SIDDHARTH TIWARI 500095935 R2142210949 B.TECH CSE DEVOPS BATCH 3

Lab Exercise 4– Terraform Variables

1. Create a Terraform Directory:

• Create a new directory for your Terraform project.

mkdir terraform-variables

cd terraform-variables

Create a Terraform Configuration File: • Create a file named main.tf within your project directory.

 # main.tf

main.tf variables.tf

terraform-variables > main.tf

```
provider "aws" {
 region = var.region

    access_key = "AKIAVPBRL66LMCFWJHBI"
    secret_key = "lakb4ltQaD5OePSIkpQMaN/QJQG0I6L/Ux4wahY5"
}


resource "aws_instance" "Siddharth-ec2" {
 ami = var.ami
 instance_type = var.instance_type
}
```

Define Variables: •

Open a new file named

variables.tf.

Define variables for region, ami, and instance_type.

 # variables.tf

main.tf variables.tf

terraform-variables > variables.tf

```
variable "region" {
 description = "AWS region"
 default = "us-east-2"
}
variable "ami" {
 description = "AMI ID"
 default = "ami-05fb0b8c1424f266b"
}
variable "instance_type" {
 description = "EC2 Instance Type"
 default = "t2.micro"
}
```

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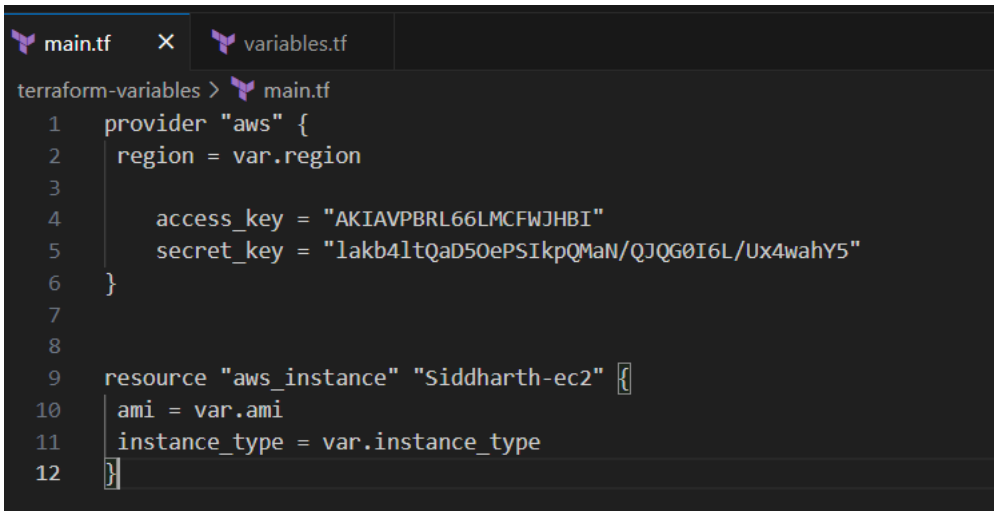
Use Variables in main.tf: • Modify main.tf to use the variables.

main.tf

provider "aws" {region = var.region }

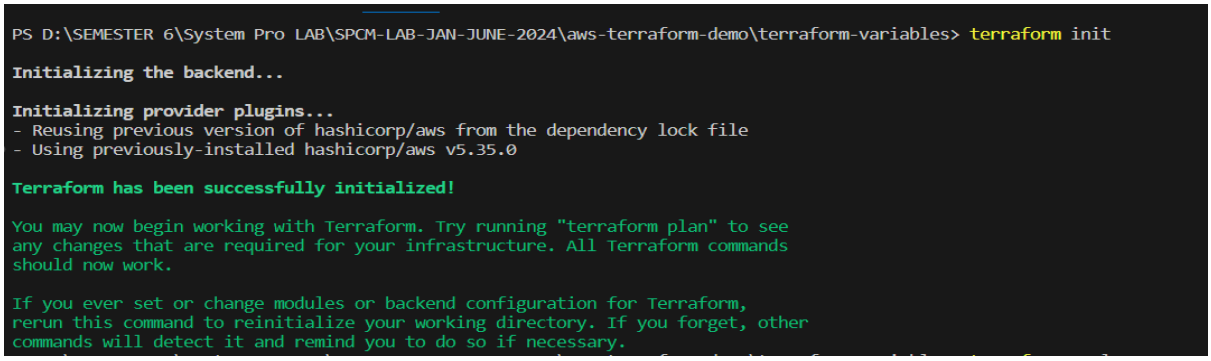
resource "aws_instance" "example" { ami = var.ami instance_type = var.instance_type }



Initialize and Apply:

• Run the following Terraform commands to initialize and apply the configuration.

terraform init



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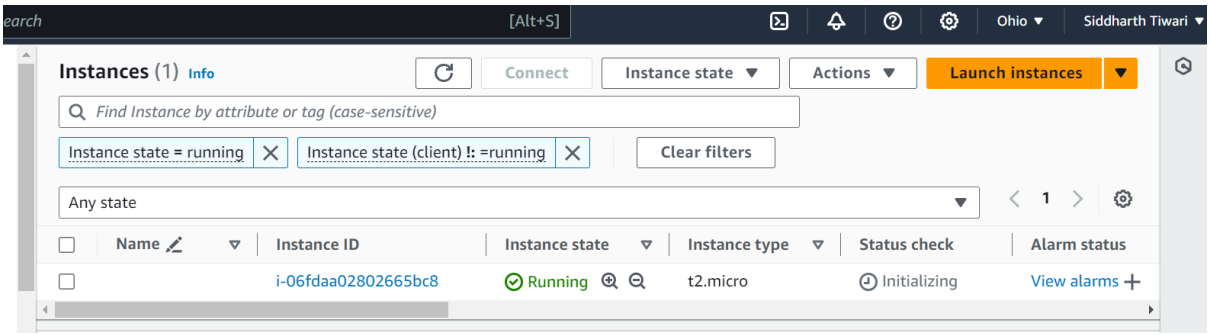
terraform apply

```
PS D:\SEMESTER 6\System Pro LAB\SPCM-LAB-JAN-JUNE-2024\aws-terraform-demo\terraform-variables> 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.Siddharth-ec2 will be created
  + resource "aws_instance" "Siddharth-ec2" {
      + ami                                  = "ami-05fb0b8c1424f266b"
      + 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)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t2.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
```



Clean Up: After testing, you can clean up resources.

terraform destroy

```
aws_instance.Siddharth-ec2: Destroying... [id=i-06fdaa02802665bc8]
aws_instance.Siddharth-ec2: Still destroying... [id=i-06fdaa02802665b
aws_instance.Siddharth-ec2: Still destroying... [id=i-06fdaa02802665b
aws_instance.Siddharth-ec2: Still destroying... [id=i-06fdaa02802665b
aws_instance.Siddharth-ec2: Destruction complete after 32s

Destroy complete! Resources: 1 destroyed.
PS D:\SEMESTER 6\System Pro LAB\SPCM-LAB-JAN-JUNE-2024\aws-terraform-
```

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```
# aws_instance.Siddharth-ec2 will be destroyed
- resource "aws_instance" "Siddharth-ec2" {
    - ami                                  = "ami-05fb0b8c1424f266b" -> null
    - arn                                  = "arn:aws:ec2:us-east-2:375913183126:instance/i-06fdaa02802665bc8" -> null
    - associate_public_ip_address          = true -> null
    - availability_zone                    = "us-east-2c" -> null
    - cpu_core_count                       = 1 -> 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-06fdaa02802665bc8" -> null
    - instance_initiated_shutdown_behavior = "stop" -> null
    - instance_state                       = "running" -> null
    - instance_type                        = "t2.micro" -> null
    - ipv6_address_count                   = 0 -> null
    - ipv6_addresses                       = [] -> null
    - monitoring                           = false -> null
    - placement_partition_number           = 0 -> null
    - primary_network_interface_id         = "eni-090464c8e2e8913e8" -> null
    - private_dns                          = "ip-172-31-38-180.us-east-2.compute.internal" -> null
    - private_ip                           = "172.31.38.180" -> null
    - public_dns                           = "ec2-3-134-115-199.us-east-2.compute.amazonaws.com" -> null
    - public_ip                            = "3.134.115.199" -> null
    - secondary_private_ips                = [] -> null
    - security_groups                      = [
        - "default",
      ] -> null
    - source_dest_check                    = true -> null
```