Created main.tf file for 2 regions:

```
tamil@Aravind:~/Terraform$ cat main.tf
######################
# Providers
######################

provider "aws" {
  alias  = "south"
  region = "ap-south-2"
}

provider "aws" {
  alias  = "west"
  region = "us-west-2"
}

######################
# EC2 in us-east-2
######################

resource "aws_instance" "South_instance" {
  ami           = "ami-02774d409be696d81" # Amazon Linux 2 (us-east-2)
  instance_type = "t3.micro"

  tags = {
    Name = "South-linux-ec2"
    Region = "ap-south-2"
  }
}

######################
# EC2 in us-west-2
######################

resource "aws_instance" "west_instance" {
  provider      = aws.west
  ami           = "ami-00d8a0260a086a99e" # Amazon Linux 2 (us-west-2)
  instance_type = "t3.micro"

  tags = {
    Name = "west-linux-ec2"
    Region = "us-west-2"
  }
}

tamil@Aravind:~/Terraform$
```

Created public and pvt key for Terraform authentication :

```
tamil@Aravind:~/Terraform$ ssh-keygen -t rsa -b 4096 -f terraform-key
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in terraform-key
Your public key has been saved in terraform-key.pub
The key fingerprint is:
SHA256:vxs7Jc7LTK2Ybja8mT1ZF/9HqSofJ74Pow63Ae3Z++M tamil@Aravind
The key's randomart image is:
+---[RSA 4096]----+
|                 |
|                 |
|                 |
|        .     .  |
|       .S.     o.|
|        o.+.o ..o|
|       o B+@.o...|
|        B@@=Bo  o|
|       +O*%@*E. .|
+----[SHA256]-----+
tamil@Aravind:~/Terraform$
```

Imported key pair to aws for each region:

```
tamil@Aravind:~/Terraform$ aws ec2 import-key-pair \
  --key-name terraform-key \
  --public-key-material fileb://terraform-key.pub \
  --region us-west-2
{
    "KeyFingerprint": "03:51:35:b0:17:1c:e6:89:01:05:53:89:6b:9d:90:d7",
    "KeyName": "terraform-key",
    "KeyPairId": "key-0a652cbbe33589482"
}
tamil@Aravind:~/Terraform$
```

```
tamil@Aravind:~/Terraform$ aws ec2 import-key-pair \
  --key-name terraform-key \
  --public-key-material fileb://terraform-key.pub \
  --region ap-south-2
{
    "KeyFingerprint": "03:51:35:b0:17:1c:e6:89:01:05:53:89:6b:9d:90:d7",
    "KeyName": "terraform-key",
    "KeyPairId": "key-0f455f23182959c20"
}
tamil@Aravind:~/Terraform$
```

Initializing Terraform:

```
tamil@Aravind:~/Terraform$ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v6.31.0...
- Installed hashicorp/aws v6.31.0 (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!

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.
tamil@Aravind:~/Terraform$
```

```
tamil@Aravind:~/Terraform$ terraform plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.South_instance will be created
  + resource "aws_instance" "South_instance" {
      + ami                                  = "ami-02774d409be696d81"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + enable_primary_ipv6                  = (known after apply)
      + force_destroy                        = false
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t3.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_group_id                   = (known after apply)
      + placement_partition_number           = (known after apply)
      + primary_network_interface_id         = (known after apply)
      + private_dns                          = (known after apply)
      + private_ip                           = (known after apply)
      + public_dns                           = (known after apply)
      + public_ip                            = (known after apply)
      + region                               = "us-west-2"
      + secondary_private_ips                = (known after apply)
```

```
  + tags                                   = {
      + "Name"   = "South-linux-ec2"
      + "Region" = "ap-south-2"
    }
  + tags_all                               = {
      + "Name"   = "South-linux-ec2"
      + "Region" = "ap-south-2"
    }
  + tenancy                                = (known after apply)
  + user_data_base64                       = (known after apply)
  + user_data_replace_on_change            = false
  + vpc_security_group_ids                 = (known after apply)

  + capacity_reservation_specification (known after apply)

  + cpu_options (known after apply)

  + ebs_block_device (known after apply)

  + enclave_options (known after apply)

  + ephemeral_block_device (known after apply)

  + instance_market_options (known after apply)

  + maintenance_options (known after apply)

  + metadata_options (known after apply)

  + network_interface (known after apply)

  + primary_network_interface (known after apply)

  + private_dns_name_options (known after apply)
```

```
# aws_instance.west_instance will be created
+ resource "aws_instance" "west_instance" {
    + ami                                  = "ami-00d8a0260a086a99e"
    + arn                                  = (known after apply)
    + associate_public_ip_address          = (known after apply)
    + availability_zone                    = (known after apply)
    + disable_api_stop                     = (known after apply)
    + disable_api_termination              = (known after apply)
    + ebs_optimized                        = (known after apply)
    + enable_primary_ipv6                  = (known after apply)
    + force_destroy                        = false
    + get_password_data                    = false
    + host_id                              = (known after apply)
    + host_resource_group_arn              = (known after apply)
    + iam_instance_profile                 = (known after apply)
    + id                                   = (known after apply)
    + instance_initiated_shutdown_behavior = (known after apply)
    + instance_lifecycle                   = (known after apply)
    + instance_state                       = (known after apply)
    + instance_type                        = "t3.micro"
    + ipv6_address_count                   = (known after apply)
    + ipv6_addresses                       = (known after apply)
    + key_name                             = (known after apply)
    + monitoring                           = (known after apply)
    + outpost_arn                          = (known after apply)
    + password_data                        = (known after apply)
    + placement_group                      = (known after apply)
    + placement_group_id                   = (known after apply)
    + placement_partition_number           = (known after apply)
    + primary_network_interface_id         = (known after apply)
    + private_dns                          = (known after apply)
    + private_ip                           = (known after apply)
    + public_dns                           = (known after apply)
    + public_ip                            = (known after apply)
    + region                               = "us-west-2"
    + secondary_private_ips                = (known after apply)
    + security_groups                      = (known after apply)
    + source_dest_check                    = true
    + spot_instance_request_id             = (known after apply)
    + subnet_id                            = (known after apply)
    + tags                                 = {
        + "Name"   = "west-linux-ec2"
```

```
      + tags                                 = {
          + "Name"   = "west-linux-ec2"
          + "Region" = "us-west-2"
        }
      + tags_all                             = {
          + "Name"   = "west-linux-ec2"
          + "Region" = "us-west-2"
        }
      + tenancy                              = (known after apply)
      + user_data_base64                     = (known after apply)
      + user_data_replace_on_change          = false
      + vpc_security_group_ids               = (known after apply)

      + capacity_reservation_specification (known after apply)

      + cpu_options (known after apply)

      + ebs_block_device (known after apply)

      + enclave_options (known after apply)

      + ephemeral_block_device (known after apply)

      + instance_market_options (known after apply)

      + maintenance_options (known after apply)

      + metadata_options (known after apply)

      + network_interface (known after apply)

      + primary_network_interface (known after apply)

      + private_dns_name_options (known after apply)

      + root_block_device (known after apply)
    }

Plan: 2 to add, 0 to change, 0 to destroy.
```

```
Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly these actions if you run "terraform apply" now.
tamil@Aravind:~/Terraform$
```

```
tamil@Aravind:~/Terraform$ terraform apply

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.South_instance will be created
  + resource "aws_instance" "South_instance" {
      + ami                                  = "ami-02774d409be696d81"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + enable_primary_ipv6                  = (known after apply)
      + force_destroy                        = false
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t3.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_group_id                   = (known after apply)
      + placement_partition_number           = (known after apply)
      + primary_network_interface_id         = (known after apply)
      + private_dns                          = (known after apply)
      + private_ip                           = (known after apply)
      + public_dns                           = (known after apply)
      + public_ip                            = (known after apply)
      + region                               = "ap-south-2"
```

```
  + tags                                 = {
      + "Name"   = "South-linux-ec2"
      + "Region" = "ap-south-2"
    }
  + tags_all                             = {
      + "Name"   = "South-linux-ec2"
      + "Region" = "ap-south-2"
    }
  + tenancy                              = (known after apply)
  + user_data_base64                     = (known after apply)
  + user_data_replace_on_change          = false
  + vpc_security_group_ids               = (known after apply)

  + capacity_reservation_specification (known after apply)

  + cpu_options (known after apply)

  + ebs_block_device (known after apply)

  + enclave_options (known after apply)

  + ephemeral_block_device (known after apply)

  + instance_market_options (known after apply)

  + maintenance_options (known after apply)

  + metadata_options (known after apply)

  + network_interface (known after apply)

  + primary_network_interface (known after apply)

  + private_dns_name_options (known after apply)

  + root_block_device (known after apply)
}
```

```
# aws_instance.west_instance will be created
+ resource "aws_instance" "west_instance" {
    + ami                                  = "ami-00d8a0260a086a99e"
    + arn                                  = (known after apply)
    + associate_public_ip_address          = (known after apply)
    + availability_zone                    = (known after apply)
    + disable_api_stop                     = (known after apply)
    + disable_api_termination              = (known after apply)
    + ebs_optimized                        = (known after apply)
    + enable_primary_ipv6                  = (known after apply)
    + force_destroy                        = false
    + get_password_data                    = false
    + host_id                              = (known after apply)
    + host_resource_group_arn              = (known after apply)
    + iam_instance_profile                 = (known after apply)
    + id                                   = (known after apply)
    + instance_initiated_shutdown_behavior = (known after apply)
    + instance_lifecycle                   = (known after apply)
    + instance_state                       = (known after apply)
    + instance_type                        = "t3.micro"
    + ipv6_address_count                   = (known after apply)
    + ipv6_addresses                       = (known after apply)
    + key_name                             = (known after apply)
    + monitoring                           = (known after apply)
    + outpost_arn                          = (known after apply)
    + password_data                        = (known after apply)
    + placement_group                      = (known after apply)
    + placement_group_id                   = (known after apply)
    + placement_partition_number           = (known after apply)
    + primary_network_interface_id         = (known after apply)
    + private_dns                          = (known after apply)
    + private_ip                           = (known after apply)
    + public_dns                           = (known after apply)
    + public_ip                            = (known after apply)
    + region                               = "us-west-2"
    + secondary_private_ips                = (known after apply)
    + security_groups                      = (known after apply)
    + source_dest_check                    = true
    + spot_instance_request_id             = (known after apply)
    + subnet_id                            = (known after apply)
    + tags                                 = {
        + "Name"   = "west-linux-ec2"
        + "Region" = "us-west-2"
```

```
      + "Name"   = "west-linux-ec2"
      + "Region" = "us-west-2"
    }
  + tags_all                              = {
      + "Name"   = "west-linux-ec2"
      + "Region" = "us-west-2"
    }
  + tenancy                               = (known after apply)
  + user_data_base64                      = (known after apply)
  + user_data_replace_on_change           = false
  + vpc_security_group_ids                = (known after apply)

  + capacity_reservation_specification (known after apply)

  + cpu_options (known after apply)

  + ebs_block_device (known after apply)

  + enclave_options (known after apply)

  + ephemeral_block_device (known after apply)

  + instance_market_options (known after apply)

  + maintenance_options (known after apply)

  + metadata_options (known after apply)

  + network_interface (known after apply)

  + primary_network_interface (known after apply)

  + private_dns_name_options (known after apply)

  + root_block_device (known after apply)
}

: 2 to add, 0 to change, 0 to destroy.
```

```
Plan: 2 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

aws_instance.South_instance: Creating...
aws_instance.west_instance: Creating...
aws_instance.South_instance: Still creating... [00m10s elapsed]
aws_instance.west_instance: Still creating... [00m10s elapsed]
aws_instance.South_instance: Creation complete after 14s [id=i-013a9d6d3f0ff69bd]
aws_instance.west_instance: Creation complete after 18s [id=i-0dc74980a4a310d71]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.
tamil@Aravind:~/Terraform$
```

EC2 got created and running: