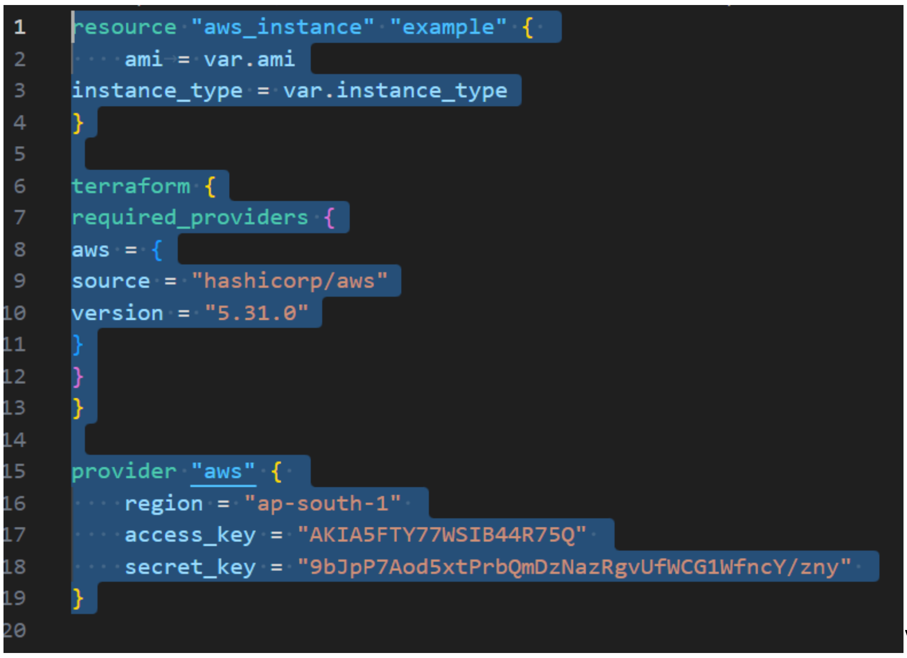
Lab Exercise 6– Terraform Multiple tfvars Files

Steps:

1. Create a Terraform Directory:

```
mkdir terraform-multiple-tfvars
cd terraform-multiple-tfvars
```

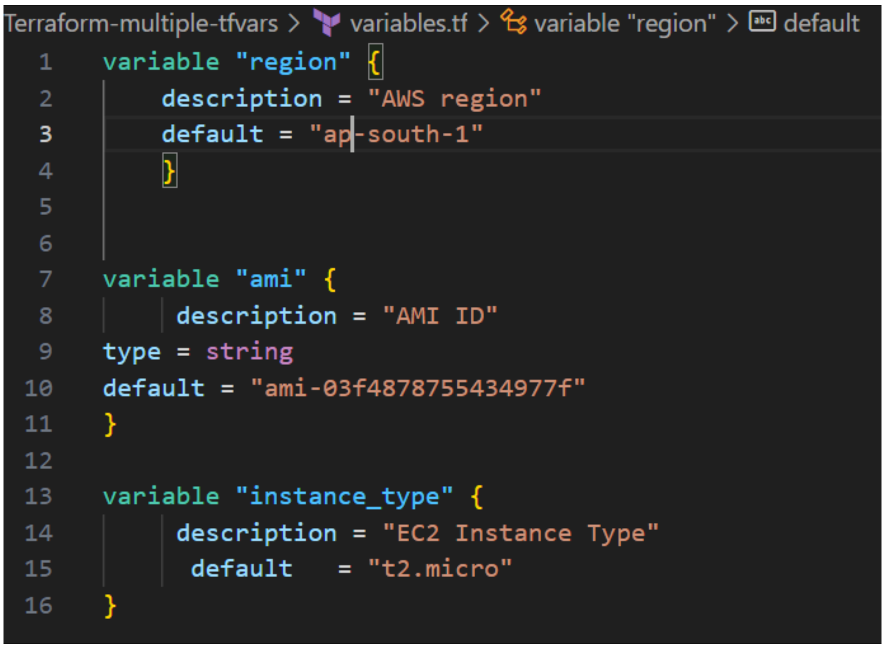
# main.tf



```
resource "aws_instance" "example" {
    ami = var.ami
instance_type = var.instance_type
}

terraform {
required_providers {
aws = {
source = "hashicorp/aws"
version = "5.31.0"
}
}
}

provider "aws" {
    region = "ap-south-1"
    access_key = "AKIA5FTY77WSIB44R75Q"
    secret_key = "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"
}
```

\

# variables.tf

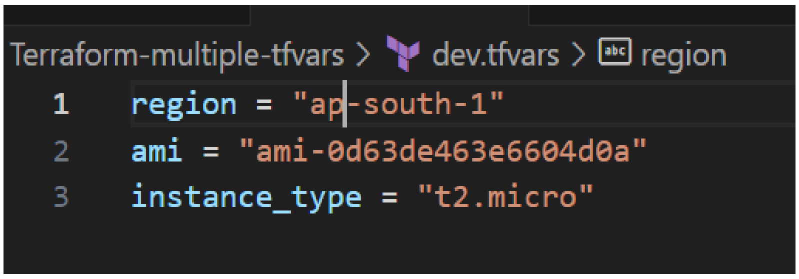


Terraform-multiple-tfvars > variables.tf > variable "region" > default

```
variable "region" {
    description = "AWS region"
    default = "ap-south-1"
    }


variable "ami" {
     description = "AMI ID"
type = string
default = "ami-03f4878755434977f"
}

variable "instance_type" {
     description = "EC2 Instance Type"
      default   = "t2.micro"
}
```

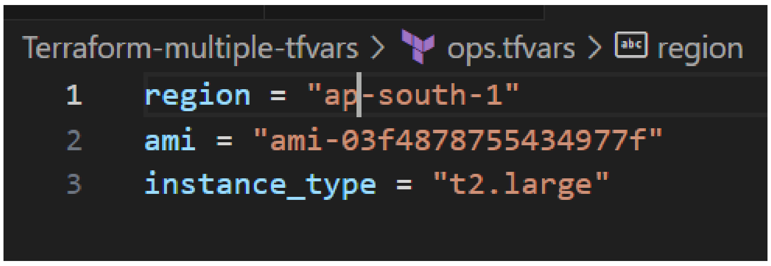
2. Create Multiple tfvars Files:

# dev.tfvars



```
region = "ap-south-1"
ami = "ami-0d63de463e6604d0a"
instance_type = "t2.micro"
```

# ops.tfvars

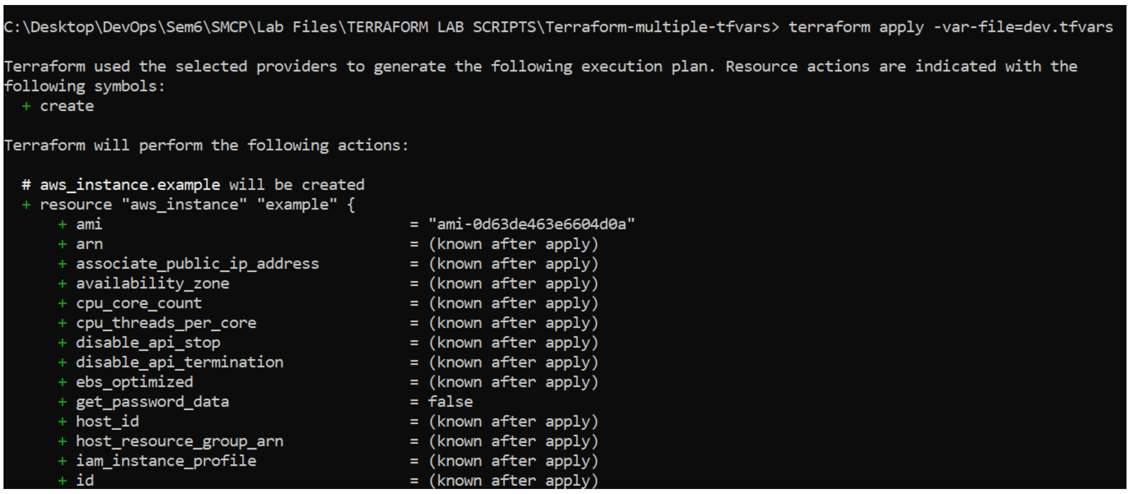


```
region = "ap-south-1"
ami = "ami-03f4878755434977f"
instance_type = "t2.large"
```

3. Initialize and Apply for Dev Environment:

- Run the following Terraform commands to initialize and apply the configuration for the dev environment:

```
terraform init
terraform apply -var-file=dev.tfvars
```



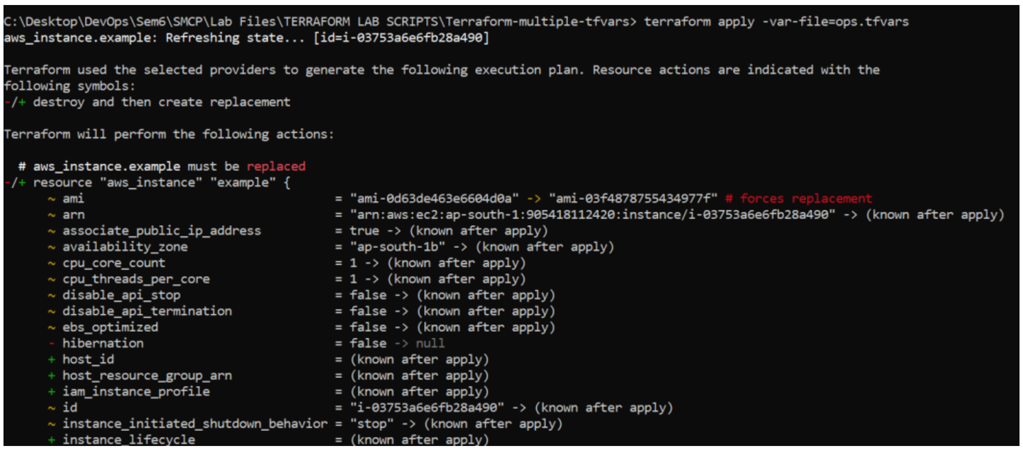
```
C:\Desktop\DevOps\Sem6\SMCP\Lab Files\TERRAFORM LAB SCRIPTS\Terraform-multiple-tfvars> terraform apply -var-file=dev.tfvars

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.example will be created
  + resource "aws_instance" "example" {
      + ami                                  = "ami-0d63de463e6604d0a"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + 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)
```

4. Initialize and Apply for Prod Environment:

- Run the following Terraform commands to initialize and apply the configuration for the prod environment:

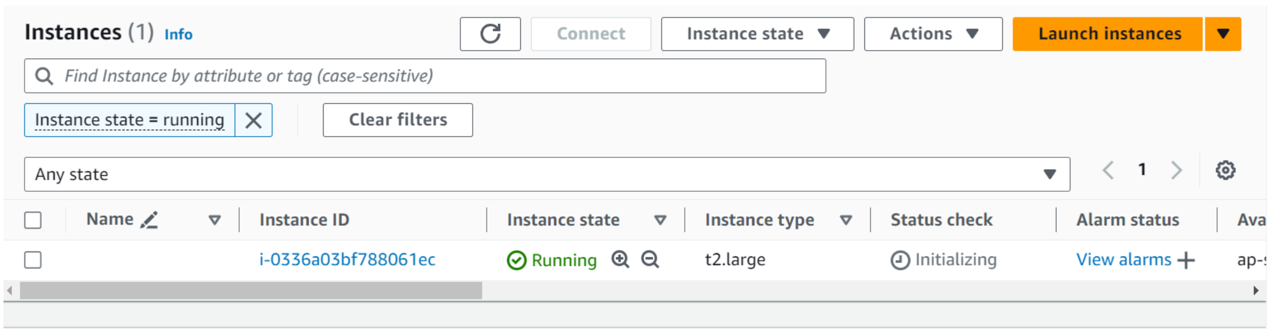
```
terraform init
terraform apply -var-file=ops.tfvars
```

.



```
C:\Desktop\DevOps\Sem6\SMCP\Lab Files\TERRAFORM LAB SCRIPTS\Terraform-multiple-tfvars> terraform apply -var-file=ops.tfvars
aws_instance.example: Refreshing state... [id=i-03753a6e6fb28a490]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the
following symbols:
-/+ destroy and then create replacement

Terraform will perform the following actions:

  # aws_instance.example must be replaced
-/+ resource "aws_instance" "example" {
      ~ ami                                  = "ami-0d63de463e6604d0a" -> "ami-03f4878755434977f" # forces replacement
      ~ arn                                  = "arn:aws:ec2:ap-south-1:905418112420:instance/i-03753a6e6fb28a490" -> (known after apply)
      ~ associate_public_ip_address          = true -> (known after apply)
      ~ availability_zone                    = "ap-south-1b" -> (known after apply)
      ~ cpu_core_count                       = 1 -> (known after apply)
      ~ cpu_threads_per_core                 = 1 -> (known after apply)
      ~ disable_api_stop                     = false -> (known after apply)
      ~ disable_api_termination              = false -> (known after apply)
      ~ ebs_optimized                        = false -> (known after apply)
      - hibernation                          = false -> null
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      ~ id                                   = "i-03753a6e6fb28a490" -> (known after apply)
      ~ instance_initiated_shutdown_behavior = "stop" -> (known after apply)
      + instance_lifecycle                   = (known after apply)
```

5. Test and Verify:



Instances (1) Info

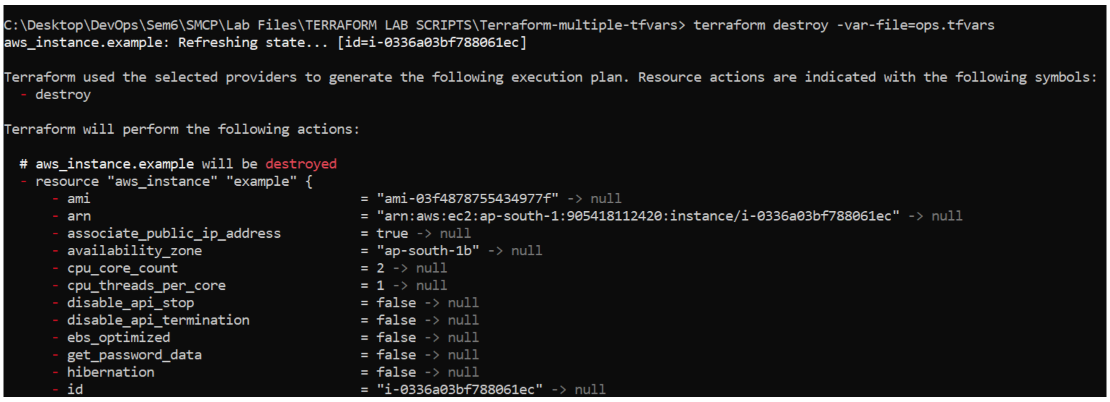
Instance state = running

Any state

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Ava
		i-0336a03bf788061ec	Running	t2.large	Initializing	View alarms	ap-

6. Clean Up:

```
terraform destroy -var-file=dev.tfvars
terraform destroy -var-file=ops.tfvars
```



```
C:\Desktop\DevOps\Sem6\SMCP\Lab Files\TERRAFORM LAB SCRIPTS\Terraform-multiple-tfvars> terraform destroy -var-file=ops.tfvars
aws_instance.example: Refreshing state... [id=i-0336a03bf788061ec]

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

Terraform will perform the following actions:

  # aws_instance.example will be destroyed
  - resource "aws_instance" "example" {
      - ami                                  = "ami-03f4878755434977f" -> null
      - arn                                  = "arn:aws:ec2:ap-south-1:905418112420:instance/i-0336a03bf788061ec" -> null
      - associate_public_ip_address          = true -> null
      - availability_zone                    = "ap-south-1b" -> null
      - cpu_core_count                       = 2 -> null
      - cpu_threads_per_core                 = 1 -> null
      - disable_api_stop                     = false -> null
      - disable_api_termination              = false -> null
      - ebs_optimized                        = false -> null
      - get_password_data                    = false -> null
      - hibernation                          = false -> null
      - id                                   = "i-0336a03bf788061ec" -> null
```