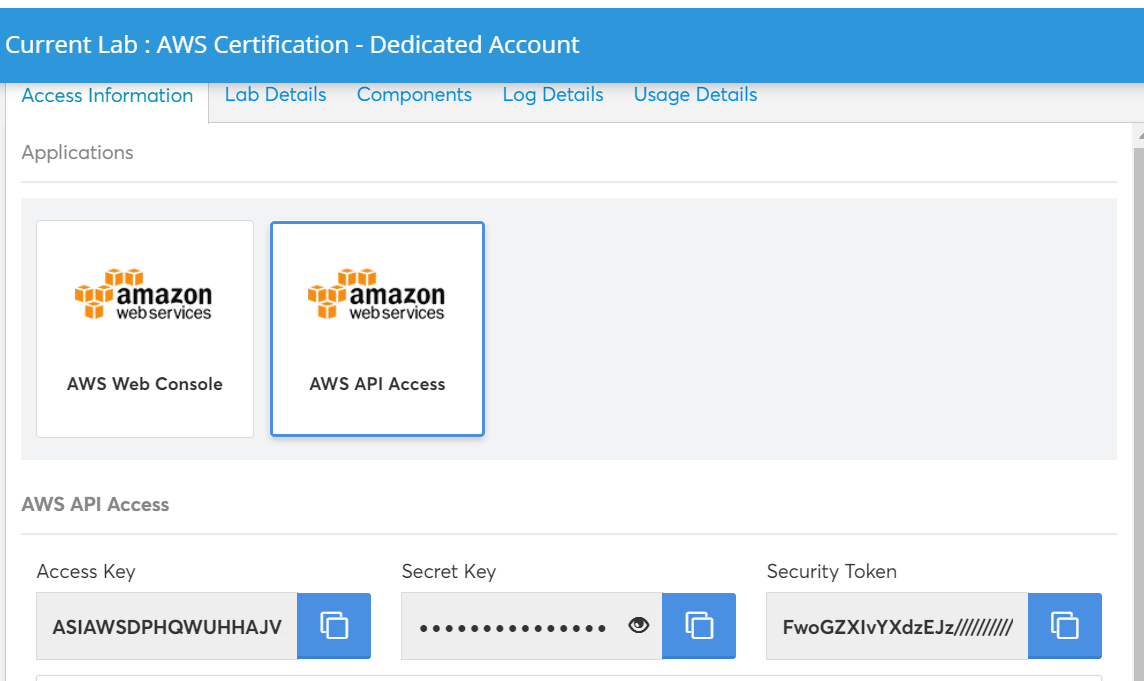
## Project : Setting up infrastructure using Terraform

1. Setup AWS account in simplilearn LMS and copy AWS\_Access\_key, secret\_key and token and same details used in terraform provider file as authentication of account. And all infra created into same account.



1. In Github repositories <https://github.com/vrushali-cloud/terraform-jenkins-project.git> Added all scripts.
2. Init.sh -files contains all installation command for Java, Jenkins and Python.

#!/bin/bash

    echo "Install Java"

    sudo apt update

    sudo apt-get install -y openjdk-11-jre

    echo " Install Jenkin server"

    curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc > /dev/null

    echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null

    sudo apt-get update

    sudo apt-get install -y jenkins

    sudo systemctl start jenkins.service

    sudo systemctl status jenkins

    echo "Install Python"

    sudo apt-get update

    sudo apt-get install  -y python3

1. Ec2.tf - file contains all Ec2 instance details

resource "aws\_security\_group" "jenkins-demo-sg" {

  name        = "jenkins-sg"

  description = "Allow TLS inbound traffic"

 ingress {

    cidr\_blocks = [

      "0.0.0.0/0"

    ]

    from\_port = 22

    to\_port = 22

    protocol = "tcp"

    #type = "ssh"

  }

  ingress {

    from\_port   = 80

    to\_port     = 80

    protocol    = "tcp"

    #type = "http"

    cidr\_blocks = ["0.0.0.0/0"]

  }

  ingress {

    from\_port   = 443

    to\_port     = 443

    protocol    = "tcp"

    #type = "https"

    cidr\_blocks = ["0.0.0.0/0"]

  }

// Terraform removes the default rule

  egress {

   from\_port = 0

   to\_port = 0

   protocol = "-1"

   cidr\_blocks = ["0.0.0.0/0"]

 }

}

resource "aws\_instance" "jenkins-ec2-project" {

 instance\_type = "t2.micro"

ami = "ami-0f34c5ae932e6f0e4"

  vpc\_security\_group\_ids = [aws\_security\_group.jenkins-demo-sg.name]

  user\_data = "${file("init.sh")}"

  tags = {

    Name = "jenkins-project"

  }

}

1. Provider.tf contains details of provider. Here I have used AWS as provider

provider "aws" {

  access\_key = "ASIAWSDPHQWUDDRNZVEU"

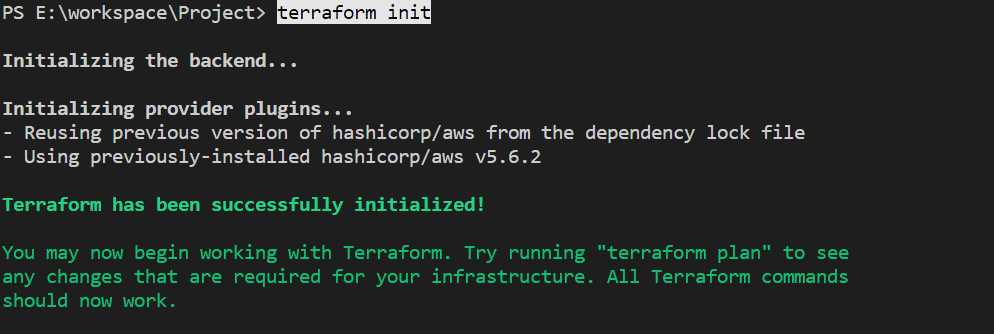
  secret\_key = "MUlP7dznnwT5OVMHqweHIJKWLdNflBsrLEFSGmZt"

  token= "FwoGZXIvYXdzEIP//////////wEaDH6uLX0AXWblSfrI5yK7AU12C88XBFT8zOxjdo+A6bH1lkf7WXXlsm90WT4S/GxTwx4vNTlT7c9/0TjcrTbncM4ApMJNP8knwvCaUD5zOhK80eFIcX4JDZZjrPiwWv0SLr2mloCwDYq+Y+QP/F/6X1J5piWv7LZONNYmd3C1pGSRwUnwK+pxJVG4E1gjlQUufVW0RyVZ+ZFx/bevF8jGOWlCiA7xNAb4qbRPdYJXV6QFgMeJ9QjXBvPVIEdWTnwogelmDMJXE0YZDFQorsevpgYyLT09d2Qc0ln7B/cJxd5JWRgAlZuZtjjIvmP5MW/XkM8T+MoVakla/ZGyy4ya3Q=="

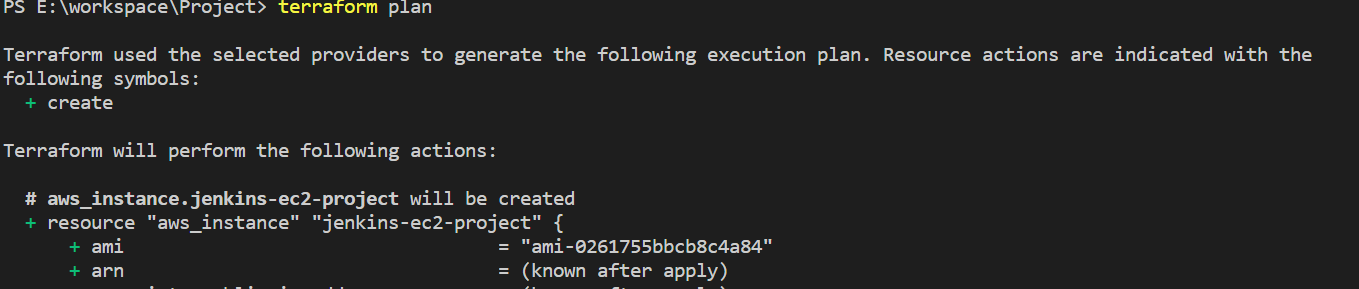
  region = "us-east-1"

}

1. To Provision infra using terraform excuted below commands
2. Terraform init :



1. Terraform plan:



1. Terraform apply:
2. 