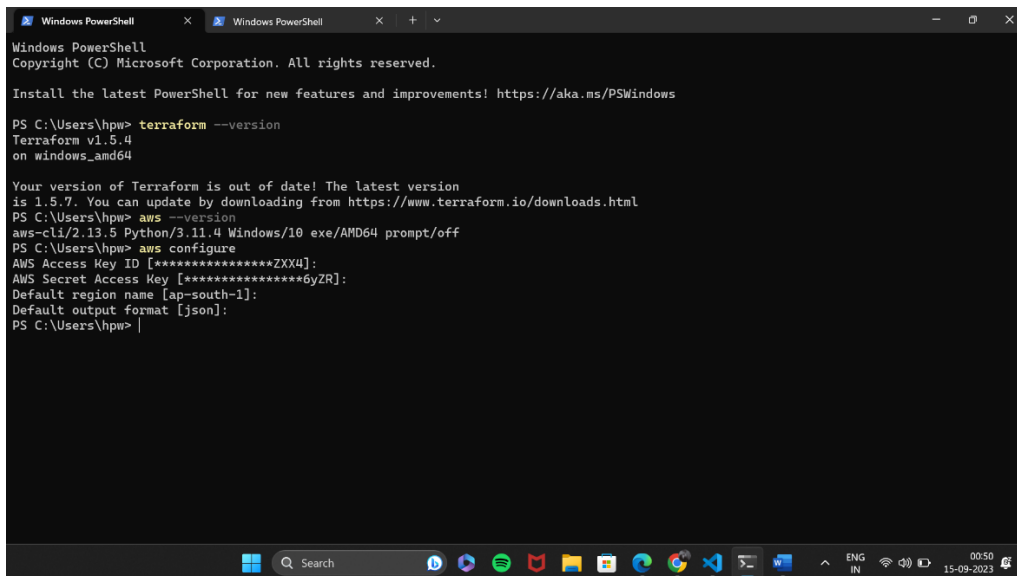


## Assignment 1:

- Checking Terraform and AWS Version and Configuring AWS Credentials (Access Keys, Secret access Key, region)



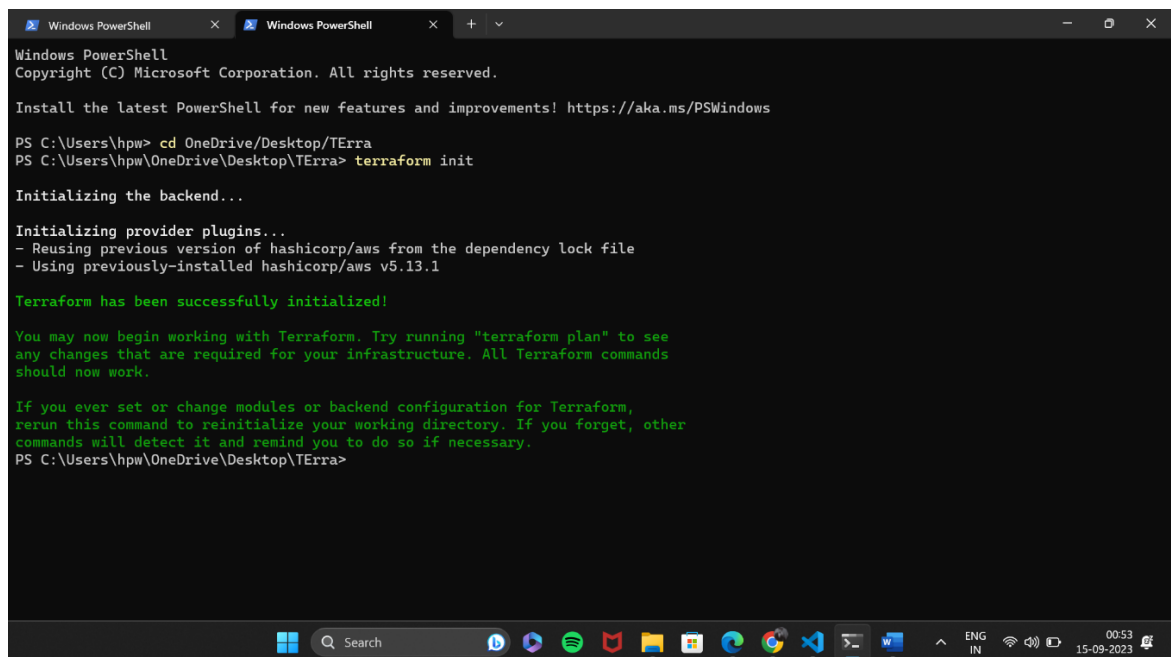
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\hwp> terraform --version
Terraform v1.5.4
on windows_amd64

Your version of Terraform is out of date! The latest version
is 1.5.7. You can update by downloading from https://www.terraform.io/downloads.html
PS C:\Users\hwp> aws --version
aws-cli/2.13.5 Python/3.11.4 Windows/10 exe/AMD64 prompt/off
PS C:\Users\hwp> aws configure
AWS Access Key ID [*****ZXX4]:
AWS Secret Access Key [*****6yZR]:
Default region name [ap-south-1]:
Default output format [json]:
PS C:\Users\hwp> |
```

- Creating Terraform File and Writing Script to Create resources, common file name is [main.tf](#)
- Then Change Directory to where is terraform state file is stored ( in my case it is “cd OneDrive/Desktop/terra”)
- Now, After running terraform init, Terraform will create a hidden directory called .terraform in your project directory, which contains the initialized configuration and provider plugins.



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\hwp> cd OneDrive/Desktop/Terra
PS C:\Users\hwp\OneDrive\Desktop\Terra> terraform init

Initializing the backend...

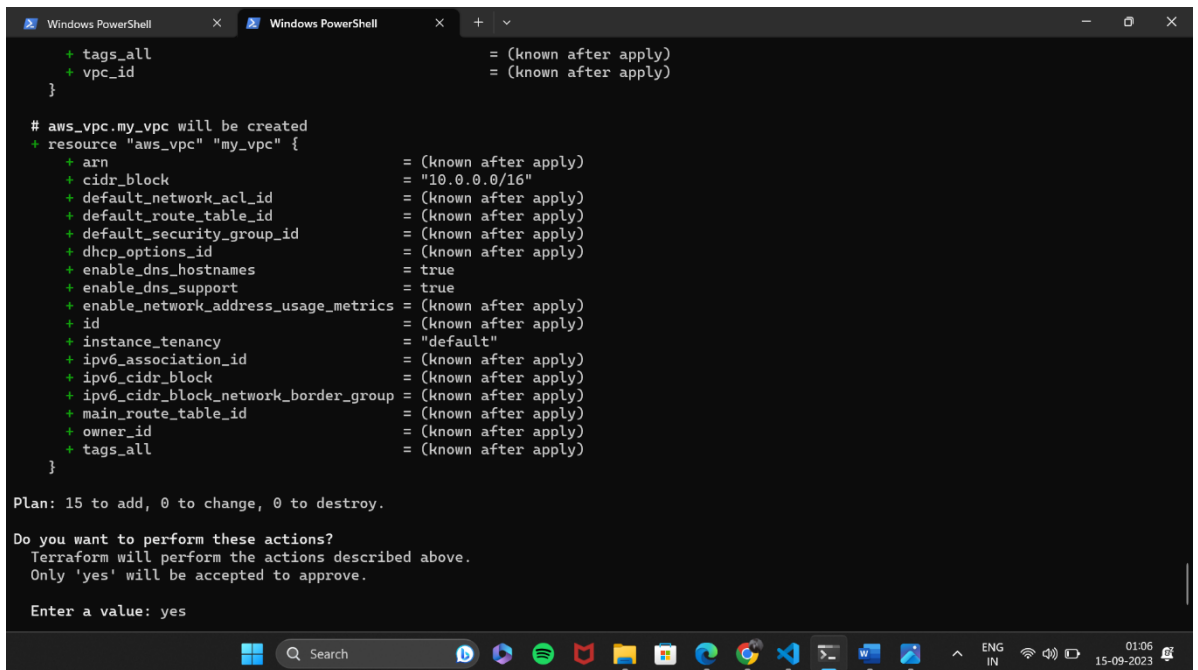
Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.13.1

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.
PS C:\Users\hwp\OneDrive\Desktop\Terra>
```

- Now Give Command Terraform apply  
A Confirmation message will appear which say “Do you want to perform these action” type “yes” to continue/proceed



```

+ tags_all = (known after apply)
+ vpc_id   = (known after apply)
}

# aws_vpc.my_vpc will be created
+ resource "aws_vpc" "my_vpc" {
+ arn                = (known after apply)
+ cidr_block         = "10.0.0.0/16"
+ default_network_acl_id = (known after apply)
+ default_route_table_id = (known after apply)
+ default_security_group_id = (known after apply)
+ dhcp_options_id    = (known after apply)
+ enable_dns_hostnames = true
+ enable_dns_support  = true
+ enable_network_address_usage_metrics = (known after apply)
+ id                 = (known after apply)
+ instance_tenancy    = "default"
+ ipv6_association_id = (known after apply)
+ ipv6_cidr_block      = (known after apply)
+ ipv6_cidr_block_network_border_group = (known after apply)
+ main_route_table_id = (known after apply)
+ owner_id            = (known after apply)
+ tags_all            = (known after apply)
}

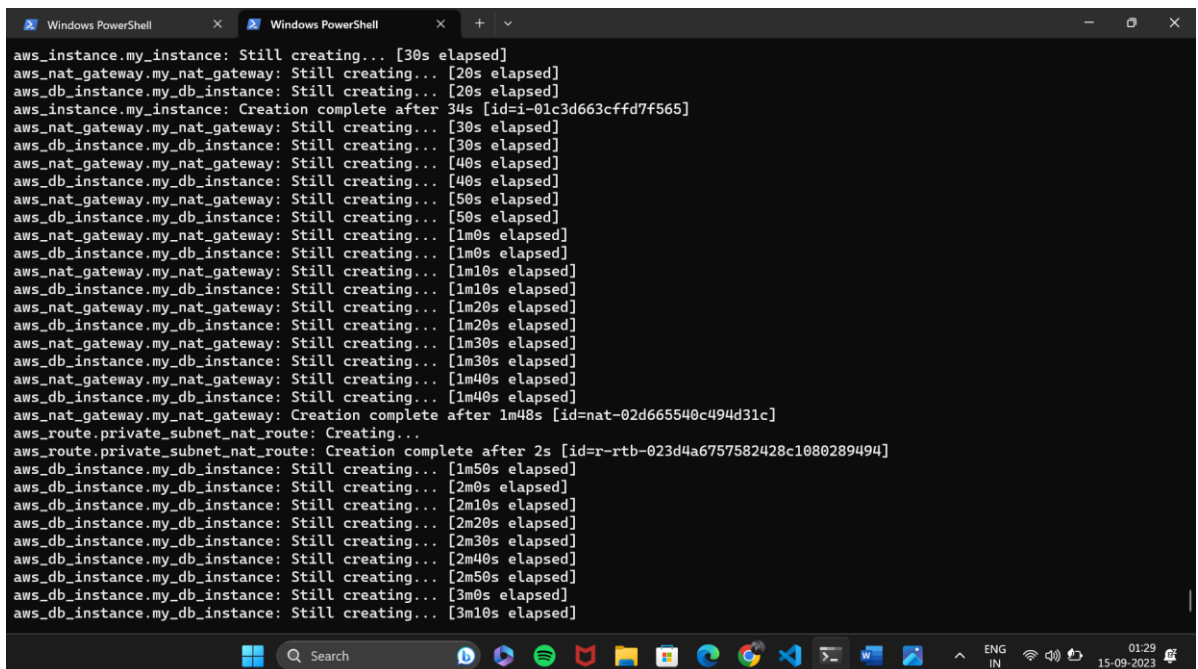
Plan: 15 to add, 0 to change, 0 to destroy.

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

```

- Now, a message will appear which says “Resources: n added”



```

aws_instance.my_instance: Still creating... [30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [20s elapsed]
aws_db_instance.my_db_instance: Still creating... [20s elapsed]
aws_instance.my_instance: Creation complete after 34s [id=i-01c3d663cffd7f565]
aws_nat_gateway.my_nat_gateway: Still creating... [30s elapsed]
aws_db_instance.my_db_instance: Still creating... [30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [40s elapsed]
aws_db_instance.my_db_instance: Still creating... [40s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [50s elapsed]
aws_db_instance.my_db_instance: Still creating... [50s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m0s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m10s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m20s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m40s elapsed]
aws_nat_gateway.my_nat_gateway: Creation complete after 1m48s [id=nat-02d665540c494d31c]
aws_route.private_subnet_nat_route: Creation...
aws_route.private_subnet_nat_route: Creation complete after 2s [id=r-rtb-023d4a6757582428c1080289494]
aws_db_instance.my_db_instance: Still creating... [1m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m10s elapsed]

```

```
Windows PowerShell
aws_instance.my_instance: Still creating... [30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [20s elapsed]
aws_db_instance.my_db_instance: Still creating... [20s elapsed]
aws_instance.my_instance: Creation complete after 34s [id=i-01c3d663cffd7f565]
aws_nat_gateway.my_nat_gateway: Still creating... [30s elapsed]
aws_db_instance.my_db_instance: Still creating... [30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [40s elapsed]
aws_db_instance.my_db_instance: Still creating... [40s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [50s elapsed]
aws_db_instance.my_db_instance: Still creating... [50s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m0s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m10s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m20s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m40s elapsed]
aws_nat_gateway.my_nat_gateway: Creation complete after 1m48s [id=nat-02d665540c494d31c]
aws_route.private_subnet_nat_route: Creating...
aws_route.private_subnet_nat_route: Creation complete after 2s [id=r-rtb-023d4a6757582428c1080289494]
aws_db_instance.my_db_instance: Still creating... [1m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m10s elapsed]
```

- These 3 Screenshots Contain Name of Different resources which are created during execution of terraform file

```
Windows PowerShell
aws_nat_gateway.my_nat_gateway: Still creating... [1m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m0s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m10s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m20s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m30s elapsed]
aws_nat_gateway.my_nat_gateway: Still creating... [1m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [1m40s elapsed]
aws_nat_gateway.my_nat_gateway: Creation complete after 1m48s [id=nat-02d665540c494d31c]
aws_route.private_subnet_nat_route: Creating...
aws_route.private_subnet_nat_route: Creation complete after 2s [id=r-rtb-023d4a6757582428c1080289494]
aws_db_instance.my_db_instance: Still creating... [1m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [2m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m10s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m20s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m30s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m40s elapsed]
aws_db_instance.my_db_instance: Still creating... [3m50s elapsed]
aws_db_instance.my_db_instance: Still creating... [4m0s elapsed]
aws_db_instance.my_db_instance: Still creating... [4m10s elapsed]
aws_db_instance.my_db_instance: Creation complete after 4m12s [id=db-CMJNBG4DQFJ7XCKPNCRFIXBYXE]

Apply complete! Resources: 15 added, 0 changed, 0 destroyed.
PS C:\Users\hpw\OneDrive\Desktop\Terra>
```

## [Terraform Script](#)

- Kindly Go through this terraform file stored in google drive.