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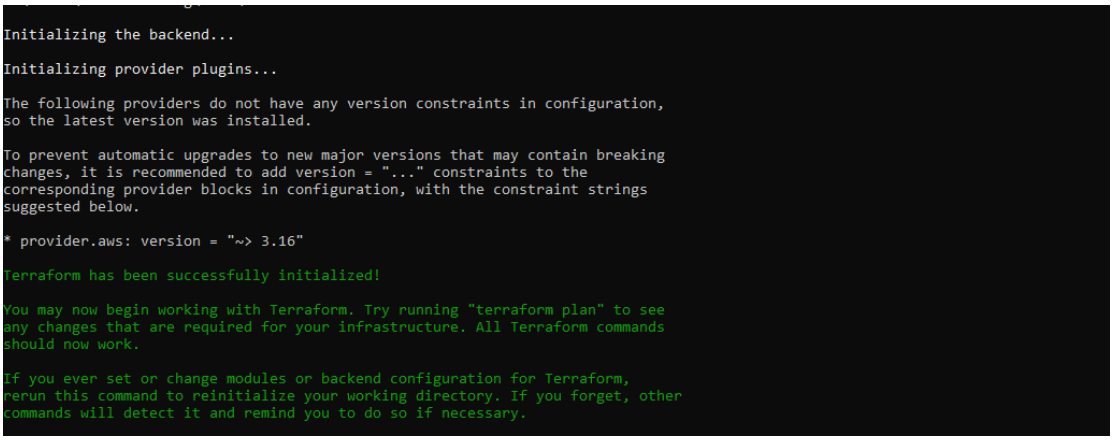
Devops2017-2021
Batch B2

System Provisioning And Configuration Managment

Assignment -1

Write Terraform script to do perform following tasks on AWS cloud Platform

First create a directory project-terraform and initialise terraform which is installed on your system by following command:
Terraform init



Step 1: Create two T2 Micro EC2 Instances.

Step2: Create a VPN on AWS

Step 3: Create a S3 Bucket

Then using notepad create a file in terraform with .tf extension and add below commands and set the ami from the screen as shown below amd set the instance type as t2 micro and key_name as “os1”:

spcm060 - Notepad

File Edit Format View Help

```
provider "aws"{
region="ap-south-1"
profile="VedanshSinghal"
}
resource "aws_security_group" "secgrp" {
 name       = "secgrp"
 description = "Security for instance"

 ingress {
  from_port   = 443
  to_port     = 443
  protocol    = "tcp"
  cidr_blocks = ["0.0.0.0/0"]
 }
ingress {
  from_port   = 80
  to_port     = 80
  protocol    = "tcp"
  cidr_blocks = ["0.0.0.0/0"]
 }
```

spcm060 - Notepad

File Edit Format View Help

```
  cidr_blocks = ["0.0.0.0/0"]
 }
ingress {
  from_port   = 80
  to_port     = 80
  protocol    = "tcp"
  cidr_blocks = ["0.0.0.0/0"]
 }
ingress {
  from_port   = 22
  to_port     = 22
  protocol    = "tcp"
  cidr_blocks = ["0.0.0.0/0"]
 }
 egress {
  from_port   = 0
  to_port     = 0
  protocol    = "-1"
  cidr_blocks = ["0.0.0.0/0"]
 }
```

spcm060 - Notepad

File Edit Format View Help

```
  protocol   = "tcp"
  cidr_blocks = ["0.0.0.0/0"]
 }
 egress {
  from_port   = 0
  to_port    = 0
  protocol   = "-1"
  cidr_blocks = ["0.0.0.0/0"]
 }
}

resource "aws_instance" "singhal" {
 ami         = "ami-0a9d27a9f4f5c0efc"
count=2
 instance_type = "t2.micro"

key_name ="os1"
```

spcm060 - Notepad

File Edit Format View Help

```
security_groups=["${aws_security_group.secgrp.name}"]
tags = {
  Name = "vedansh1"
 }
}



resource "aws_vpc" "vpc" {
 cidr_block = "10.0.0.0/16"
}

resource "aws_vpn_gateway" "vpn_gateway" {
 vpc_id = aws_vpc.vpc.id
}

resource "aws_customer_gateway" "customer_gateway" {
 bgp_asn   = 65000
 ip_address = "172.0.0.1"
```

spcm060 - Notepad

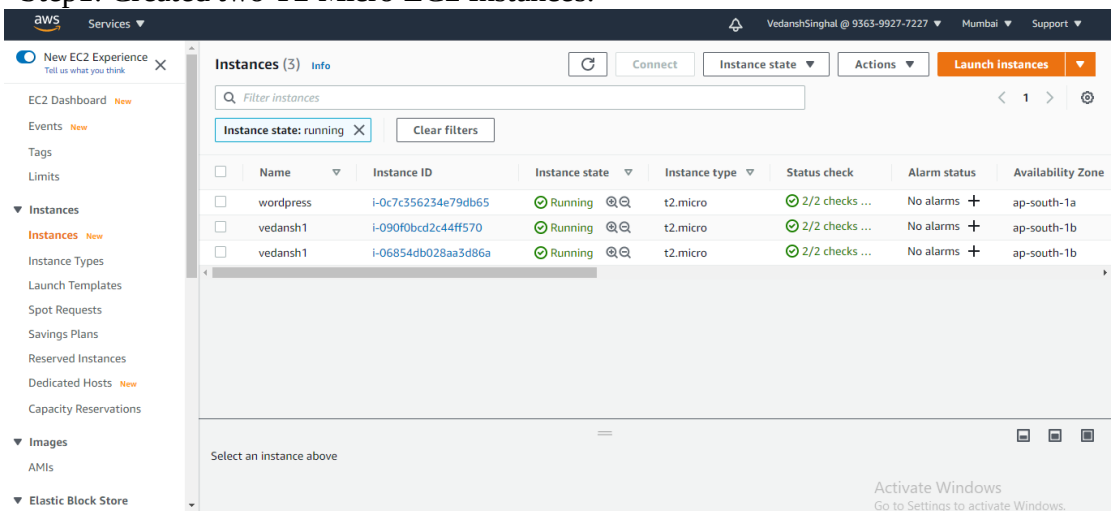
File Edit Format View Help

```
 vpc_id = aws_vpc.vpc.id
}

resource "aws_customer_gateway" "customer_gateway" {
 bgp_asn    = 65000
 ip_address = "172.0.0.1"
 type       = "ipsec.1"
}

resource "aws_vpn_connection" "main" {
 vpn_gateway_id     = aws_vpn_gateway.vpn_gateway.id
 customer_gateway_id = aws_customer_gateway.customer_gateway.id
 type               = "ipsec.1"
 static_routes_only  = true
}
resource "aws_s3_bucket" "singhal" {
bucket="vedansh"
acl ="public-read"
}
```

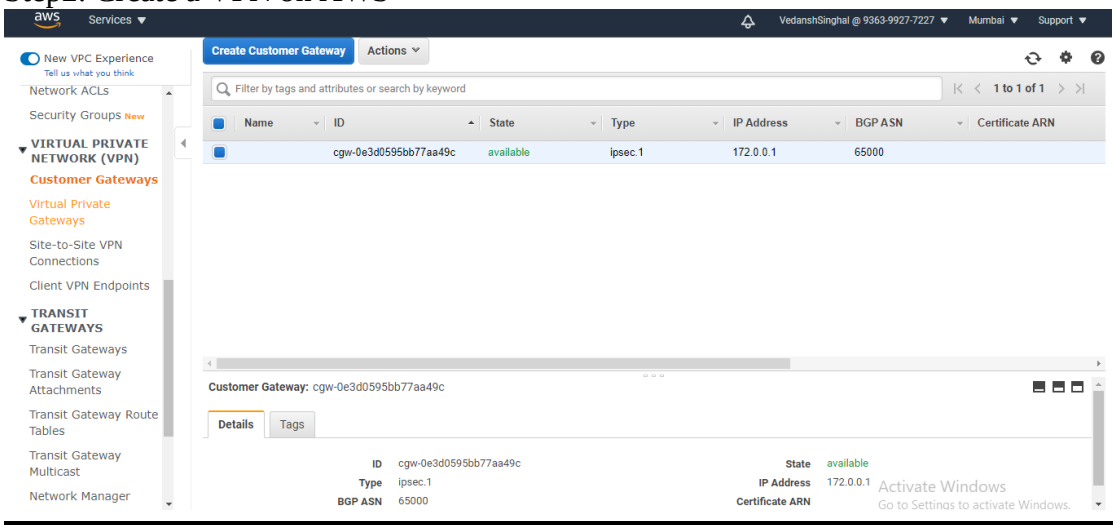
Command Prompt

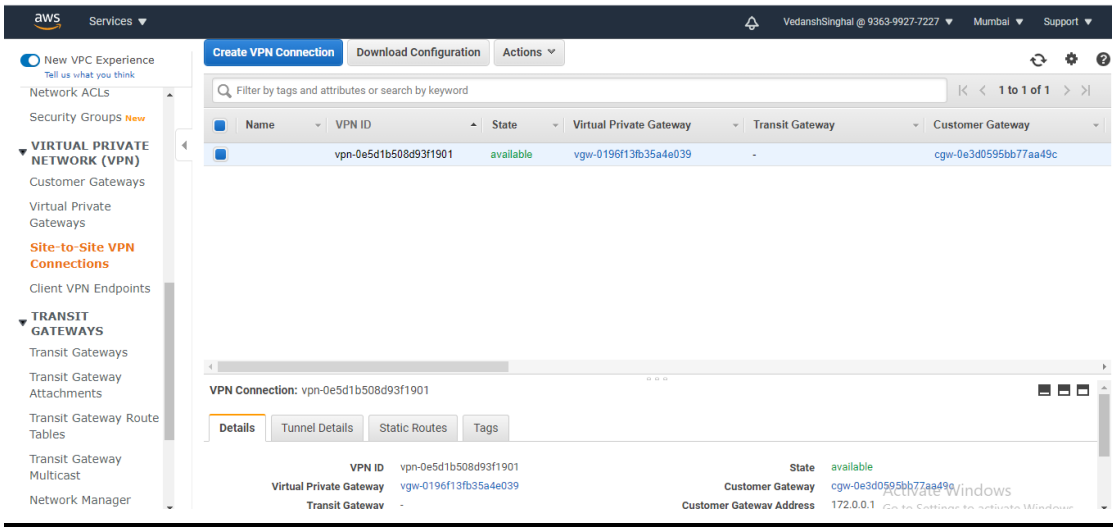
```
aws_customer_gateway.customer_gateway: Creating...
aws_vpc.vpc: Creating...
aws_s3_bucket.singhal: Creating...
aws_security_group.secgrp: Creating...
aws_security_group.secgrp: Creation complete after 3s [id=sg-0afce6605b888a81c]
aws_instance.singhal[1]: Creating...
aws_instance.singhal[0]: Creating...
aws_vpc.vpc: Creation complete after 4s [id=vpc-09e41b55789f5789e]
aws_vpn_gateway.vpn_gateway: Creating...
aws_s3_bucket.singhal: Creation complete after 5s [id=vedansh]
aws_customer_gateway.customer_gateway: Still creating... [10s elapsed]
aws_customer_gateway.customer_gateway: Creation complete after 11s [id=cgw-0e3d0595bb77aa49c]
aws_instance.singhal[1]: Still creating... [10s elapsed]
aws_instance.singhal[0]: Still creating... [10s elapsed]
aws_vpn_gateway.vpn_gateway: Creation complete after 9s [id=vgw-0196f13fb35a4e039]
aws_vpn_connection.main: Creating...
aws_instance.singhal[1]: Still creating... [20s elapsed]
aws_instance.singhal[0]: Still creating... [20s elapsed]
aws_vpn_connection.main: Still creating... [10s elapsed]
aws_instance.singhal[1]: Creation complete after 26s [id=i-090f0bcd2c44ff570]
aws_instance.singhal[0]: Still creating... [30s elapsed]
aws_vpn_connection.main: Still creating... [20s elapsed]
aws_instance.singhal[0]: Creation complete after 35s [id=i-06854db028aa3d86a]
aws_vpn_connection.main: Still creating... [30s elapsed]
aws_vpn_connection.main: Still creating... [40s elapsed]
aws_vpn_connection.main: Still creating... [50s elapsed]
aws_vpn_connection.main: Still creating... [1m0s elapsed]
aws_vpn_connection.main: Still creating... [1m10s elapsed]
aws_vpn_connection.main: Still creating... [1m20s elapsed]
aws_vpn_connection.main: Still creating... [1m30s elapsed]
aws_vpn_connection.main: Still creating... [1m40s elapsed]
aws_vpn_connection.main: Still creating... [1m50s elapsed]
aws_vpn_connection.main: Still creating... [2m0s elapsed]
aws_vpn_connection.main: Still creating... [2m10s elapsed]
aws_vpn_connection.main: Still creating... [2m20s elapsed]
aws_vpn_connection.main: Still creating... [2m30s elapsed]
aws_vpn_connection.main: Still creating... [2m40s elapsed]
aws_vpn_connection.main: Still creating... [2m50s elapsed]
aws_vpn_connection.main: Still creating... [3m0s elapsed]
aws_vpn_connection.main: Still creating... [3m10s elapsed]
aws_vpn_connection.main: Still creating... [3m20s elapsed]
aws_vpn_connection.main: Creation complete after 3m29s [id=vpn-0e5d1b508d93f1901]

Apply complete! Resources: 8 added, 0 changed, 0 destroyed.
```

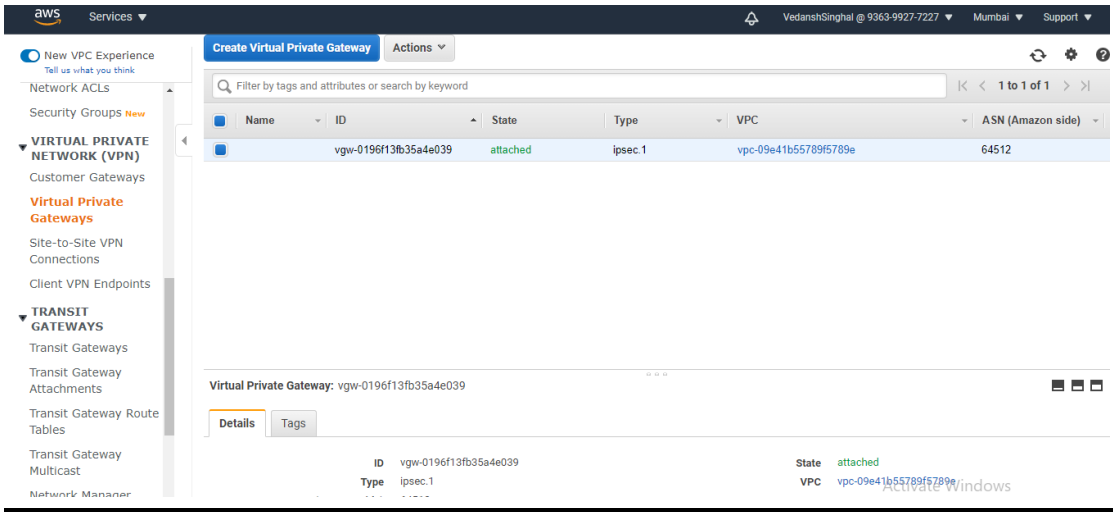
Step1: Created two T2 Micro EC2 Instances.



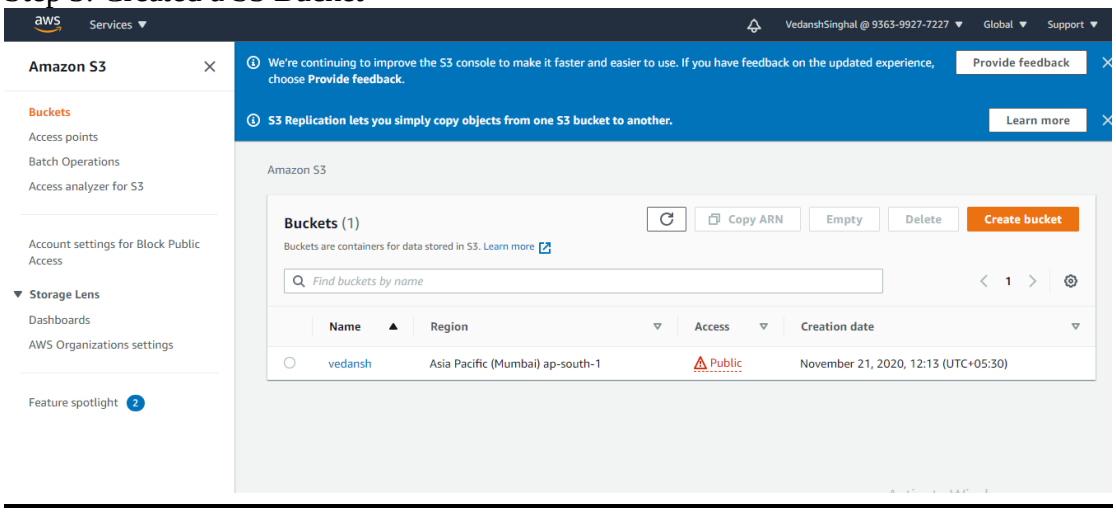
Step2: Create a VPN on AWS







Step 3: Created a S3 Bucket



And after that I have destroyed my whole infrastructure just by runnig one command terraform destroy -auto-approve