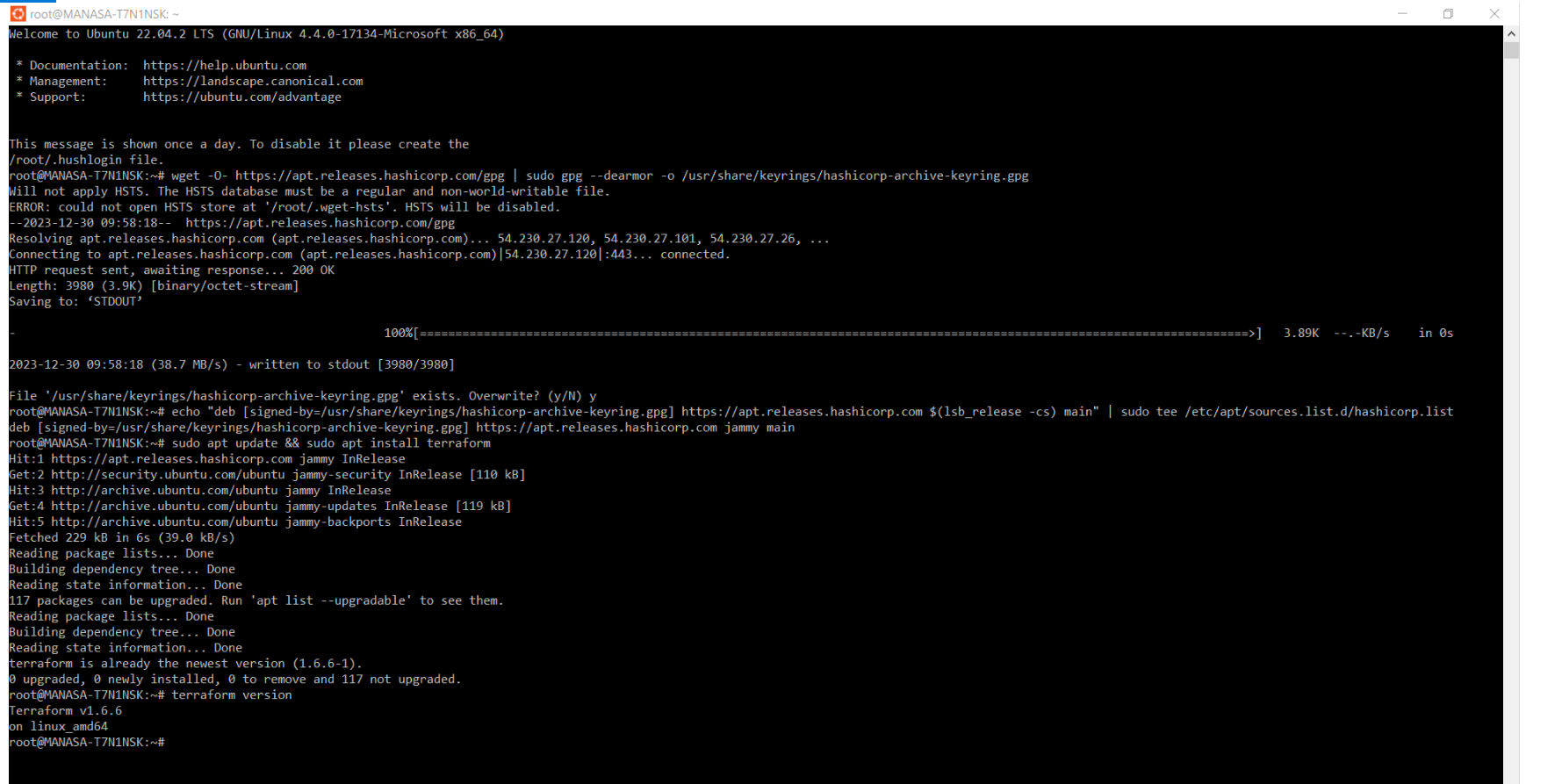
Terraform Creation And Execution Doc

Activity Task :

Write Terraform script to create highly available infrastructure in AWS. The infra should have1 vpc, 3 subnets setup in 3 different az and 2 instances setup in 2 different subnets

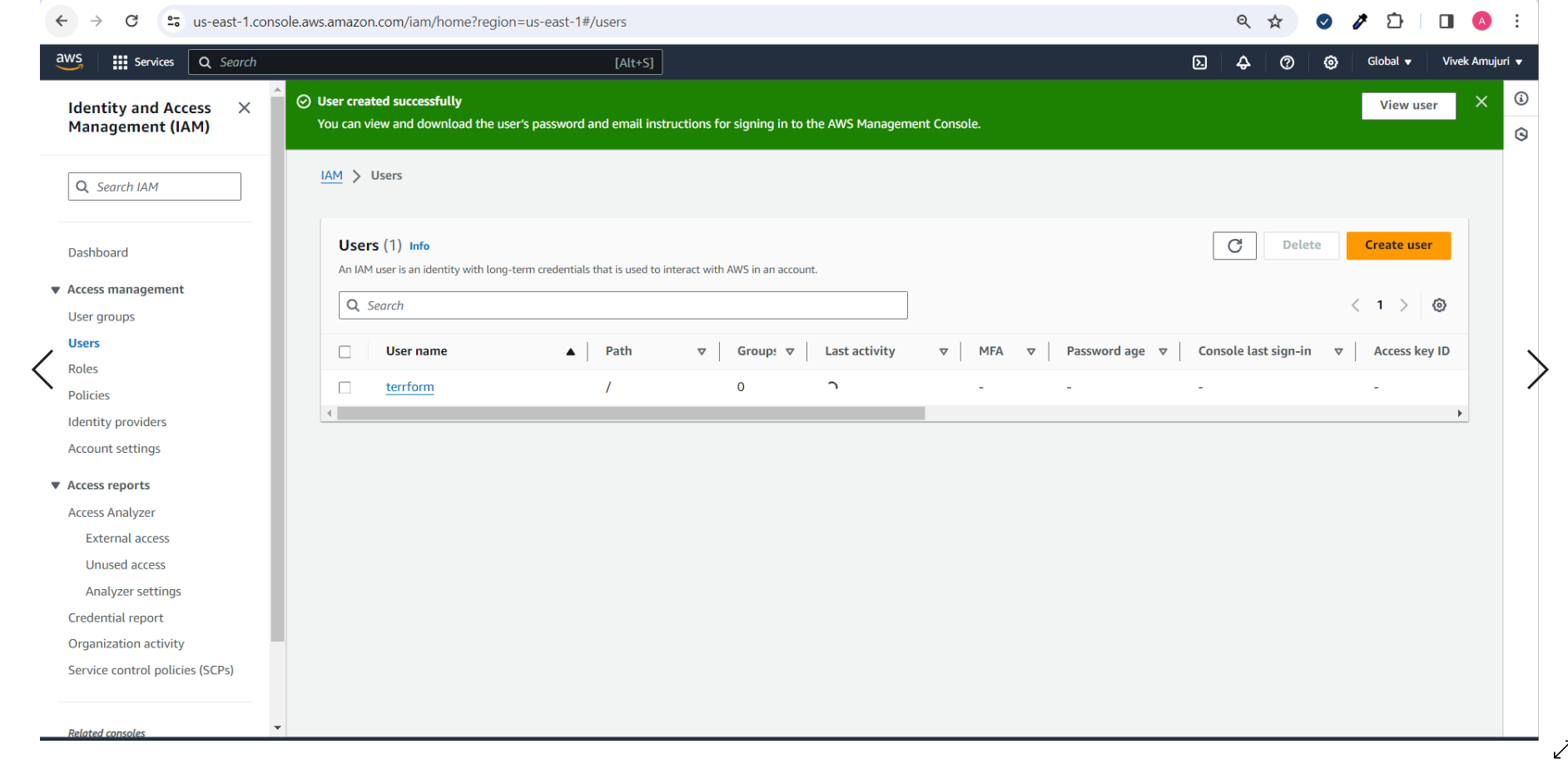
Step 1:

Terraform Installation



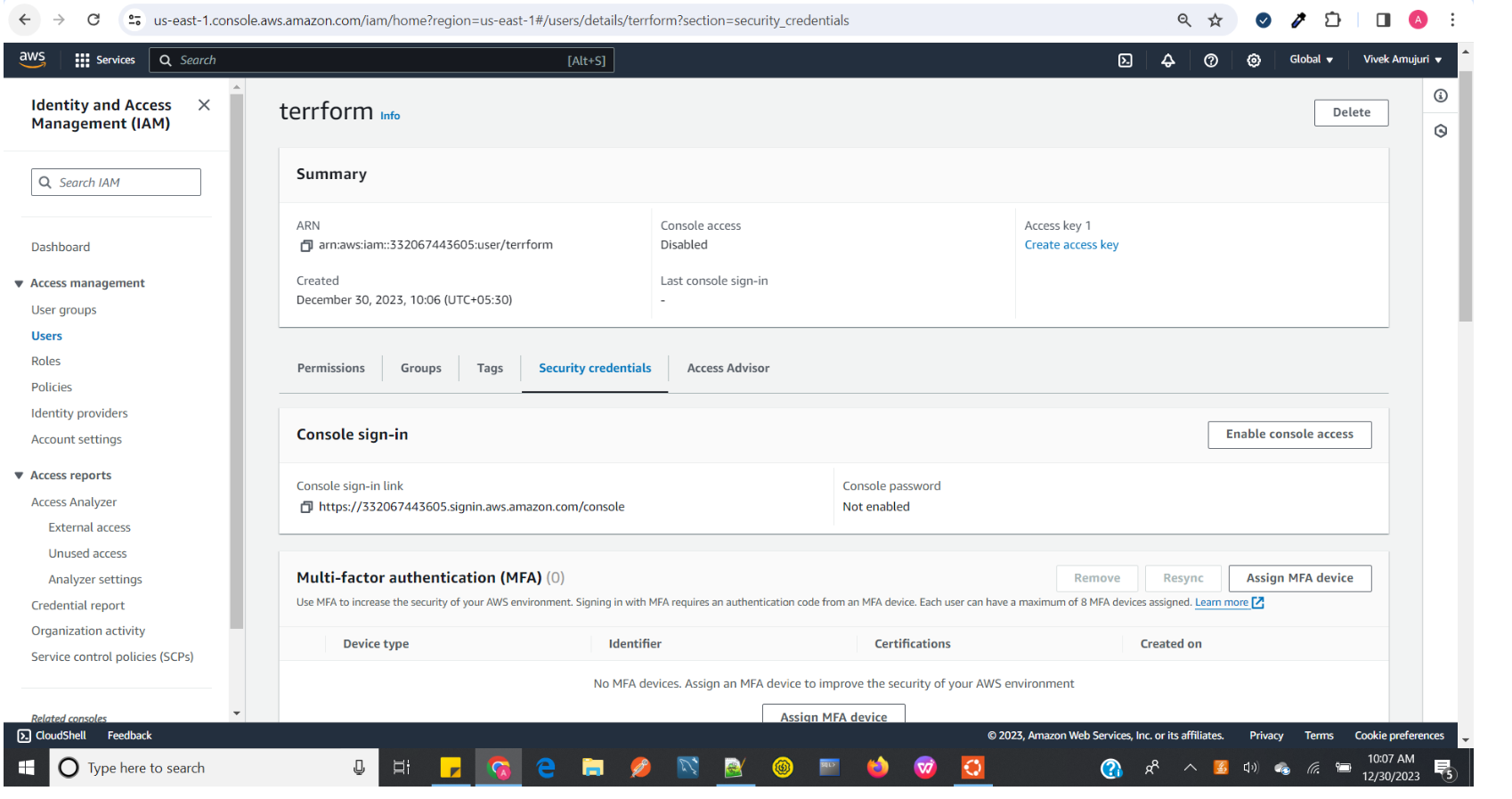
Step 2:

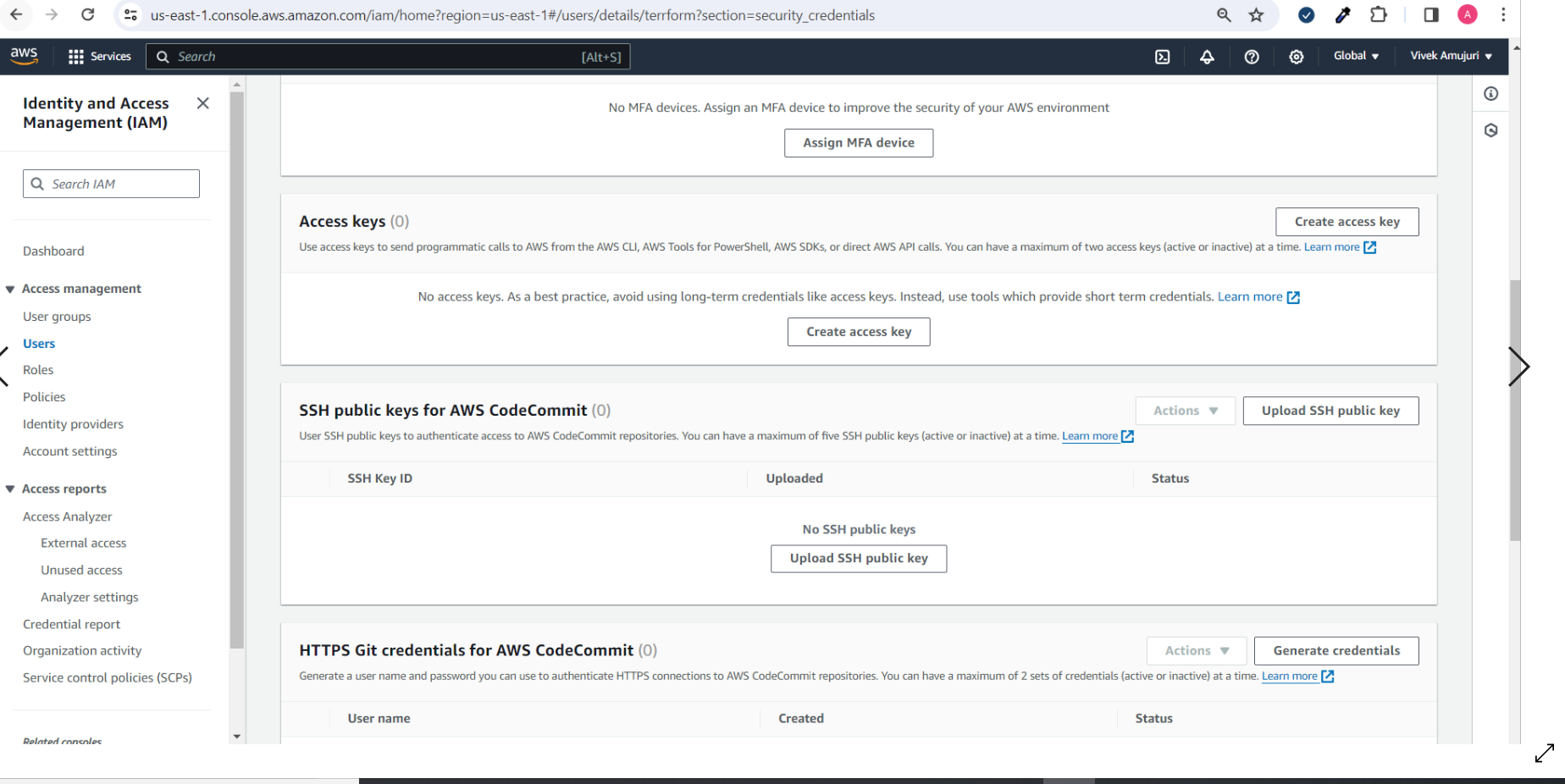
IAM User creation

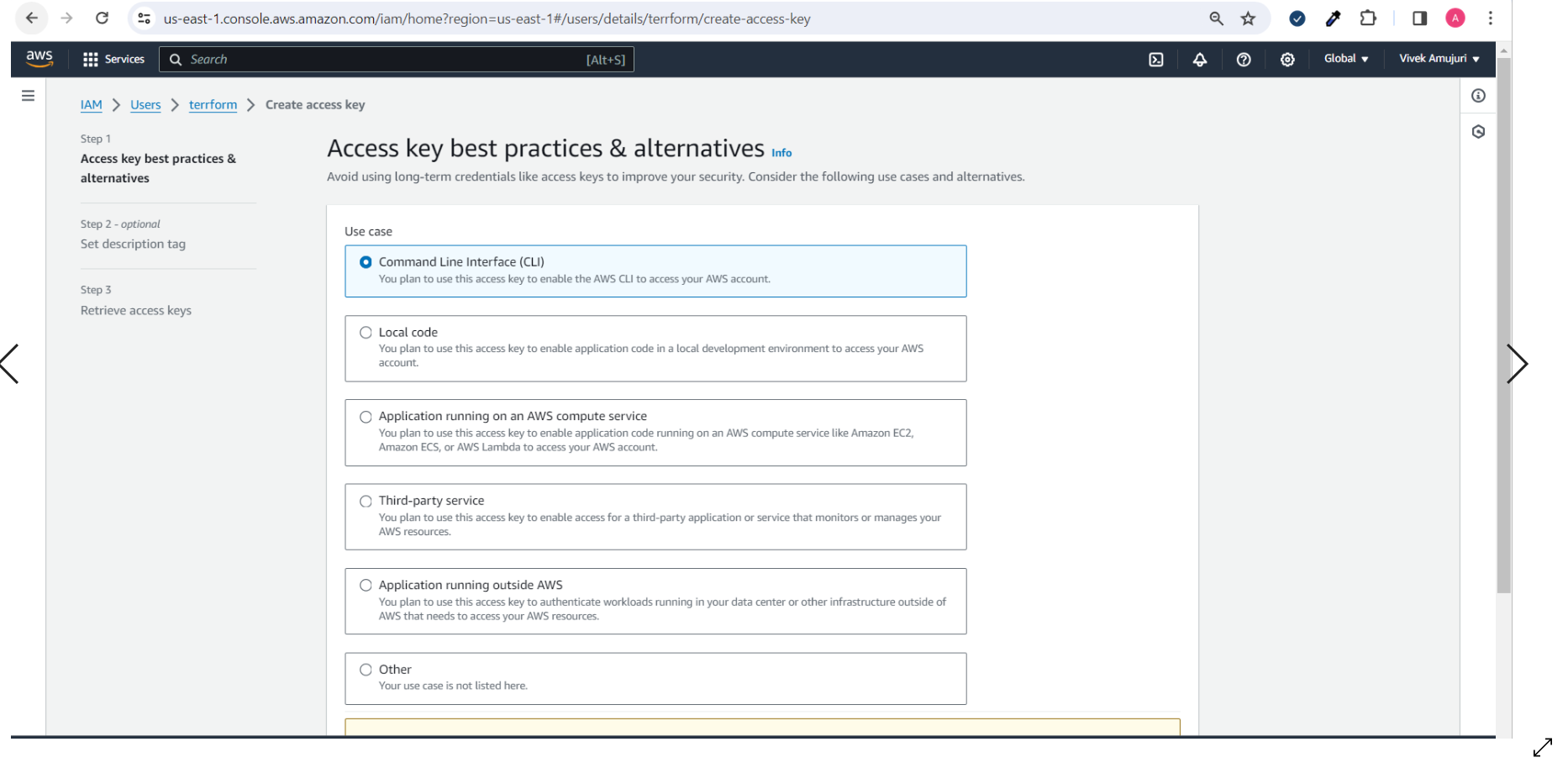


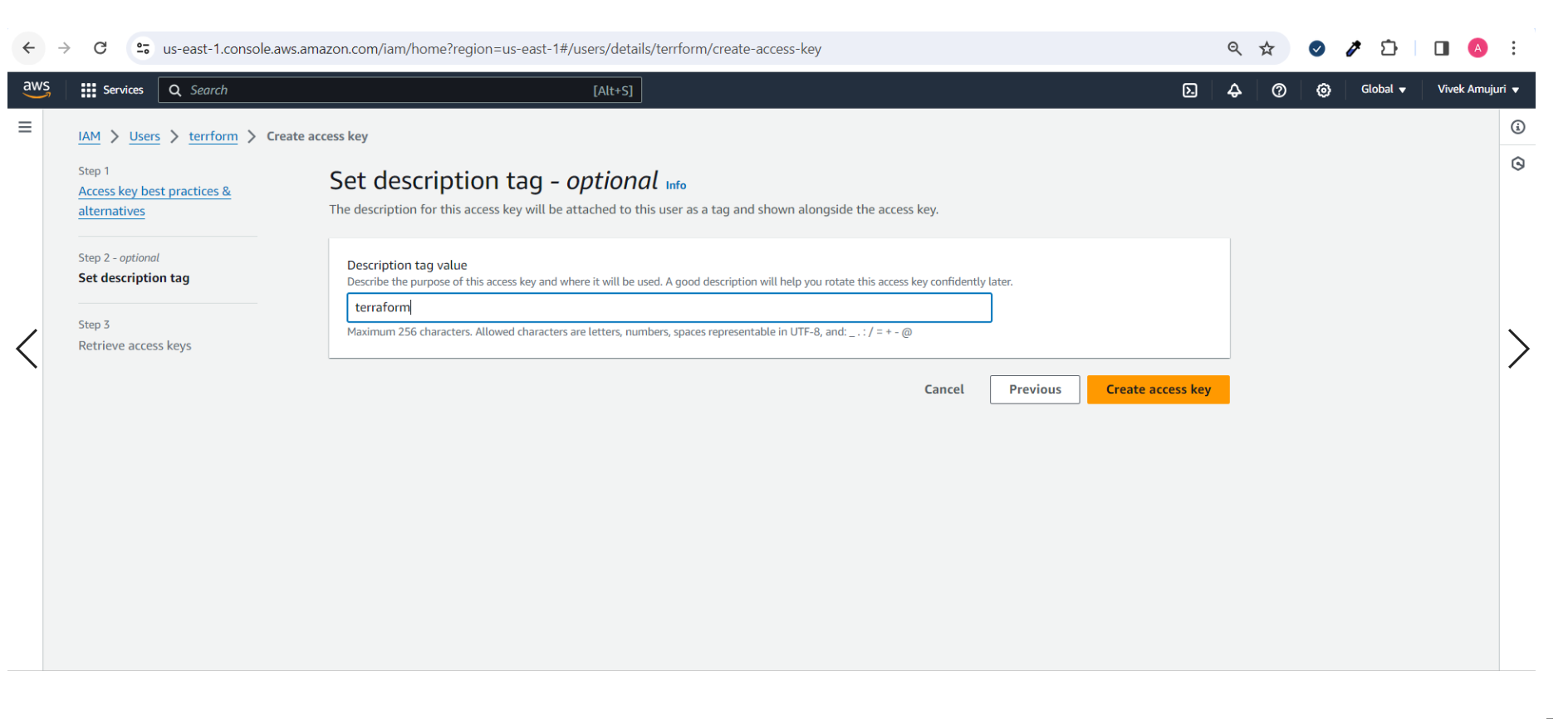
Step 3:

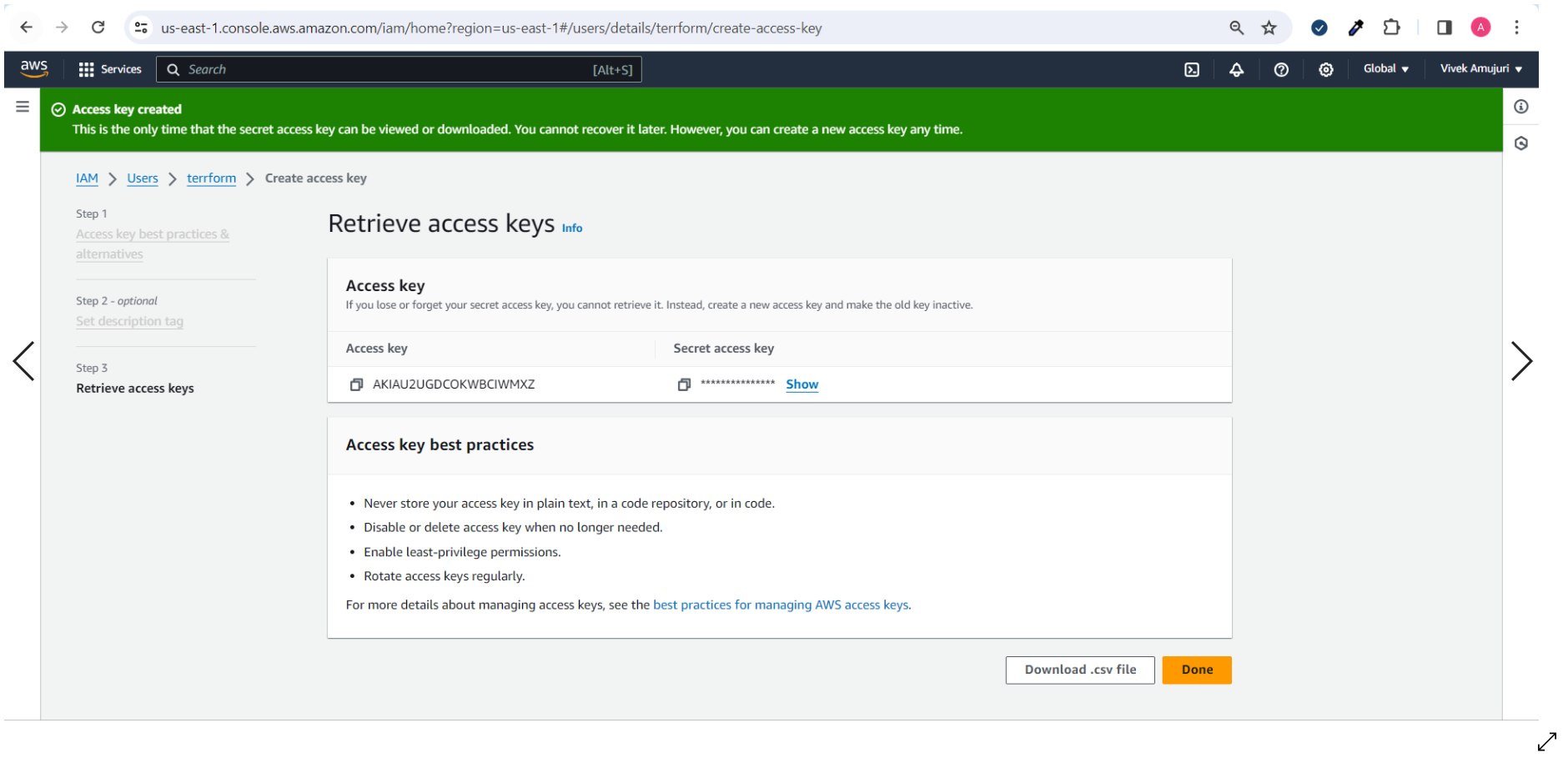
Creating Access Key to connect from Local





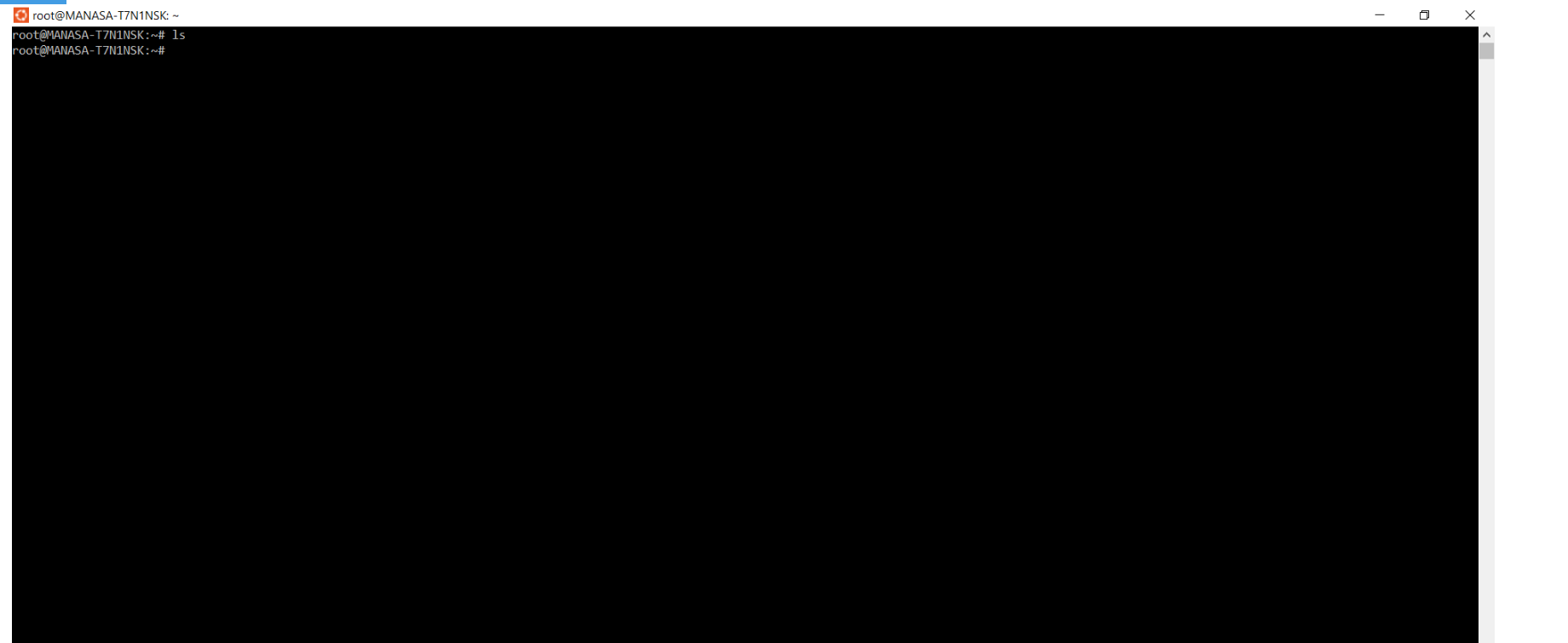






STEP 4:

No Main terraform file



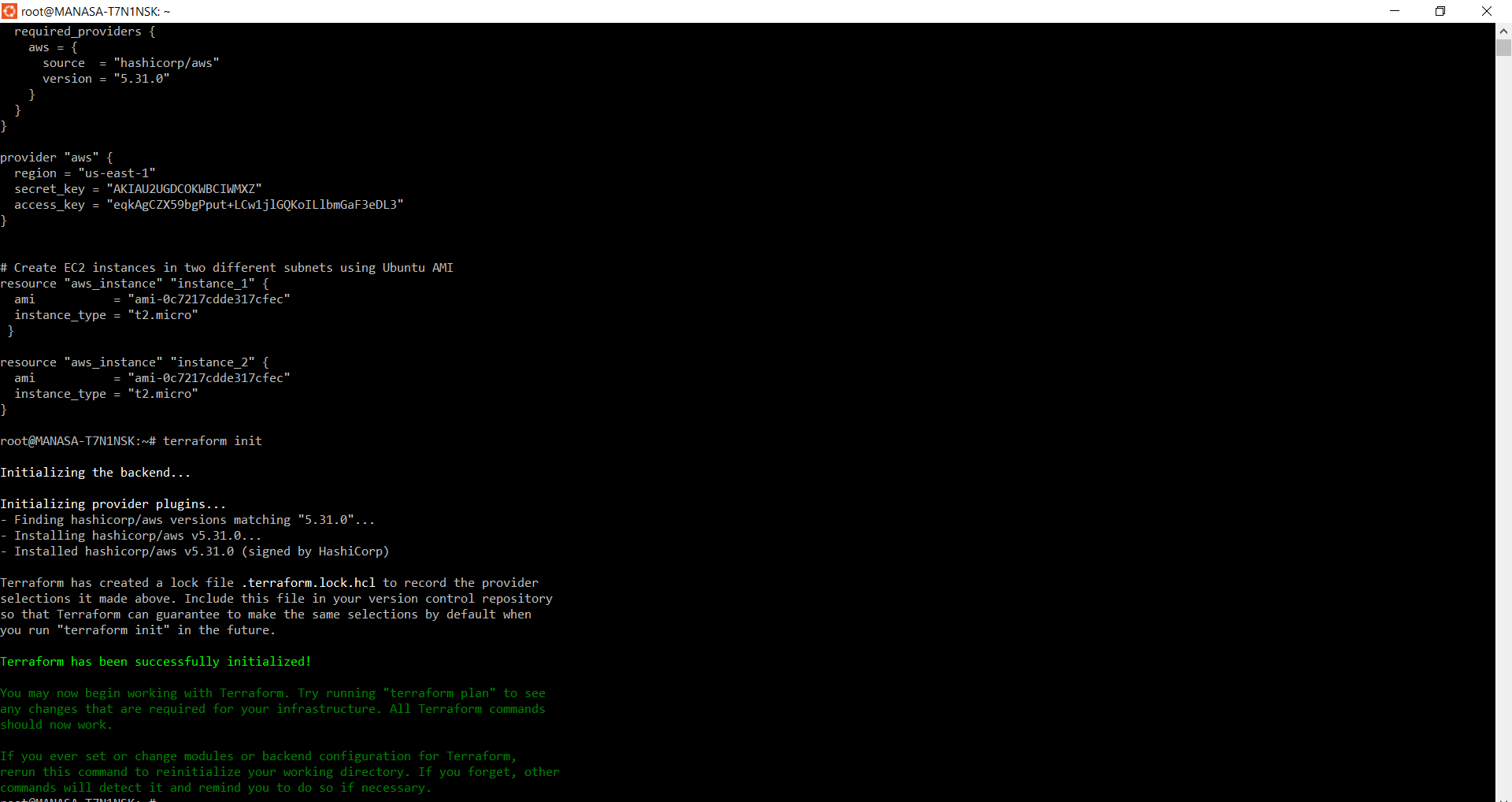
STEP 5:

Terraform file created

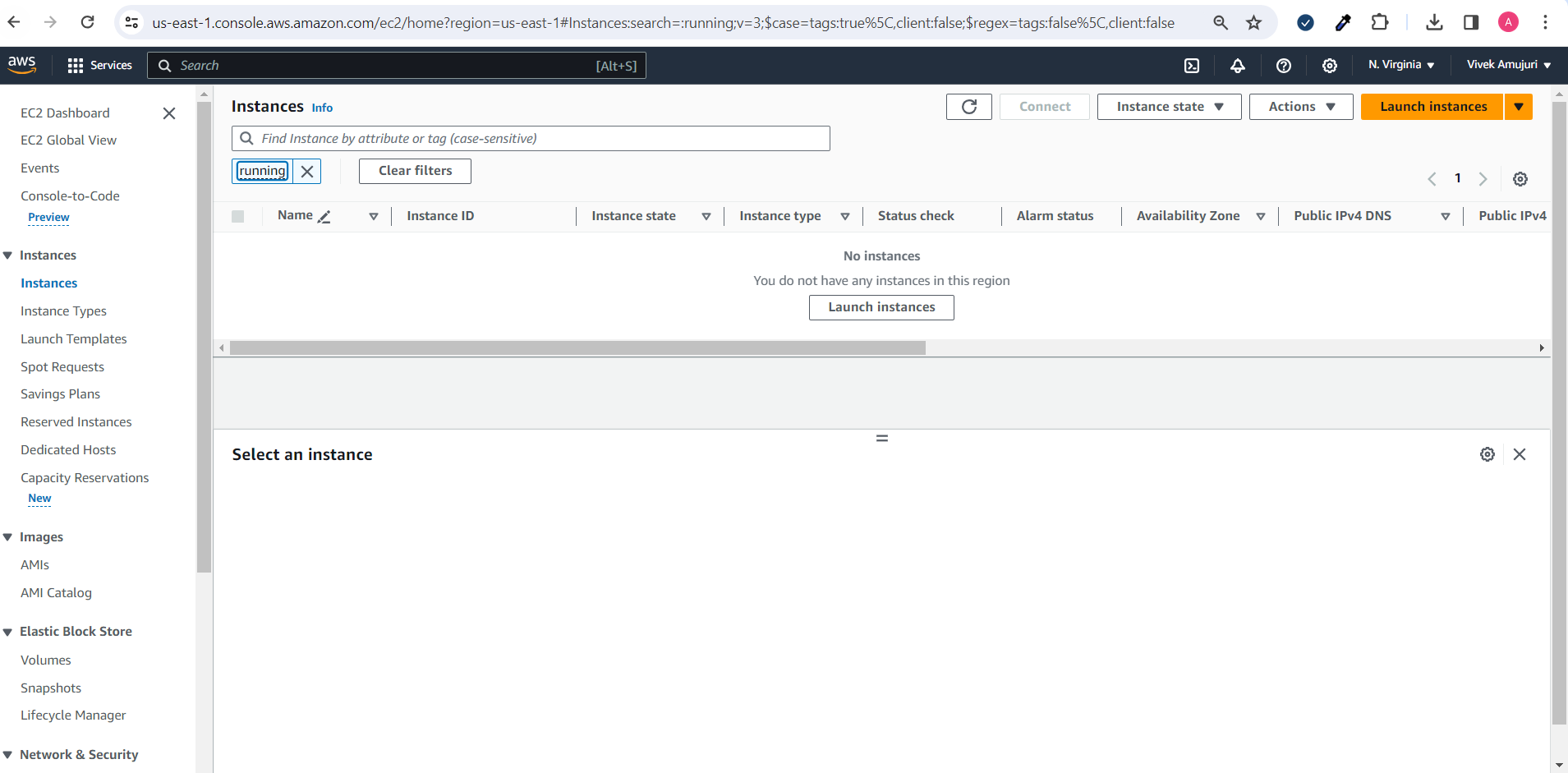


STEP 6:

Terraform Initialization



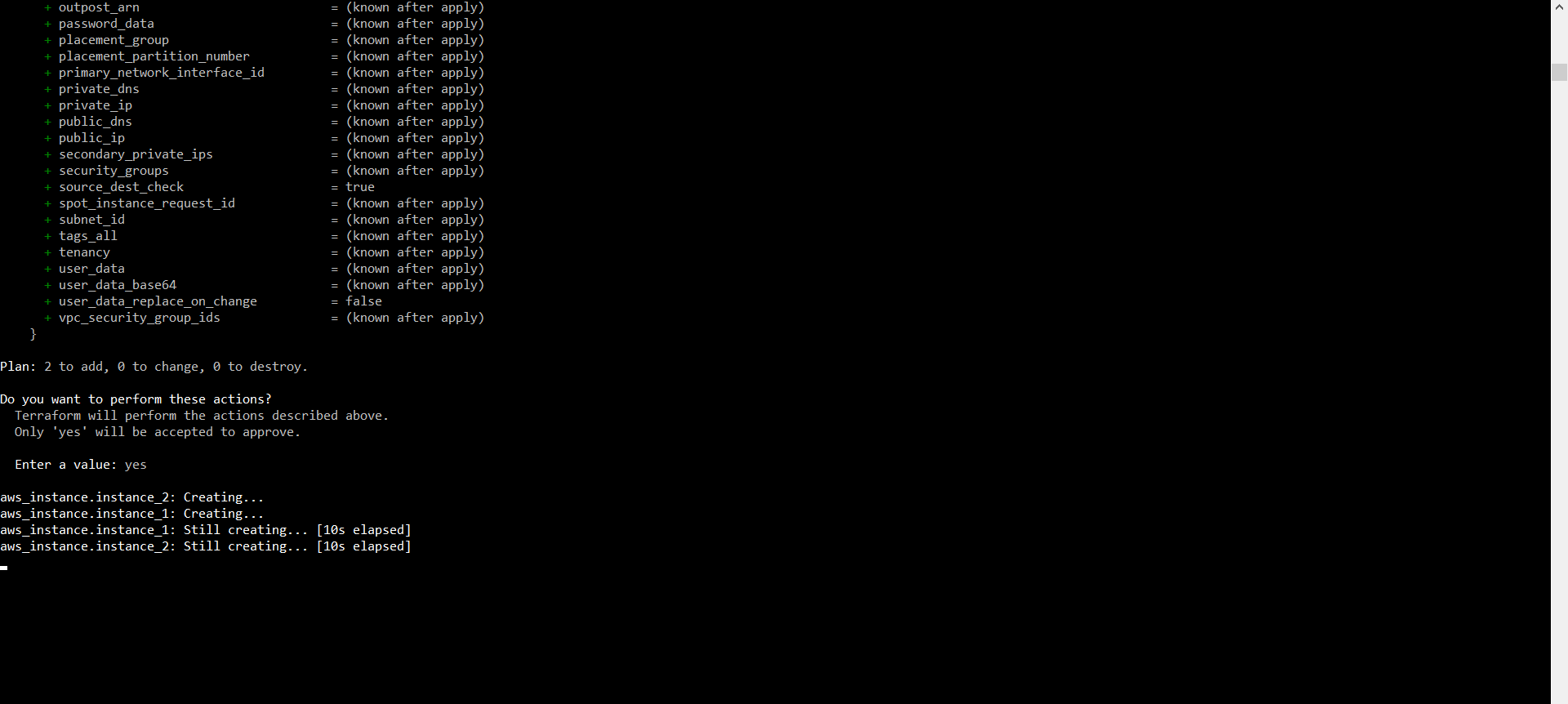
No Instance yet created



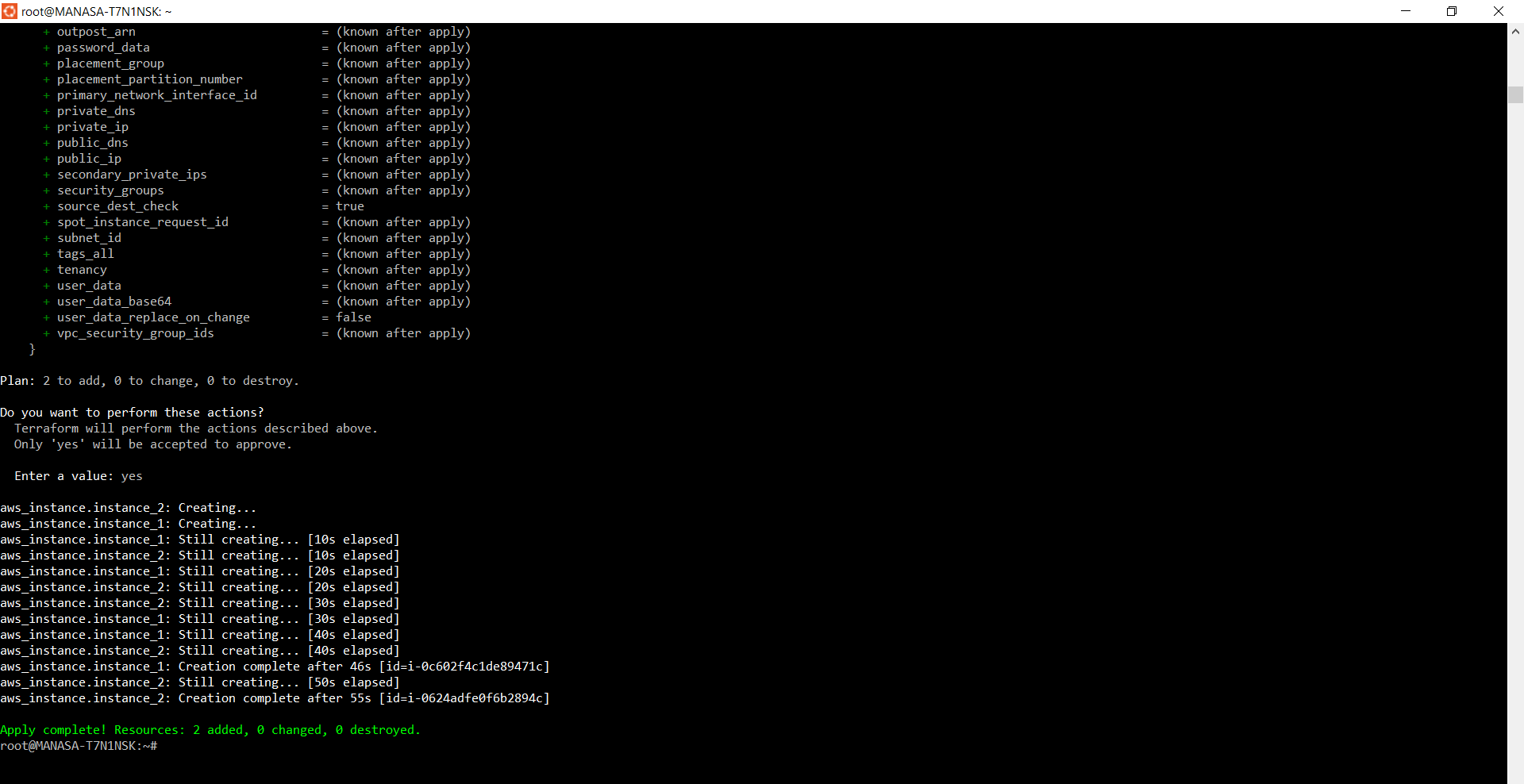
STEP 7 :

Terraform PLan

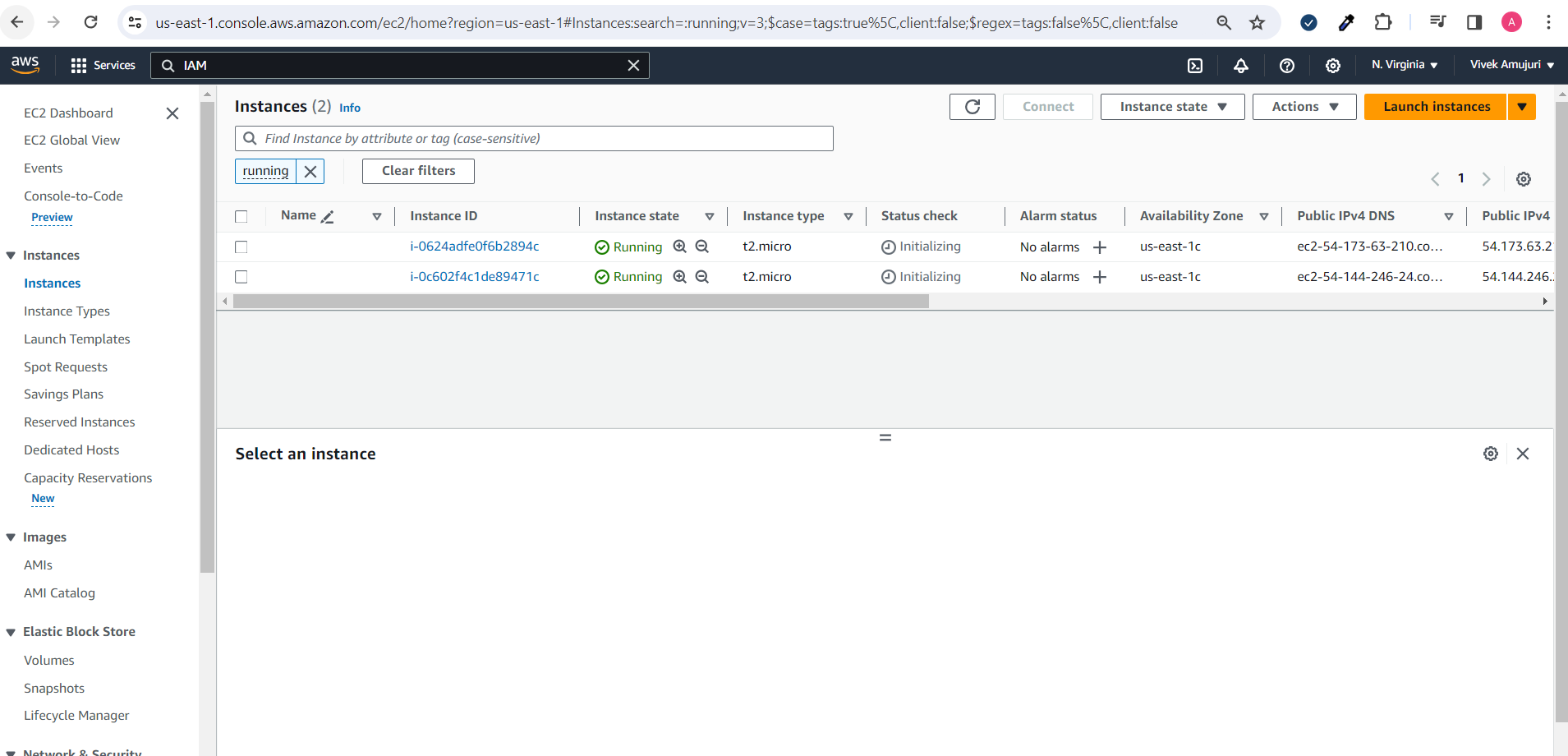
Two instances has been creating



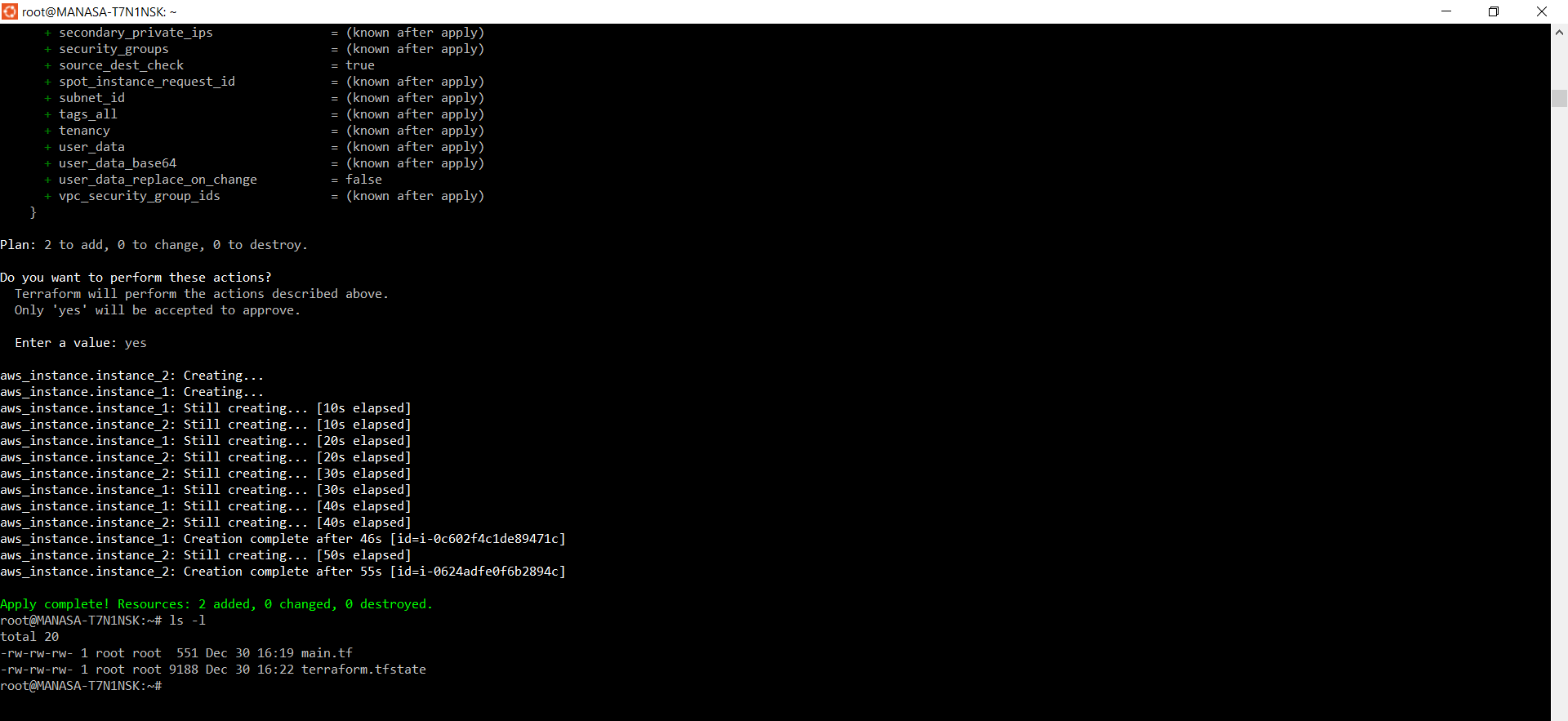
Two instances has been created



EC2 instances

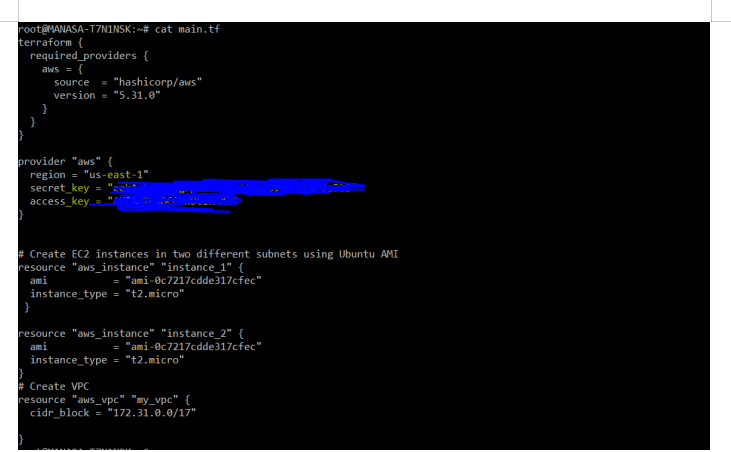


State file has been created

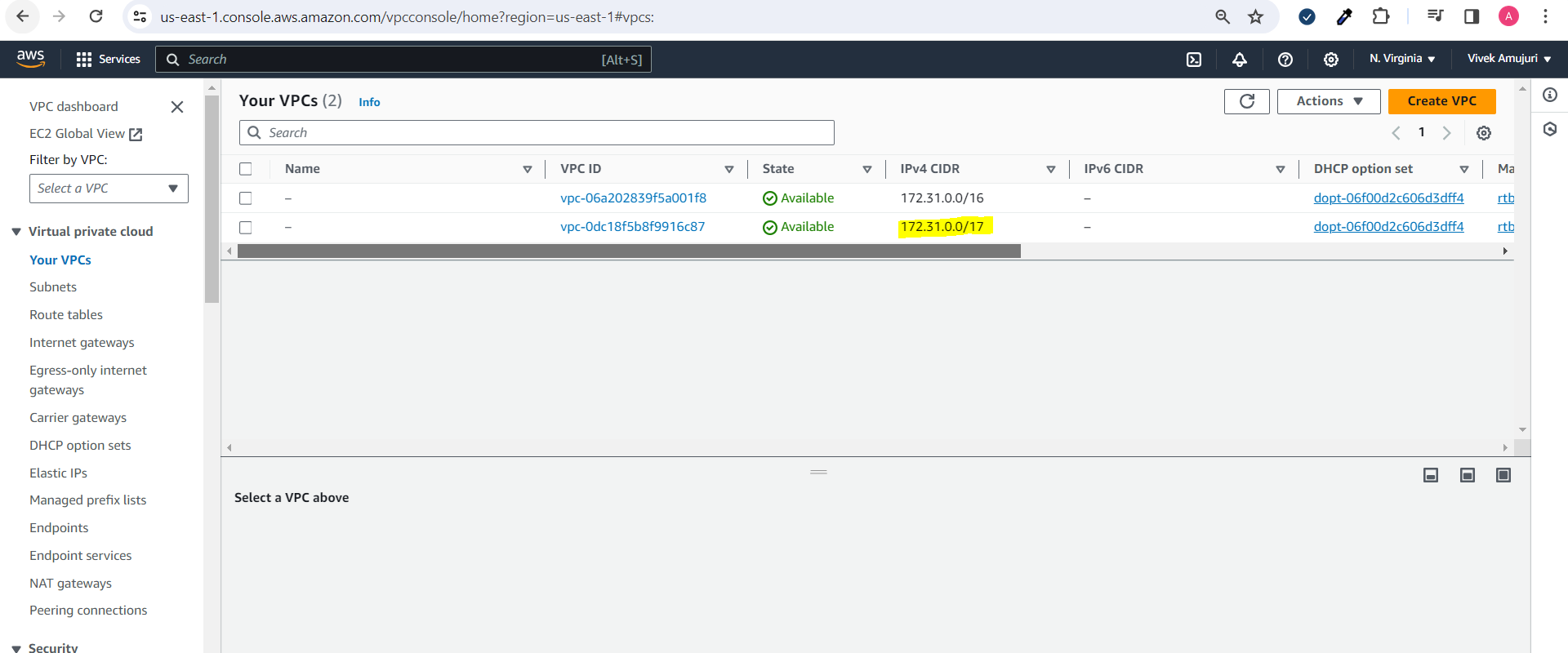


STEP 8:

Creating new VPC for instances

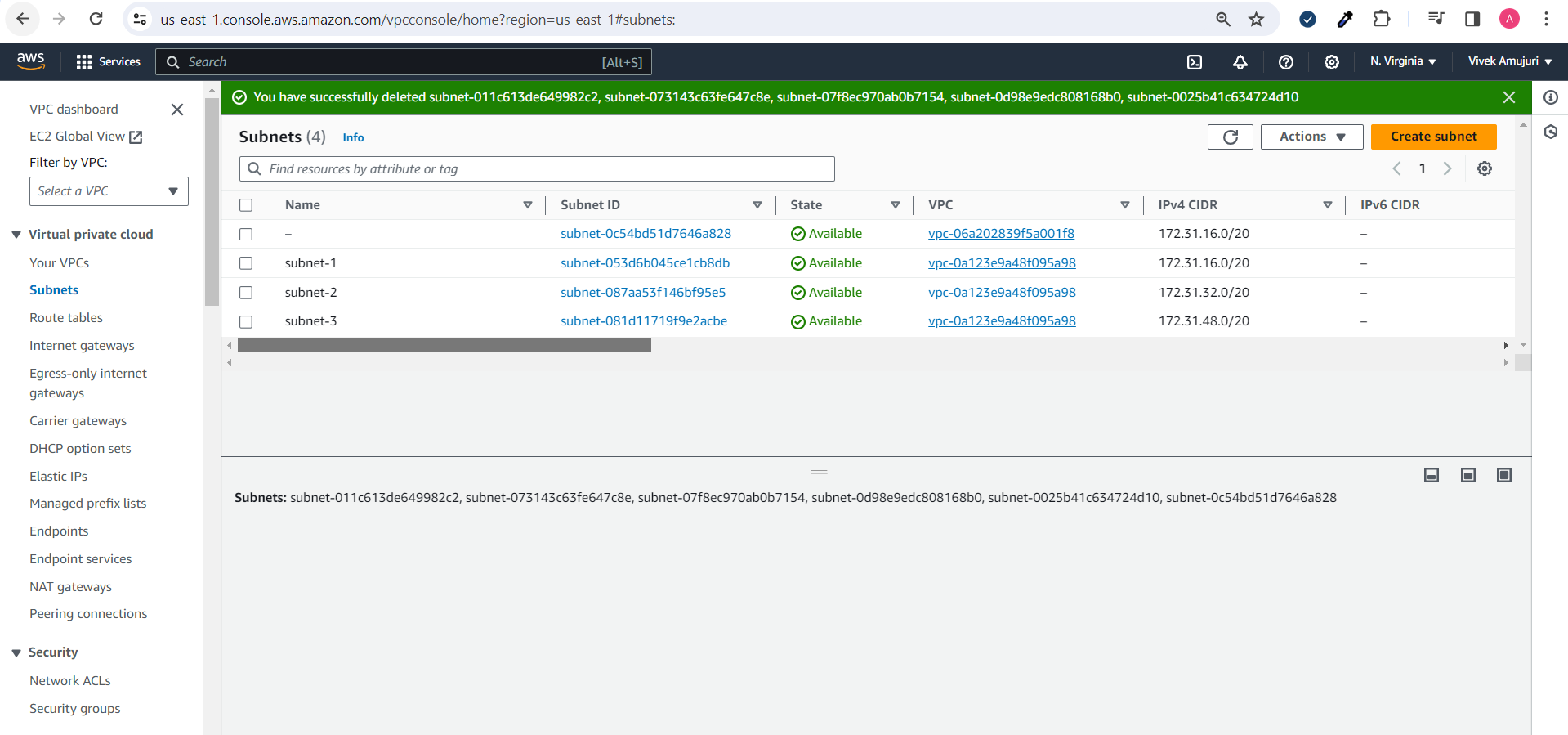


Created new VPC

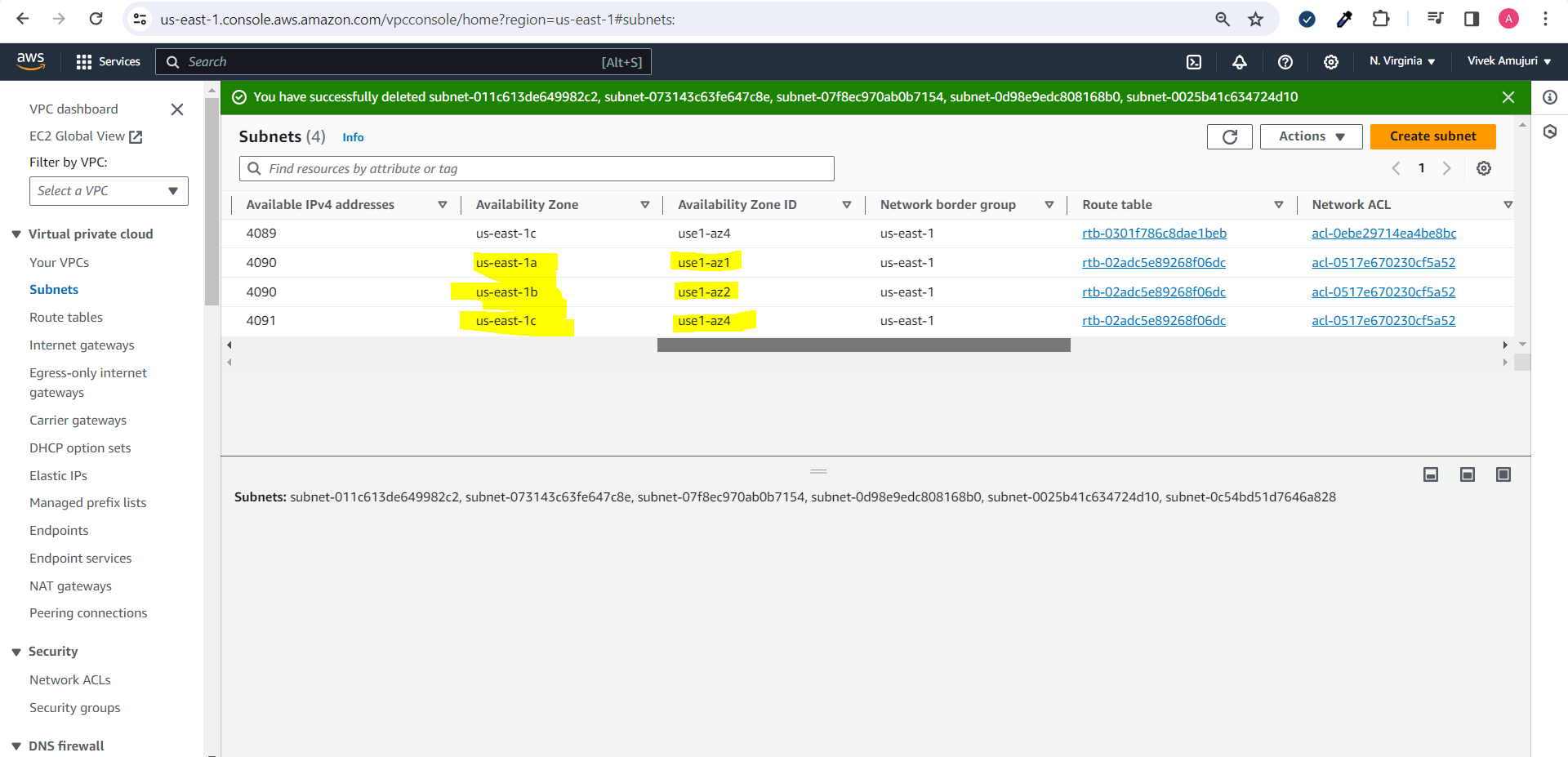


STEP 9:

Three subnets are created



Three availability zones



main.tf file has been modified to below.

root@MANASA-T7N1NSK:~# cat main.tf

terraform {

required\_providers {

aws = {

source = "hashicorp/aws"

version = "5.31.0"

}

}

}

provider "aws" {

region = "us-east-1"

secret\_key = "XXXXX"

access\_key = "ACCDDDSSS"

}

# Create VPC

resource "aws\_vpc" "my\_vpc" {

cidr\_block = "172.31.0.0/17"

}

# Create Subnets in three different AZs

resource "aws\_subnet" "subnet\_1" {

vpc\_id = aws\_vpc.my\_vpc.id

cidr\_block = "172.31.16.0/20"

availability\_zone = "us-east-1a"

map\_public\_ip\_on\_launch = true

tags = {

Name = "subnet-1"

}

}

resource "aws\_subnet" "subnet\_2" {

vpc\_id = aws\_vpc.my\_vpc.id

cidr\_block = "172.31.32.0/20" # Adjust the CIDR block as needed

availability\_zone = "us-east-1b"

map\_public\_ip\_on\_launch = true

tags = {

Name = "subnet-2"

}

}

resource "aws\_subnet" "subnet\_3" {

vpc\_id = aws\_vpc.my\_vpc.id

cidr\_block = "172.31.48.0/20" # Adjust the CIDR block as needed

availability\_zone = "us-east-1c"

map\_public\_ip\_on\_launch = true

tags = {

Name = "subnet-3"

}

}

# Create EC2 instances in two different subnets using Ubuntu AMI

resource "aws\_instance" "instance\_1" {

ami = "ami-0c7217cdde317cfec"

instance\_type = "t2.micro"

subnet\_id = aws\_subnet.subnet\_1.id

}

resource "aws\_instance" "instance\_2" {

ami = "ami-0c7217cdde317cfec"

instance\_type = "t2.micro"

subnet\_id = aws\_subnet.subnet\_2.id

}