**TERRAFORM VPC**

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**SCRIPT:**

**provider "aws" {**

**region = "ap-south-1"**

**}**

**resource "aws\_vpc" "myvpc" {**

**cidr\_block = "10.0.0.0/16"**

**tags = {**

**Name = "main"**

**}**

**}**

**resource "aws\_subnet" "pubsub1" {**

**vpc\_id = aws\_vpc.myvpc.id**

**cidr\_block = "10.0.0.0/24"**

**availability\_zone = "ap-south-1a"**

**map\_public\_ip\_on\_launch = true**

**}**

**resource "aws\_subnet" "prisub1" {**

**vpc\_id = aws\_vpc.myvpc.id**

**cidr\_block = "10.0.1.0/24"**

**availability\_zone = "ap-south-1a"**

**map\_public\_ip\_on\_launch = true**

**}**

**resource "aws\_subnet" "pubsub2" {**

**vpc\_id = aws\_vpc.myvpc.id**

**cidr\_block = "10.0.2.0/24"**

**availability\_zone = "ap-south-1b"**

**map\_public\_ip\_on\_launch = true**

**}**

**resource "aws\_subnet" "prisub2" {**

**vpc\_id = aws\_vpc.myvpc.id**

**cidr\_block = "10.0.3.0/24"**

**availability\_zone = "ap-south-1b"**

**map\_public\_ip\_on\_launch = true**

**}**

**resource "aws\_internet\_gateway" "igw" {**

**vpc\_id = aws\_vpc.myvpc.id**

**}**

**resource "aws\_route\_table" "RT" {**

**vpc\_id = aws\_vpc.myvpc.id**

**route {**

**cidr\_block = "0.0.0.0/0"**

**gateway\_id = aws\_internet\_gateway.igw.id**

**}**

**}**

**#private rt**

**resource "aws\_route\_table" "pv\_RT" {**

**vpc\_id = aws\_vpc.myvpc.id**

**}**

**resource "aws\_route\_table\_association" "rta1" {**

**subnet\_id = aws\_subnet.pubsub1.id**

**route\_table\_id = aws\_route\_table.RT.id**

**// gateway\_id = aws\_internet\_gateway.igw.id**

**// ig**

**}**

**resource "aws\_route\_table\_association" "rta2" {**

**subnet\_id = aws\_subnet.prisub1.id**

**route\_table\_id = aws\_route\_table.pv\_RT.id**

**}**

**resource "aws\_route\_table\_association" "rta3" {**

**subnet\_id = aws\_subnet.pubsub2.id**

**route\_table\_id = aws\_route\_table.RT.id**

**// ig**

**}**

**resource "aws\_route\_table\_association" "rta4" {**

**subnet\_id = aws\_subnet.prisub2.id**

**route\_table\_id = aws\_route\_table.pv\_RT.id**

**}**

**resource "aws\_security\_group" "webSg" {**

**name = "web"**

**vpc\_id = aws\_vpc.myvpc.id**

**ingress {**

**description = "HTTP from VPC"**

**from\_port = 80**

**to\_port = 3306**

**protocol = "tcp"**

**cidr\_blocks = ["0.0.0.0/0"]**

**}**

**ingress {**

**description = "SSH"**

**from\_port = 22**

**to\_port = 22**

**protocol = "tcp"**

**cidr\_blocks = ["0.0.0.0/0"]**

**}**

**egress {**

**from\_port = 0**

**to\_port = 0**

**protocol = "-1"**

**cidr\_blocks = ["0.0.0.0/0"]**

**}**

**tags = {**

**Name = "Web-sg"**

**}**

**}**

**resource "aws\_instance" "webserver1" {**

**ami = "ami-03f4878755434977f"**

**instance\_type = "t2.micro"**

**vpc\_security\_group\_ids = [aws\_security\_group.webSg.id]**

**subnet\_id = aws\_subnet.pubsub1.id**

**key\_name = "terra1"**

**//key name**

**user\_data = base64encode(file("userdata.sh"))**

**}**

**resource "aws\_instance" "webserver2" {**

**ami = "ami-03f4878755434977f"**

**instance\_type = "t2.micro"**

**key\_name = "terra1"**

**subnet\_id = aws\_subnet.pubsub2.id**

**availability\_zone = "ap-south-1b"**

**//key names**

**vpc\_security\_group\_ids = [aws\_security\_group.webSg.id]**

**user\_data = base64encode(file("userdata1.sh"))**

**}**

**#create alb**

**resource "aws\_lb" "myalb" {**

**name = "myalb"**

**internal = false**

**load\_balancer\_type = "application"**

**security\_groups = [aws\_security\_group.webSg.id]**

**subnets = [aws\_subnet.pubsub1.id , aws\_subnet.pubsub2.id]**

**tags = {**

**Name = "web"**

**}**

**}**

**resource "aws\_lb\_target\_group" "tg" {**

**name = "myTG"**

**port = 80**

**protocol = "HTTP"**

**vpc\_id = aws\_vpc.myvpc.id**

**health\_check {**

**path = "/"**

**port = "traffic-port"**

**}**

**}**

**resource "aws\_lb\_target\_group\_attachment" "attach1" {**

**target\_group\_arn = aws\_lb\_target\_group.tg.arn**

**target\_id = aws\_instance.webserver1.id**

**port = 80**

**}**

**resource "aws\_lb\_target\_group\_attachment" "attach2" {**

**target\_group\_arn = aws\_lb\_target\_group.tg.arn**

**target\_id = aws\_instance.webserver2.id**

**port = 80**

**}**

**resource "aws\_lb\_listener" "listener" {**

**load\_balancer\_arn = aws\_lb.myalb.arn**

**port = 80**

**protocol = "HTTP"**

**default\_action {**

**target\_group\_arn = aws\_lb\_target\_group.tg.arn**

**type = "forward"**

**}**

**}**

**# rds1**

**resource "aws\_db\_instance" "default" {**

**identifier = "rds1"**

**allocated\_storage = 10**

**engine = "mysql"**

**engine\_version = "8.0"**

**instance\_class = "db.t2.micro"**

**username = var.db\_username**

**password = var.db\_password**

**// parameter\_group\_name = "default.mysql5.7"**

**vpc\_security\_group\_ids = [aws\_security\_group.webSg.id]**

**db\_subnet\_group\_name = aws\_db\_subnet\_group.rds1.id**

**skip\_final\_snapshot = true**

**}**

**resource "aws\_db\_subnet\_group" "rds1" {**

**name = "database-subnet-group1"**

**subnet\_ids = [aws\_subnet.prisub1.id , aws\_subnet.prisub2.id ]**

**}**

**#rds2**

**resource "aws\_db\_instance" "default1" {**

**identifier = "rds2"**

**allocated\_storage = 10**

**engine = "mysql"**

**engine\_version = "8.0"**

**instance\_class = "db.t2.micro"**

**username = var.db\_username**

**password = var.db\_password**

**// parameter\_group\_name = "default.mysql5.7"**

**vpc\_security\_group\_ids = [aws\_security\_group.webSg.id]**

**db\_subnet\_group\_name = aws\_db\_subnet\_group.rds1.id**

**skip\_final\_snapshot = true**

**}**

**resource "aws\_db\_subnet\_group" "rds2" {**

**name = "database-subnet-group2"**

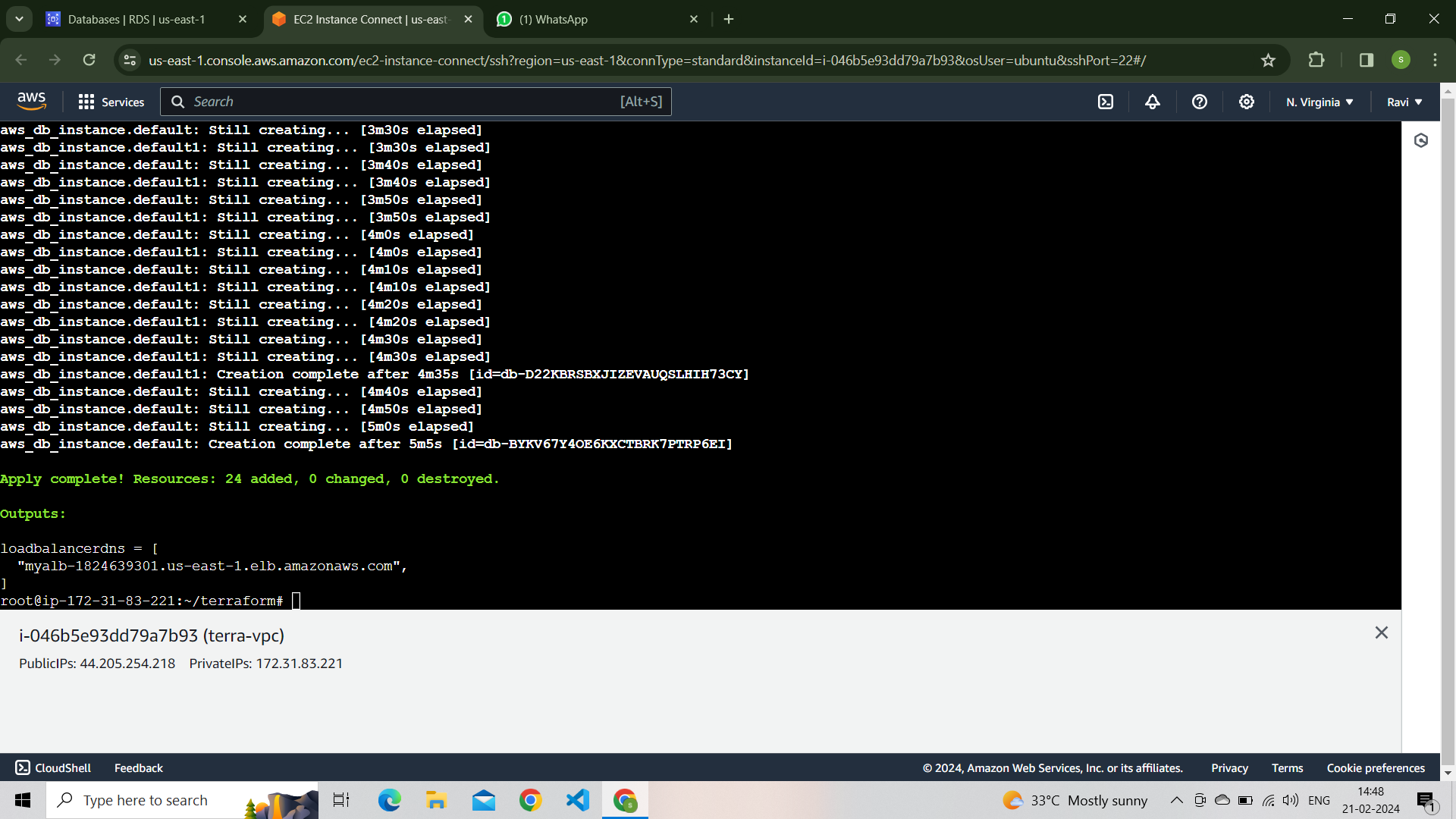
**subnet\_ids = [aws\_subnet.prisub1.id , aws\_subnet.prisub2.id ]**

**}**

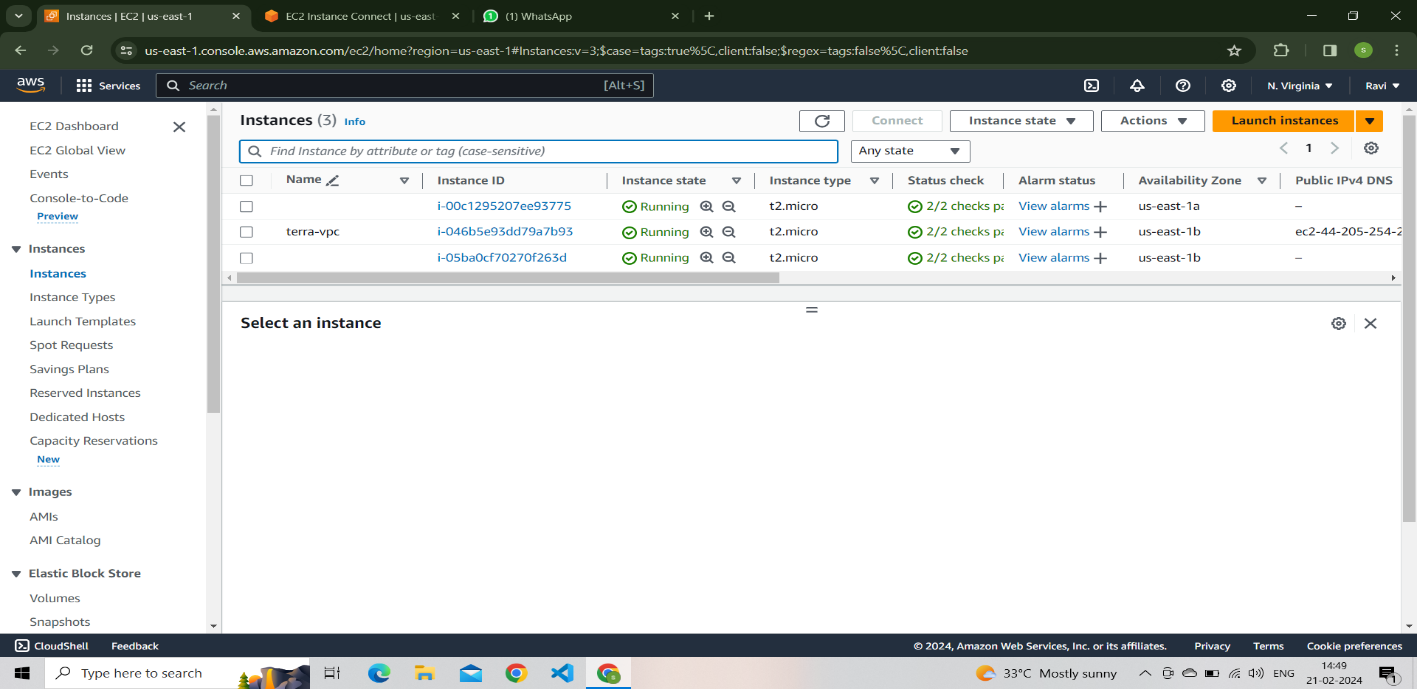
**output "loadbalancerdns" {**

**value = [aws\_lb.myalb.dns\_name]**

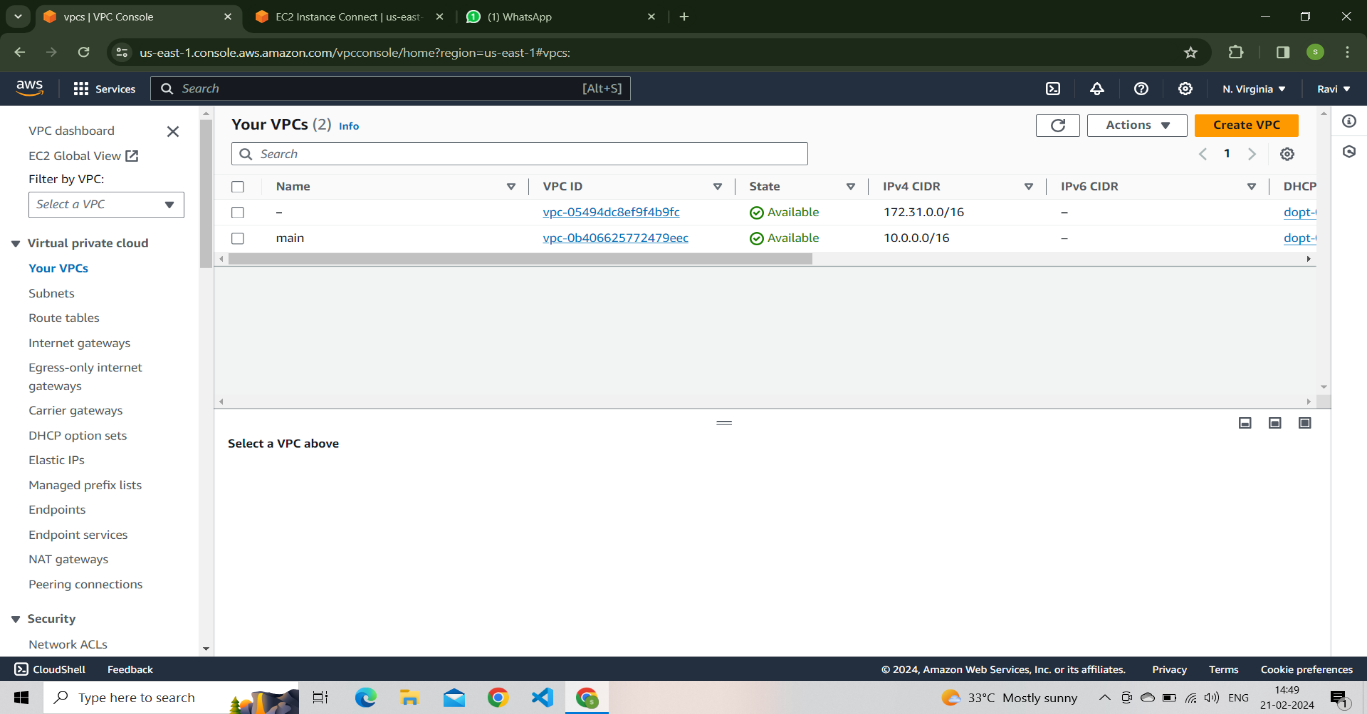
**output :**



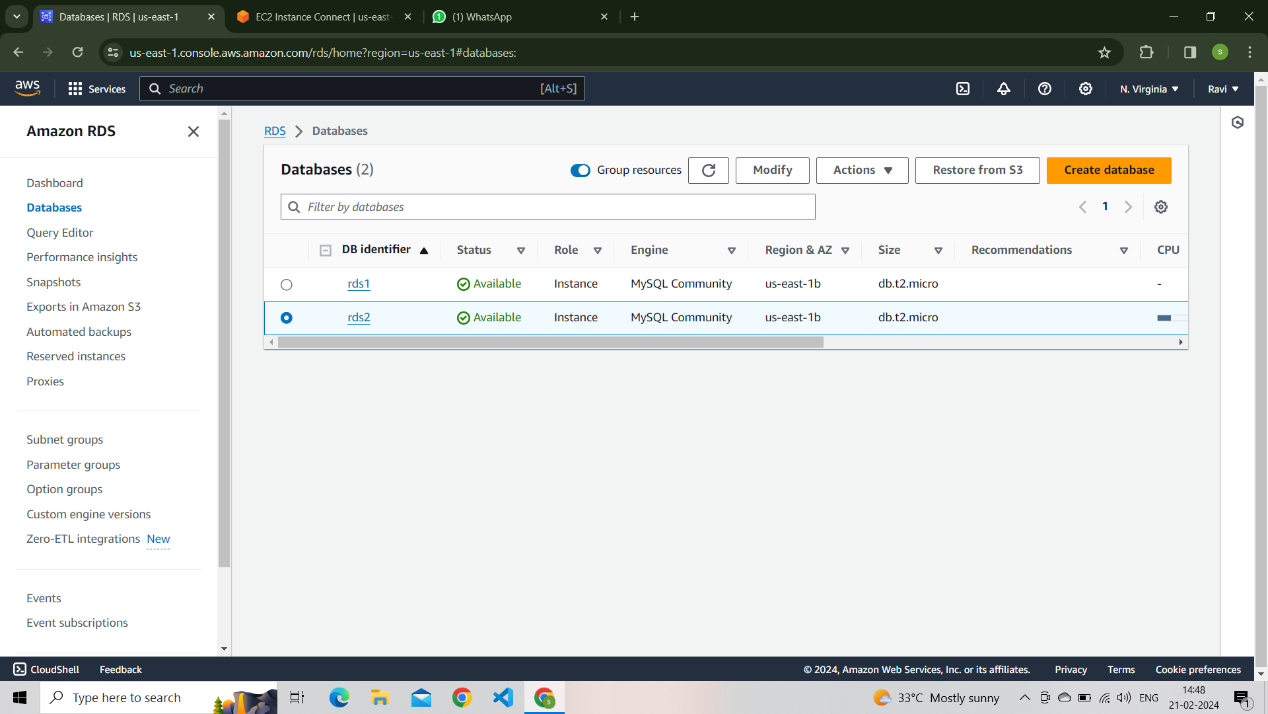
**INSTANCE LAUNCHING:**

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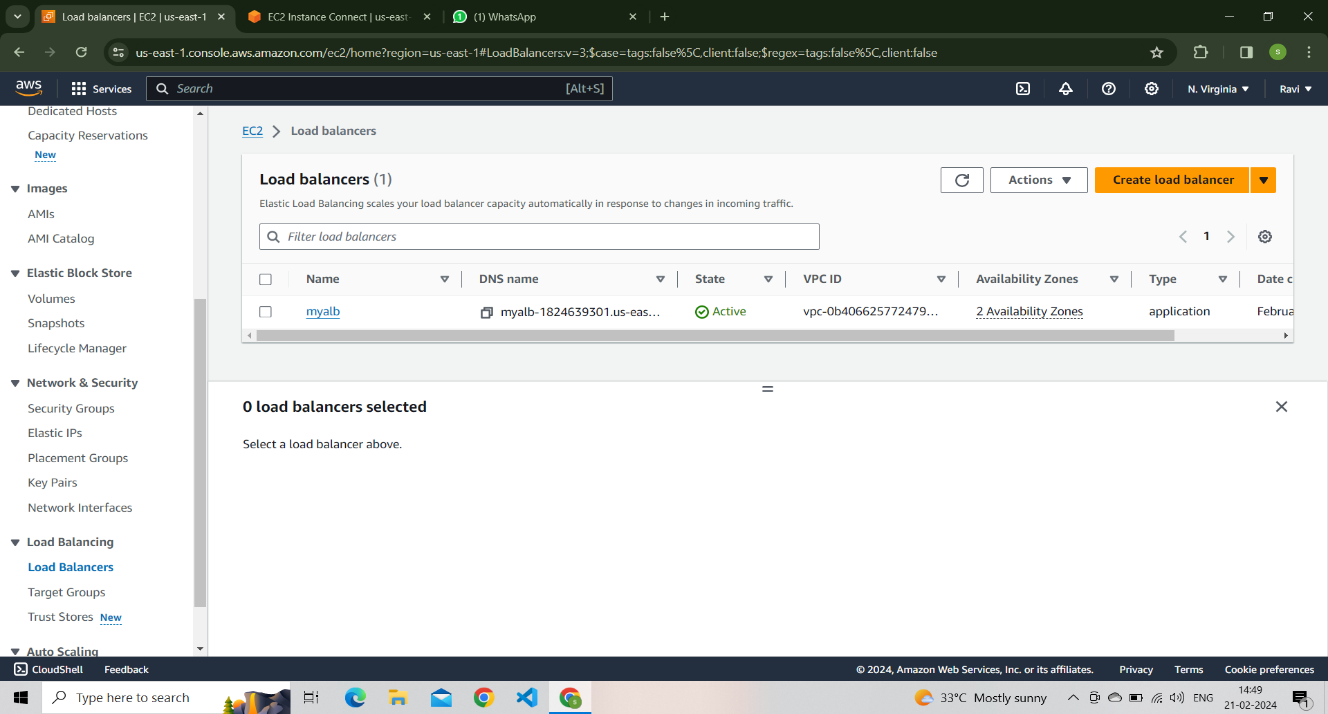
**VPC CREATION:**



**DATABASES :**

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**LOAD BALANCER CREATION:**

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