**4. Implementing IaC with Terraform on AWS**

b. Steps to set up a simple infrastructure (e.g., a basic EC2 instance) using Terraform

Step 1: Install Terraform

Step 2: Configure AWS Credentials

Step 3: Create a Terraform Configuration File

Step 4: Initialize Terraform

Step 5: Preview the Execution Plan

Step 6: Apply the Configuration

Step 7: Verify the Instance

Step 8: Destroy the Infrastructure

c. Write a basic Terraform configuration file (main.tf) to create an EC2 instance.

provider "aws" {

region = "us-east-1" # Change this to your preferred AWS region

}

resource "aws\_instance" "example" {

ami = "ami-0c55b159cbfafe1f0" # Replace with a valid AMI ID for your region

instance\_type = "t2.micro"

tags = {

Name = "TerraformEC2"

}

}