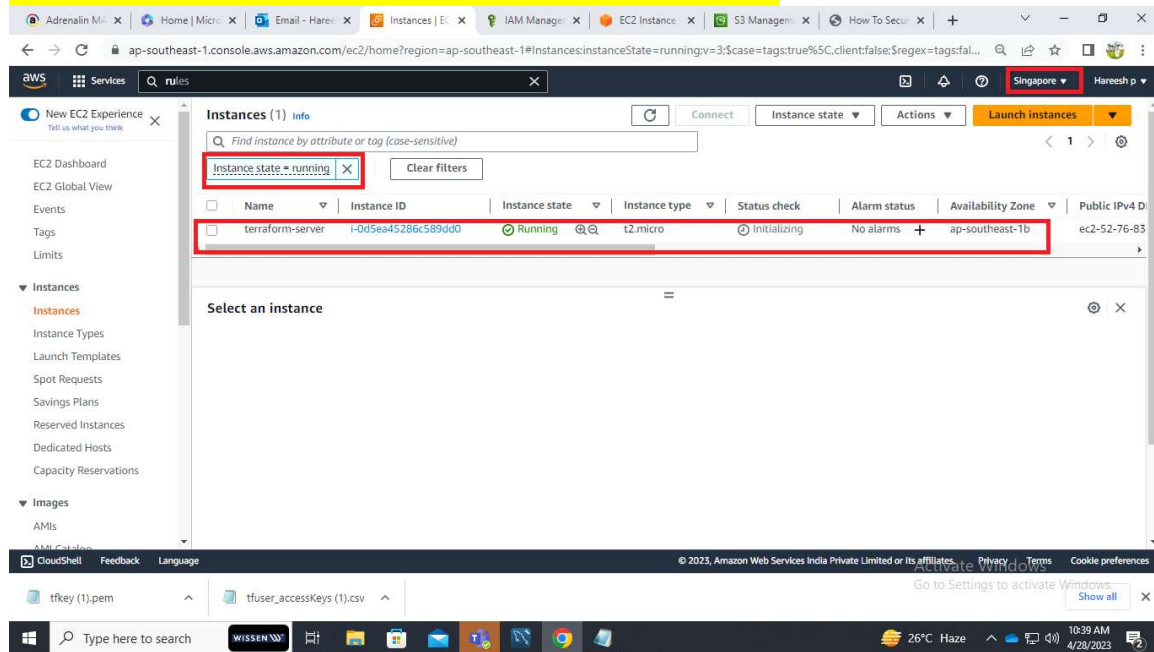
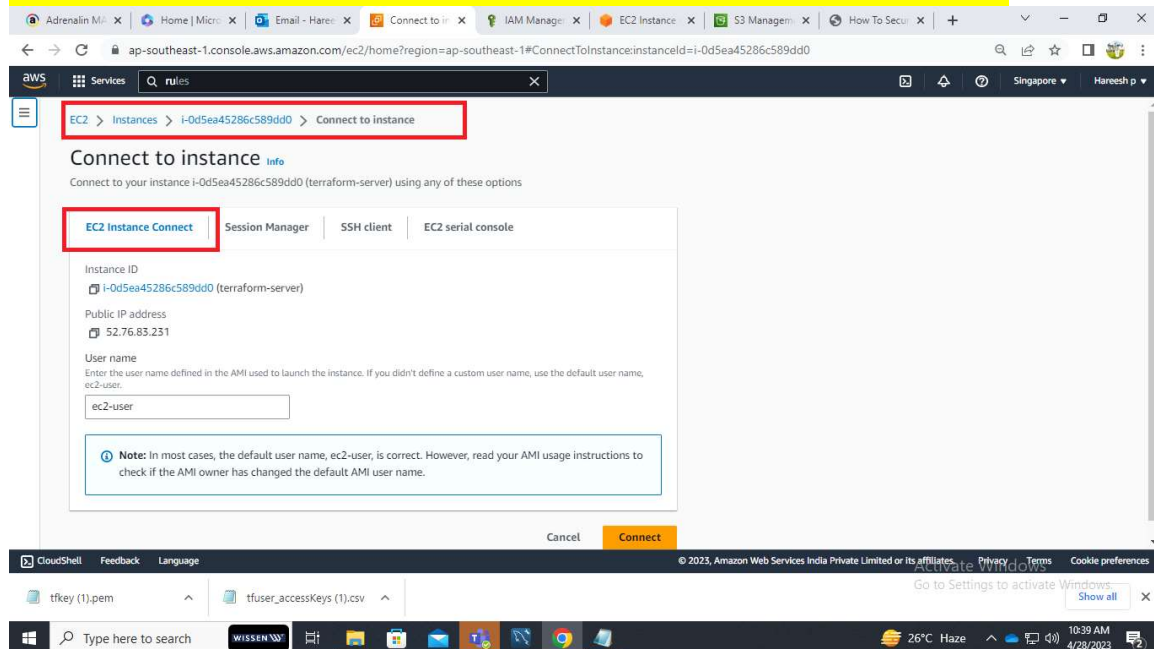


Ec2 instance creation using terraform

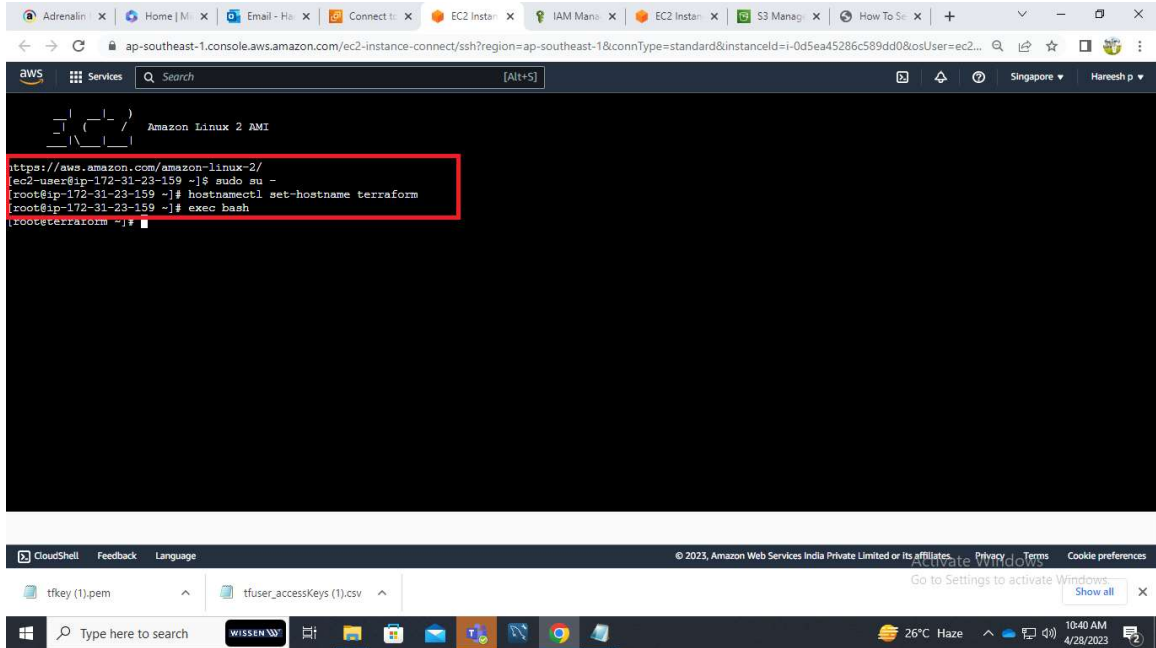
step-1: Login to aws management console create a ec2 instance



step-2: connect the terminal via ec2 connect (browser based) to run the commands



step-3: Login as a root user and create a hostname



- install the terraform in amazon linux machine follow the link and run those commands:

1. `sudo yum install -y yum-utils`

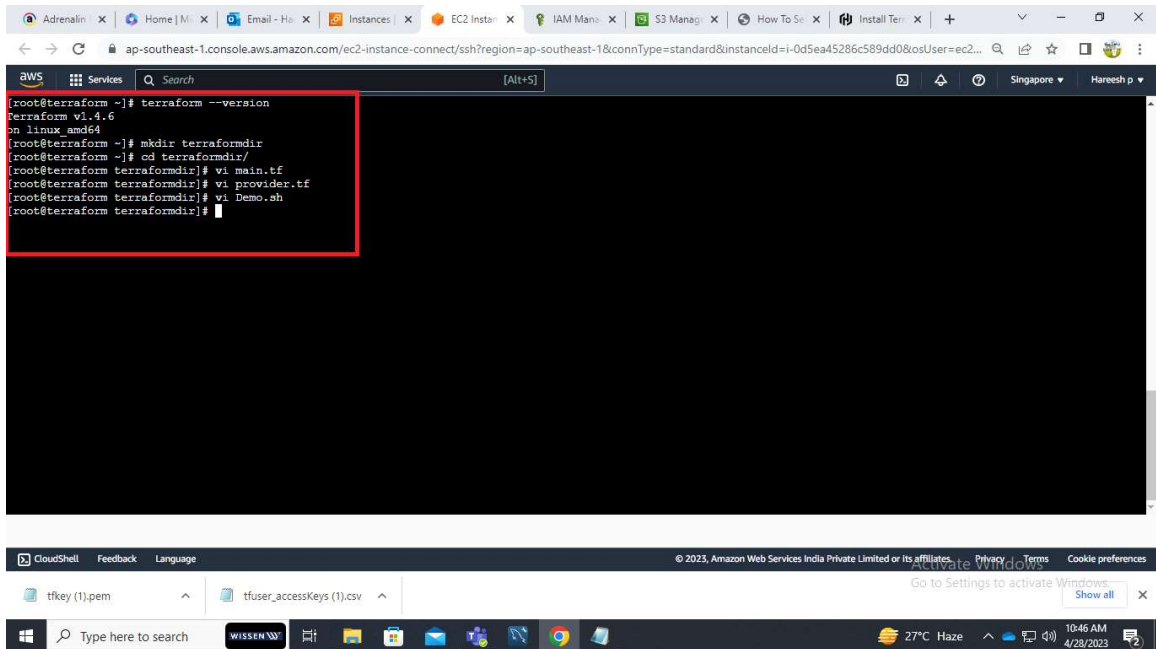
2. `sudo yum-config-manager --add-repo`

<https://rpm.releases.hashicorp.com/AmazonLinux/hashicorp.repo>

3. `sudo yum -y install terraform`

4. `terraform --version`

step-4: create a directory and change in to that directory



step-5: create a main.tf and provider.tf and Demo.sh files to run the below scripts

main.tf

```
resource "aws_instance" "myinstance" {  
  
    ami = "ami-0f6ad051716c81af1"  
  
    instance_type = "t2.micro"  
  
    associate_public_ip_address = "true"  
  
    availability_zone=""  
  
    key_name = "terraformkey"  
  
    vpc_security_group_ids=["sg-01fb9122b6f7153ac"]  
  
    subnet_id="subnet-037a5d111edf24977"  
  
    tags = {  
  
        Name = "demo-instance "  
  
    }  
  
    count = "1"
```

```

user_data = "${file("Demo.sh")}"

# root disk

root_block_device {

    volume_size      = "8"

    volume_type      = "gp2"

    encrypted        = "false"

    delete_on_termination = "false"

}

# data disk

ebs_block_device {

    device_name      = "/dev/sdh"

    volume_size      = "8"

    volume_type      = "gp2"

    encrypted        = "false"

    delete_on_termination = "false"

}

}

variable "aws_access_key" {}

variable "aws_secret_key" {}

provider.tf

provider "aws" {

    access_key = var.aws_access_key

    secret_key = var.aws_secret_key

    region     = "ap-southeast-2"

```

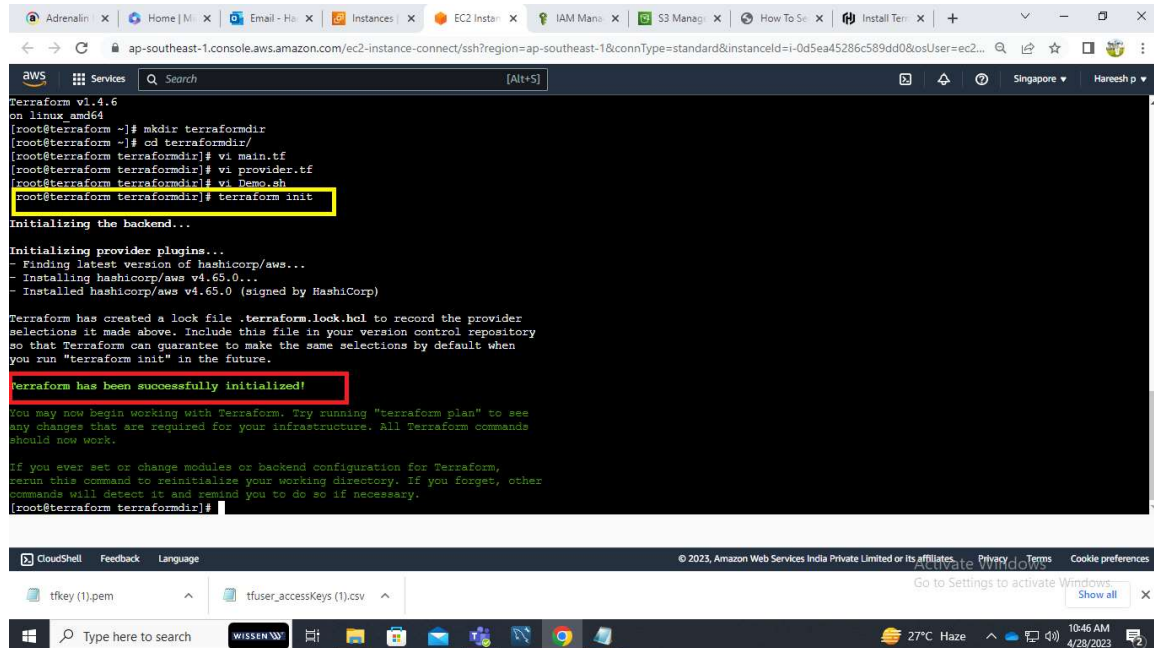
```
}
```

Demo.sh

sudo yum update -y

step-6: Apply the below commands to run the terraform

1. terraform init - Prepare your working directory for other commands



The screenshot shows a terminal window with the following commands and output:

```
Terraform v1.4.6
on linux_amd64
[root@terraform ~]# mkdir terraformdir
[root@terraform ~]# cd terraformdir/
[root@terraform terraformdir]# vi main.tf
[root@terraform terraformdir]# vi provider.tf
[root@terraform terraformdir]# vi Demo.sh
[root@terraform terraformdir]# terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v4.65.0...
- Installed hashicorp/aws v4.65.0 (signed by HashiCorp)

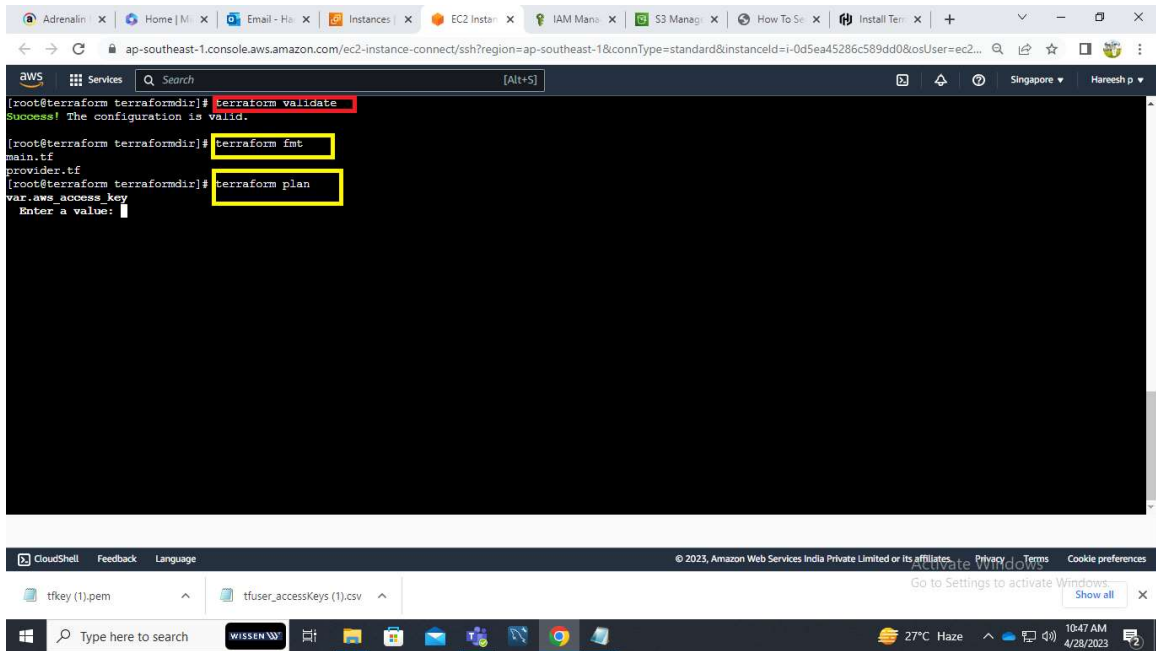
Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

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,
run this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
[root@terraform terraformdir]#
```

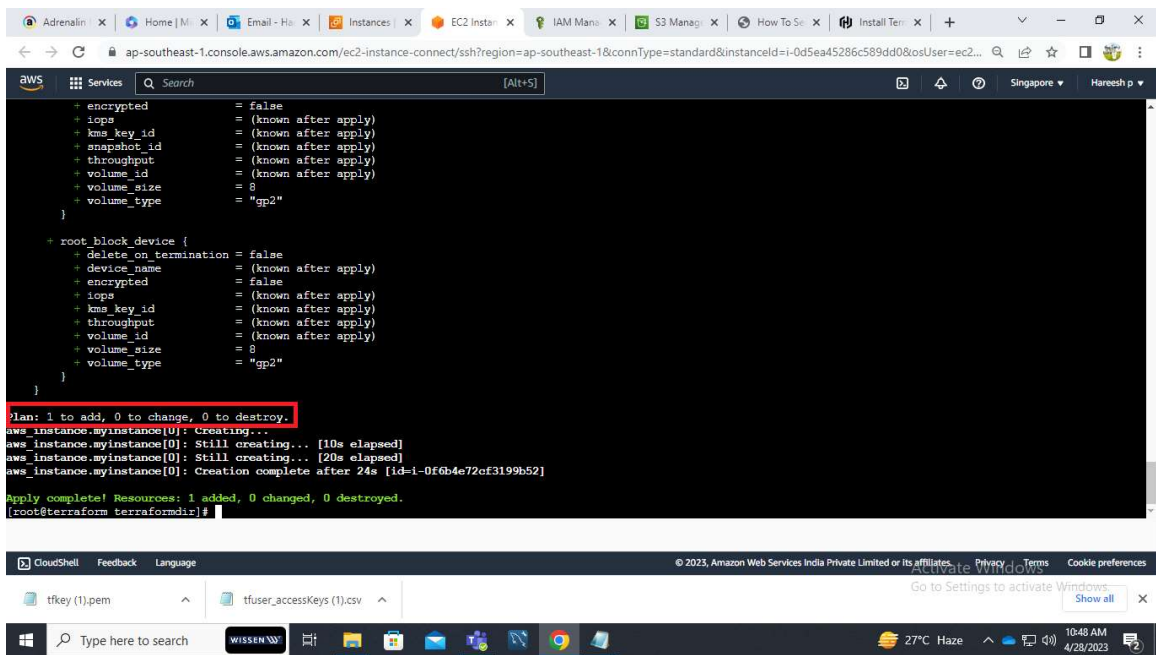
2. terraform validate - it will Check whether the configuration is valid
3. terraform fmt - it will reformat your configuration in the standard style
4. terraform plan - it will Show changes required by the current configuration



```
[root@terraform terraformdir]# terraform validate
Success! The configuration is valid.

[root@terraform terraformdir]# terraform fmt
main.tf
provider.tf
[root@terraform terraformdir]# terraform plan
var.aws_access_key
Enter a value:
```

5. terraform apply -auto-approve - it will Create or update infrastructure



```
+ encrypted      = false
+ iops           = (known after apply)
+ kms_key_id     = (known after apply)
+ snapshot_id   = (known after apply)
+ throughput     = (known after apply)
+ volume_id      = (known after apply)
+ volume_size    = 8
+ volume_type    = "gp2"
}

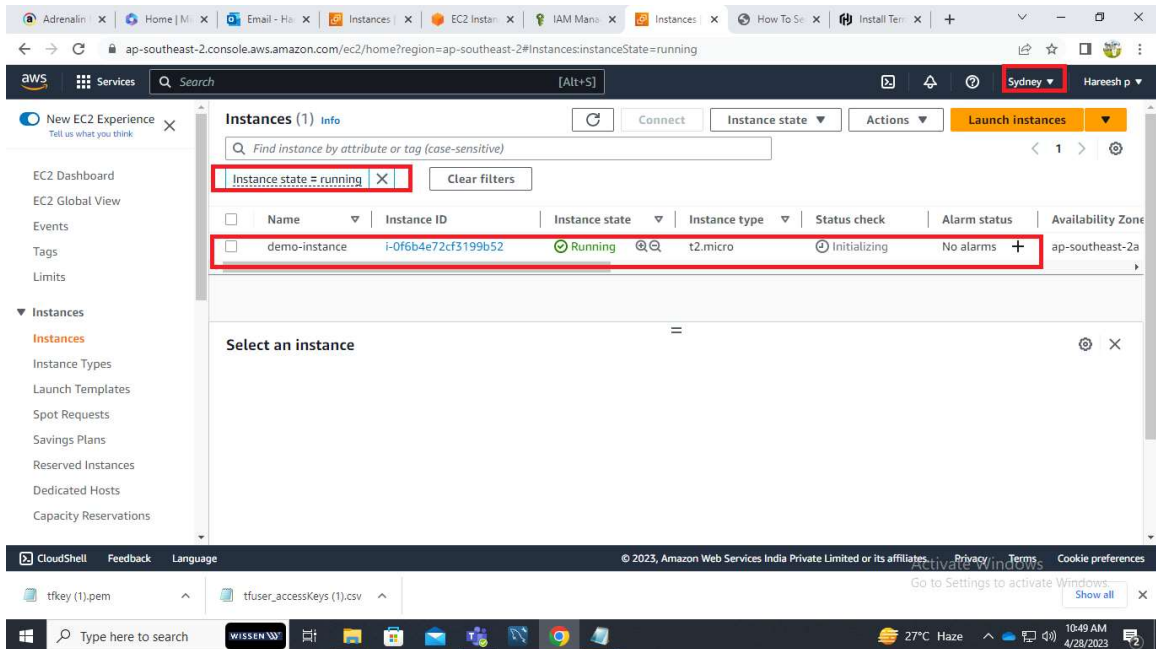
+ root_block_device {
+   delete_on_termination = false
+   device_name           = (known after apply)
+   encrypted             = false
+   iops                  = (known after apply)
+   kms_key_id            = (known after apply)
+   throughput            = (known after apply)
+   volume_id             = (known after apply)
+   volume_size           = 8
+   volume_type           = "gp2"
}

Plan: 1 to add, 0 to change, 0 to destroy.
aws_instance.myinstance[0]: Creating...
aws_instance.myinstance[0]: Still creating... [10s elapsed]
aws_instance.myinstance[0]: Still creating... [20s elapsed]
aws_instance.myinstance[0]: Creation complete after 24s [id=i-0f6b4e72cf3199b52]

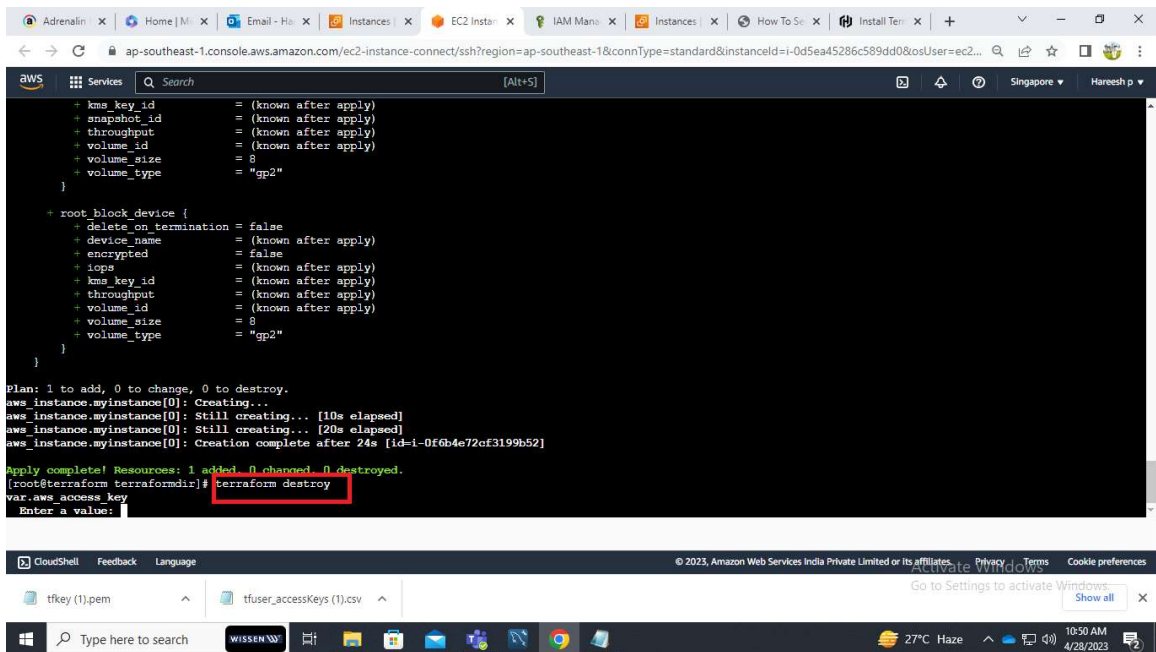
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
[root@terraform terraformdir]#
```

Navigate to ec2 dash board and check the resource created or Not

Here the Ec2 instance launched successfully



- Apply terraform destroy - Destroy previously-created infrastructure



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ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#instances:v=3&case=tags:true%5C.client:false;regex=tags:false%5C.client:false

aws Services Search [Alt+S] Sydney Hareesh p

New EC2 Experience Tell us what you think

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Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

Connect Instance state Actions Launch instances

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	qa-glt-server	i-00f25364b7a929daa	Stopped	t2.micro	-	No alarms	ap-southeast-2c
<input type="checkbox"/>	demo-instance	i-0f6b4e72cf3199b52	Terminated	t2.micro	-	No alarms	ap-southeast-2a

Select an instance

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tfkey (1).pem tfuser_accessKeys (1).csv

Go to Settings to activate Windows Show all

Type here to search WISSEN 27°C Haze 10:51 AM 4/28/2023