**Terraform Assignment – 1**

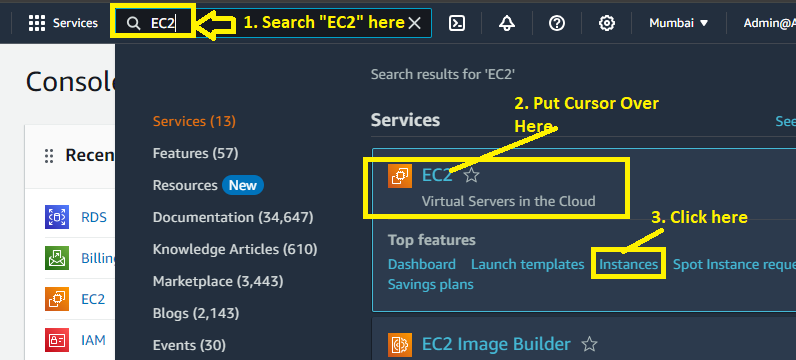
**Tasks to Be Performed:**

1. Create an EC2 service in the default subnet in the Ohio region

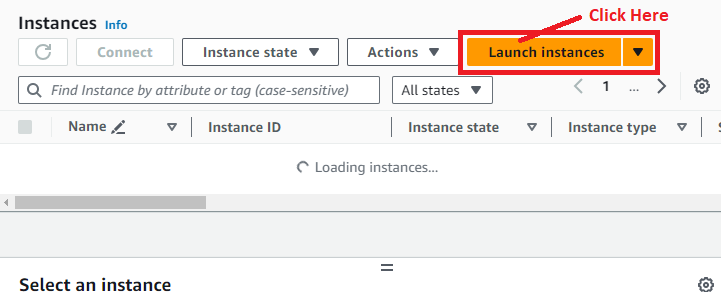
**Problem (1) Solution:** Create an EC2 service in the default subnet in the Ohio region

**A. Create an EC2 Instance & Install Terraform in Ohio Region**

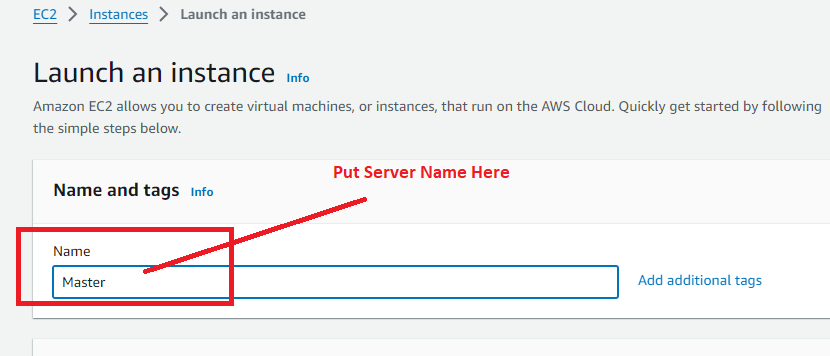
**Step 1: Go** tothe **“Services” section** & **search** the **“EC2”** here. **Put** s **cursor** over **“EC2”** & **click** onthe **“Instances”.**

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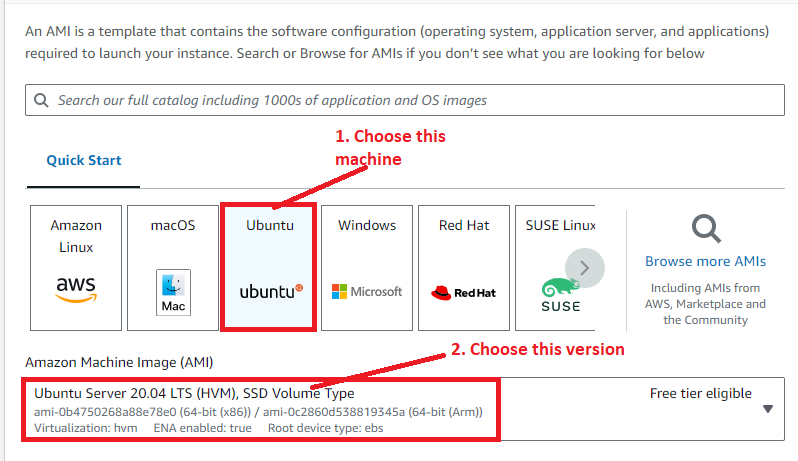
**Step 2: Click** onthe **“Launch Instance”.**

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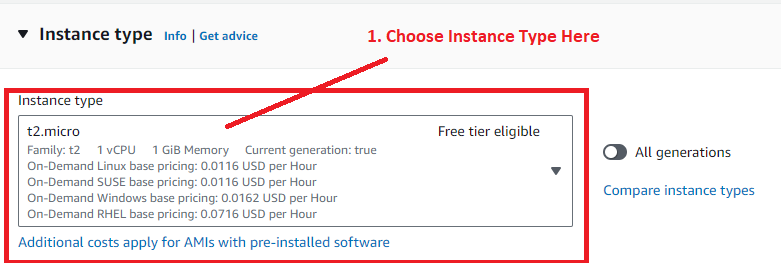
**Step 3: Choose** the **“Name”** as **“Master”** inthe **“Name and tags”** section.

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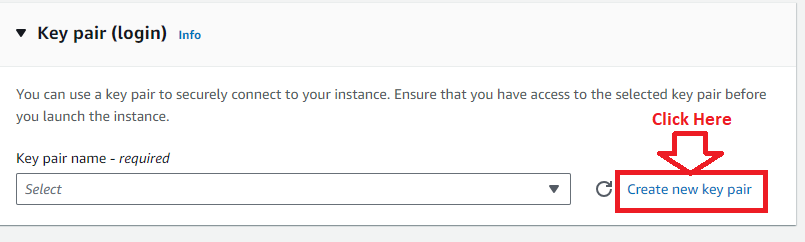
**Step 4: Choose** the **“AMI”** asthe **“Ubuntu”** &the **“AMI Version”** as **“Ubuntu Server 20.04 LTS (HVM), SSD Volume Type”.**

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**Step 5: Remain** the **“Instance type”** asthe **“t2.micro”.**

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**Step 6: Click** onthe **“Create new key pair”** inthe **“Key pair (login)”** section.



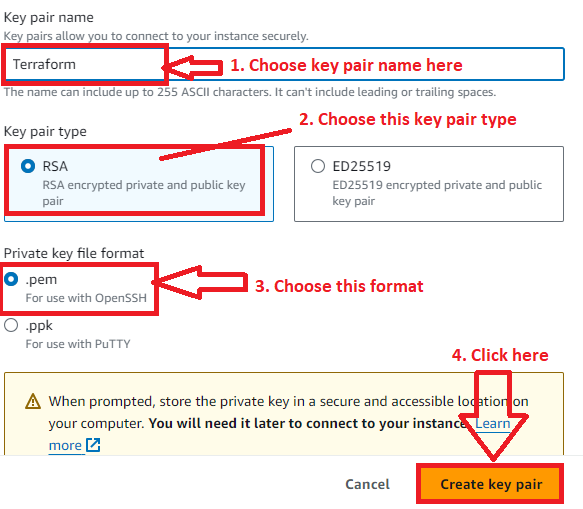
**Step 7: Choose the following options here:**

**Key pair name: -** Terraform

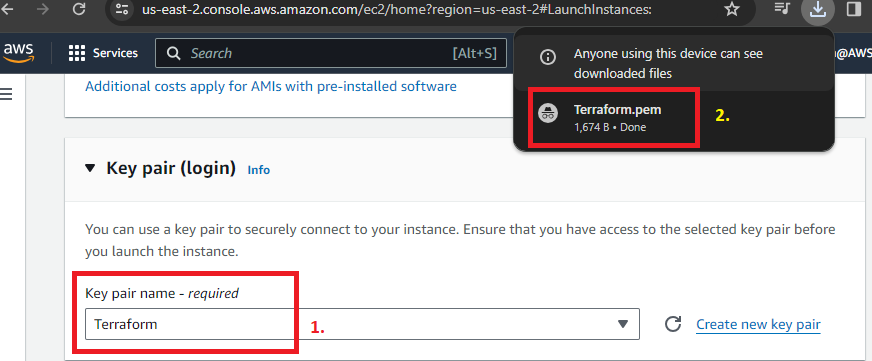
**Key pair type: –** RSA

**Private key file format: -** .pem

**Click** on **“Create key pair”.**

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**Step 8: The key pair** will be **successfully created** & **downloaded.**

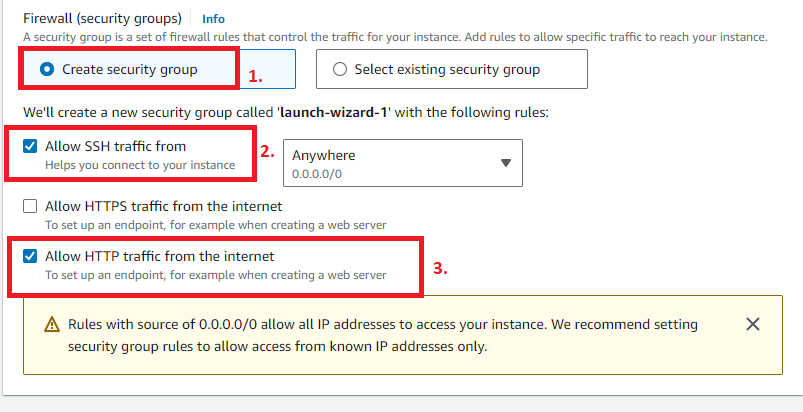
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**Step 9: In** the **“Network Settings”, choose** the **following options** here:

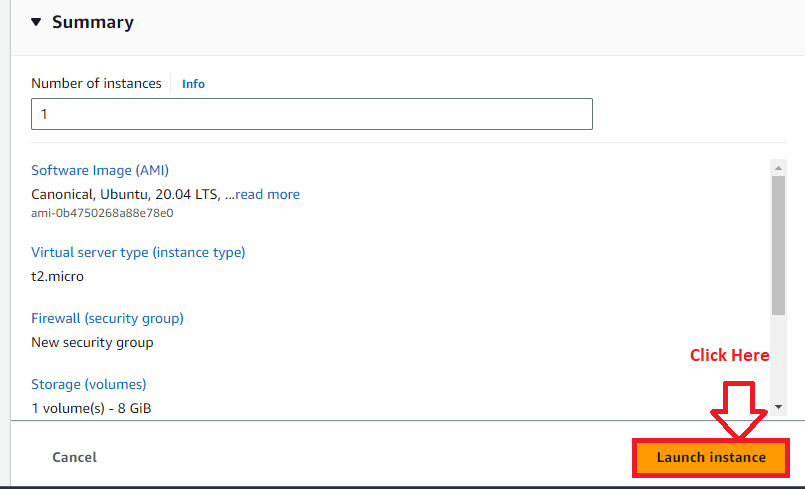
**Firewall (security groups): -** Create security group

**Enable** these **options here:**

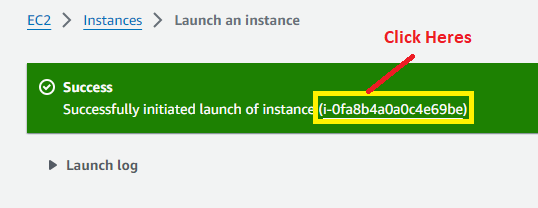
1. **Allow SSH Traffic from Anywhere**
2. **Allow HTTP Traffic from the Internet**

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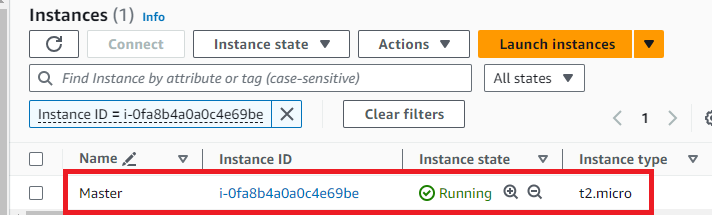
**Step 10: Click** onthe **“Launch Instance”.**

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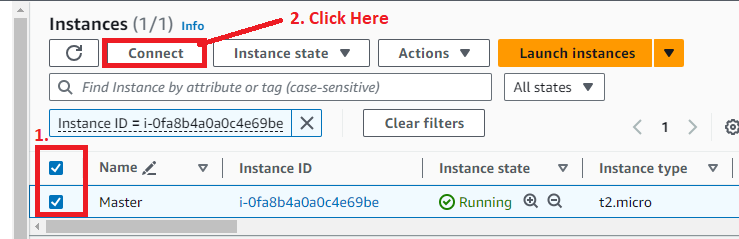
**Step 11: The instance** will be **successfully launched & click** onthe **“hyperlink”.**

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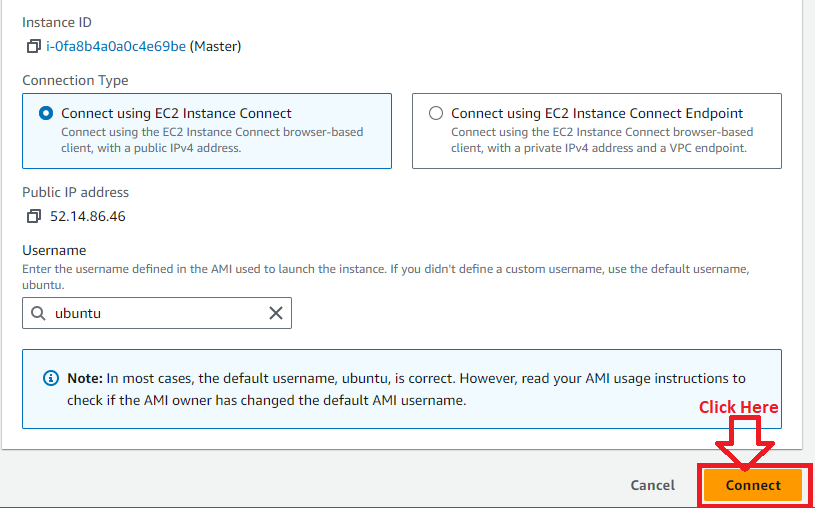
**Step 12: The instance** will be **shown** in the **“Running” State.**

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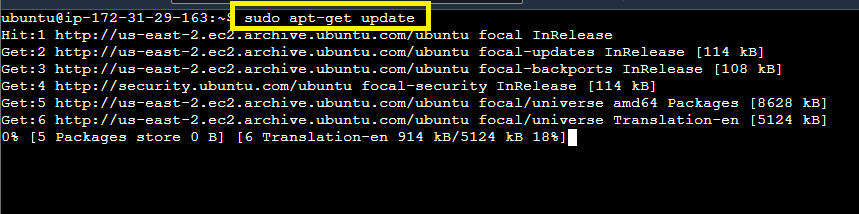
**Step 13: Select** the **“Master” instance** & **click** onthe **“Connect”.**

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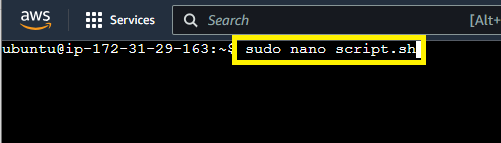
**Step 14: Click** on the **“Connect” again.**

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**Step 15: The “Master” instance** will be **successfully launched. Update** the **machine using** the **command: sudo apt-get update.**

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**Step 16: Create** a **script file** to **install “Terraform” using** this **command: sudo nano script.sh**

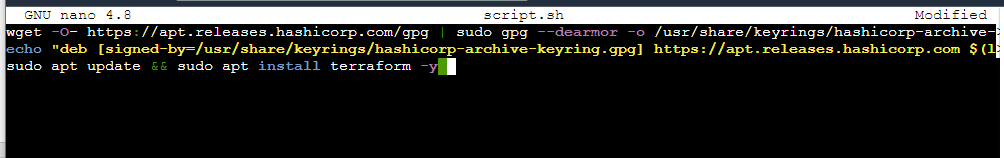
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**Step 17: Paste** these **commands** to **run the “Terraform installation”.**

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

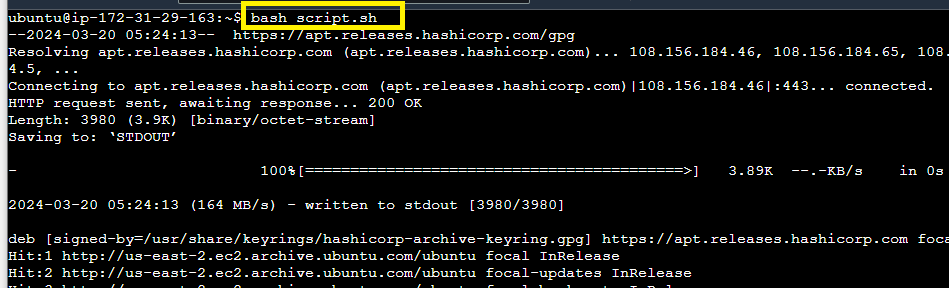
**echo "deb [signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb\_release -cs) main" | sudo tee /etc/apt/sources.list.d/hashicorp.list**

**sudo apt update && sudo apt install terraform –y**

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**Do “CTRL+X”** to **exit & press “Y”** to **save. Press “enter”** from the **keyboard** to **save** & **exit from file.**

**Step 18: Run** this **script using** the **command: bash script.sh**

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**Step 19: Run** this **command to check** the **“Terraform Version”.**

**terraform --version**

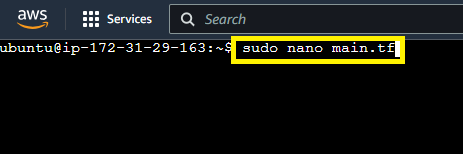
**You** will **get** the **“Terraform Version” – “v1.7.5”.**

**on linux\_amd64**

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**B. Create an EC2 service in the default subnet in the Ohio region**

**Step 1: Create** a **terraform script file using** this **command: sudo nano main.tf**

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**Step 2: Paste** this **script here** in this **file:**

**provider "aws" {**

**region = "us-east-2"**

**access\_key = "AKIAQRH4ND34WNGRNWOP"**

**secret\_key = "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"**

**}**

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

**ami = "ami-0b4750268a88e78e0"**

**instance\_type = "t2.micro"**

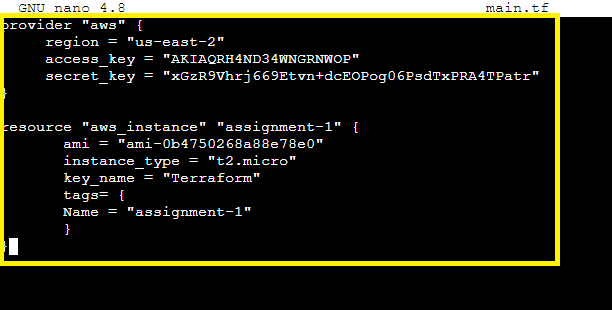
**key\_name = "Terraform"**

**tags= {**

**Name = "assignment-1"**

**}**

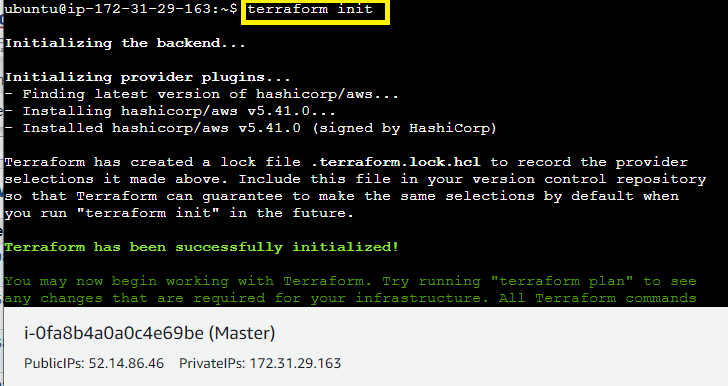
**}**

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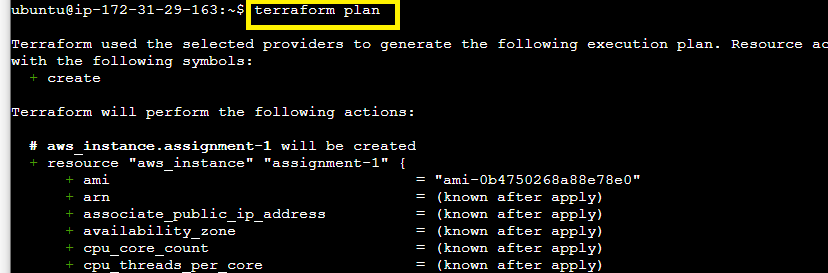
**Do “CTRL+X”** to **exit & press “Y”** to **save. Press “enter”** from the **keyboard** to **save** & **exit from file.**

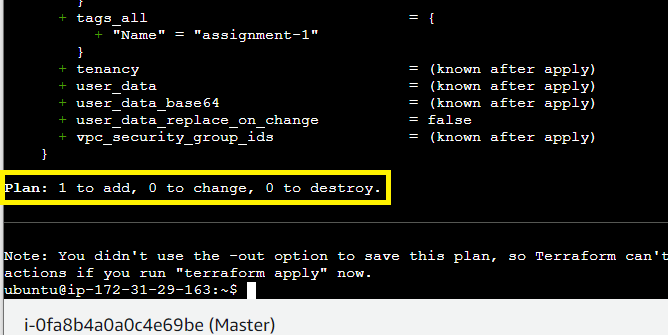
**Step 3: Run** this **command** to **initialize** the **terraform: terraform init**

**Install** the **necessary plugins** to **initialize** the **“terraform”.**

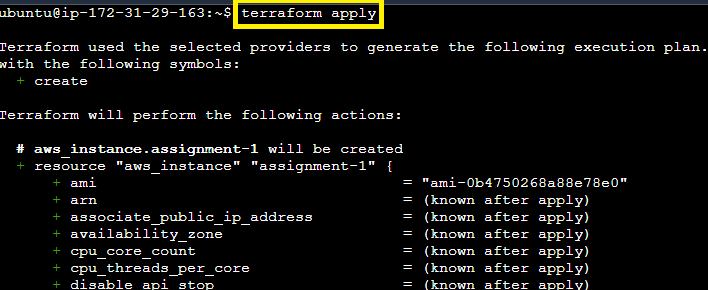
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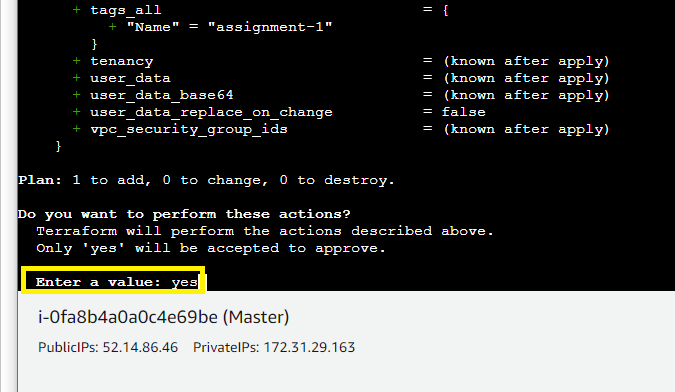
**Step 4: Run** the **“terraform plan” command** to **plan** the **instance creation.**

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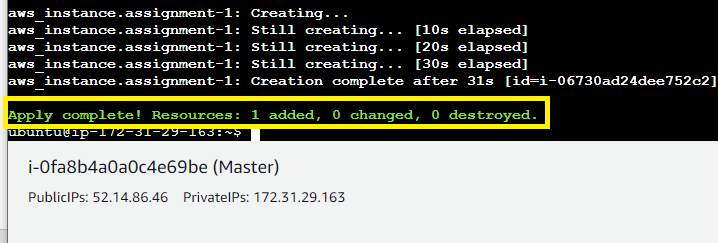
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**Step 5: Run** this **command: “terraform apply”** to **create** the **instance** in **“Ohio” Region.**

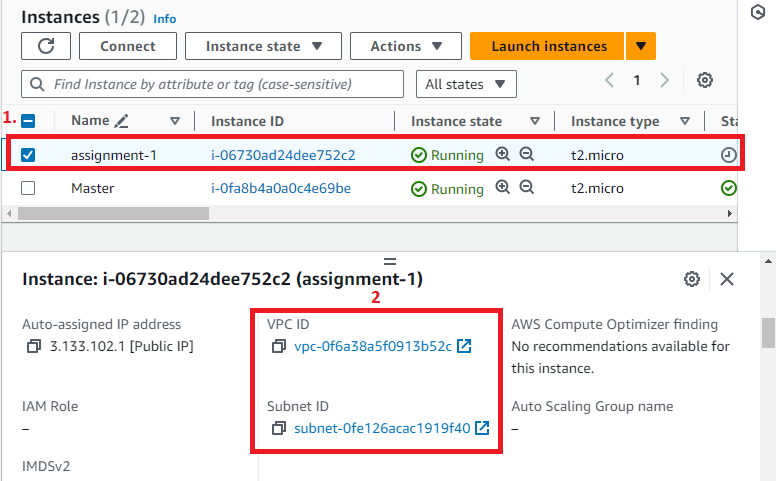
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**The instance** will be **started creating** & **take approximately 30 seconds** to **complete.**

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**Step 6: Now, an instance** will be **successfully launched** in **“Ohio” region** in **default subnet.**

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**🡨---------------------------Assignment 1 Completed---------------------------🡪**