Name-Shrusti Chintawar
Roll no-10
D15B

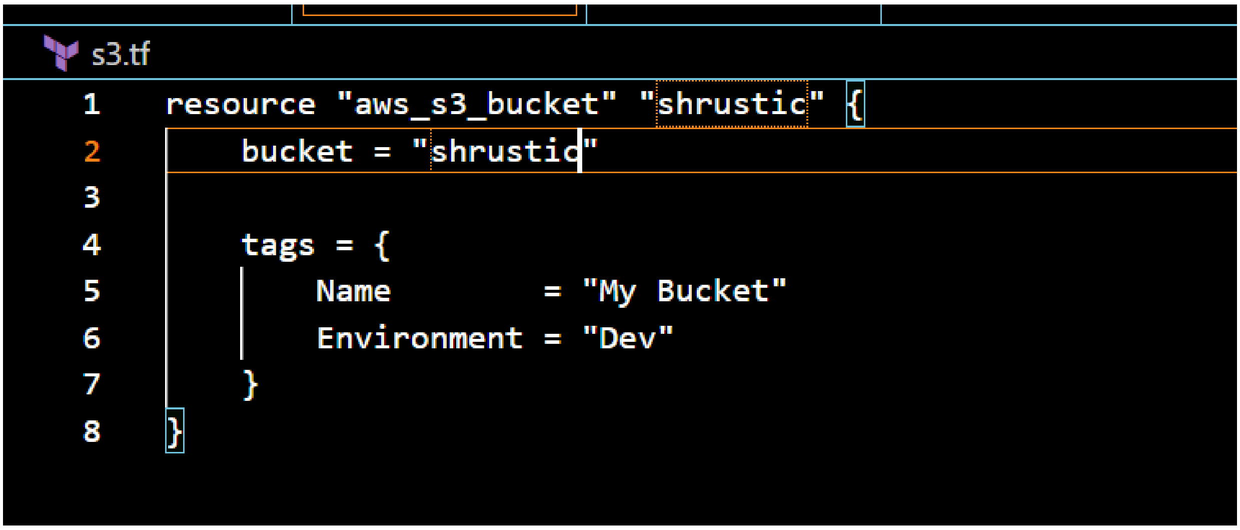
Creating S3 Bucket using terraform

Prerequisite:

1) Install Atom Editor for Writing the Scripts from https://atom.io/

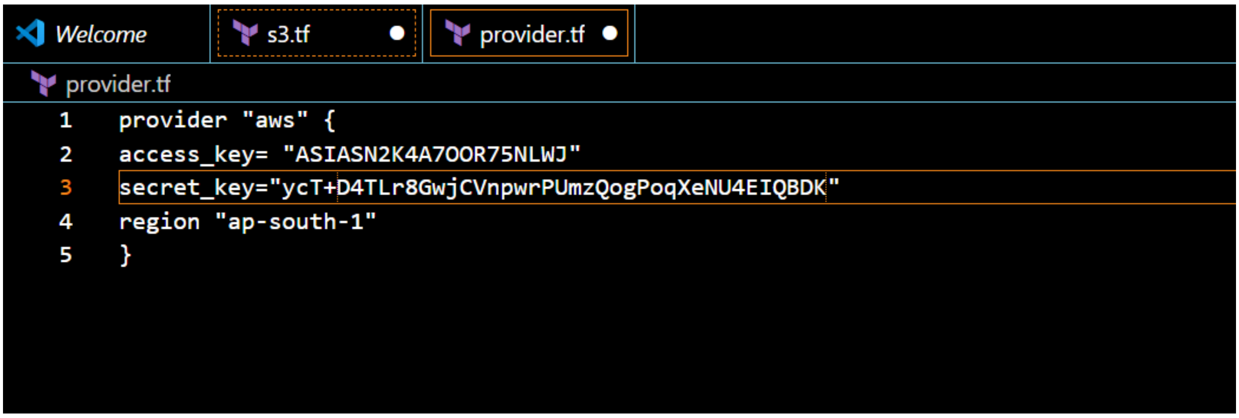
2) Must have an AWS Access Key ID and Secret Access Key

Step 1: Write a Terraform Script in Atom for creating S3 Bucket on Amazon AWS



```
resource "aws_s3_bucket" "shrustic" {
    bucket = "shrustic"

    tags = {
        Name          = "My Bucket"
        Environment = "Dev"
    }
}
```

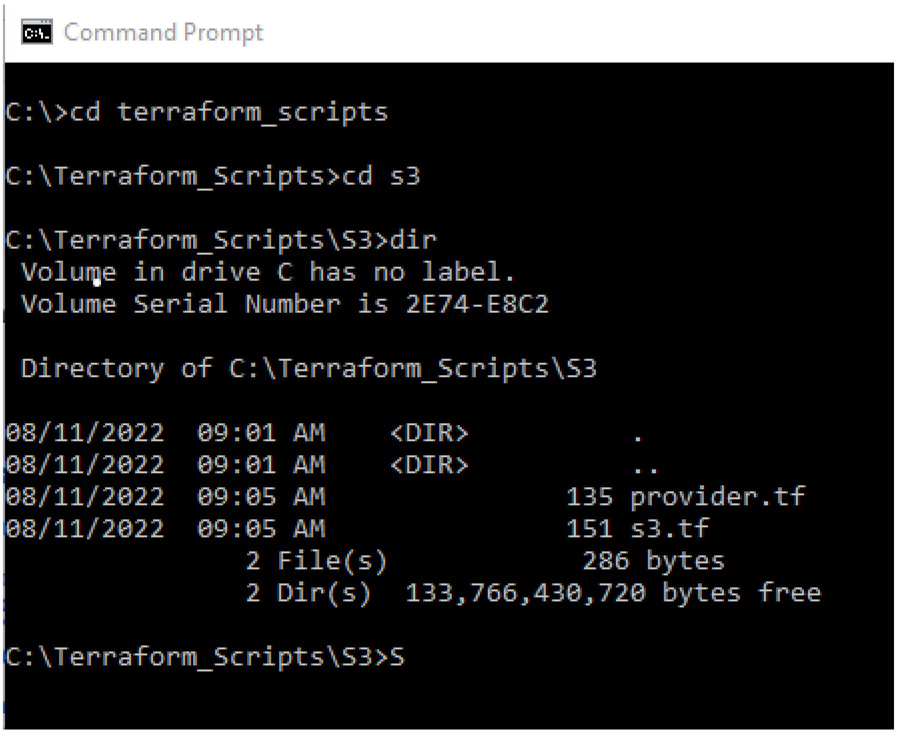
Create a new provider.tf file and write the following contents into it.



```
provider "aws" {
access_key= "ASIASN2K4A7OOR75NLWJ"
secret_key="ycT+D4TLr8GwjCVnpwrPUmzQogPoqXeNU4EIQBDK"
region "ap-south-1"
}
```

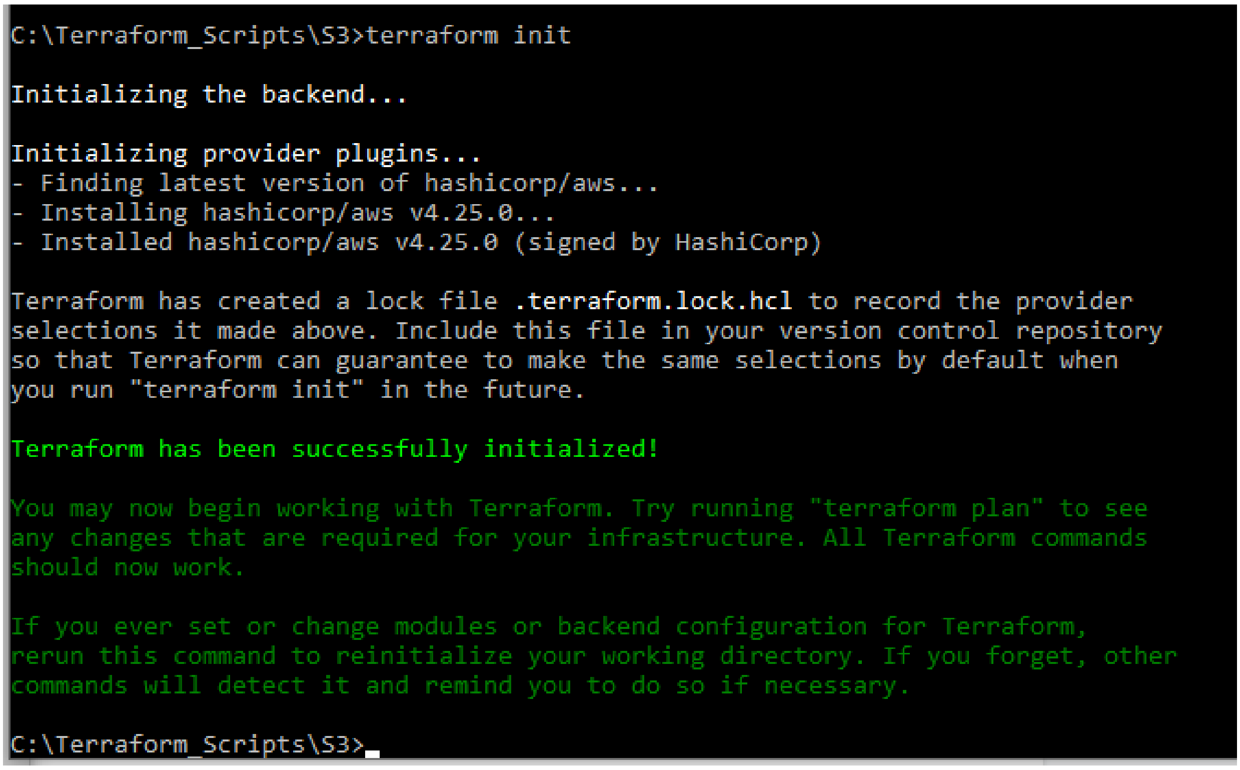
Save both the files in same directory Terraform_Scripts/S3

Step 2: Open Command Prompt and go to Terraform_Script\S3 directory where our .tf files are stored



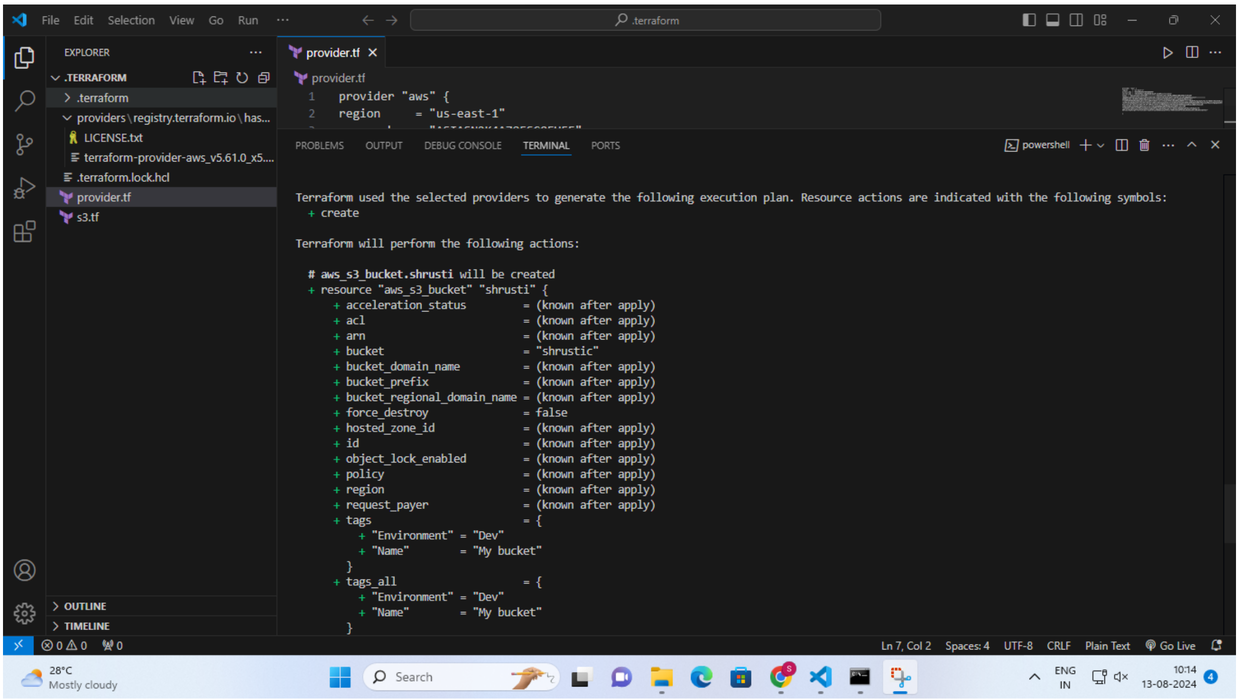
```
C:\>cd terraform_scripts

C:\Terraform_Scripts>cd s3

C:\Terraform_Scripts\S3>dir
 Volume in drive C has no label.
 Volume Serial Number is 2E74-E8C2

 Directory of C:\Terraform_Scripts\S3

08/11/2022  09:01 AM    <DIR>          .
08/11/2022  09:01 AM    <DIR>          ..
08/11/2022  09:05 AM               135 provider.tf
08/11/2022  09:05 AM               151 s3.tf
               2 File(s)            286 bytes
               2 Dir(s)  133,766,430,720 bytes free

C:\Terraform_Scripts\S3>S
```

Step 3: Execute Terraform Init command to initialize the resources



```
C:\Terraform_Scripts\S3>terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v4.25.0...
- Installed hashicorp/aws v4.25.0 (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.

C:\Terraform_Scripts\S3>_
```

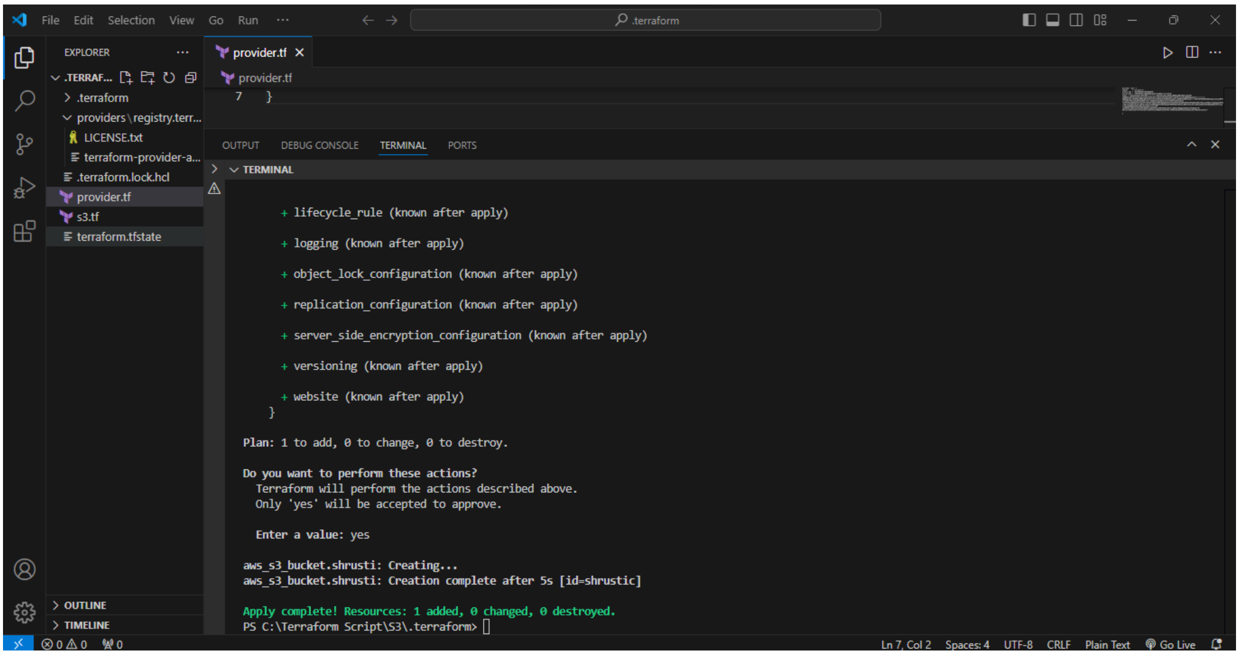
Step 4: Execute Terraform plan to see the available resources


File Edit Selection View Go Run ···
.terraform
EXPLORER
.TERRAFORM
.terraform
providers\registry.terraform.io\has...
LICENSE.txt
terraform-provider-aws_v5.61.0_x5....
.terraform.lock.hcl
provider.tf
s3.tf
OUTLINE
TIMELINE
provider.tf
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell
Ln 7, Col 2 Spaces: 4 UTF-8 CRLF Plain Text Go Live
28°C
Mostly cloudy
Search
ENG
IN
10:14
13-08-2024

```
provider "aws" {
region      = "us-east-1"
```

```
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_s3_bucket.shrusti will be created
  + resource "aws_s3_bucket" "shrusti" {
      + acceleration_status         = (known after apply)
      + acl                         = (known after apply)
      + arn                         = (known after apply)
      + bucket                      = "shrustic"
      + bucket_domain_name          = (known after apply)
      + bucket_prefix               = (known after apply)
      + bucket_regional_domain_name = (known after apply)
      + force_destroy               = false
      + hosted_zone_id              = (known after apply)
      + id                          = (known after apply)
      + object_lock_enabled         = (known after apply)
      + policy                      = (known after apply)
      + region                      = (known after apply)
      + request_payer               = (known after apply)
      + tags                        = {
          + "Environment" = "Dev"
          + "Name"        = "My bucket"
        }
      + tags_all                    = {
          + "Environment" = "Dev"
          + "Name"        = "My bucket"
        }
```

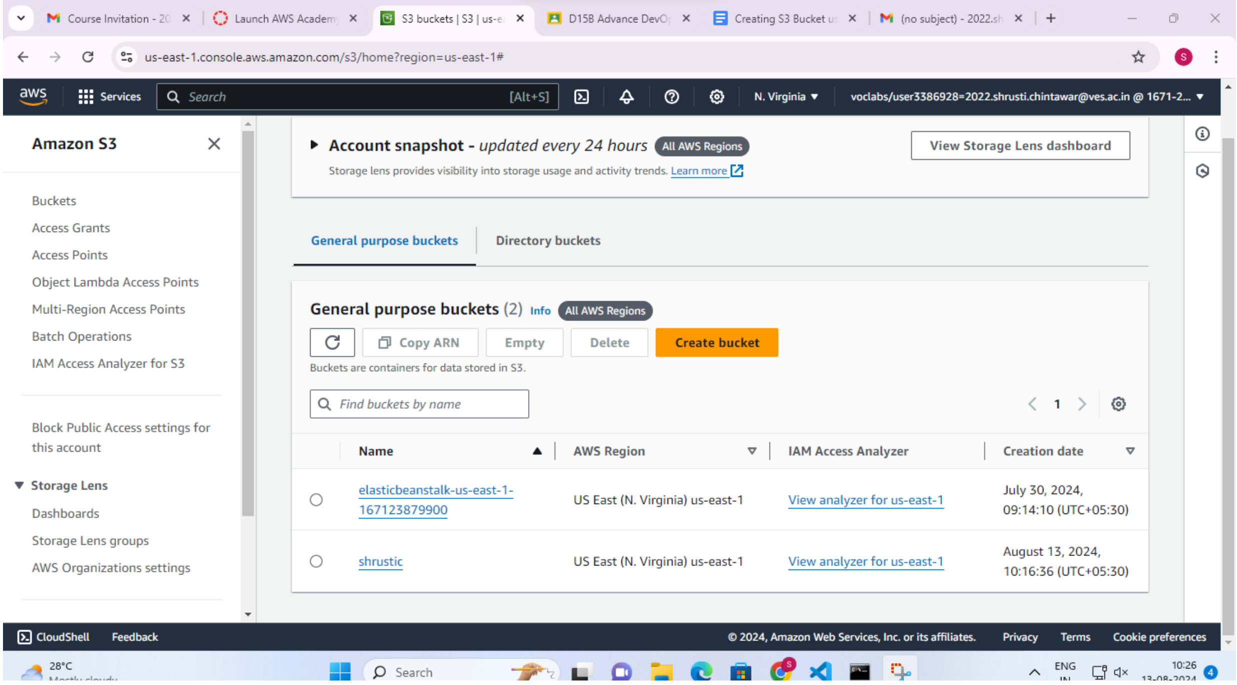
Step 5: Execute Terraform apply to apply the configuration, which will automatically create an S3 bucket based on our configuration.



```
    }
```

```
      + lifecycle_rule (known after apply)

      + logging (known after apply)

      + object_lock_configuration (known after apply)

      + replication_configuration (known after apply)

      + server_side_encryption_configuration (known after apply)

      + versioning (known after apply)

      + website (known after apply)
    }

Plan: 1 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_s3_bucket.shrusti: Creating...
aws_s3_bucket.shrusti: Creation complete after 5s [id=shrustic]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
PS C:\Terraform Script\S3\.terraform>
```

AWS S3bucket dashboard, Before Executing Apply command:



us-east-1.console.aws.amazon.com/s3/home?region=us-east-1#

Account snapshot - *updated every 24 hours* All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Learn more

General purpose buckets (2) Info All AWS Regions

Buckets are containers for data stored in S3.

Name	AWS Region	IAM Access Analyzer	Creation date
○ elasticbeanstalk-us-east-1-167123879900	US East (N. Virginia) us-east-1	View analyzer for us-east-1	July 30, 2024, 09:14:10 (UTC+05:30)
○ shrustic	US East (N. Virginia) us-east-1	View analyzer for us-east-1	August 13, 2024, 10:16:36 (UTC+05:30)

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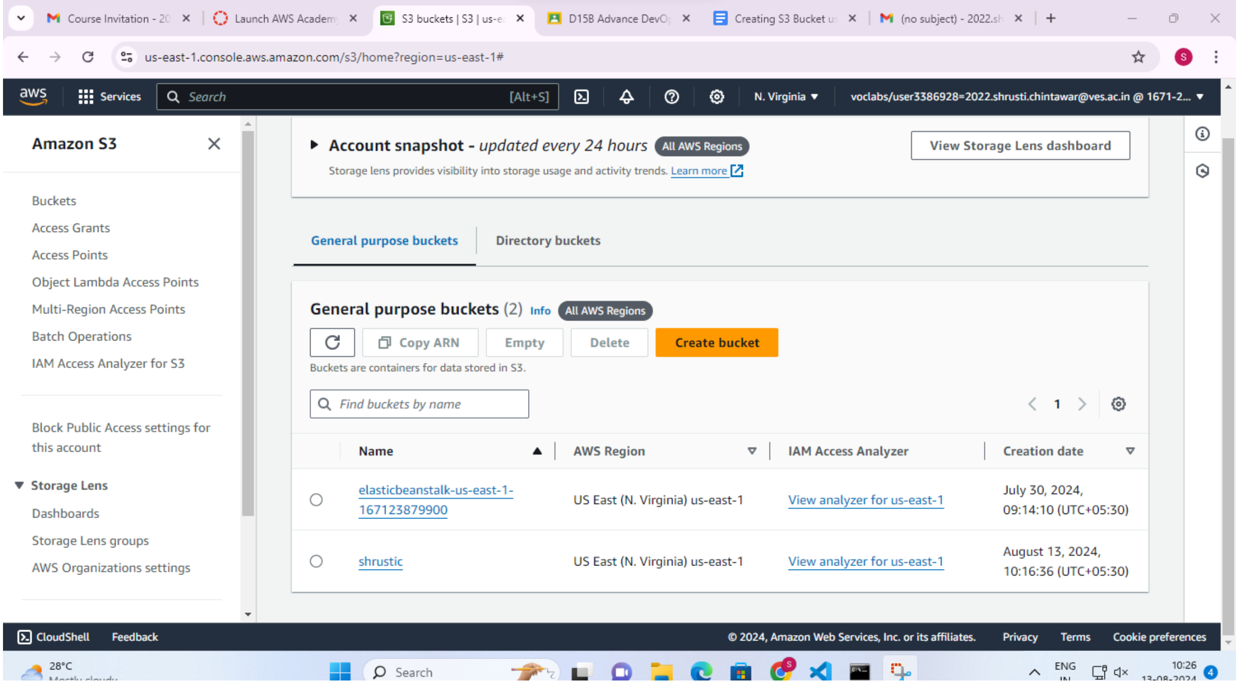
AWS S3 Bucket dashboard, After Executing Apply step:



us-east-1.console.aws.amazon.com/s3/home?region=us-east-1#

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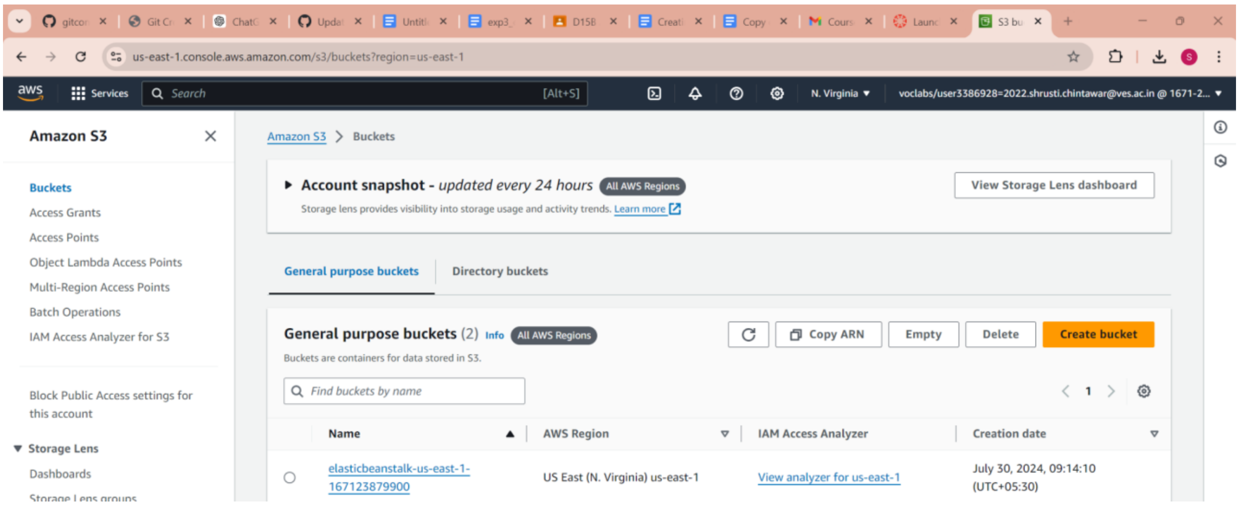
Step 6: Execute Terraform destroy to delete the configuration, which will automatically delete an EC2 instance



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