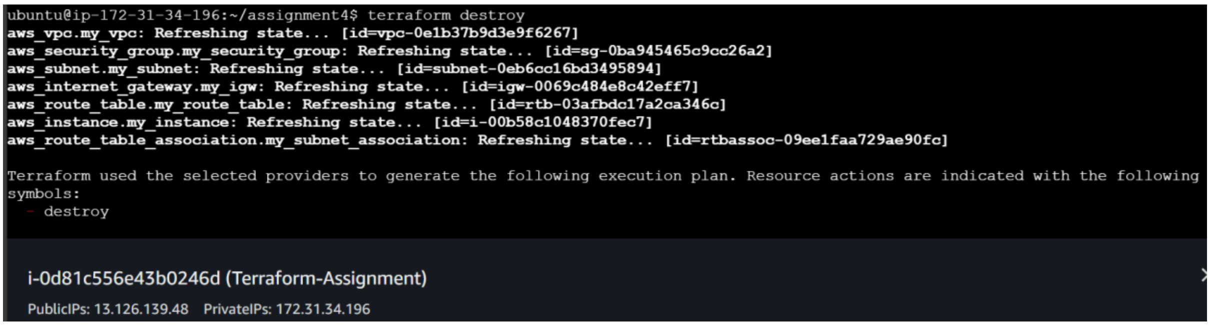
Terraform Assignment - 5

You have been asked to:

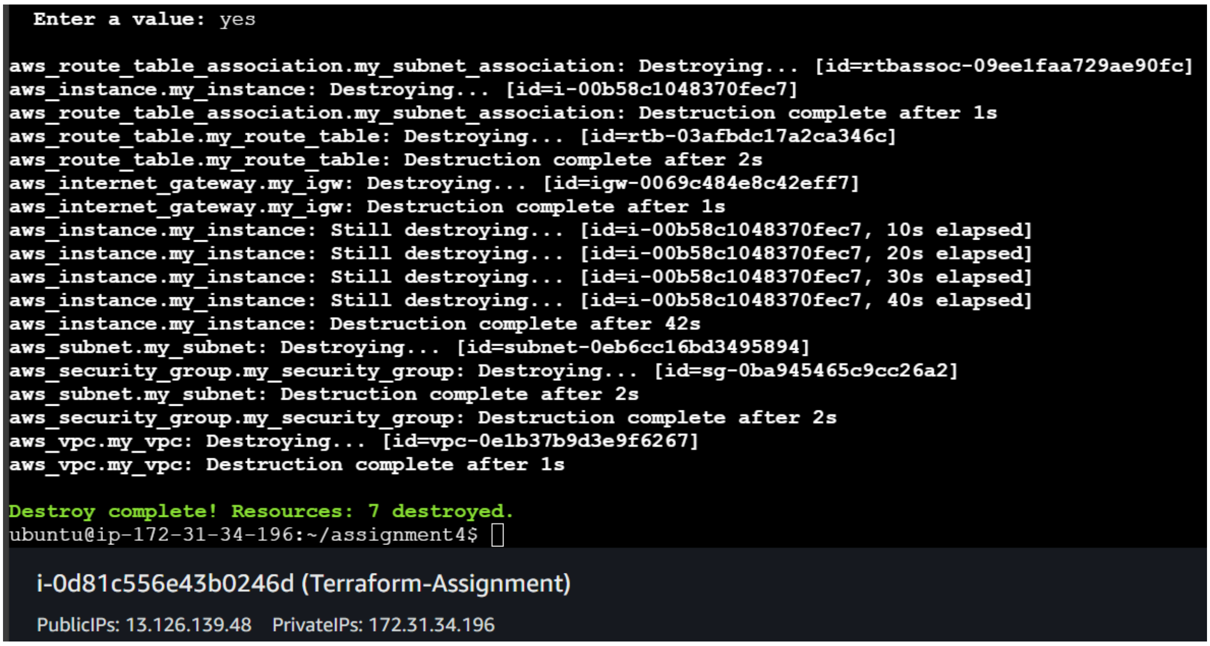
- Destroy the previous deployments
- Create a script to install apache2
- Run this script on a newly created EC2 instance
- Print the IP address of the instance in a file on the local, once deployed



```
ubuntu@ip-172-31-34-196:~/assignment4$ terraform destroy
aws_vpc.my_vpc: Refreshing state... [id=vpc-0e1b37b9d3e9f6267]
aws_security_group.my_security_group: Refreshing state... [id=sg-0ba945465c9cc26a2]
aws_subnet.my_subnet: Refreshing state... [id=subnet-0eb6cc16bd3495894]
aws_internet_gateway.my_igw: Refreshing state... [id=igw-0069c484e8c42eff7]
aws_route_table.my_route_table: Refreshing state... [id=rtb-03afbdc17a2ca346c]
aws_instance.my_instance: Refreshing state... [id=i-00b58c1048370fec7]
aws_route_table_association.my_subnet_association: Refreshing state... [id=rtbassoc-09ee1faa729ae90fc]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following
symbols:
  - destroy
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48 PrivateIPs: 172.31.34.196



```
  Enter a value: yes

aws_route_table_association.my_subnet_association: Destroying... [id=rtbassoc-09ee1faa729ae90fc]
aws_instance.my_instance: Destroying... [id=i-00b58c1048370fec7]
aws_route_table_association.my_subnet_association: Destruction complete after 1s
aws_route_table.my_route_table: Destroying... [id=rtb-03afbdc17a2ca346c]
aws_route_table.my_route_table: Destruction complete after 2s
aws_internet_gateway.my_igw: Destroying... [id=igw-0069c484e8c42eff7]
aws_internet_gateway.my_igw: Destruction complete after 1s
aws_instance.my_instance: Still destroying... [id=i-00b58c1048370fec7, 10s elapsed]
aws_instance.my_instance: Still destroying... [id=i-00b58c1048370fec7, 20s elapsed]
aws_instance.my_instance: Still destroying... [id=i-00b58c1048370fec7, 30s elapsed]
aws_instance.my_instance: Still destroying... [id=i-00b58c1048370fec7, 40s elapsed]
aws_instance.my_instance: Destruction complete after 42s
aws_subnet.my_subnet: Destroying... [id=subnet-0eb6cc16bd3495894]
aws_security_group.my_security_group: Destroying... [id=sg-0ba945465c9cc26a2]
aws_subnet.my_subnet: Destruction complete after 2s
aws_security_group.my_security_group: Destruction complete after 2s
aws_vpc.my_vpc: Destroying... [id=vpc-0e1b37b9d3e9f6267]
aws_vpc.my_vpc: Destruction complete after 1s

Destroy complete! Resources: 7 destroyed.
ubuntu@ip-172-31-34-196:~/assignment4$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

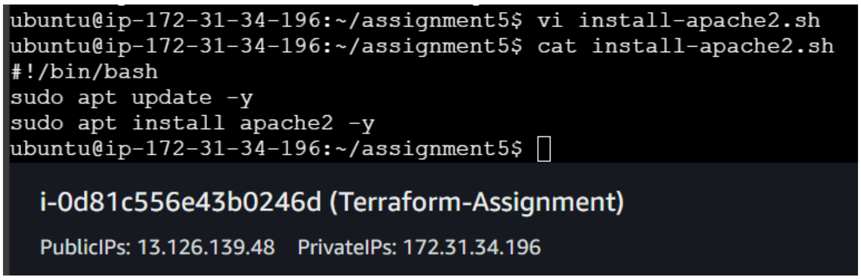
PublicIPs: 13.126.139.48 PrivateIPs: 172.31.34.196

vi install-apache2.sh

#!/bin/bash

sudo apt update -y

sudo apt install apache2 -y

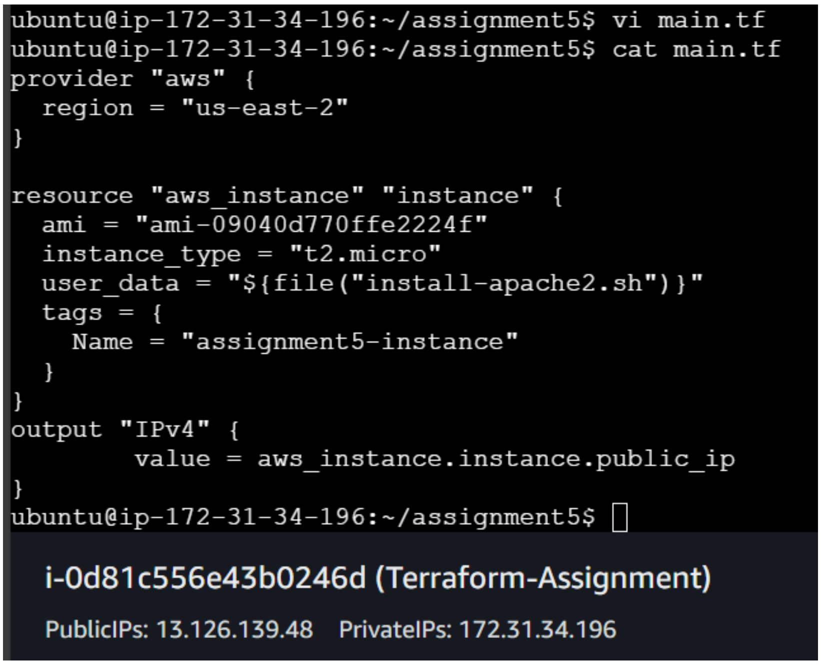


```
ubuntu@ip-172-31-34-196:~/assignment5$ vi install-apache2.sh
ubuntu@ip-172-31-34-196:~/assignment5$ cat install-apache2.sh
#!/bin/bash
sudo apt update -y
sudo apt install apache2 -y
ubuntu@ip-172-31-34-196:~/assignment5$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196

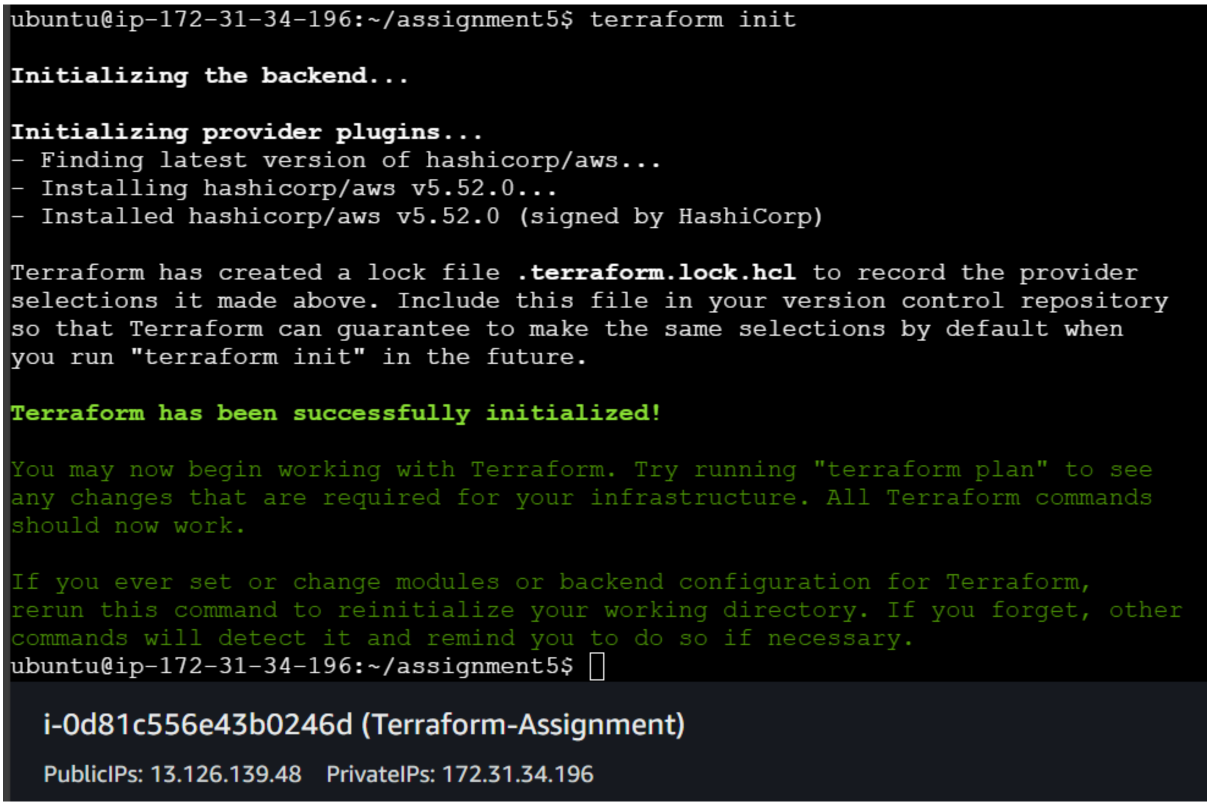
```
provider "aws" {
  region = "us-east-2"
}
resource "aws_instance" "instance" {
  ami = "ami-09040d770ffe2224f"
  instance_type = "t2.micro"
  user_data = "${file("install-apache2.sh")}"
  tags = {
    Name = "assignment5-instance"
  }
}
output "IPv4" {
        value = aws_instance.instance.public_ip
}
```



```
ubuntu@ip-172-31-34-196:~/assignment5$ vi main.tf
ubuntu@ip-172-31-34-196:~/assignment5$ cat main.tf
provider "aws" {
  region = "us-east-2"
}

resource "aws_instance" "instance" {
  ami = "ami-09040d770ffe2224f"
  instance_type = "t2.micro"
  user_data = "${file("install-apache2.sh")}"
  tags = {
    Name = "assignment5-instance"
  }
}
output "IPv4" {
        value = aws_instance.instance.public_ip
}
ubuntu@ip-172-31-34-196:~/assignment5$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

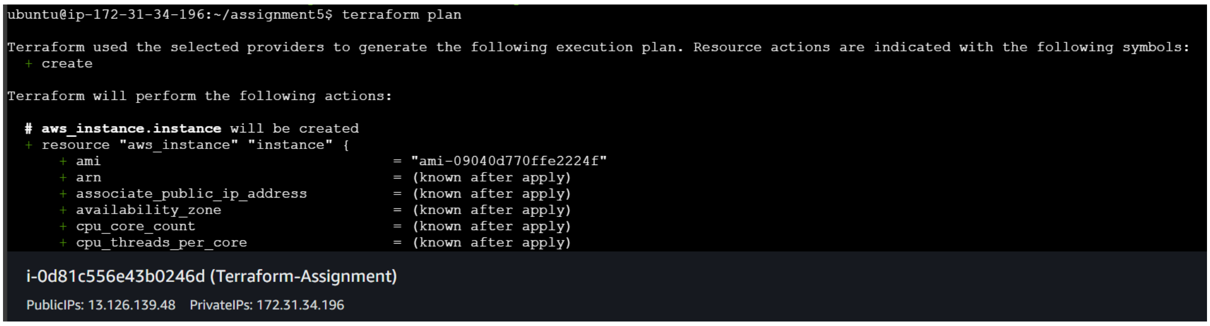
PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196



```
ubuntu@ip-172-31-34-196:~/assignment5$ terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.52.0...
- Installed hashicorp/aws v5.52.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
ubuntu@ip-172-31-34-196:~/assignment5$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

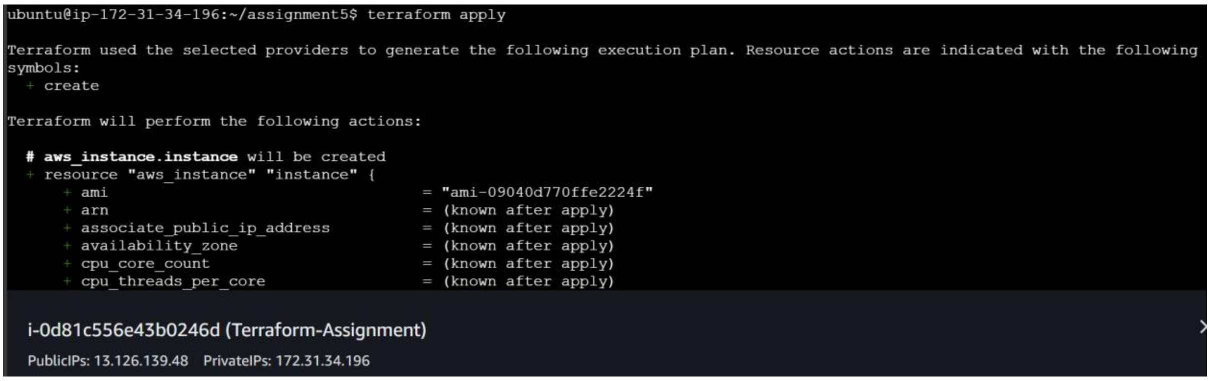
PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196



```
ubuntu@ip-172-31-34-196:~/assignment5$ terraform plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.instance will be created
  + resource "aws_instance" "instance" {
      + ami                                  = "ami-09040d770ffe2224f"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
```

i-0d81c556e43b0246d (Terraform-Assignment)

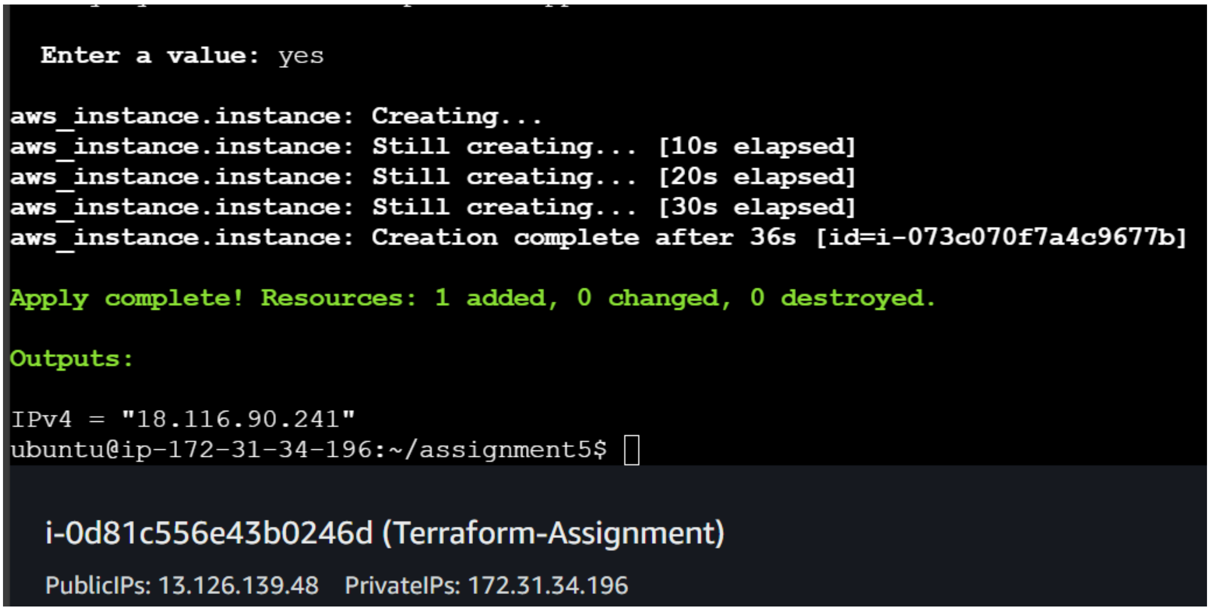
PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196



```
ubuntu@ip-172-31-34-196:~/assignment5$ terraform apply

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following
symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.instance will be created
  + resource "aws_instance" "instance" {
      + ami                                  = "ami-09040d770ffe2224f"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196

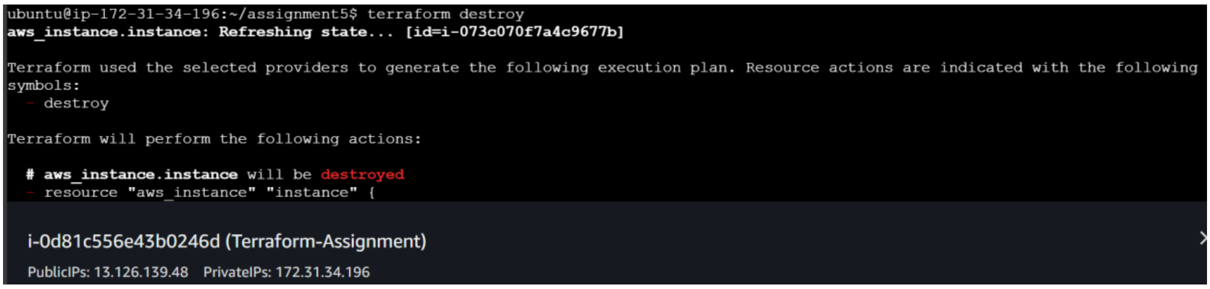


```
  Enter a value: yes

aws_instance.instance: Creating...
aws_instance.instance: Still creating... [10s elapsed]
aws_instance.instance: Still creating... [20s elapsed]
aws_instance.instance: Still creating... [30s elapsed]
aws_instance.instance: Creation complete after 36s [id=i-073c070f7a4c9677b]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

IPv4 = "18.116.90.241"
ubuntu@ip-172-31-34-196:~/assignment5$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196

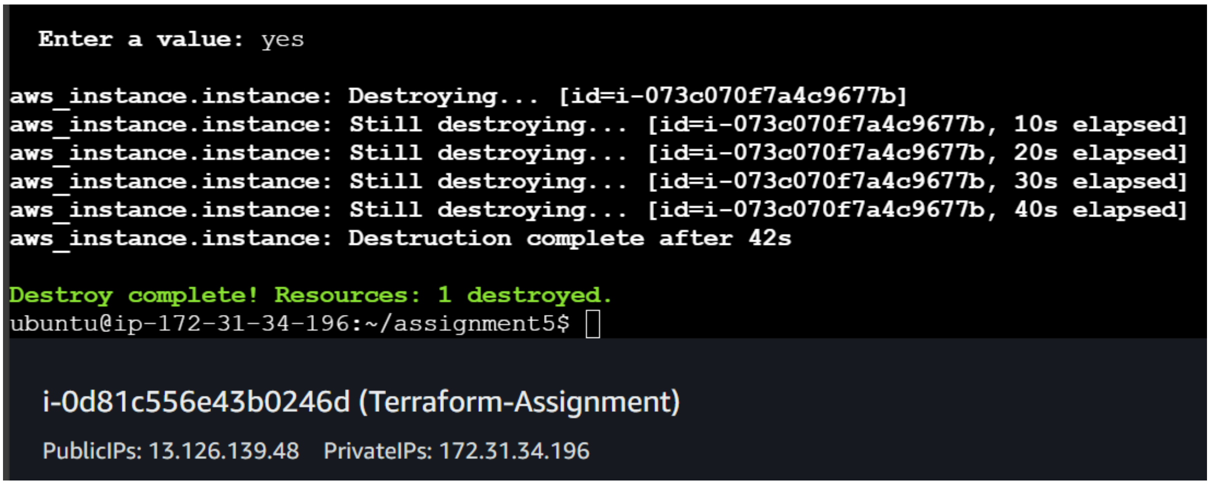
We could see that the output has printed the IPv4 address of the instance.



```
ubuntu@ip-172-31-34-196:~/assignment5$ terraform destroy
aws_instance.instance: Refreshing state... [id=i-073c070f7a4c9677b]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following
symbols:
  - destroy

Terraform will perform the following actions:

  # aws_instance.instance will be destroyed
  - resource "aws_instance" "instance" {
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196



```
  Enter a value: yes

aws_instance.instance: Destroying... [id=i-073c070f7a4c9677b]
aws_instance.instance: Still destroying... [id=i-073c070f7a4c9677b, 10s elapsed]
aws_instance.instance: Still destroying... [id=i-073c070f7a4c9677b, 20s elapsed]
aws_instance.instance: Still destroying... [id=i-073c070f7a4c9677b, 30s elapsed]
aws_instance.instance: Still destroying... [id=i-073c070f7a4c9677b, 40s elapsed]
aws_instance.instance: Destruction complete after 42s

Destroy complete! Resources: 1 destroyed.
ubuntu@ip-172-31-34-196:~/assignment5$ 
```

i-0d81c556e43b0246d (Terraform-Assignment)

PublicIPs: 13.126.139.48   PrivateIPs: 172.31.34.196

************ THE END **********