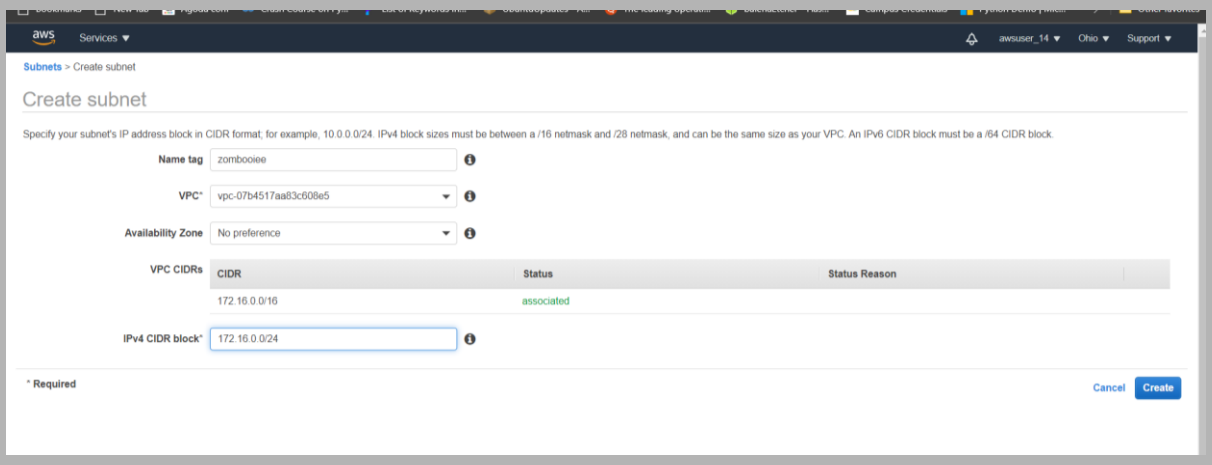




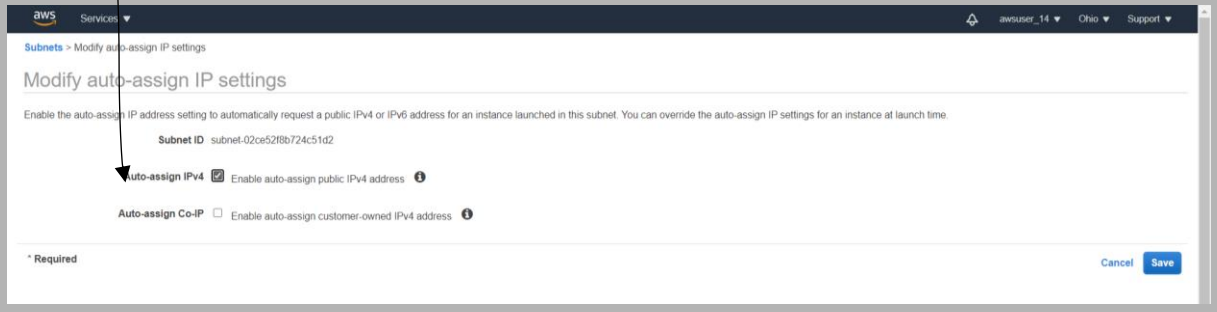
- **ROUTE TABLE IS CONNECTED AND ATTACHED TO VPC.**

Task4: Create a subnet

- **FOLLOWING STEPS- NAME AS ZOMBOOIEE**



THEN,



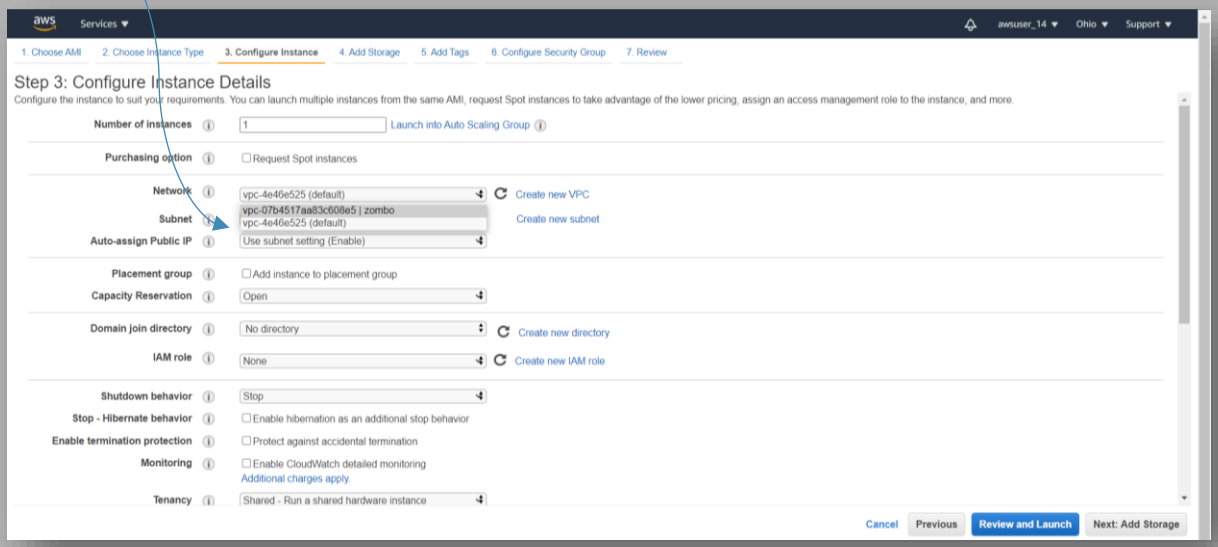
SUBSET OF 16
IP RANGE

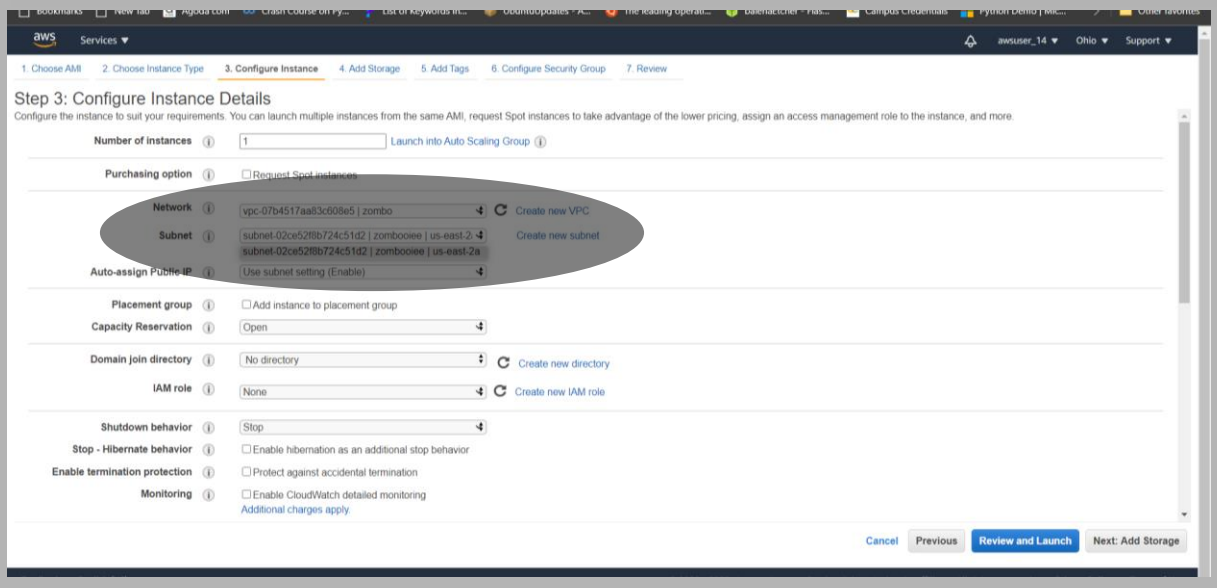
- **GIVING SUBNET VALUE – 172.16.0.0/24**
- **ENABLE IT AND SAVE IT.** – AS SHOWNEN IN ABOVE FIG.

Task5:Create an EC2 in custom vpc.

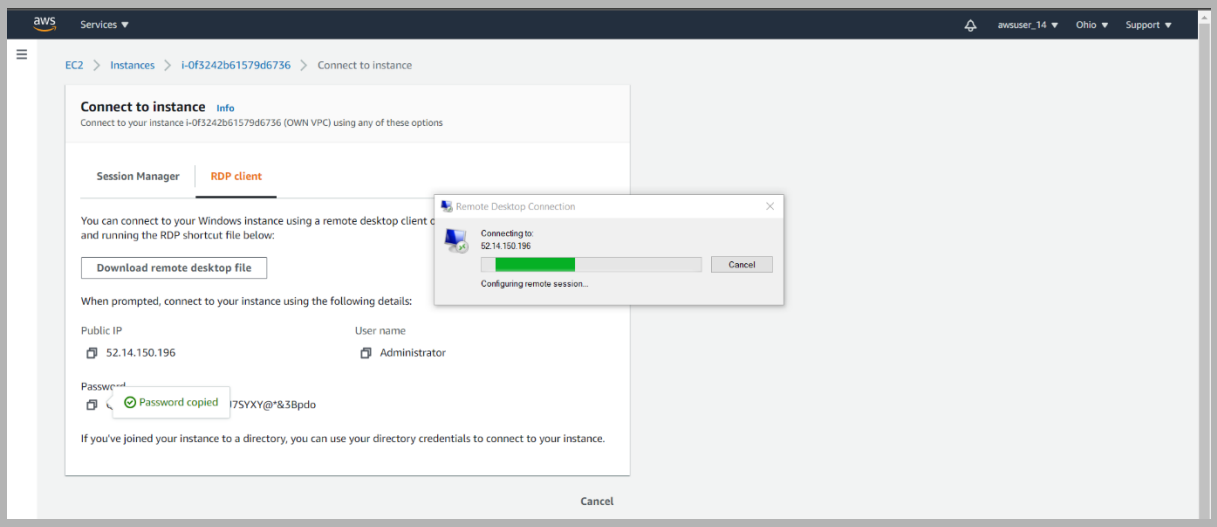
- **CREATING LASTLY WINDOW INSTANNCE.**
- **CHOOSE YOUR OWN VPC'S**
- **AND THE SUBNET VALUE**
- **ENABLE-** AUTO ASSIGN PUBLIC IP
- **AND THEN CONNECT IT.**

1.

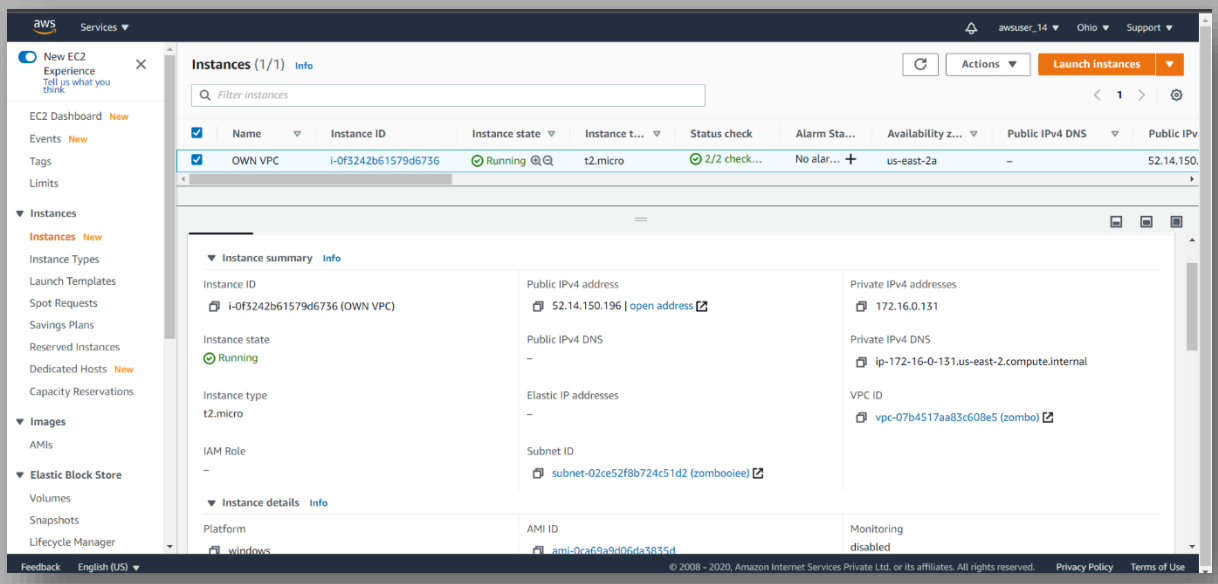




3.


aws
Services
awsuser_14
Ohio
Support
EC2 > Instances > i-0f3242b61579d6736 > Connect to instance
Connect to instance Info
Connect to your instance i-0f3242b61579d6736 (OWN VPC) using any of these options
Session Manager
RDP client
You can connect to your Windows instance using a remote desktop client
and running the RDP shortcut file below:
Download remote desktop file
When prompted, connect to your instance using the following details:
Public IP
52.14.150.196
User name
Administrator
Password
Password copied
If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.
Cancel
Remote Desktop Connection
Connecting to:
52.14.150.196
Cancel
Configuring remote session...

4


aws
Services
awsuser_14
Ohio
Support
New EC2 Experience
Tell us what you think
EC2 Dashboard New
Events New
Tags
Limits
Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts New
Capacity Reservations
Images
AMIs
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Instances (1/1) Info
Filter instances
Actions
Launch instances
Name
Instance ID
Instance state
Instance t...
Status check
Alarm Sta...
Availability z...
Public IPv4 DNS
Public IPv
OWN VPC
i-0f3242b61579d6736
Running
t2.micro
2/2 check...
No alar...
us-east-2a
52.14.150.
Instance summary Info
Instance ID
i-0f3242b61579d6736 (OWN VPC)
Public IPv4 address
52.14.150.196 | open address
Private IPv4 addresses
172.16.0.131
Instance state
Running
Public IPv4 DNS
Private IPv4 DNS
ip-172-16-0-131.us-east-2.compute.internal
Instance type
t2.micro
Elastic IP addresses
VPC ID
vpc-07b4517aa83c608e5 (zombo)
IAM Role
Subnet ID
subnet-02ce52f8b724c51d2 (zombooiee)
Instance details Info
Platform
windows
AMI ID
Monitoring
disabled
Feedback
English (US)
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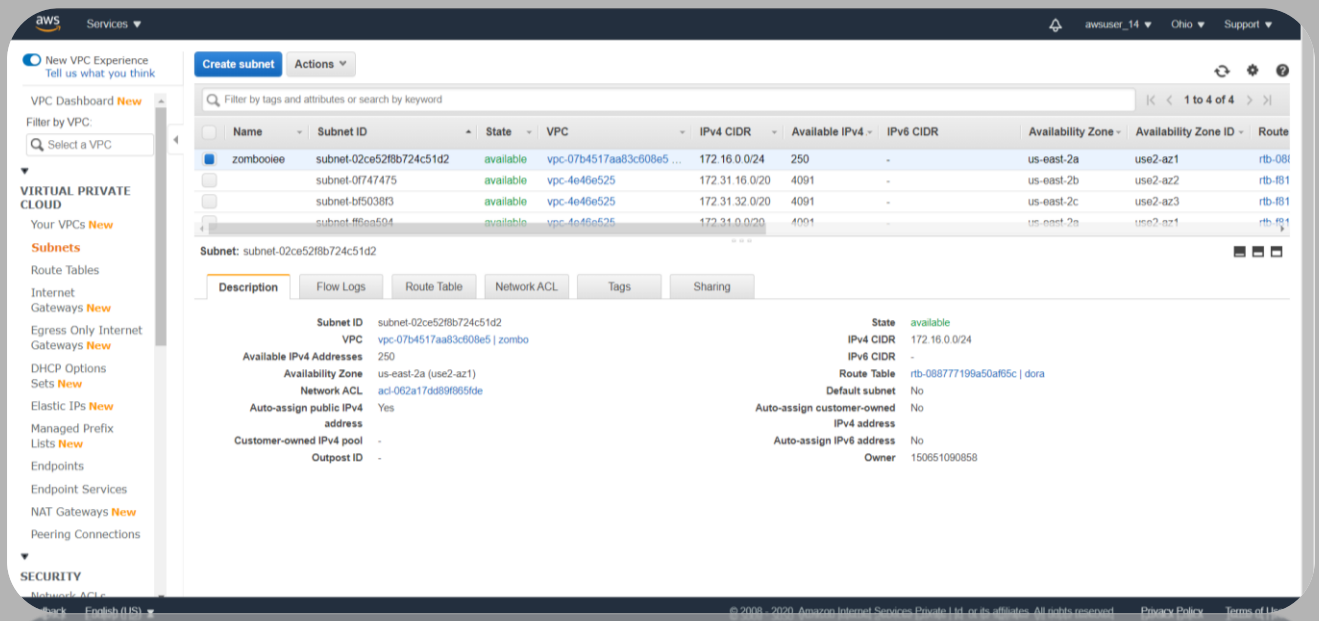
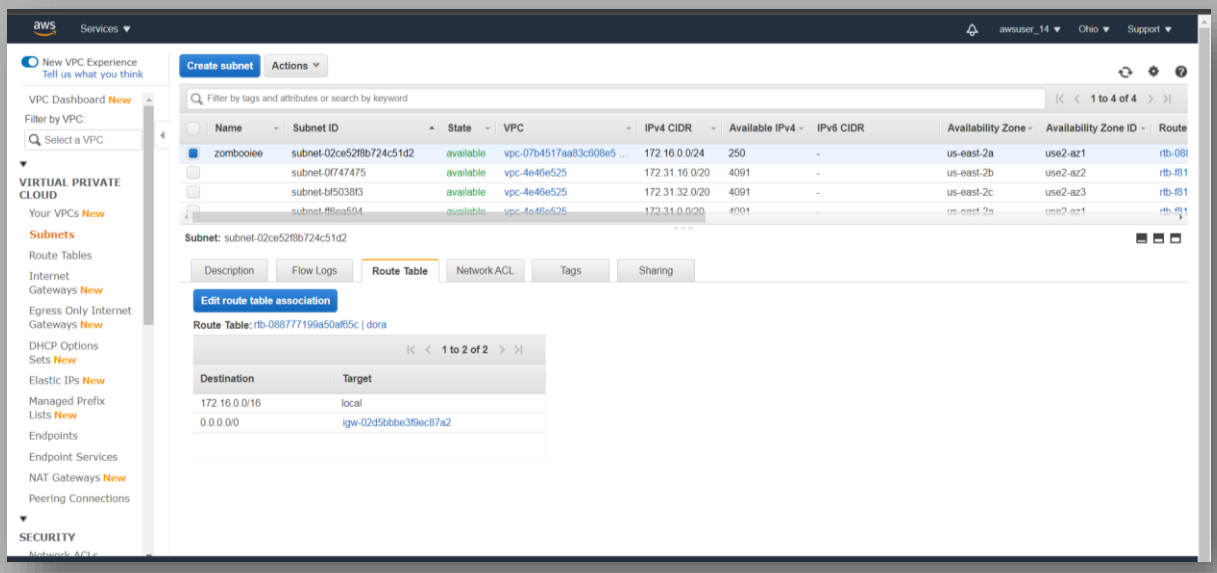
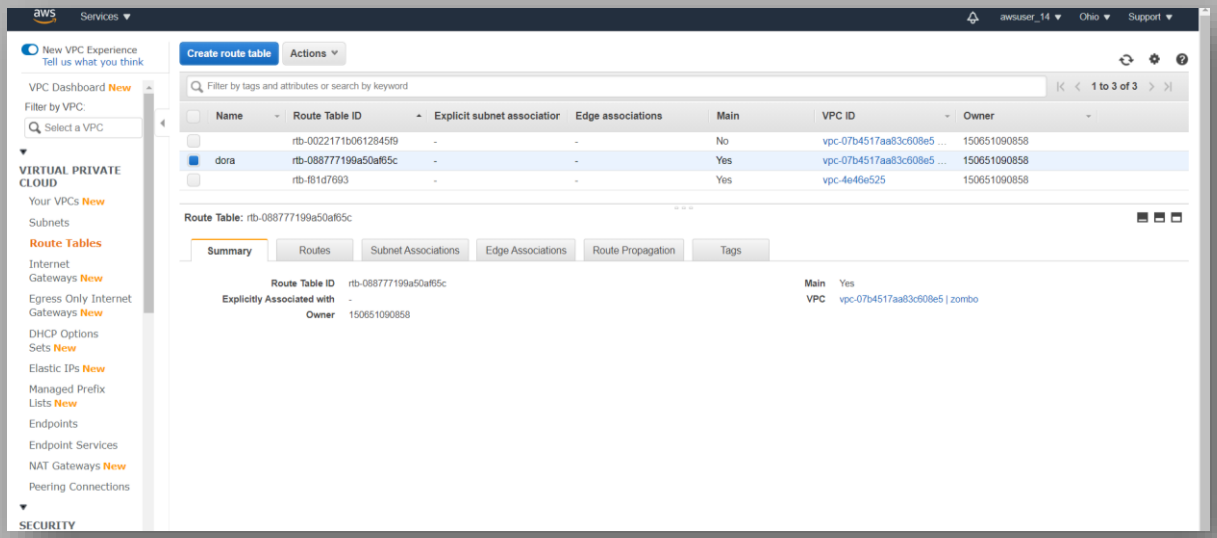
Privacy Policy
Terms of Use

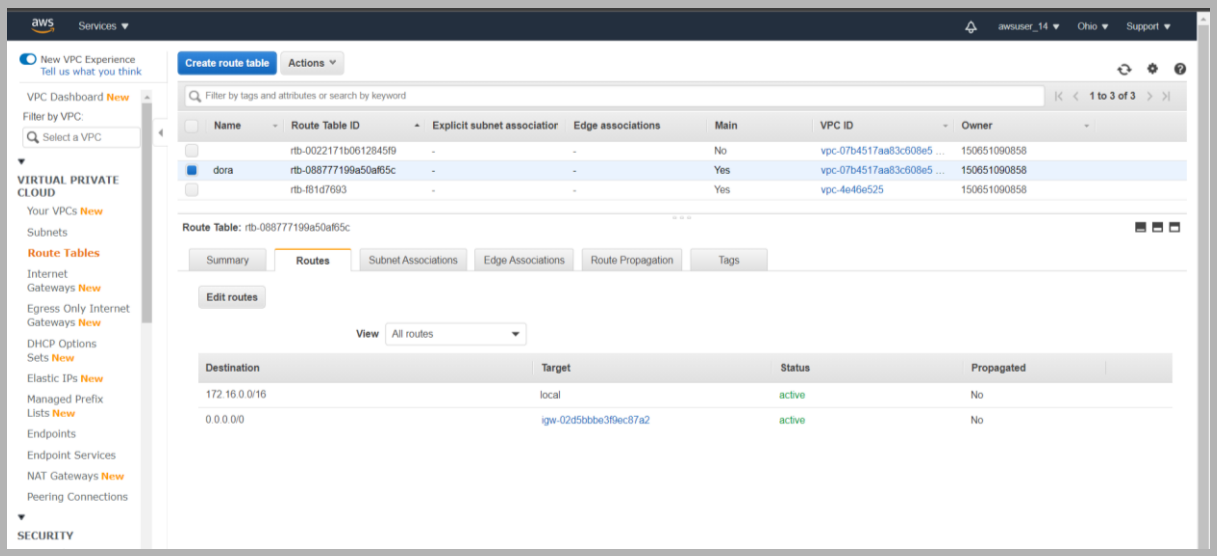
5.subnet screen





ROUTE TABLE


aws
Services
awsuser_14
Ohio
Support
New VPC Experience
Tell us what you think
Create route table
Actions
VPC Dashboard New
Filter by VPC:
Select a VPC
VIRTUAL PRIVATE CLOUD
Your VPCs New
Subnets
Route Tables
Internet Gateways New
Egress Only Internet Gateways New
DHCP Options Sets New
Elastic IPs New
Managed Prefix Lists New
Endpoints
Endpoint Services
NAT Gateways New
Peering Connections
SECURITY
Filter by tags and attributes or search by keyword
1 to 3 of 3
Name
Route Table ID
Explicit subnet association
Edge associations
Main
VPC ID
Owner
rtb-0022171b0612845f9 - - No vpc-07b4517aa83c608e5 ... 150651090858
dora rtb-088777199a50af65c - - Yes vpc-07b4517aa83c608e5 ... 150651090858
rtb-f81d7693 - - Yes vpc-4e46e525 150651090858
Route Table: rtb-088777199a50af65c
Summary
Routes
Subnet Associations
Edge Associations
Route Propagation
Tags
Route Table ID rtb-088777199a50af65c
Explicitly Associated with -
Owner 150651090858
Main Yes
VPC vpc-07b4517aa83c608e5 | zombo


aws
Services
awsuser_14
Ohio
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New VPC Experience
Tell us what you think
Create route table
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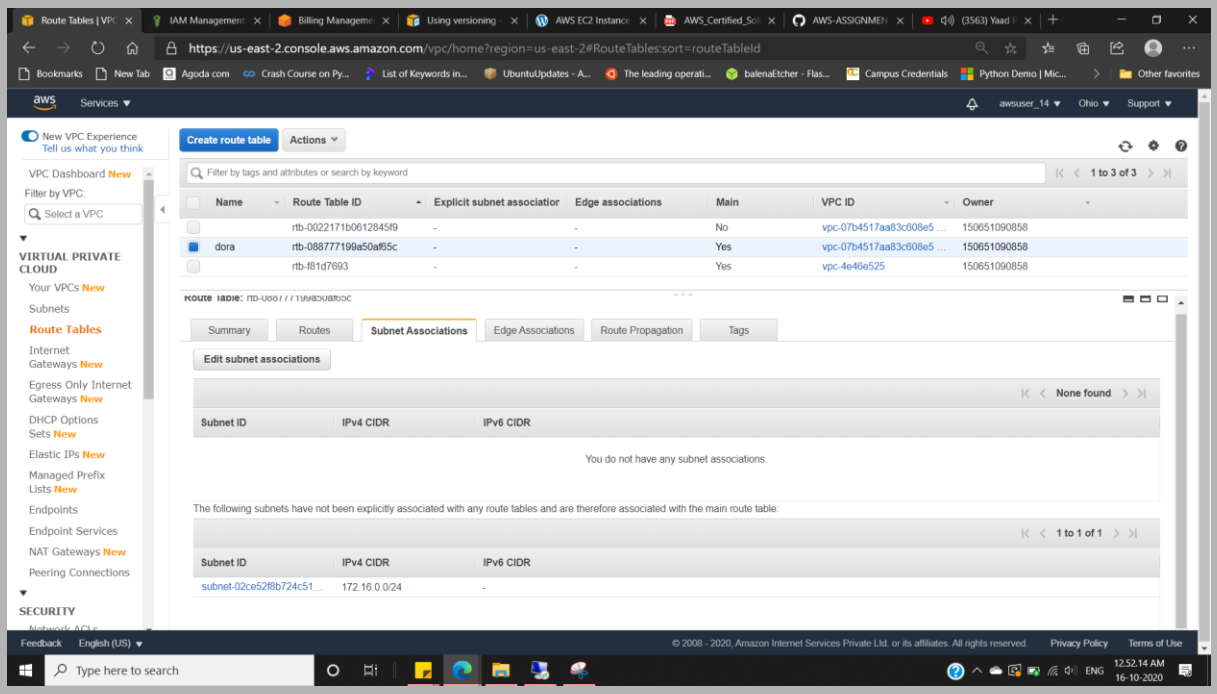
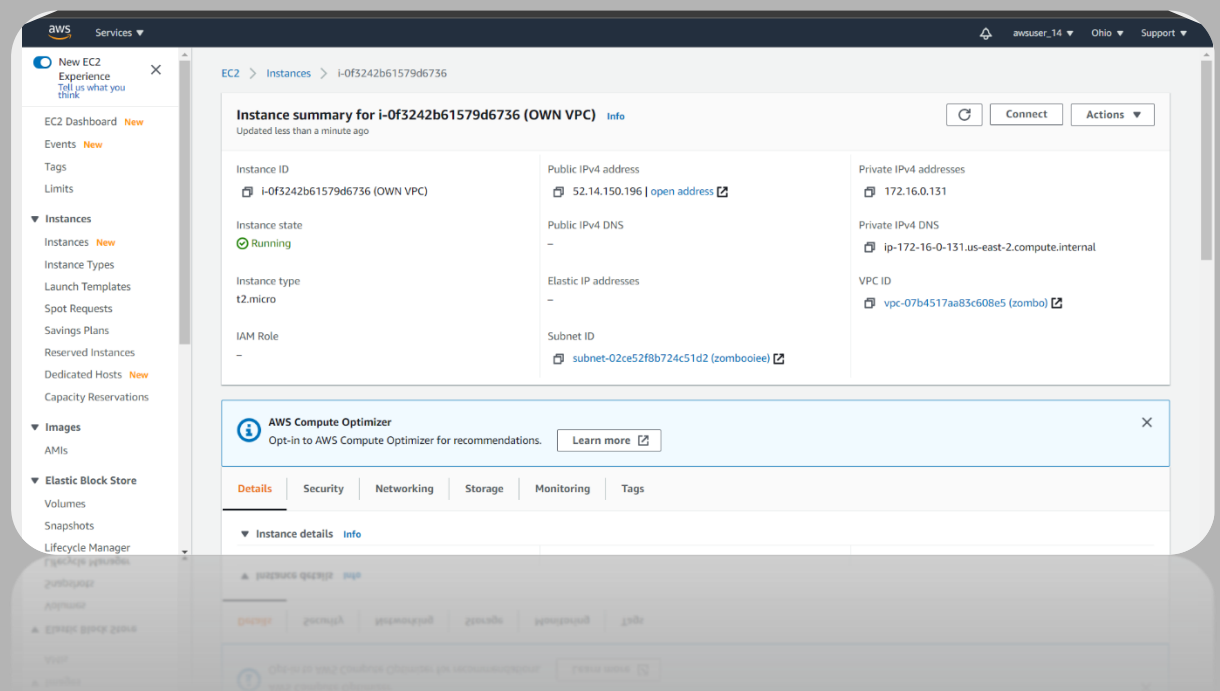
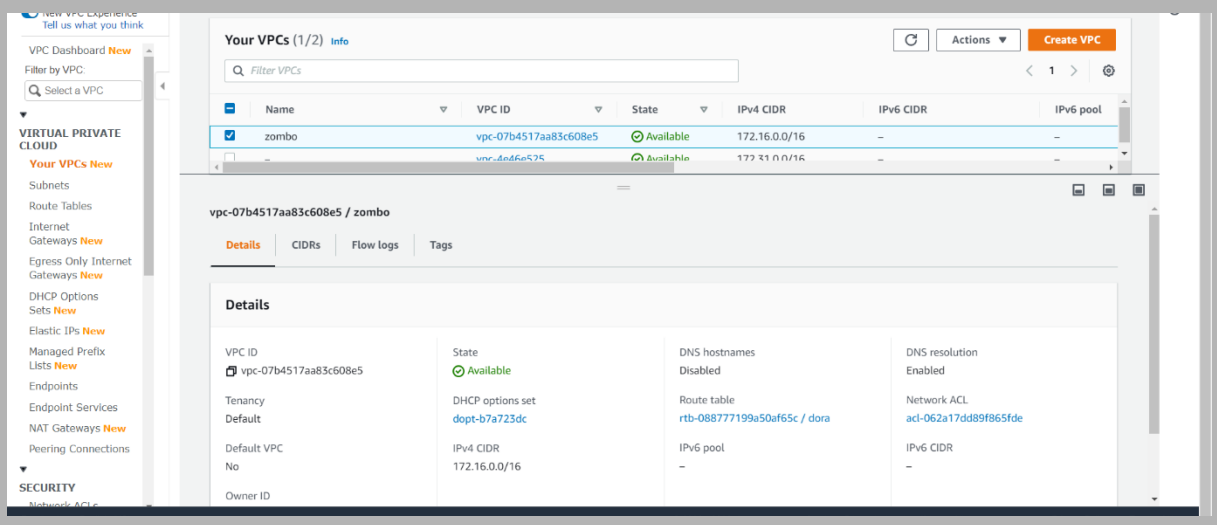
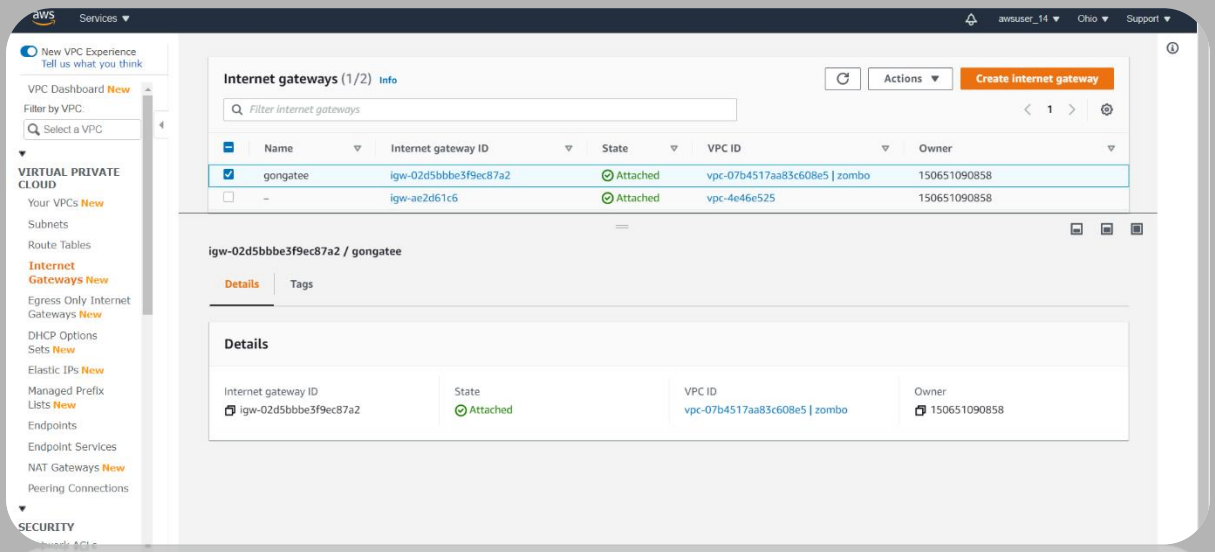
VPC Dashboard New
Filter by VPC:
Select a VPC
VIRTUAL PRIVATE CLOUD
Your VPCs New
Subnets
Route Tables
Internet Gateways New
Egress Only Internet Gateways New
DHCP Options Sets New
Elastic IPs New
Managed Prefix Lists New
Endpoints
Endpoint Services
NAT Gateways New
Peering Connections
SECURITY
Filter by tags and attributes or search by keyword
1 to 3 of 3
Name
Route Table ID
Explicit subnet association
Edge associations
Main
VPC ID
Owner
rtb-0022171b0612845f9 - - No vpc-07b4517aa83c608e5 ... 150651090858
dora rtb-088777199a50af65c - - Yes vpc-07b4517aa83c608e5 ... 150651090858
rtb-f81d7693 - - Yes vpc-4e46e525 150651090858
Route Table: rtb-088777199a50af65c
Summary
Routes
Subnet Associations
Edge Associations
Route Propagation
Tags
Edit routes
View All routes
Destination
Target
Status
Propagated
172.16.0.0/16 local active No
0.0.0.0/0 igw-02d5bbbe3f9ec87a2 active No


Create route table
Actions
dora
rtb-088777199a50af65c
Summary
Routes
Subnet Associations
Edge Associations
Route Propagation
Tags
Edit subnet associations
You do not have any subnet associations.
The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:
subnet-02ce52f8b724c51...
172.16.0.0/24


Instance summary for i-0f3242b61579d6736 (OWN VPC)
Connect
Actions
i-0f3242b61579d6736 (OWN VPC)
52.14.150.196 | open address
172.16.0.131
running
t2.micro
ip-172-16-0-131.us-east-2.compute.internal
vpc-07b4517aa83c608e5 (zombo)
subnet-02ce52f8b724c51d2 (zombooiee)
AWS Compute Optimizer
Opt-in to AWS Compute Optimizer for recommendations.
Learn more
Details
Security
Networking
Storage
Monitoring
Tags


Your VPCs (1/2)
Actions
Create VPC
zombo
vpc-07b4517aa83c608e5
Available
172.16.0.0/16
vpc-07b4517aa83c608e5 / zombo
Details
CIDRs
Flow logs
Tags
VPC ID
vpc-07b4517aa83c608e5
State
Available
DNS hostnames
Disabled
DNS resolution
Enabled
Tenancy
Default
DHCP options set
dopt-b7a723dc
Route table
rtb-088777199a50af65c / dora
Network ACL
acl-062a17dd89f865fde
Default VPC
No
IPv4 CIDR
172.16.0.0/16
IPv6 pool
IPv6 CIDR

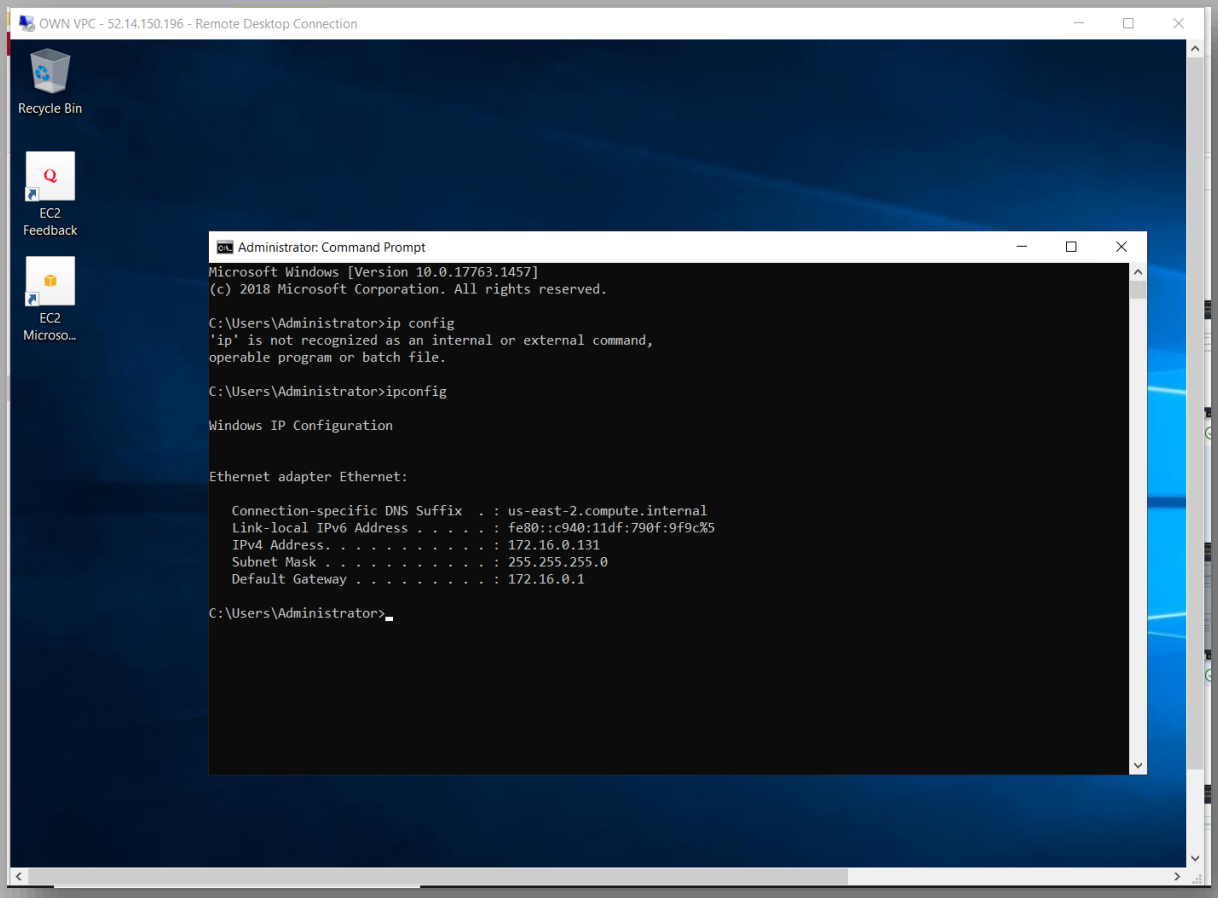
: **igw with vpc associated**



AND FINALLY MAIN SCREEN OUTPUT OUR OWN VPC

Task 6:Check ipconfig in VM command prompt-cmd prompt:ipconfig


OWN VPC - 52.14.150.196 - Remote Desktop Connection
Recycle Bin
EC2 Feedback
EC2 Microso...
Hostname: EC2AMAZ-4NLIKBB
Instance ID: i-0f3242b61579d6736
Public IP Address: 52.14.150.196
Private IP Address: 172.16.0.131
Instance Size: t2.micro
Availability Zone: us-east-2a
Architecture: AMD64
Total Memory: 1024 MB
Network Performance: Low to Moderat


OWN VPC - 52.14.150.196 - Remote Desktop Connection
Recycle Bin
EC2 Feedback
EC2 Microso...
Administrator: Command Prompt
Microsoft Windows [Version 10.0.17763.1457]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\Administrator>ip config
'ip' is not recognized as an internal or external command,
operable program or batch file.
C:\Users\Administrator>ipconfig
Windows IP Configuration
Ethernet adapter Ethernet:
Connection-specific DNS Suffix . : us-east-2.compute.internal
Link-local IPv6 Address . . . . . : fe80::c940:11df:790f:9f9c%5
IPv4 Address. . . . . : 172.16.0.131
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.16.0.1
C:\Users\Administrator>

PROJECT 1:

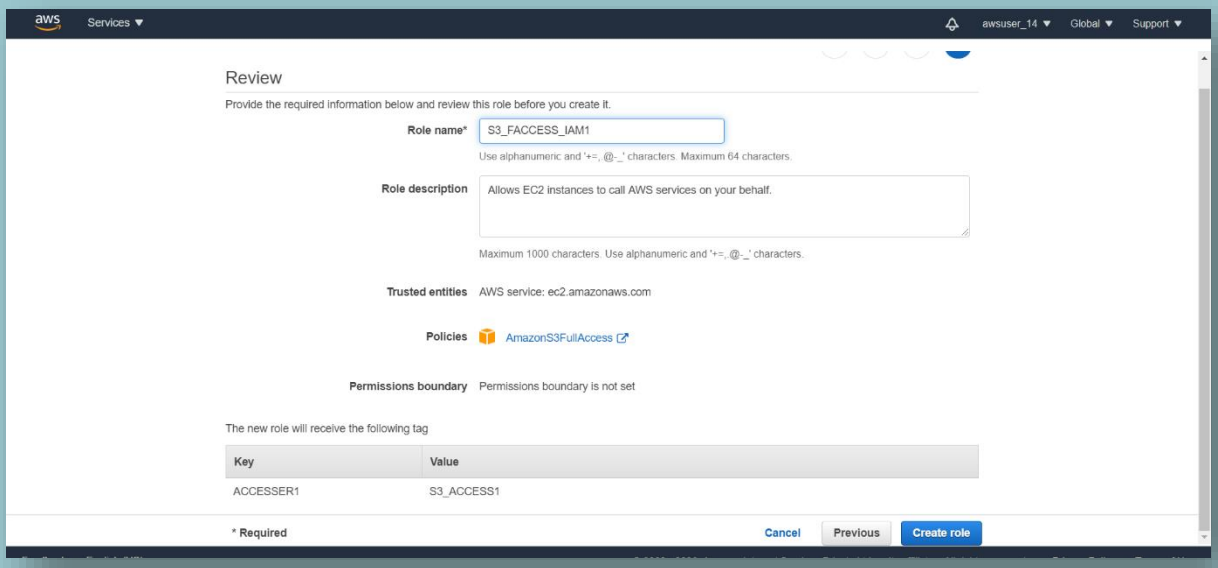
- Working with IAM Roles with S3 and bootstrapping with EC2

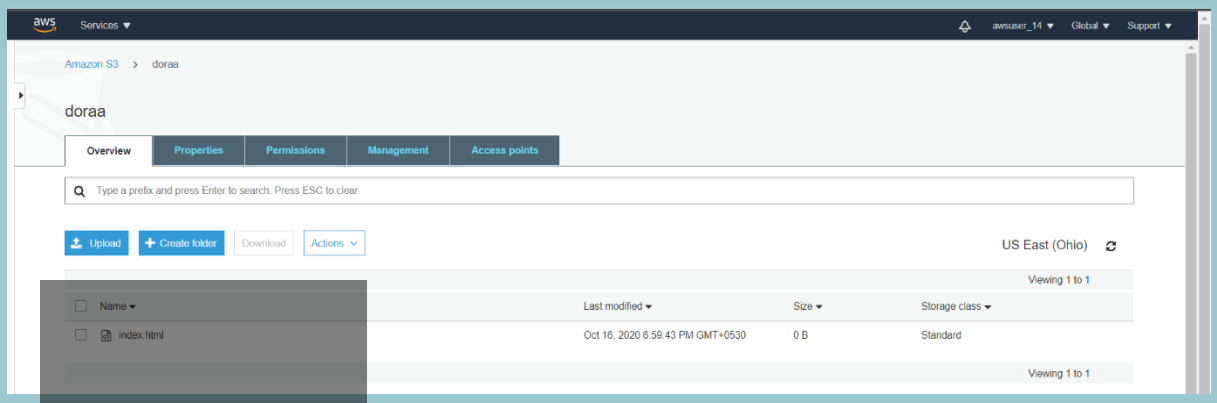
Task 3:Hosting a webpage using the bootstrap script on ec2.

Create an IAM role(instance name demo3)

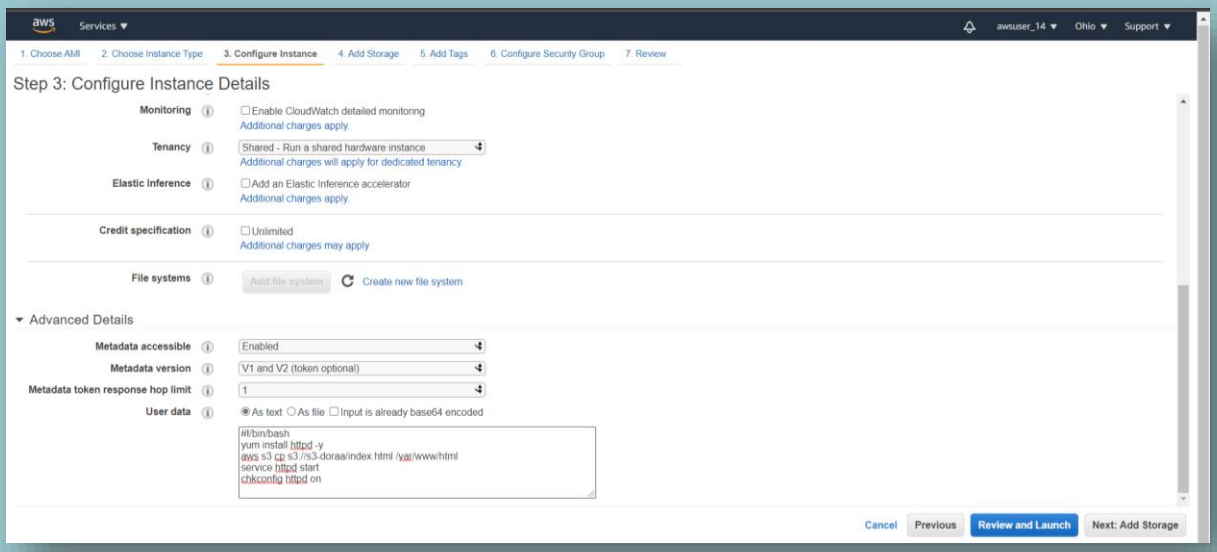
Create a bucket and upload index.html(In index.html - Welcome to my webpage)

Create a Linux instance with the above role and use this bootstrap script.

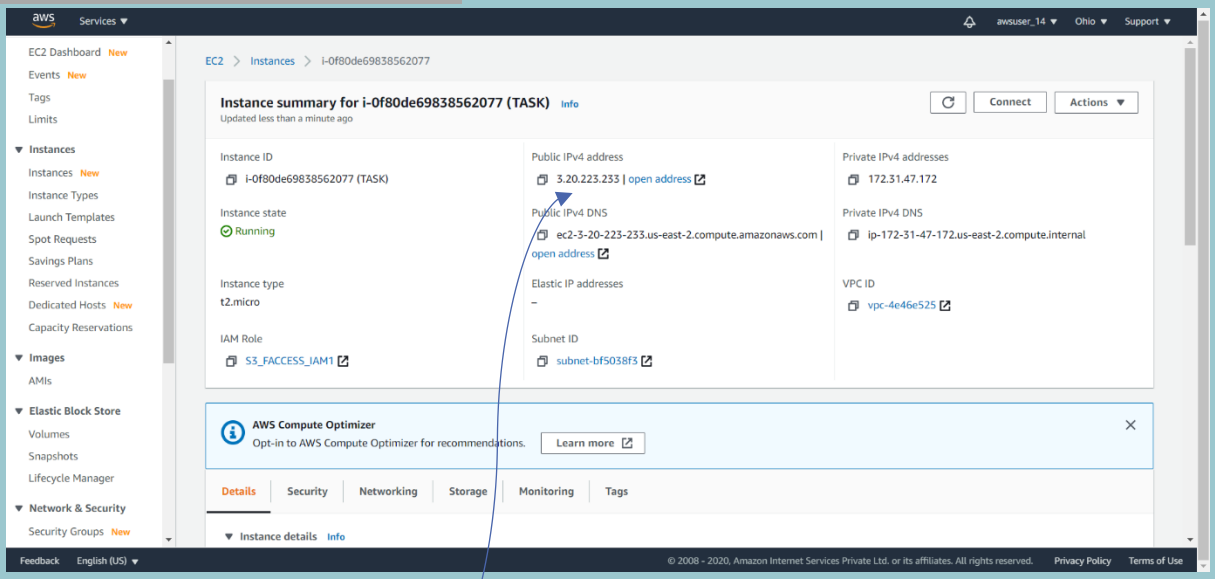




- **Initialize the IAM role & then put a script in USER DATA section.**



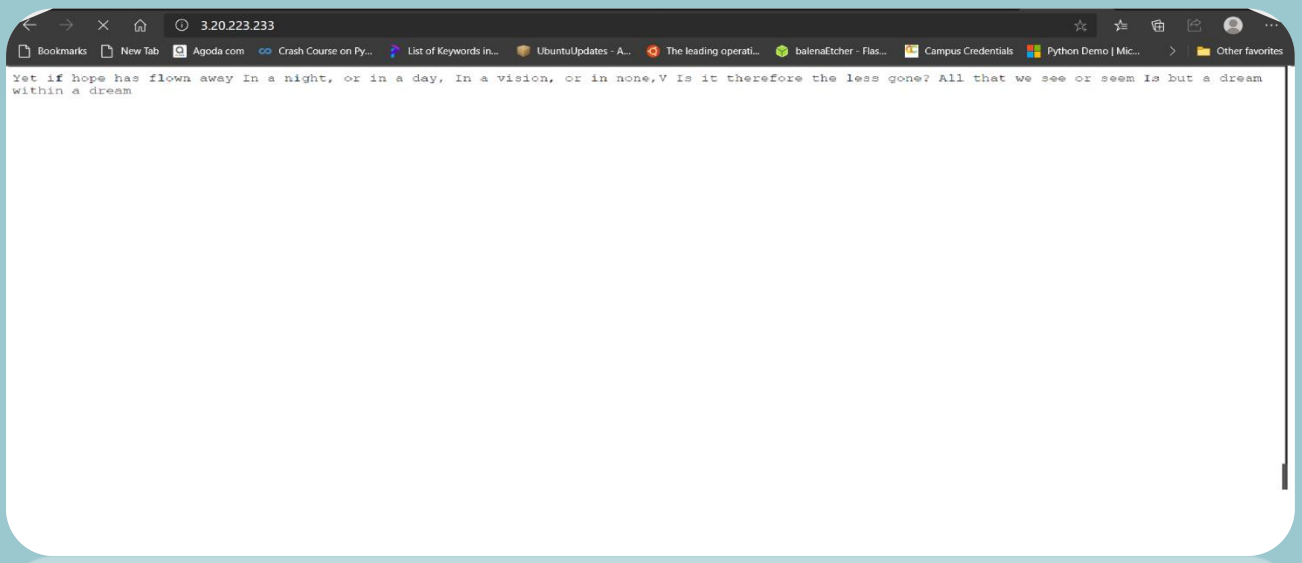
- **Launched an instance.**



Then connecting,

✓ **Copying public address**

❖ Output-


3.20.223.233
Bookmarks
New Tab
Agoda.com
Crash Course on Py...
List of Keywords in...
UbuntuUpdates - A...
The leading operati...
balenaEtcher - Flas...
Campus Credentials
Python Demo | Mic...
Other favorites
Yet if hope has flown away In a night, or in a day, In a vision, or in none,V Is it therefore the less gone? All that we see or seem Is but a dream within a dream