3. VPC Configuration Lab:

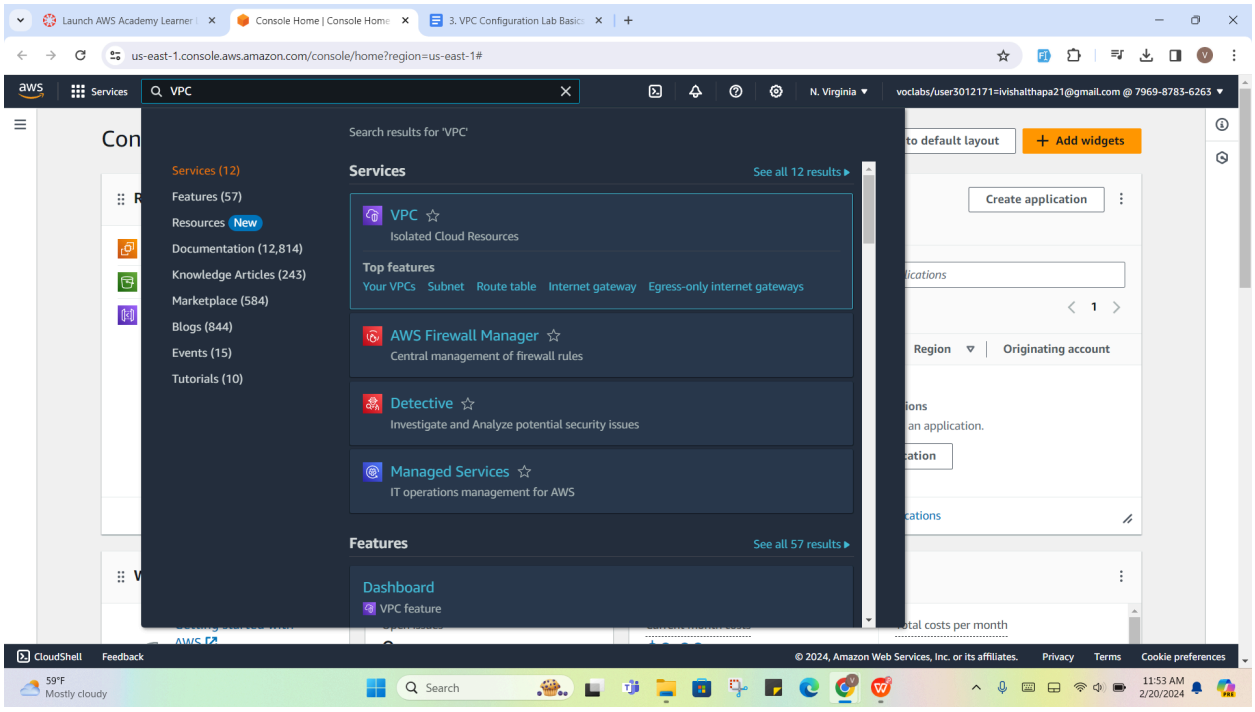
Objective:

The objective of this lab is to understand the fundamentals of AWS networking through the configuration of a Virtual Private Cloud(VPC).

Steps involved:

I. Navigate to the VPC Dashboard:

a. Navigate to VPC Dashboard



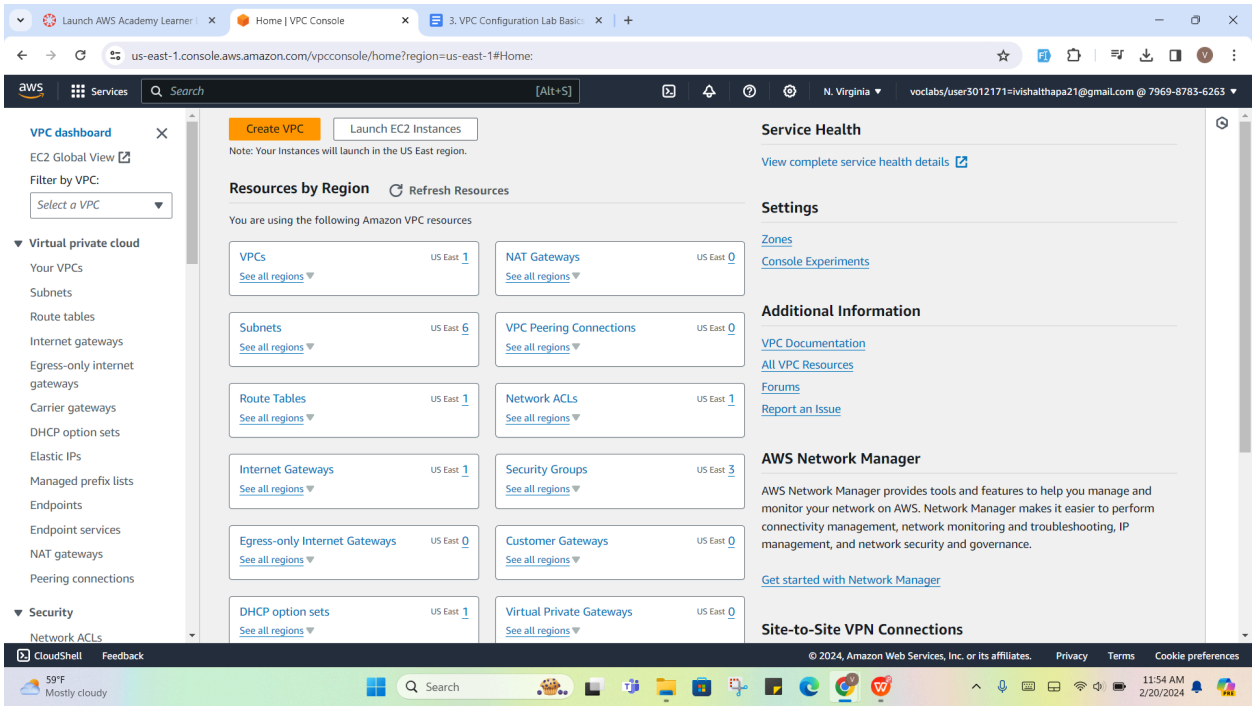
II. Create a new VPC:

a. Click on the “Create VPC” button.

b. Enter a name for our VPC and provide a CIDR block for the VPC. Example: “10.0.0.0/16”

c. We can keep other settings as default or customize as our requirements.

d. Click on the “Create” button to create the VPC.


Launch AWS Academy Learner
Home | VPC Console
3. VPC Configuration Lab Basics
us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#Home:
Services
Search
[Alt+S]
N. Virginia
voclabs/user3012171=ivishalthapa21@gmail.com @ 7969-8783-6263
VPC dashboard
EC2 Global View
Filter by VPC:
Select a 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
Peering connections
Security
Network ACLs
Create VPC
Launch EC2 Instances
Note: Your Instances will launch in the US East region.
Resources by Region
Refresh Resources
You are using the following Amazon VPC resources
VPCs US East 1
NAT Gateways US East 0
Subnets US East 6
VPC Peering Connections US East 0
Route Tables US East 1
Network ACLs US East 1
Internet Gateways US East 1
Security Groups US East 3
Egress-only Internet Gateways US East 0
Customer Gateways US East 0
DHCP option sets US East 1
Virtual Private Gateways US East 0
See all regions
Service Health
View complete service health details
Settings
Zones
Console Experiments
Additional Information
VPC Documentation
All VPC Resources
Forums
Report an Issue
AWS Network Manager
AWS Network Manager provides tools and features to help you manage and monitor your network on AWS. Network Manager makes it easier to perform connectivity management, network monitoring and troubleshooting, IP management, and network security and governance.
Get started with Network Manager
Site-to-Site VPN Connections
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
59°F
Mostly cloudy
Search
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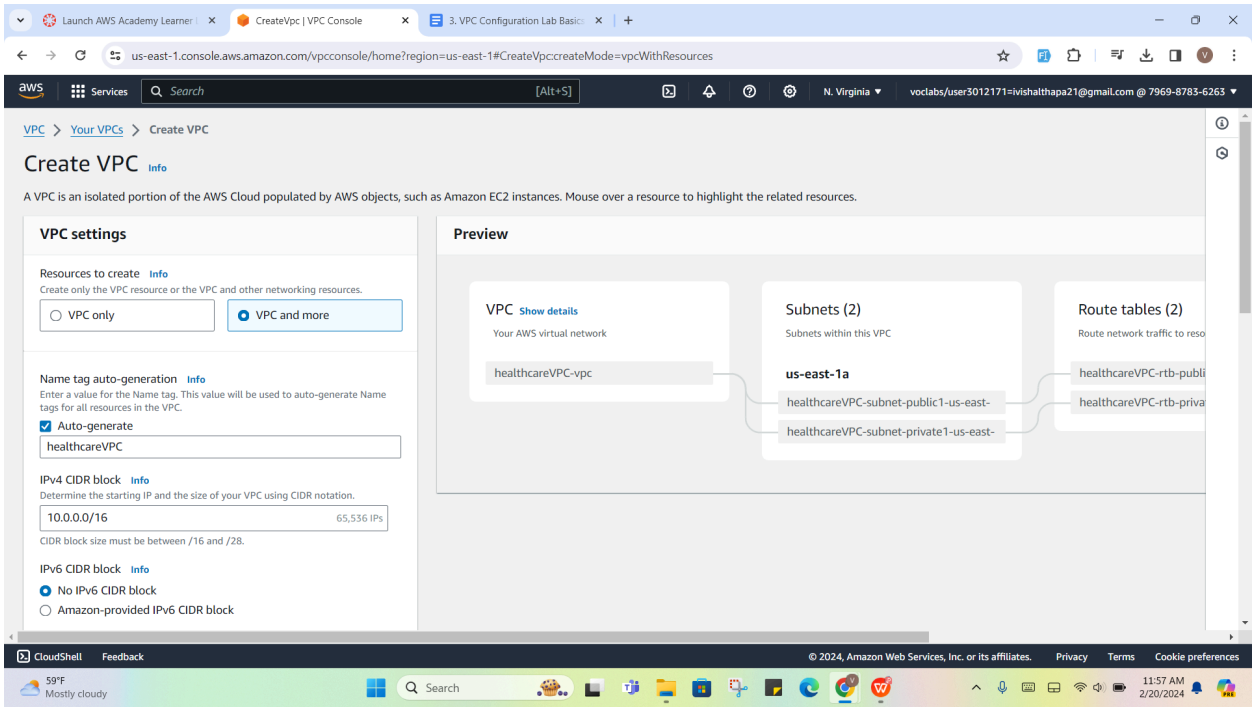
Launch AWS Academy Learner
CreateVpc | VPC Console
3. VPC Configuration Lab Basics
us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#CreateVpc:createMode=vpcWithResources
Services
Search
[Alt+S]
N. Virginia
voclabs/user3012171=ivishalthapa21@gmail.com @ 7969-8783-6263
VPC > Your VPCs > Create VPC
Create VPC Info
A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances. Mouse over a resource to highlight the related resources.
VPC settings
Resources to create Info
Create only the VPC resource or the VPC and other networking resources.
VPC only
VPC and more
Name tag auto-generation Info
Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.
Auto-generate
healthcareVPC
IPv4 CIDR block Info
Determine the starting IP and the size of your VPC using CIDR notation.
10.0.0.0/16
65,536 IPs
CIDR block size must be between /16 and /28.
IPv6 CIDR block Info
No IPv6 CIDR block
Amazon-provided IPv6 CIDR block
Preview
VPC Show details
Your AWS virtual network
healthcareVPC-vpc
Subnets (2)
Subnets within this VPC
us-east-1a
healthcareVPC-subnet-public1-us-east-
healthcareVPC-subnet-private1-us-east-
Route tables (2)
Route network traffic to reso
healthcareVPC-rtb-publi
healthcareVPC-rtb-priva
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
59°F
Mostly cloudy
Search
11:57 AM
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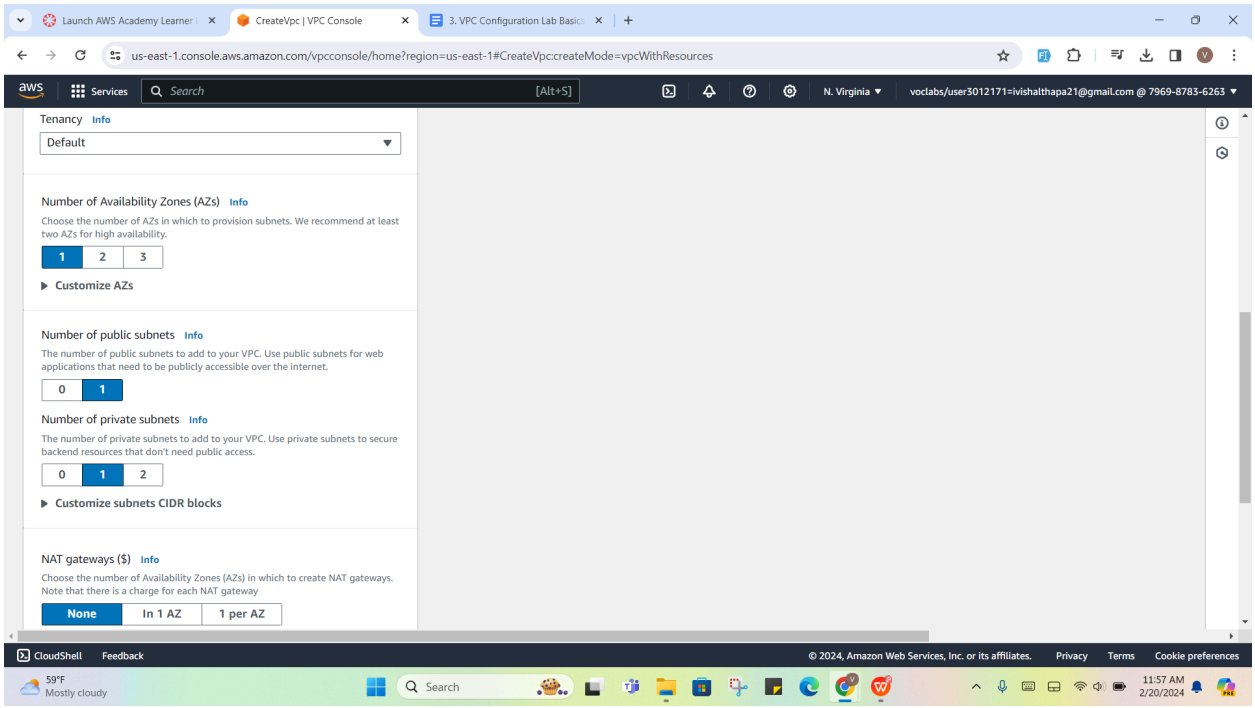
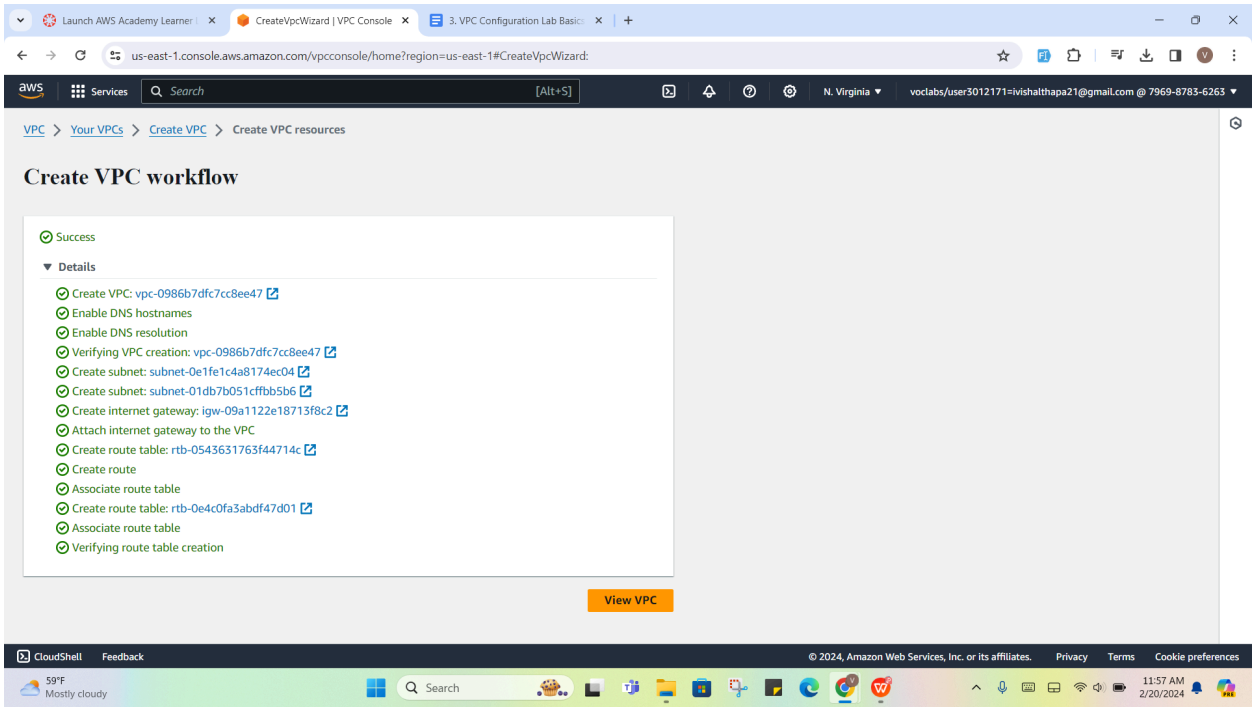


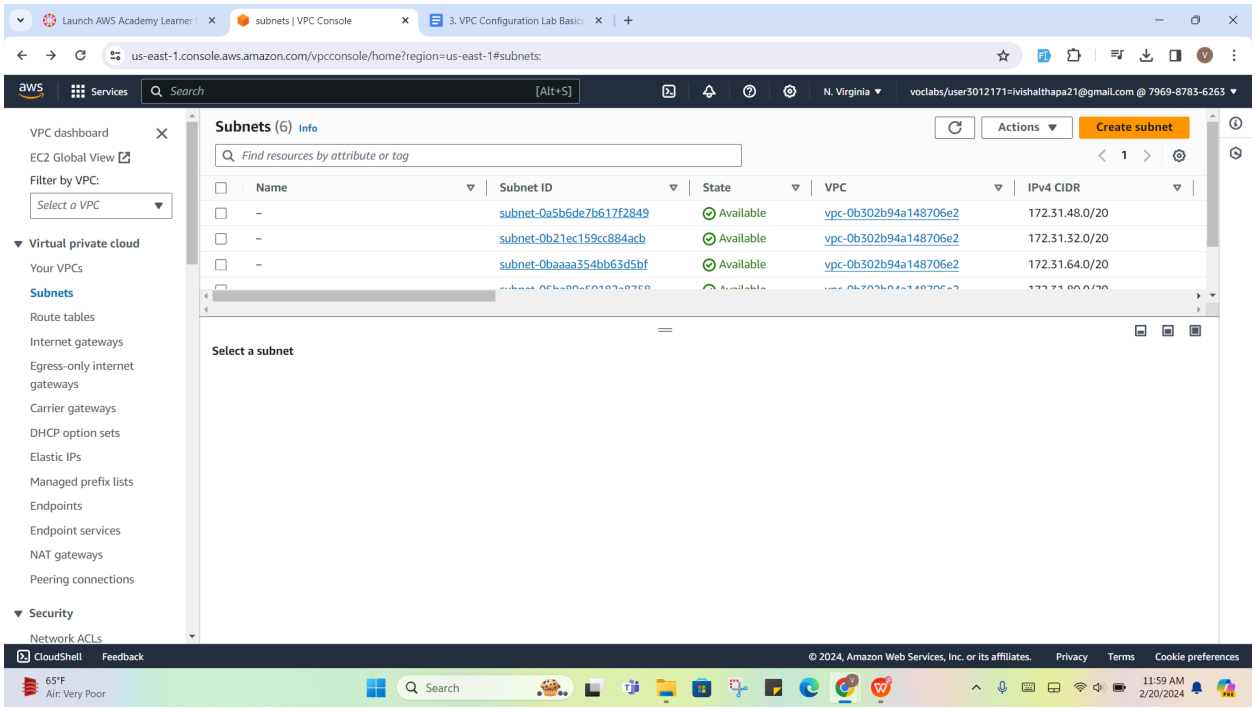


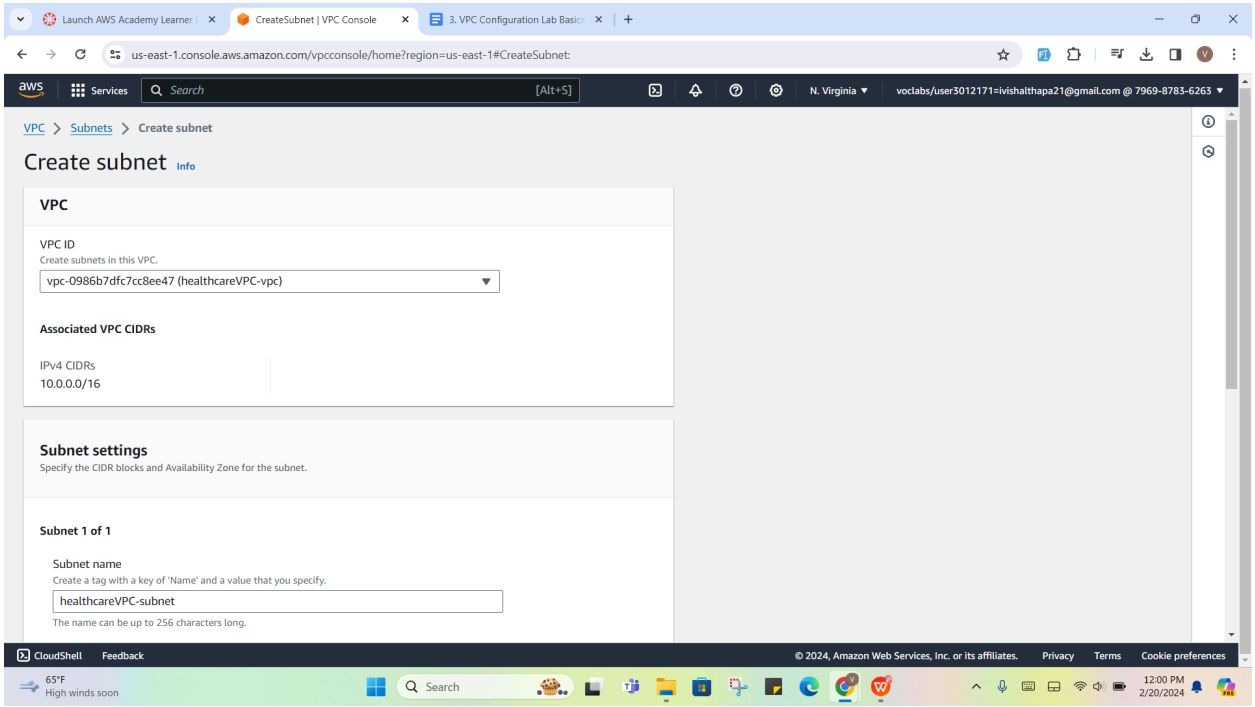
III. Add Subnets:

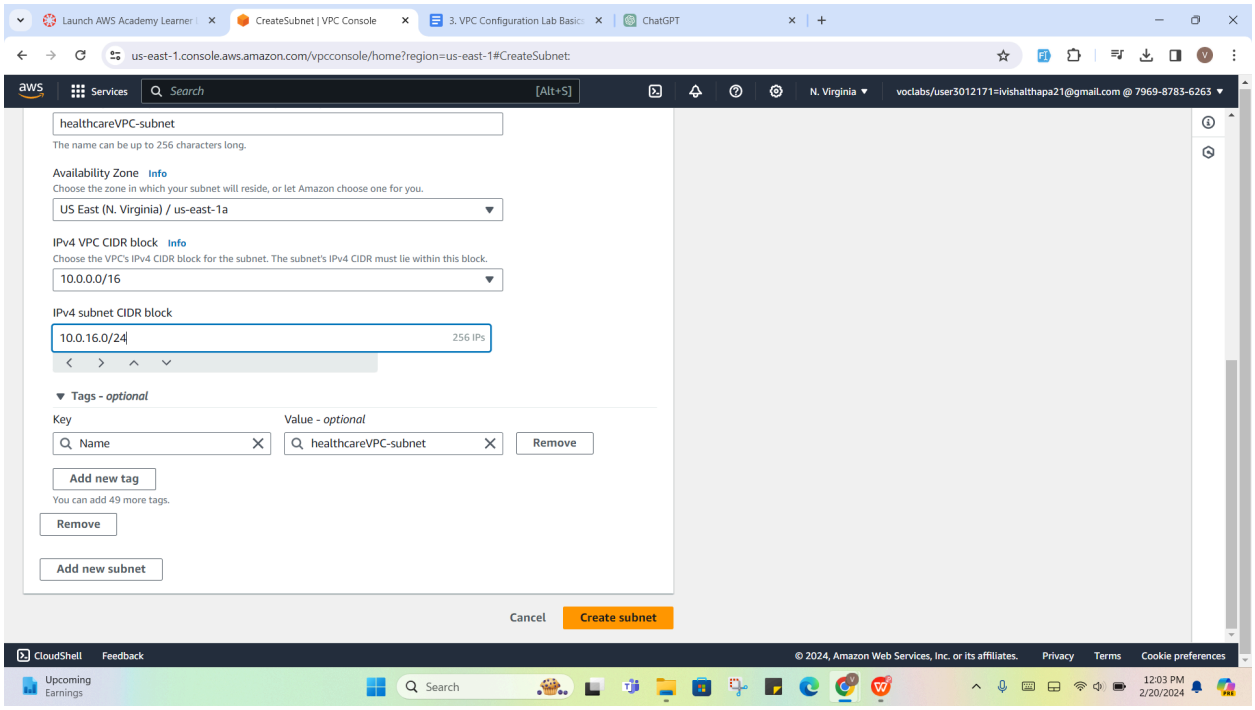
a. After creating VPC, navigate to the “Subnets” section

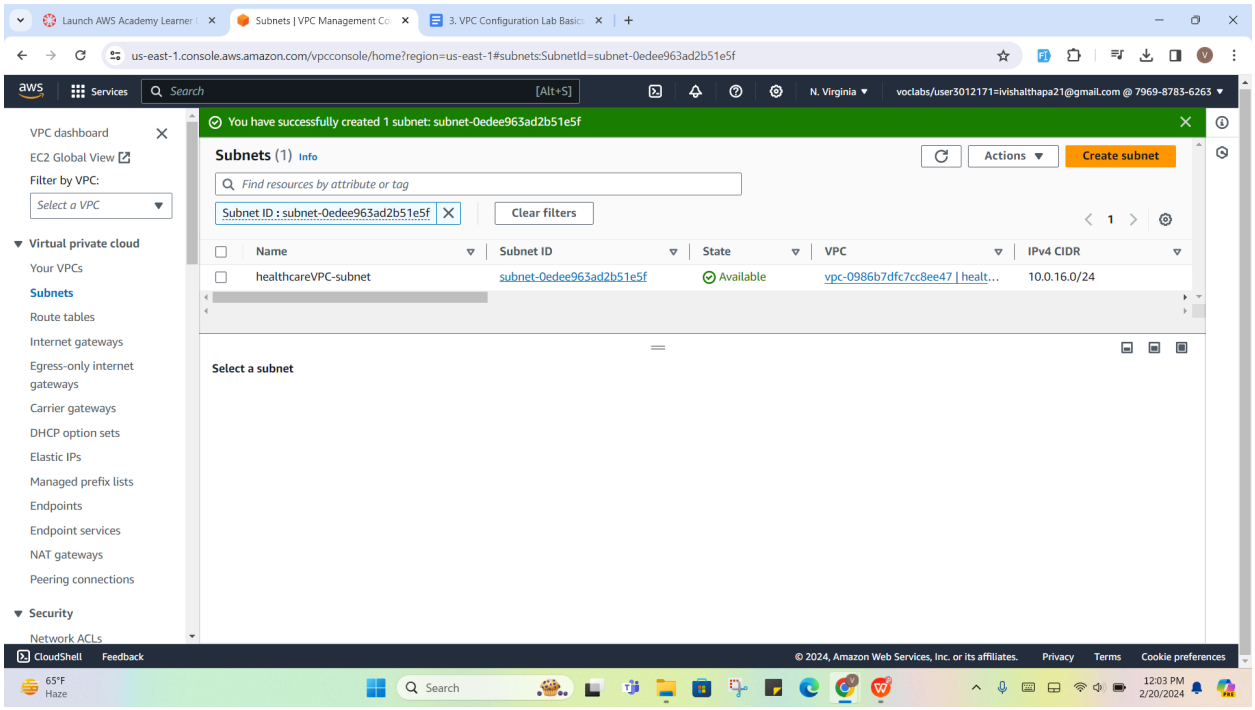
b. Click on “Create Subnet” button

c. Enter a name for the subnet and select the VPC we created earlier.
d. Provide a CIDR block for the subnet. For example: “10.0.1.0/24”
e. Click on the “Create” button to create the subnet.







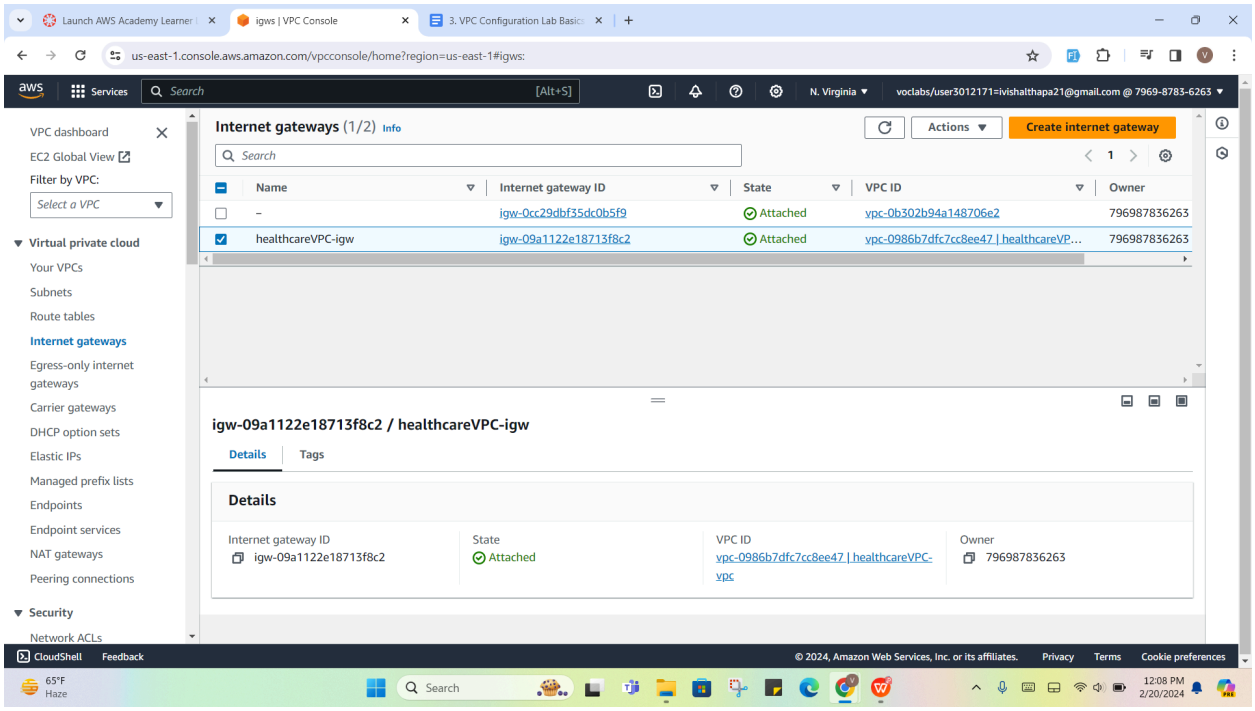


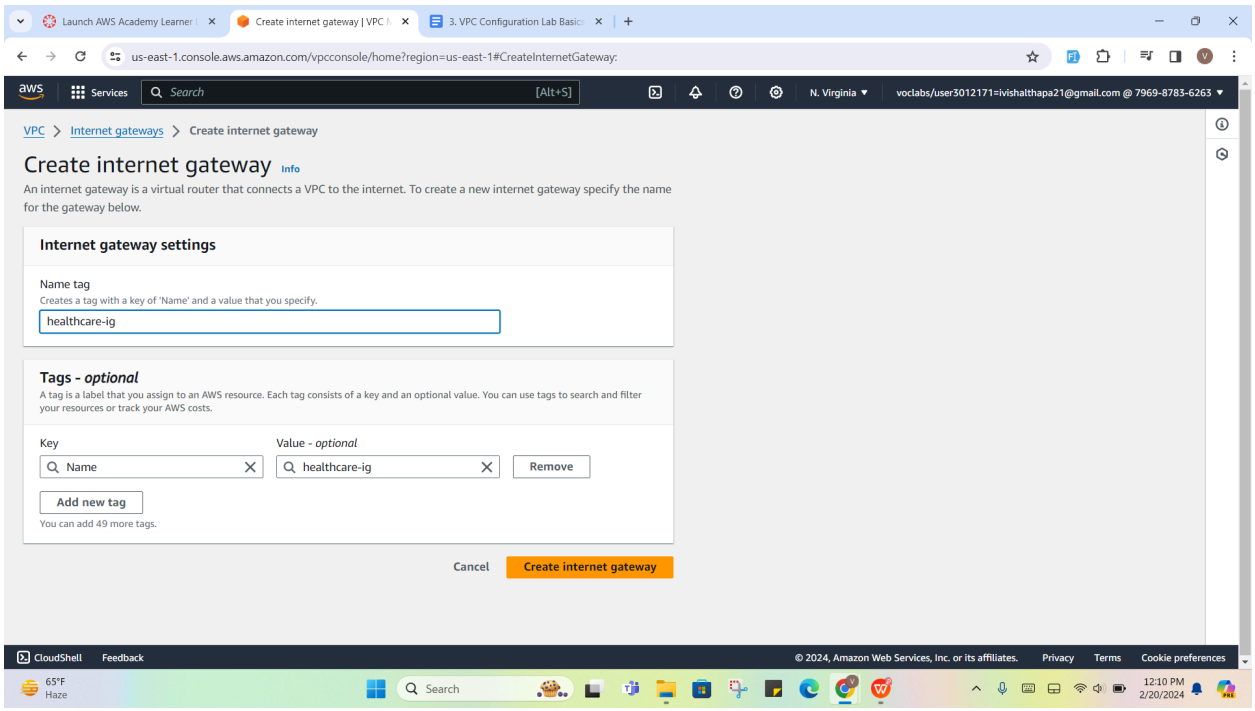
IV. Set up an Internet Gateway(IG):

a. Navigate to the “Internet Gateways” section

b. Click on the “Create Internet Gateway” button.

c. Enter a name for the internet gateway and click on the “Create” button.
d. Once the IG is created, select it and attach it to our VPC.





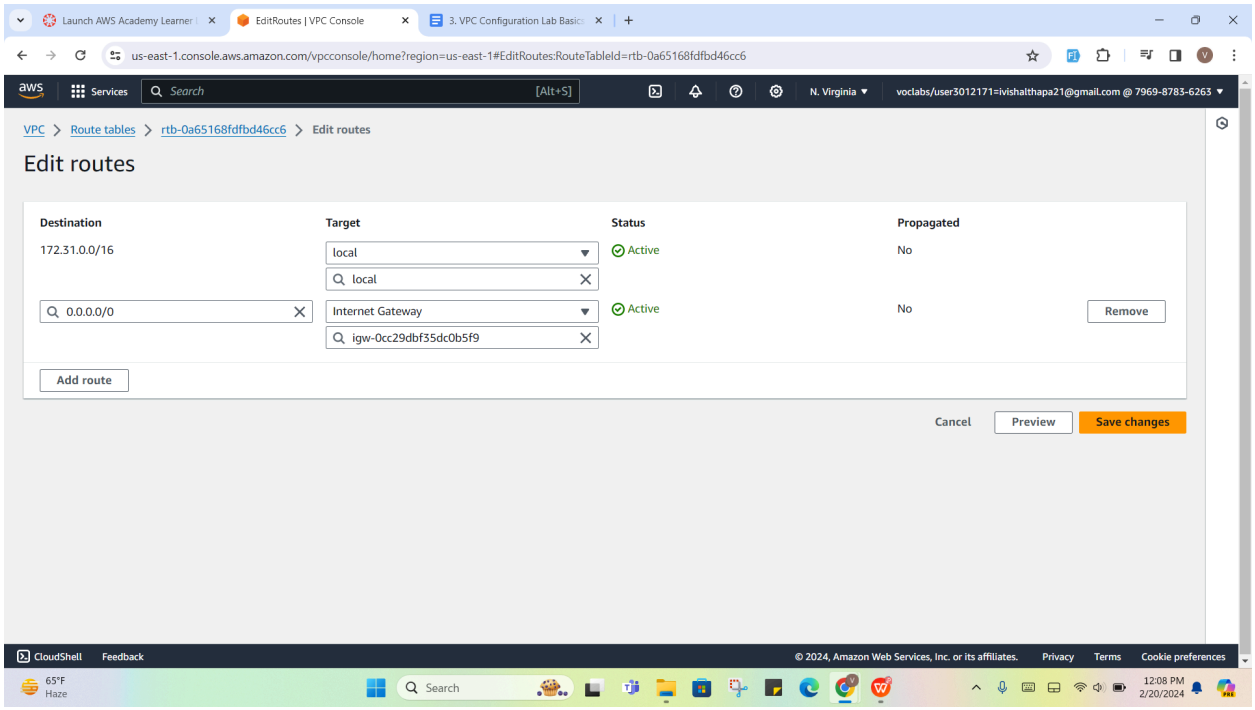
V. Configure Route Tables:

a. Go to the “Route Table” section
b. Select the default route table associated with our VPC.

c. Click on the “Edit routes” button

d. Add a new route with destination “0.0.0.0/0” and target the IG that we created earlier.

e. Save the changes.



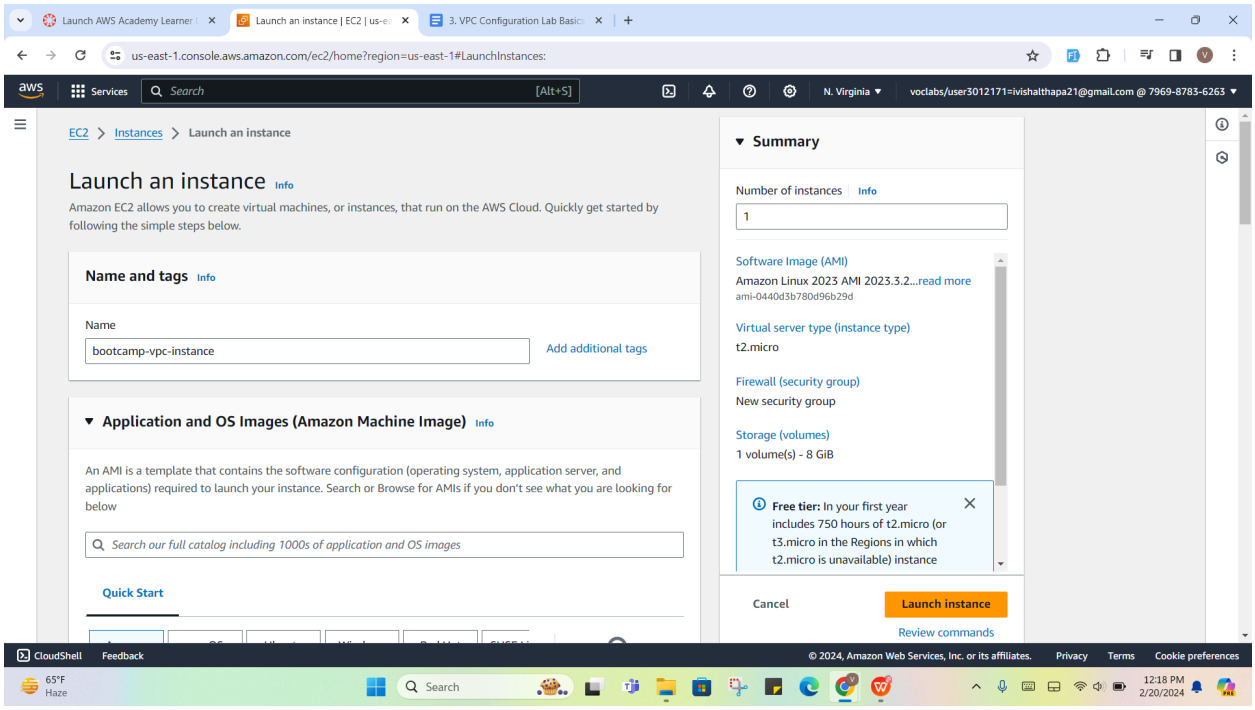
VI. Set up an EC2 instance:

a. Navigate to the EC2 dashboard

b. Launch a new EC2 instance and select the VPC and subnet we created earlier during the instance setup process.

c. Complete the instance launch process by selecting an AMI, instance type, and other configurations.

d. Once the instance is launched, we can connect to it and verify its network connectivity.



VII. Verify Configuration:

a. After completing the above steps, we can verify by testing network connectivity from within the VPC, using (ping) external IP addresses from an EC2 instance within the VPC.

Using the above steps, we have successfully configured a VPC, added subnets, set up an internet gateway and configured route tables in AWS.