MINGW64:/d/terraform-examples/exercise2

```
Star@Dell-I3 MINGW64 ~
$ cd /d/terraform-examples/exercise2

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ ls
instance.tf  provider.tf  terraform.tfstate  terraform.tfstate.backup  var.tf

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.57.0

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.

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform validate
Success! The configuration is valid.


Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform fmt
instance.tf

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ cat instance.tf
resource "aws_instance" "exercise2" {
  ami           = var.AMIS[var.REGION]
```

```
star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ cat provider.tf
provider "aws" {
  region = var.REGION
}
star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ cat var.tf
variable "REGION" {
  default = "us-east-1"
}
variable "ZONE1" {
  default = "us-east-2a"
}
variable "AMIS" {
  type = map(any)
  default = {
    us-east-2 = "ami-03657b56516ab7912"
    us-east-1 = "ami-0b72821e2f351e396"
  }
}
star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform plan
aws_instance.exercise2: Refreshing state... [id=i-08a63ba97ab68d450]

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.exercise2 will be created
  + resource "aws_instance" "exercise2" {
      + ami                                  = "ami-0b72821e2f351e396"
      + 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)
```

```
Plan: 1 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.

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform apply
aws_instance.exercise2: Refreshing state... [id=i-08a63ba97ab68d450]

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.exercise2 will be created
  + resource "aws_instance" "exercise2" {
      + ami                                  = "ami-0b72821e2f351e396"
      + 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)
```

Editing "Terraform Variables " | Instance details | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#InstanceDetails:instanceId=i-08a63ba97ab68d450

aws | Services | Search [Alt+S] | N. Virginia | Ragavi

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EC2 > Instances > i-08a63ba97ab68d450

Instance summary for i-08a63ba97ab68d450 (Exercise2) Info

Updated less than a minute ago

Connect | Instance state | Actions

Instance ID i-08a63ba97ab68d450 (Exercise2)	Public IPv4 address 18.208.115.172 | open address	Private IPv4 addresses 172.31.89.28
IPv6 address –	Instance state Running	Public IPv4 DNS ec2-18-208-115-172.compute-1.amazonaws.com | open address
Hostname type IP name: ip-172-31-89-28.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-89-28.ec2.internal	
Answer private resource DNS name –	Instance type t2.micro	Elastic IP addresses –
Auto-assigned IP address 18.208.115.172 [Public IP]	VPC ID vpc-0fd04e9d261bba5d2	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. | Learn more
IAM Role –	Subnet ID subnet-0e36dc61d7ee66406	Auto Scaling Group name –
IMDSv2 Required	Instance ARN arn:aws:ec2:us-east-1:637423482922:instance/i-08a63ba97ab68d450	

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Auto-assigned IP address
44.202.243.201 [Public IP]

VPC ID
vpc-0fd04e9d261bba5d2

AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations.
| Learn more

IAM Role
–

Subnet ID
subnet-0e36dc61d7ee66406

Auto Scaling Group name
–

IMDSv2
Required

Instance ARN
arn:aws:ec2:us-east-1:637423482922:instance/i-0e851edb7bdbdd32c

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance details Info

Platform
Amazon Linux (Inferred)

AMI ID
ami-0b72821e2f351e396

Monitoring
disabled

Platform details
Linux/UNIX

AMI name
al2023-ami-2023.5.20240708.0-kernel-6.1-x86_64

Termination protection
Disabled

Stop protection
Disabled

Launch time
Fri Jul 12 2024 23:28:28 GMT+0530 (India Standard Time) (1 minute)

AMI location
amazon/al2023-ami-2023.5.20240708.0-kernel-6.1-x86_64

Instance auto-recovery
Default

Lifecycle
normal

Stop-hibernate behavior
Disabled

```
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ vim var.tf

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ cat var.tf
variable "REGION" {
  default = "us-east-1"
}
variable "ZONE1" {
  default = "us-east-2a"
}
variable "AMIS" {
  type = map(any)
  default = {
    us-east-2 = "ami-03657b56516ab7912"
    us-east-1 = "ami-04a81a99f5ec58529"
  }
}

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform plan
aws_instance.exercise2: Refreshing state... [id=i-0e851edb7bdbdd32c]

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.exercise2 must be replaced
-/+ resource "aws_instance" "exercise2" {
      ~ ami                                  = "ami-0b72821e2f351e396" -> "ami-04a81a99f5ec58529" # forces replacement
      ~ arn                                  = "arn:aws:ec2:us-east-1:637423482922:instance/i-0e851edb7bdbdd32c" -> (known after apply)
      ~ associate_public_ip_address          = true -> (known after apply)
      ~ availability_zone                    = "us-east-1c" -> (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)
```

MINGW64:/d/terraform-examples/exercise2

```
    }

Plan: 1 to add, 0 to change, 1 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.

star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform apply
aws_instance.exercise2: Refreshing state... [id=i-0e851edb7bdbdd32c]

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.exercise2 must be replaced
-/+ resource "aws_instance" "exercise2" {
      ~ ami                                  = "ami-0b72821e2f351e396" -> "ami-04a81a99f5ec58529" # forces replacement
      ~ arn                                  = "arn:aws:ec2:us-east-1:637423482922:instance/i-0e851edb7bdbdd32c" -> (known after apply)
      ~ associate_public_ip_address          = true -> (known after apply)
      ~ availability_zone                    = "us-east-1c" -> (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-0e851edb7bdbdd32c" -> (known after apply)
      ~ instance_initiated_shutdown_behavior = "stop" -> (known after apply)
      + instance_lifecycle                   = (known after apply)
      ~ instance_state                       = "running" -> (known after apply)
      ~ ipv6_address_count                   = 0 -> (known after apply)
      ~ ipv6_addresses                       = [] -> (known after apply)
```

MINGW64:/d/terraform-examples/exercise2

```
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

aws_instance.exercise2: Destroying... [id=i-0e851edb7bdbdd32c]
aws_instance.exercise2: Still destroying... [id=i-0e851edb7bdbdd32c, 10s elapsed]
aws_instance.exercise2: Still destroying... [id=i-0e851edb7bdbdd32c, 20s elapsed]
aws_instance.exercise2: Still destroying... [id=i-0e851edb7bdbdd32c, 30s elapsed]
aws_instance.exercise2: Still destroying... [id=i-0e851edb7bdbdd32c, 40s elapsed]
aws_instance.exercise2: Destruction complete after 45s
aws_instance.exercise2: Creating...
aws_instance.exercise2: Still creating... [10s elapsed]
aws_instance.exercise2: Still creating... [20s elapsed]
aws_instance.exercise2: Creation complete after 26s [id=i-0bdd258658235d08a]

Apply complete! Resources: 1 added, 0 changed, 1 destroyed.

Star@Dell-I3 MINGW64 /d/terraform-examples/exercise2
$ terraform destroy
aws_instance.exercise2: Refreshing state... [id=i-0bdd258658235d08a]

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.exercise2 will be destroyed
  - resource "aws_instance" "exercise2" {
      - ami                                  = "ami-04a81a99f5ec58529" -> null
      - arn                                  = "arn:aws:ec2:us-east-1:637423482922:instance/i-0bdd258658235d08a" -> null
      - associate_public_ip_address          = true -> null
      - availability_zone                    = "us-east-1c" -> 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
```

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Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance details Info

Platform Ubuntu (Inferred)	AMI ID ami-04a81a99f5ec58529	Monitoring disabled
Platform details Linux/UNIX	AMI name ubuntu/images/hvm-ssd-gp3/ubuntu-noble-24.04-amd64-server-20240701.1	Termination protection Disabled
Stop protection Disabled	Launch time Fri Jul 12 2024 23:42:32 GMT+0530 (India Standard Time) (8 minutes)	AMI location amazon/ubuntu/images/hvm-ssd-gp3/ubuntu-noble-24.04-amd64-server-20240701.1
Instance auto-recovery Default	Lifecycle normal	Stop-hibernate behavior Disabled
AMI Launch index 0	Key pair assigned at launch key-aws	State transition reason –
Credit specification standard	Kernel ID –	State transition message –
Usage operation RunInstances	RAM disk ID –	Owner 637423482922
Enclaves Support –	Boot mode uefi-preferred	Current instance boot mode legacy-bios