

SPCM - LAB
6th Sem

Submitted To:

Dr. Hitesh Sharma

School of Computer Science

Submitted By:

Vansh Gupta

R2142220844

500107711

Batch 2-NH

Writing Terraform Scripts to perform the following task 2 ec2 Instances, VPN and S3

main.tf

Running terraform init

```
PS C:\Users\vansh\OneDrive\Desktop\SEM 6\SYSTEM PROVISIONING\terraform lab\Assignment-1> terraform init
Initializing the backend...
Initializing provider plugins...
- Finding hashicorp/aws versions matching "5.31.0"...
- Installing hashicorp/aws v5.31.0...
- Installed hashicorp/aws v5.31.0 (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!
```

Terraform init to initialize the terraform folder which will have the aws provider plugin installed

instance.tf

This file holds the iac code to make 2 instances - t2-micro ec2 machines

resource.tf

```
resource.tf
  resource "aws_vpc" "main"{
cidr_block = "10.0.0.0/16"
  tags = {
      Name ="VanshVPC"
  resource "aws_vpn_gateway" "example" {
   vpc_id = aws_vpc.main.id
   tags = {
     Name = "MyVPNGateway"
  resource "aws_customer_gateway" "example" {
   bgp_asn = 65000
   ip_address = "203.0.113.1" # Replace with actual IP
type = "ipsec.1"
   tags = {
  Name = "MyCustomerGateway"
  resource "aws_vpn_connection" "example" {
  customer_gateway_id=aws_customer_gateway.example.id
   vpn_gateway_id=aws_vpn_gateway.example.id
   type="ipsec.1"
   static_routes_only=true
```

This resource.tf hold the iac code to create vpc, the customer gateway and the vpn connection.

s3.tf

```
resource "aws_s3_bucket" "example" {
  bucket ="vansh-gupta-upes-s3"
  acl ="private"
}
```

The s3.tf hold the code to create a s3 bucket which has a unique name

Outputs:

Terraform plan

```
+ tunnel2_log_options (known after apply)
  # aws_vpn_gateway.example will be created
  + resource "aws_vpn_gateway" "example" {
     + amazon_side_asn = (known after apply)
     + arn = (known after apply)
     + id
                    = (known after apply)
     + tags
                      = {
         + "Name" = "MyVPNGateway"
     + tags_all
                     = {
         + "Name" = "MyVPNGateway"
     + vpc id
                      = (known after apply)
Plan: 7 to add, 0 to change, 0 to destroy.
```

Terraform apply

```
aws_vpn_connection.example: Still creating... [5m0s elapsed]
aws_vpn_connection.example: Creation complete after 5m7s [id=vpn-029da44f6ca1c9be9]

Warning: Argument is deprecated

with aws_s3_bucket.example,
on s3.tf line 4, in resource "aws_s3_bucket" "example":
4: acl = "private"

Use the aws_s3_bucket_acl resource instead

Apply complete! Resources: 7 added, 0 changed, 0 destroyed.

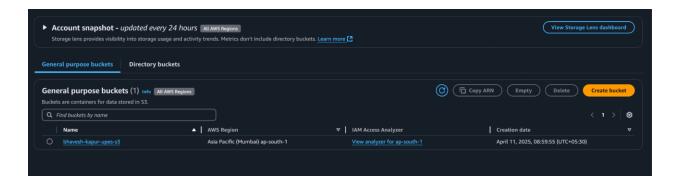
$$\( \text{(base)} \rightarrow \text{ assignment1} \]
```

Customer Gateway



Vpc





Instances

