**TERRAFORM**

**Create an EC2 using GUI method and Install Terraform using the below command:**

**Install Terraform:  
  
wget -O - https://apt.releases.hashicorp.com/gpg | sudo gpg --dearmor -o /usr/share/keyrings/hashicorp-archive-keyring.gpg**

**echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb\_release -cs) main" | sudo tee /etc/apt/sources.list.d/hashicorp.list**

**sudo apt update && sudo apt install terraform**

**Link:** [**https://developer.hashicorp.com/terraform/install#linux**](https://developer.hashicorp.com/terraform/install#linux)

**Assignment 1**

**sudo nano main.tf**

provider "aws" {

region = "us-east-2"

access\_key = ""

secret\_key = ""

}

resource "aws\_instance" "**assignment-1**" {

ami = "ami-04f167a56786e4b09"

instance\_type = "t2.micro"

key\_name = ""

tags = {

Name = ""

}

}

**Terraform validate**

**Terraform plan**

**Terraform apply**

**Assignment 2:**

**Create a main.tf**

provider "aws" {

region = var.region

access\_key = var.aws\_access\_key

secret\_key = var.aws\_secret\_key

}

resource "aws\_instance" "assignment-2" {

ami = "ami-04f167a56786e4b09"

instance\_type = "t2.micro"

key\_name = ""

tags = {

Name = "assignment2-ec2-static-ip"

}

}

resource "aws\_eip" "eip" {

vpc = true

}

resource "aws\_eip\_association" "eip\_assoc" {

instance\_id = aws\_instance.assignment-2.id

allocation\_id = aws\_eip.eip.id

}

Create variable.tf

variable "aws\_access\_key" {

description = "THE AWS ACCESS KEY"

type = string

sensitive = true

}

variable "aws\_secret\_key" {

description = "THE AWS SECRET KEY"

type = string

sensitive = true

}

variable "region" {

description = "Region used in our project"

type = string

default = "us-east-2"

}

**Create terraform.tfvars**

aws\_access\_key = “”

aws\_secret\_key = “”

assignment 3:

Edit Main.tf:

provider "aws" {

alias = "Ohio"

region = var.region1

access\_key = var.aws\_access\_key

secret\_key = var.aws\_secret\_key

}

provider "aws" {

alias ="NV"

region = var.region2

access\_key = var.aws\_access\_key

secret\_key = var.aws\_secret\_key

}

resource "aws\_instance" "assignment3-ohioec2" {

provider = aws.Ohio

ami = "ami-04f167a56786e4b09"

instance\_type = "t2.micro"

key\_name = "AksithApril2025"

tags = {

Name = "hello-ohio"

}

}

resource "aws\_instance" "assignment3-virginiaec2" {

provider = aws.NV

ami = "ami-084568db4383264d4" #use ami available in virginia

instance\_type = "t2.micro"

key\_name = "AksithAprilVirginia2025" #use key pair present in virginia

tags = {

Name = "hello-virginia"

}

}

**EDIT VARIABLE.TF file for Defining Region 1 and Region 2,**

variable "aws\_access\_key" {

description = "THE AWS ACCESS KEY"

type = string

sensitive = true

}

variable "aws\_secret\_key" {

description = "THE AWS SECRET KEY"

type = string

sensitive = true

}

variable "region1" {

description = "Region used in our project"

type = string

default = "us-east-2"

}

variable "region2" {

description = "Region used in our project"

type = string

default = "us-east-1"

}

**Teraaform apply**

**Assignment 4**

provider "aws" {

region = var.region1

access\_key = var.aws\_access\_key

secret\_key = var.aws\_secret\_key

}

resource "aws\_vpc" "assignment4-vpc" {

cidr\_block = "10.0.0.0/16"

tags = {

Name = "assignemnt4-vpc"

}

}

resource "aws\_subnet" "assignment4-subnet" {

vpc\_id = aws\_vpc.assignment4-vpc.id

cidr\_block = "10.0.0.0/23"

availability\_zone = "us-east-2a"

tags = {

Name = "assignemnt4-subnet"

}

}

resource "aws\_instance" "assignment4" {

ami = "ami-04f167a56786e4b09"

instance\_type = "t2.micro"

subnet\_id = aws\_subnet.assignment4-subnet.id

key\_name = "AksithApril2025"

tags = {

Name = "assignment4-ec2"

}

}

**ASSIGNMENT 5**

**Main.tf**

provider "aws" {

region = var.region1

access\_key = var.aws\_access\_key

secret\_key = var.aws\_secret\_key

}

resource "aws\_instance" "assignment5-ec2" {

ami = "ami-04f167a56786e4b09"

instance\_type = "t2.micro"

key\_name = "AksithApril2025"

user\_data = "${file("install.sh")}"

tags = {

Name = "assignment5-ec2"

}

}

Also, create a install.sh

#!/bin/bash

sudo apt update -y

sudo apt install apache2 -y

sudo su

echo "CUSTOM HTML PAGE - Intellipaat SESSION" > /var/www/html/index.html