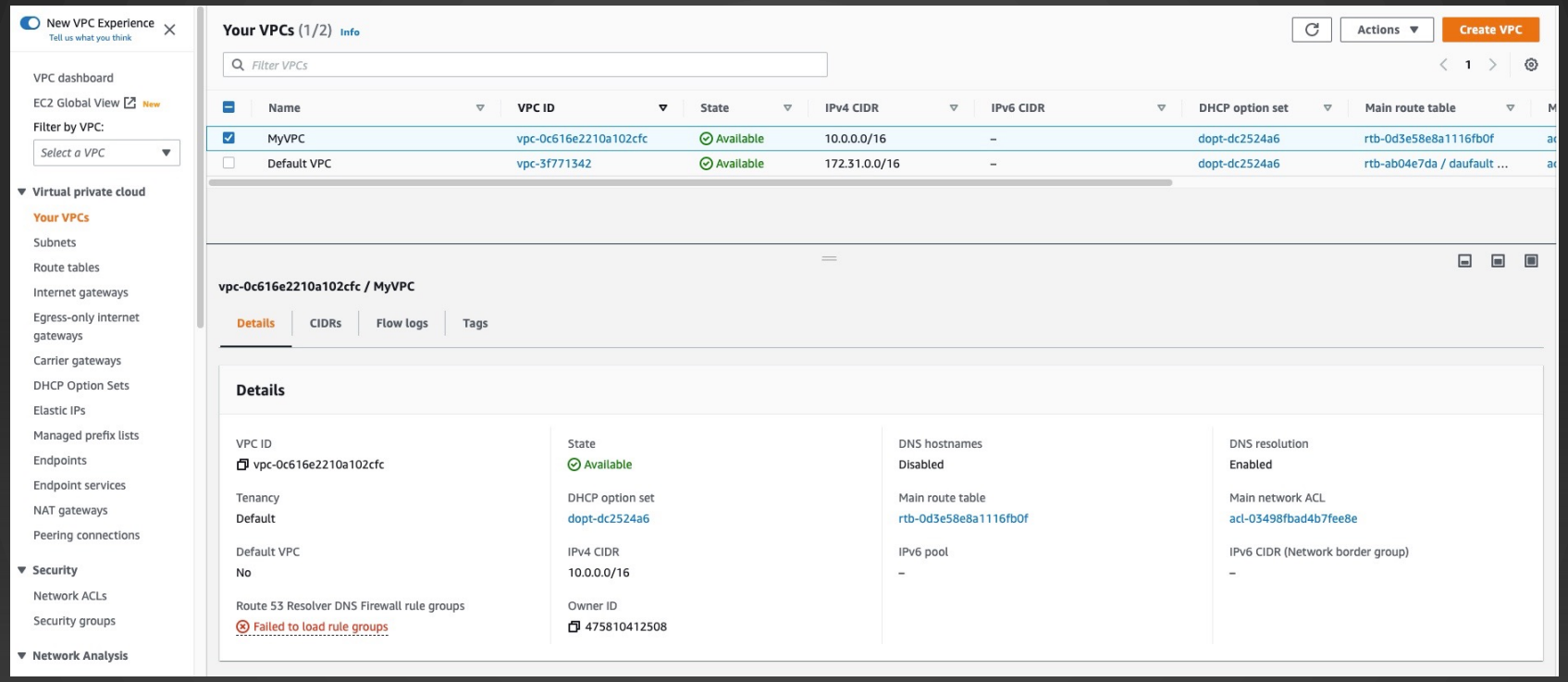
BUILD AMAZON VPC WITH PUBLIC AND PRIVATE SUBNETS (FROM SCRATCH)

- In this project I will walk you through the process of building Amazon VPC from scratch.
- Task Details:
  - Sign in to the AWS console
  - Create a New VPC
  - Create Subnets
  - Create and Configure Internet Gateway
  - Create Route Tables
  - Finally, Validate the project to show a completed lab.

TASK 1 & 2

- Task 1 is basically signinng the AWS management console
- Once signed in to the console, make the default AWS Region as US East (N. Virginia) us-east-1.
- Task 2 is about creating a new VPC.
  - Name tag: VPC name(choose any proper name but I chose: MyVPC
  - IPV4 CIDR block: Enter 10.0.1.0/16
  - IPV6 CIDR block: no need to change this, make sure No IPV6 CIDR block is checked.
  - Tenancy: No need to change this, make sure Default is selected.
  - Once VPC is created, it will appear with details in the next slide

VPC DETAILS


New VPC Experience
Tell us what you think
VPC dashboard
EC2 Global View New
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
Security groups
Network Analysis
Your VPCs (1/2) Info
Filter VPCs
Actions
Create VPC
Name
VPC ID
State
IPv4 CIDR
IPv6 CIDR
DHCP option set
Main route table
MyVPC
vpc-0c616e2210a102cfc
Available
10.0.0.0/16
–
dopt-dc2524a6
rtb-0d3e58e8a1116fb0f
Default VPC
vpc-3f771342
Available
172.31.0.0/16
–
dopt-dc2524a6
rtb-ab04e7da / daufault ...
vpc-0c616e2210a102cfc / MyVPC
Details
CIDRs
Flow logs
Tags
Details
VPC ID
vpc-0c616e2210a102cfc
State
Available
DNS hostnames
Disabled
DNS resolution
Enabled
Tenancy
Default
DHCP option set
dopt-dc2524a6
Main route table
rtb-0d3e58e8a1116fb0f
Main network ACL
acl-03498fbad4b7fee8e
Default VPC
No
IPv4 CIDR
10.0.0.0/16
IPv6 pool
–
IPv6 CIDR (Network border group)
–
Route 53 Resolver DNS Firewall rule groups
Failed to load rule groups
Owner ID
475810412508

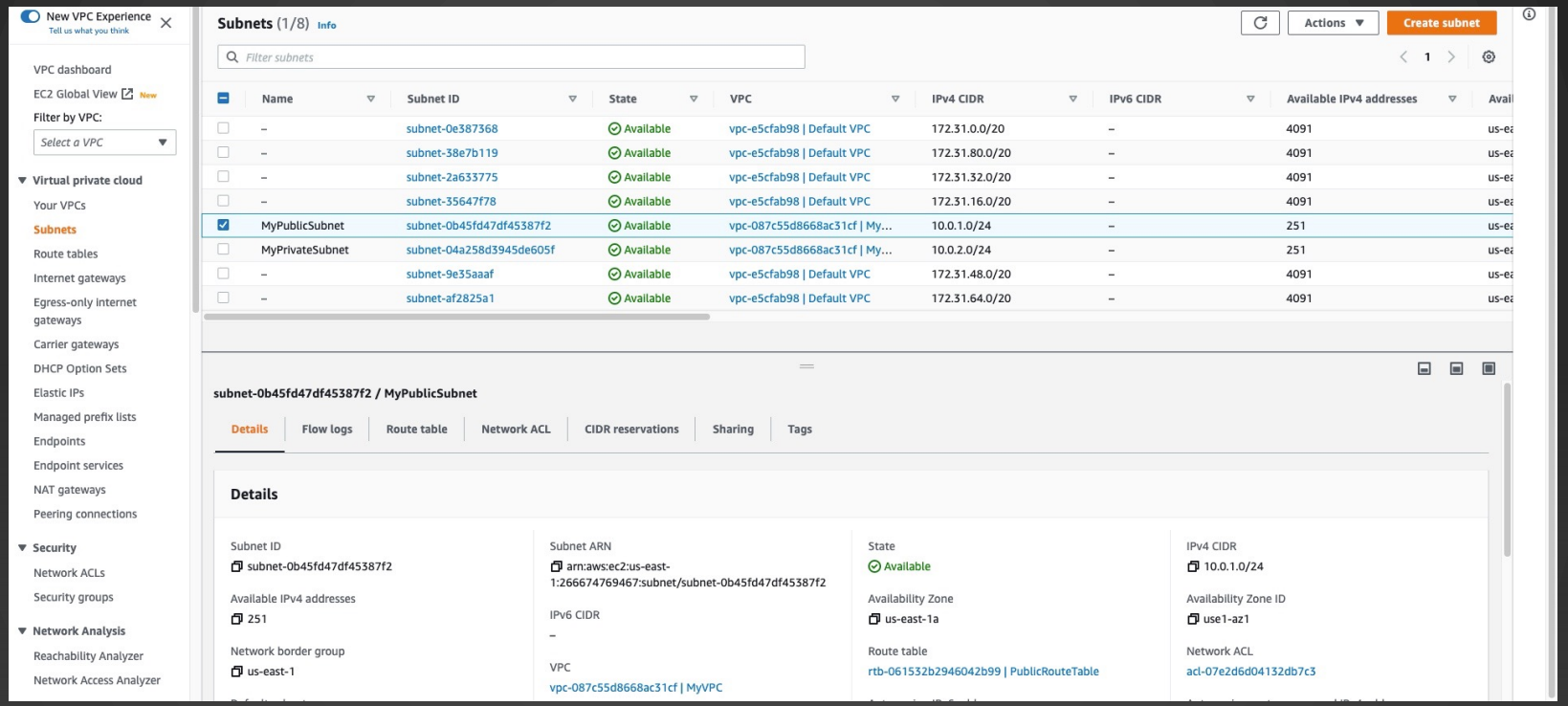
TASK 3

- In this lab, I will create one public subnet and a private subnet in us-east1a & us-east-1b.
- For the public Subnet:
  - VPC ID: Select MyVPC from the list I crested earlier
  - Subnet Name: MyPublicSubnet
  - Availability Zone: select us-east-1a
  - IPV4 CIDR block: 10.0.1.0/24
  - Then click create subnet.

TASK 3 CONTINUES…

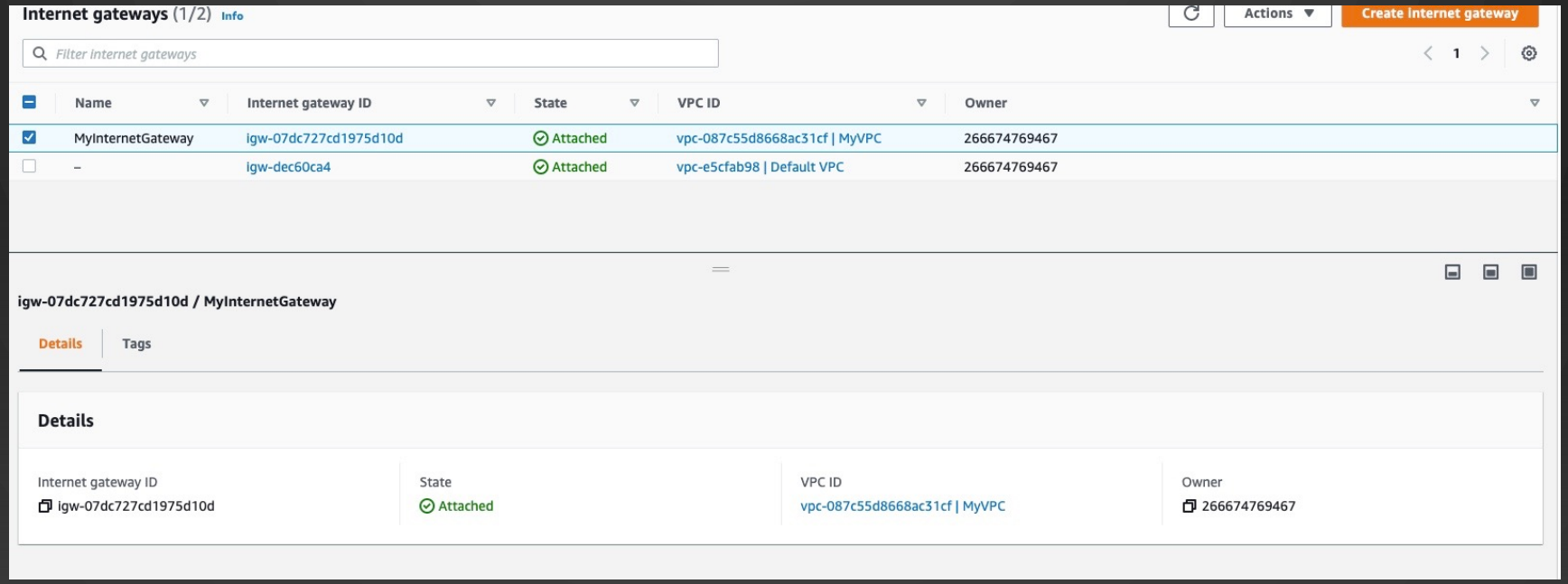
- Private Subnet:
  - Click subnet again
  - VPC ID: Select MyVPC from the list I crested earlier
  - Subnet Name: MyPrivateSubnet
  - Availability Zone: select us-east-1b
  - IPV4 CIDR block: 10.0.2.0/24
  - Then click create subnet, it appear the details in the next slide.

SUBNET DETAILS



TASK 4

- This lab, I will create and configure internet gateway
  - Name: MyInternetGateway
  - Select the internet gateway I created from the list and Attach it to the VPC
  - The details is shown below



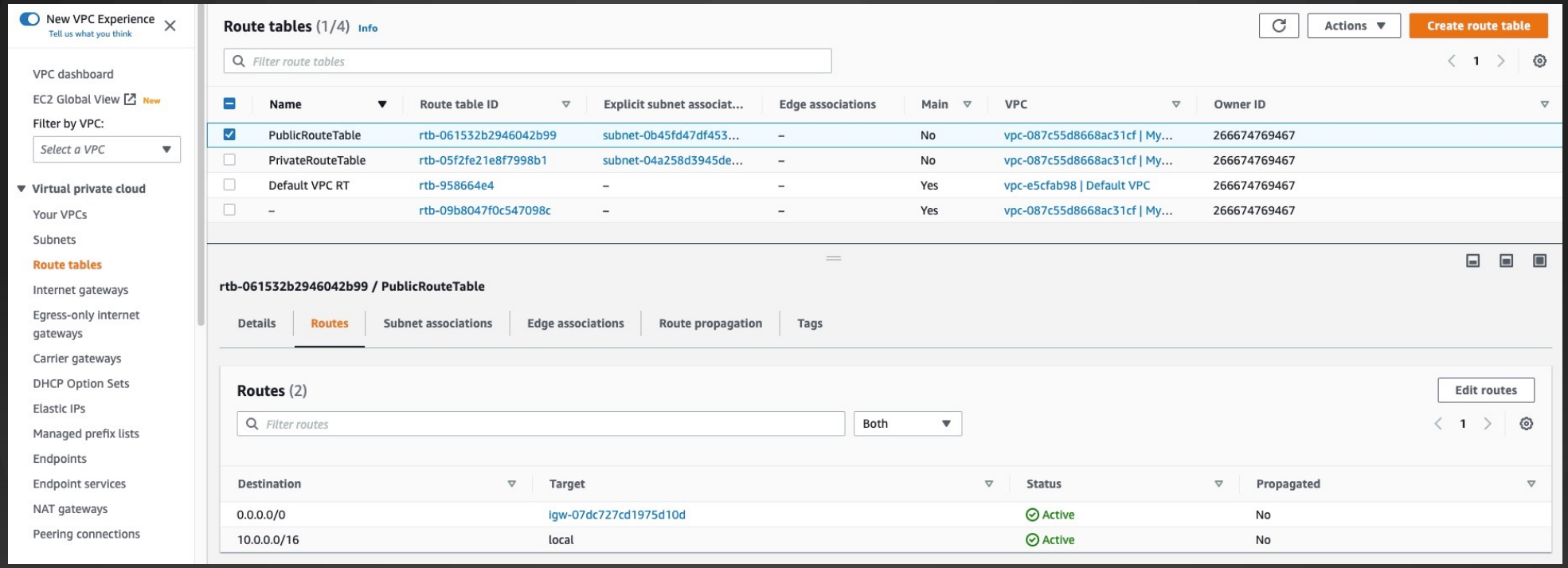
TASK 5

- This lab, I will create Route Tables, Public and Private.
- Create a PublicRoute Table:
  - Name: PublicRouteTable
  - VPC: select MyVPC from the list
  - Click create route table

  Repeat the same steps with PrivateRoute Table.

  The detail is shown in the next slide.

ROUTE TABLE DETAILS.



FEW MORE DETAILS WITH ROUTE TABLE.

- After crated with route table;
- Now associate the subnet to the route table
- Select PublicSubnet from the list and associate it with PublicRoute Table.
- Same goes with PrivateSubnet.
- Make sure not associate any subnets with the main Route Table.
- Lastly, add PublicRouteTable: add a route to allow internet traffic to the vpc
- Select PublicRouteTable:
  - Go to Routes tab and select add route
  - Destination: Enter 0.0.0.0/0 (this's mainly because you want to have access to the internet).
  - Save the changes.