Lab Exercise 14 – Provisioning an S3 Bucket On AWS

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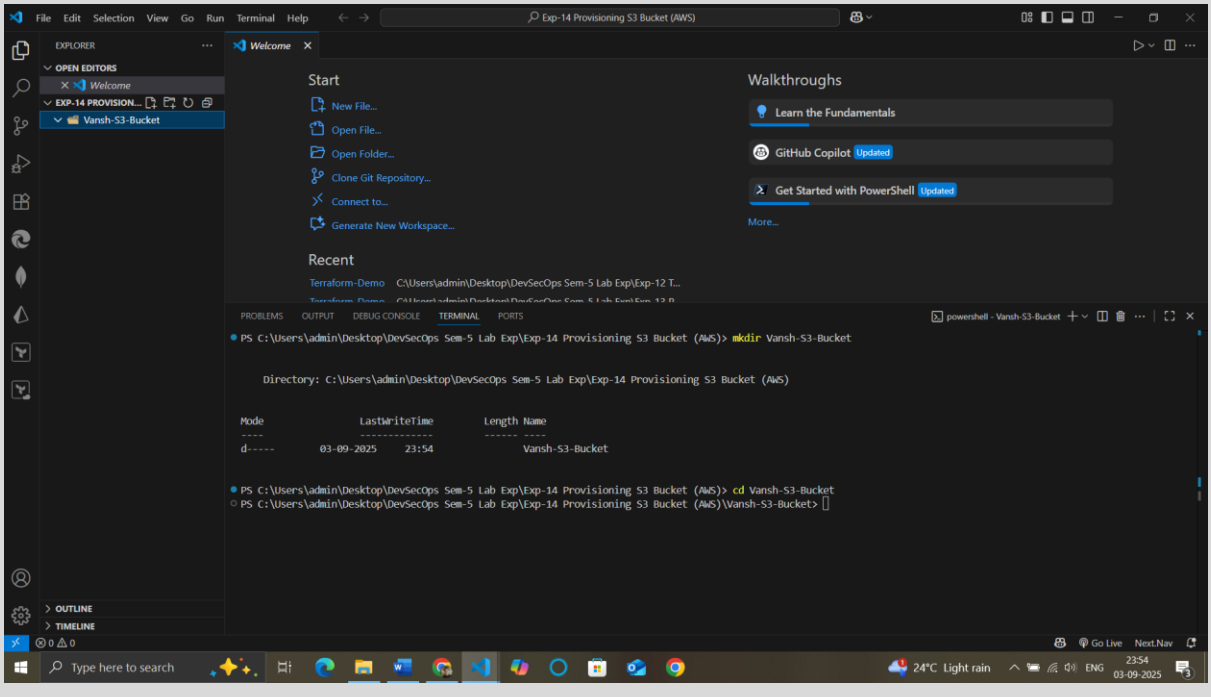
Exercise Steps:

Step 1: Create a New Directory:

Create a new directory to store your Terraform configuration:

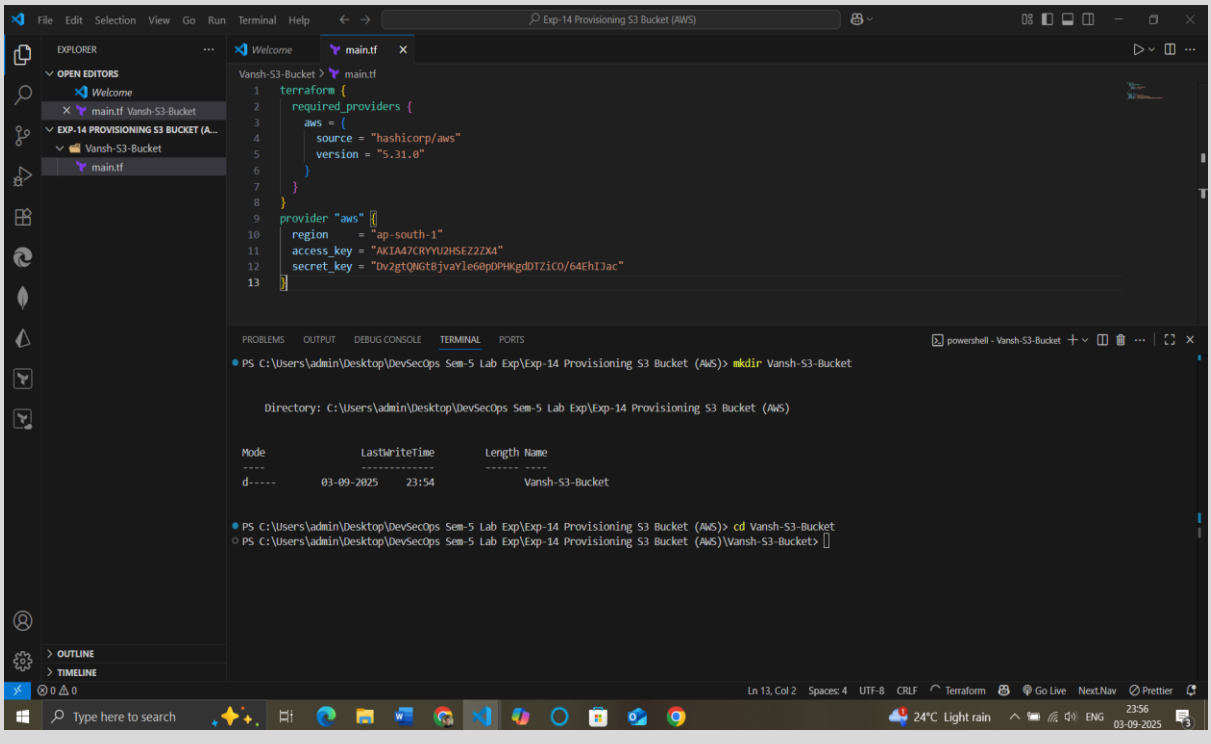
```
mkdir Terraform-S3-Demo
cd Terraform-S3-Demo
```



Step 2: Create the Terraform Configuration File (main.tf):

Create a file named main.tf with the following content:

```
terraform {
  required_providers {
    aws = {
      source  = "hashicorp/aws"
      version = "5.31.0"
    }
  }
}
provider "aws" {
  region     = "us-east-1"  # Replace with your preferred region
  access_key = "your IAM access key"  # Replace with your Access Key
  secret_key = "your secret access key"  # Replace with your Secret Key
}
```

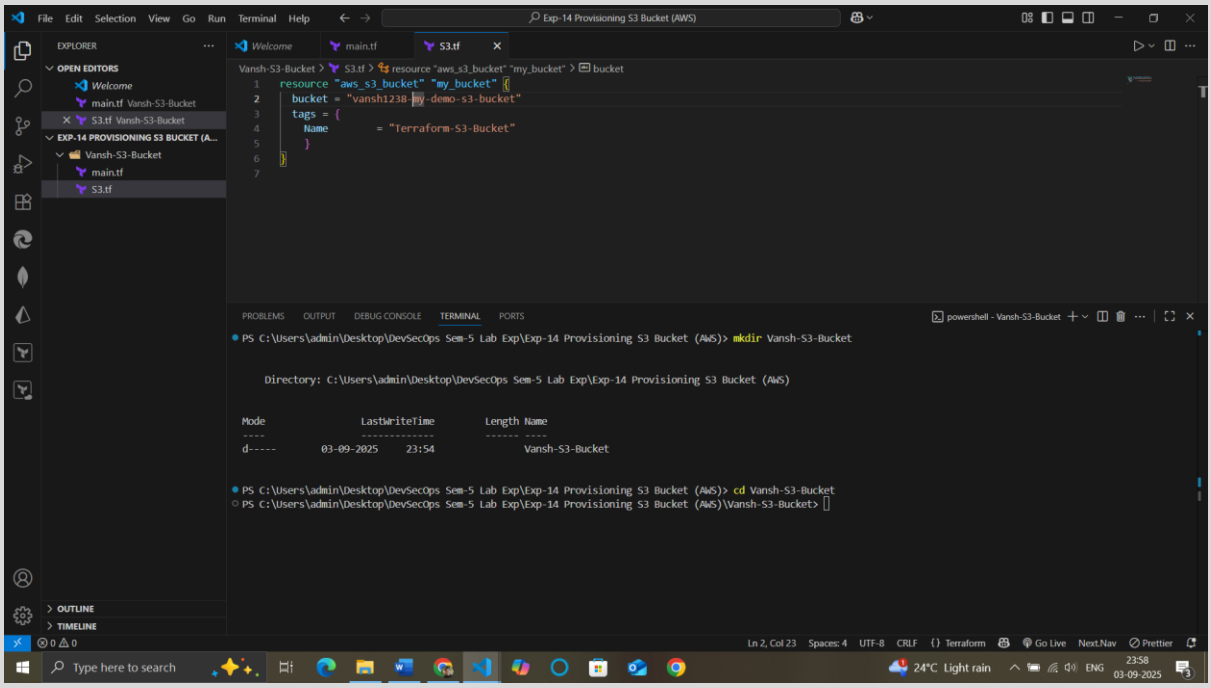


This file sets up the Terraform AWS provider.

Step 3: Create a Terraform Configuration File for the S3 Bucket (s3.tf):

Create another file named s3.tf with the following content:

```
resource "aws_s3_bucket" "my_bucket" {
  bucket = "my-demo-s3-bucket"
  tags = {
    Name        = "Terraform-S3-Bucket"
    }
}
```

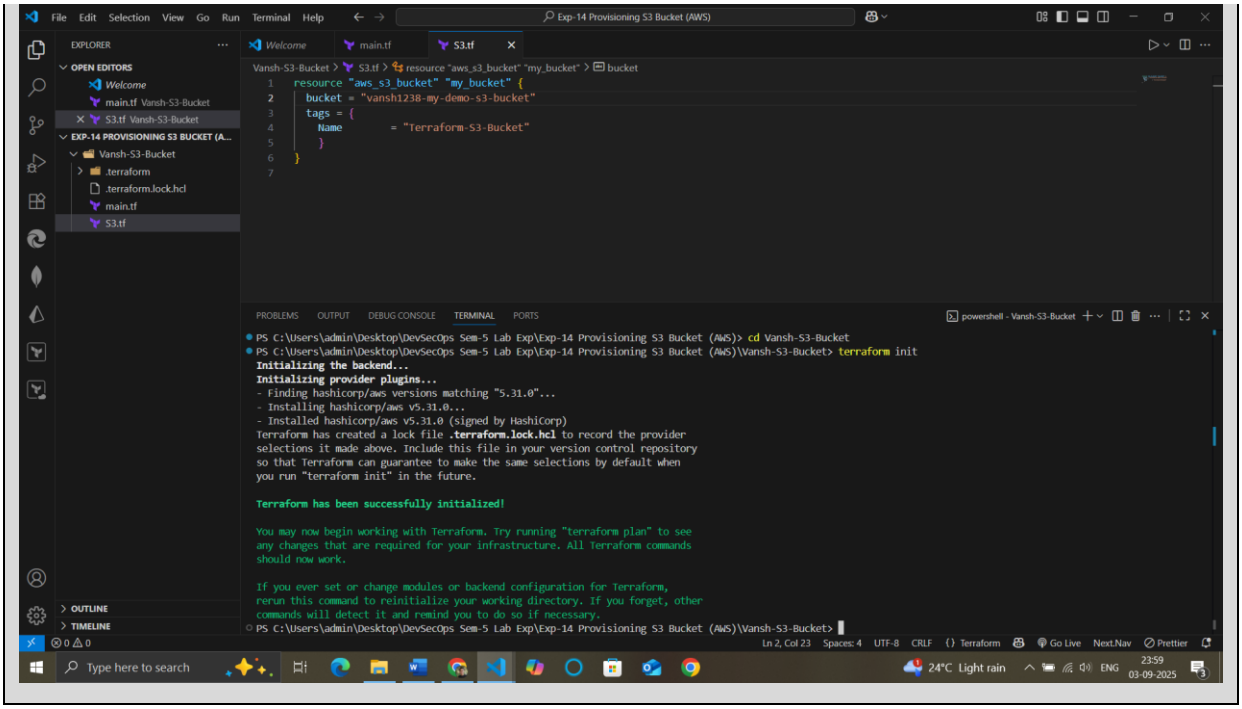


This file provisions an S3 bucket with a unique name using a random string suffix.

Step 4: Initialize Terraform:

Run the following command to initialize your Terraform working directory:

```
terraform init
```

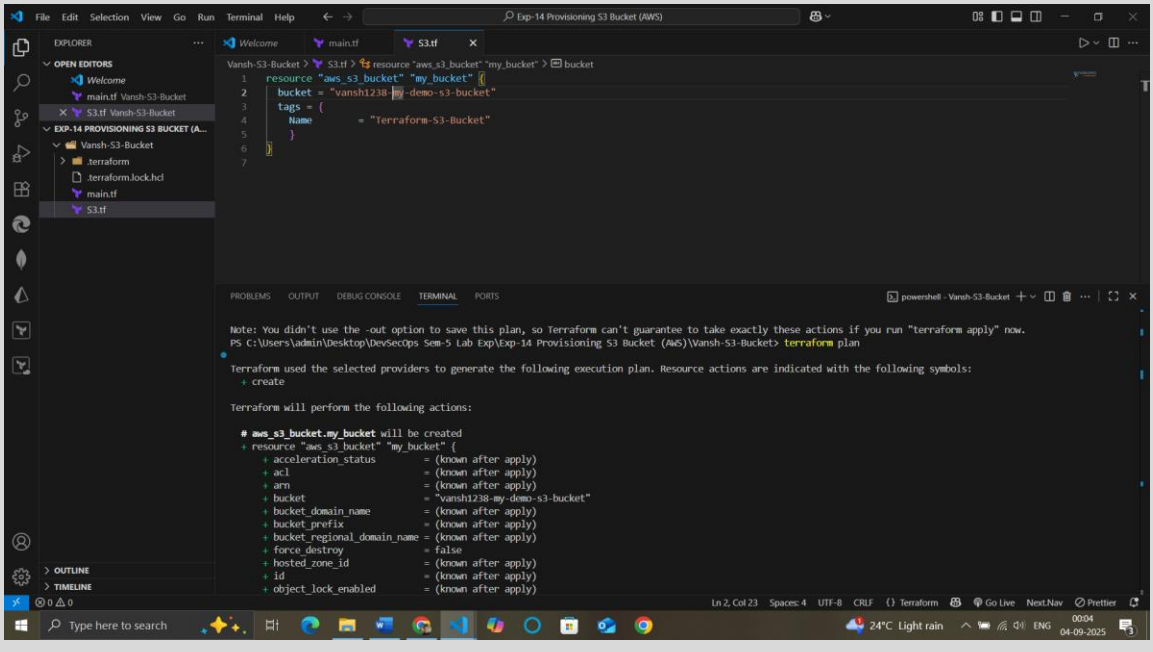


Step 5: Review the Plan:

Preview the changes Terraform will make:

terraform plan

```
PS C:\Users\admin\Desktop\DevSecOps Sem-5 Lab Exp\Exp-14 Provisioning S3 Bucket (AWS)\Vansh-S3-Bucket> terraform validate
Success! The configuration is valid.
```

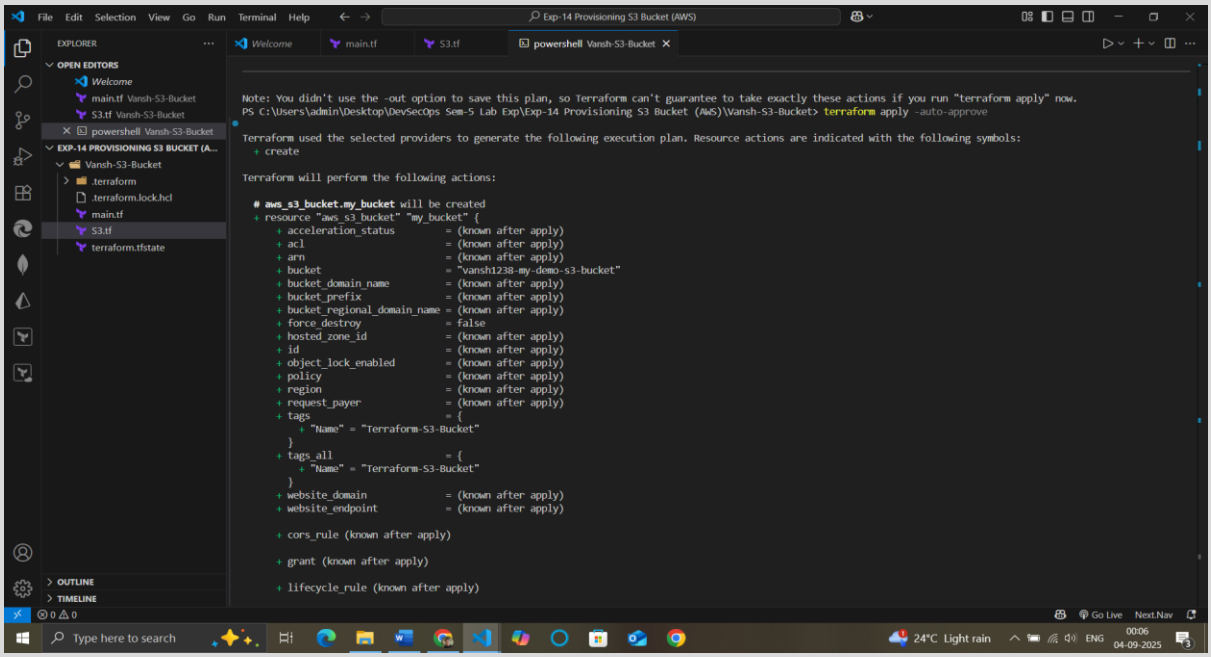


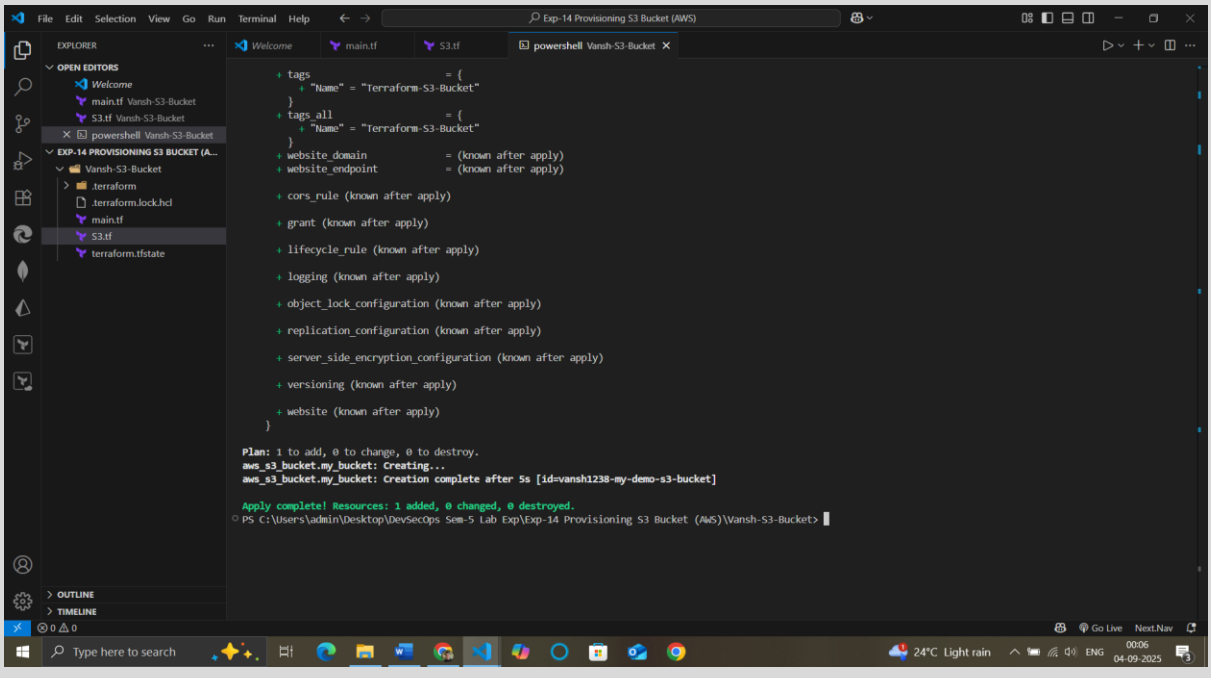
Review the output to ensure it meets your expectations.

Step 6: Apply the Changes:

Create the resources:

terraform apply

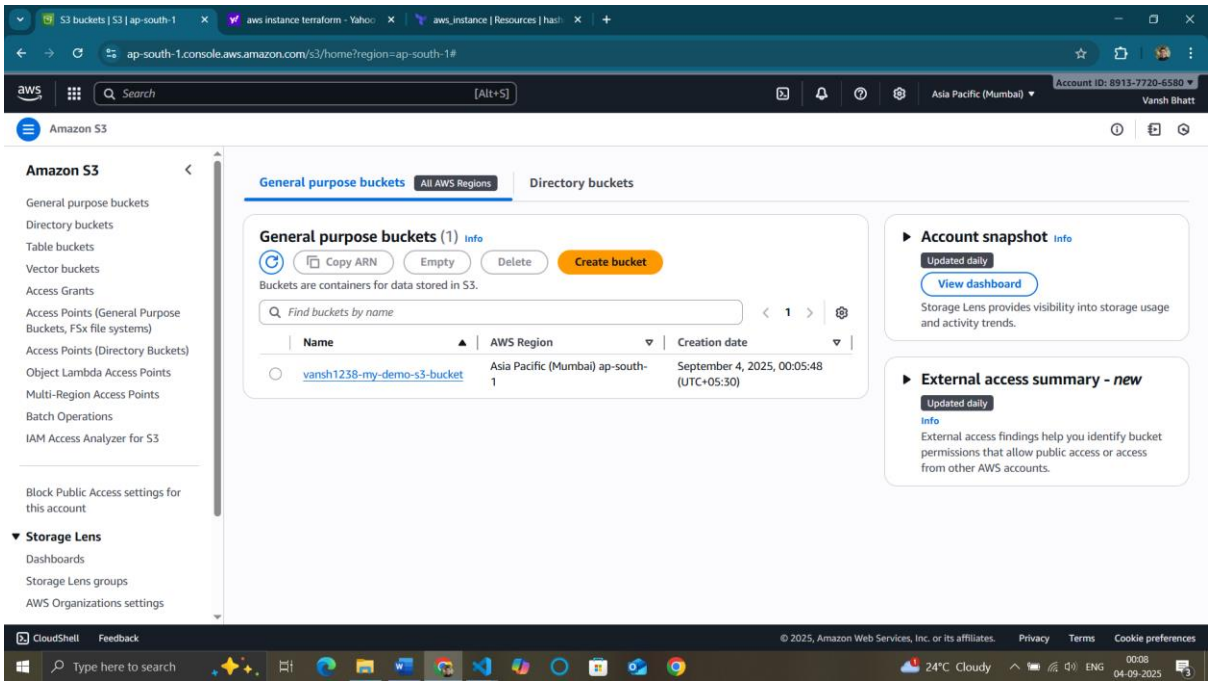




When prompted, type yes to confirm.

Step 7: Verify Resources:

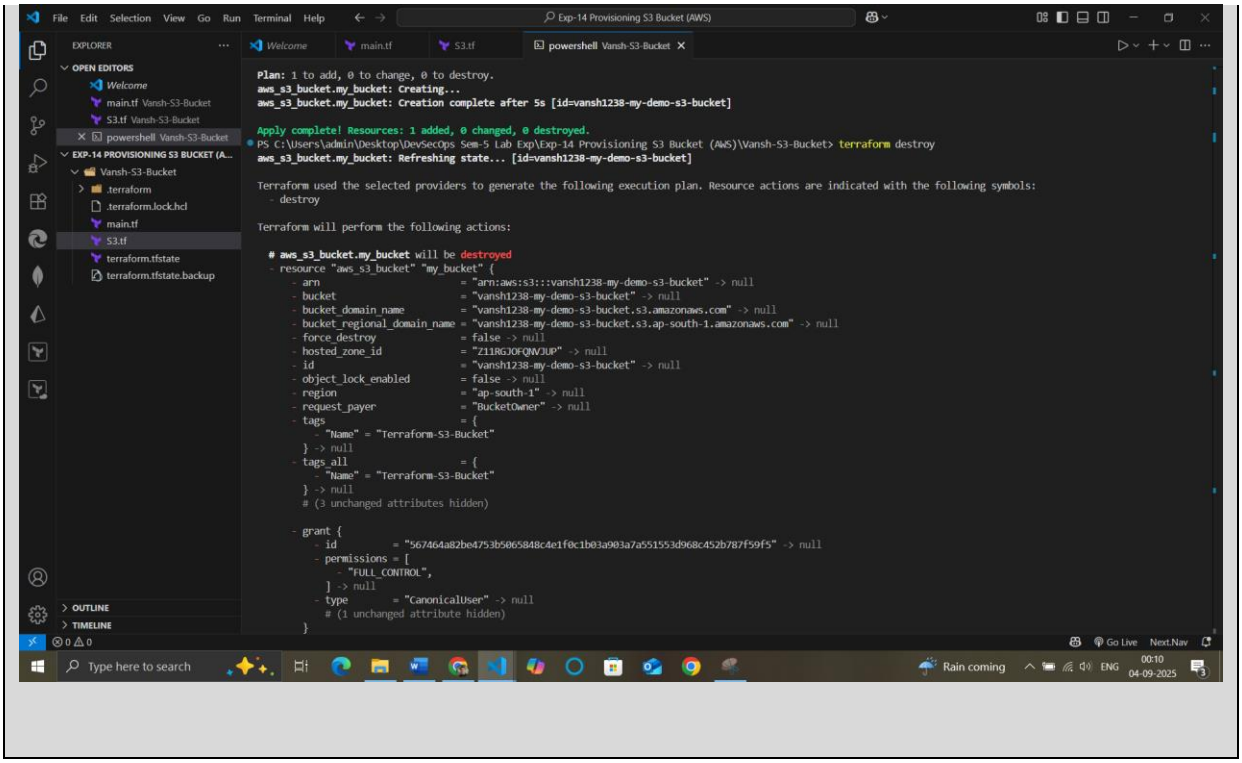
1. Log in to your AWS Management Console.
2. Navigate to the **S3** dashboard.
3. Verify that the S3 bucket has been created with the specified configuration.



Step 8: Cleanup Resources:

To remove the resources created, run the following command:

```
terraform destroy
```



When prompted, type yes to confirm.