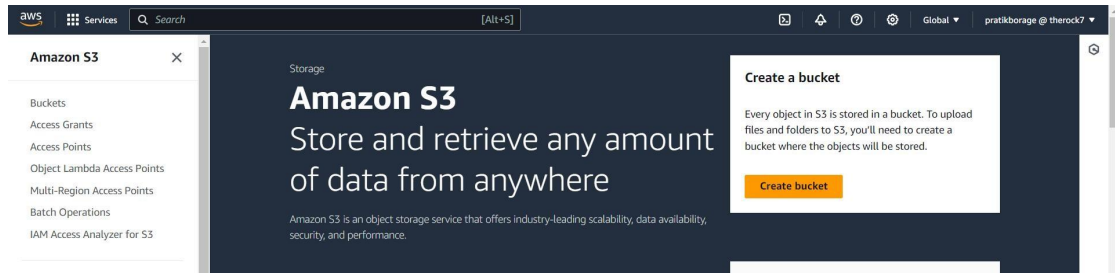
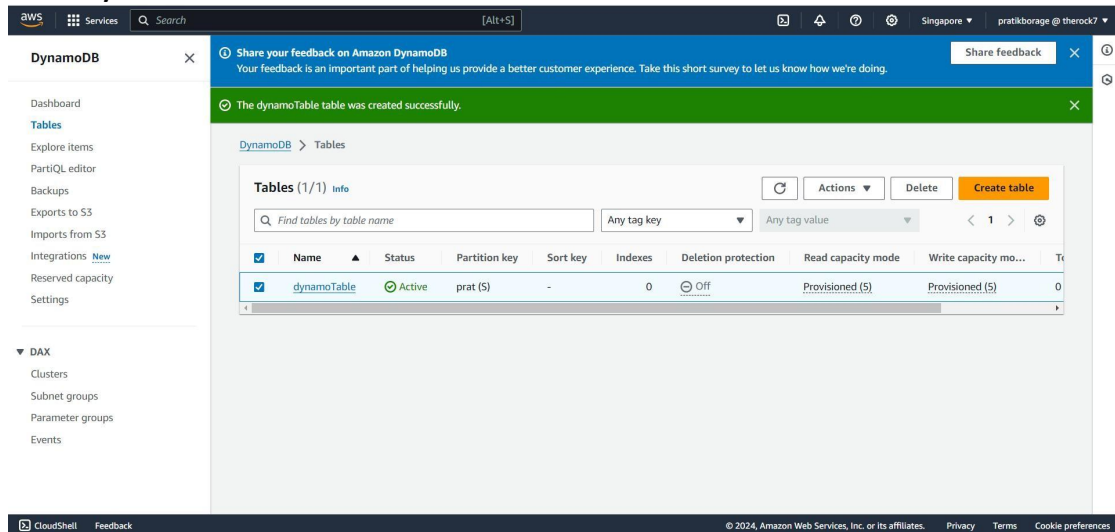


## Terraform backend and state lock

### Create Bucket:-



### Create dynamodb table:-



### Set credentials in profile:-

aws configure --profile <name>

### Backend.tf file

```
provider "aws"{
  region = "ap-southeast-1"
  profile = "configs"
  shared_credentials_files = [ "/home/pratik/.aws/credentials" ]
}

terraform
{
  backend "s3"
  {
    bucket = "terraprat"
    key = "terraform.tfstate"
    dynamodb_table = "dynamoTable"
    region = "ap-southeast-1"
    profile = "configs"
    shared_credentials_files = [ "/home/pratik/.aws/credentials" ]
  }
}
```

## Acquiring state lock

### Try creating in different directories with different users

```
pratik@TheRock:~$ cd /mnt/c/Users/pratik/Desktop/Terraform/
pratik@TheRock:~/Desktop/Terraform$ ls
backend.tf  iam.tf  mime.json  resource.tf  terraform.tfstate.b
pratik@TheRock:~/Desktop/Terraform$ cd ..
pratik@TheRock:~/Desktop$ cd For
pratik@TheRock:~/Desktop/For$ ls
backend.tf
pratik@TheRock:~/Desktop/For$ terraform init

Initializing the backend...

Successfully configured the backend "s3"! Terraform will automatically
use this backend unless the backend configuration changes.

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.39.1...
- Installed hashicorp/aws v5.39.1 (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.
pratik@TheRock:~/Desktop/For$ terraform apply
Acquiring state lock. This may take a few moments...
```

```
Enter a value: yes
aws_db_subnet_group.this_subnet_group: Destroying... [id=this_subnet_group]
aws_db_subnet_group.this_subnet_group: Destruction complete after 1s

Apply complete! Resources: 0 added, 0 changed, 1 destroyed.
pratik@TheRock:~/Desktop/Terraform$ terraform apply
Acquiring state lock. This may take a few moments...

Error: Error acquiring the state lock

Error message: 2 errors occurred:
* operation error DynamoDB: PutItem, https response error StatusCode
: 400, RequestID: UAR7UN058GRC0DC59BA0IHSANVV4KQNS0SAEHVJF6GQ9ASUAAJG, api
error ValidationException: One or more parameter values were invalid:
Missing the key prat in the item
* Unable to retrieve item from DynamoDB table "dynamoTable": operati
on
error DynamoDB: GetItem, https response error StatusCode: 400, RequestID:
FAMN897BNIHSEKUIDSHUFSSJRVV4KQNS0SAEHVJF6GQ9ASUAAJG, api error
ValidationException: The provided key element does not match the schema

Terraform acquires a state lock to protect the state from being written
by multiple users at the same time. Please resolve the issue above and
try again. For most commands, you can disable locking with the "-lock=false"
flag, but this is not recommended.

pratik@TheRock:~/Desktop/Terraform$ terraform apply -lock=
false

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration
and found no differences, so no changes are needed.

Apply complete! Resources: 0 added, 0 changed, 0 destroyed.
pratik@TheRock:~/Desktop/Terraform$
```

### Backend files generated in s3 bucket:

Objects (2) Info	Copy S3 URI	Copy URL	Download	Open	Delete	Actions	Create folder	Upload
Find objects by prefix	Show versions							
Name	Type	Version ID	Last modified	Size	Storage class			
terraform.tfstate	tfstate	wh1xOd7ywPPyowGWCcep7myCJKA WD5J	March 4, 2024, 22:35:48 (UTC+05:30)	180.0 B	Standard			
terraform.tfstate	tfstate	G0um4Nu8JY2mCgbV_UQCfsavQBeDwgk6r	March 4, 2024, 22:34:17 (UTC+05:30)	13.8 KB	Standard			