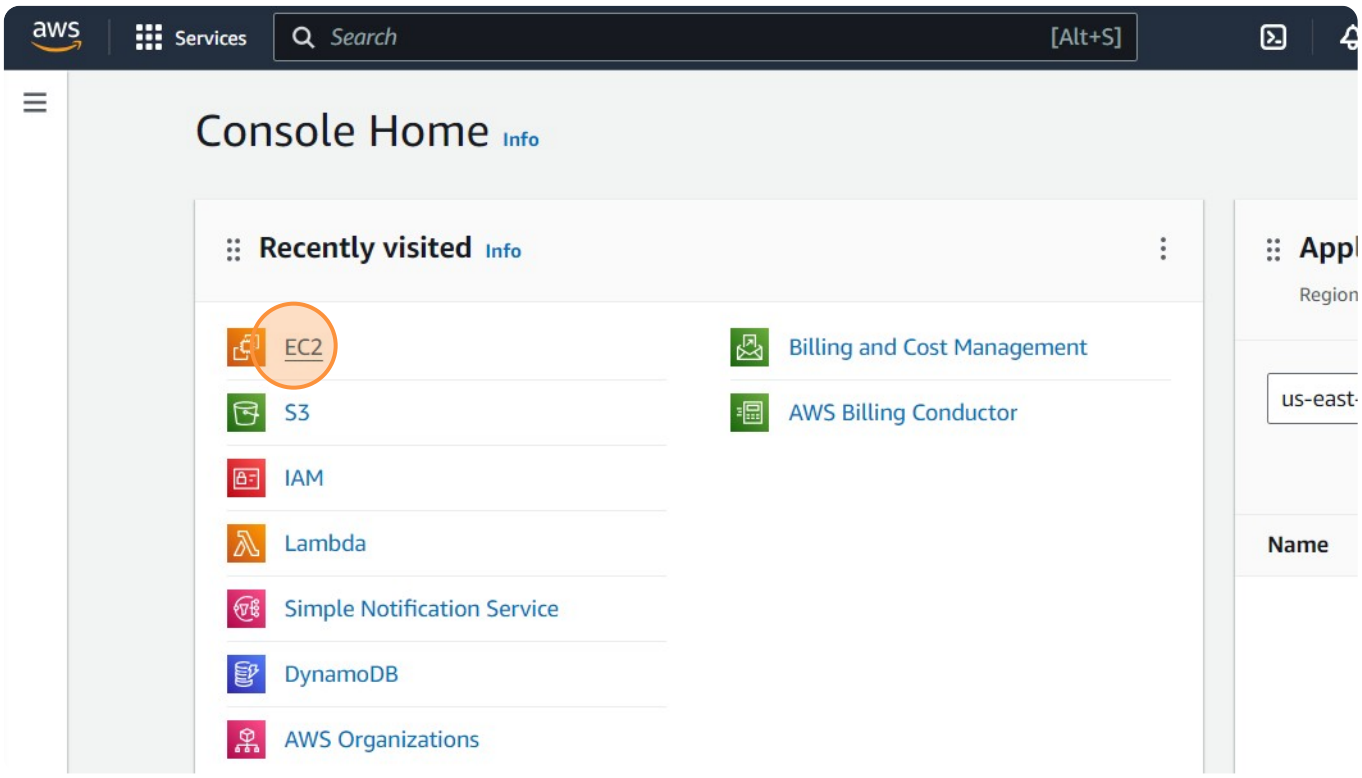
Basic Labs

EC2 Basic Lab

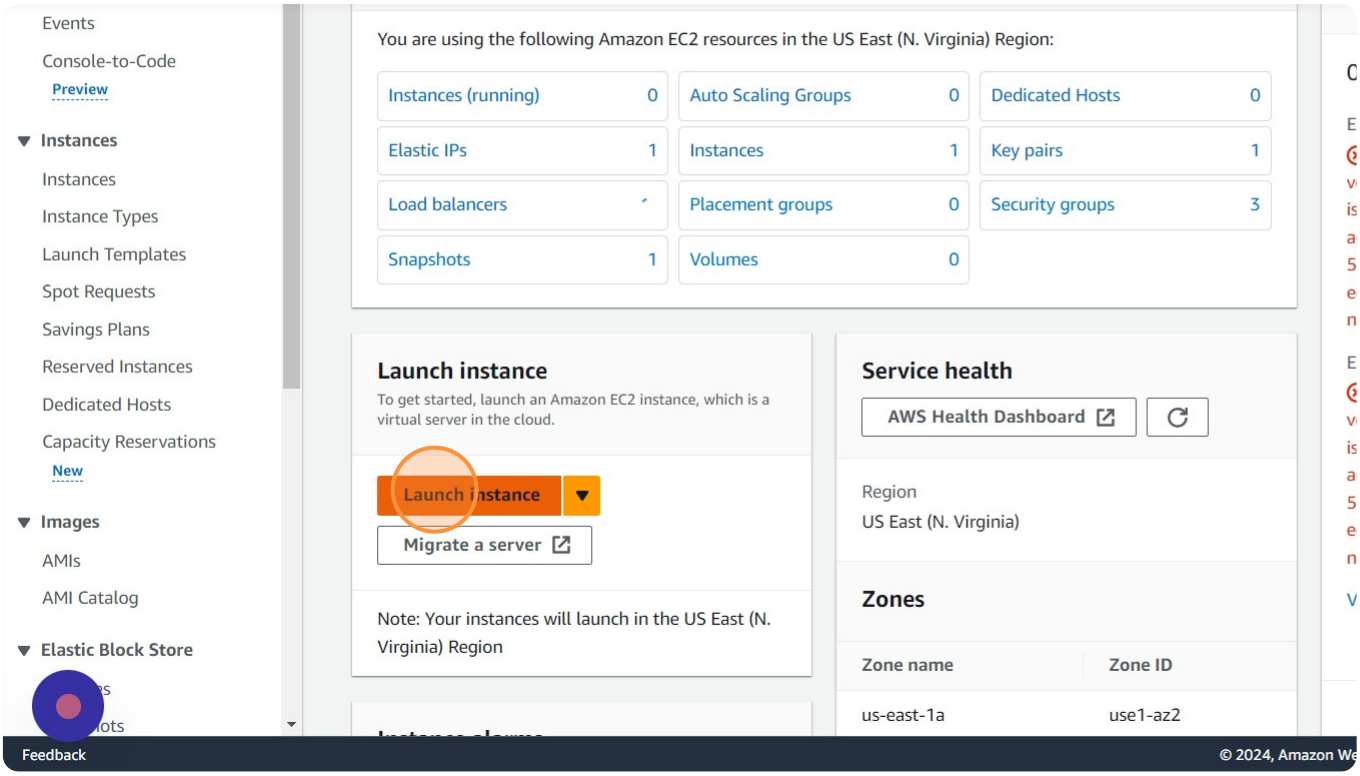
Launching a new EC2 instance

1 Navigate to AWS Management Console.

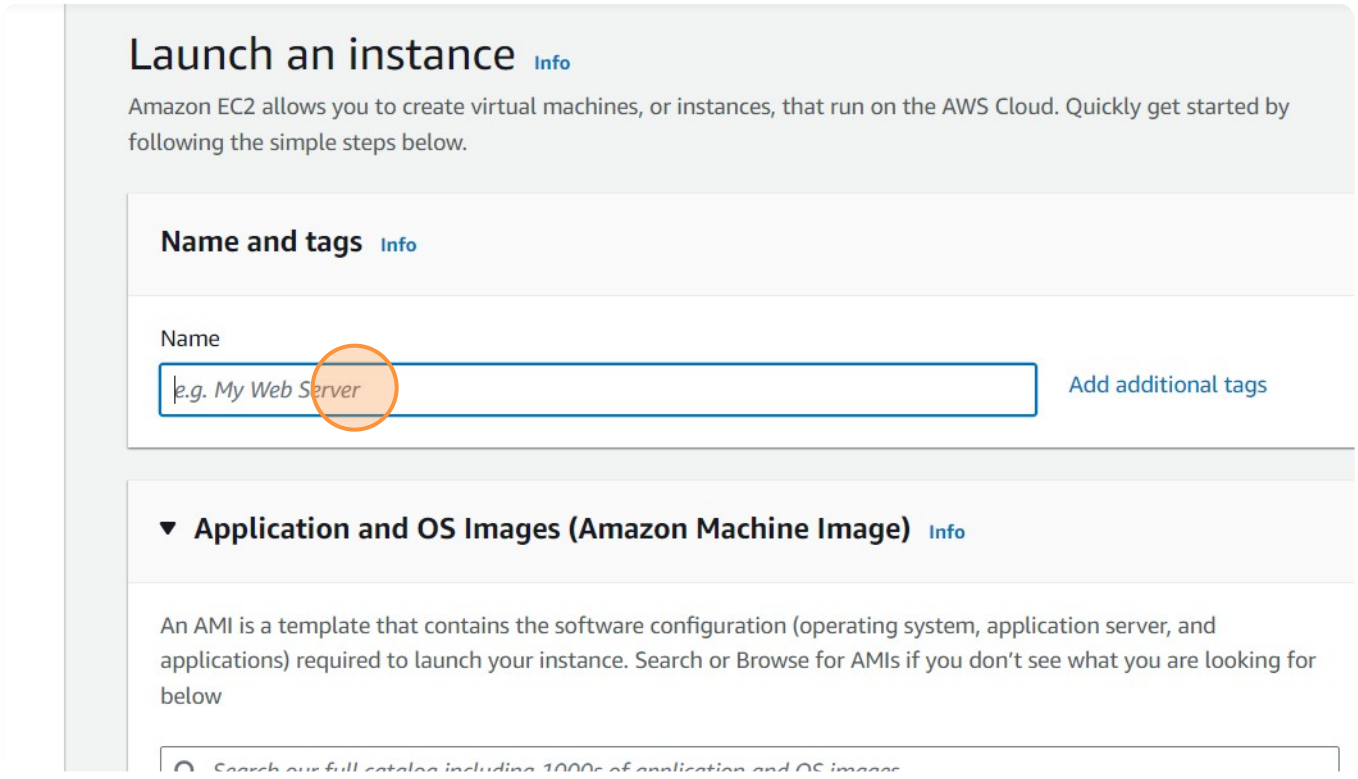
2 Navigate to EC2 Service.



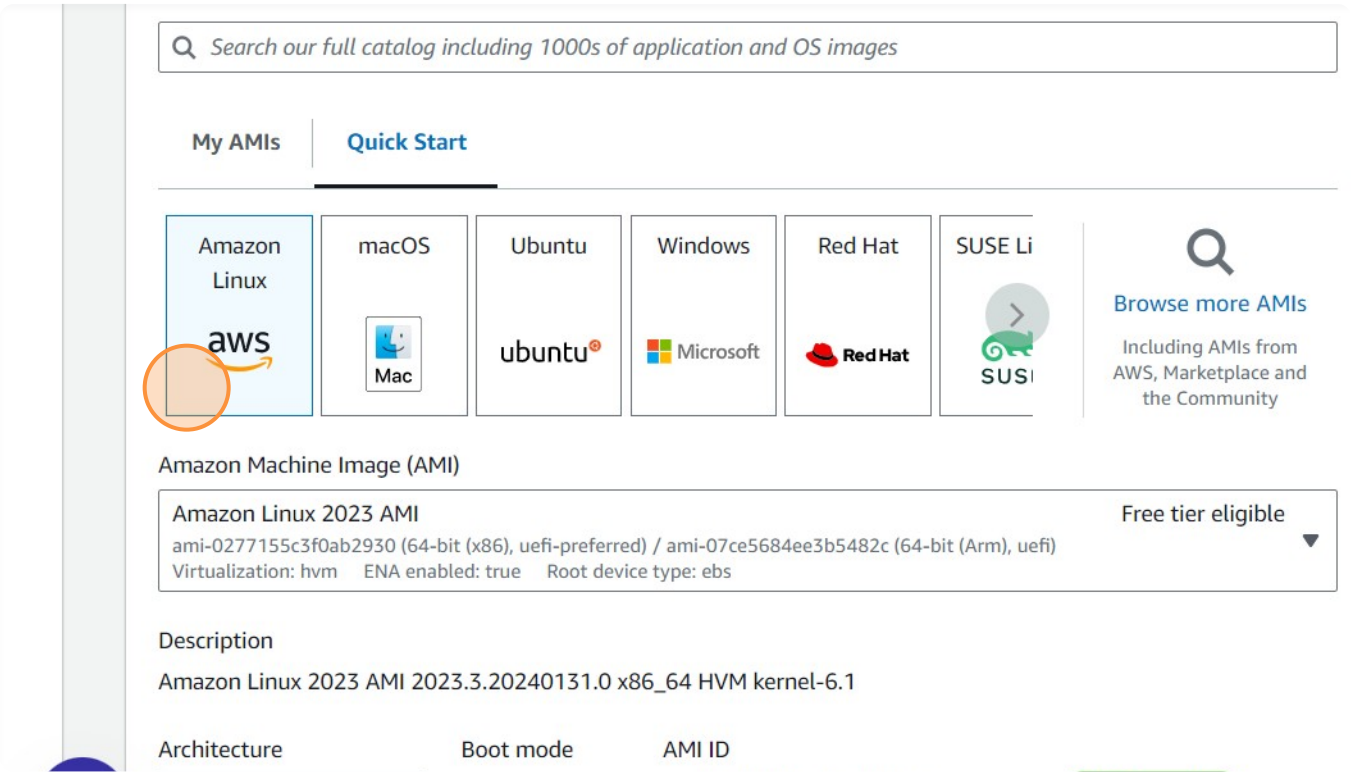
3 Click "Launch instance"



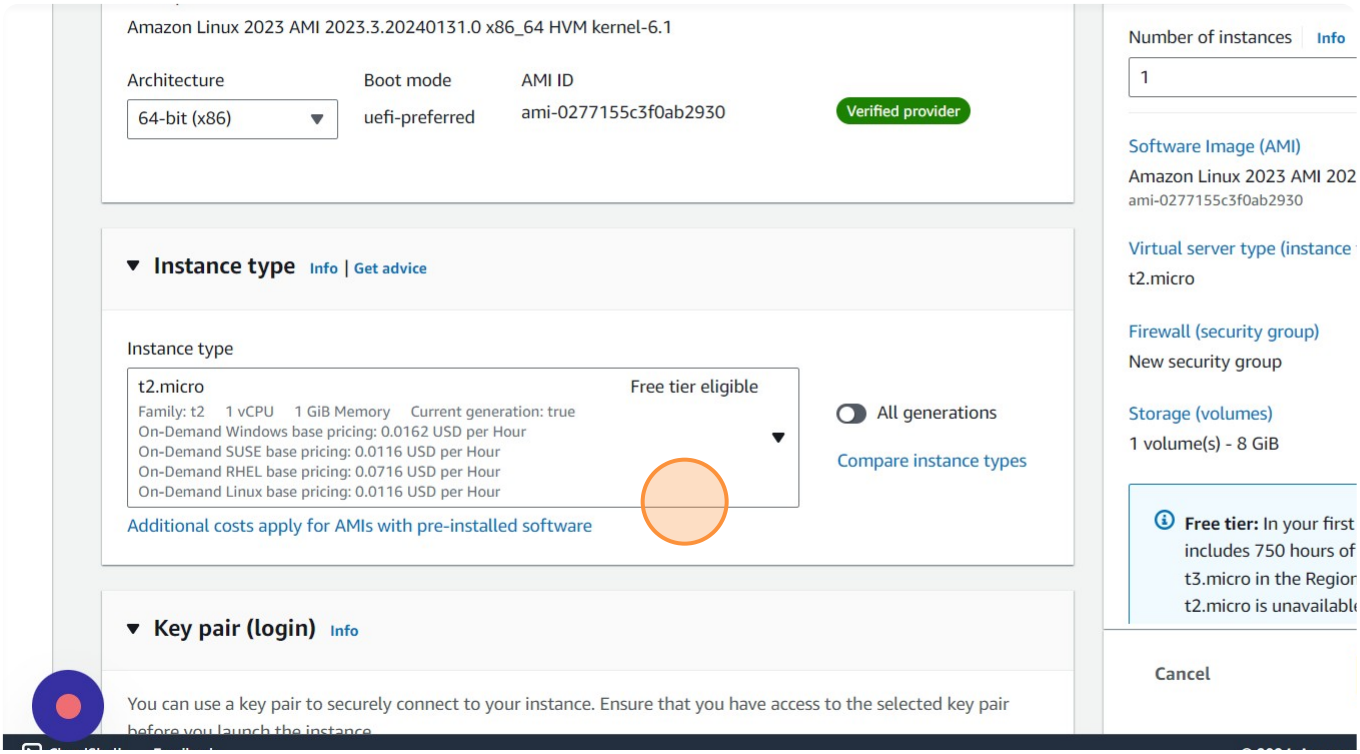
4 Enter name of instance to be created.



5 Select an Amazon Machine Image (AMI) based on the requirements.

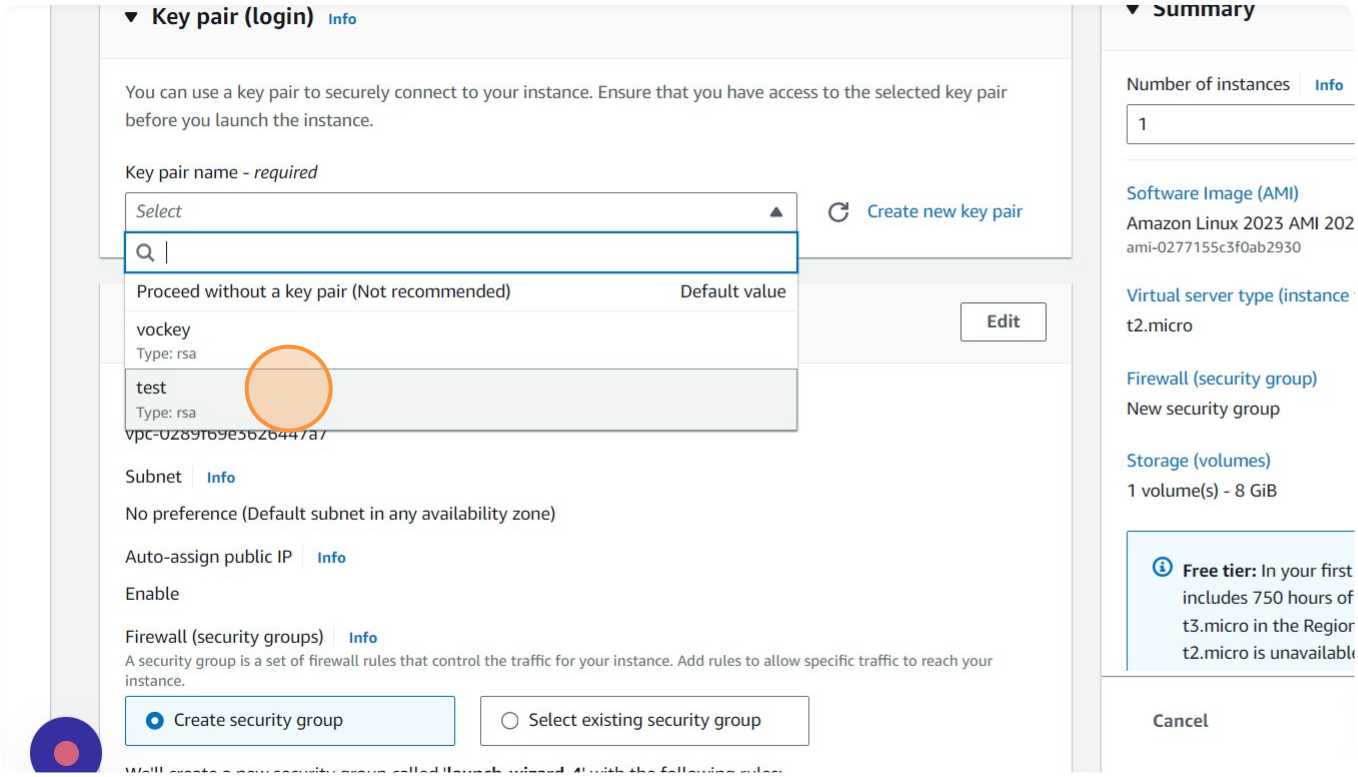


6 Select an instance type that meets the needs of your application. I selected t2.micro.

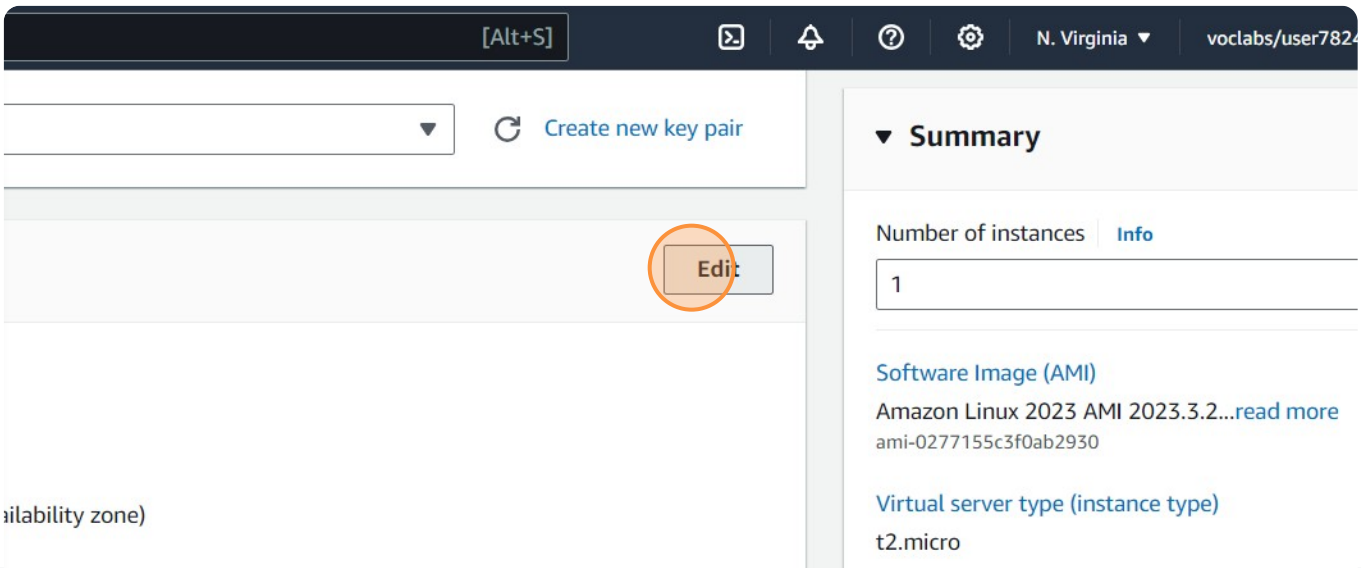


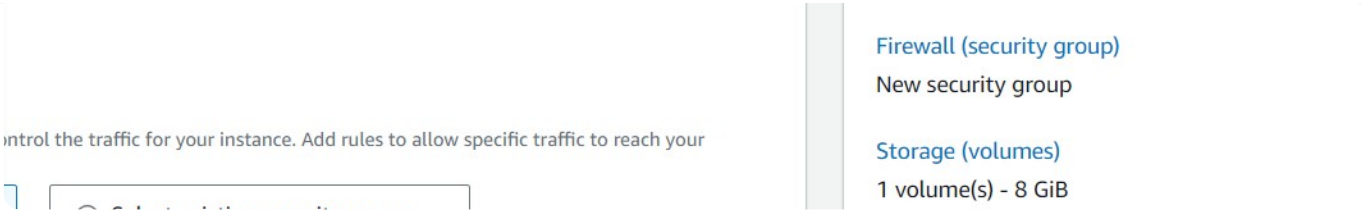
7 Select an existing key pair or create a new key pair. I selected an existing key pair "test" that I already created.

Key pair is used to securely connect to the instance.

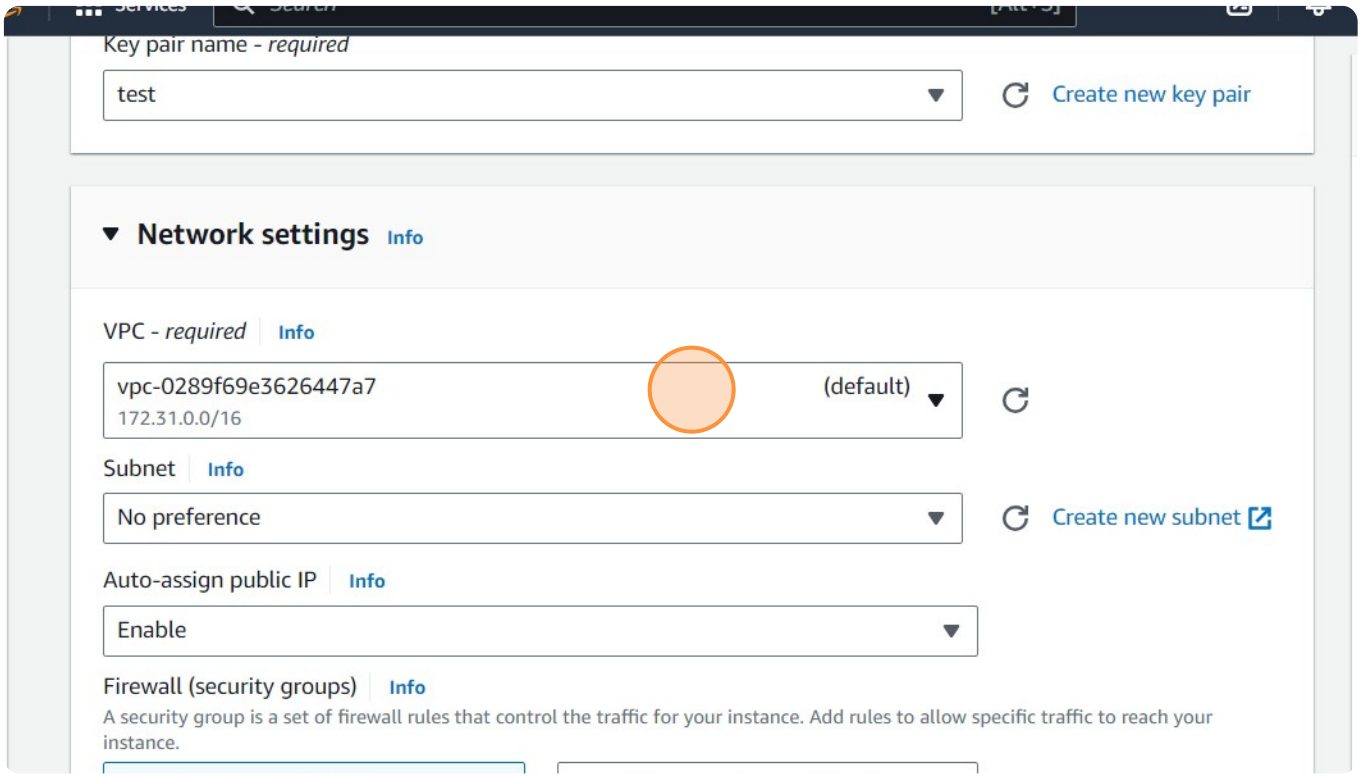


8 Click "Edit" on the right of Network settings to configure security group.

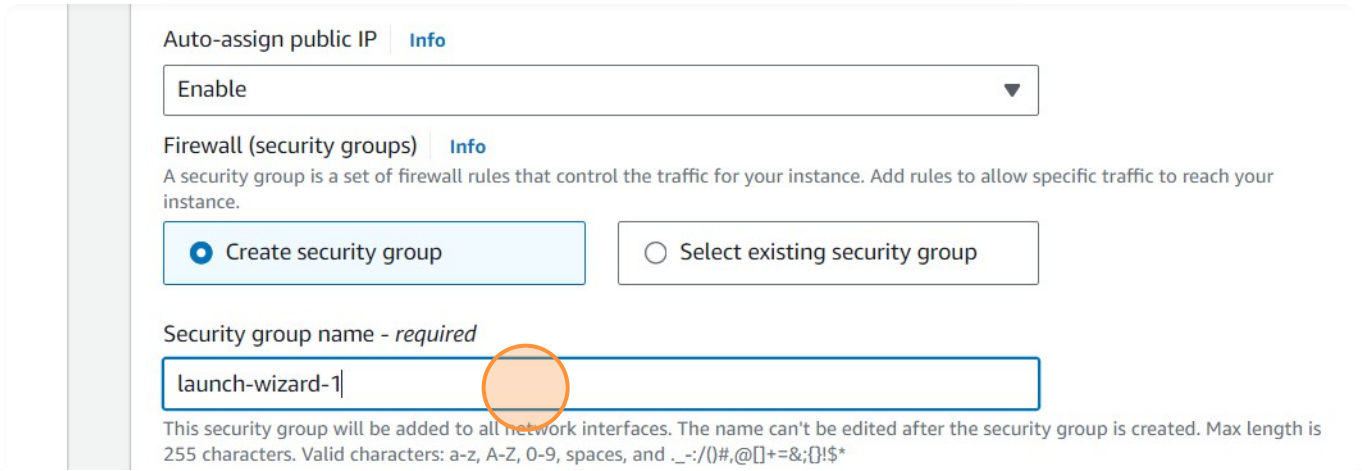




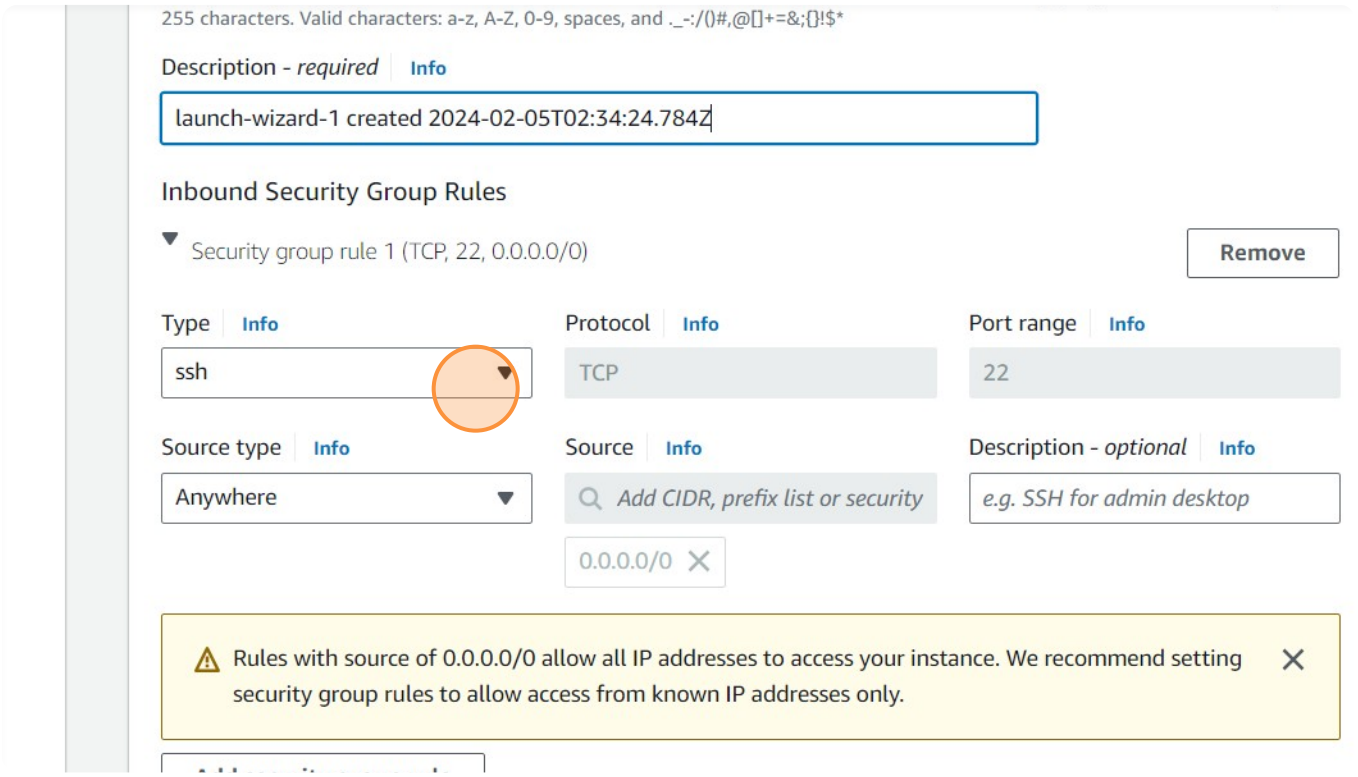
9 A VPC must be selected. I selected default VPC.



10 Now, we must create security group or select an existing security group. For creating security group, we must give it a name and description.

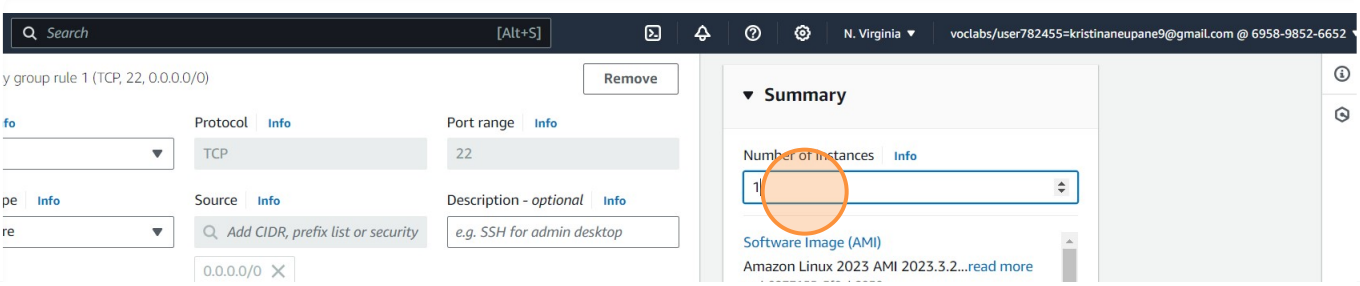


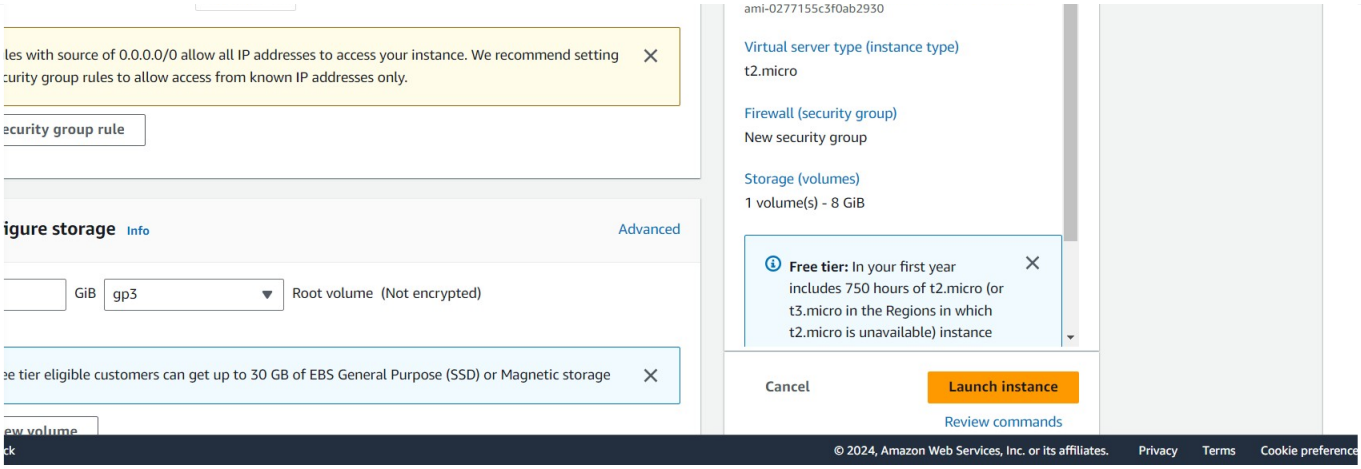
11 Now, we must specify inbound security group rules to allow necessary traffic. Here, SSH is selected so that we can connect to the instance later.



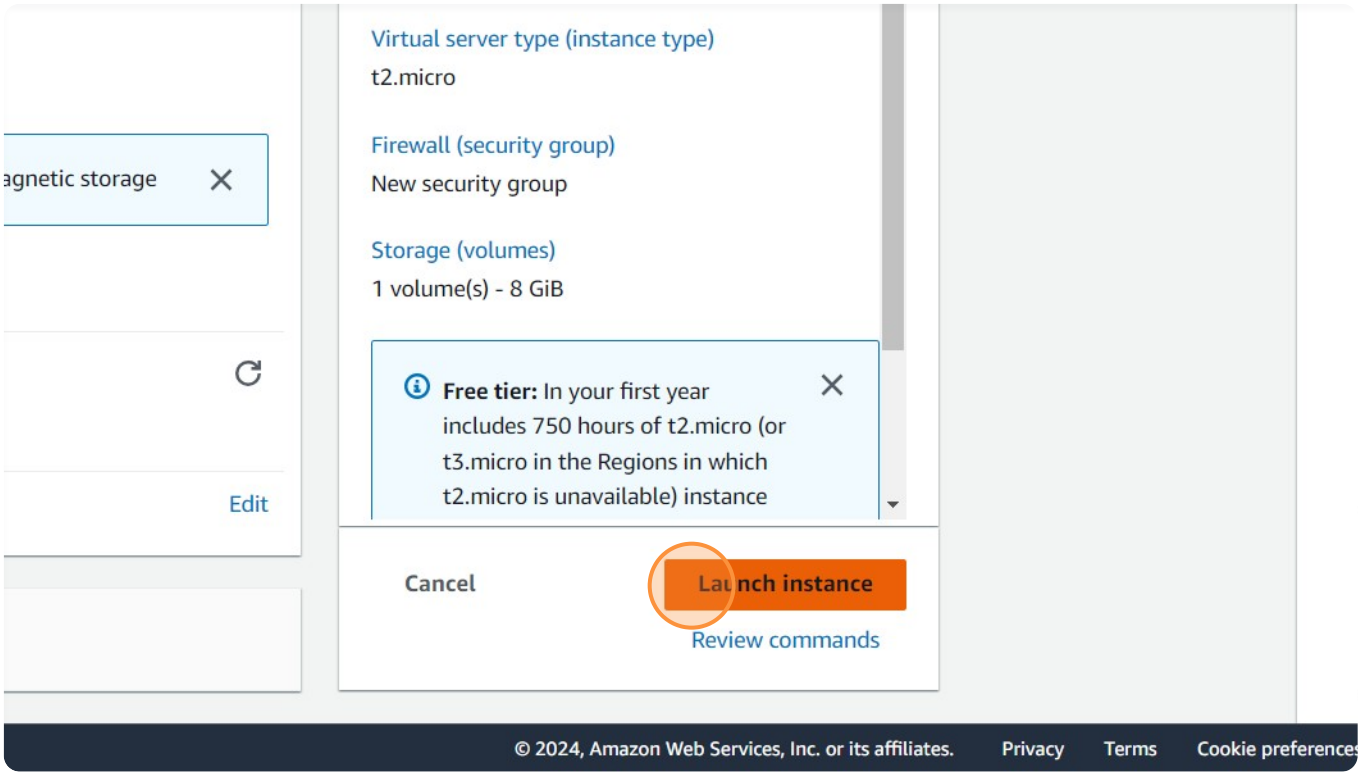
12 Provide the number of instances you want to launch.

In summary tab, you can view the summarized details of EC2 instance.

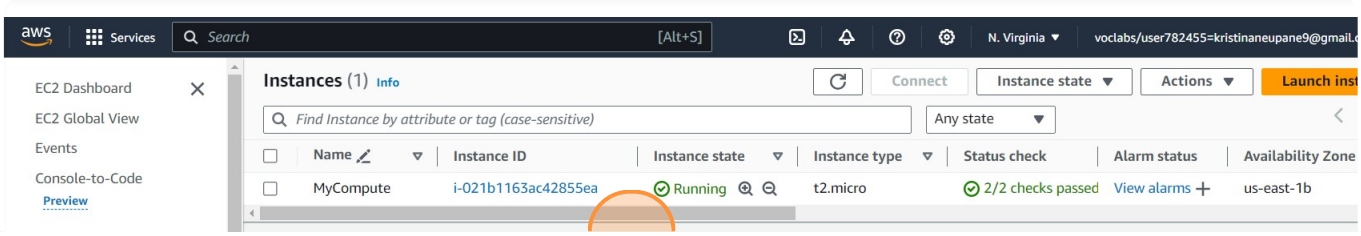


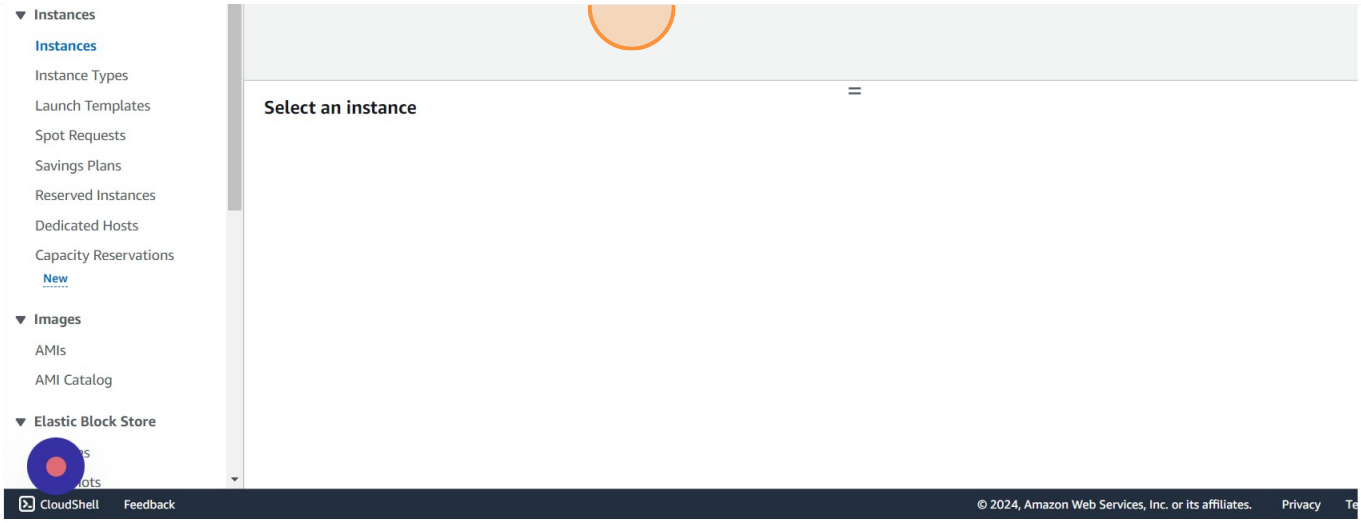


13 Click "Launch instance".



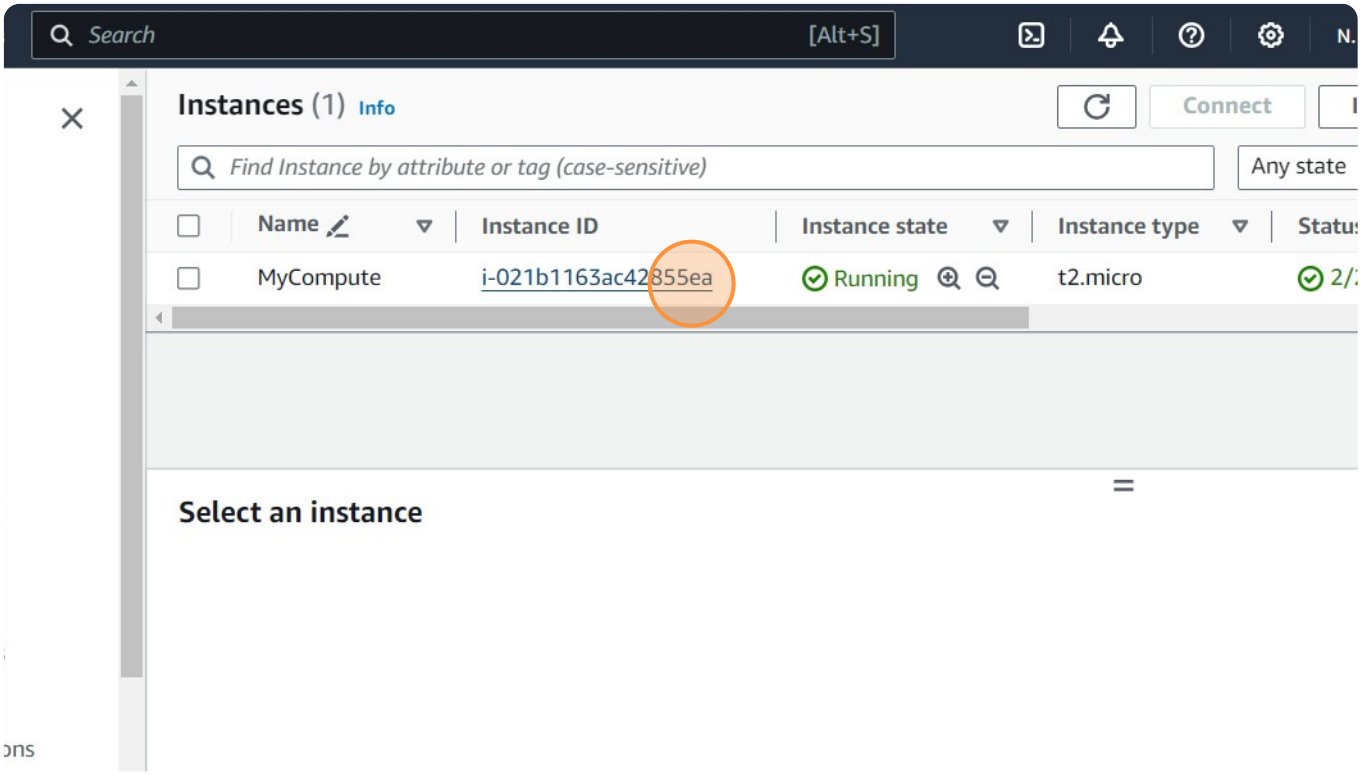
14 Finally, an instance is launched and it is in "Running" state.



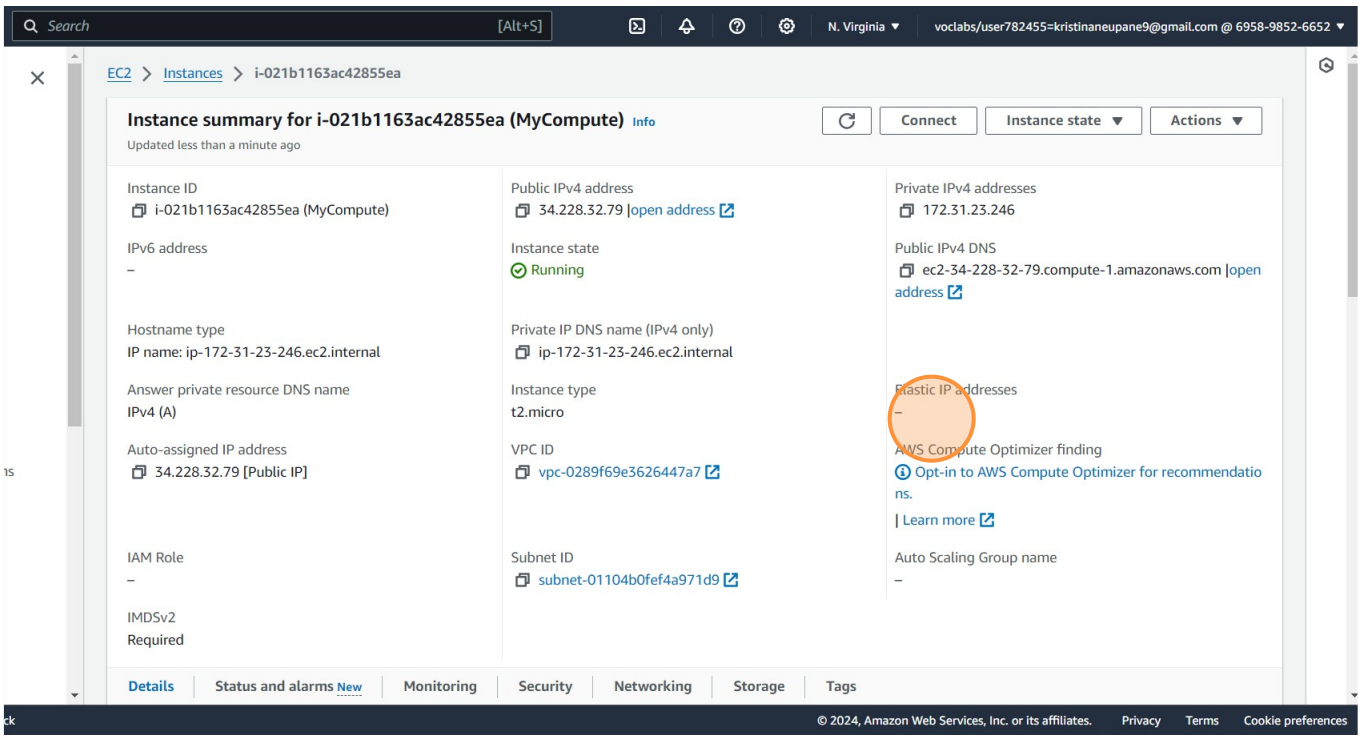


Allocate an Elastic IP address to the instance

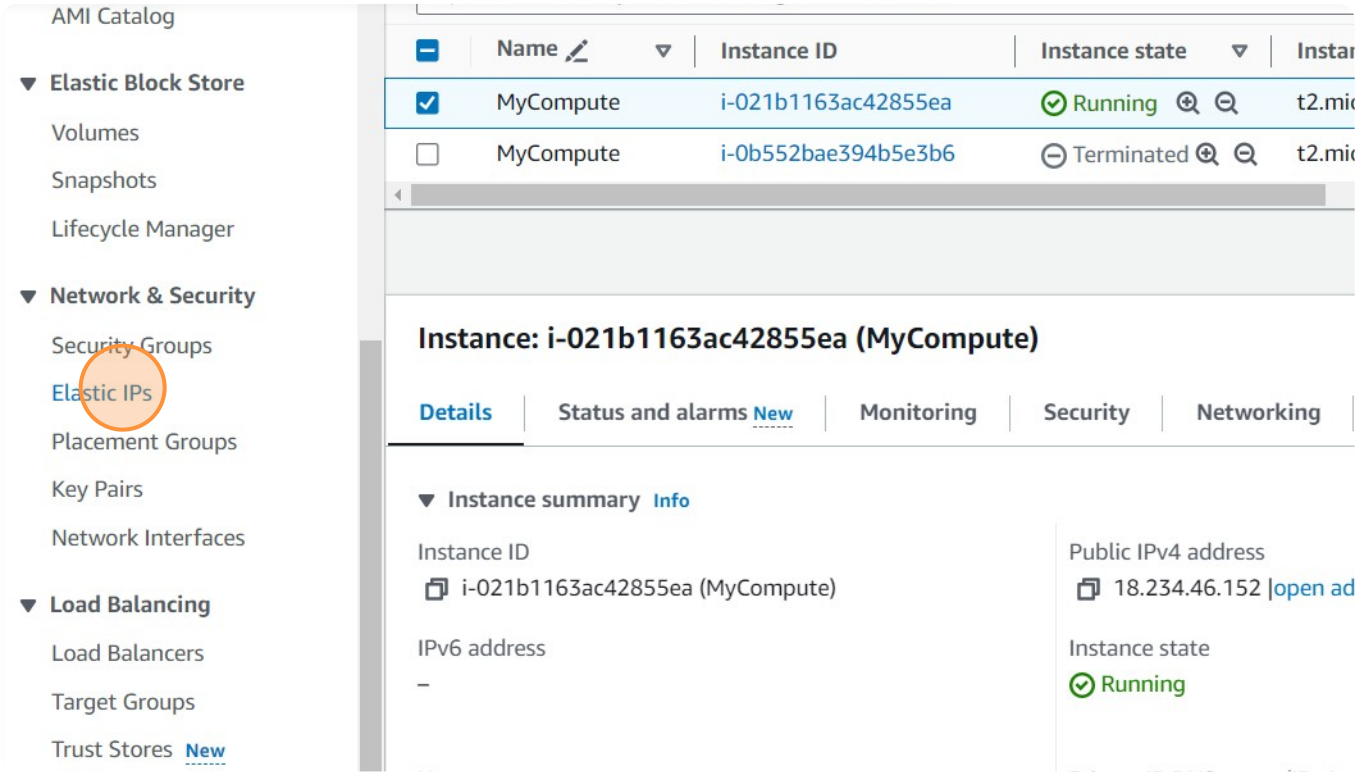
15 Click Instance ID to view it's details.



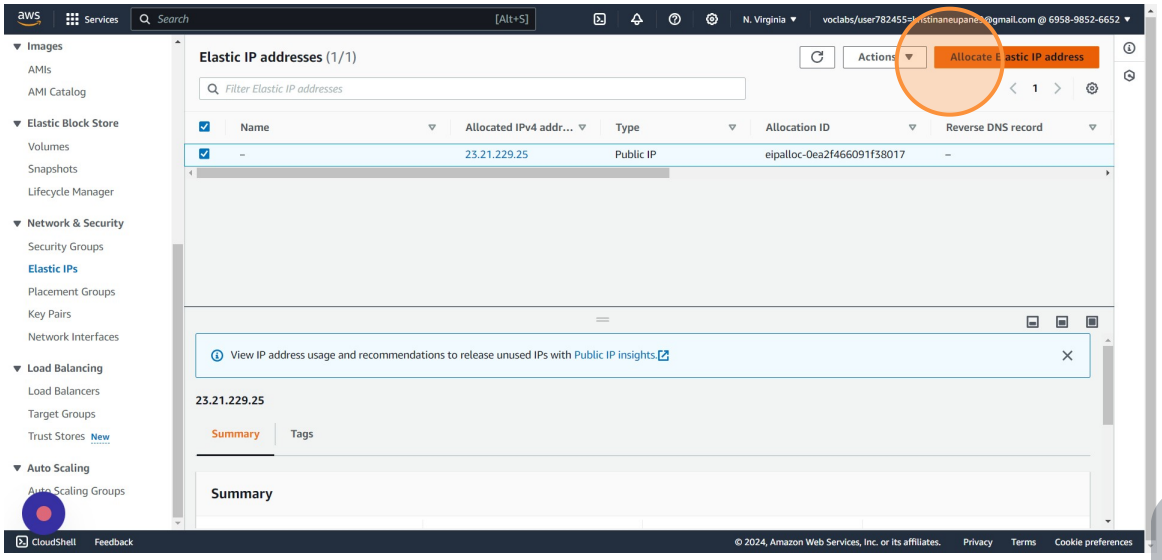
16 Here, you can see there is no Elastic IP address associated with instance.



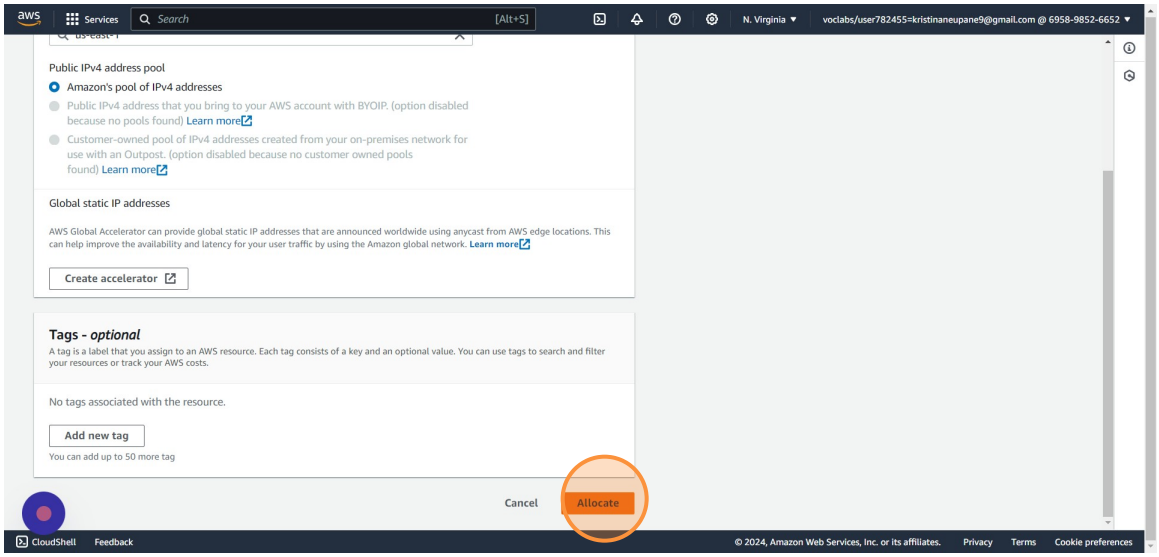
17 On the left sidebar, click Elastic IPs.



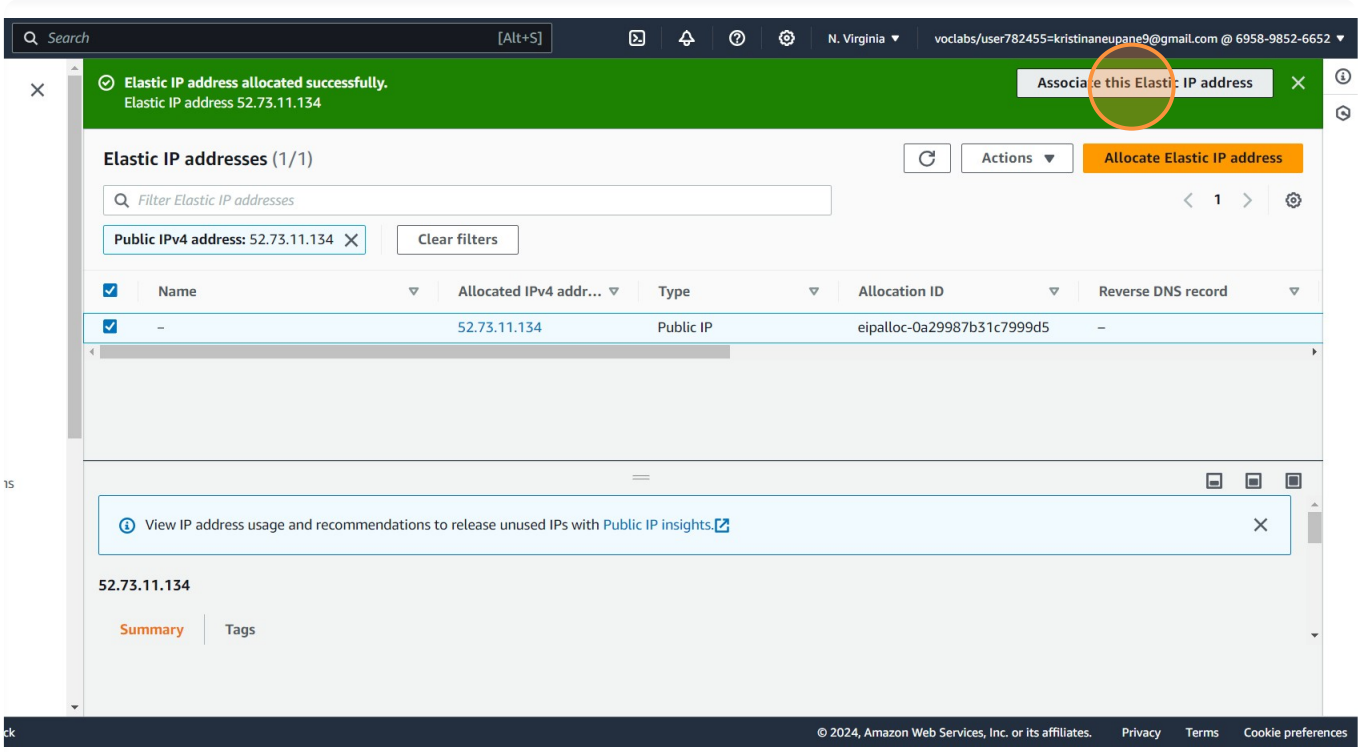
18 On top there is "Allocate Elastic IP address" button. Click it.



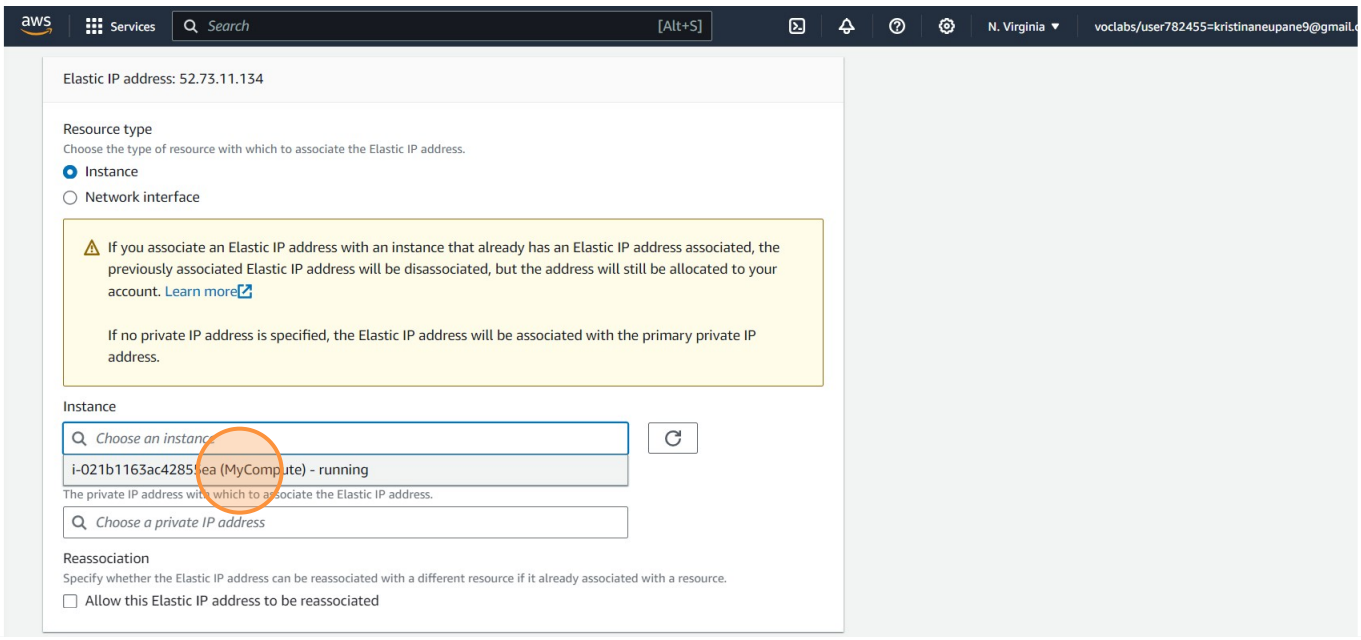
19 The settings can be configured based on requirements. I kept it as default. Then, click "Allocate".

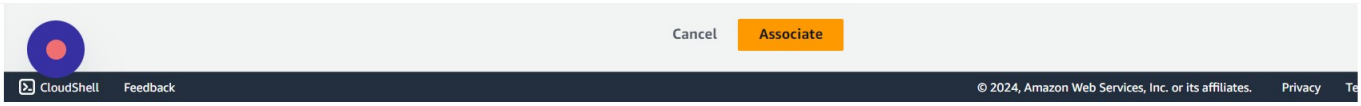


20 Click "Associate this Elastic IP address" button to associate it with the required instance.

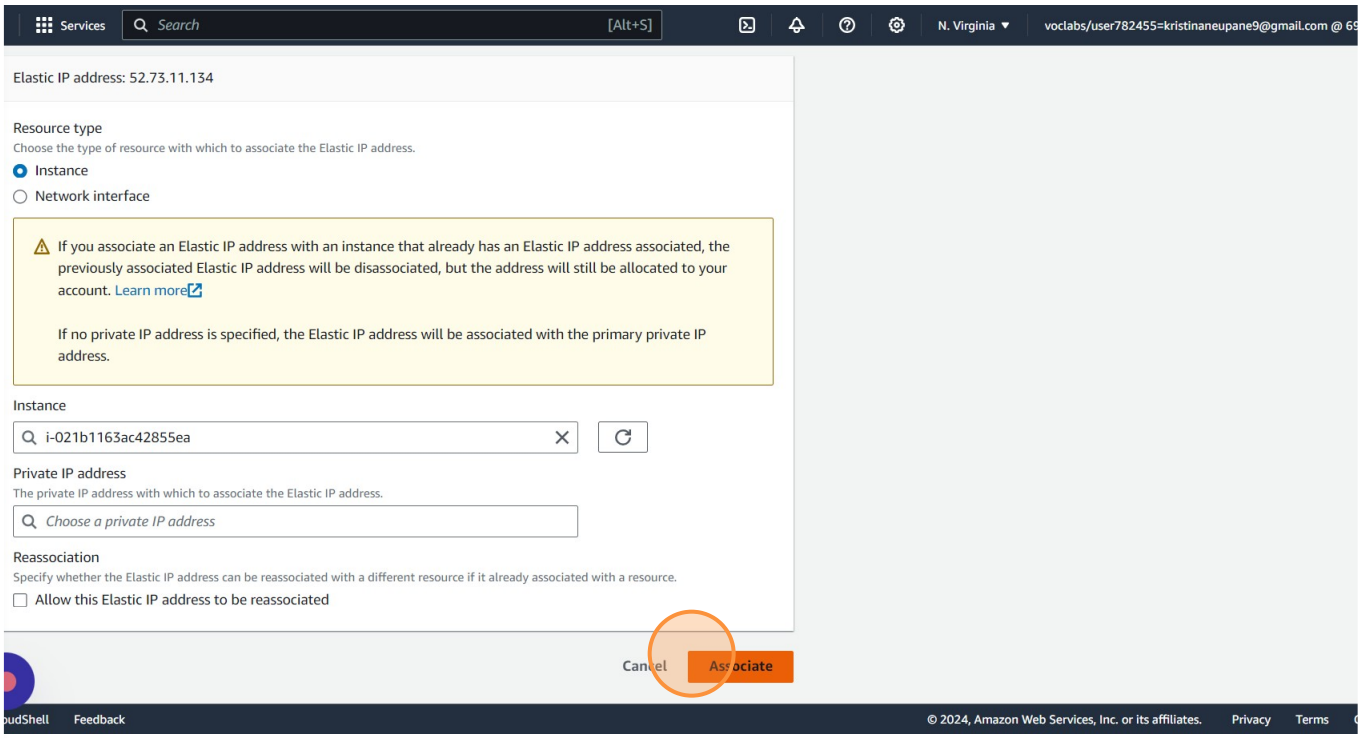


21 Choose an instance.

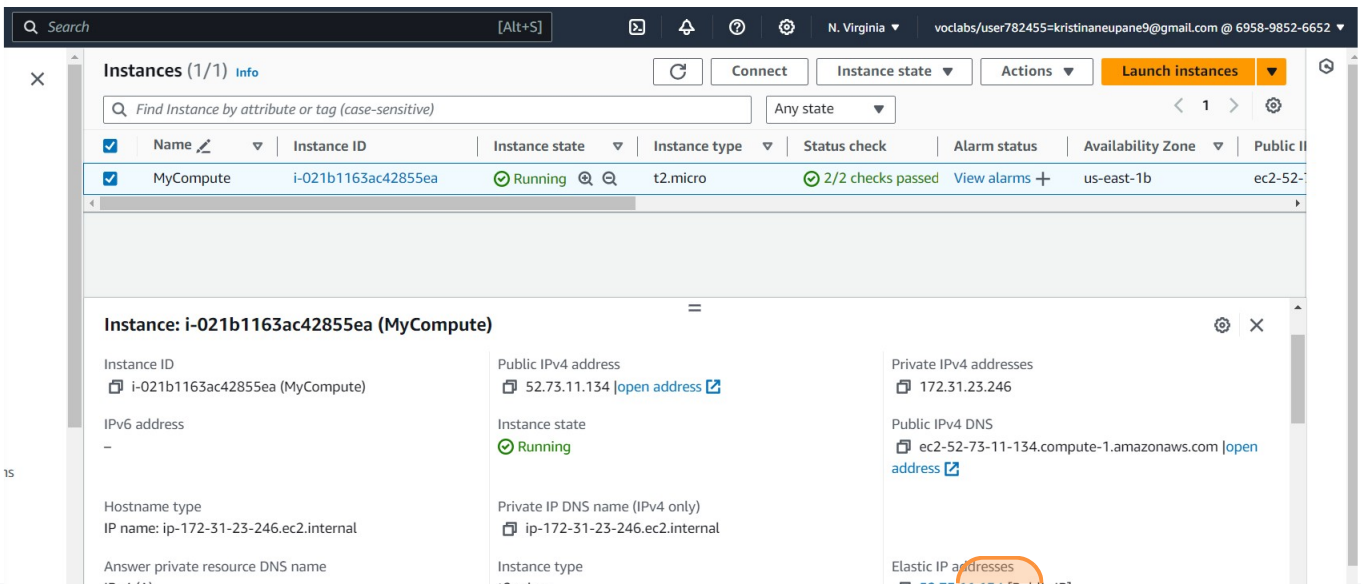


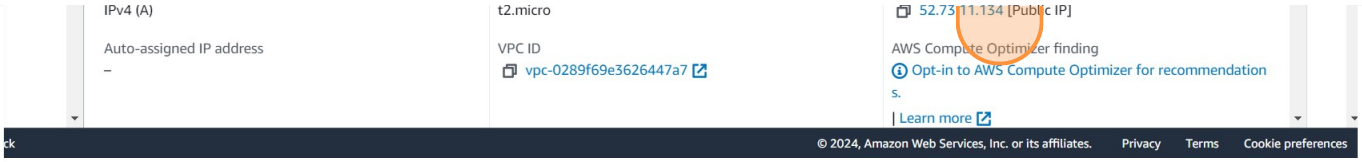


22 Click "Associate"



23 Now, you can see an elastic IP address is associated with the given instance.



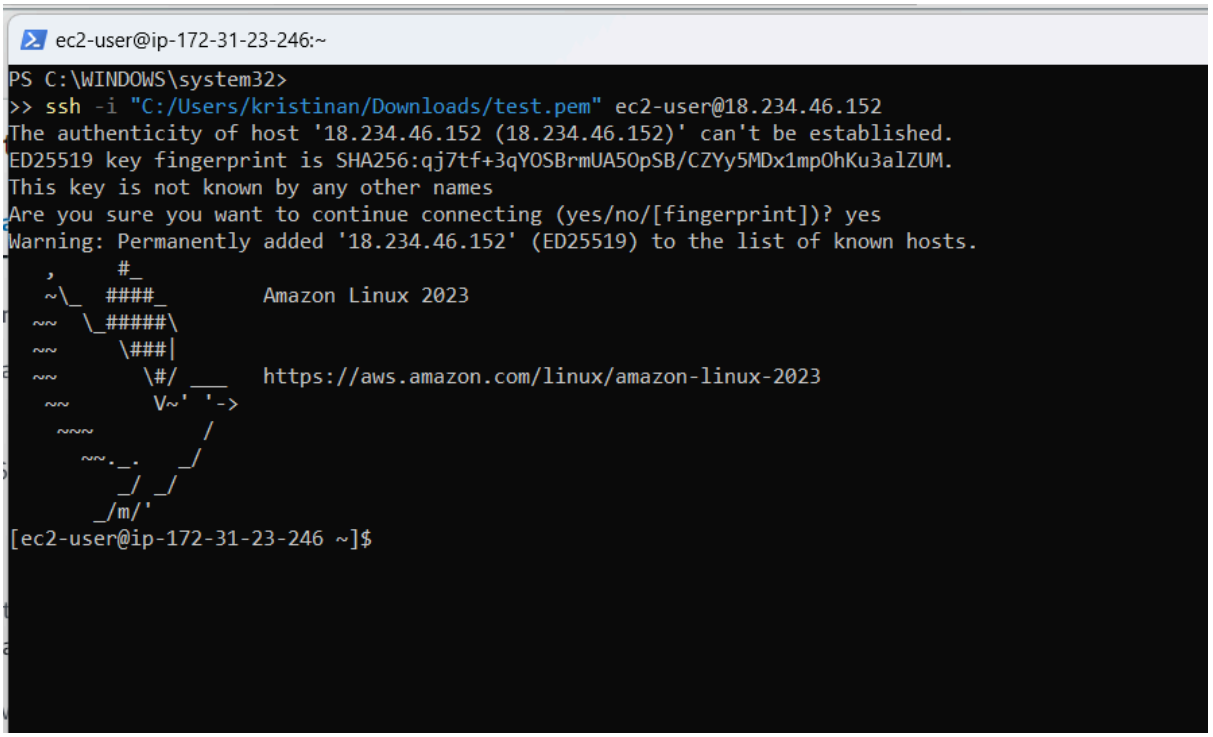

IPv4 (A)
t2.micro
52.73.11.134 [Public IP]
Auto-assigned IP address
–
VPC ID
vpc-0289f69e3626447a7
AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations.
| Learn more
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

Step to connect to instance via SSH

24 Open Powershell and type the SSH command with this structure:

ssh -i file.pem username@ip-address

Now, you are connected to an EC2 instance.



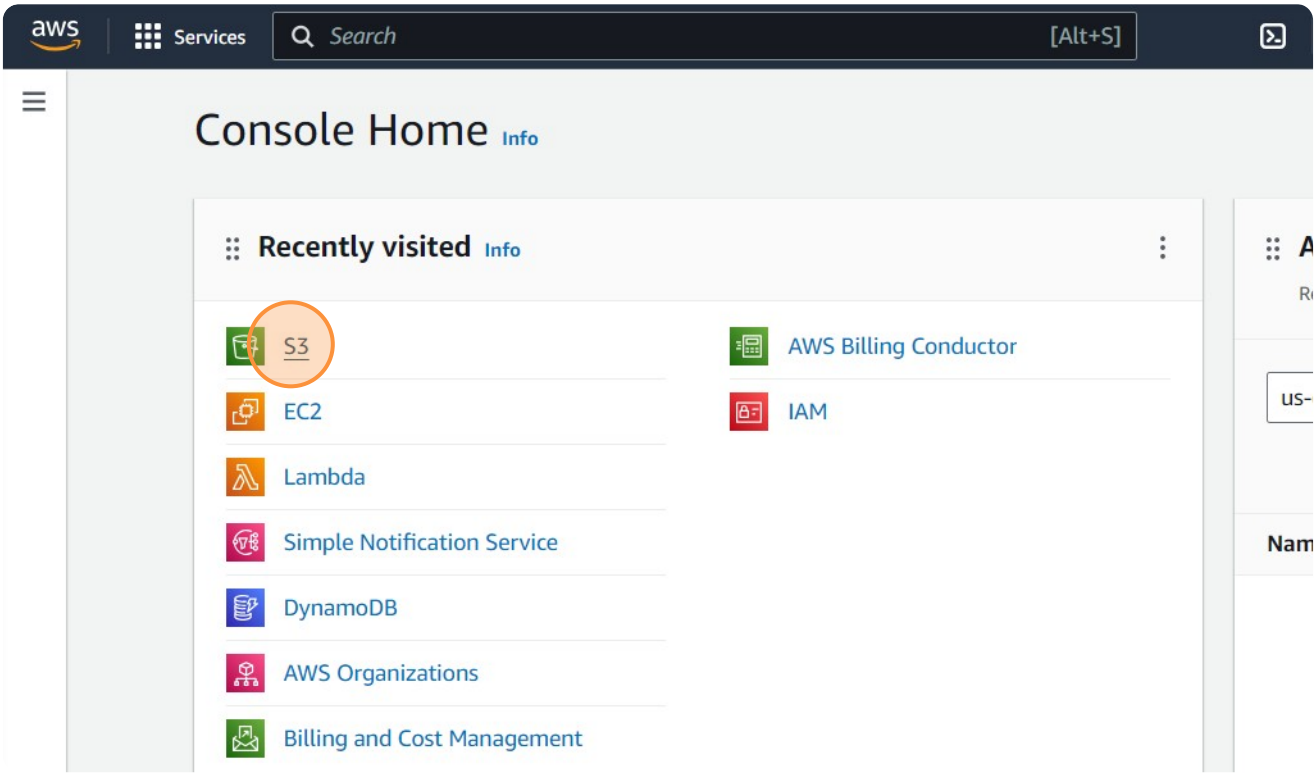
S3 Storage Fundamentals Lab

Understanding how to use S3 for storing and managing data, learn about S3 security and permissions, and become familiar with S3's user interface.

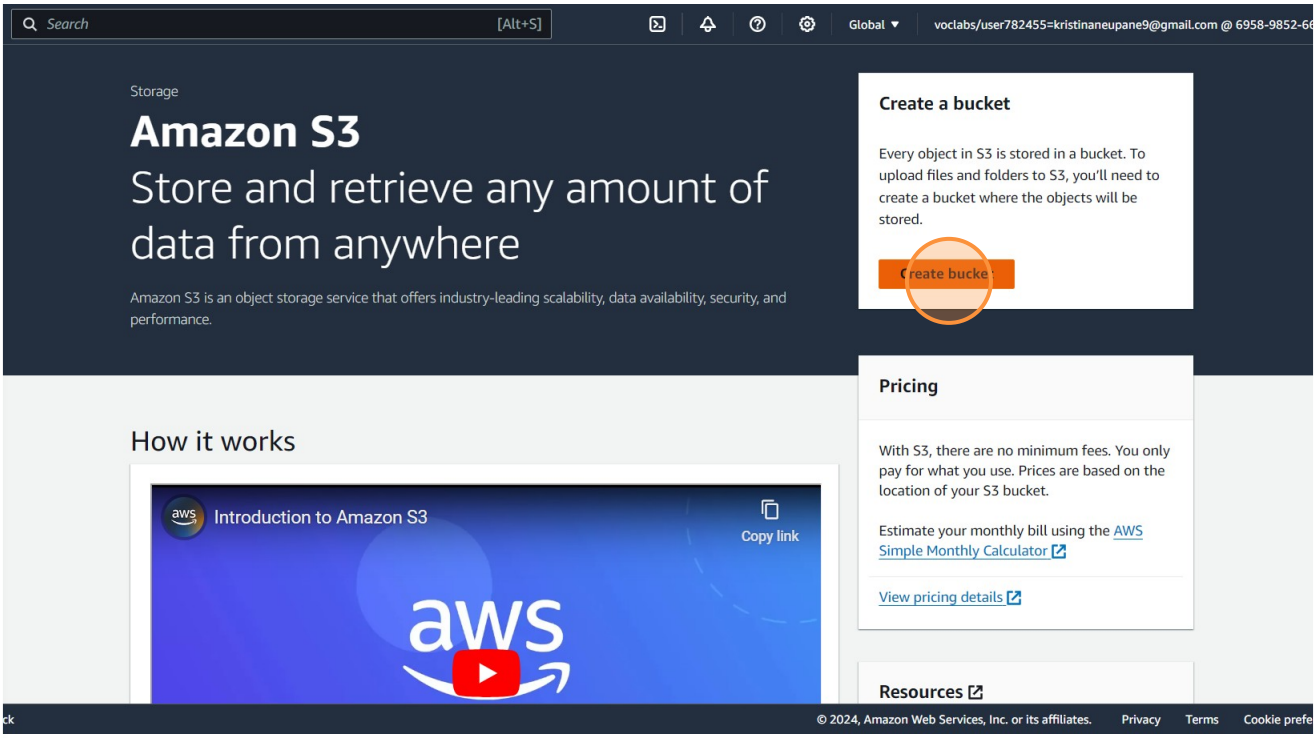
Steps to create bucket and upload file

1 Navigate to AWS Management Console

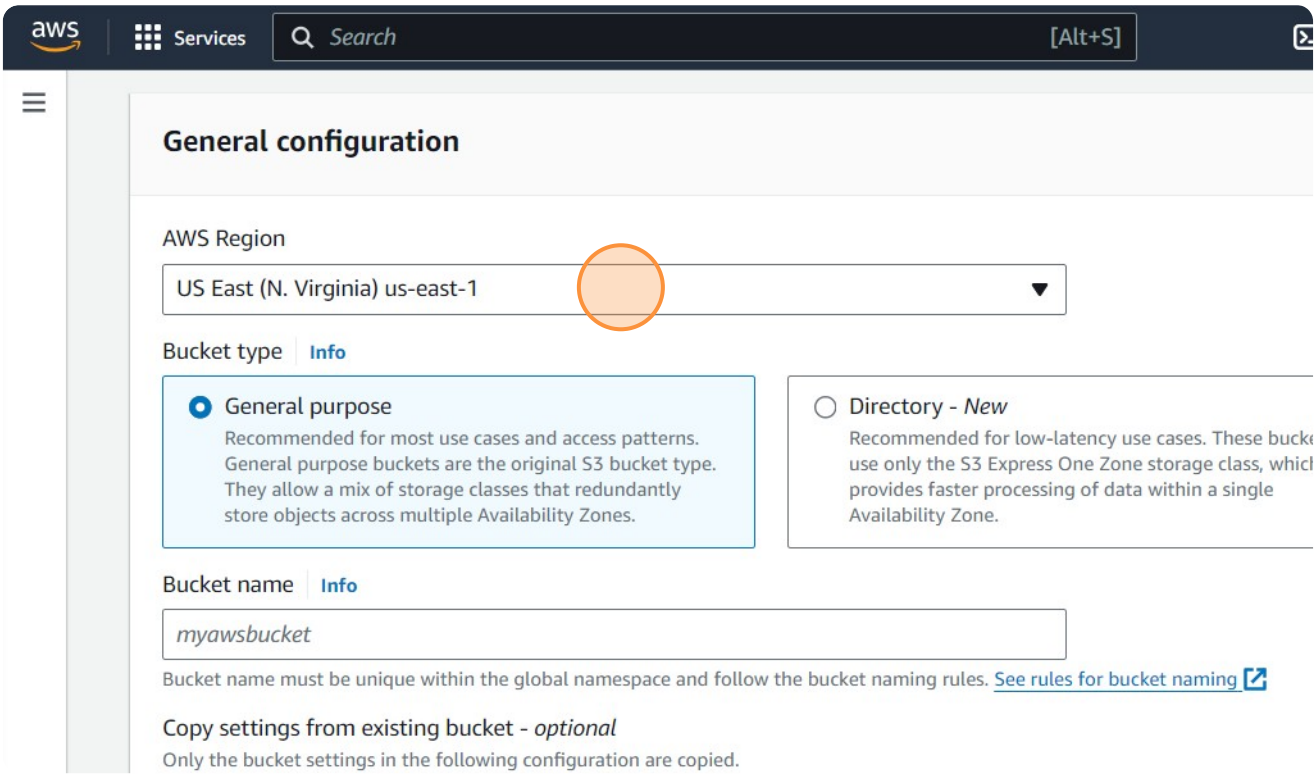
2 Navigate to "S3" service



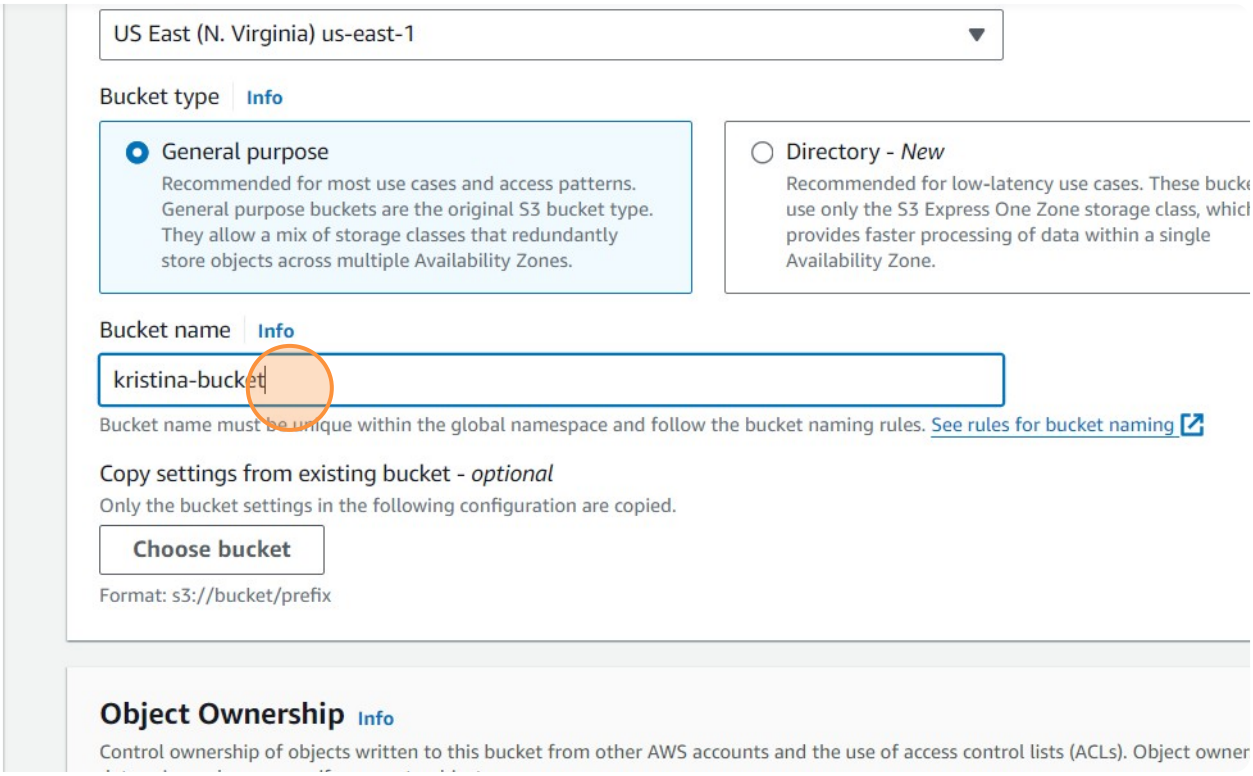
3 Click "Create bucket"



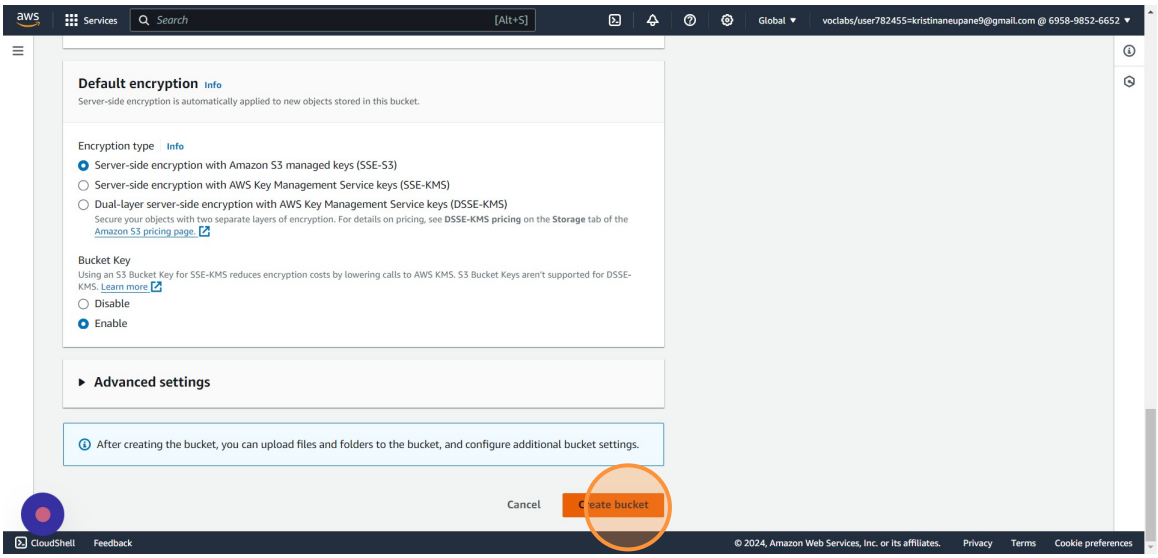
4 Choose the region for your bucket. I choosed "US East (N. Virginia) us-east-1".



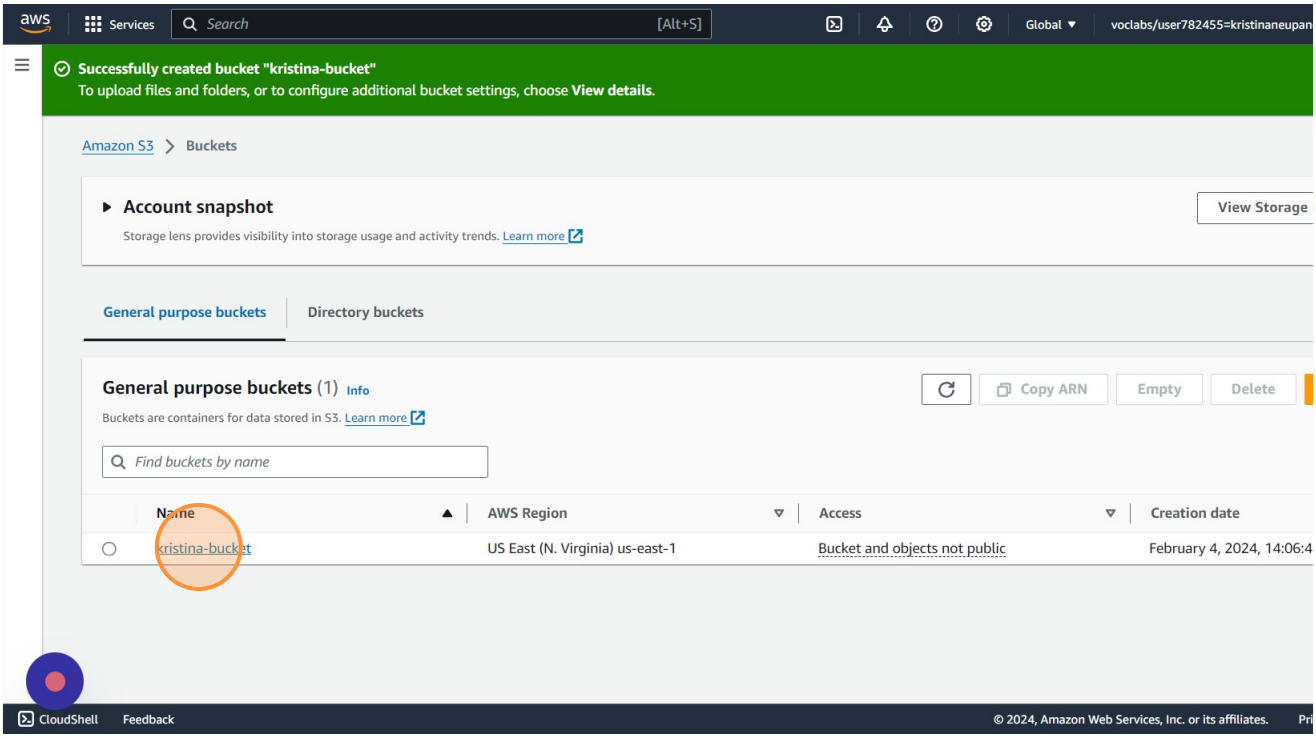
5 Enter a globally unique name for your bucket in the "Bucket name" field. I entered "kristina-bucket".



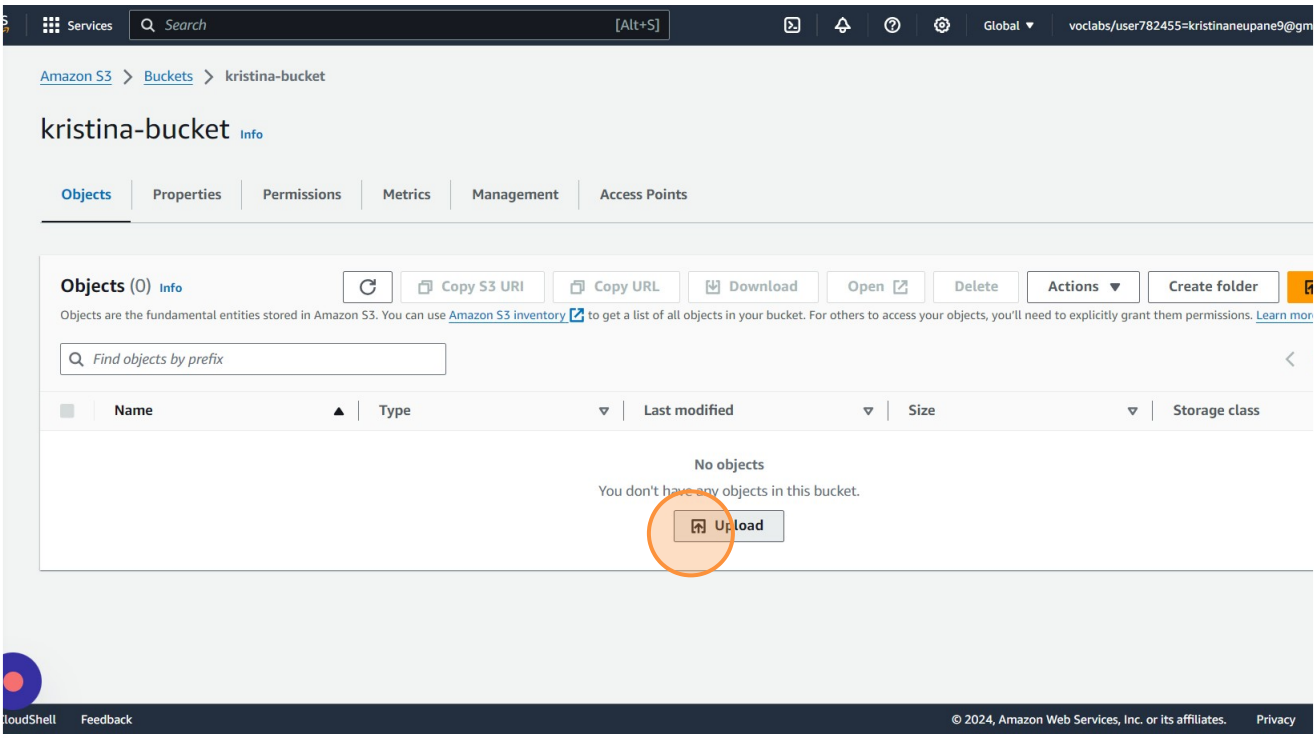
6 Configure other features if needed. Click "Create bucket"



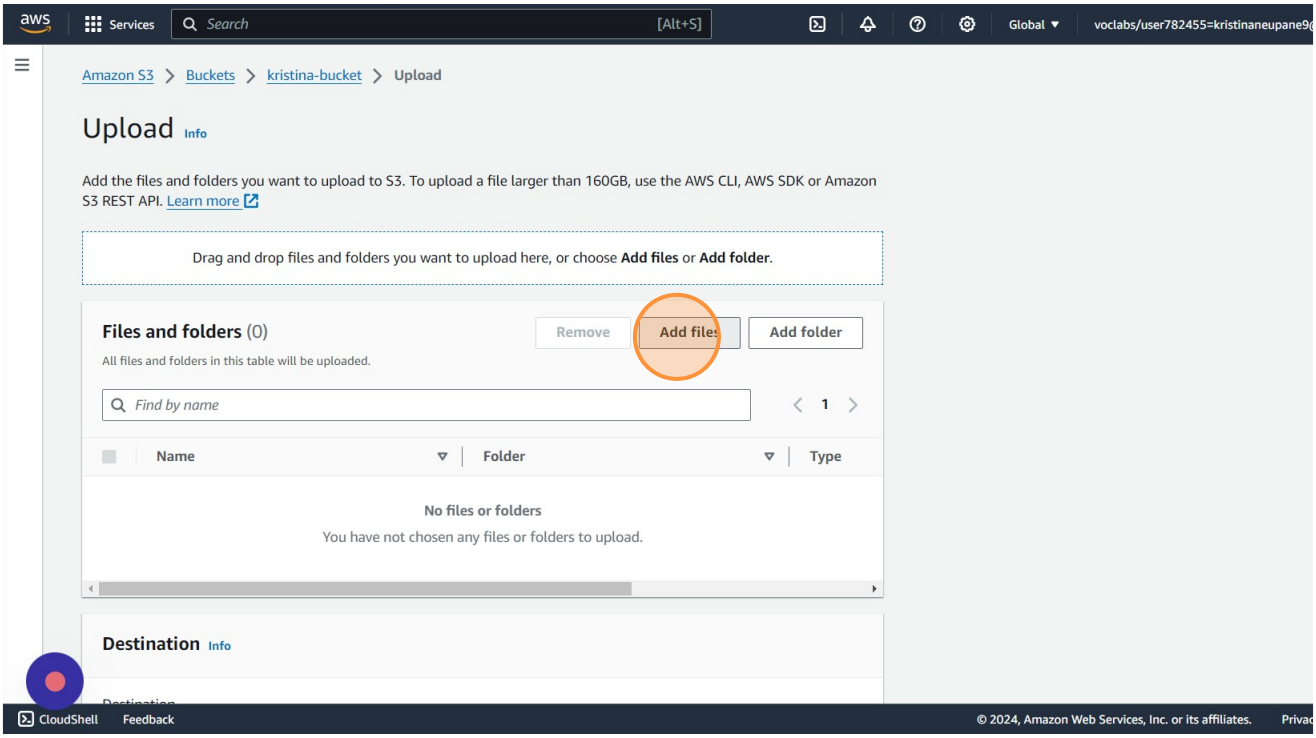
7 Bucket "kristina-bucket" is successfully created. Click on name to view or edit bucket features.



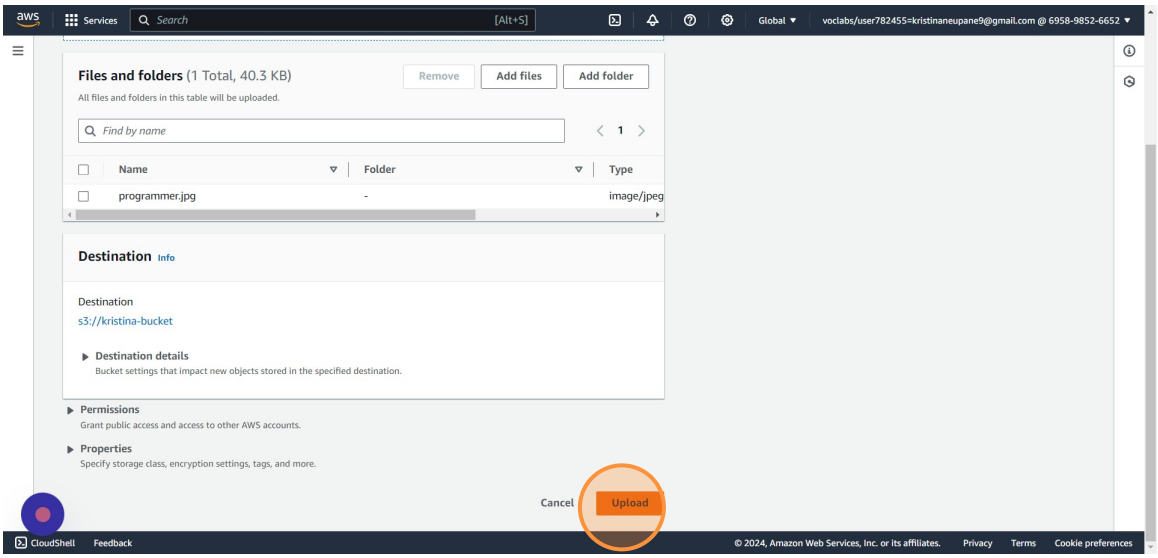
8 Click "Upload" to upload files or folders in bucket.



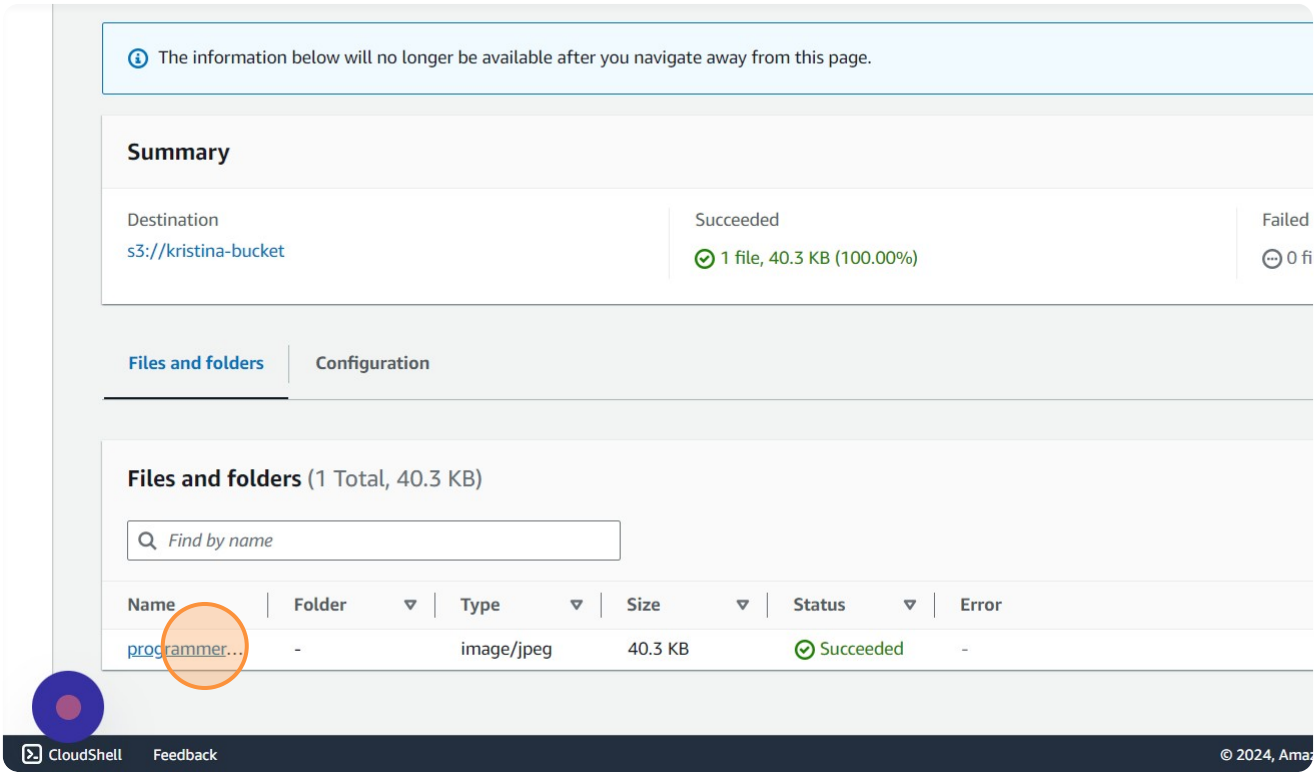
9 Click "Add files"



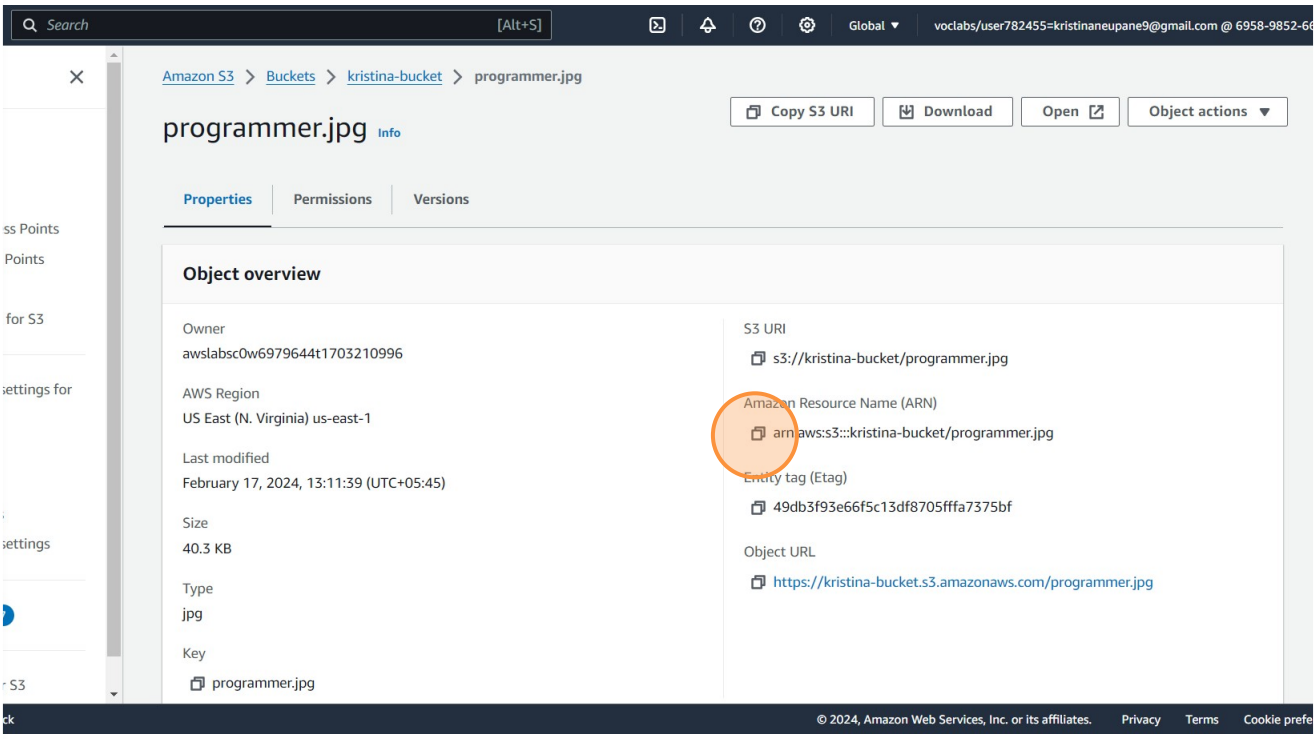
10 Select file from your local machine and click "Upload".



11 Click name of file to view it's details.

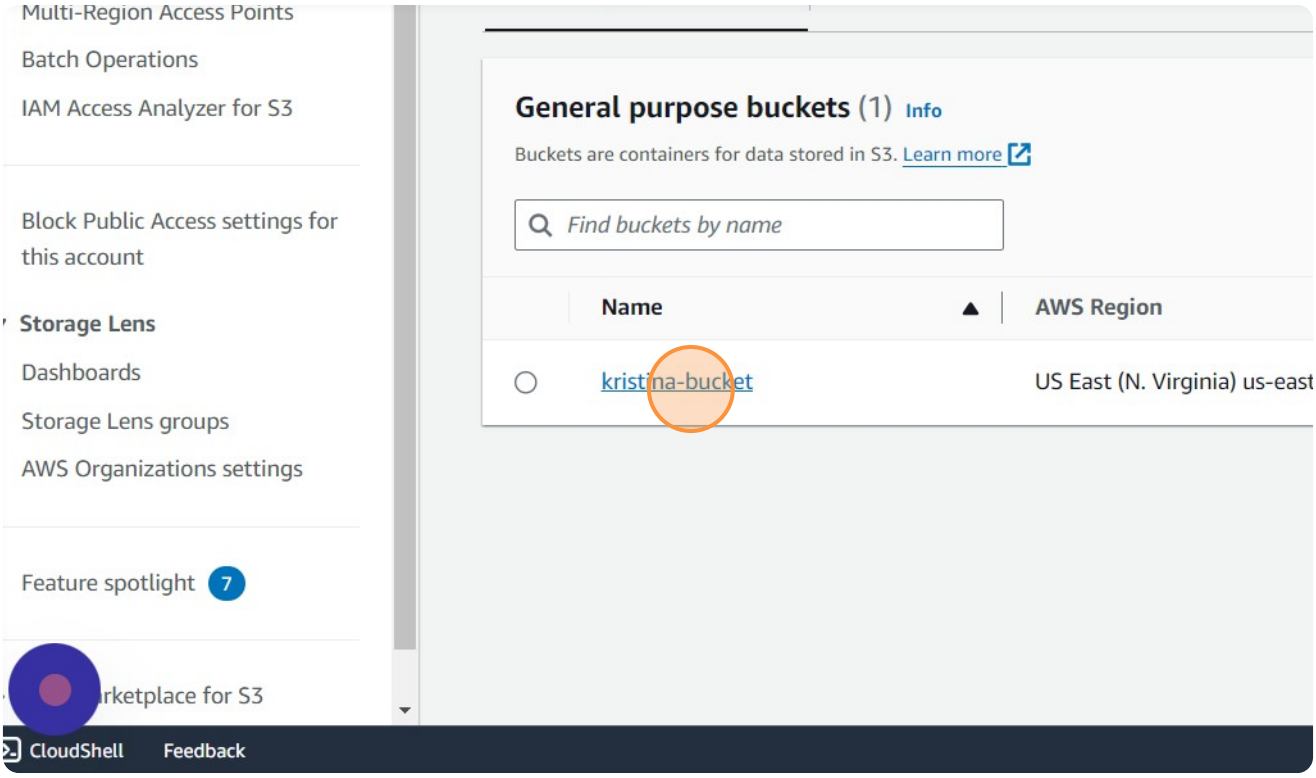


12 Here, you can see object details.

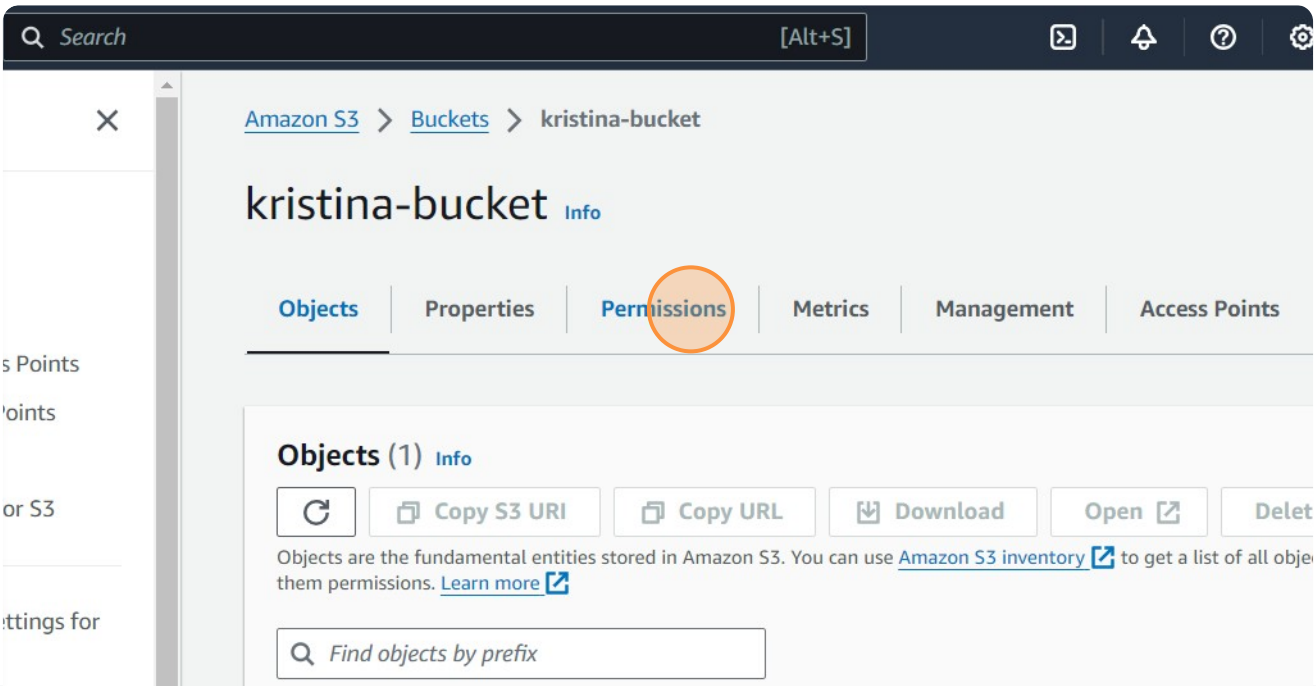


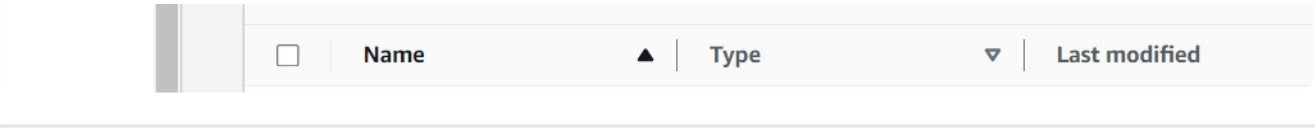
Setting up bucket policies for access control

13 Click name of the bucket.

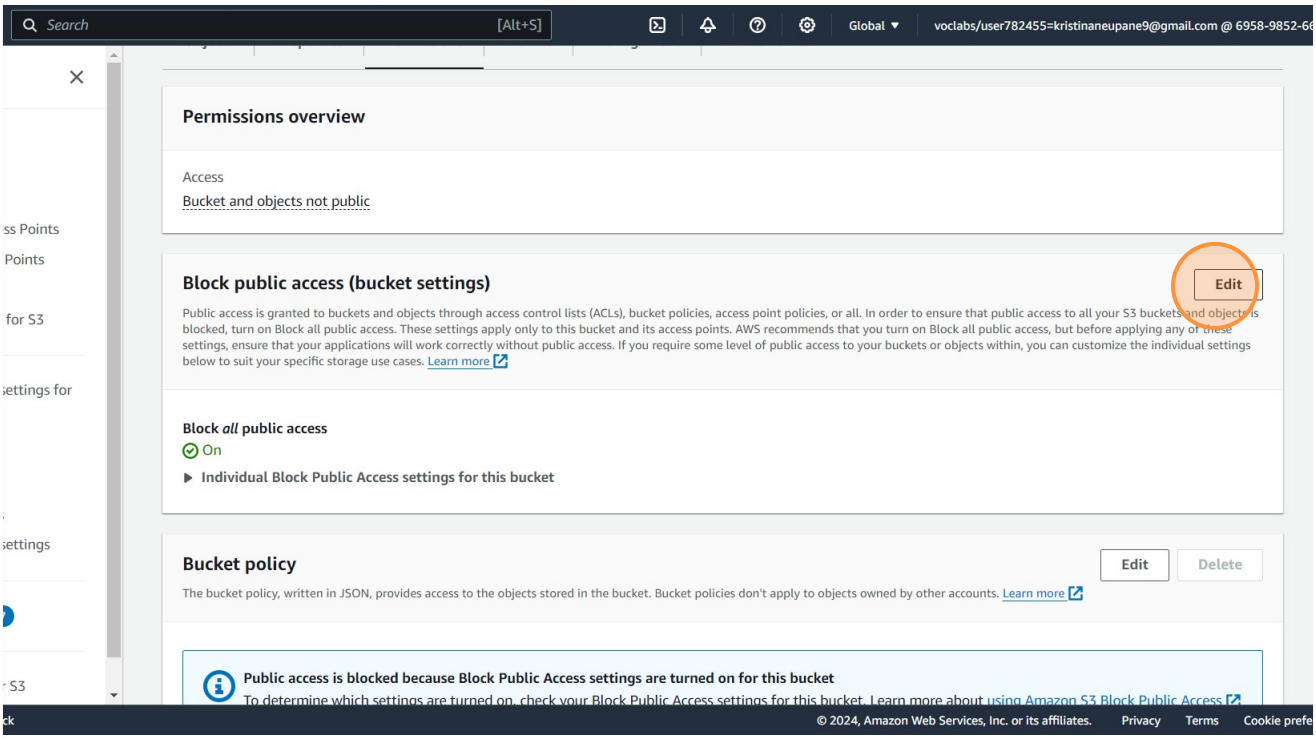


14 Click "Permissions"

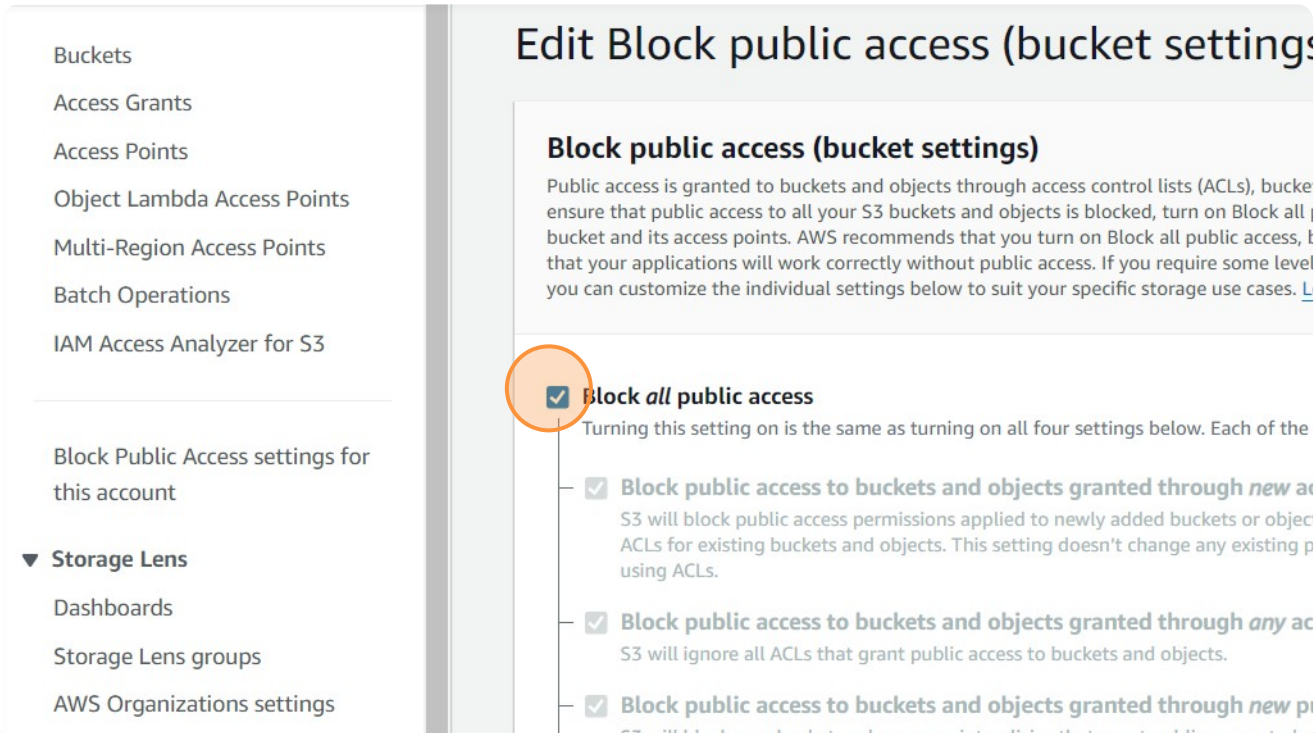




15 Click "Edit" on the right of Block public access.

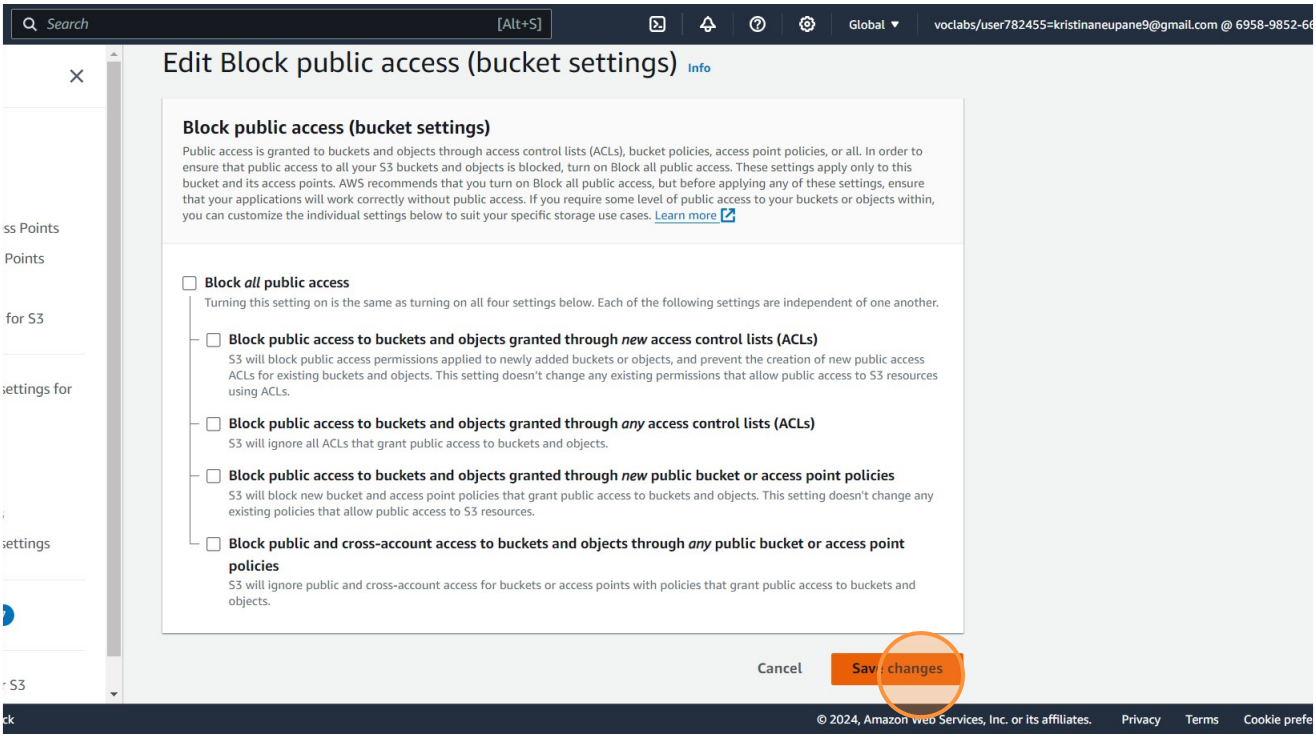


16 Click this checkbox to allow public access.

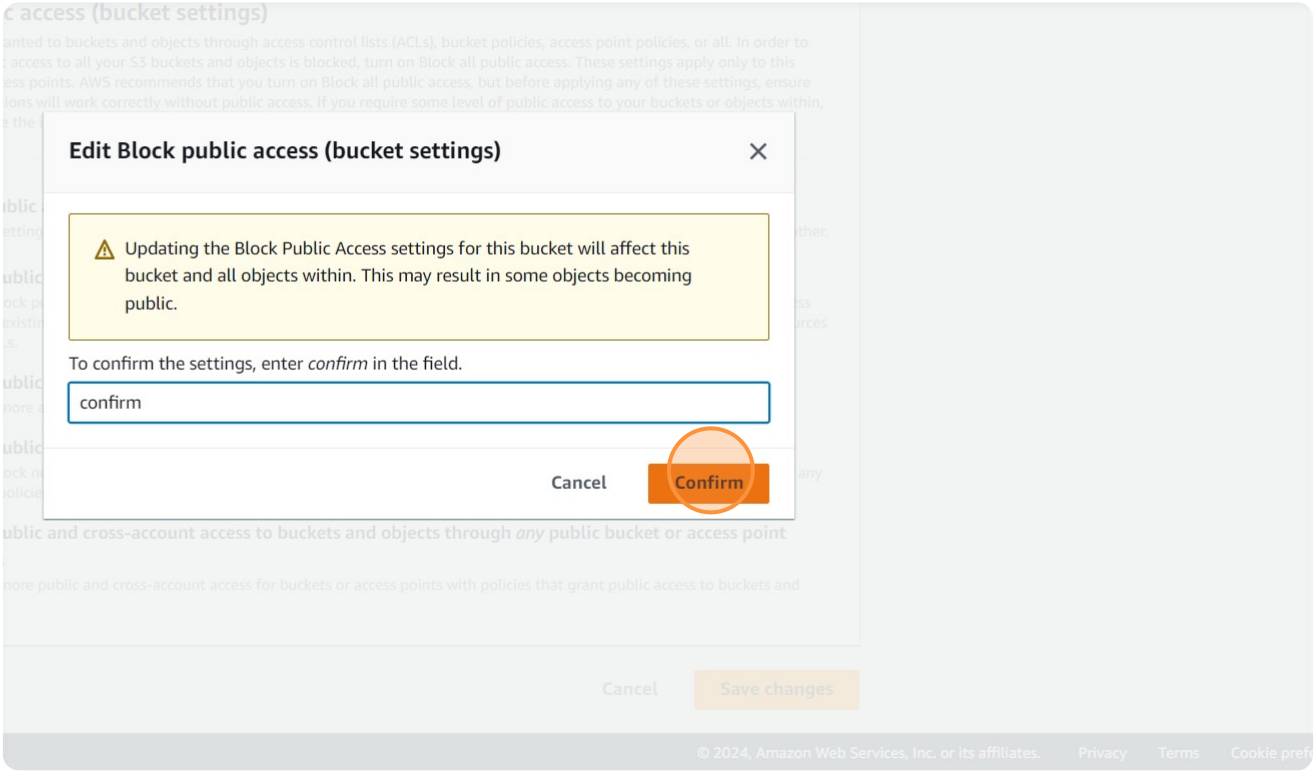


S3 will block new bucket and access point policies that grant public access to bu
existing policies that allow public access to S3 resources.

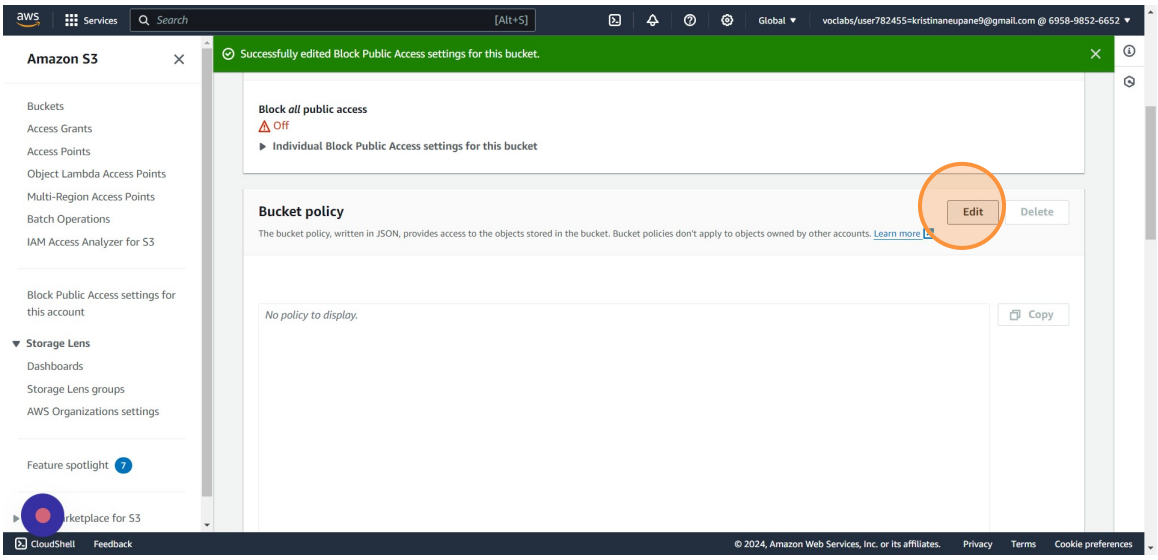
17 Click "Save changes"



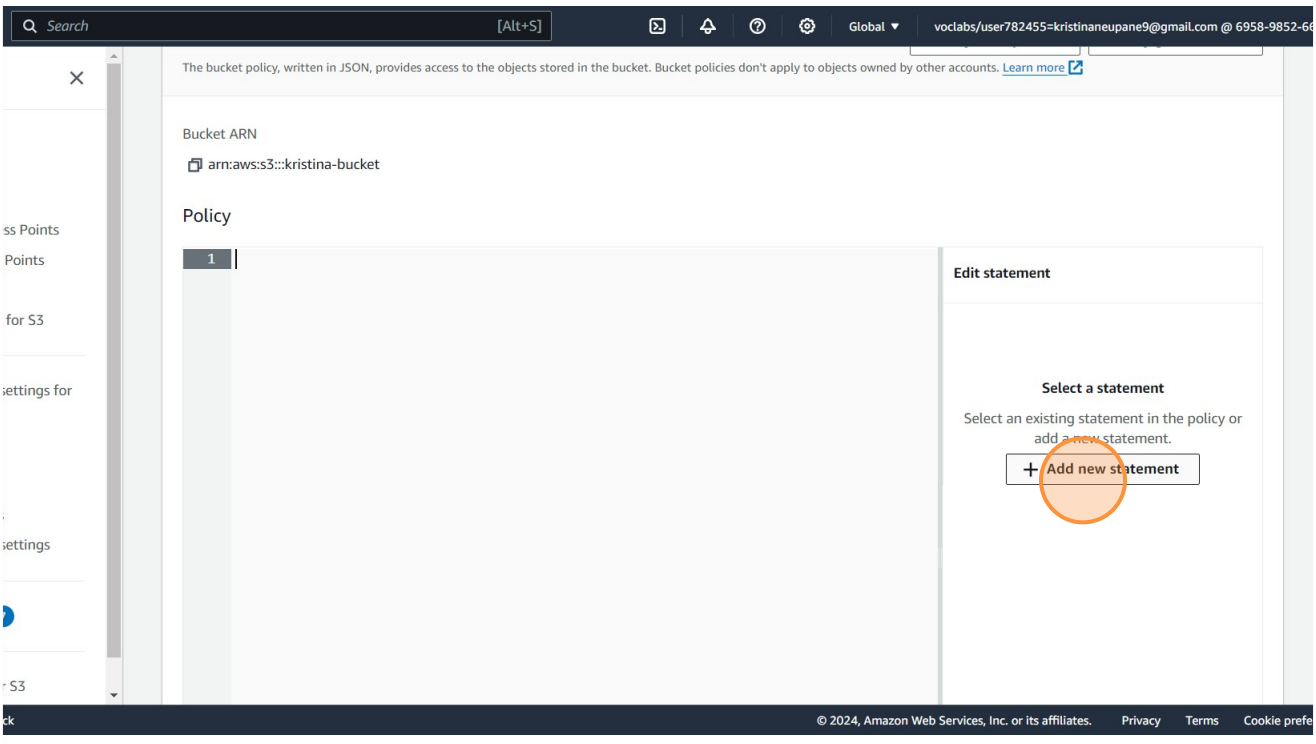
18 To confirm the settings, enter "confirm" in the field and click "Confirm"



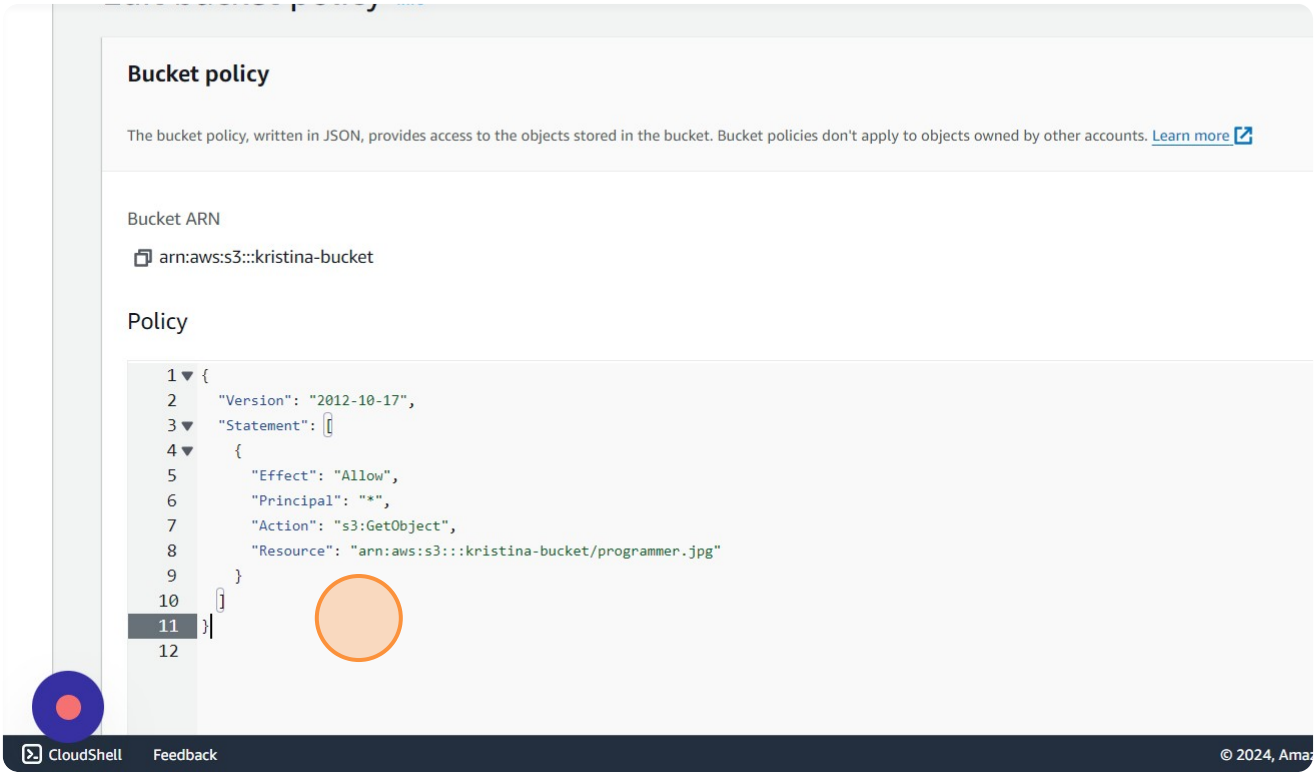
19 Click "Edit" on the right of Bucket Policy.



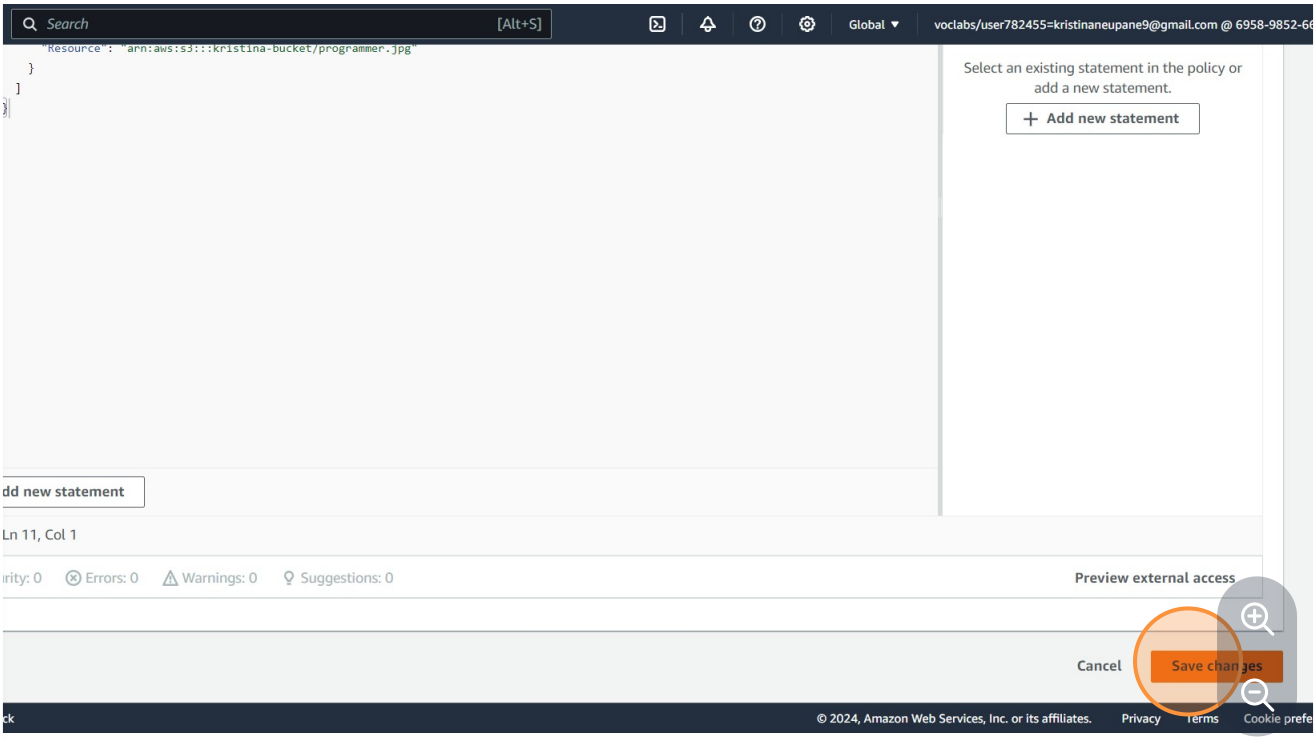
20 Click "Add new statement"



21 Add a bucket policy to control access. I added policy to make recently uploaded file public.

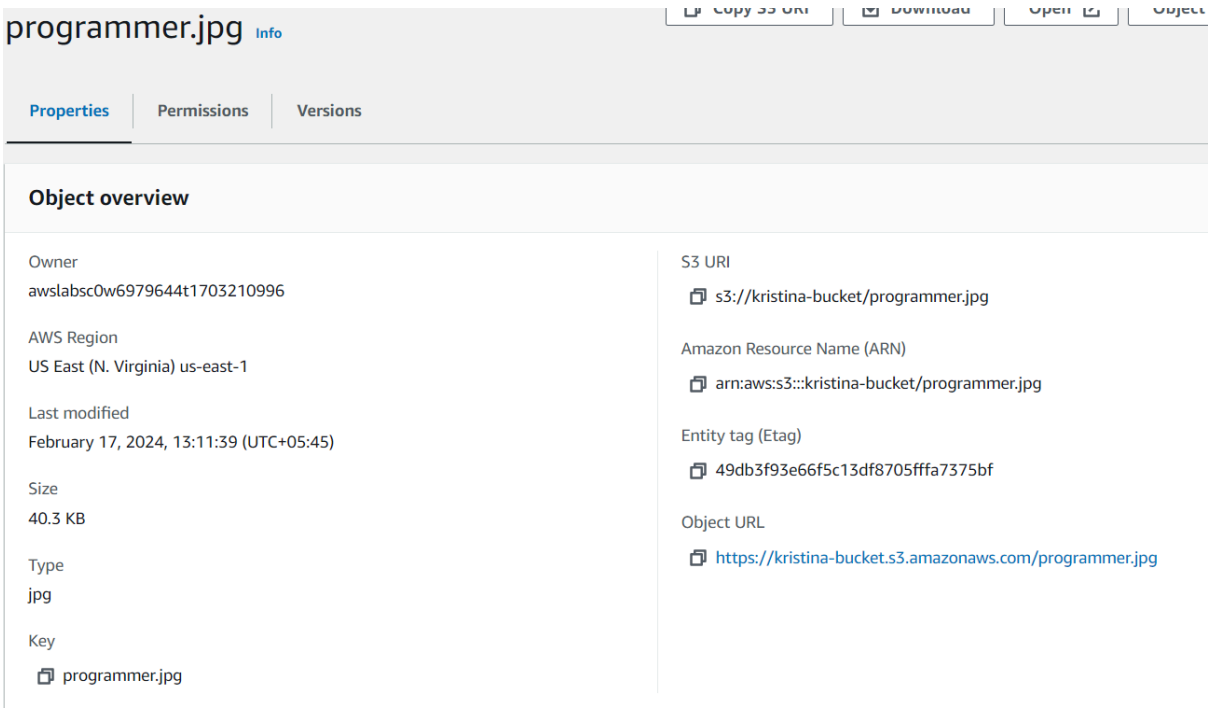


22 Click "Save changes"

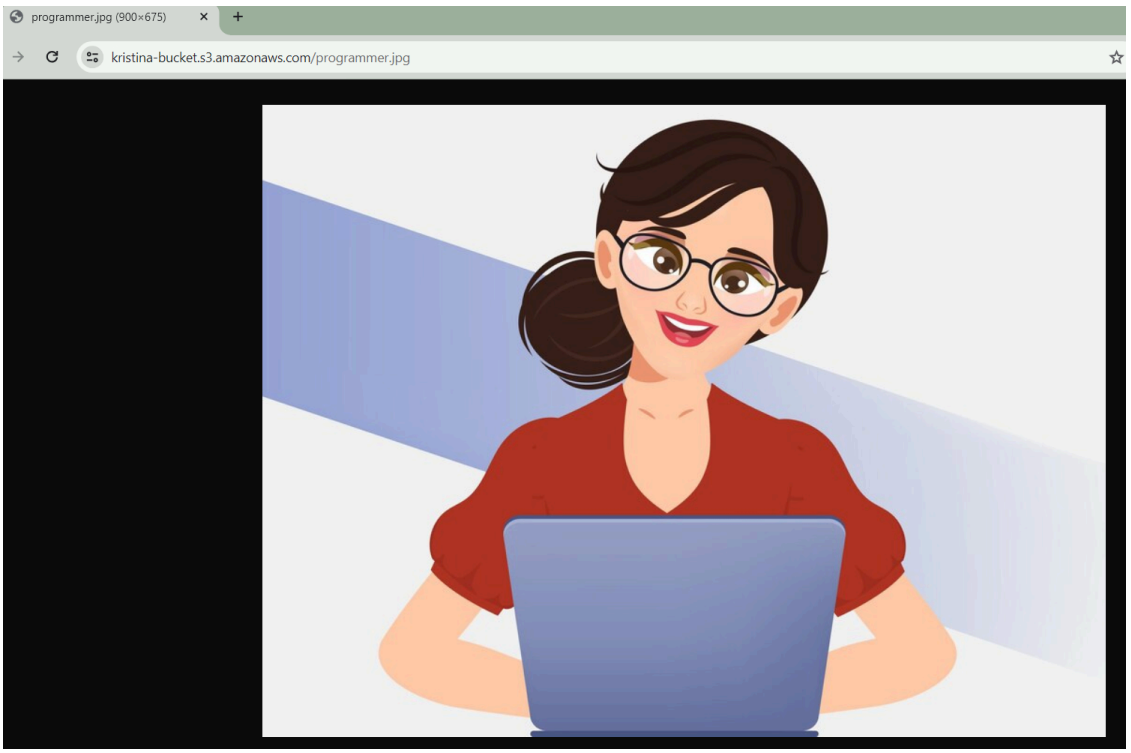


Accessing file through it's URL

23 Copy object URL which is under object properties.



24 Now, paste that URL in a new tab. As a result, image inside bucket can be accessed publicly.

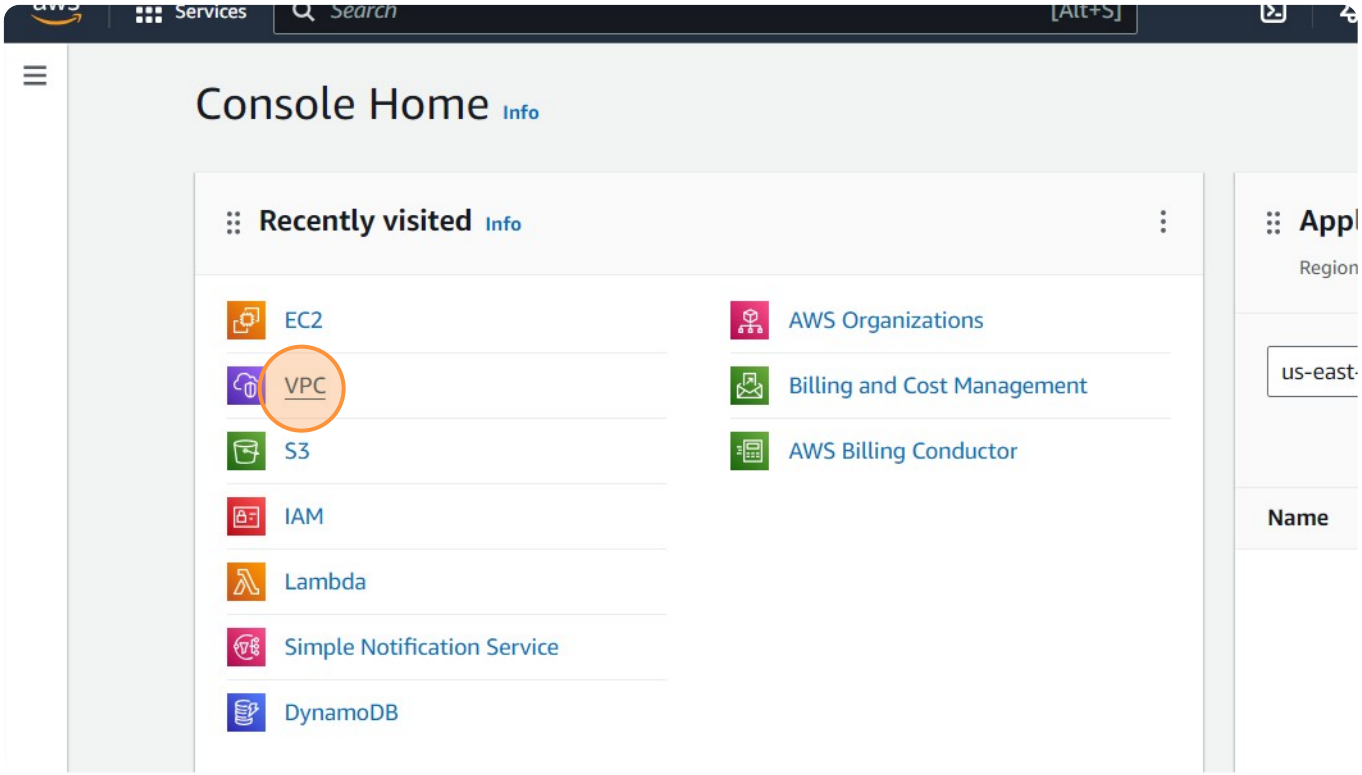


VPC Configuration Lab

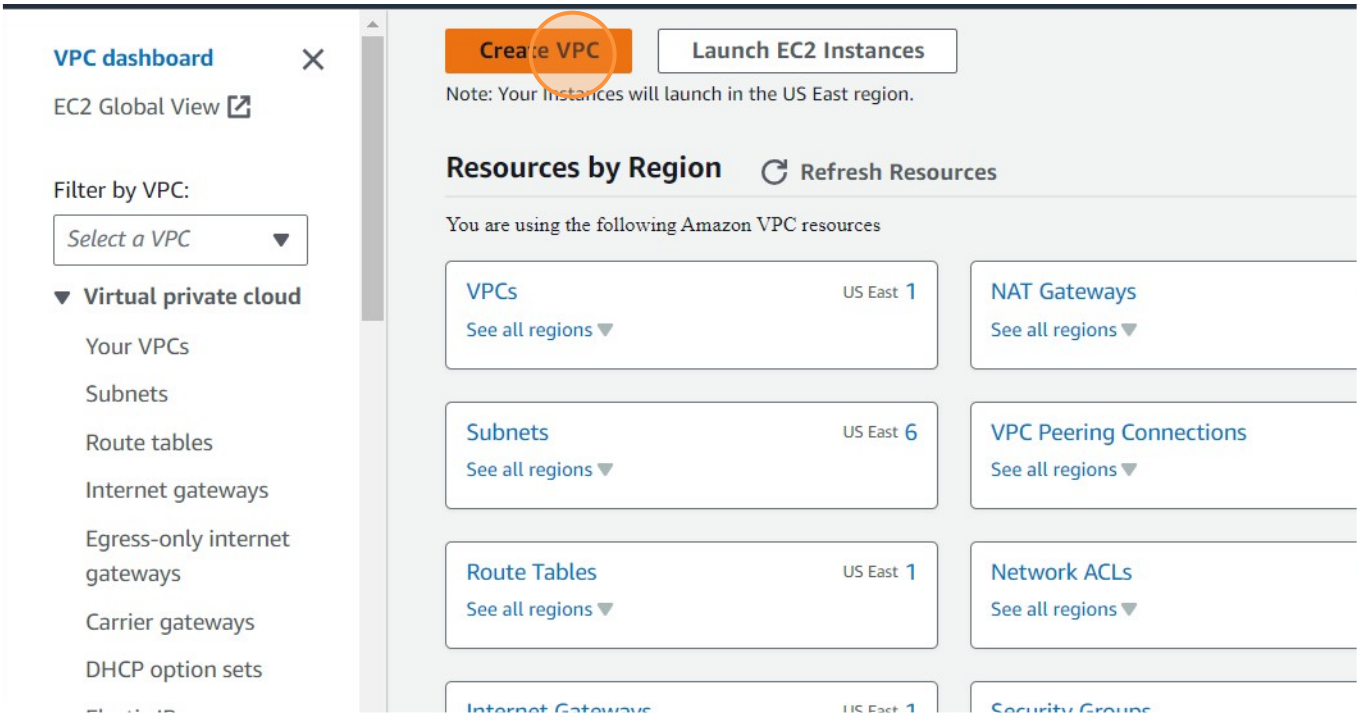
Steps to Create VPC

1 Navigate to AWS Management Console.

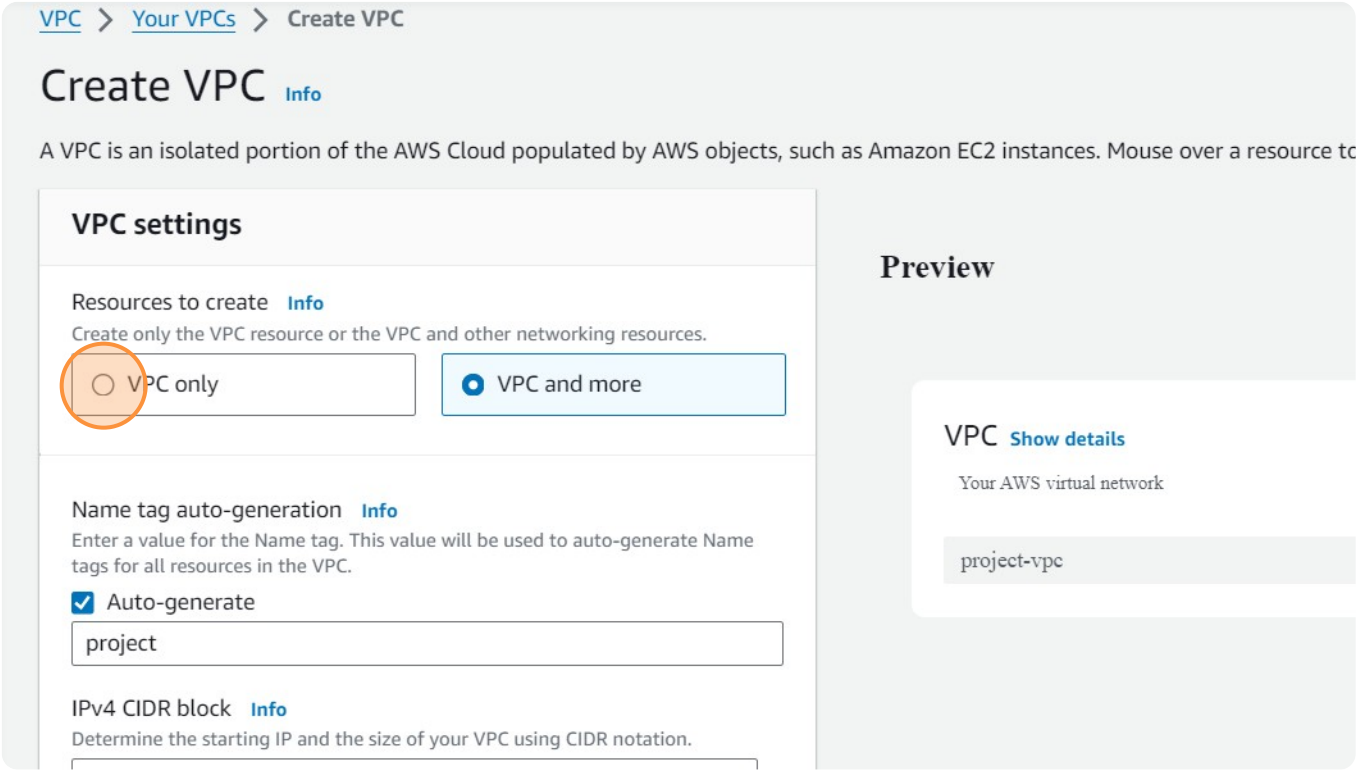
2 Click "VPC"



3 Click "Create VPC"



4 You can create only the VPC resource or the VPC and other networking resources. I created VPC only.



5 Provide name for your VPC.

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

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 - *optional*

Creates a tag with a key of 'Name' and a value that you specify.

my-vpc-01

IPv4 CIDR block Info

(•) IPv4 CIDR manual input

( ) IPAM-allocated IPv4 CIDR block

IPv4 CIDR

10.0.0.0/24

CIDR block size must be between /16 and /28.

IPv6 CIDR block Info

6 Specify IPv4 CIDR block.

Name tag - *optional*

Creates a tag with a key of 'Name' and a value that you specify.

my-vpc-1

IPv4 CIDR block Info

(•) IPv4 CIDR manual input

( ) IPAM-allocated IPv4 CIDR block

IPv4 CIDR

10.0.0.0/24

CIDR block size must be between /16 and /28.

IPv6 CIDR block Info

(•) No IPv6 CIDR block

( ) IPAM-allocated IPv6 CIDR block

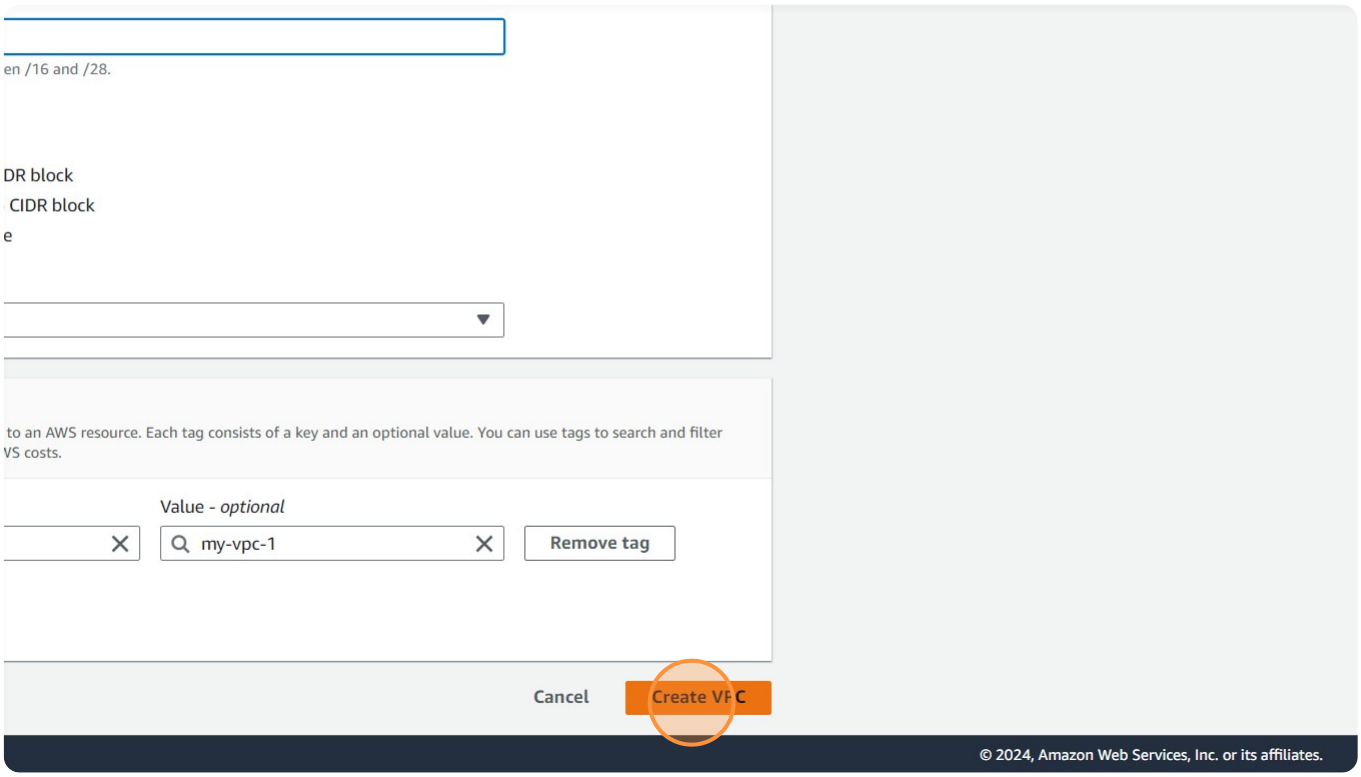
( ) Amazon-provided IPv6 CIDR block

( ) IPv6 CIDR owned by me

Tenancy Info

Default

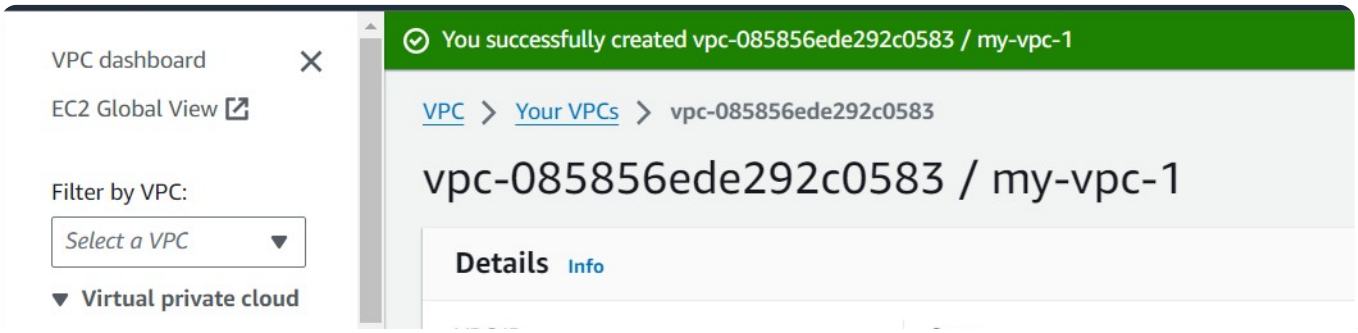
7 Click "Create VPC"

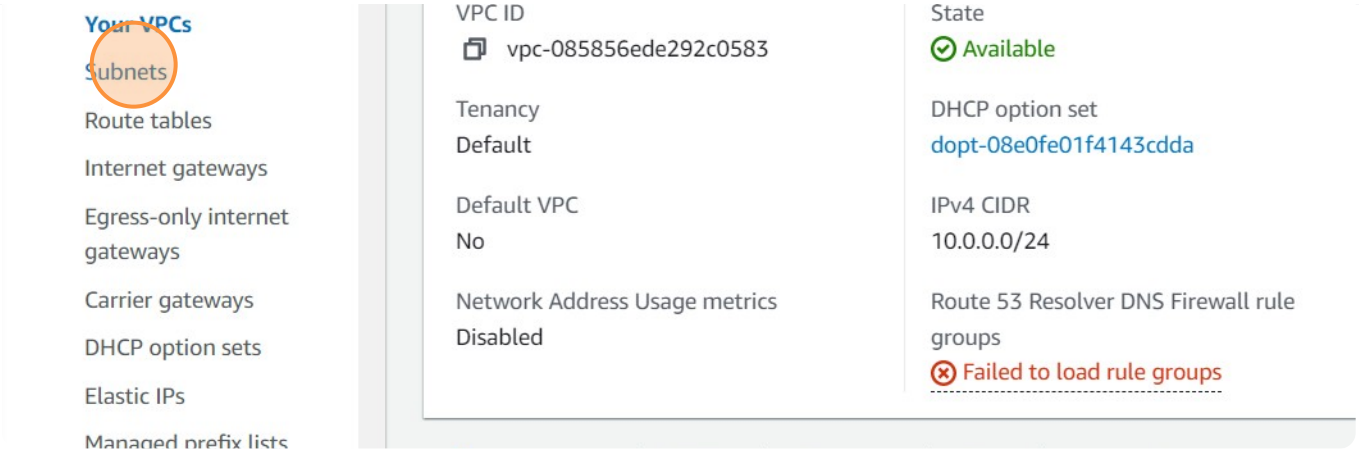


8 VPC is created successfully.

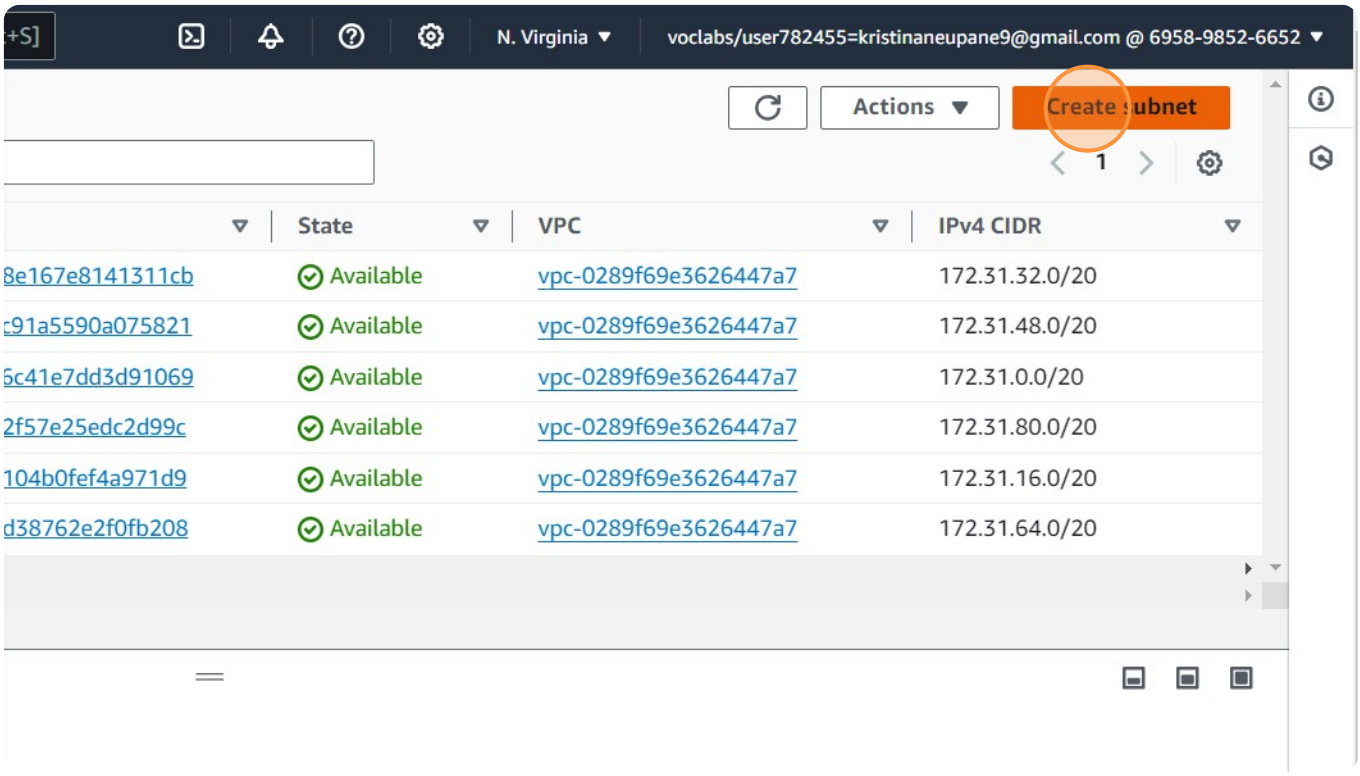
Steps to add subnet to VPC

9 Click "Subnets" on left sidebar.

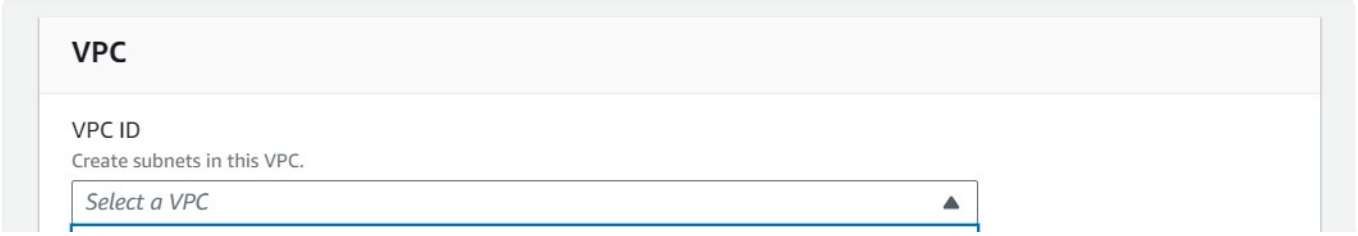


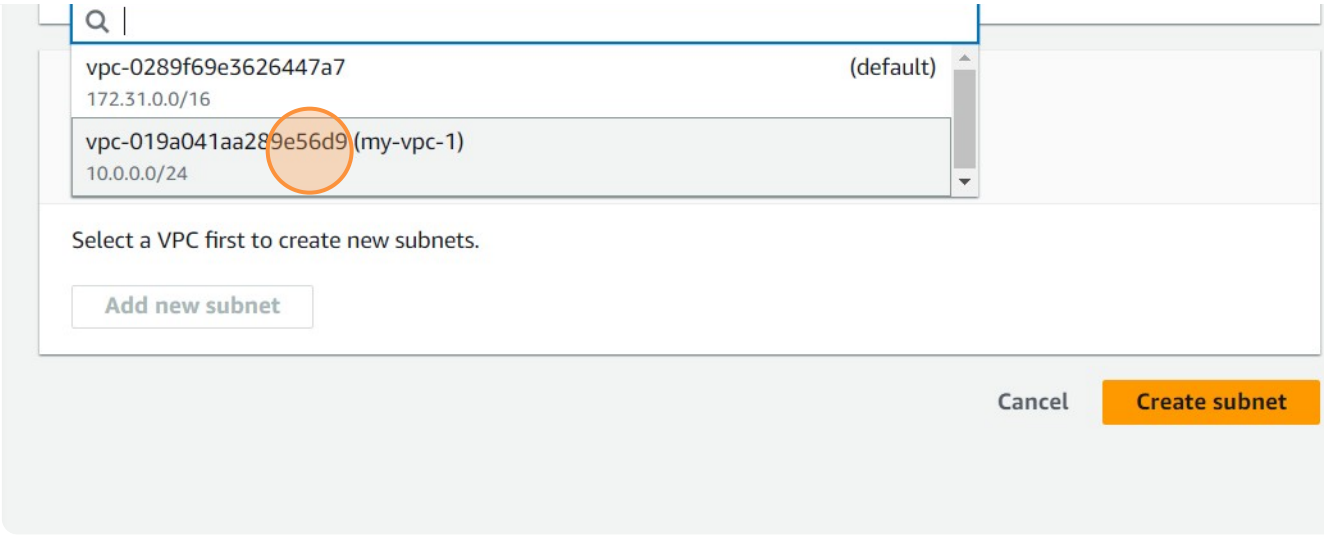


10 Click "Create subnet"

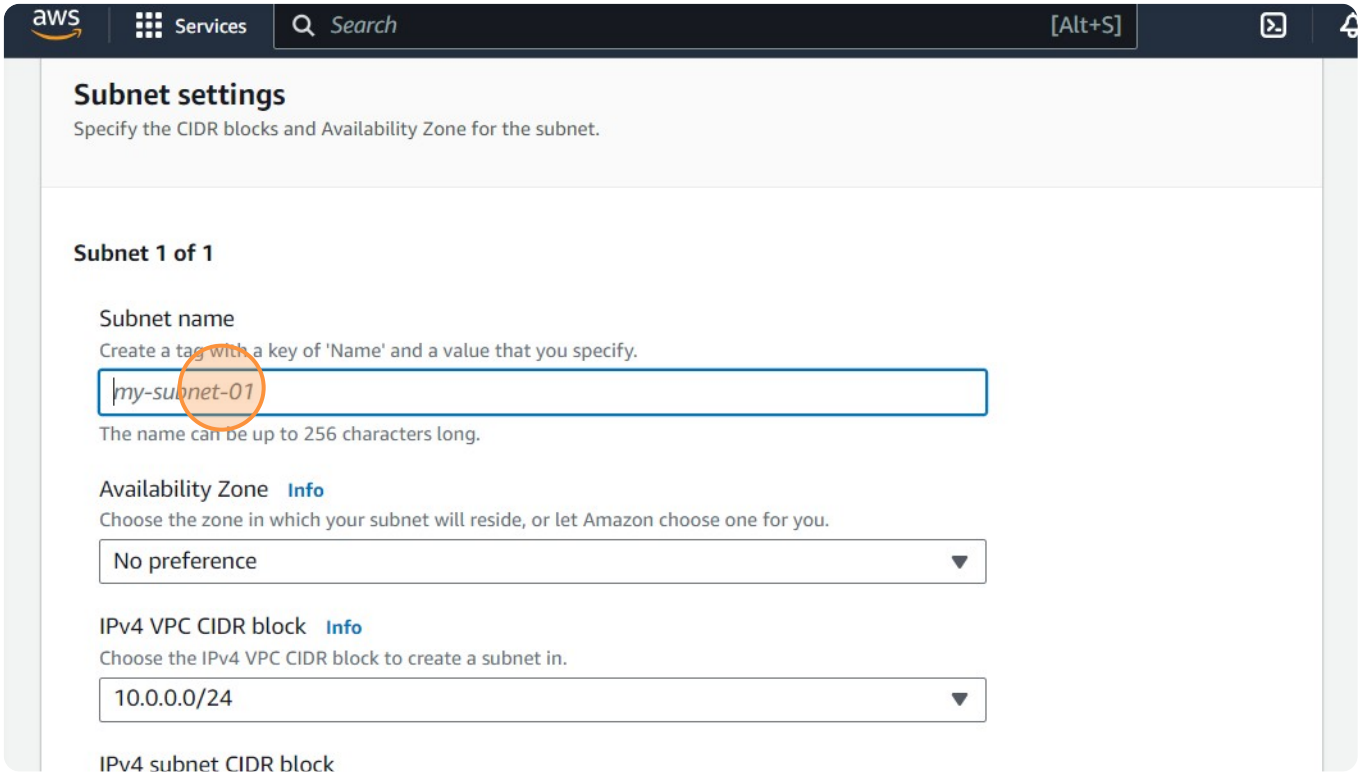


11 Select a VPC to which you want to add subnet.

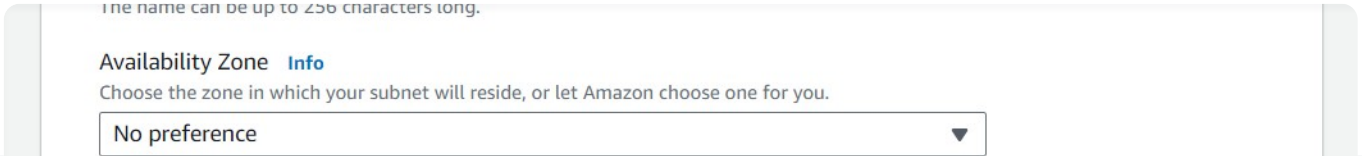


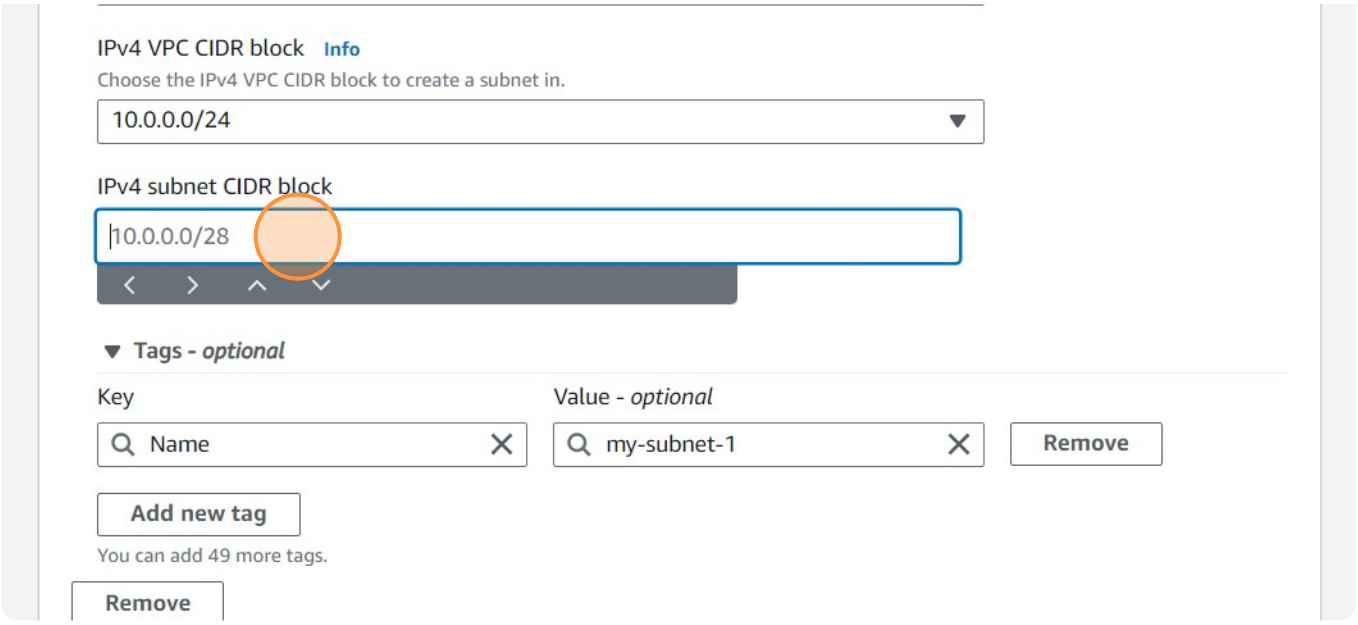


12 Provide a name for subnet.

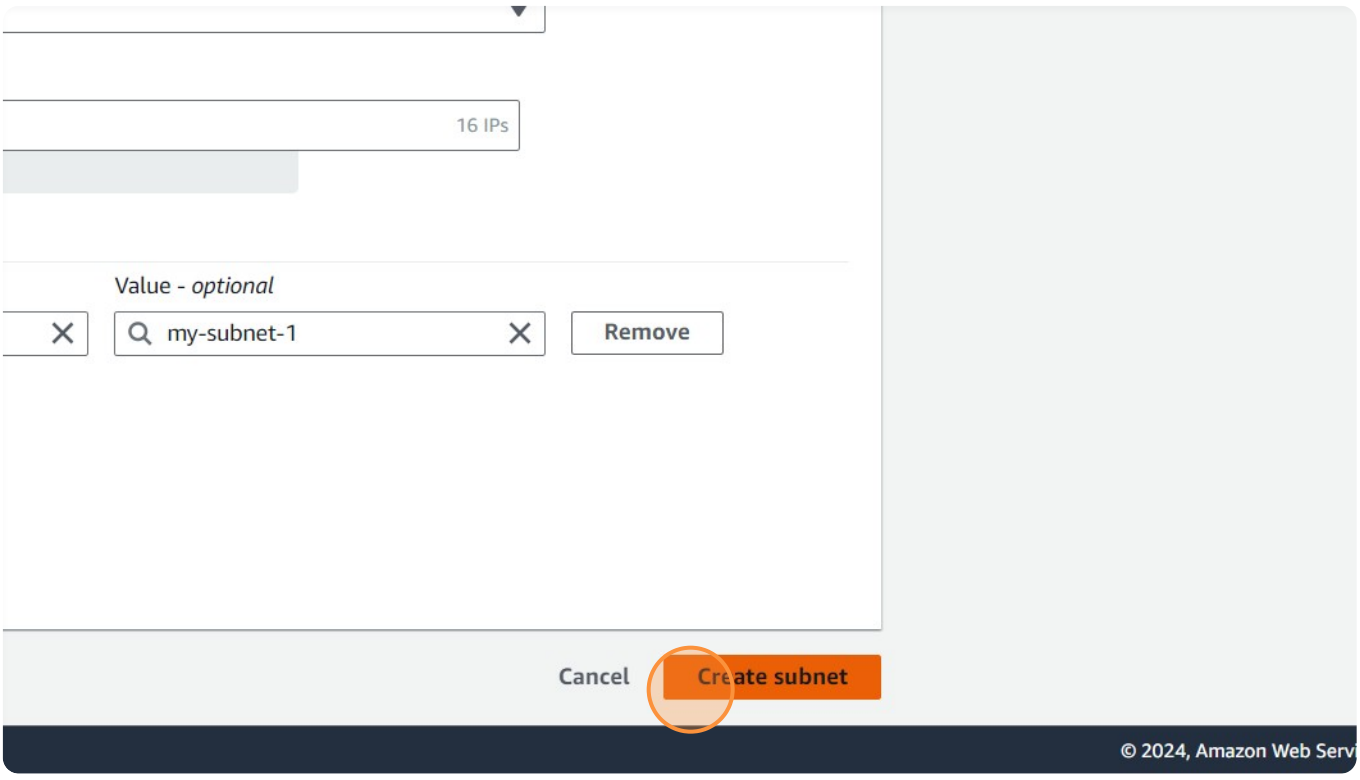


13 Specify IPv4 subnet CIDR block.



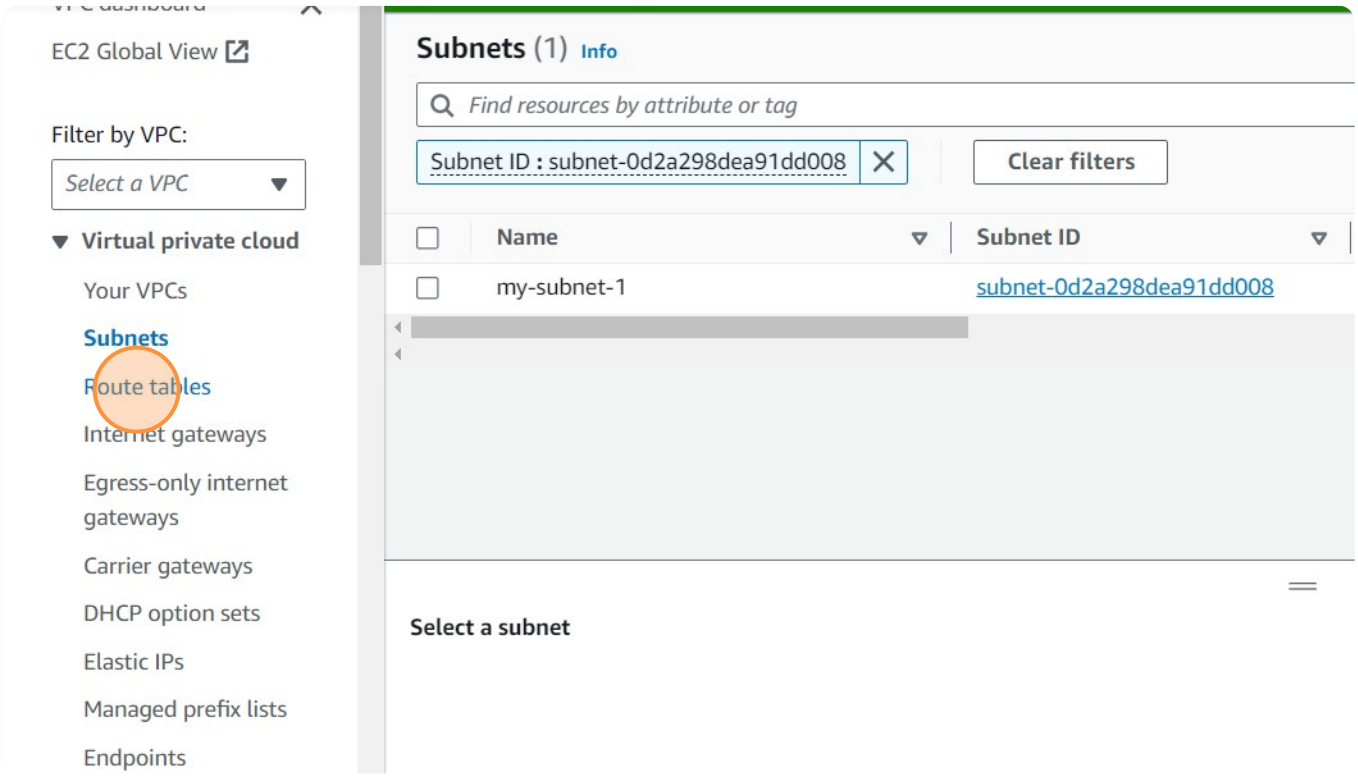


14 Click "Create subnet"

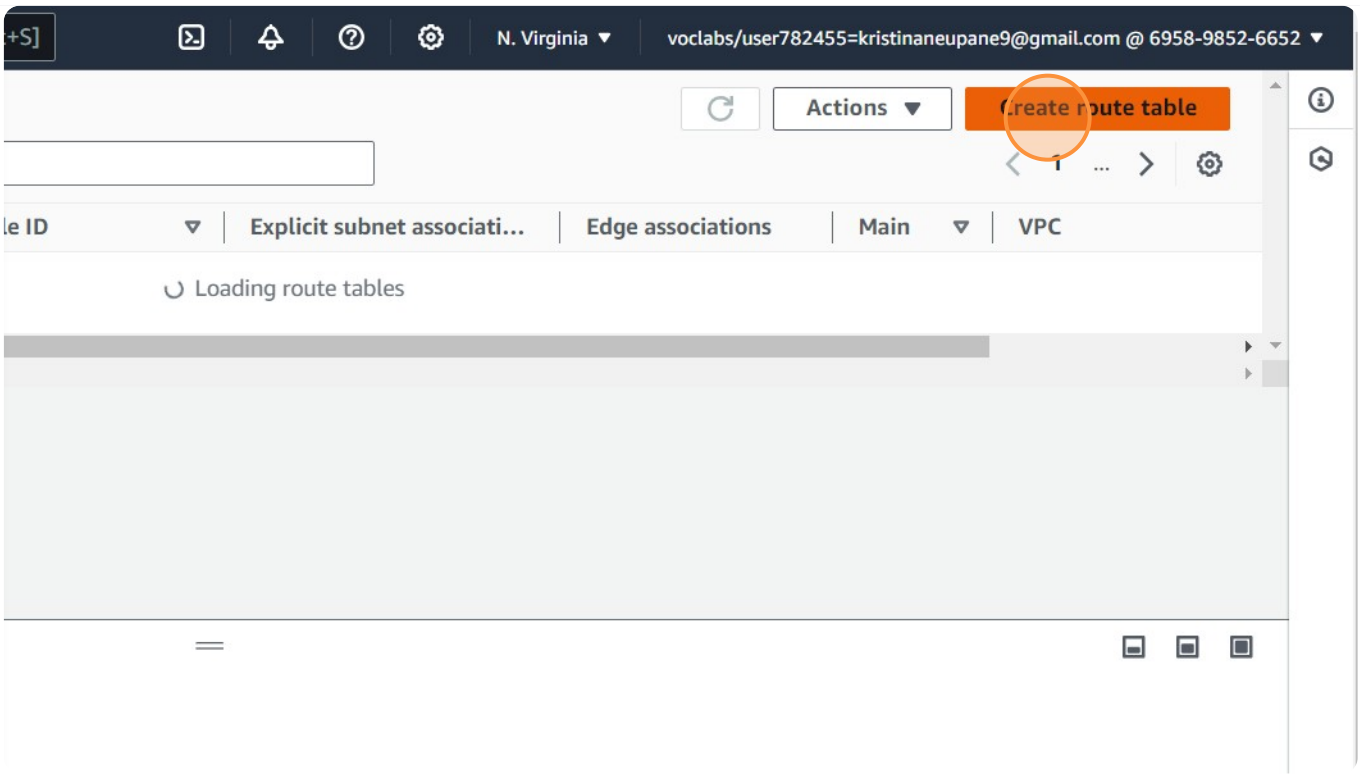


Steps to configure route tables

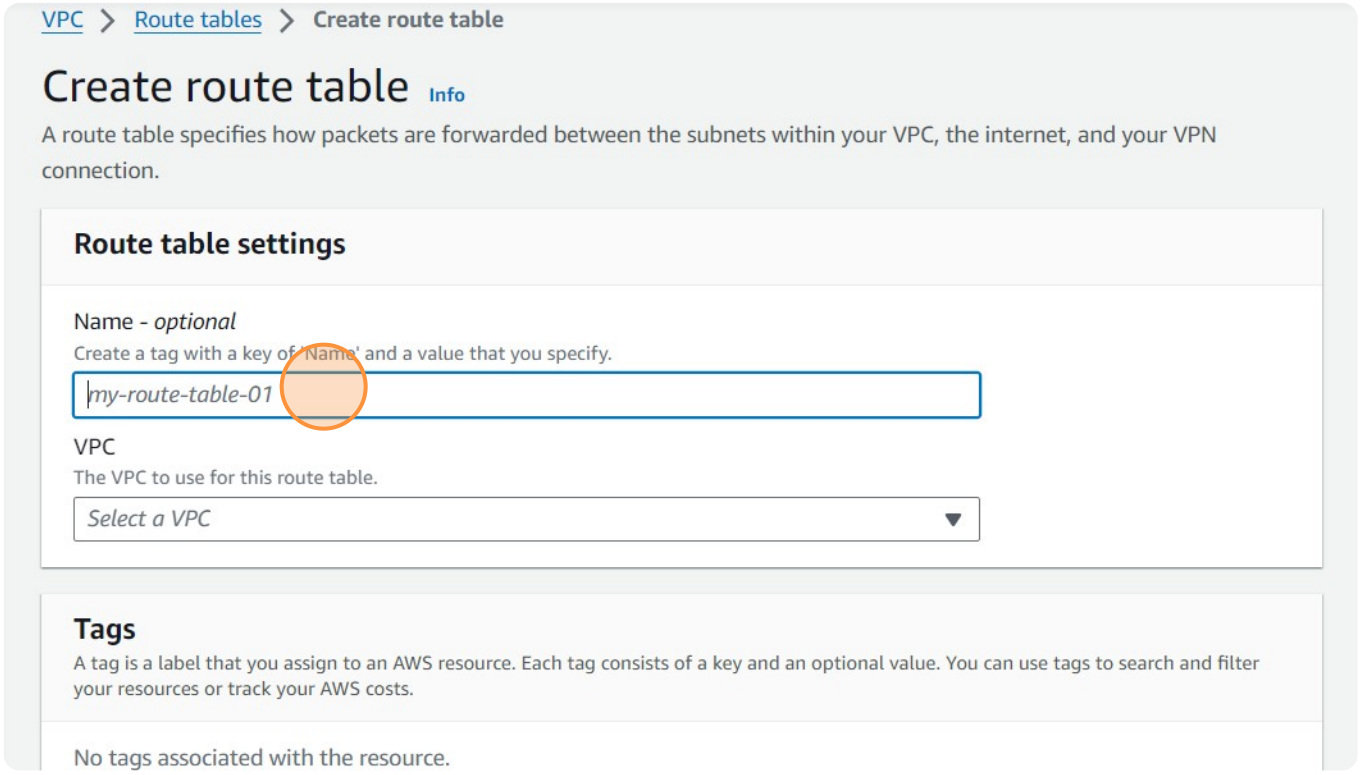
15 Click "Route tables" on left sidebar.



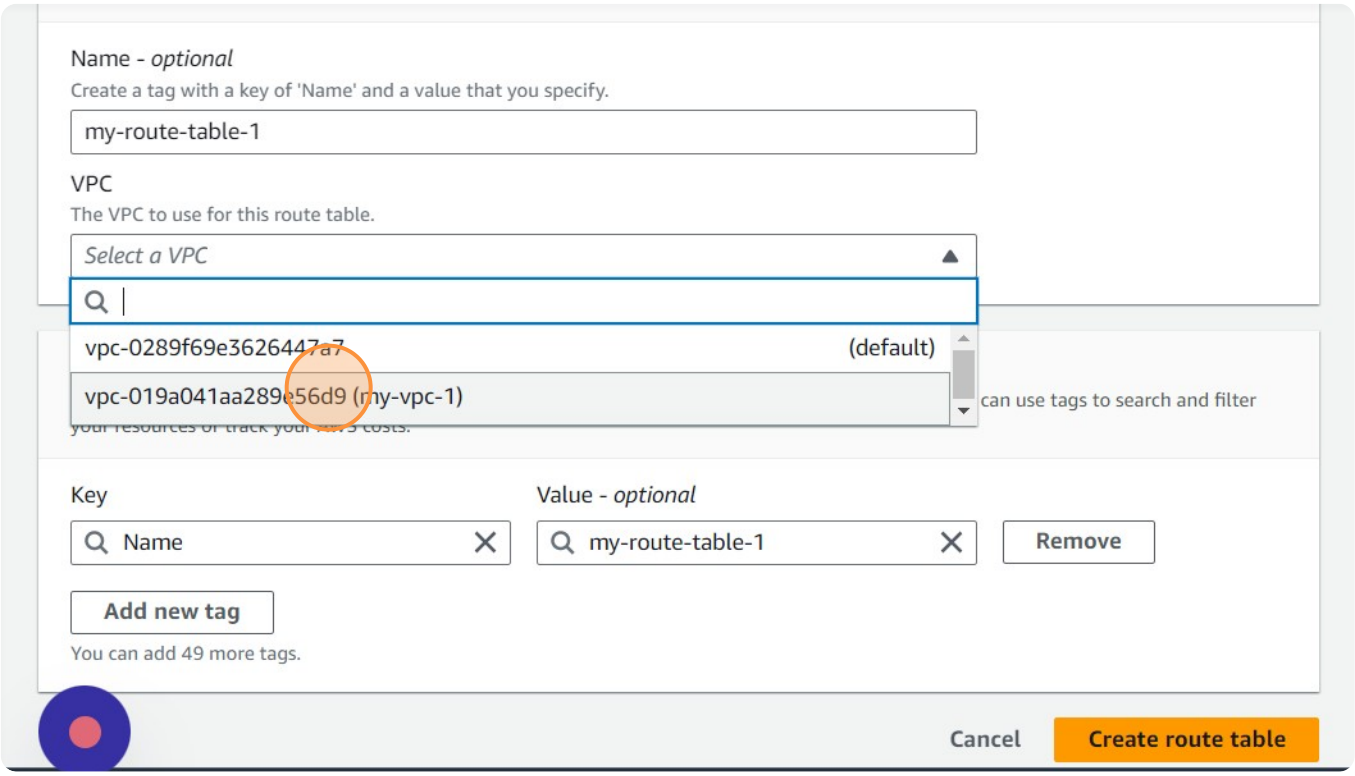
16 Click "Create route table"



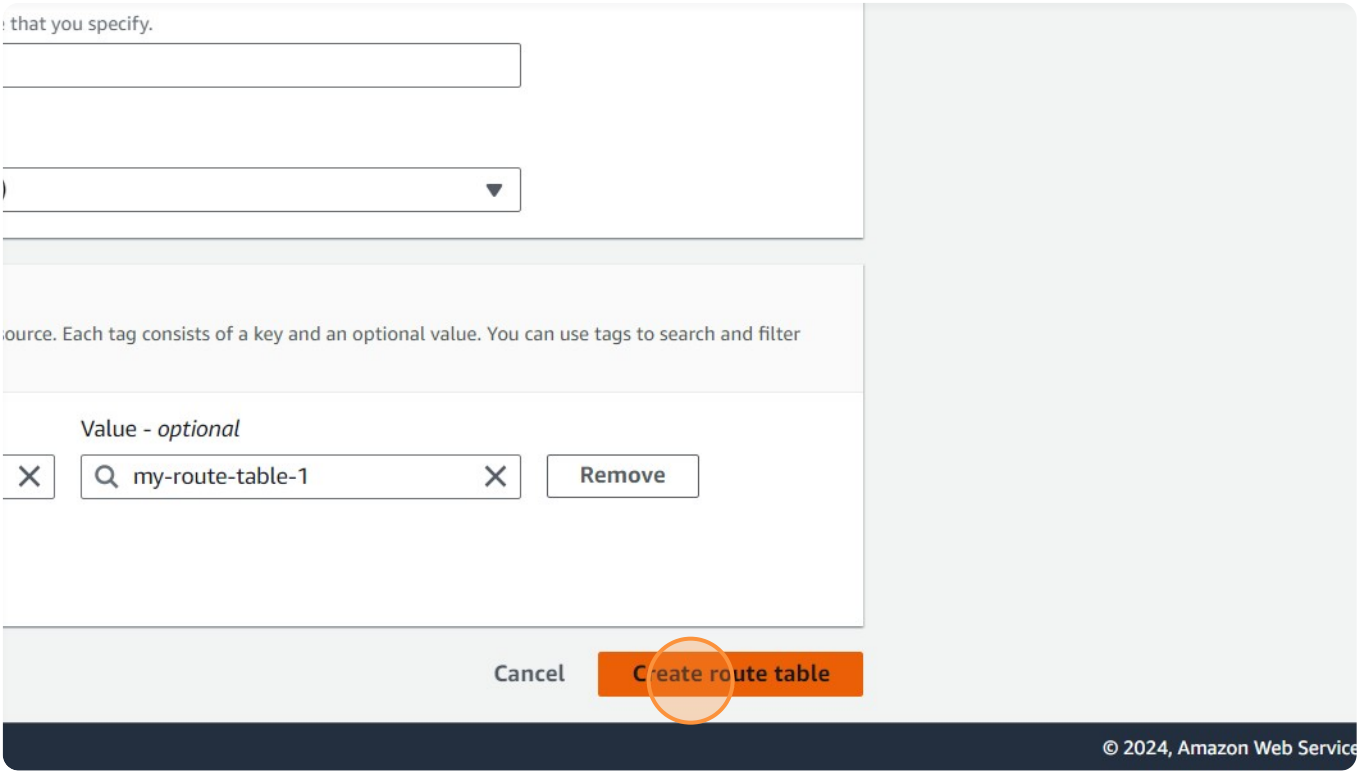
17 Provide name for route table.



18 Select a VPC to use for route table.

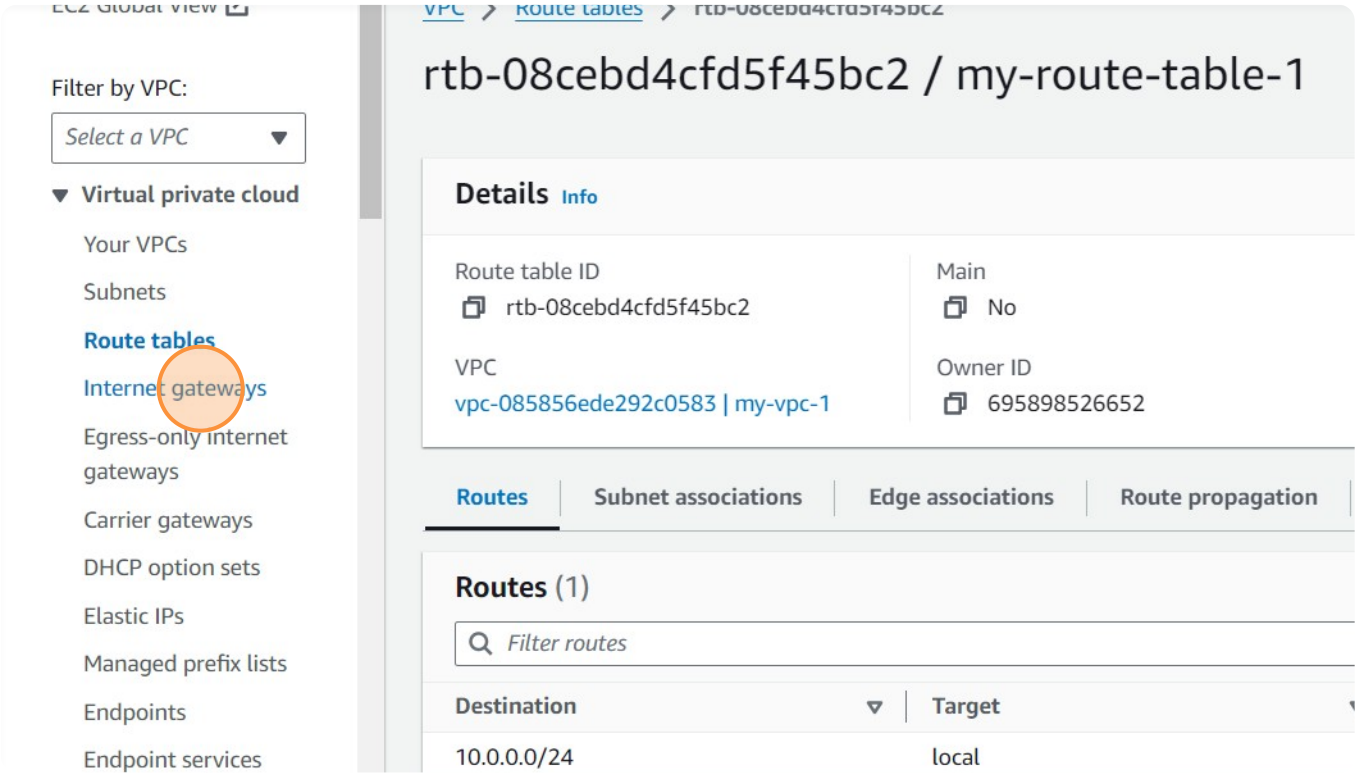


19 Click "Create route table"

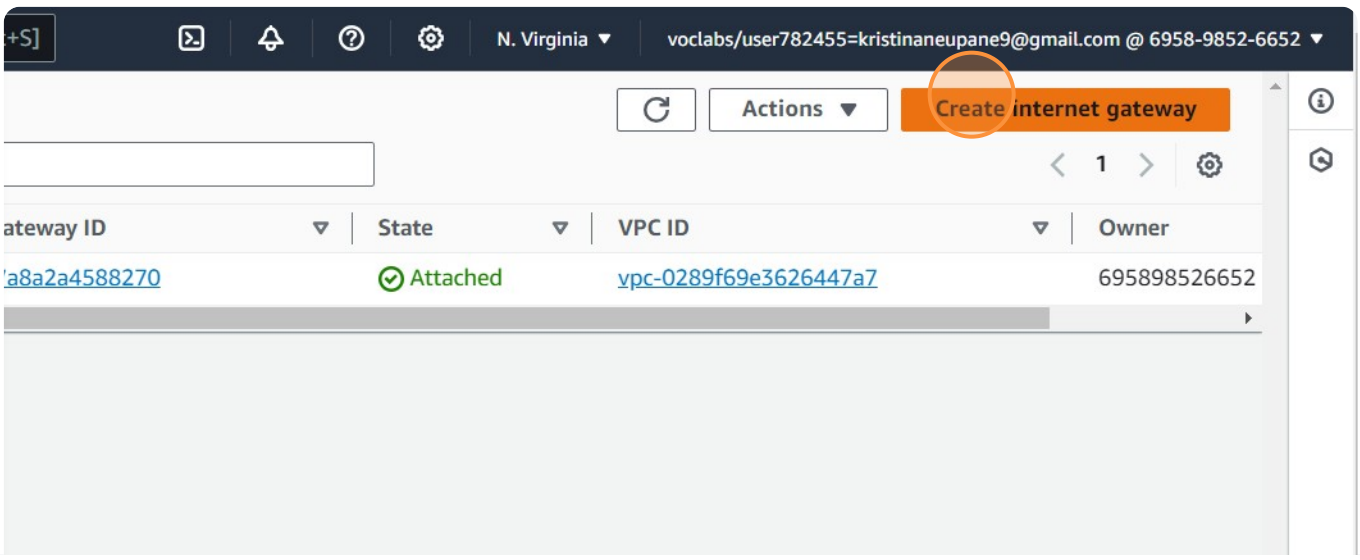


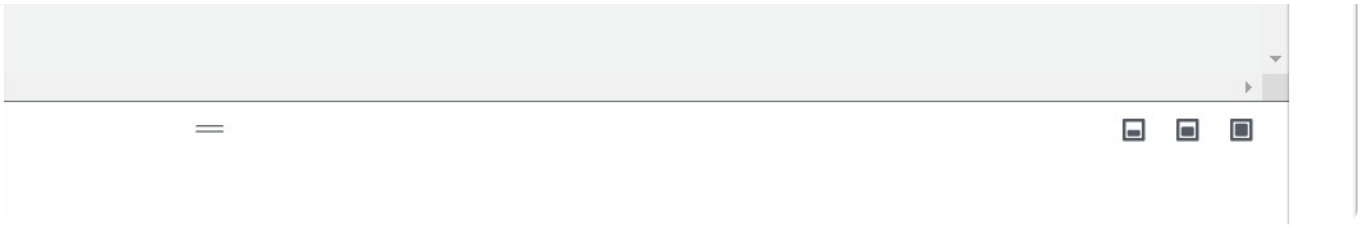
Steps to set up Internet Gateway

20 Click "Internet gateways"

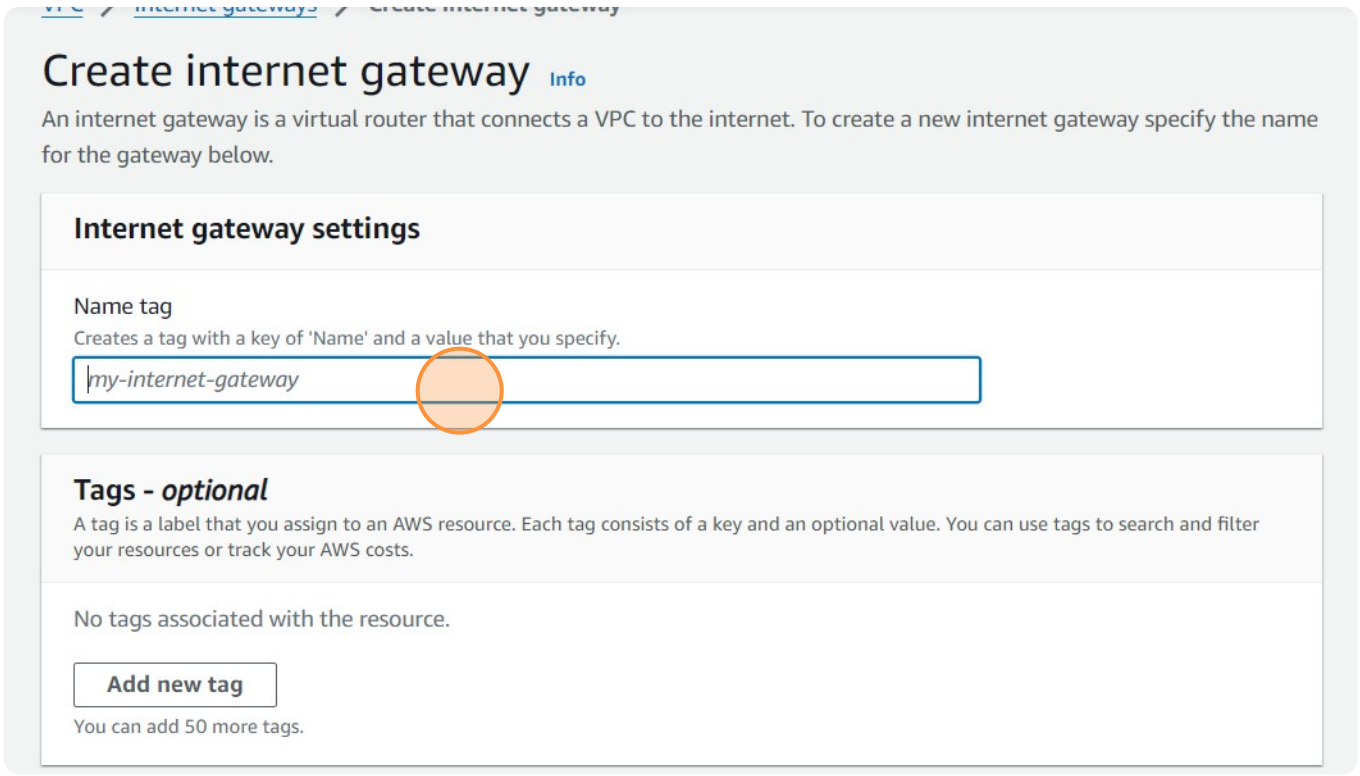


21 Click "Create internet gateway"

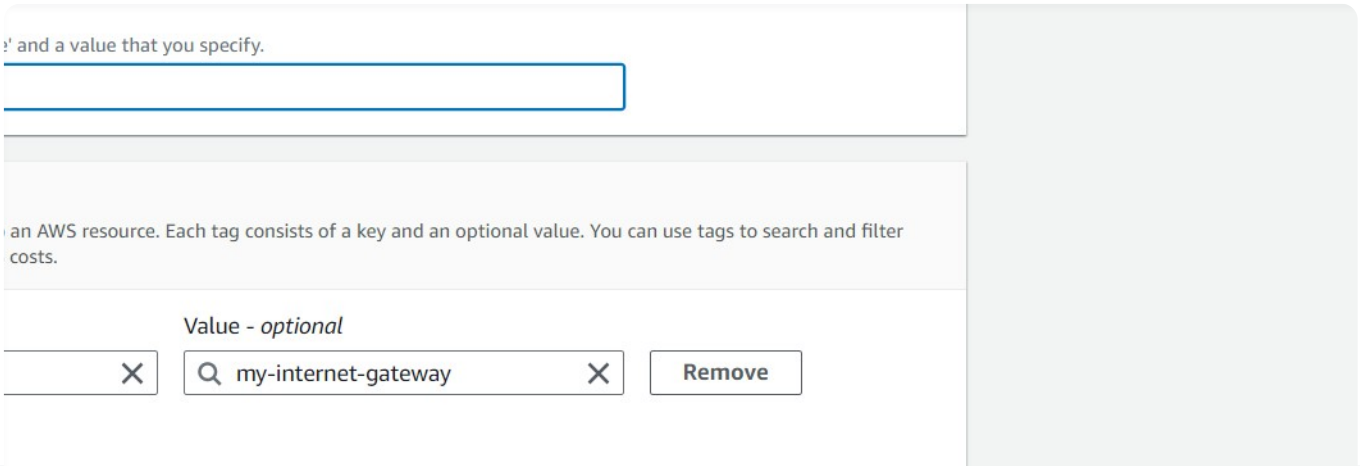


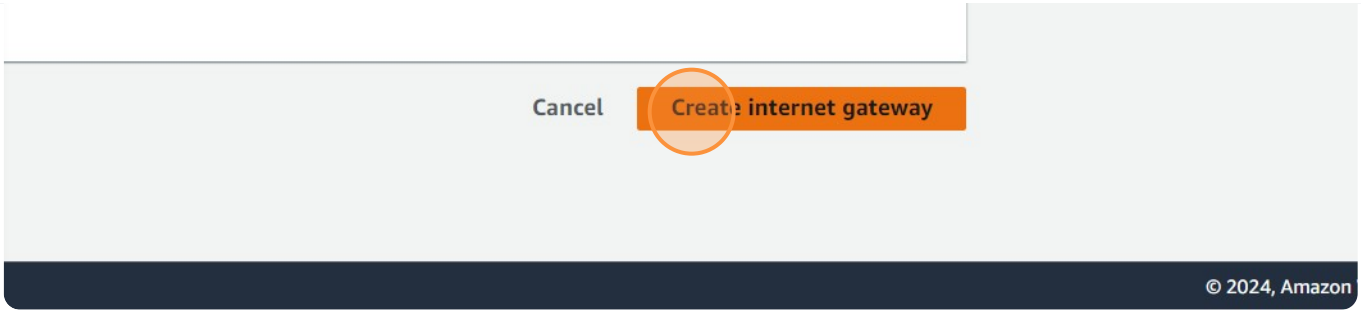


22 Provide a name for Internet Gateway.

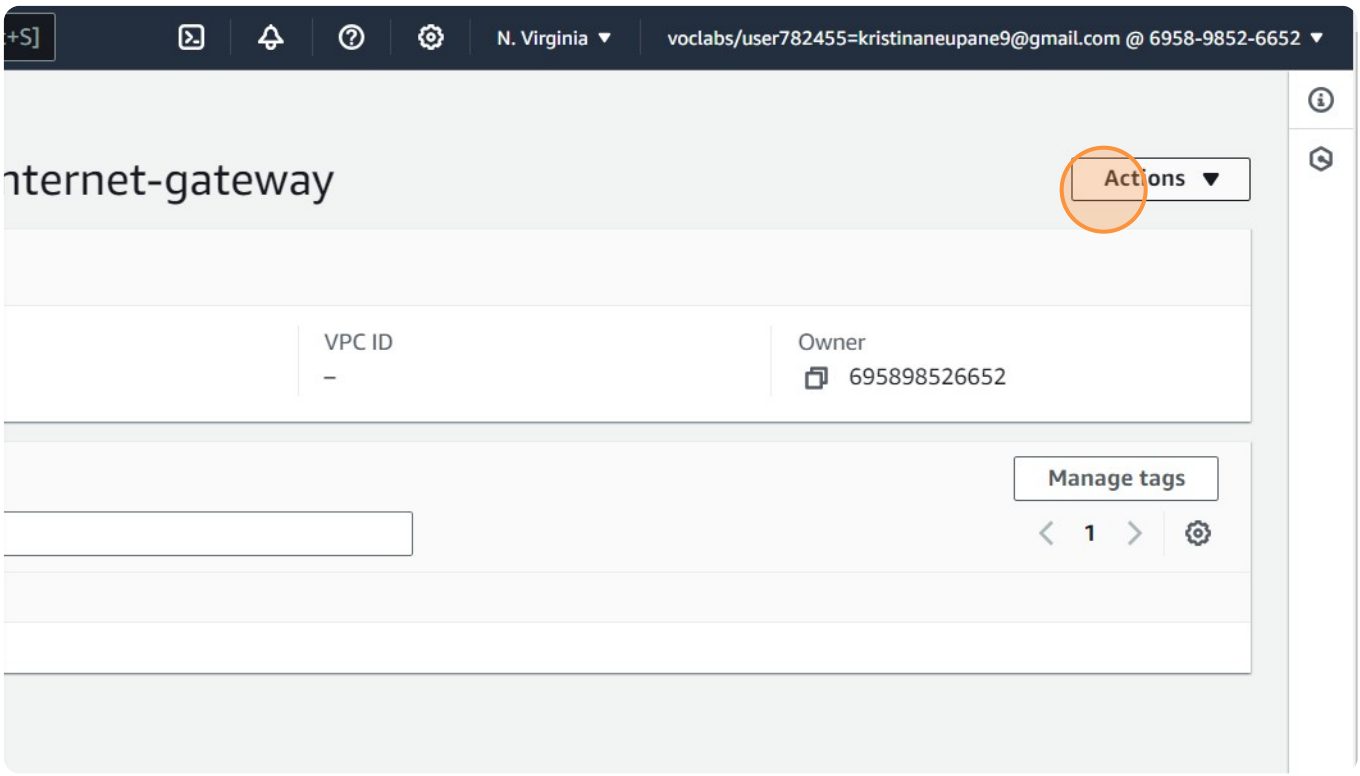


23 Click "Create internet gateway"

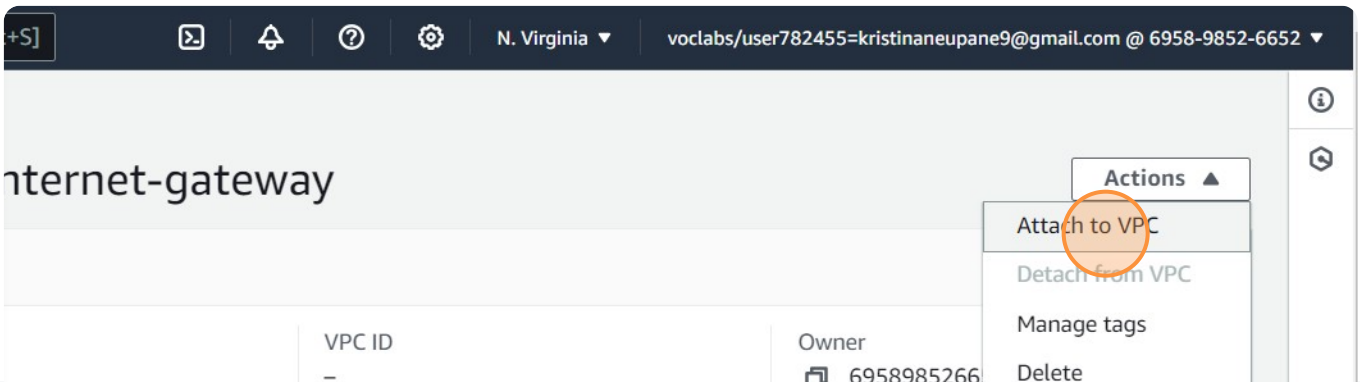


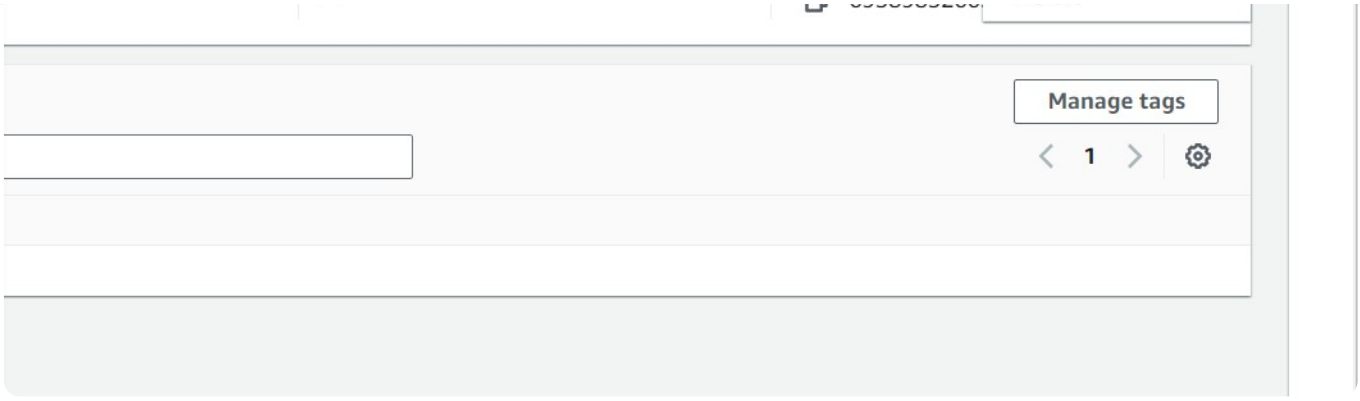


24 Click "Actions"

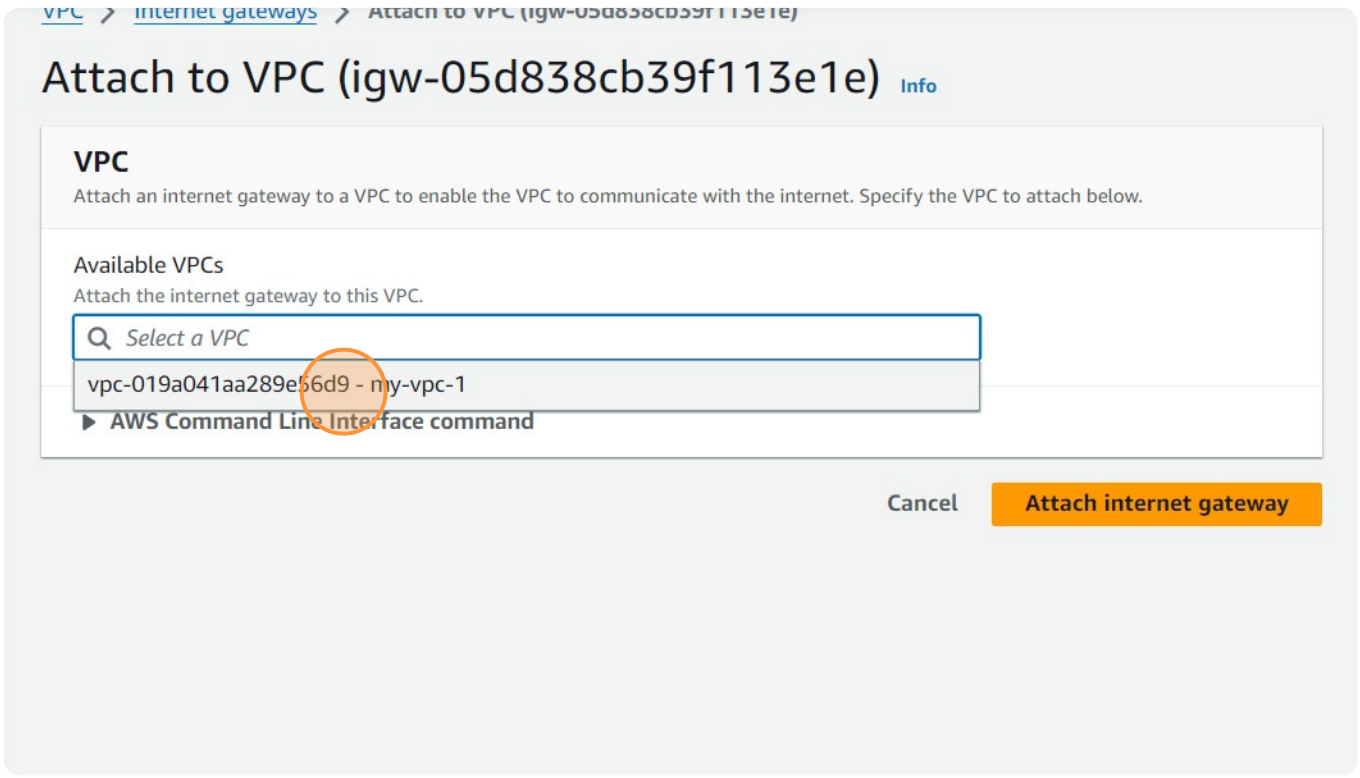


25 Click "Attach to VPC"

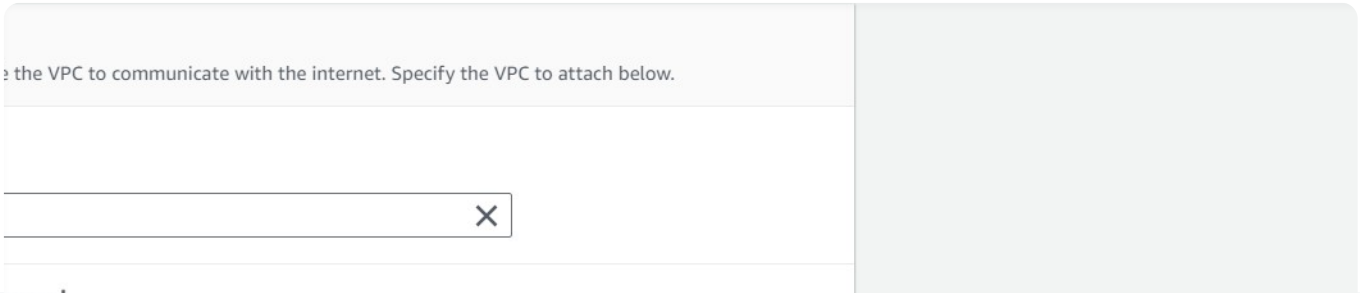


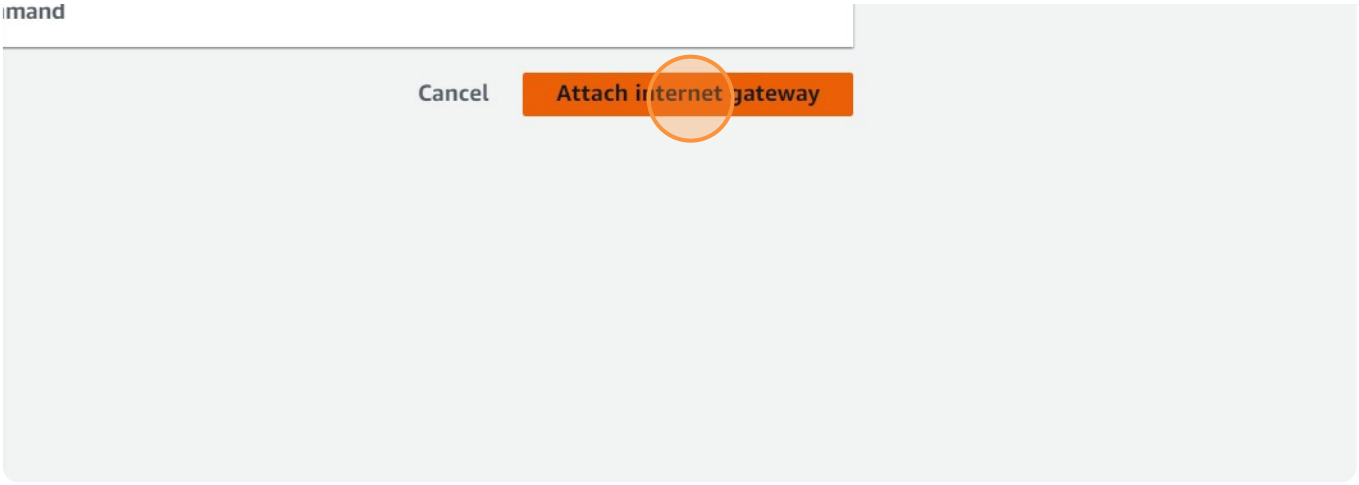


26 Select VPC to which you want to attach Internet Gateway



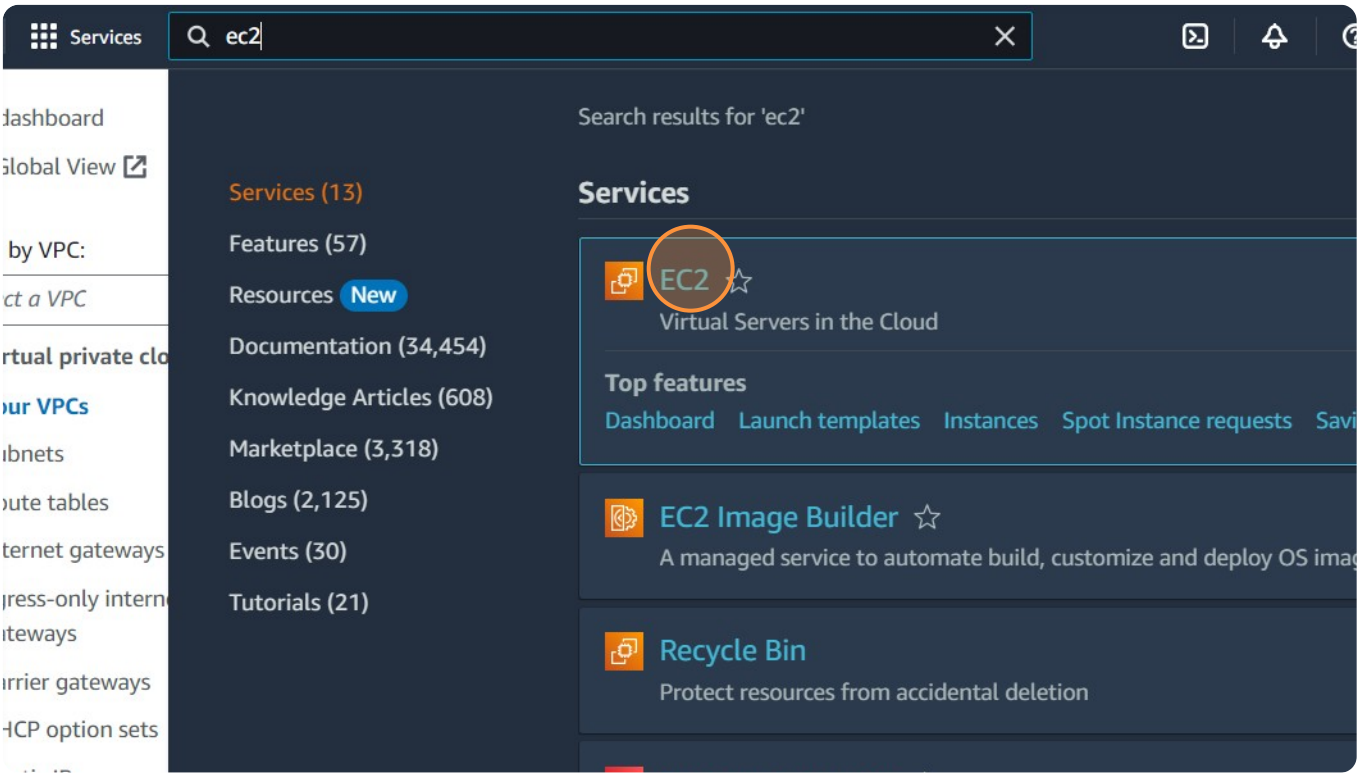
27 Click "Attach internet gateway"



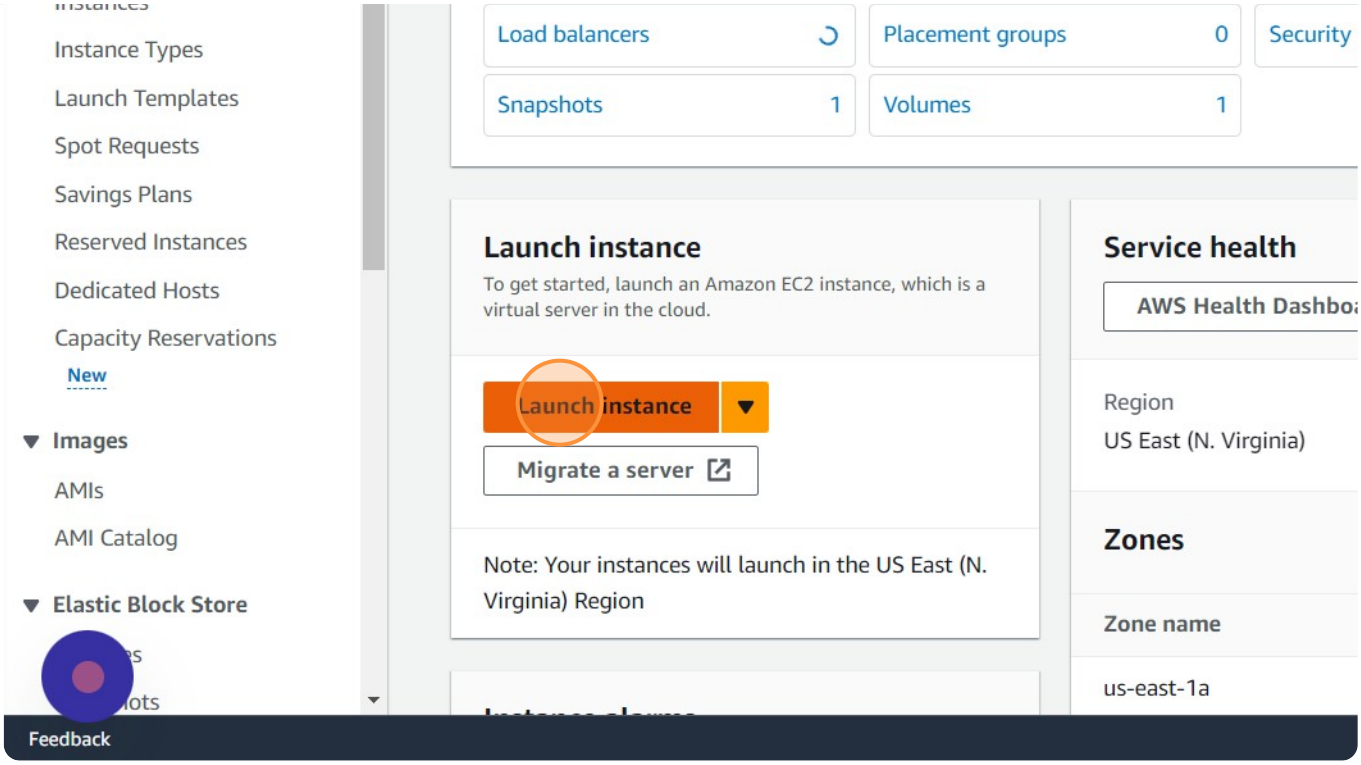


Steps to setup EC2 instance within VPC

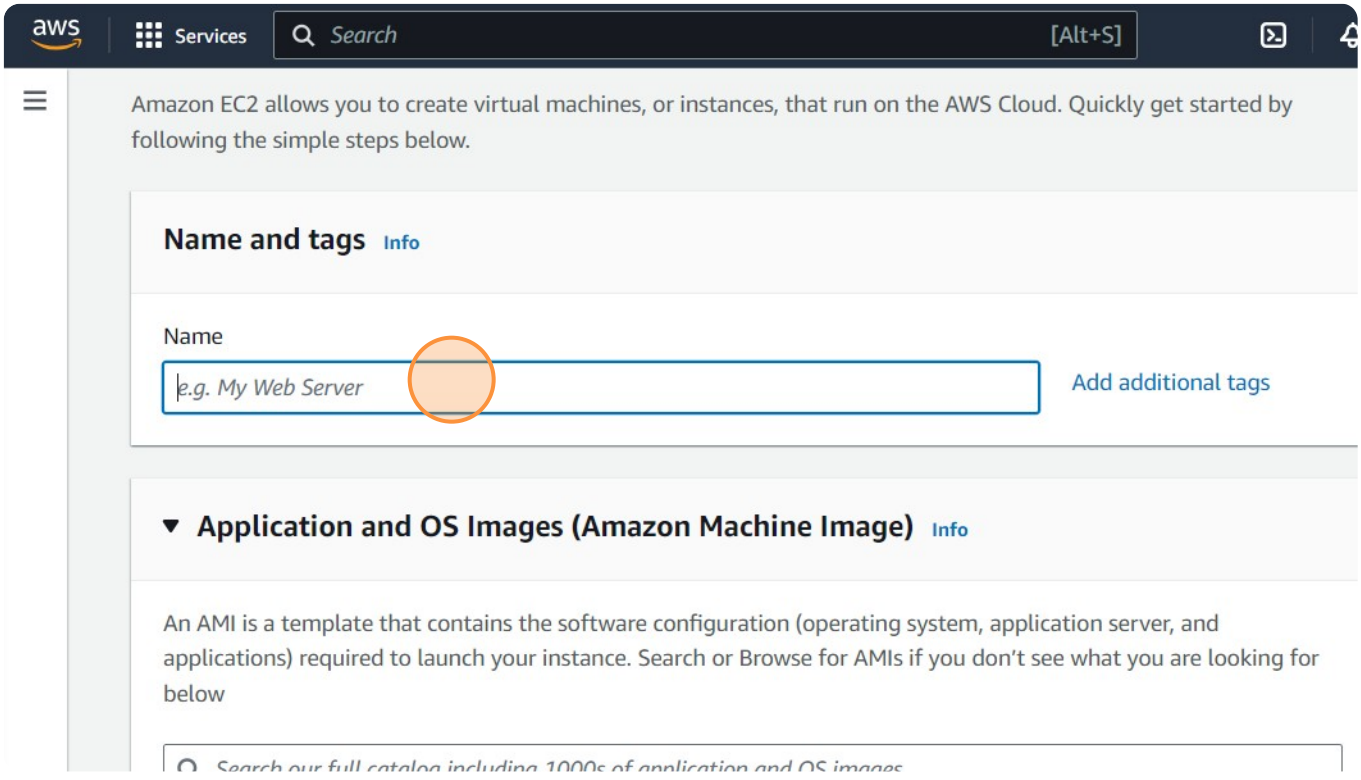
28 Click "EC2"



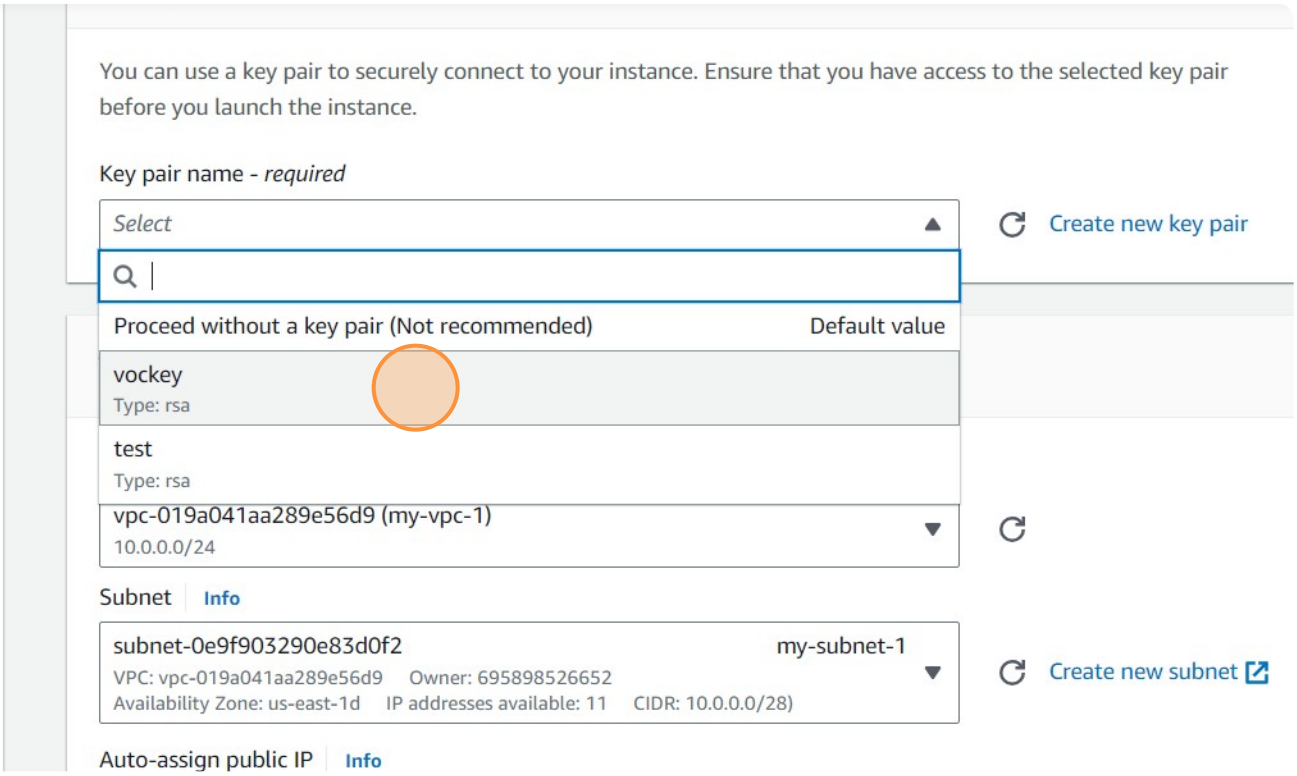
29 Click "Launch instance"



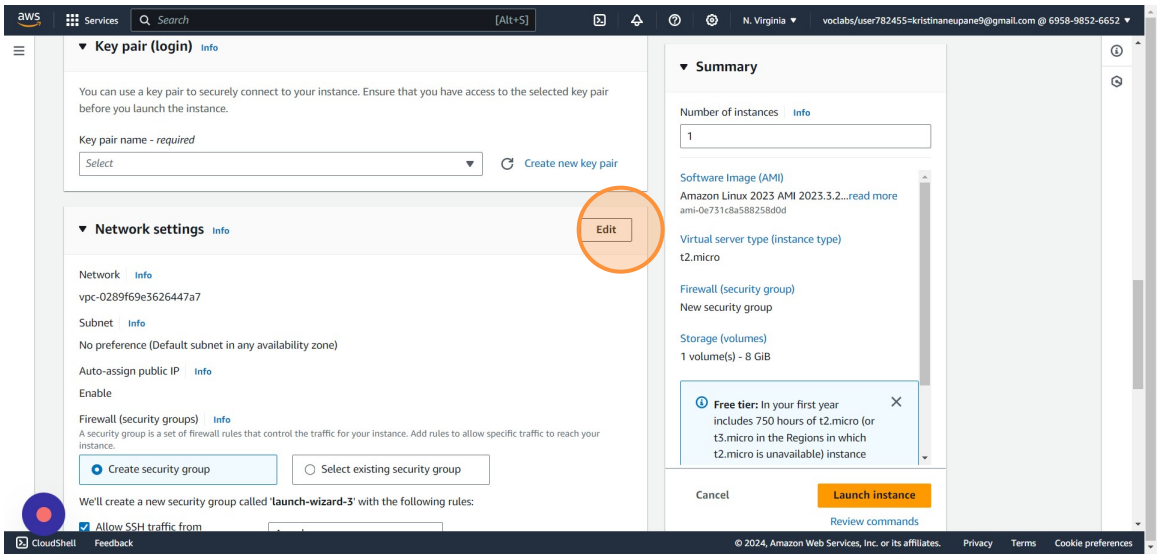
30 Provide name for EC2.



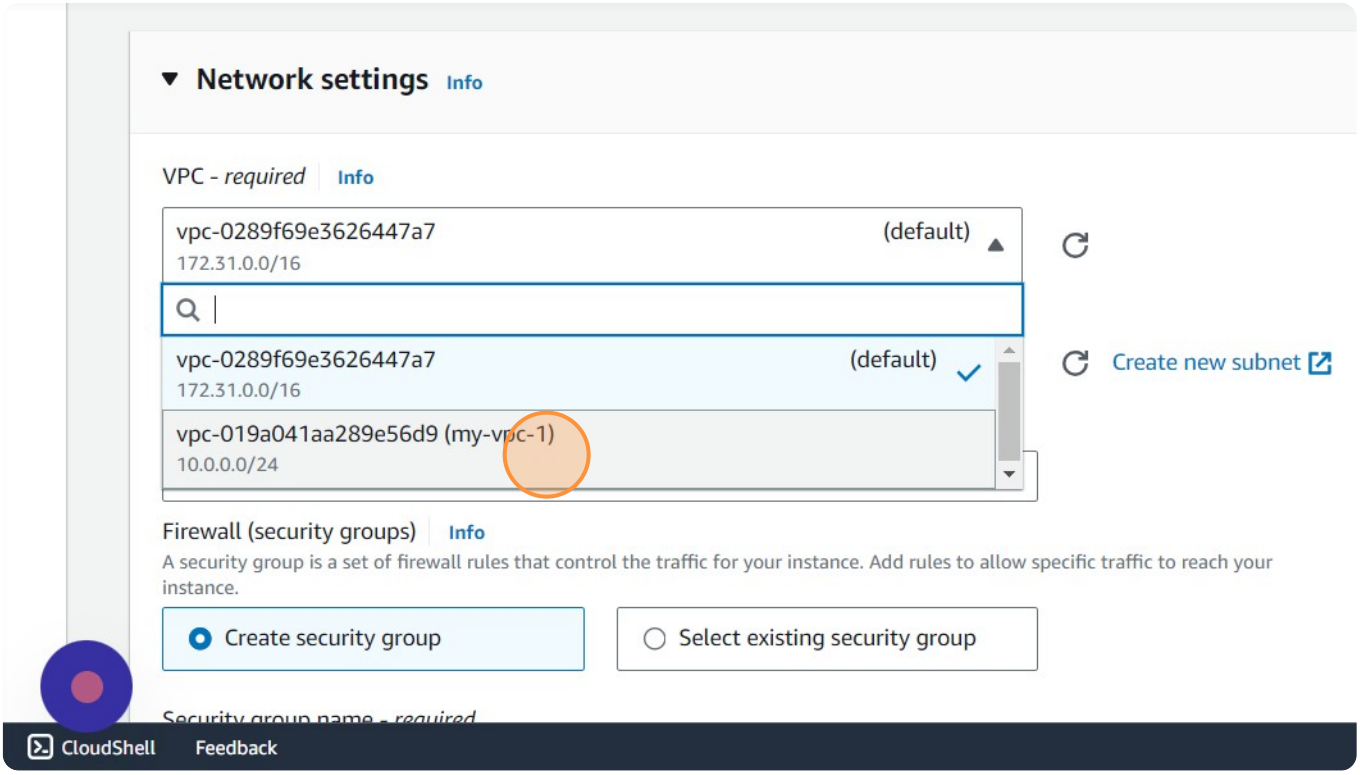
31 Select a key pair name.



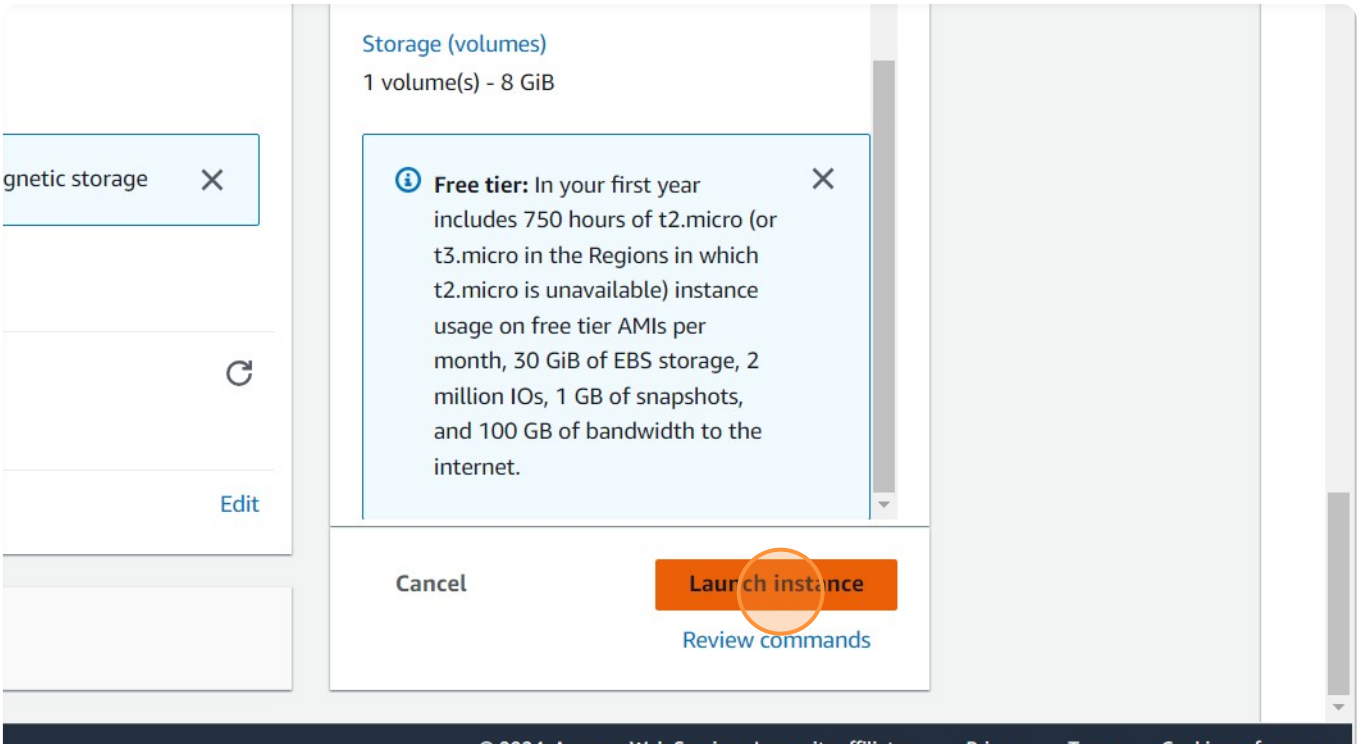
32 Click "Edit" on right side of Network settings.



33 Select VPC you just created.



34 Click "Launch instance"



35 Successfully launched a simple EC2 instance within VPC just created.