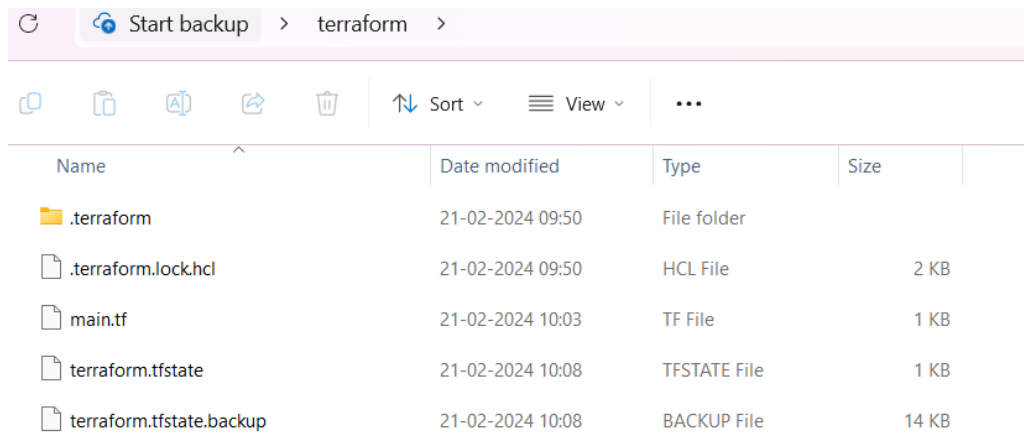


Lab Exercise 9– Creating Multiple EC2 Instances with for each in Terraform Objective:

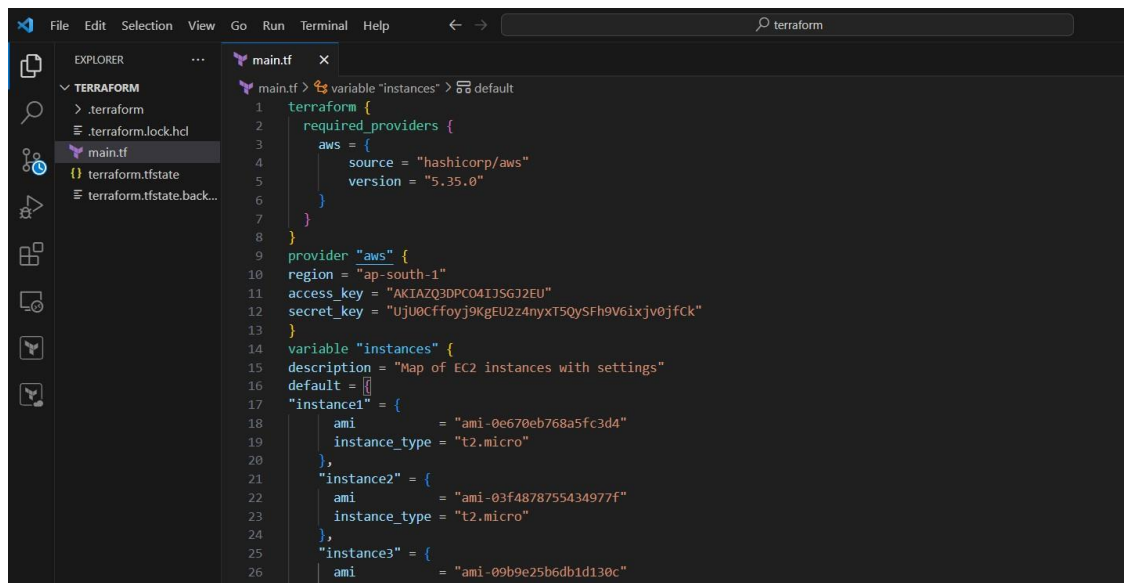
1. Create a Terraform Directory:

- Create Terraform Configuration Files:

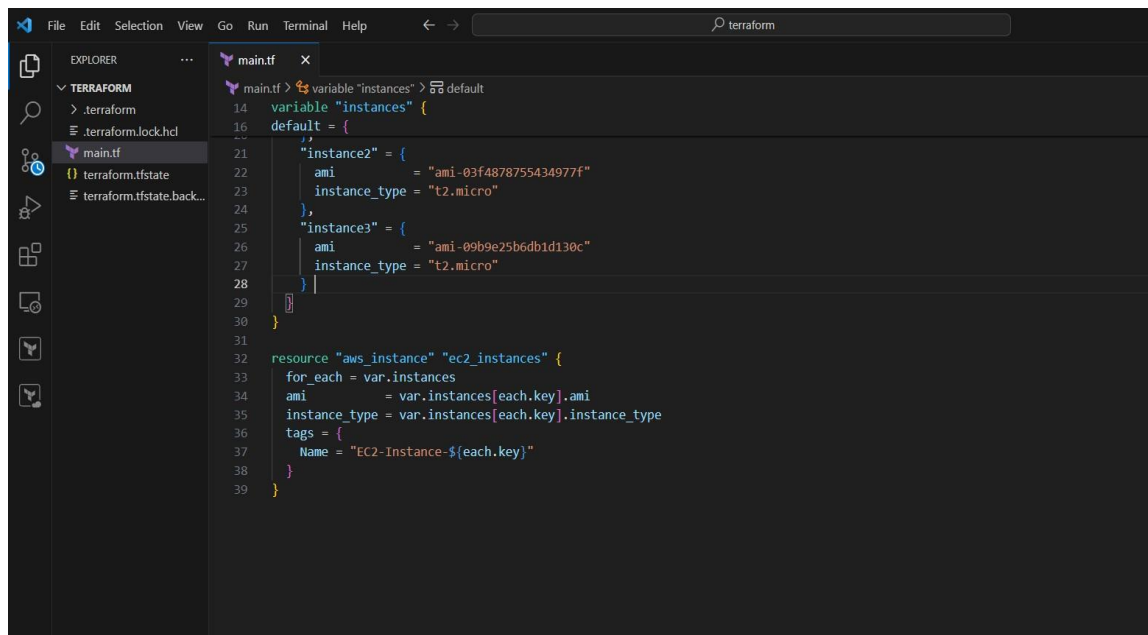


Name	Date modified	Type	Size
.terraform	21-02-2024 09:50	File folder	
.terraform.lock.hcl	21-02-2024 09:50	HCL File	2 KB
main.tf	21-02-2024 10:03	TF File	1 KB
terraform.tfstate	21-02-2024 10:08	TFSTATE File	1 KB
terraform.tfstate.backup	21-02-2024 10:08	BACKUP File	14 KB

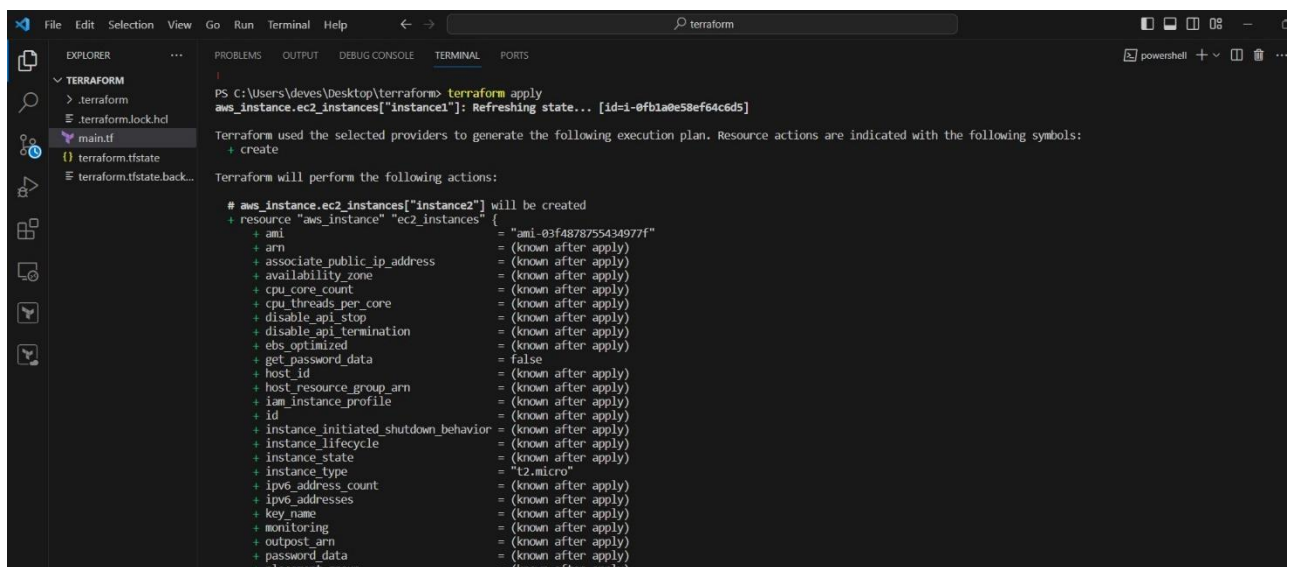
- Create a file named main.tf:

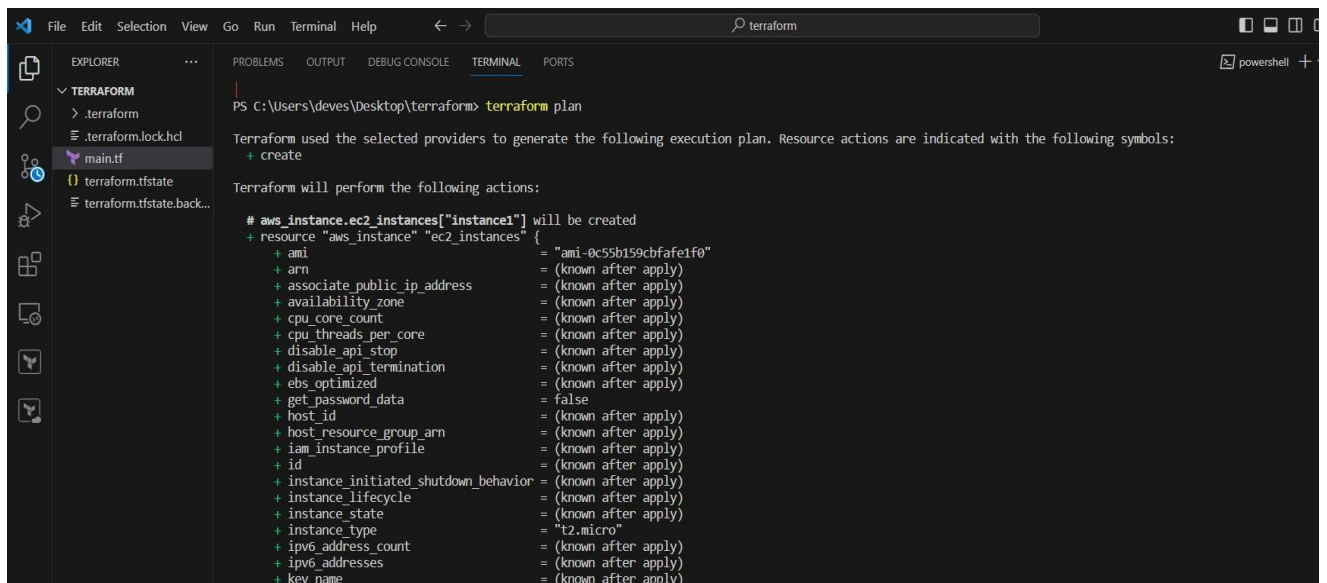


```
main.tf
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = "5.35.0"
6     }
7   }
8 }
9 provider "aws" {
10  region = "ap-south-1"
11  access_key = "AKIAZQ3DPC041J5GJ2EU"
12  secret_key = "UjU0Cffoyj9KgEU2z4nyxT5QysFh9V6ixjv0jfcK"
13 }
14 variable "instances" {
15  description = "Map of EC2 instances with settings"
16  default = {
17    "instance1" = {
18      ami = "ami-0e670eb768a5fc3d4"
19      instance_type = "t2.micro"
20    },
21    "instance2" = {
22      ami = "ami-03f4878755434977f"
23      instance_type = "t2.micro"
24    },
25    "instance3" = {
26      ami = "ami-09b9e25b6db1d130c"
```



2. Initialize and Apply:



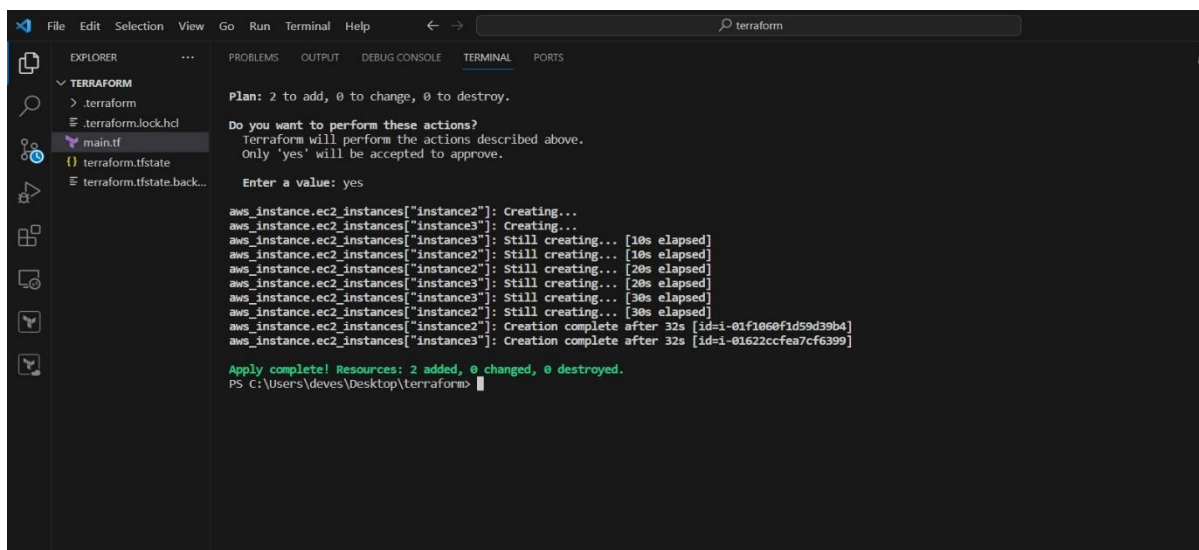


```
PS C:\Users\deves\Desktop\terraform> terraform plan

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.ec2_instances["instance1"] will be created
+ resource "aws_instance" "ec2_instances" {
  + ami                     = "ami-0c55b159c9bafef0"
  + 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)
  + disable_api_stop        = (known after apply)
  + disable_api_termination = (known after apply)
  + ebs_optimized           = (known after apply)
  + get_password_data       = false
  + host_id                 = (known after apply)
  + host_resource_group_arn = (known after apply)
  + iam_instance_profile    = (known after apply)
  + id                      = (known after apply)
  + instance_initiated_shutdown_behavior = (known after apply)
  + instance_lifecycle      = (known after apply)
  + instance_state          = (known after apply)
  + instance_type           = "t2.micro"
  + ipv6_address_count      = (known after apply)
  + ipv6_addresses          = (known after apply)
  + key_name                = (known after apply)
```



```
Plan: 2 to add, 0 to change, 0 to destroy.

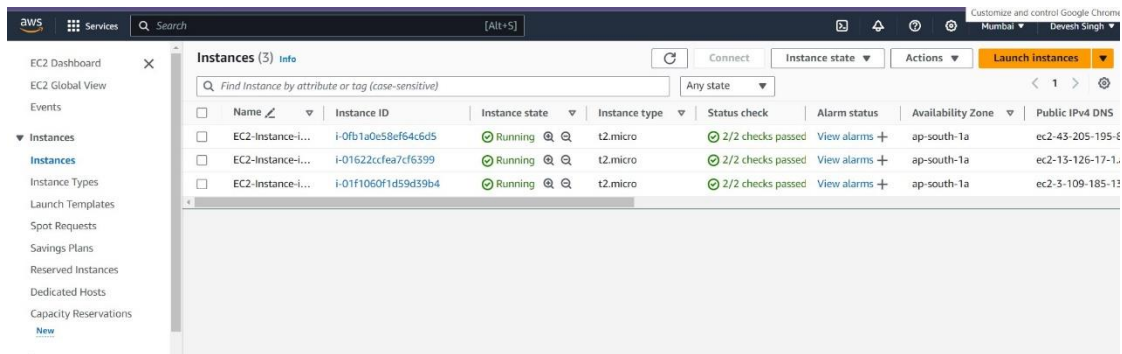
Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

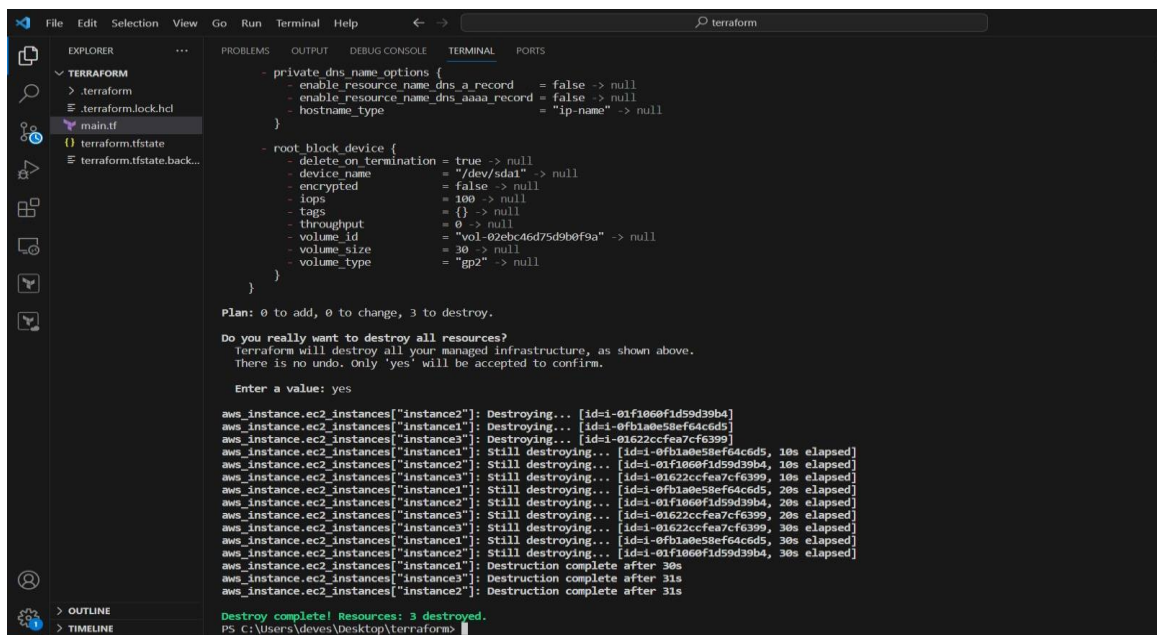
aws_instance.ec2_instances["instance2"]: Creating...
aws_instance.ec2_instances["instance3"]: Creating...
aws_instance.ec2_instances["instance3"]: Still creating... [10s elapsed]
aws_instance.ec2_instances["instance2"]: Still creating... [10s elapsed]
aws_instance.ec2_instances["instance2"]: Still creating... [20s elapsed]
aws_instance.ec2_instances["instance3"]: Still creating... [20s elapsed]
aws_instance.ec2_instances["instance3"]: Still creating... [30s elapsed]
aws_instance.ec2_instances["instance2"]: Still creating... [30s elapsed]
aws_instance.ec2_instances["instance2"]: Creation complete after 32s [id=i-01f1060f1d59d39b4]
aws_instance.ec2_instances["instance3"]: Creation complete after 32s [id=i-01622ccfea7cf6399]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.
PS C:\Users\deves\Desktop\terraform>
```

4. Update Instance Configuration:



5. Clean Up:



Instances (3) Info

Refresh

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

Any state

< 1 >

Settings

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	EC2-Instance-i...	i-0fb1a0e58ef64c6d5	Terminated	t2.micro	-	View alarms	ap-south-1a	-
<input type="checkbox"/>	EC2-Instance-i...	i-01622ccfea7cf6399	Terminated	t2.micro	-	View alarms	ap-south-1a	-
<input type="checkbox"/>	EC2-Instance-i...	i-01f1060f1d59d39b4	Terminated	t2.micro	-	View alarms	ap-south-1a	-