**School of Computer Science**

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**DEHRADUN, UTTARAKHAND**



**Subject Name**

**Lab File**

**(2023-2024)**

**for**

**5th Semester**

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Lab Exercise 3–Provisioning an EC2 Instance on AWS

# Prerequisites: Terraform Installed: Make sure you have Terraform installed on your machine. Follow the official installation guide if needed.

AWS Credentials: Ensure you have AWS credentials (Access Key ID and Secret Access Key) configured. You can set them up using the AWS CLI or by setting environment variables.

# Exercise Steps:

# Step 1: Create Terraform Configuration File (main.tf):

Create a file named main.tf with the following content:

provider "aws" {

    region = "ap-south-1"

    access\_key = "AKIA5FTY77WSOV32MOCB"

    secret\_key = "dKo7OOhy1ZjL+HP/jYGoq/cMo8/1TVOLNogSGpAu"

}

terraform {

required\_providers {

aws = {

source = "hashicorp/aws"

version = "5.31.0"

}

}

}

This script defines an AWS provider and provisions an EC2 instance.

# Step 2: Initialize Terraform:

Run the following command to initialize your Terraform working directory:

**terraform init**

# Step 3:Create Terraform Configuration File for EC2 instance (instance.tf):

Create a file named instnace.tf with the following content:

resource "aws\_instance" "My-Instnace" {

    instance\_type = "t2.micro"

    ami = "ami-03f4878755434977f"

    count= 1

    tags = {

      Name = "My-UPES-Instance"

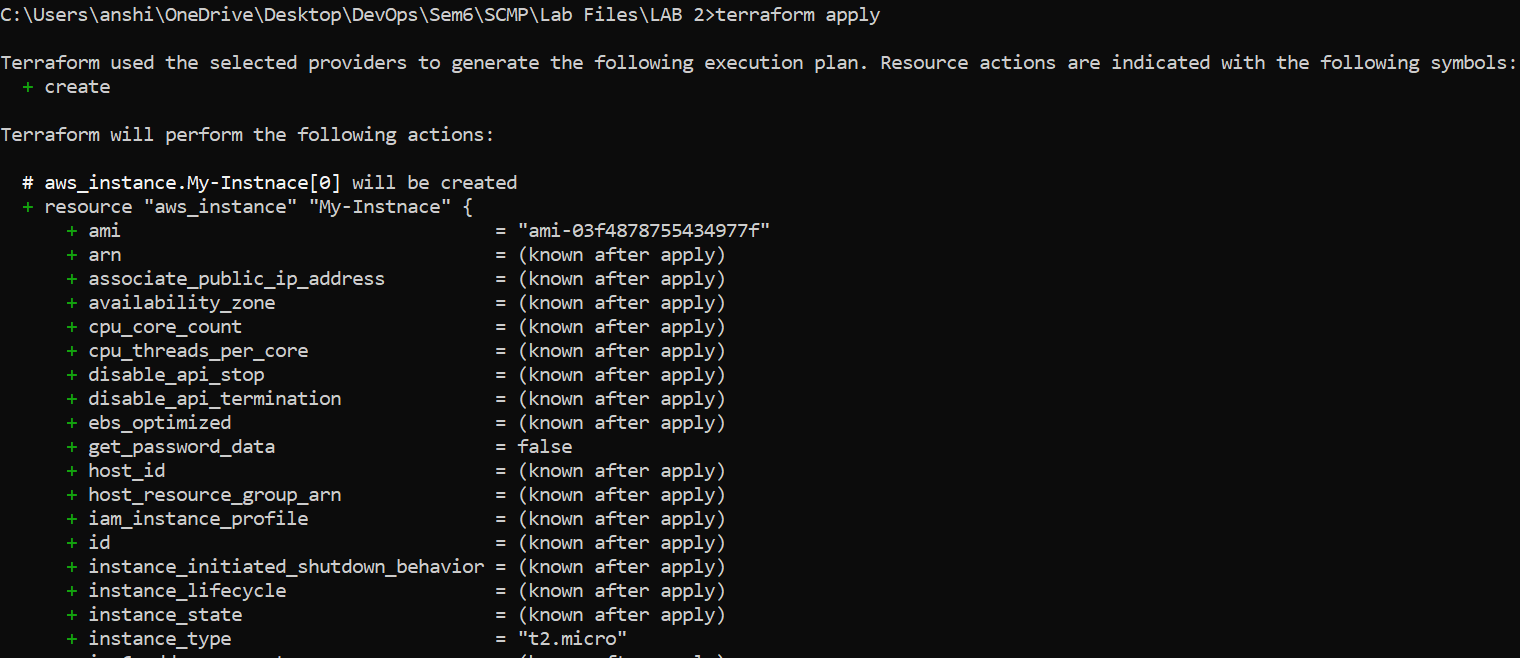
    }

}

# Step 4: Review Plan:

Run the following command to see what Terraform will do:

**terraform plan**

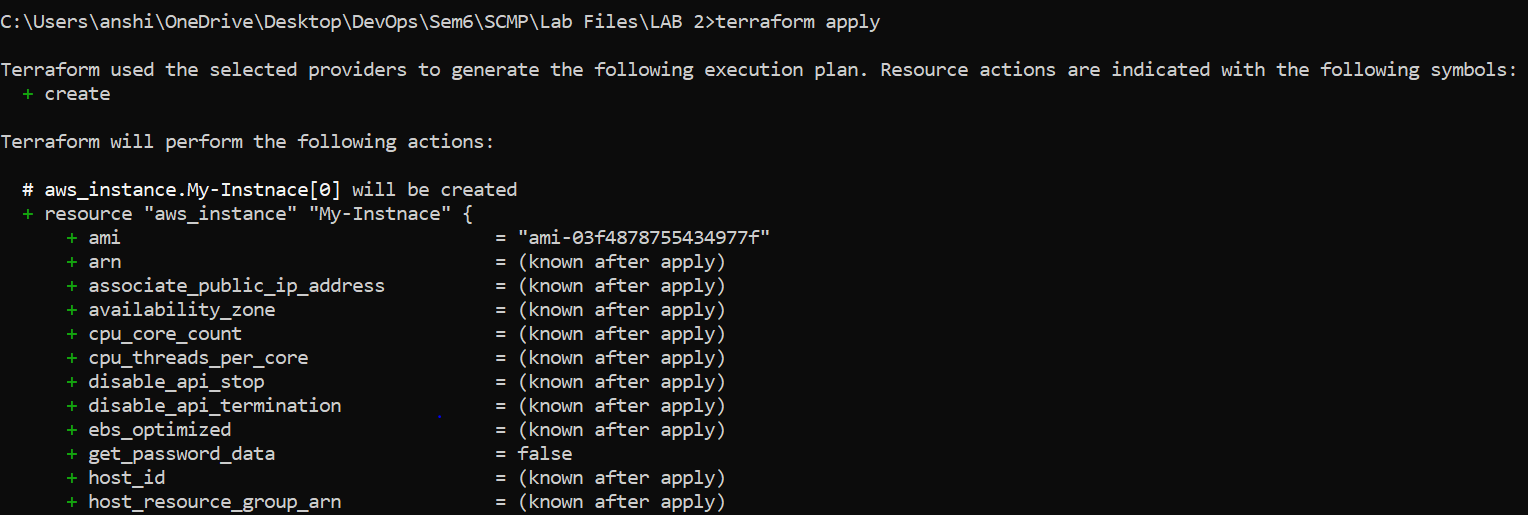


Review the plan to ensure it aligns with your expectations.

# Step 5: Apply Changes:

Apply the changes to create the AWS resources:

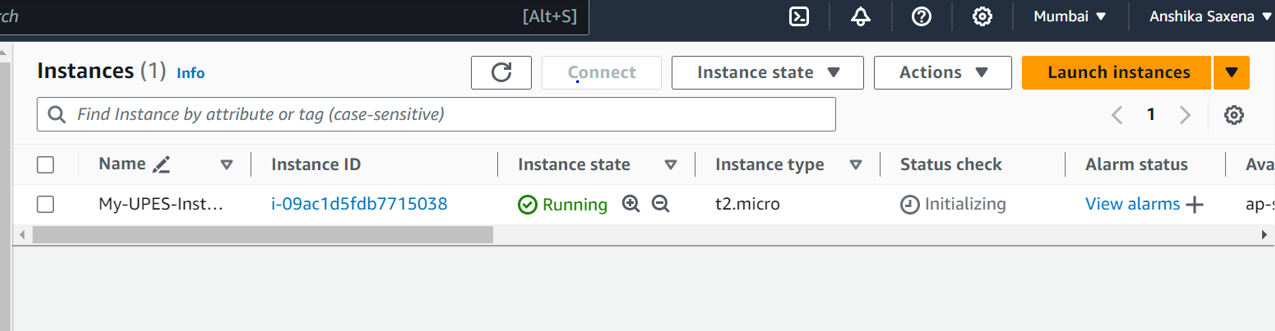
**terraform apply**



Type yes when prompted.

A computer screen shot of a program

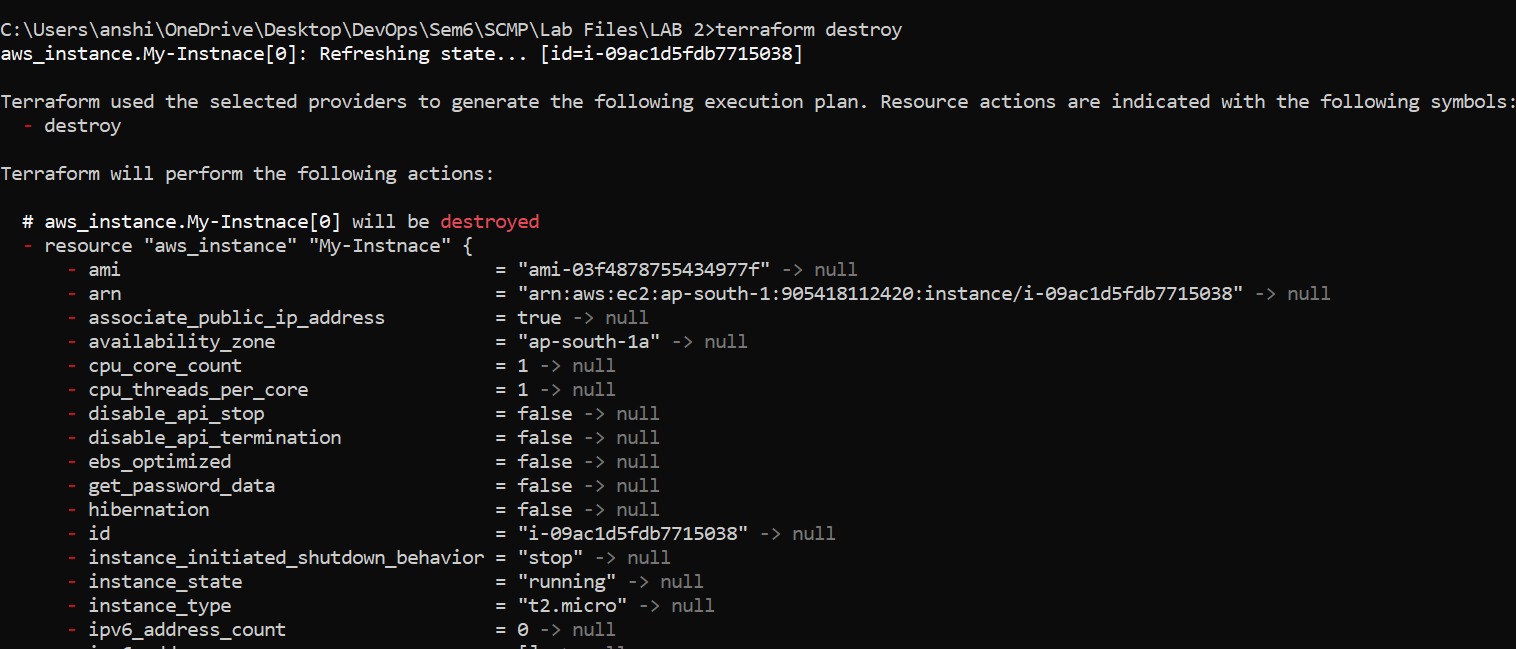
Description automatically generated



# Step 6: Cleanup Resources:

When you are done experimenting, run the following command to destroy the created resources:

**terraform destroy**



Type yes when prompted.

A screen shot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated