

Assignment-1

- Create a VPC with 2 Subnets and 2 Route Tables and 1 Internet gateway.
- Launch 3 instances
- Attach 1 instance with EBS
- Attach 2 instances with EFS

Create a virtual private cloud (VPC)

- Search for VPC in search space of AWS homepage and click on VPC (Image-1)

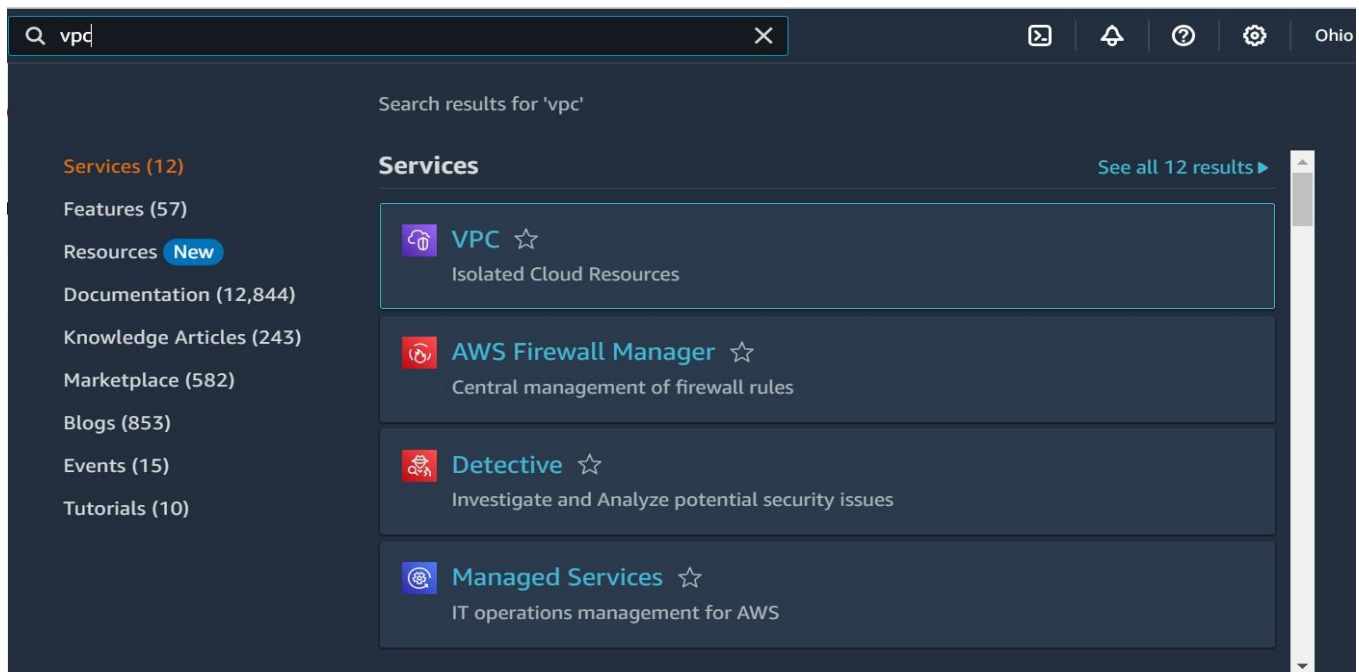


Image-1

- Now click on your VPCs option from VPC menu of VPC page as shown as below (Image-2)

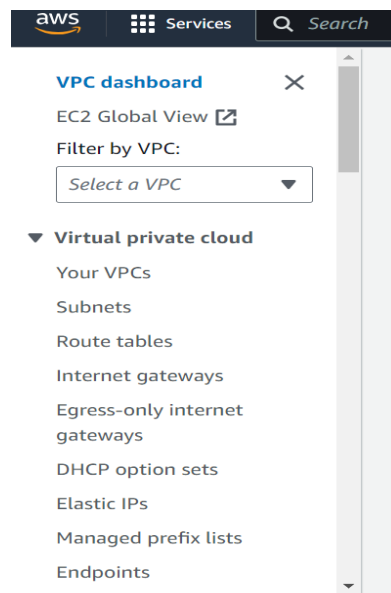


Image-2

- Now click on Create VPC to create our custom VPC as shown as below (Image-3)

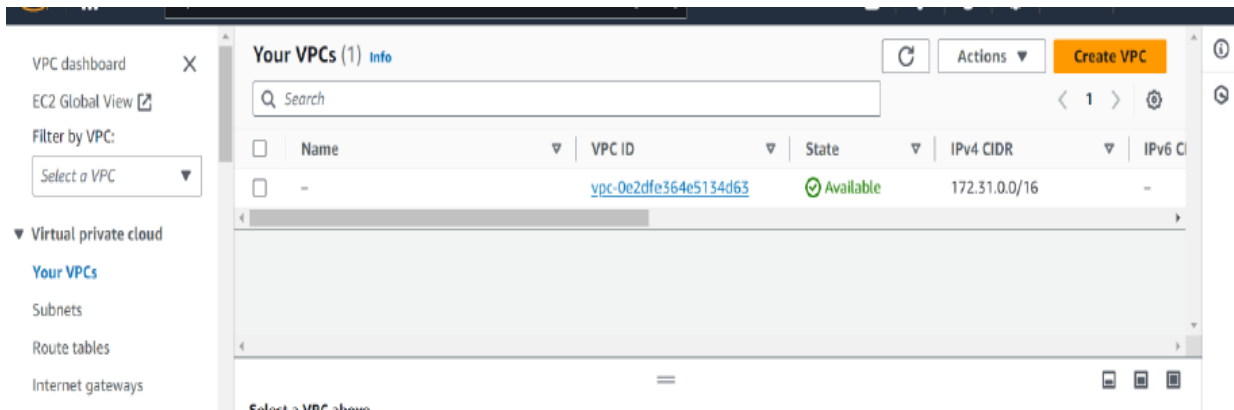


Image-3

- Now we have to give the details for our VPC and Finally click on Create VPC (Image-4).

A screenshot of the AWS 'Create VPC' wizard. The header shows the AWS logo, 'Services', a search bar, and '[Alt+S]'. The title is 'Create VPC' with an 'Info' link. Below the title is a description: 'A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.' The 'VPC settings' section includes 'Resources to create' with options 'VPC only' (selected) and 'VPC and more'. It also has a 'Name tag - optional' field with the value 'my-vpc-01'. Under 'IPv4 CIDR block', 'IPv4 CIDR manual input' is selected, and the 'IPv4 CIDR' field contains '10.0.0.0/16'. A note at the bottom states 'CIDR block size must be between /16 and /28'.

- Now created our custom VPC successfully.
- Now click on subnets to create Subnets to our custom VPC(Image-5).

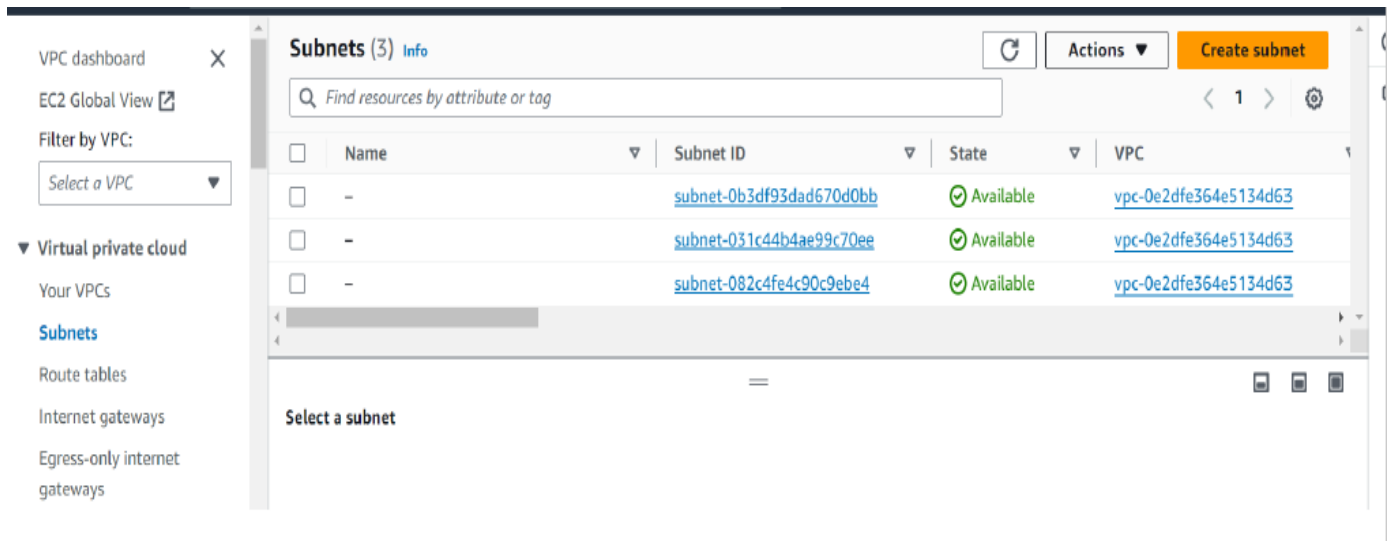
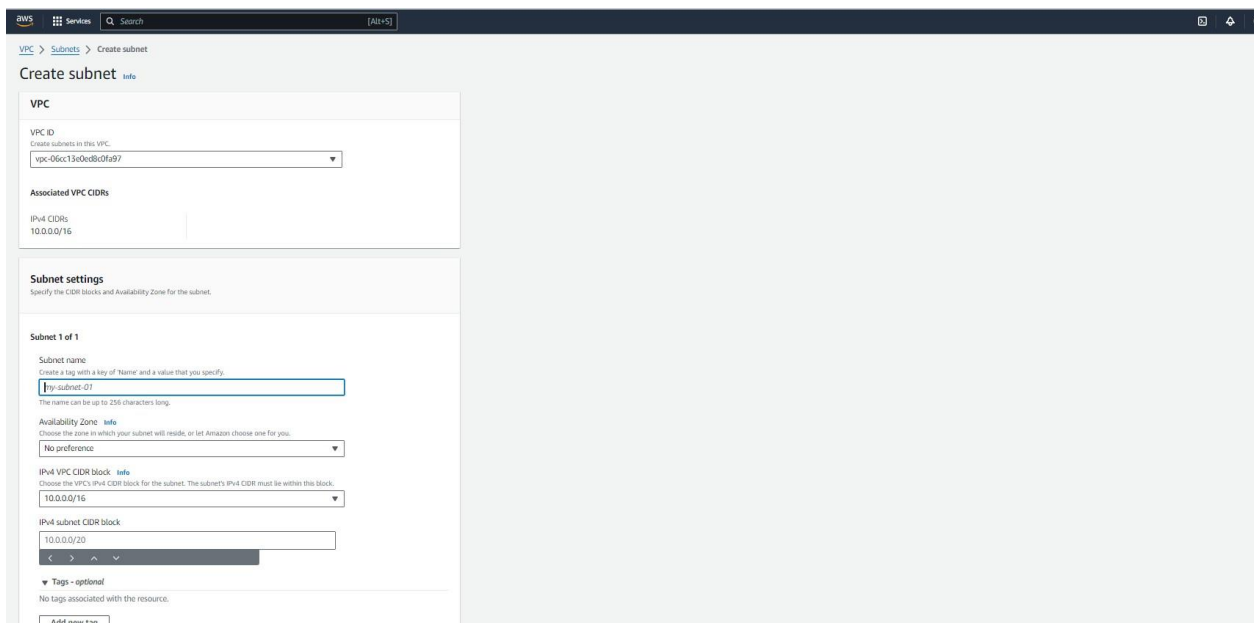


Image-5

- Then create two subnets those are public and private.
- We have given the our custom VPC-ID, Subnet Name , Choose only one availability zone,IPV4subnet CIDR block, then finally create subnet public(Image-6)



Public Subnet Image-6

➤ Private Subnet (Imag-7).

Create subnet

VPC

VPC ID:

Associated VPC CIDRs:

IPv4 CIDRs: 10.0.0.0/16

Subnet settings

Specify the CIDR block and availability zone for the subnet.

Subnet 1 of 1

Subnet name:

Availability Zone:

IPv4 VPC CIDR block:

IPv4 subnet CIDR block:

Tags: optional

Key: Value: optional:

[Add new tag](#) [Remove](#)

[Add new subnet](#)

Image-7

➤ Now we created two subnets to our custom VPC Successfully (Image-8)

Subnets (2/5)

Name	Subnet ID	State	VPC
subnet-1	subnet-05d9fd9feb2c2effb	Available	vpc-07539fc71
subnet(private)	subnet-04d383bd1c432cce8	Available	vpc-07539fc71

Subnets: subnet-05d9fd9feb2c2effb, subnet-04d383bd1c432cce8

Image-8

- Now click on internet gateways from menu bar and click on create Internet gateway(Image-9)

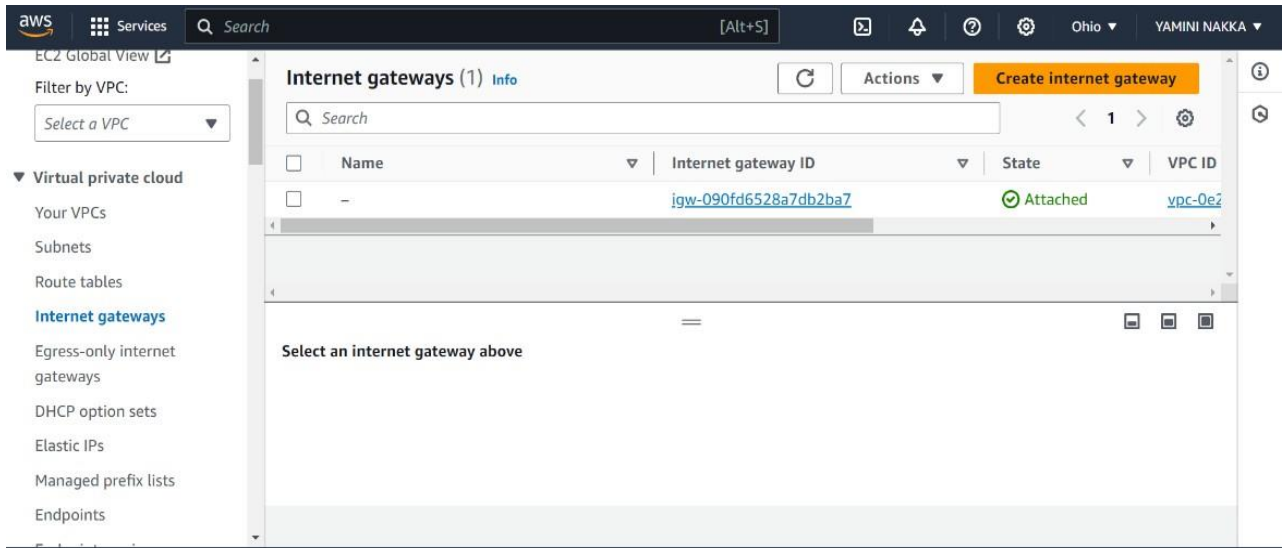


Image-9

- Now ,we have to give Name to our internet gateway and finally created Internet gate way(pic-10)

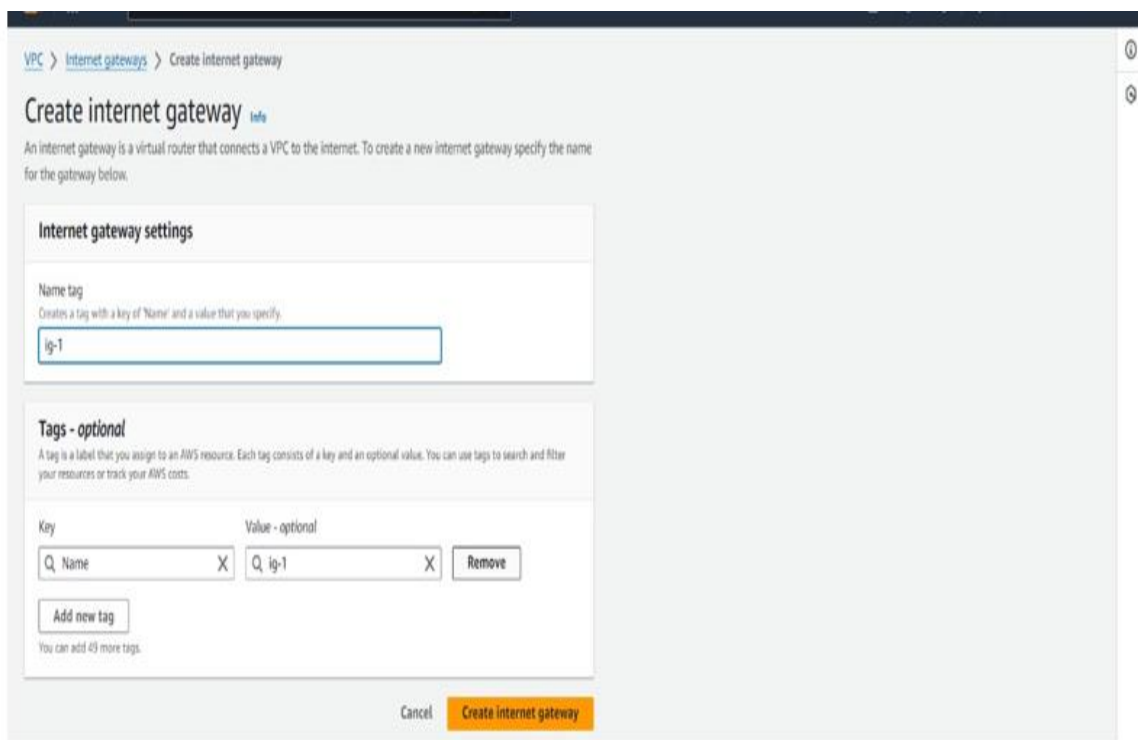


Image-10

- Then click on actions and click on the attach to the VPC (Image-11).

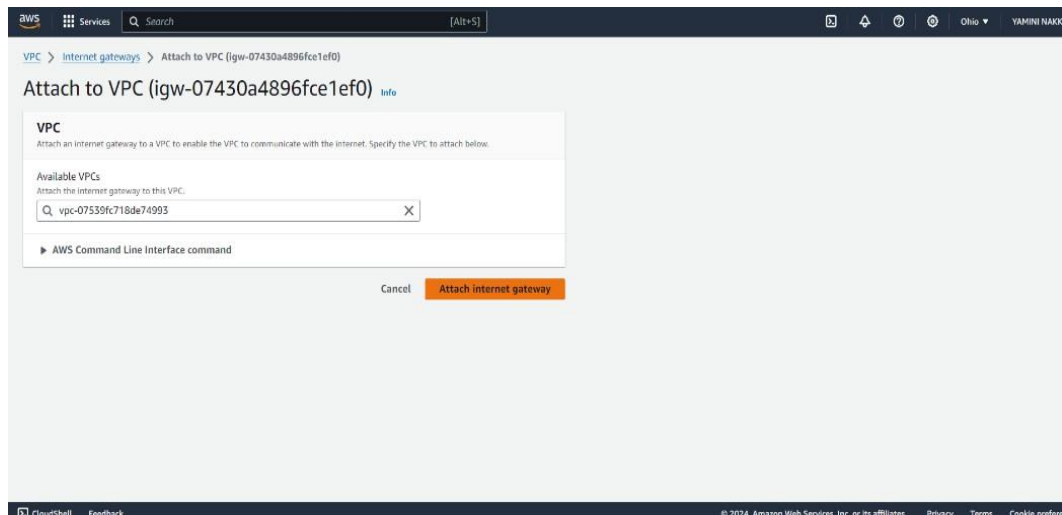


Image-11

- Now we have select our custom VPCs in that available VPCs so we already Created it our custom VPC. And finally click on attach internet gateway

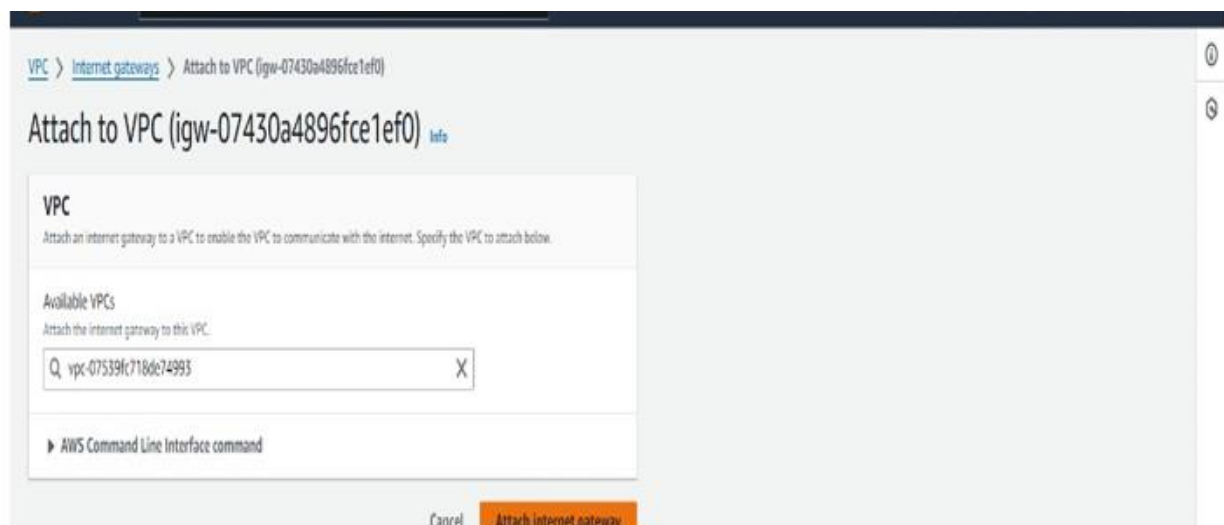


Image-12

- Now we created internet gateway to our custom VPC successfully (Image-13) image

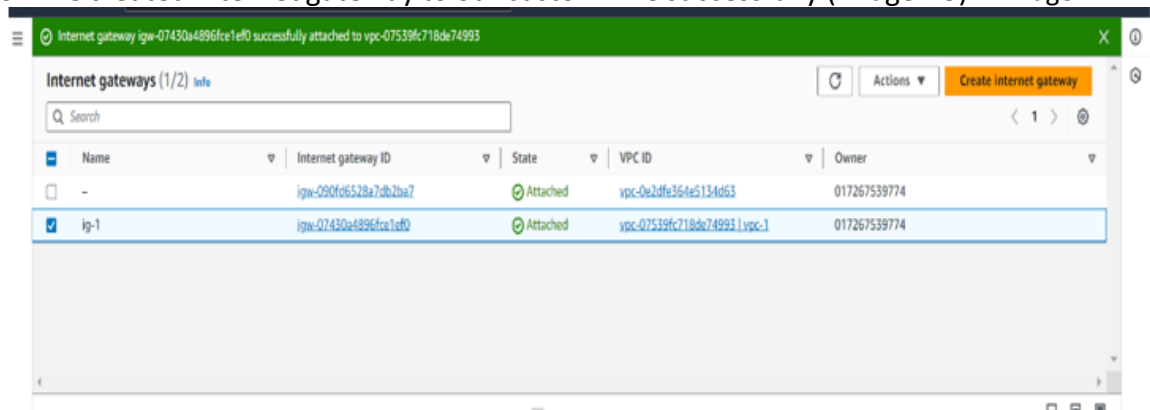


Image-13

- Now we have to create 2 route tables (one is public and another one is private). Click on route tables from menu bar and click on create a route table Image-14.

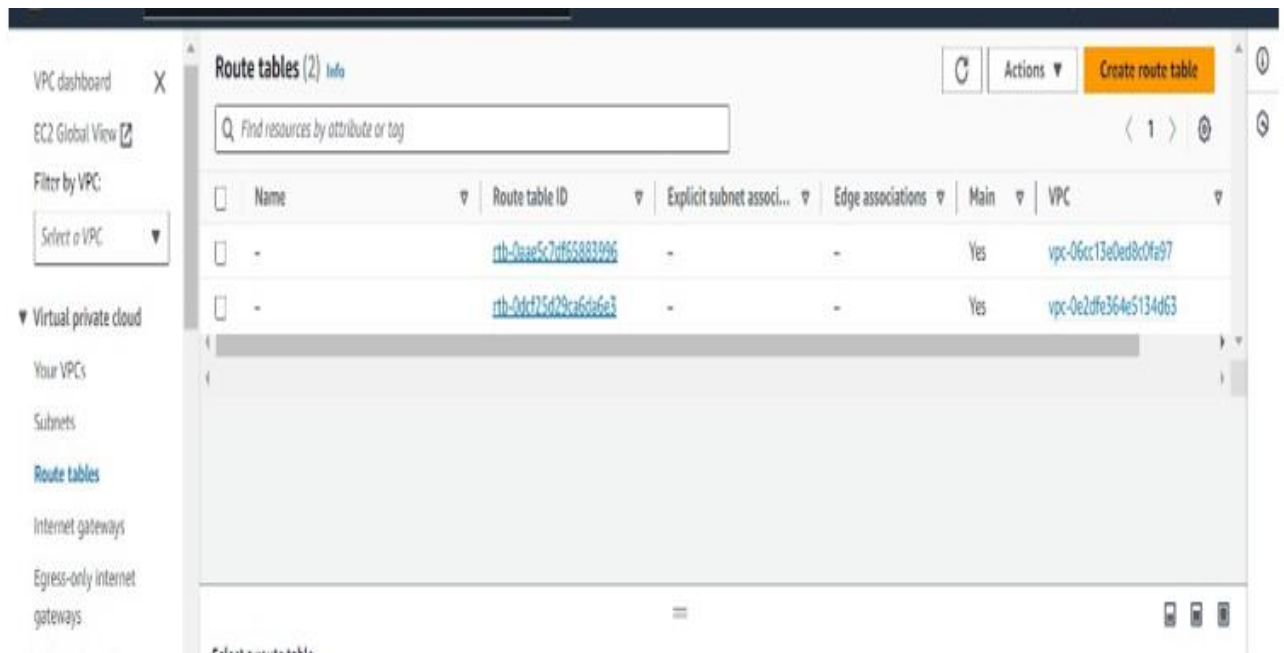


Image-14

- Then give name to route table and select our custom VPC and finally click on create route table(pic-15)

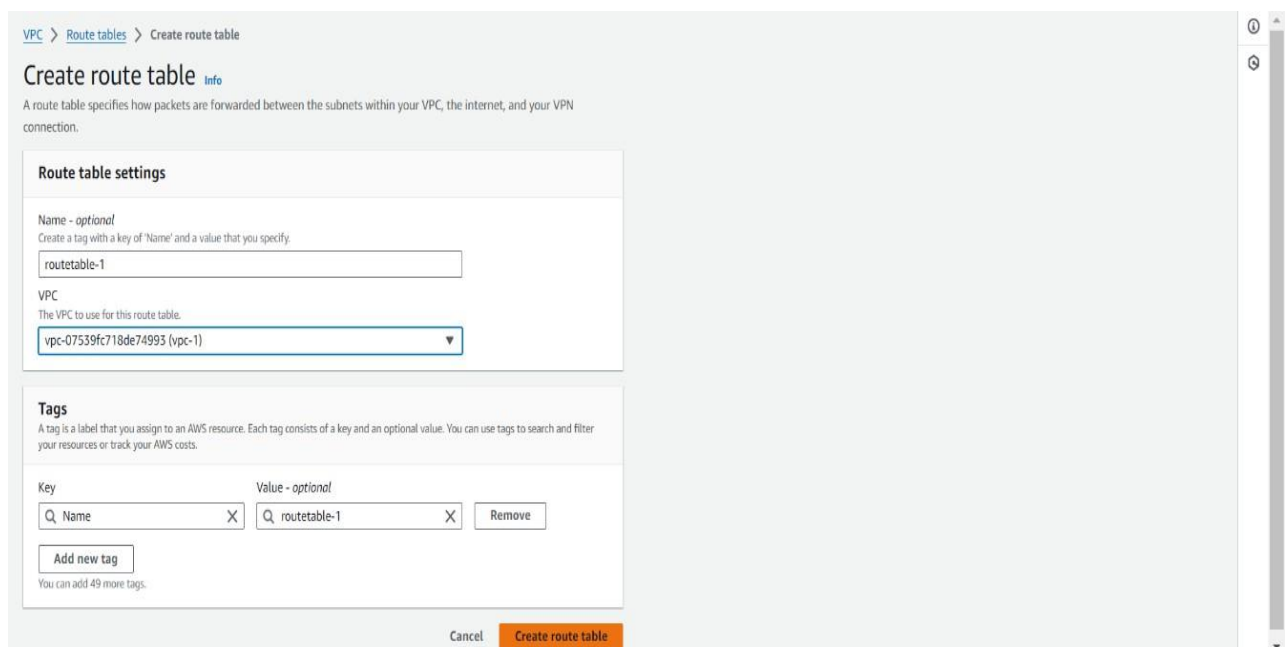


Image-15

- Now click on Actions, click on edit routes(Image-16)

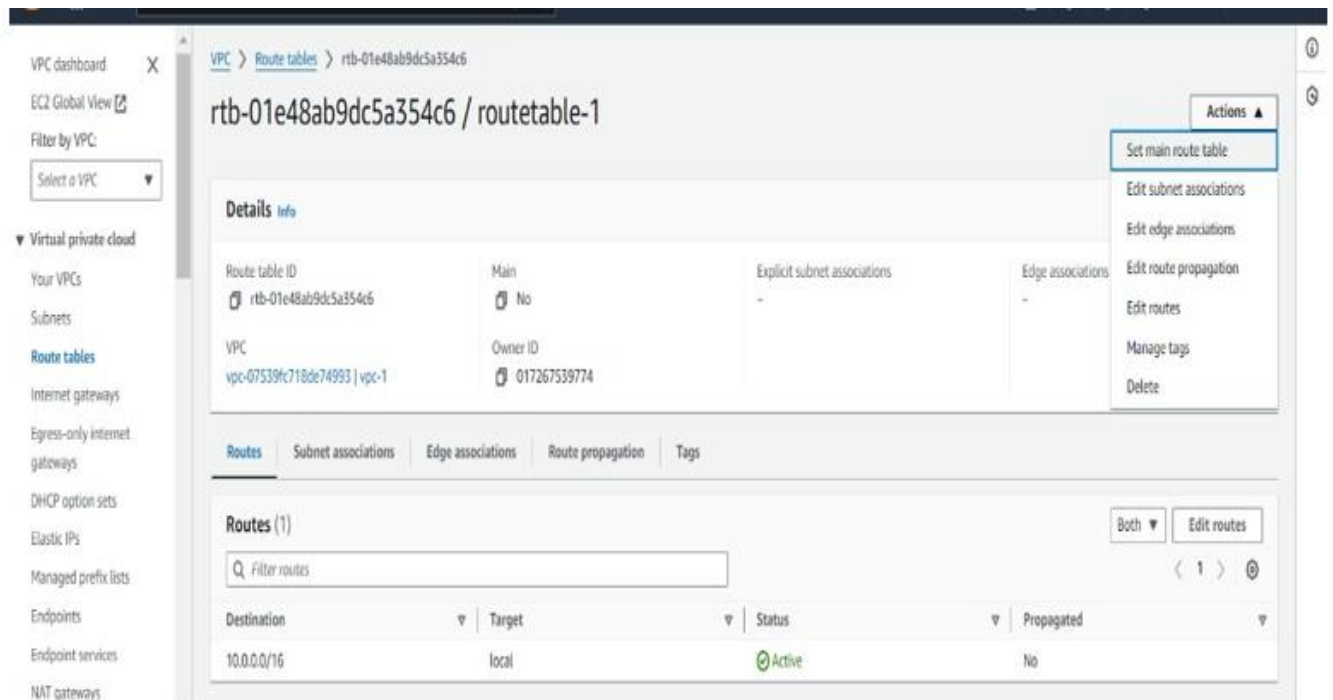


Image-16

- Click on add route.select 0.0.0.0/0 as destination(Image-17).

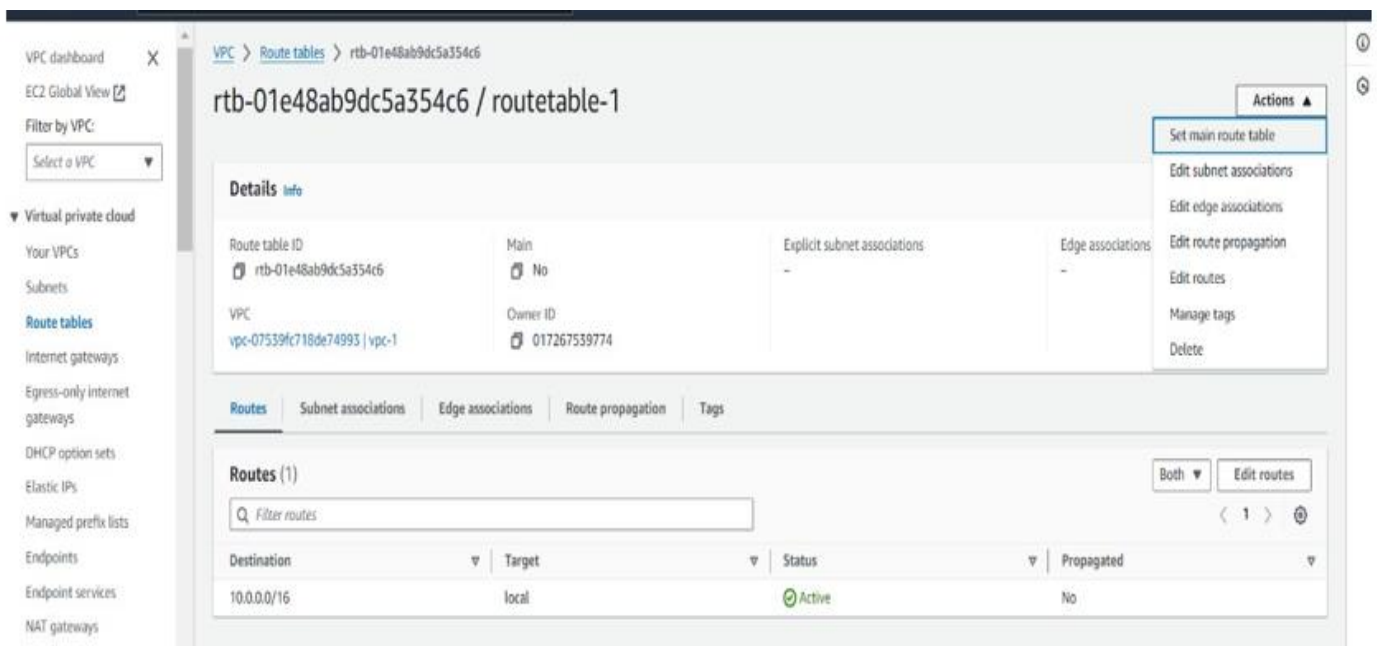


Image-17

- Select internet gateway from drop down list,we have to select use id like.
- This internet gateway choose from that dropwon to our internet gateway(Image-18).

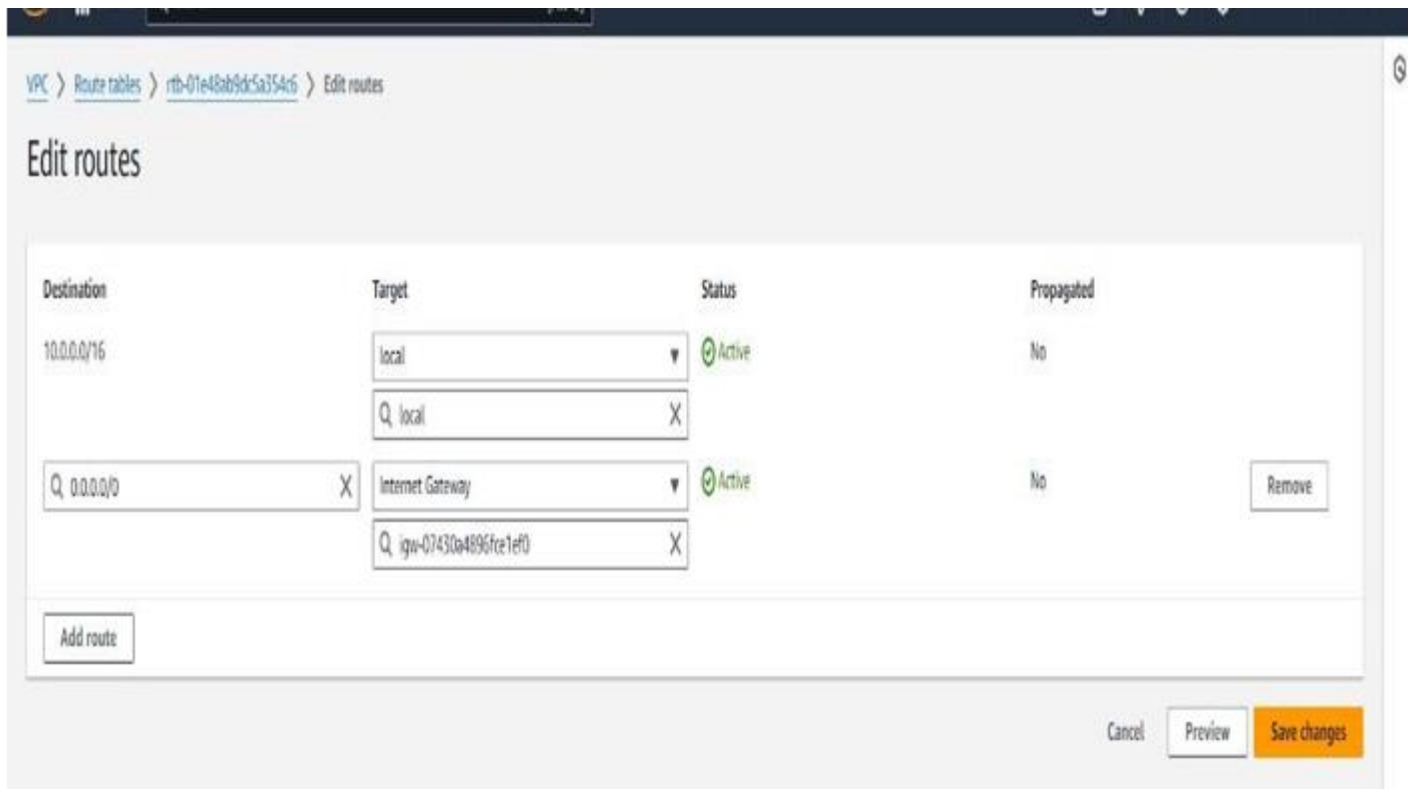


Image-18

- Then click on subnet associations and edit subnet associations (Image-19)

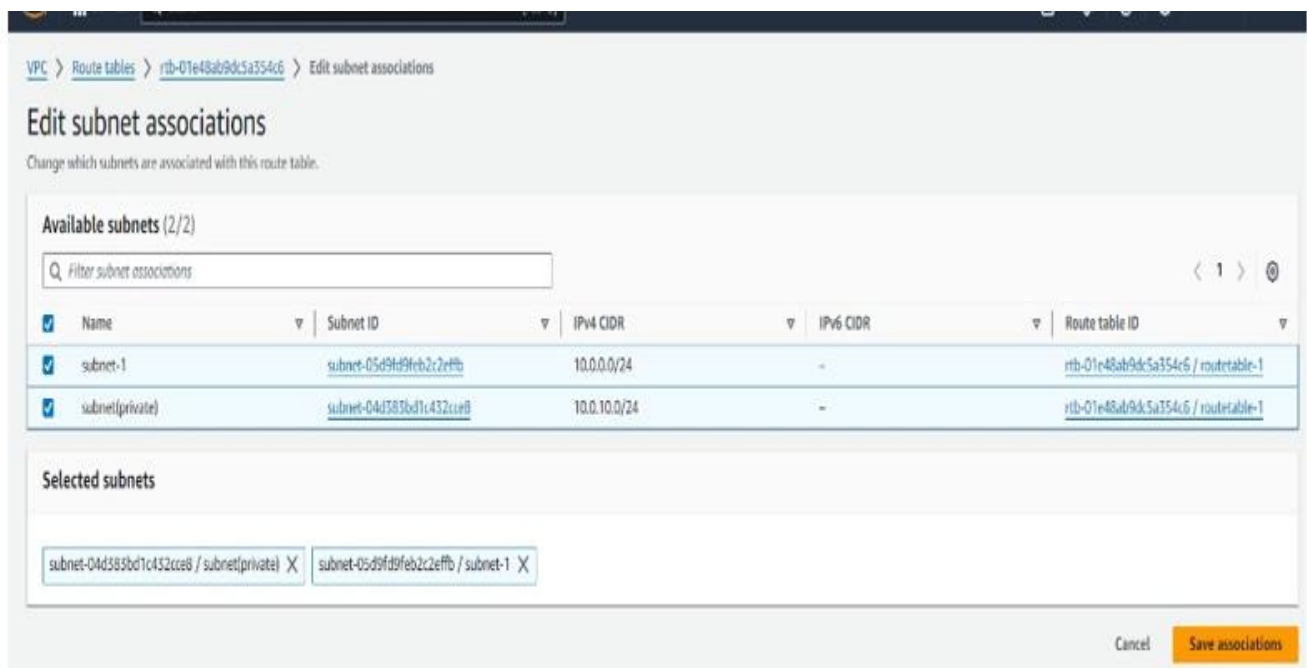


Image-19

- Create one more route table (private-subnet) and associate with private subnet.
- Note :To the private route table, we are not give internet gateway Access to Private, because of we want to make it as Private Subnet. now we can created two route tables to our custom VPS Successfully completed.

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC	Owner
-	rtb-01f5c3101799e6ca8	-	-	Yes	vpc-07539fc718de74993 vpc-1	017267...
<input checked="" type="checkbox"/> routetable-1	rtb-01e48ab9dc5a354c6	2 subnets	-	No	vpc-07539fc718de74993 vpc-1	017267...
-	rtb-0a4e5c70ff65883996	-	-	Yes	vpc-06cc13e0ed8c0fa97	017267...
-	rtb-0ddc125d79ca6da6c3	-	-	Yes	vpc-0e2dfc364c5134d63	017267...
<input checked="" type="checkbox"/> route(private)	rtb-00dc15b749ee4c4ab	-	-	No	vpc-07539fc718de74993 vpc-1	017267...

Image-20

- VPC with 2 subnets and 2 route tables and internet gateway successfully created.

Create 3 EC2 instances.

- Search for EC2 in search bar of AWS homepage and then click on EC2 as shown below (Image-21).



Image-21

- Now create one EC2 instance to the elastic block storage(EBS).(Image-22)

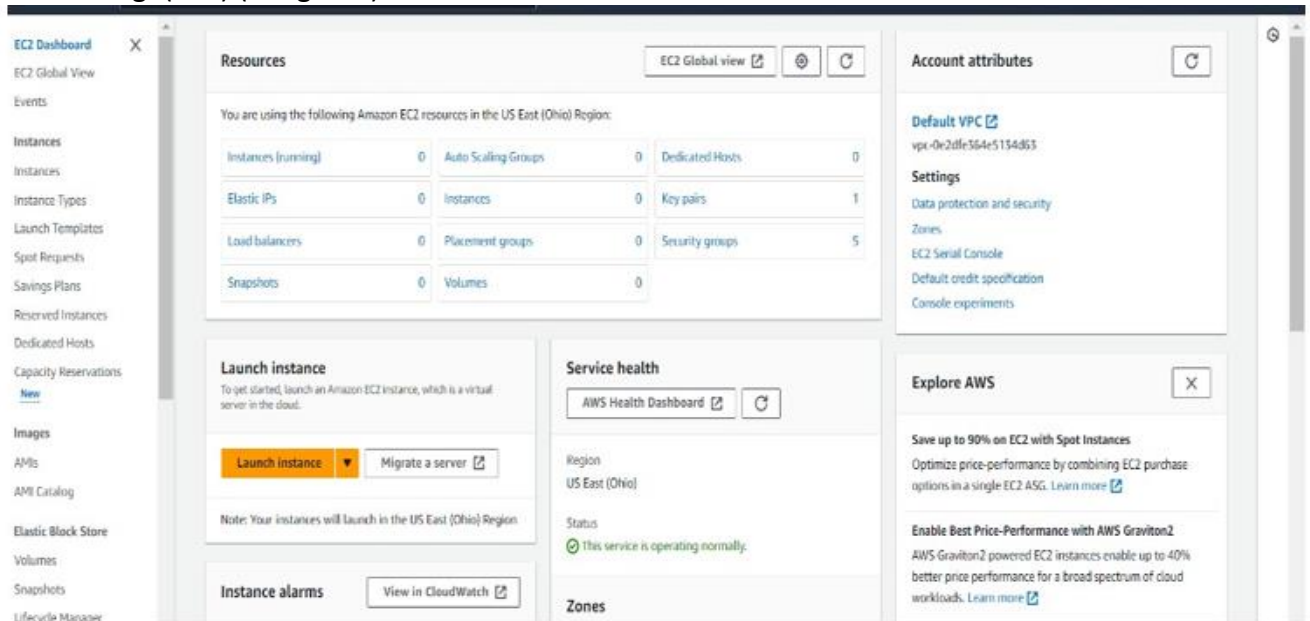


Image-22

- Then launch the instance of EC2 for EBS , Now we have to give the details for our EC2(EBS) Instance and then we must mention some details like name ,OS type, Instance type keypair and (login),network setting. Finally click on launch instance(Image-23).

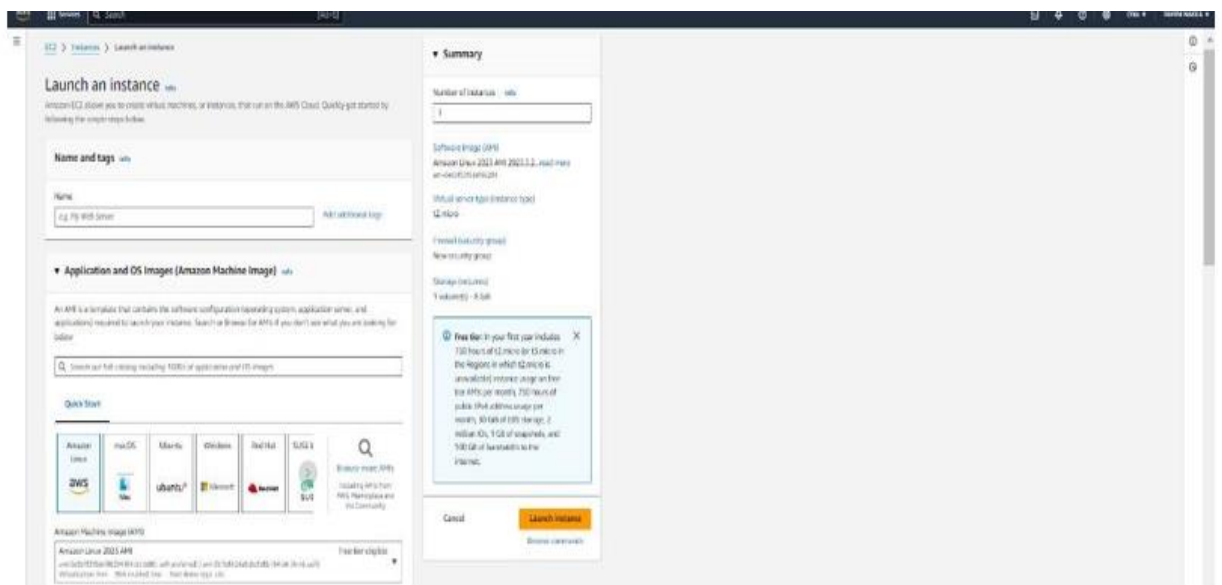


Image- 23

- Now we created EBS EC2 instance successfully.
- Now click on Elastic Block Store option from EC2 instance menu Then click on volumes. (Image-24).

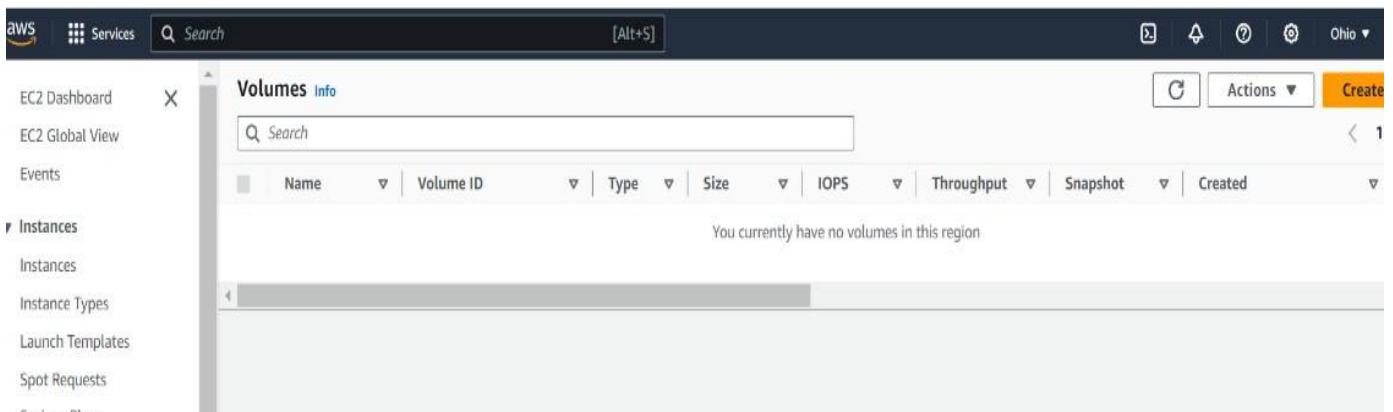


Image-24

- Create volume for EBS so that we have to give the details for volume Type, size, availability zone.
- Finally click on create volume (Image-25).

EC2 > Volumes > Create volume

Create volume

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type: **General Purpose SSD gp3**

General Purpose SSD gp3 is now the default selection. gp3 provides up to 20% lower cost per GB than gp2.

Size (GB): **100**

IO: 1,000 IOPS. Max: 10,000 IOPS. The value must be an integer.

IOPS: **1000**

IO: 100 IOPS. Max: 1000 IOPS. The value must be an integer.

Throughput (MB/s): **125**

IO: 125 MB/s. Max: 1000 MB/s. Max burst: 125 MB/s.

Availability Zone: **us-east-2a**

Snapshot ID: optional

Select create volume from a snapshot

Enryptable: ☐ **Encrypt this volume**

Tags - optional

No tags associated with this resource.

Add tags

Snapshot summary

Click refresh to see backup information.

The volume type that you select and the tags that you assign determine whether the volume will be backed up by any data management process.

Cancel Create volume

Image-25

- Once the volume has been create click on actions in that attach volume (Image-26).

EC2 > Volumes > vol-0a34bc5ad4b3aa954 > Attach volume

Attach volume

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID

vol-0a34bc5ad4b3aa954

Availability Zone

us-east-2a

Instance

Only instances in the same Availability Zone as the selected volume are displayed.

Device name

Select a device name

Cancel Attach volume

Image-26