Created main.tf file for 2 regions South-2 and West-2 with user data file:

```
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 ap-South-2
######################

resource "aws_instance" "South_instance" {
  provider      = aws.south
  ami           = "ami-02774d409be696d81"
  instance_type = "t3.micro"
  user_data = <<-EOF
              #!/bin/bash
              sudo apt update -y
              sudo apt install nginx -y
              sudo systemctl start nginx
              sudo systemctl enable nginx
              EOF

  tags = {
    Name = "South-Nginx-ec2"
  }
}

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

resource "aws_instance" "west_instance" {
  provider      = aws.west
  ami           = "ami-0786adace1541ca80"
```

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

resource "aws_instance" "west_instance" {
  provider      = aws.west
  ami           = "ami-0786adace1541ca80"
  instance_type = "t3.micro"
  user_data = <<-EOF
              #!/bin/bash
              sudo apt update -y
              sudo apt install nginx -y
              sudo systemctl start nginx
              sudo systemctl enable nginx
              EOF

  tags = {
    Name = "west-Nginx-ec2"
  }
}

tamil@Aravind:~/Terraform$
```

Initializing Terraform:

```
tamil@Aravind:~/Terraform$ terraform init
Initializing the backend...
Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v6.31.0

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$
```

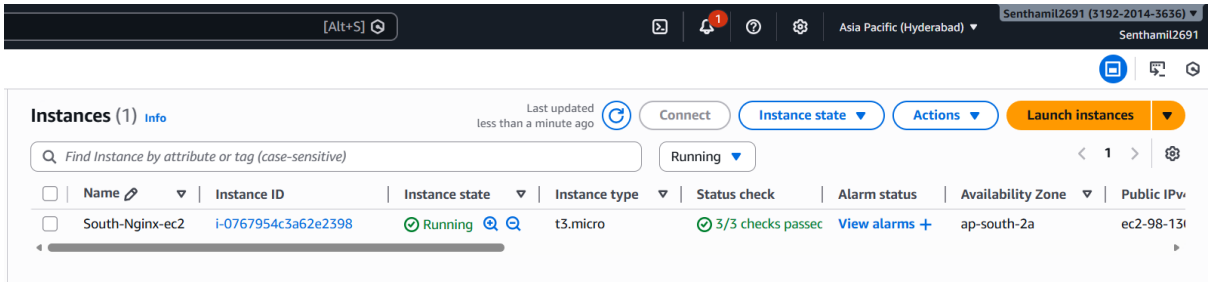
```
tamil@Aravind:~/Terraform$ terraform plan

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                               = "ap-south-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)
```

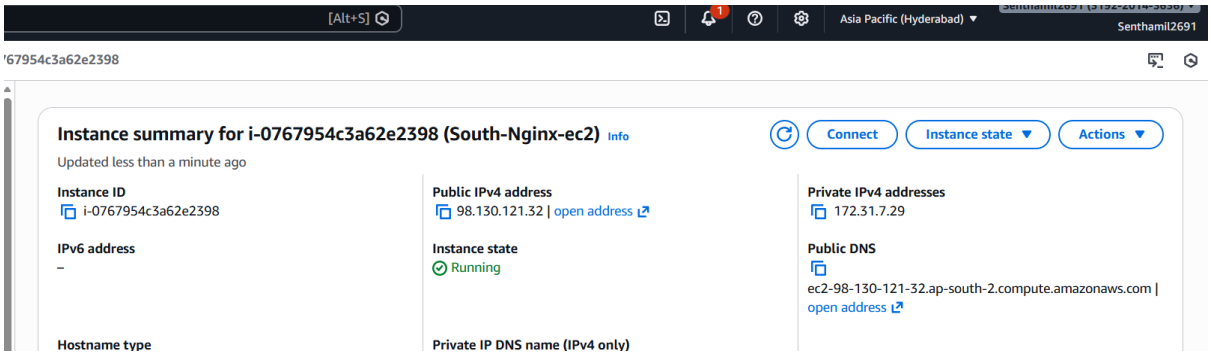
```
    + spot_instance_request_id             = (known after apply)
    + subnet_id                            = (known after apply)
    + tags                                 = {
        + "Name" = "South-Nginx-ec2"
      }
    + tags_all                             = {
        + "Name" = "South-Nginx-ec2"
      }
    + tenancy                              = (known after apply)
    + user_data                            = <<-EOT
          #!/bin/bash
          sudo apt update -y
          sudo apt install nginx -y
          sudo systemctl start nginx
          sudo systemctl enable nginx
      EOT
    + 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" {
```

```
# aws_instance.west_instance will be created
+ resource "aws_instance" "west_instance" {
    + ami                                  = "ami-0786adace1541ca80"
    + 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
```

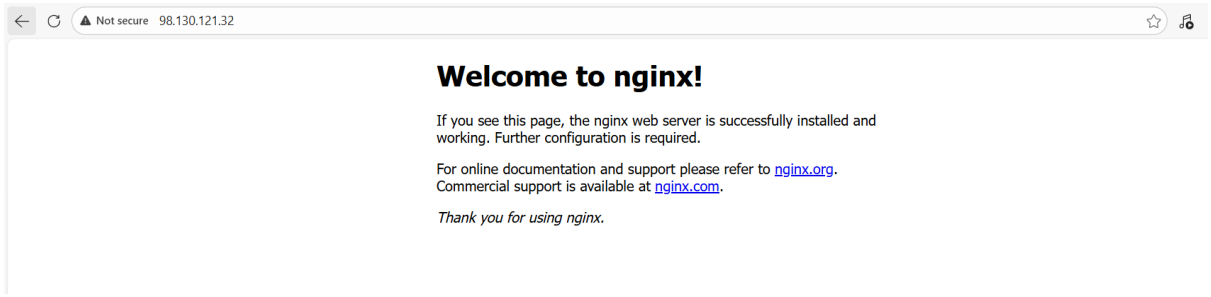
```
    }
  + tags_all                             = {
      + "Name" = "west-Nginx-ec2"
    }
  + tenancy                              = (known after apply)
  + user_data                            = <<-EOT
        #!/bin/bash
        sudo apt update -y
        sudo apt install nginx -y
        sudo systemctl start nginx
        sudo systemctl enable nginx
    EOT
  + 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)
}

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

ote: 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.
amil@Aravind:~/Terraform$
```

Ec2 launched in south-2 region:

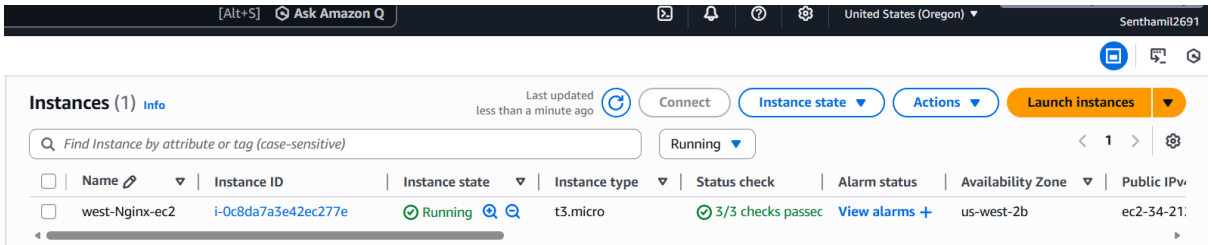


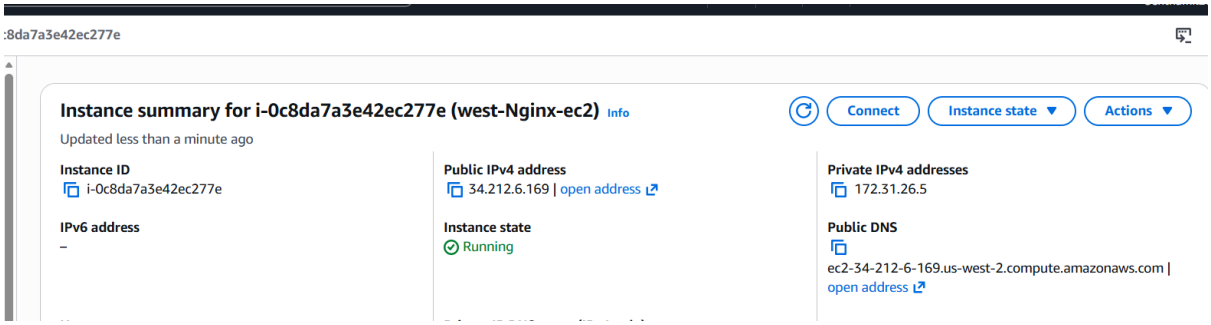


Validated application is getting hosted in web:



Ec2 launched in west-2 region:





Validated application is getting hosted in web: