\*\*Creating EC2 instance using terraform.

Instance.tf

resource "aws\_instance" "web" {

  ami           = "ami-097a2df4ac947655f"

  instance\_type = "t2.micro"

  tags = {

    Name = "first-terraform-instance"

  }

}

Provider.tf

provider "aws" {

  region     = "us-east-2"

  access\_key = "AKIAR76CX6JYAI\*\*\*\*\*\*"

  secret\_key = "RapXogQ4GEV+80WsFduT0R0UFx\*\*\*\*\*\*\*"

}

Commands

terraform fmt

terraform providers

terraform init

terraform plan

terraform apply

terraform destroy

Graphical user interface, application, Word

Description automatically generated

\*\* Creating EC2 instance with VPC, Subnet, network interface

Provider.tf

provider "aws" {

  region     = "us-east-2"

  access\_key = "AKIAR76CX\*\*\*\*\*\*\*\*"

  secret\_key = "RapXogQ4GEV+80WsFduT0R0UFx9+i6nN\*\*\*\*\*\*"

}

Instance1.tf

resource "aws\_vpc" "my\_vpc" {

  cidr\_block = "172.16.0.0/16"

  tags = {

    Name = "tf-example"

  }

}

resource "aws\_subnet" "my\_subnet" {

  vpc\_id            = aws\_vpc.my\_vpc.id

  cidr\_block        = "172.16.10.0/24"

  availability\_zone = "us-east-2a"

  tags = {

    Name = "tf-example"

  }

}

resource "aws\_network\_interface" "foo" {

  subnet\_id   = aws\_subnet.my\_subnet.id

  private\_ips = ["172.16.10.100"]

  tags = {

    Name = "primary\_network\_interface"

  }

}

resource "aws\_instance" "foo" {

  ami           = "ami-097a2df4ac947655f" # us-east-2a

  instance\_type = "t2.micro"

  network\_interface {

    network\_interface\_id = aws\_network\_interface.foo.id

    device\_index         = 0

  }

  credit\_specification {

    cpu\_credits = "unlimited"

  }

}

A screenshot of a computer

Description automatically generated

\*\* Creating VPC using terraform modules.

Modules:

VPC module:

Main.tf

resource "aws\_vpc" "main" {

  cidr\_block       = var.vpc\_cidr\_block

  instance\_tenancy = "default"

  tags = {

    Name = var.vpc\_name

  }

}

Output.tf

output "vpc" {

  value = aws\_vpc.main.cidr\_block

}

Variables.tf

variable "vpc\_cidr\_block" {

  type = string

}

variable "vpc\_name" {

  type = string

}

VPC:

Main.tf

module "aws\_vpc" {

  source     = "../modules/vpc"

  vpc\_cidr\_block = var.vpc\_cidr\_block

  vpc\_name = var.vpc\_name

}

Output.tf

output "vpc" {

  value = module.aws\_vpc

}

Provider.tf

provider "aws" {

  region = "us-east-2"

  access\_key = "AKIAR76CX6JYAIT\*\*\*\*\*"

  secret\_key = "RapXogQ4GEV+80WsFduT0R0UFx9+i6nN\*\*\*\*\*\*\*"

}