**School of Computer Science**

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES DEHRADUN, UTTARAKHAND**



System Provisioning And Configuration Management

Lab File (2022-2023)

for  
6th Semester

**SUBMITTED TO SUBMITTED BY**

DR. HITESH KUMAR SHARMA PRIYANSHI TYAGI

B.TECH CSE – 6th SEM

DEVOPS - BATCH 1

500091994

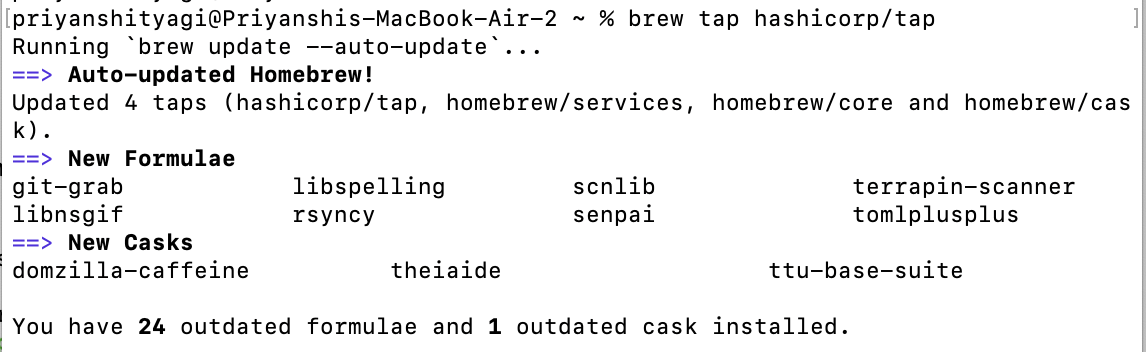
**Lab Exercise 1– Install Terraform on Windows**

Installing Terraform on Windows requires you to download the correct Terraform package, unpack,

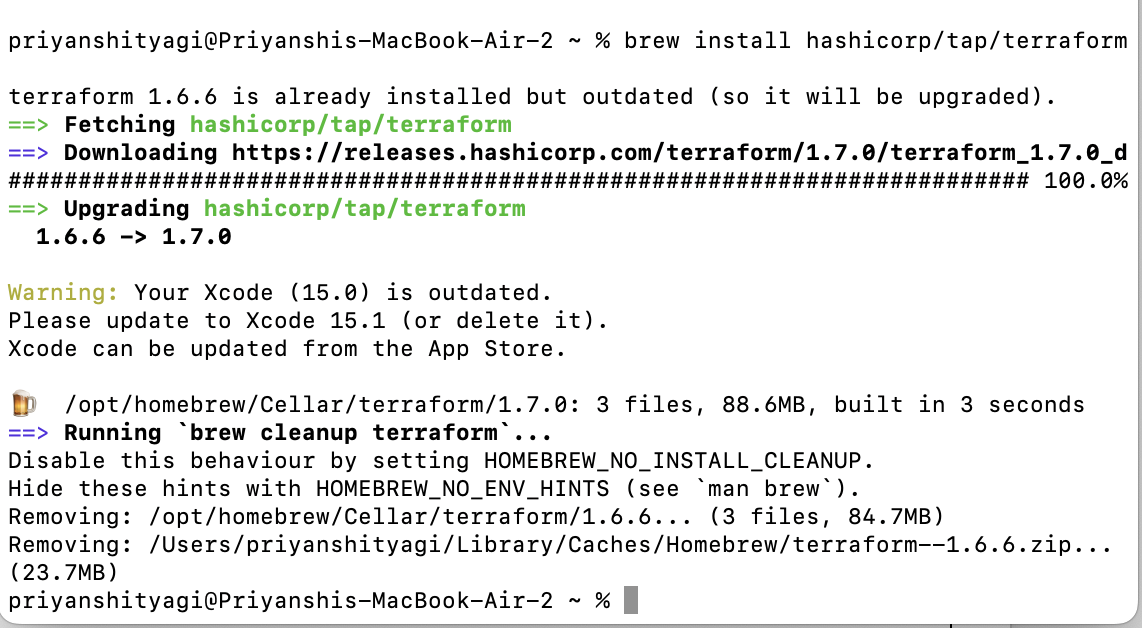
and execute it via the CLI.

1. Installing Terraform for Mac Via Brew

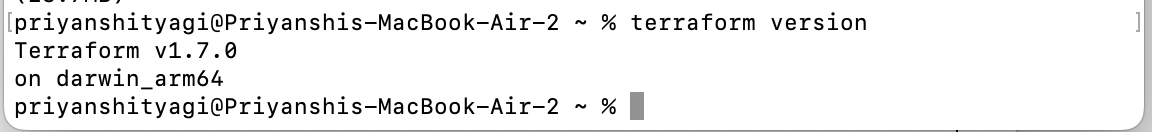
* Command 1 – brew tap hashicrop/tap



* Command 2 – brew install hashicrop/tap/terraform



1. Checking for version



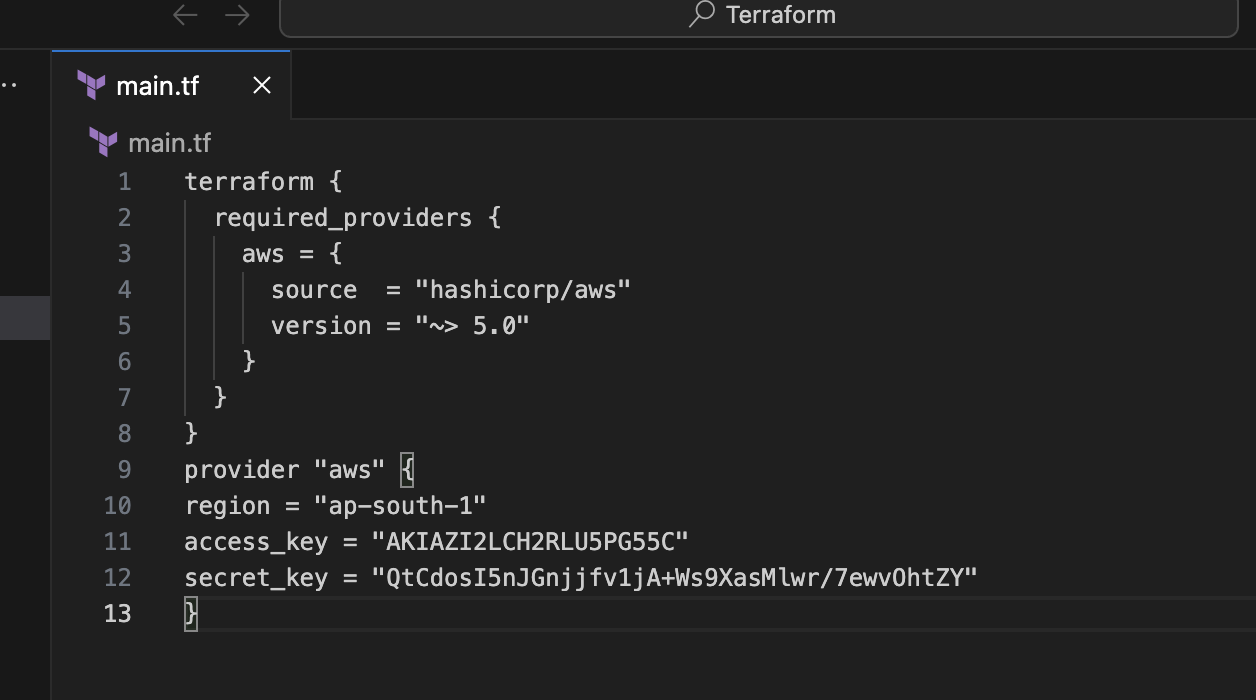
**Lab Exercise 2– Terraform AWS Provider and**

**IAM User Setting**

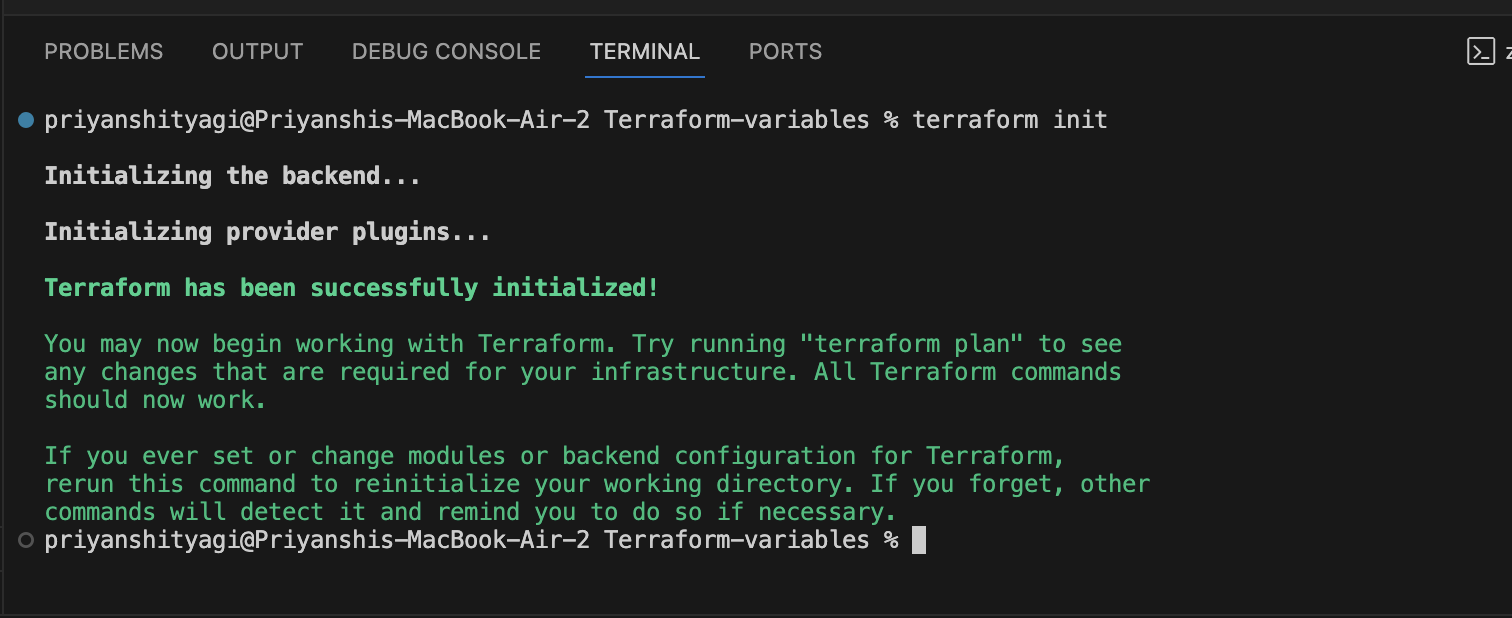
**Step 1: Create a New Directory:**

****

**Step 2: Create Terraform Configuration File (main.tf):**

****

**Step 3: Initialize Terraform:**

****

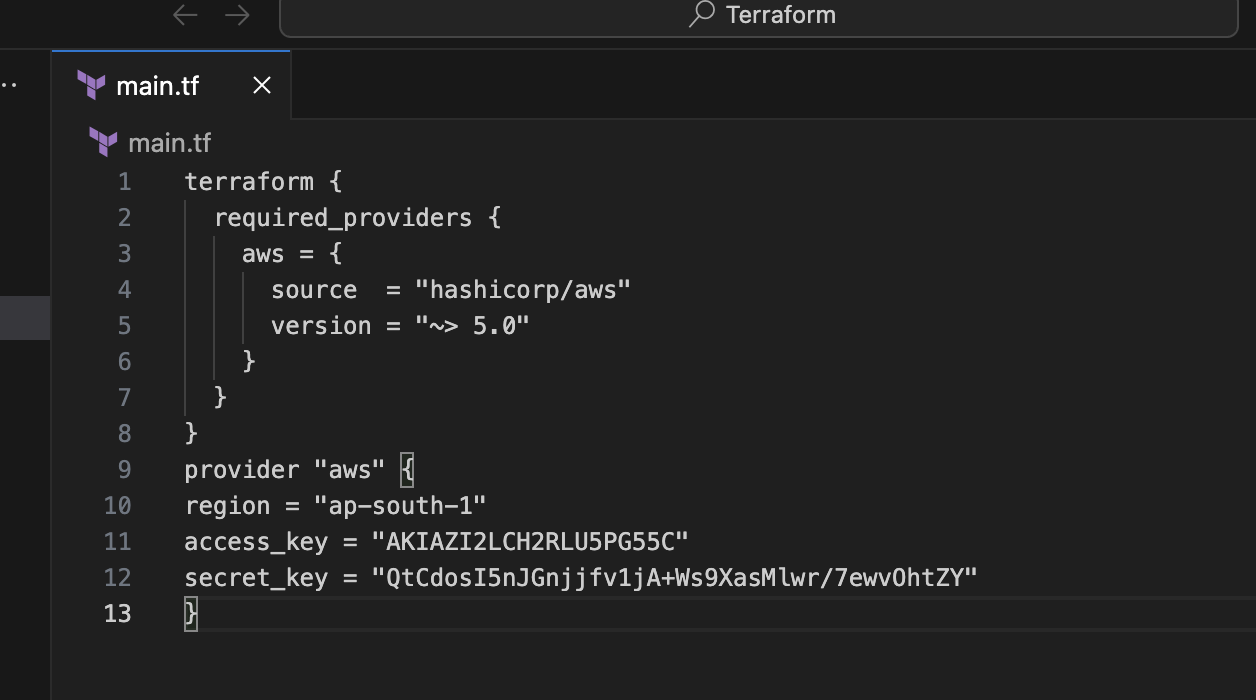
**Lab Exercise 3–Provisioning an EC2 Instance on**

**AWS**

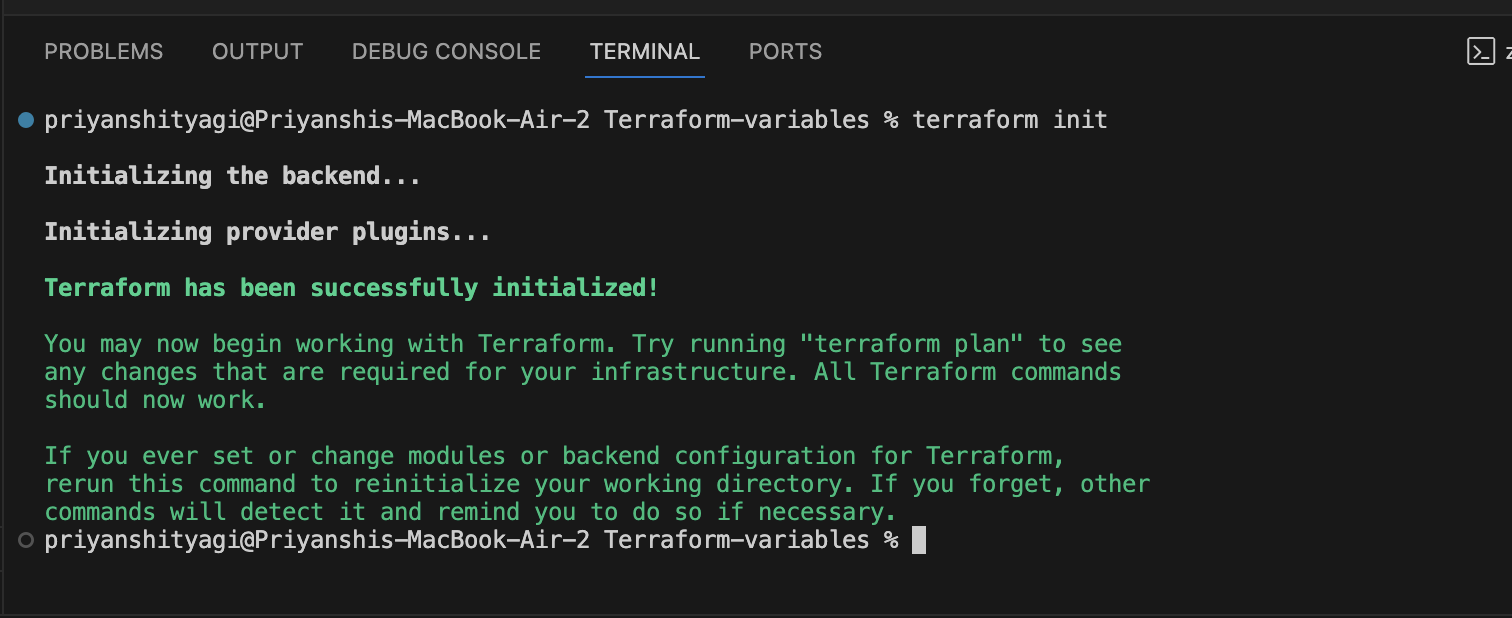
**Step 1: Create a New Directory:**

****

**Step 2: Create Terraform Configuration File (main.tf):**

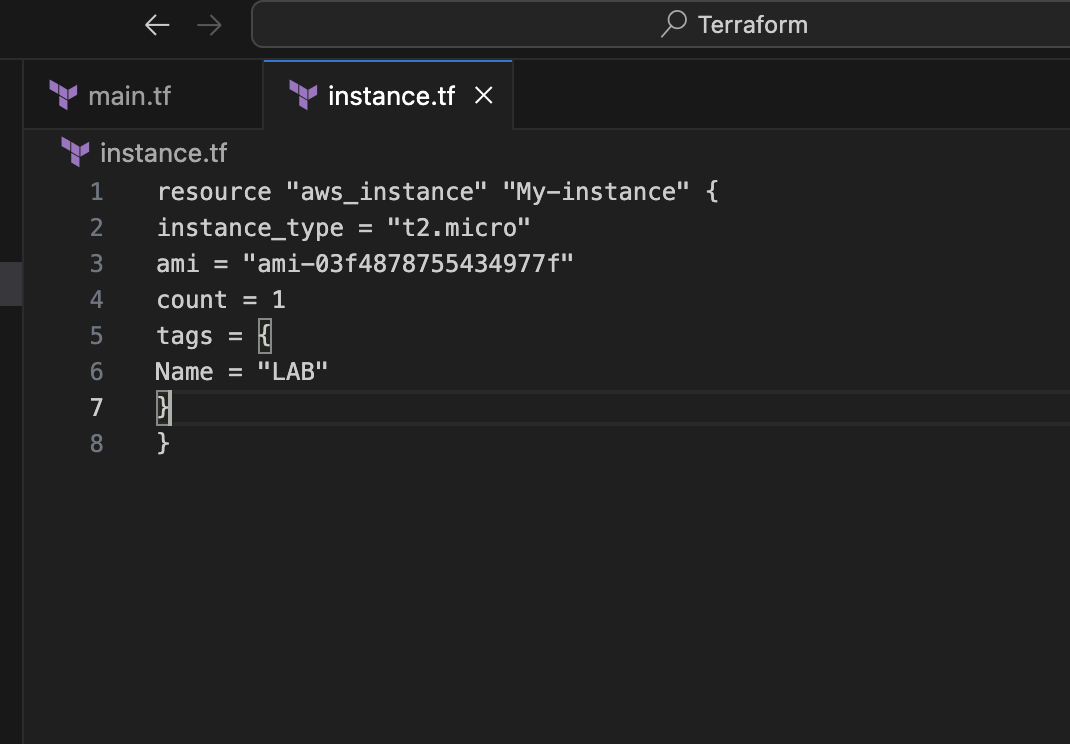
****

**Step 3: Initialize Terraform:**

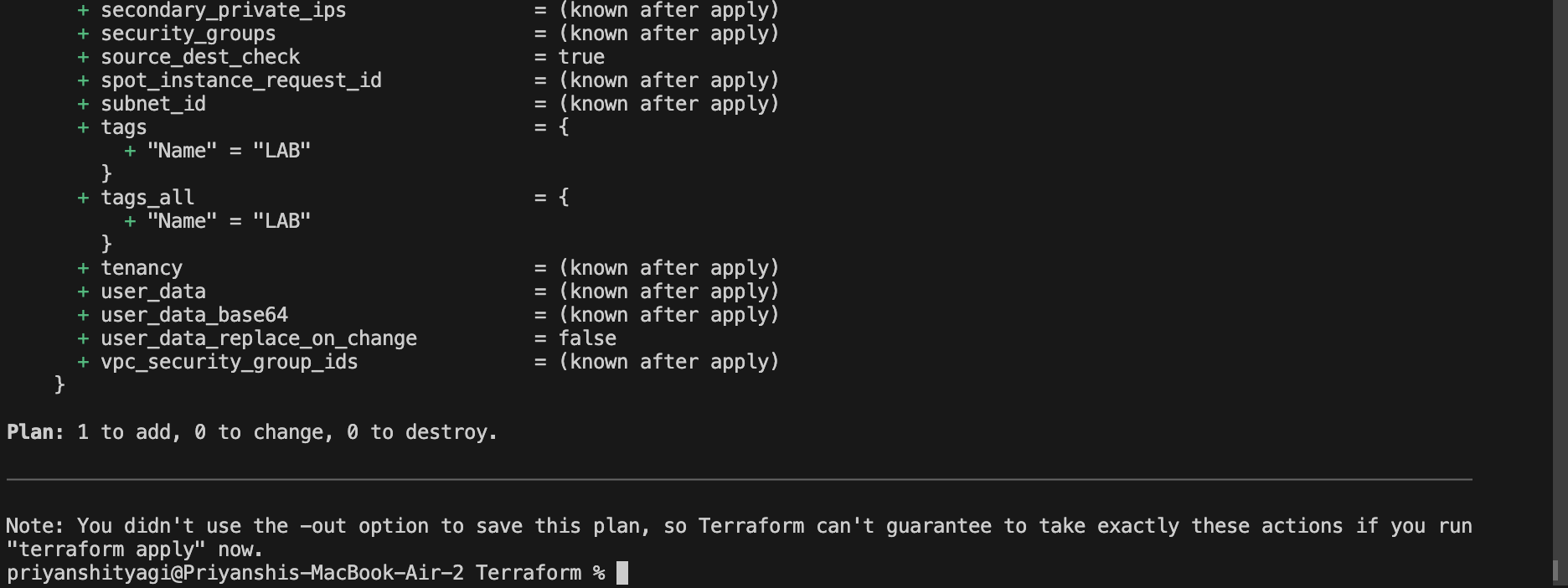
****

**Step 4: Create Terraform Configuration File for EC2 instance**

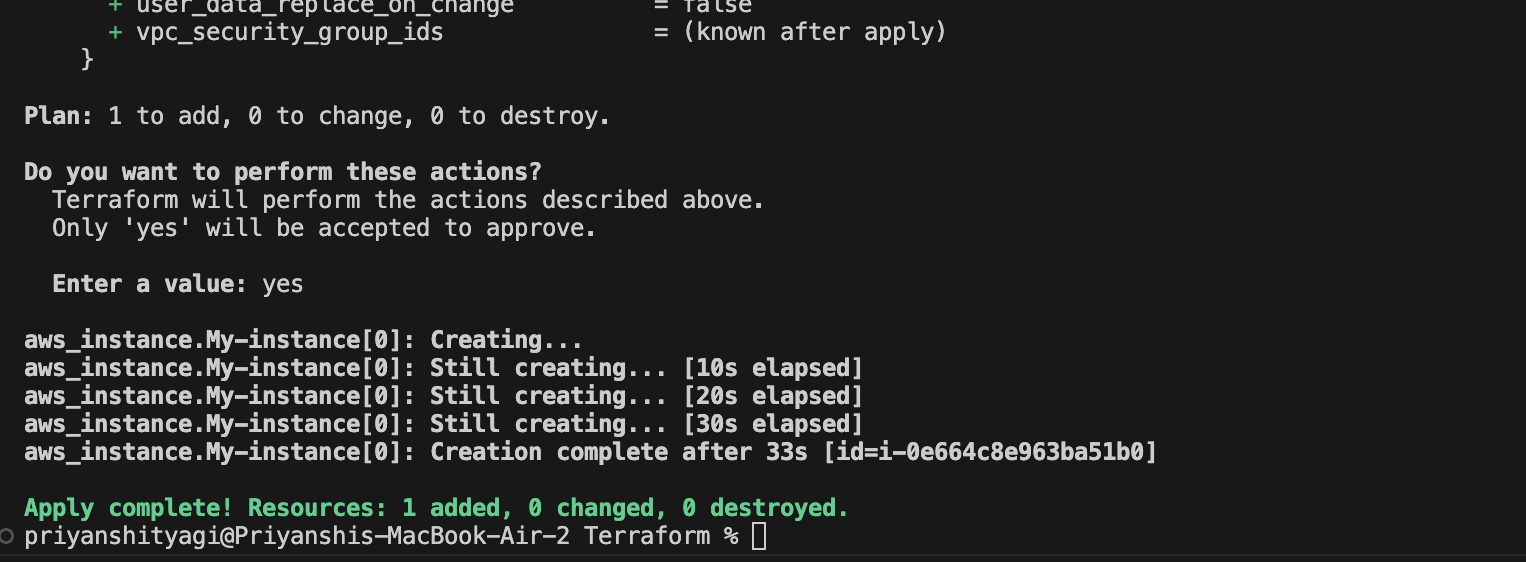
**(instance.tf):**

****

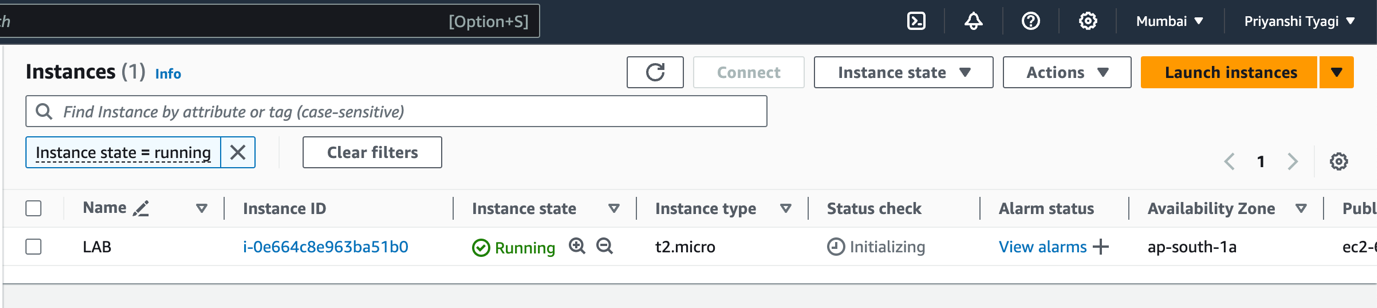
**Step 5: Review Plan:**

****

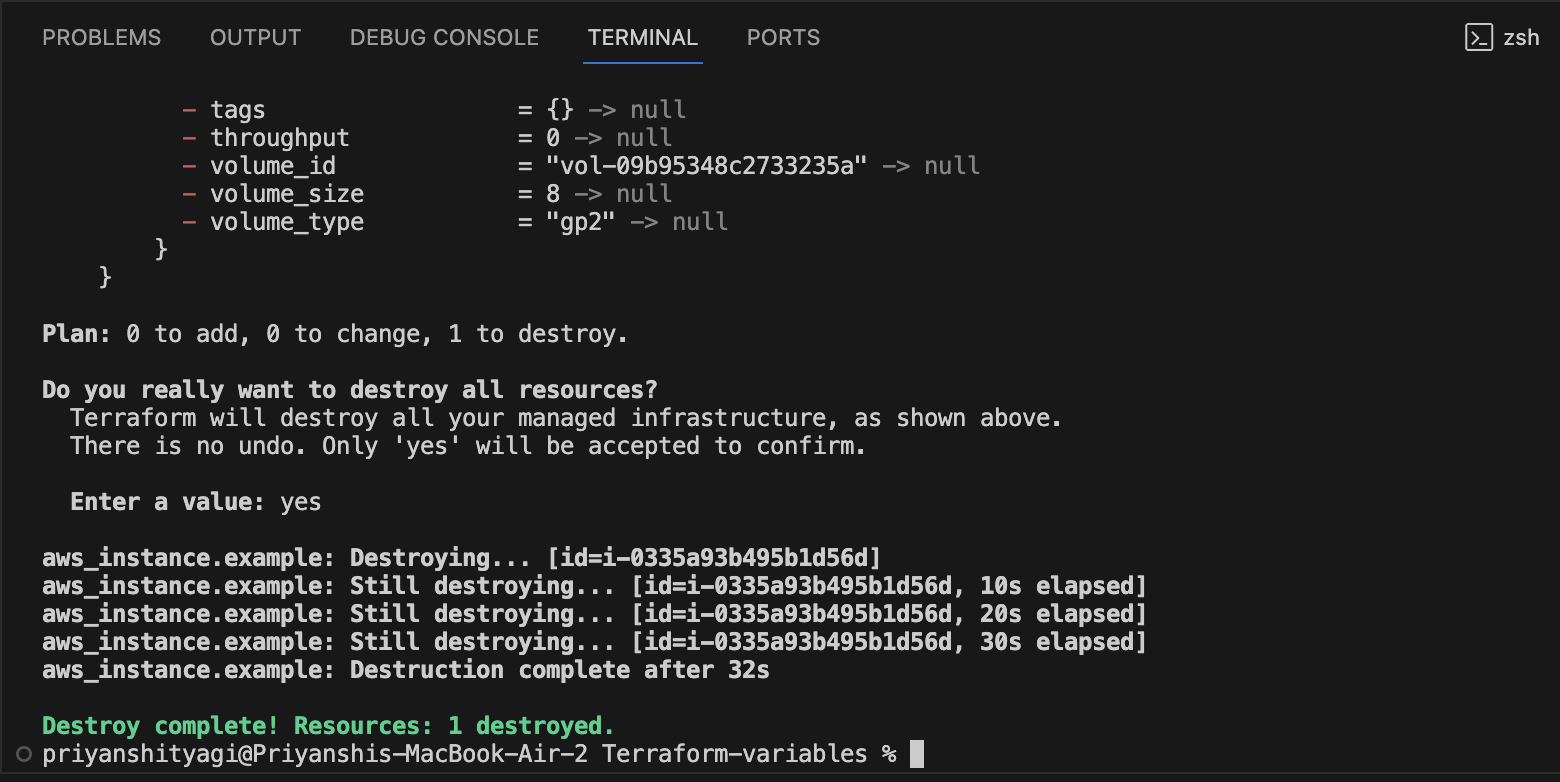
**Step 6: Apply Changes:**

****

**Step 7: Verify Resources:**

****

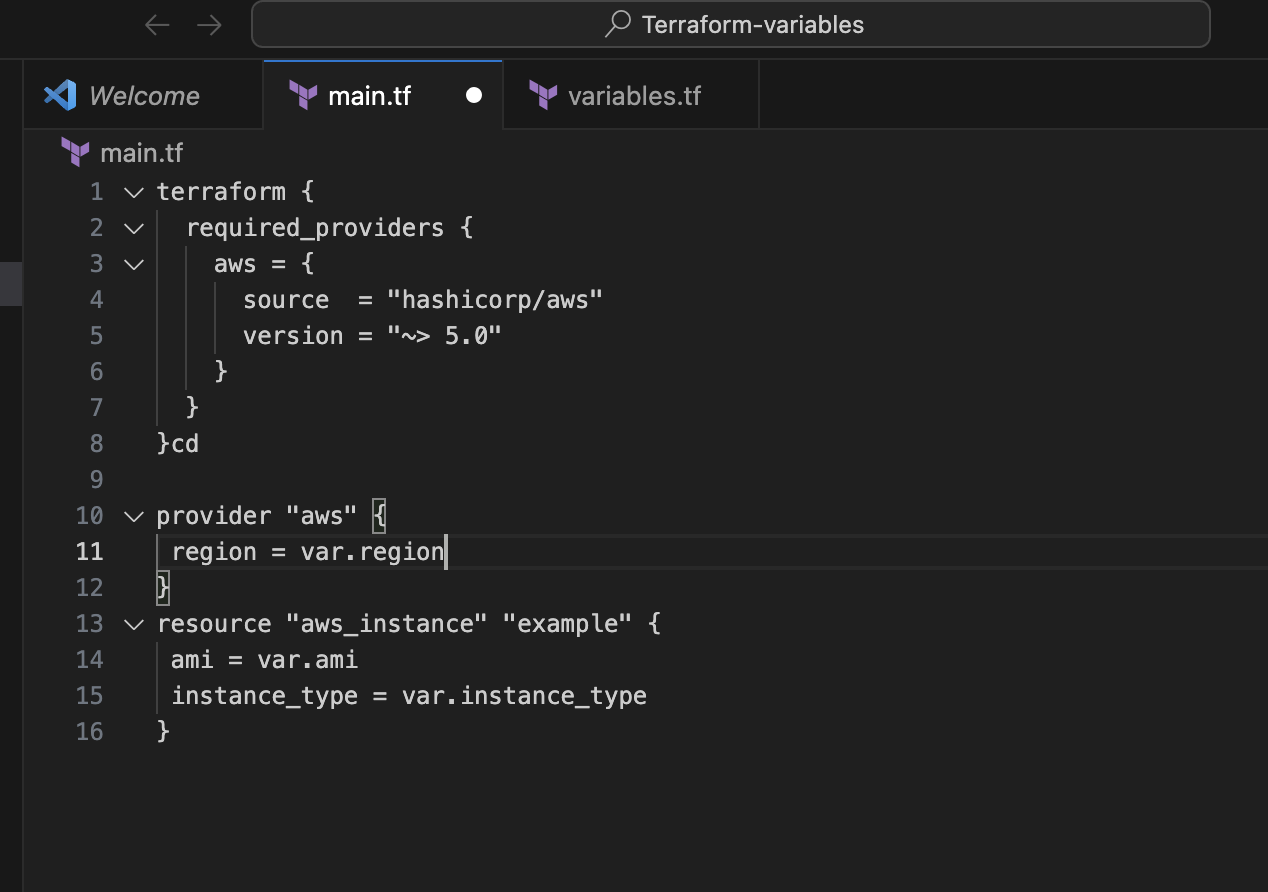
**Step 8: Cleanup Resources:**



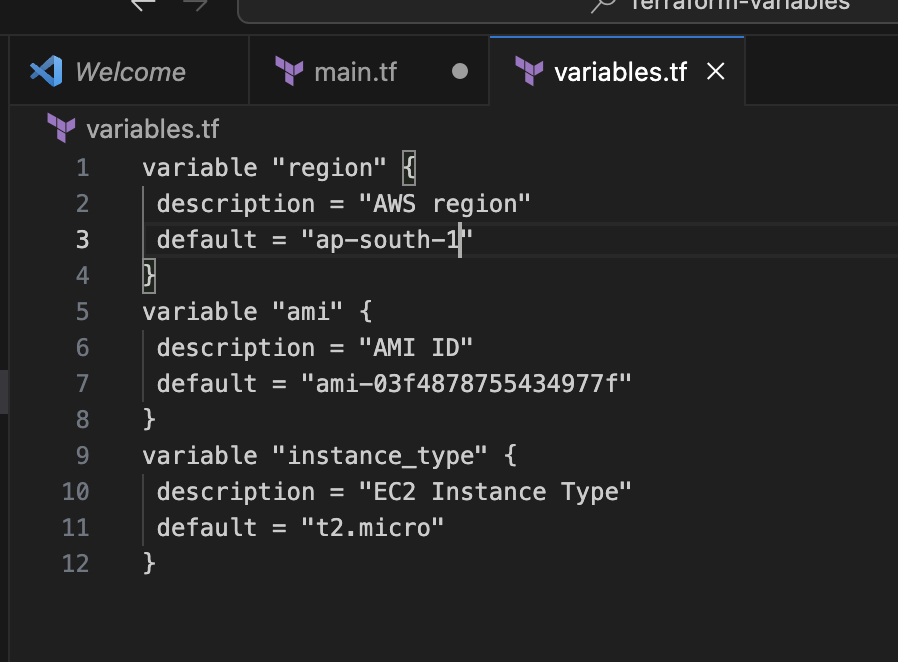
**Lab Exercise 4– Terraform Variables**

**1. Create a Terraform Directory:**

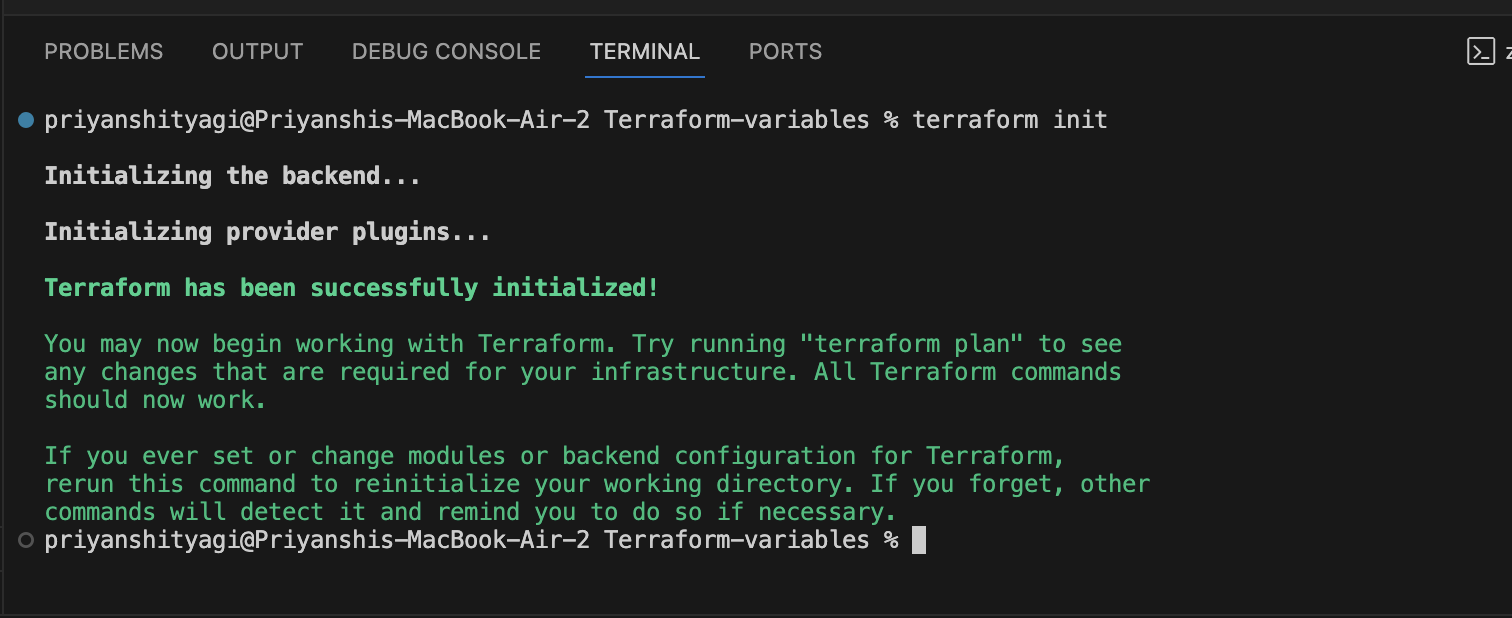
****

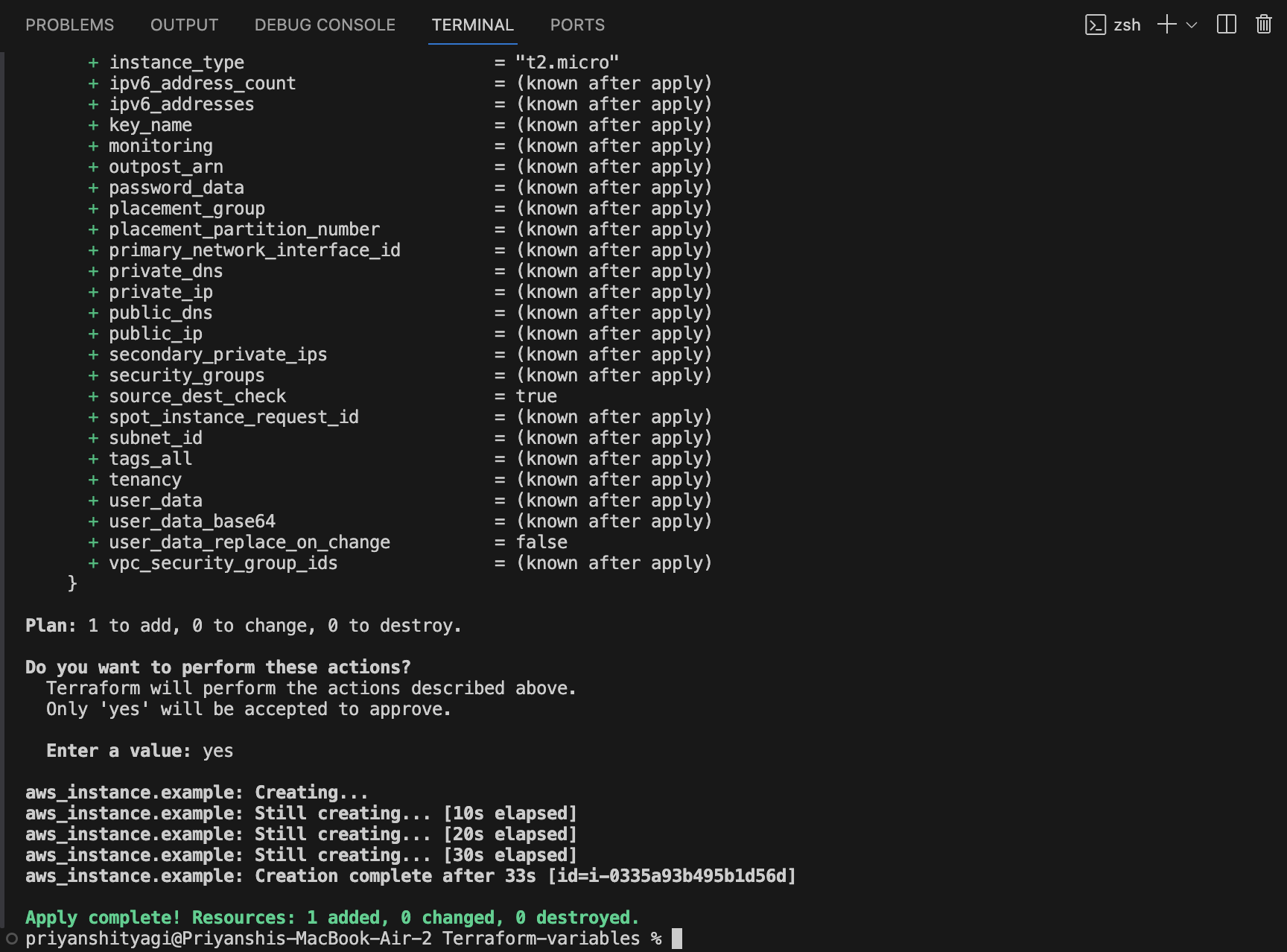
**2. Create a Terraform Configuration File: **

**3. Define Variables:**

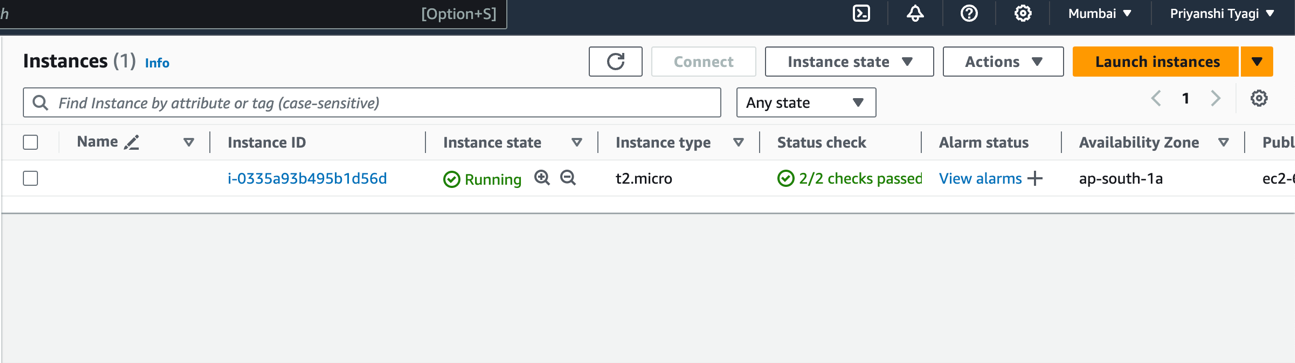
****

**4. Initialize and Apply:**

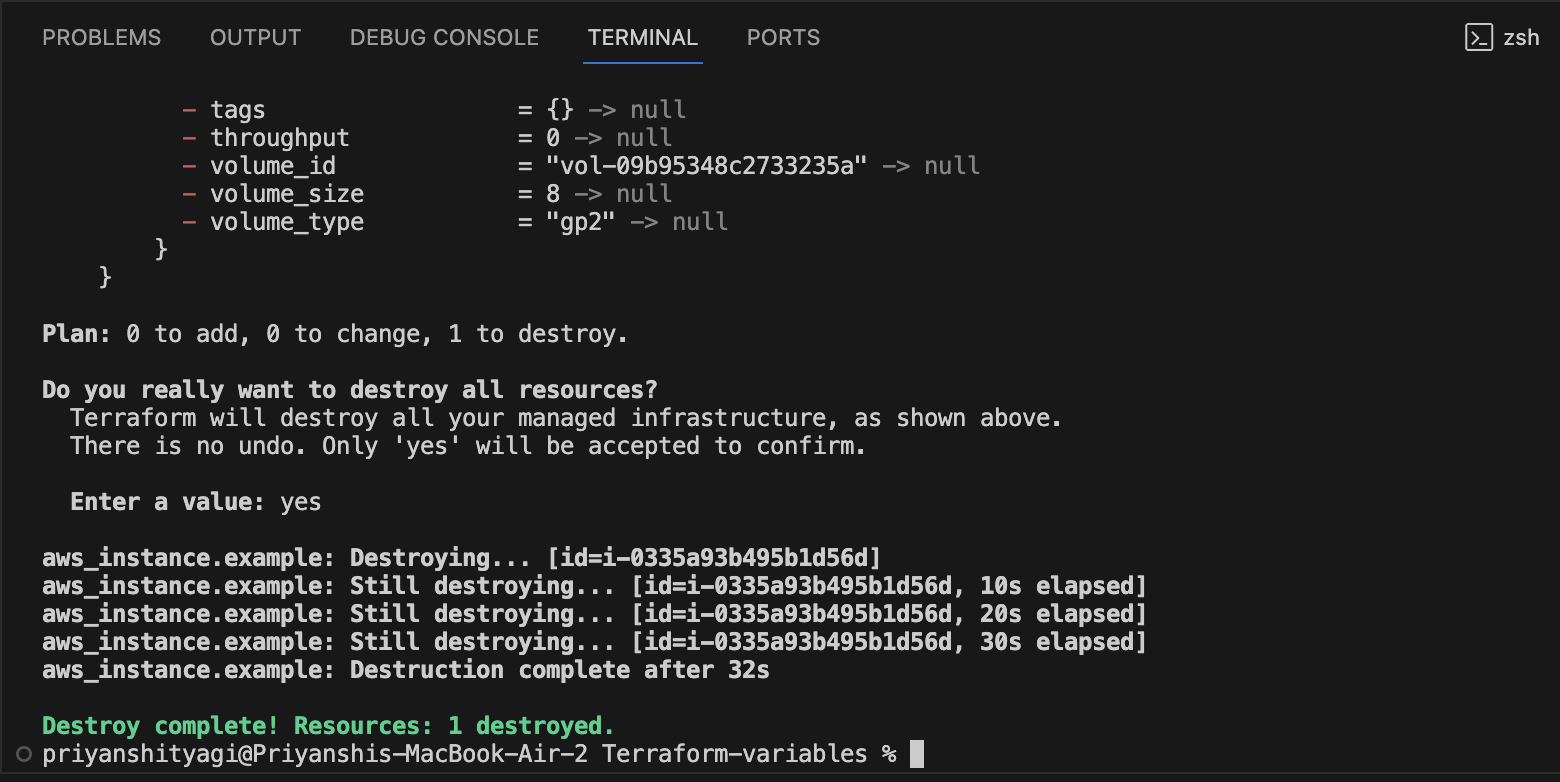
****

****

**5. Verify**



**6. Clean Up:**

****

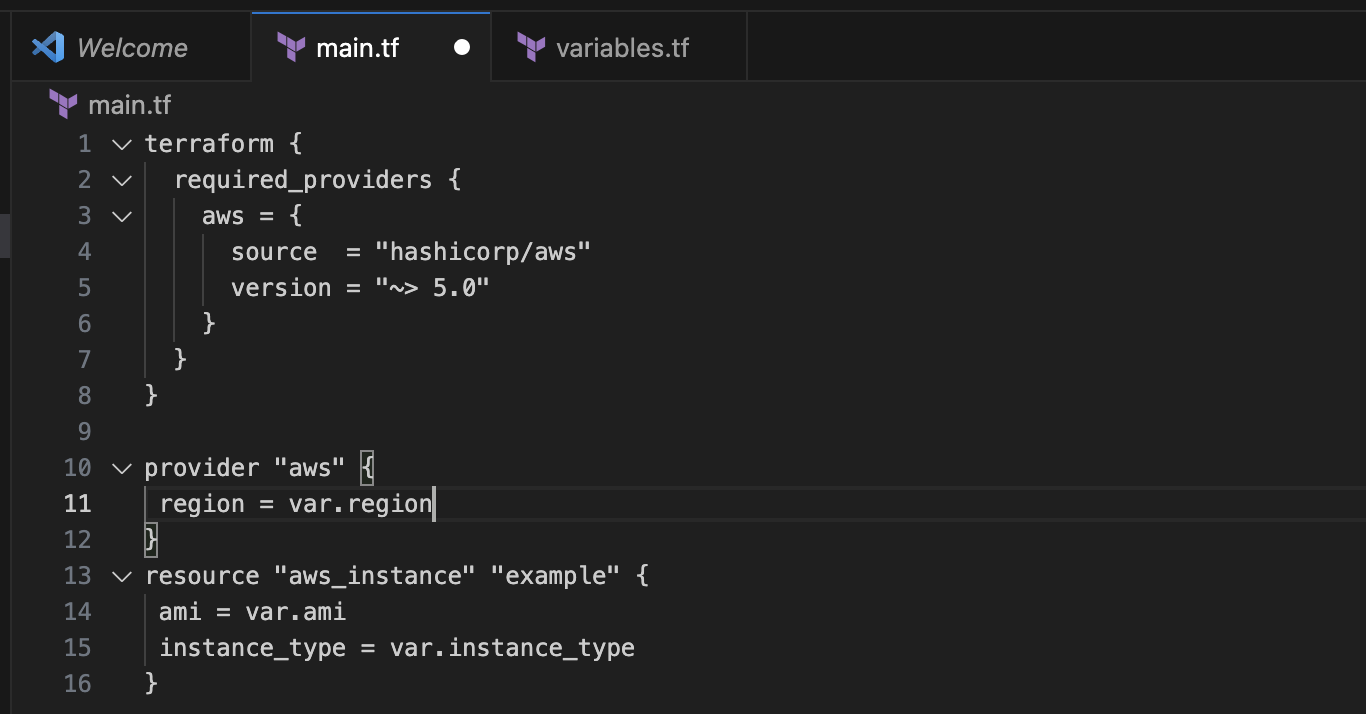
**Lab Exercise 5– Terraform Variables with Command**

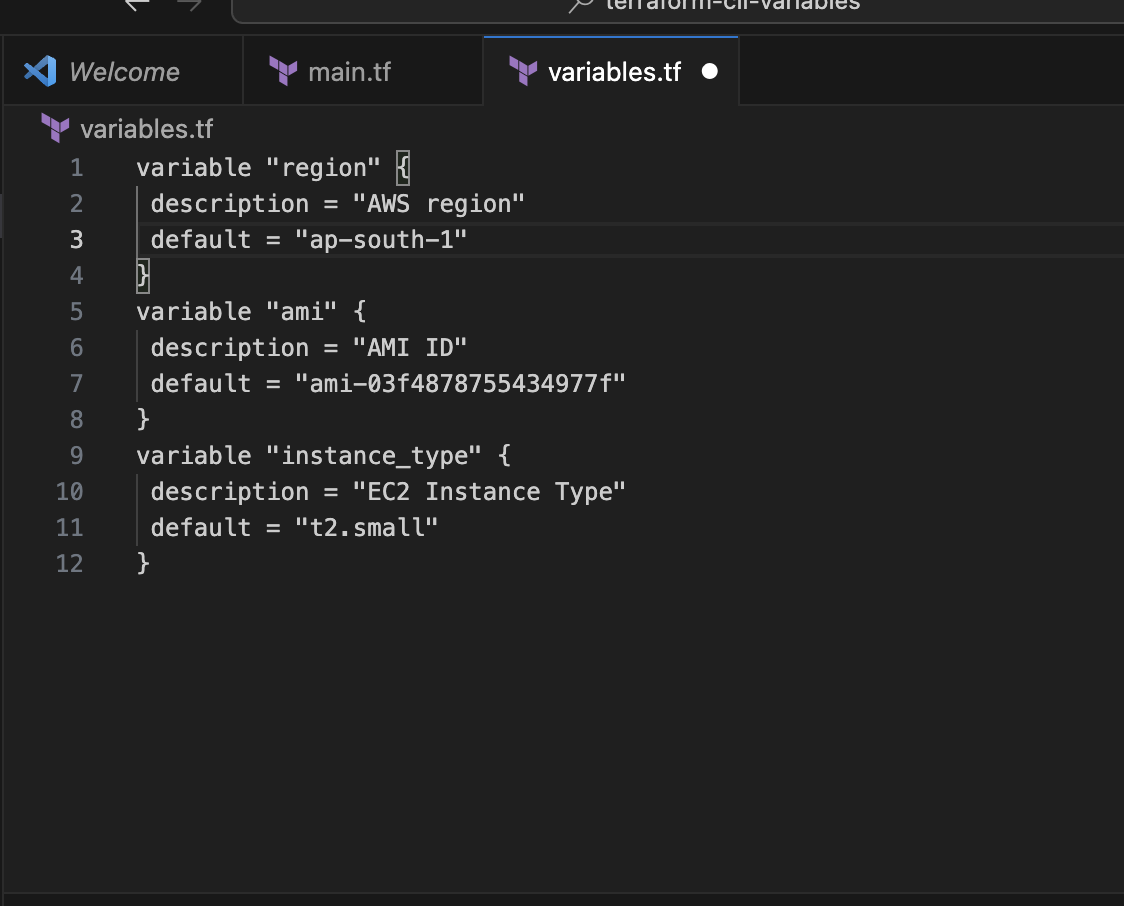
**Line Arguments**

**1. Create a Terraform Directory:**

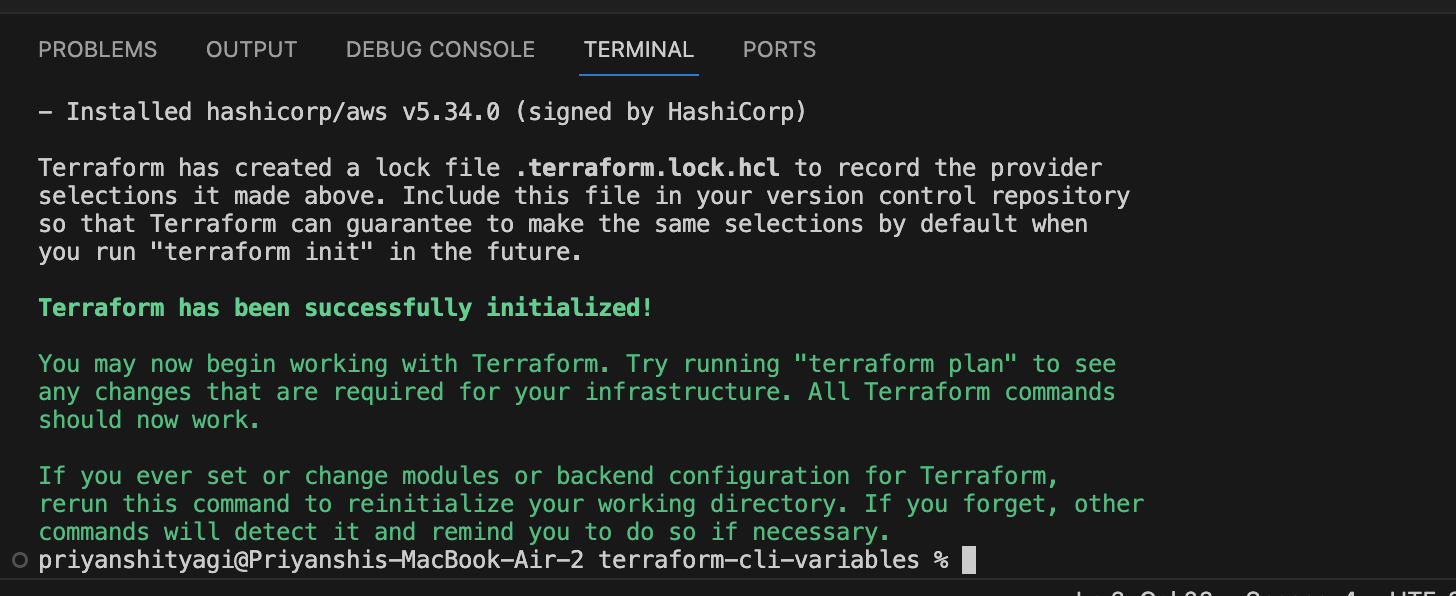
****

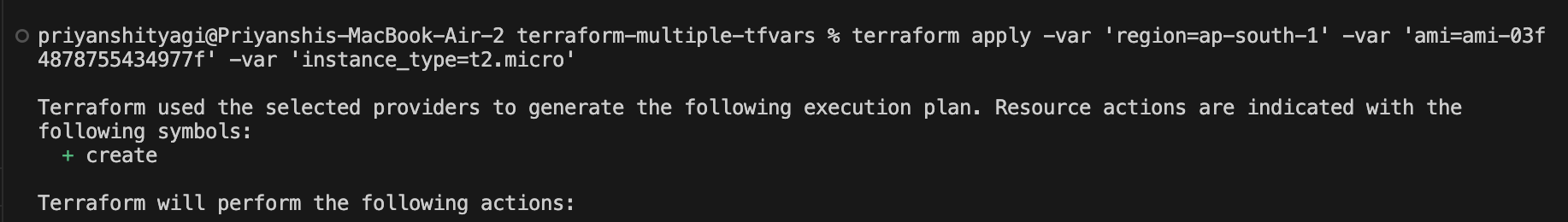
**2. Create Terraform Configuration Files:**

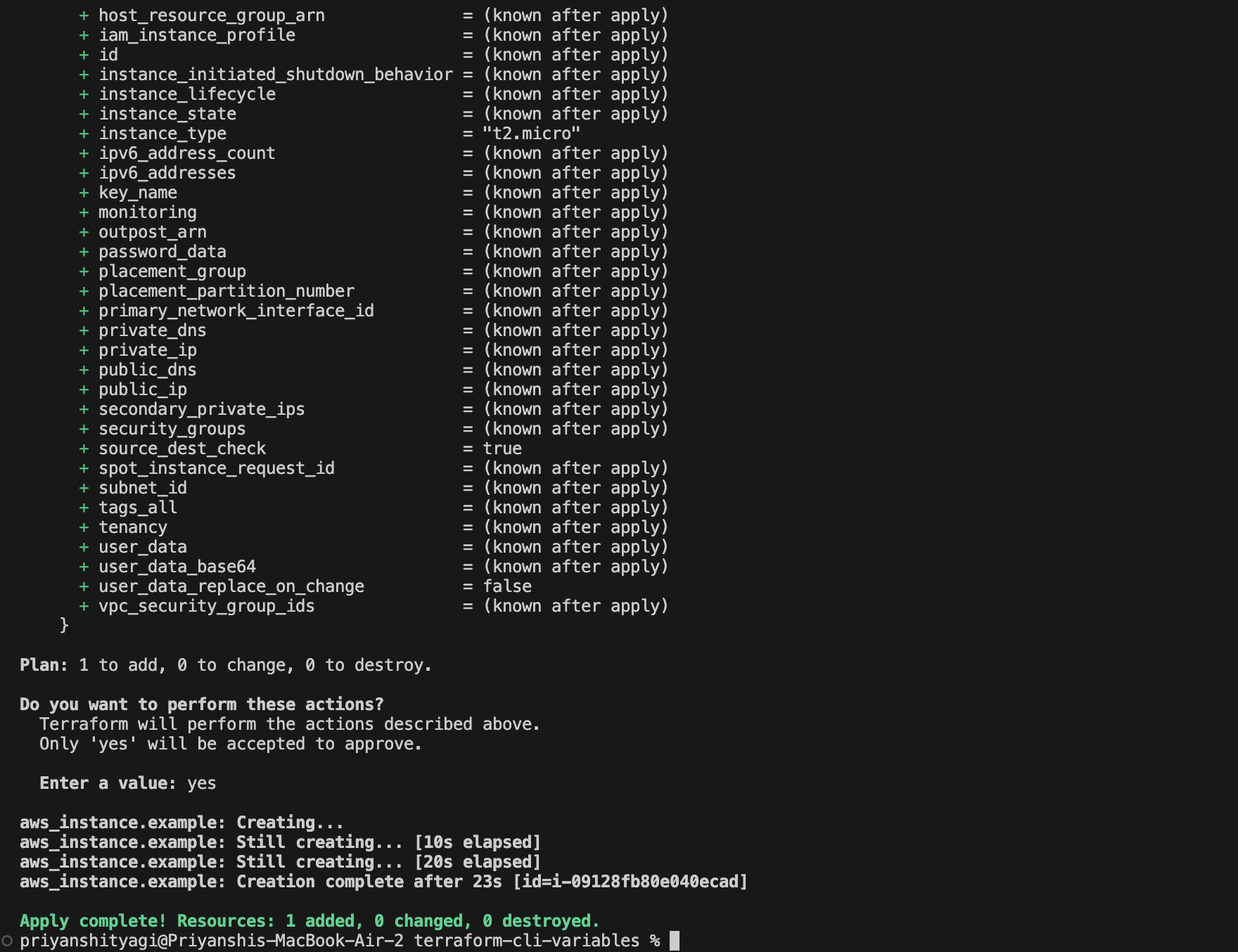
****

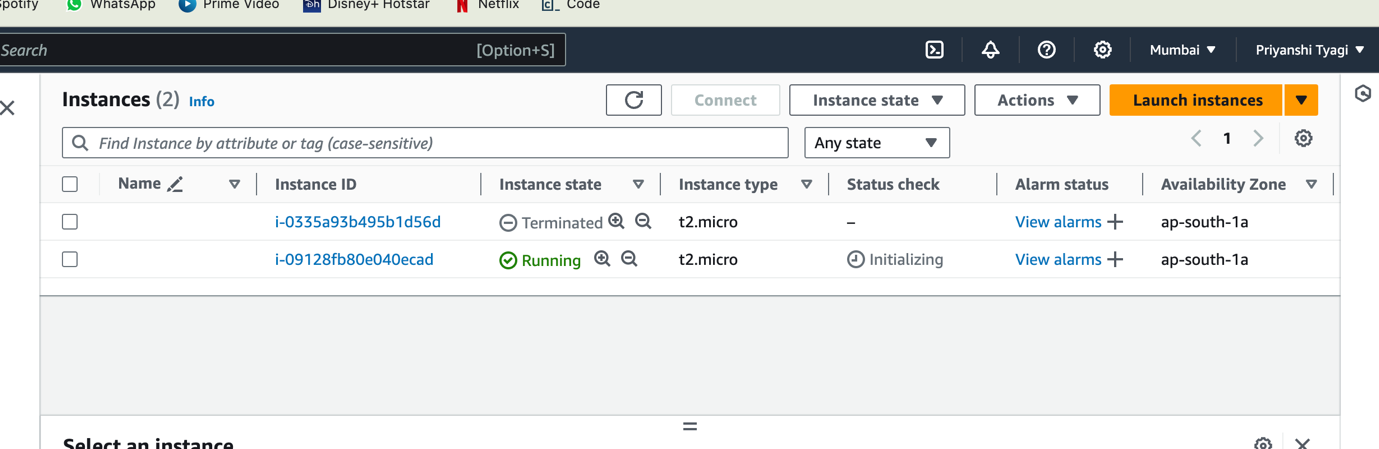
****

**3. Use Command Line Arguments:**

****

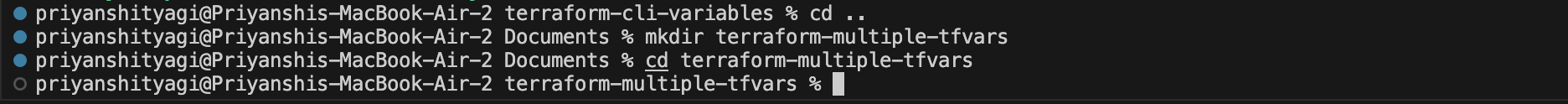
****

****

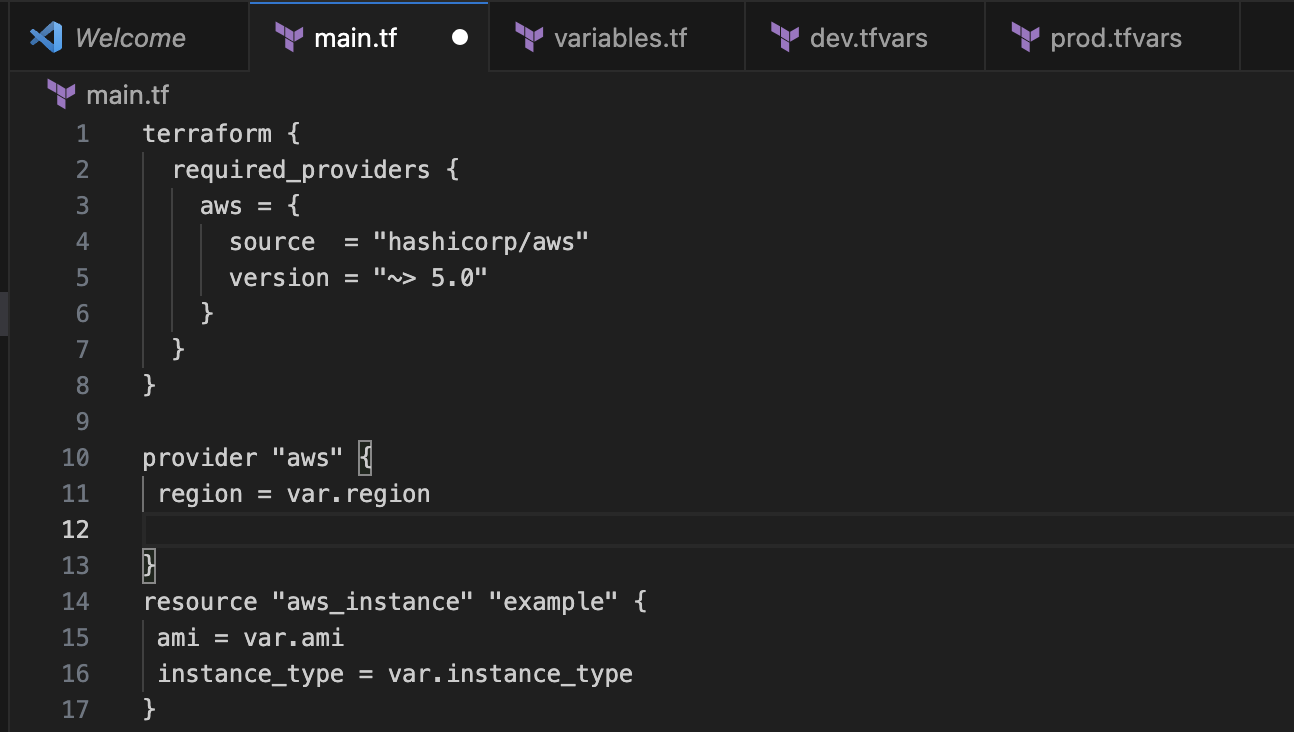
**4. Test and Verify: **

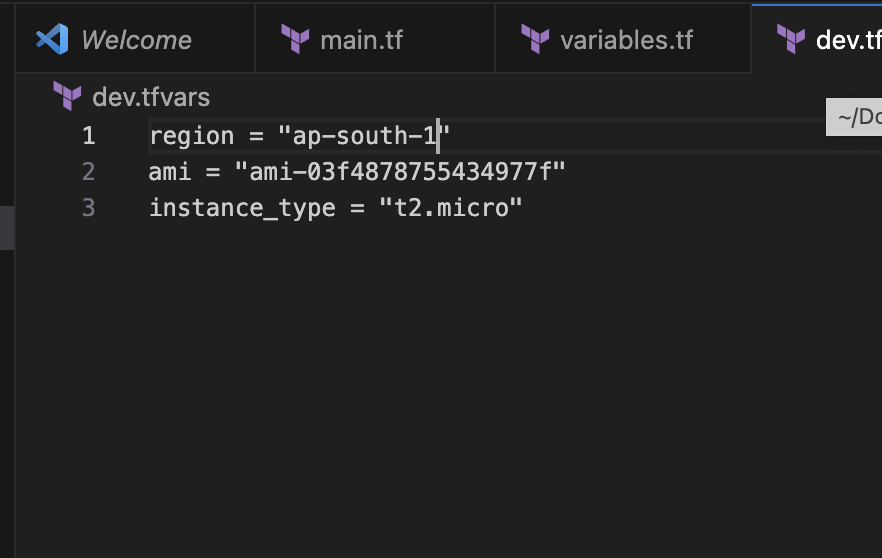
**Lab Exercise 6– Terraform Multiple tfvars Files**

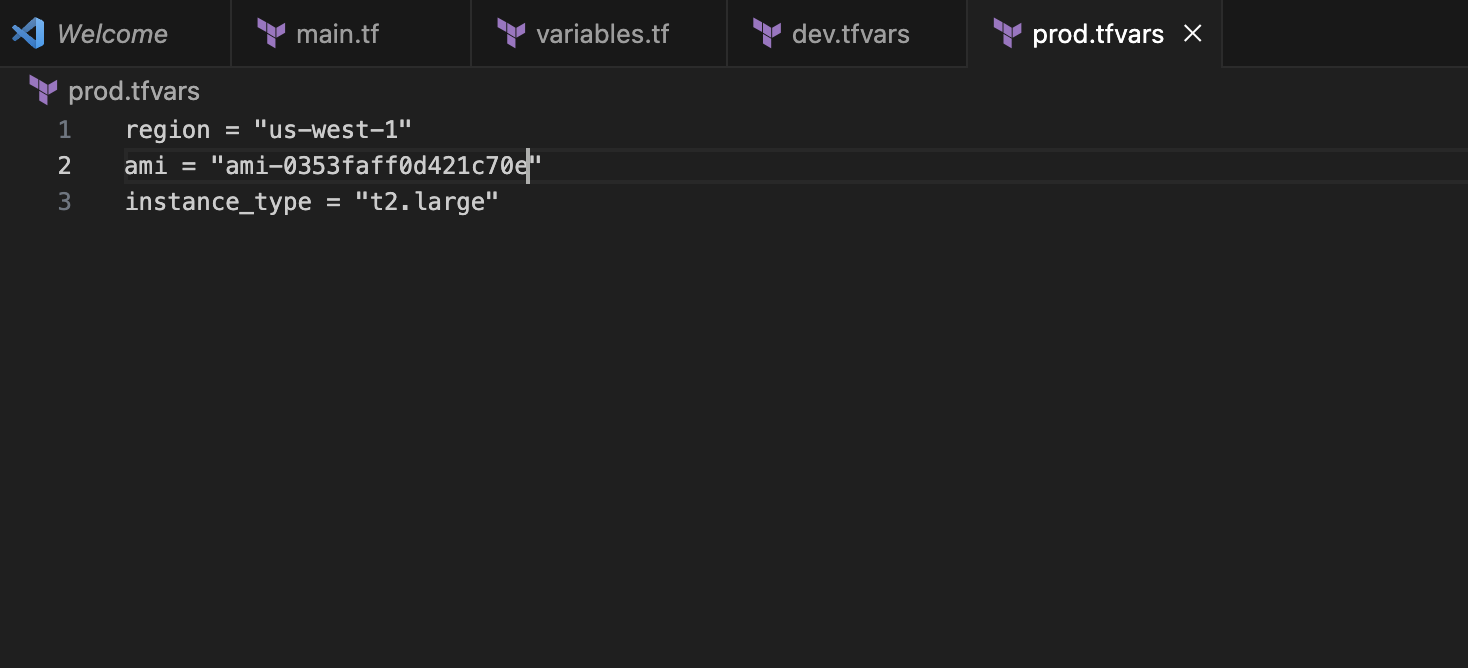
**1. Create a Terraform Directory:**

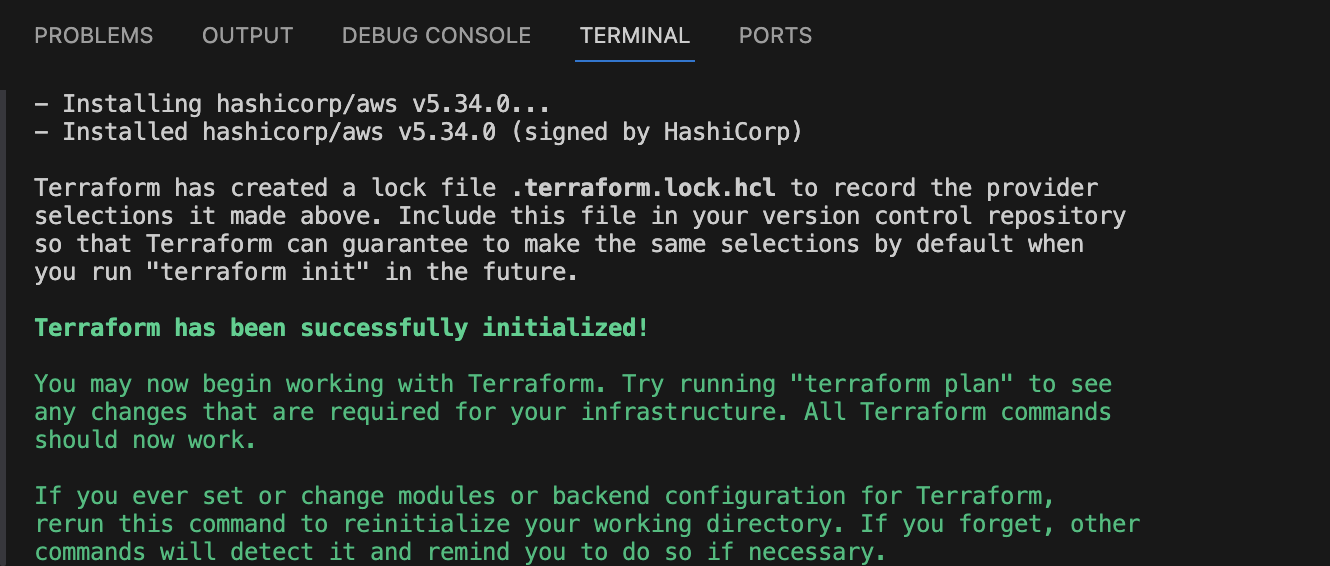
****

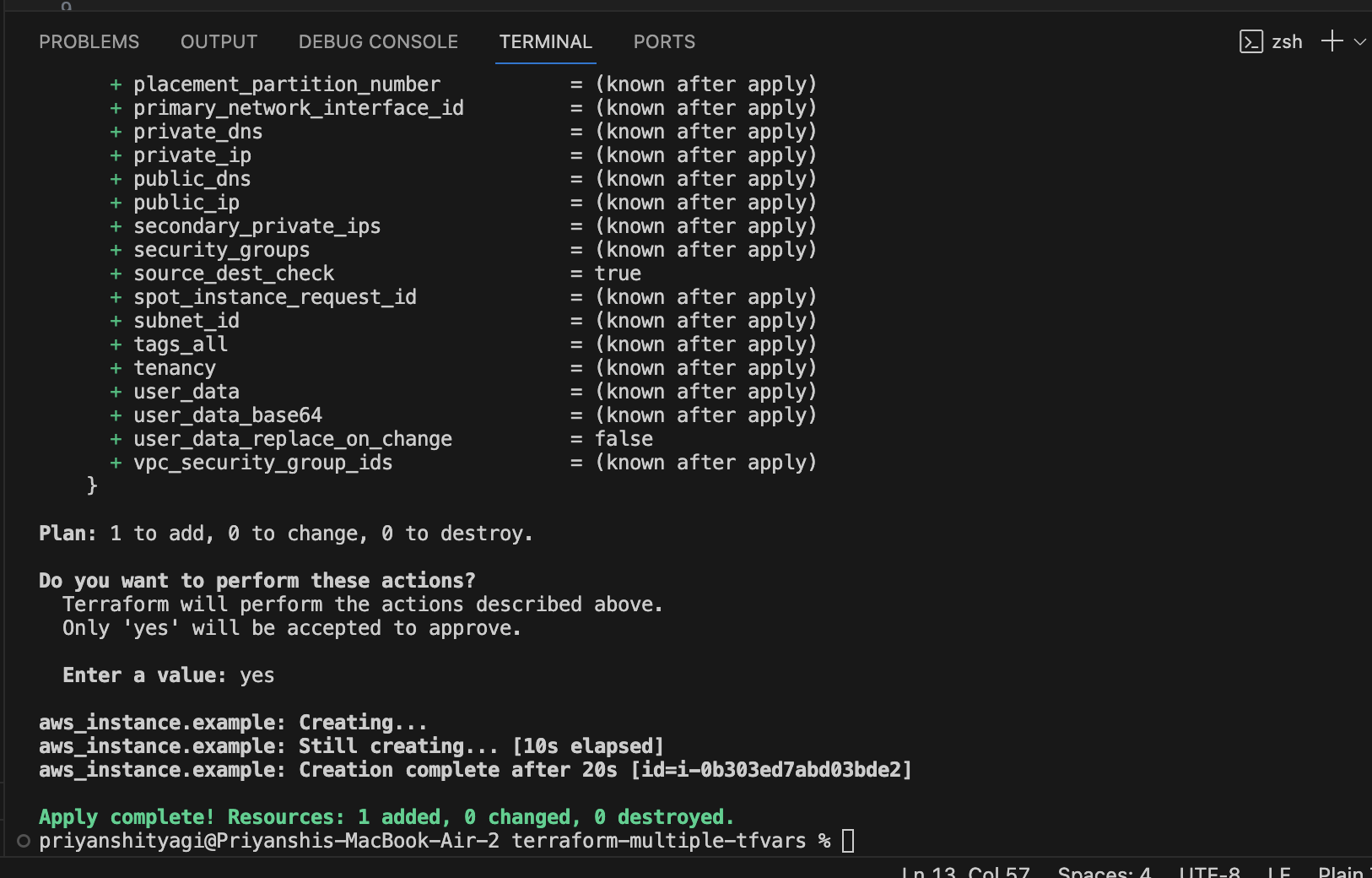
**2. Create Multiple tfvars Files:**

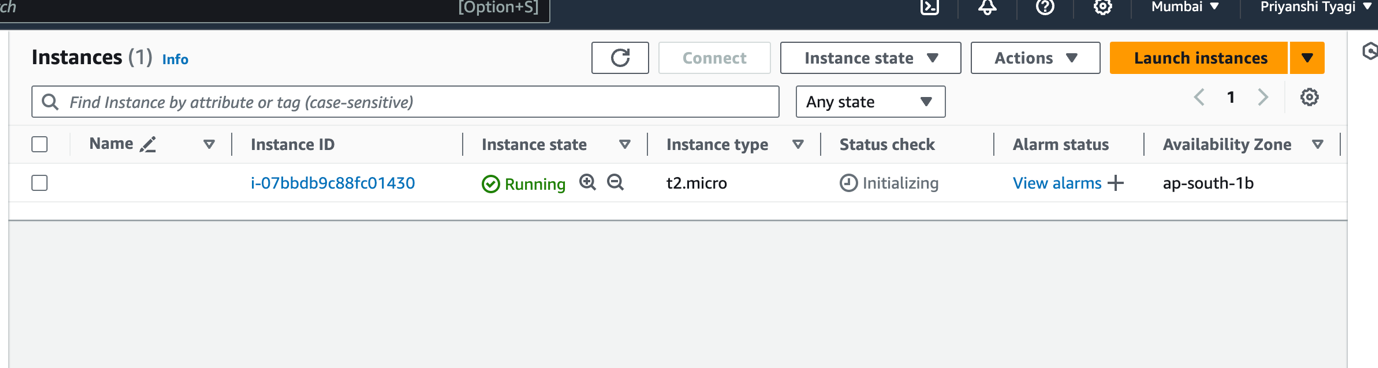
****

****

****

**3. Initialize and Apply for Dev Environment: **

****

**4. Test and Verify: **