Lesson 11 Demo 4: S3 Bucket Creation Using Variables

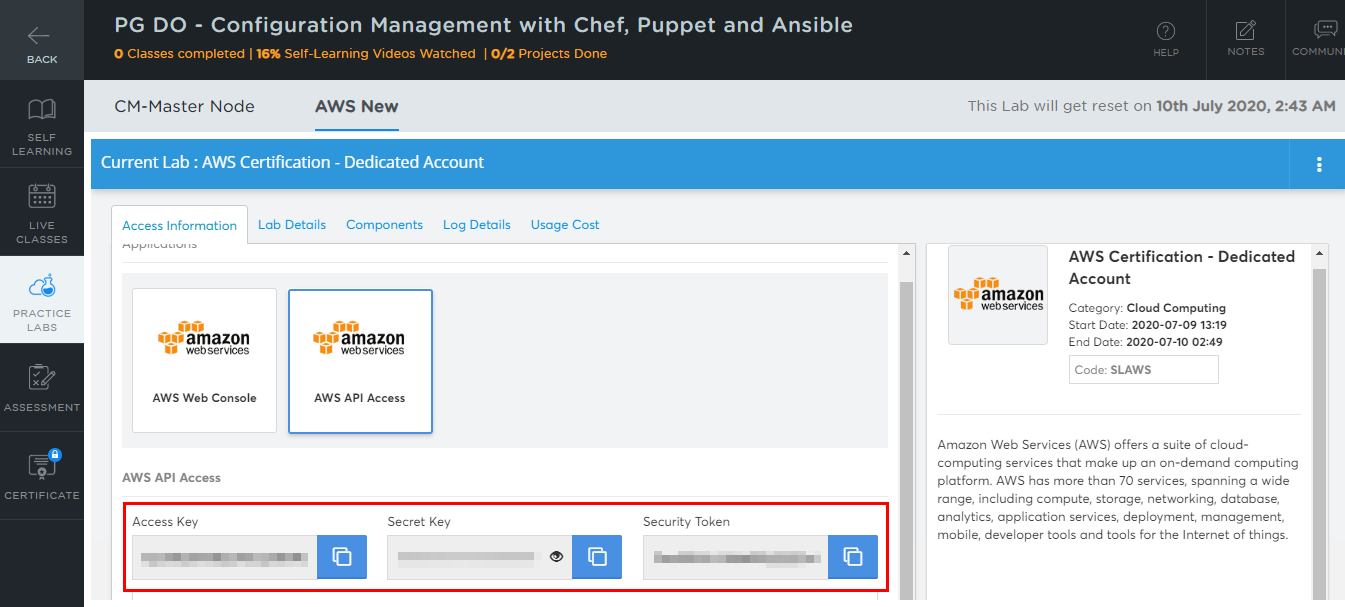
This section will guide you to:

* Create S3 bucket using different variables in Terraform

This lab has two subsections, namely:

1. Creating source files
2. Executing Terraform files

**Step 1:** Creating source files

* Use the AWS access credentials provided in the AWS API Access tab in your LMS in your PRACTICE LAB tab as shown in the screenshot below:  
  

**Note:** AWS access credentials will change when the AWS Lab session expires after every four hours.

* Create a directory with the name **testing\_terraform** with the below command inside the **/home/<YOUR\_LAB\_USERNAME>** location:

**mkdir testing\_terraform**

* Navigate inside the created directory using the below command:

**cd testing\_terraform**

* Create a file named **creds.tf** with the below command:

**vi creds.tf**

* Press **“i”** on your keyboard to enable edit access and then enter the below code in the **creds.tf** file created above:

**provider "aws" {**

**access\_key = "<YOUR\_AWS\_LAB\_ACCESS\_KEY>"**

**secret\_key = "<YOUR\_AWS\_LAB\_SECRET\_KEY>"**

**token = “<YOUR\_AWS\_LAB\_SECURITY\_TOKEN>”**

**region = “us-east-1“**

**}**

**Note:** Mentioning access key and secret key in the provider configuration is not a good practice. This is for example purpose only. It should be always set as an environment variable or IAM role if it is installed on an EC2 instance

* Once done, press the **“esc”** button on your keyboard to disable edit access. Then, type the below command and press enter to save the changes to the edited file:

**:wq**

* Create a file named **variables.tf** with the below command:

**vi variables.tf**

* Press **“i”** on your keyboard to enable edit access and then enter the below code in the **variables.tf** files created above:

**variable "bucket\_name" {**

**description = "Bucket Name for S3"**

**type = string**

**}**

* Once done, press the **“esc”** button on your keyboard to disable edit access. Then, type the below command and press enter to save the changes to the edited file:

**:wq**

* Create a file named **terraform.tfvars** with the below command:

**vi terraform.tfvars**

* Press **“i”** on your keyboard to enable edit access and then enter the below code in the **terraform.tfvars** file created above:

**bucket\_name = "dev-simpli-bucket"**

* Once done, press the **“esc”** button on your keyboard to disable edit access. Then, type the below command and press enter to save the changes to the edited file:

**:wq**

* Create a file named **demo\_01.tf** with the below command:

**vi demo\_01.tf**

* Press **“i”** on your keyboard to enable edit access and then enter the below code in the **demo\_01.tf** file created above:

**resource "aws\_s3\_bucket" "b" {**

**bucket = "${var.bucket\_name}-main"**

**acl = "private"**

**}**

* Once done, press the **“esc”** button on your keyboard to disable edit access. Then, type the below command and press enter to save the changes to the edited file:

**:wq**

* Create another file named **demo\_02.tf** with the below command:

**vi demo\_02.tf**

* Press **“i”** on your keyboard to enable edit access and then enter the below code in the **demo\_02.tf** file created above:

**variable "bucket\_number" {**

**default = 10**

**}**

**resource "aws\_s3\_bucket" "my\_simpli\_bucket\_01" {**

**count = var.bucket\_number != 0 ? var.bucket\_number : 11**

**bucket = "${var.bucket\_name}-${var.bucket\_number}"**

**}**

**variable "users" {**

**type = list**

**default = ["batman", "superman", "ironman"]**

**}**

**resource "aws\_s3\_bucket" "my\_simpli\_bucket\_03" {**

**count = length(var.users)**

**bucket = "${var.bucket\_name}-${var.users[count.index]}"**

**acl = "private"**

**force\_destroy = "true"**

**}**

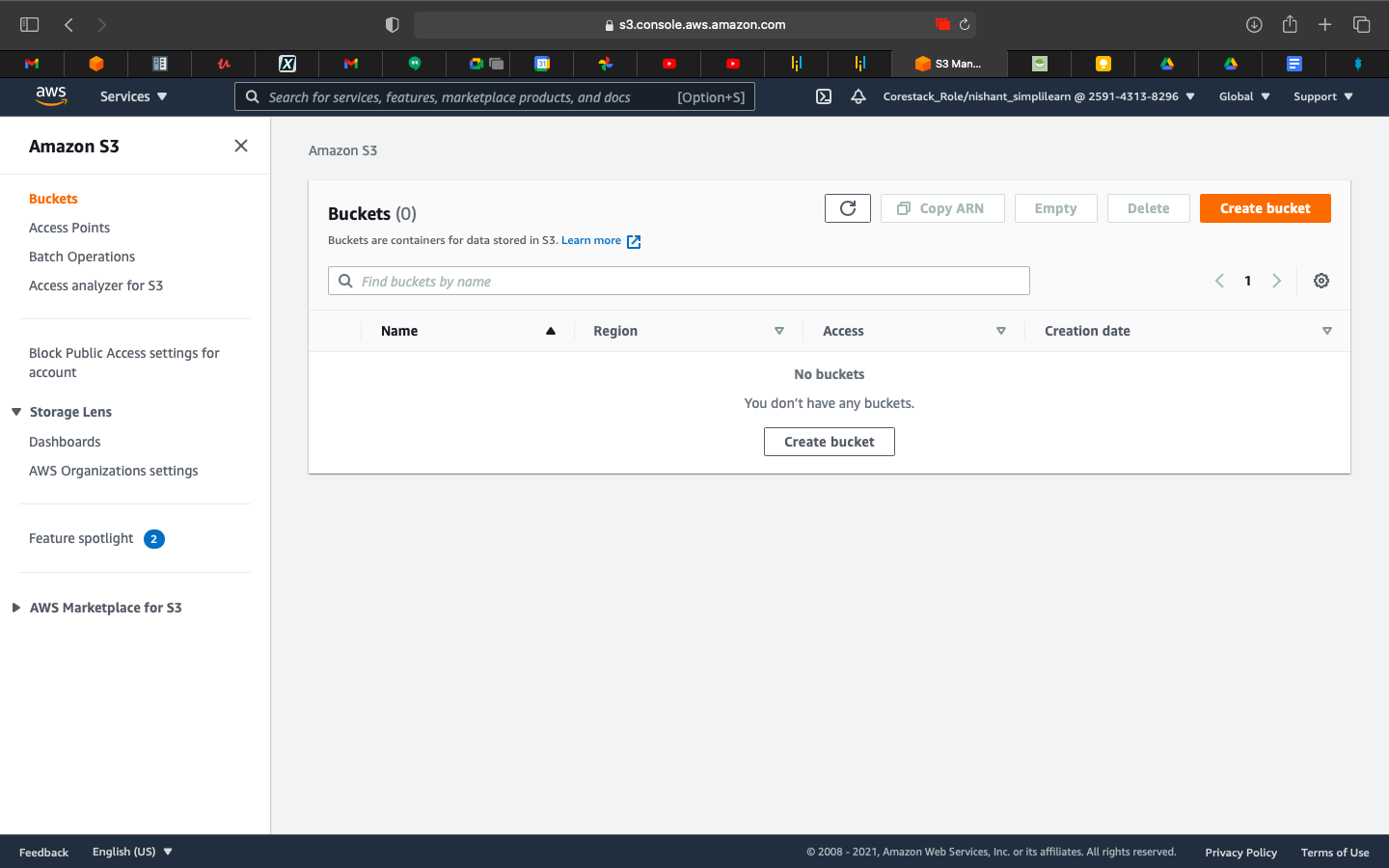
* Once done, press the **“esc”** button on your keyboard to disable edit access. Then, type the below command and press enter to save the changes to the edited file:

**:wq**

* Finally, you are ready to execute the files created above in the next step of this demo.

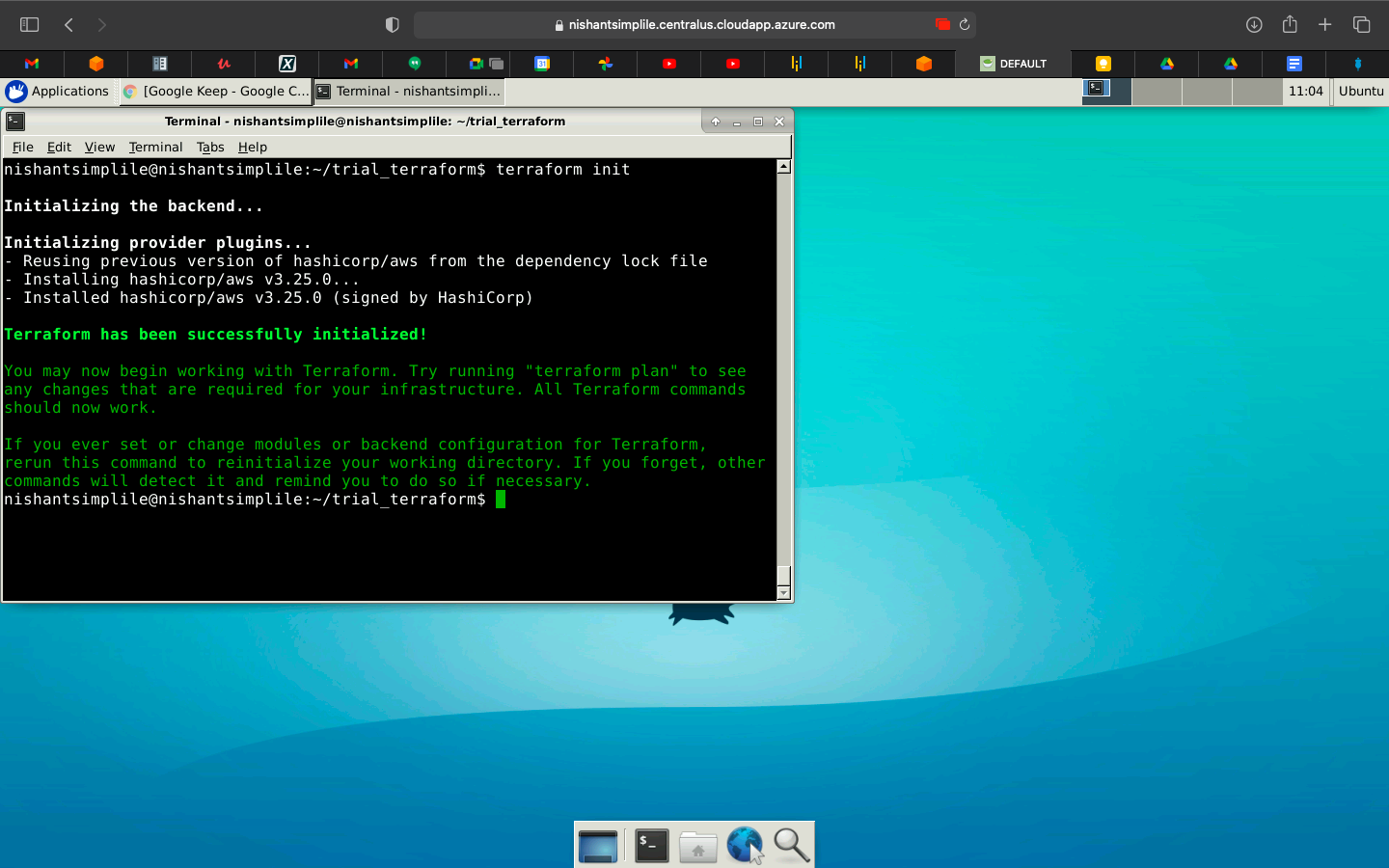
**Step 2:** Executing Terraform files

* The state of your S3 Buckets Dashboard in your AWS account before execution of this demo is given in the screenshot below:



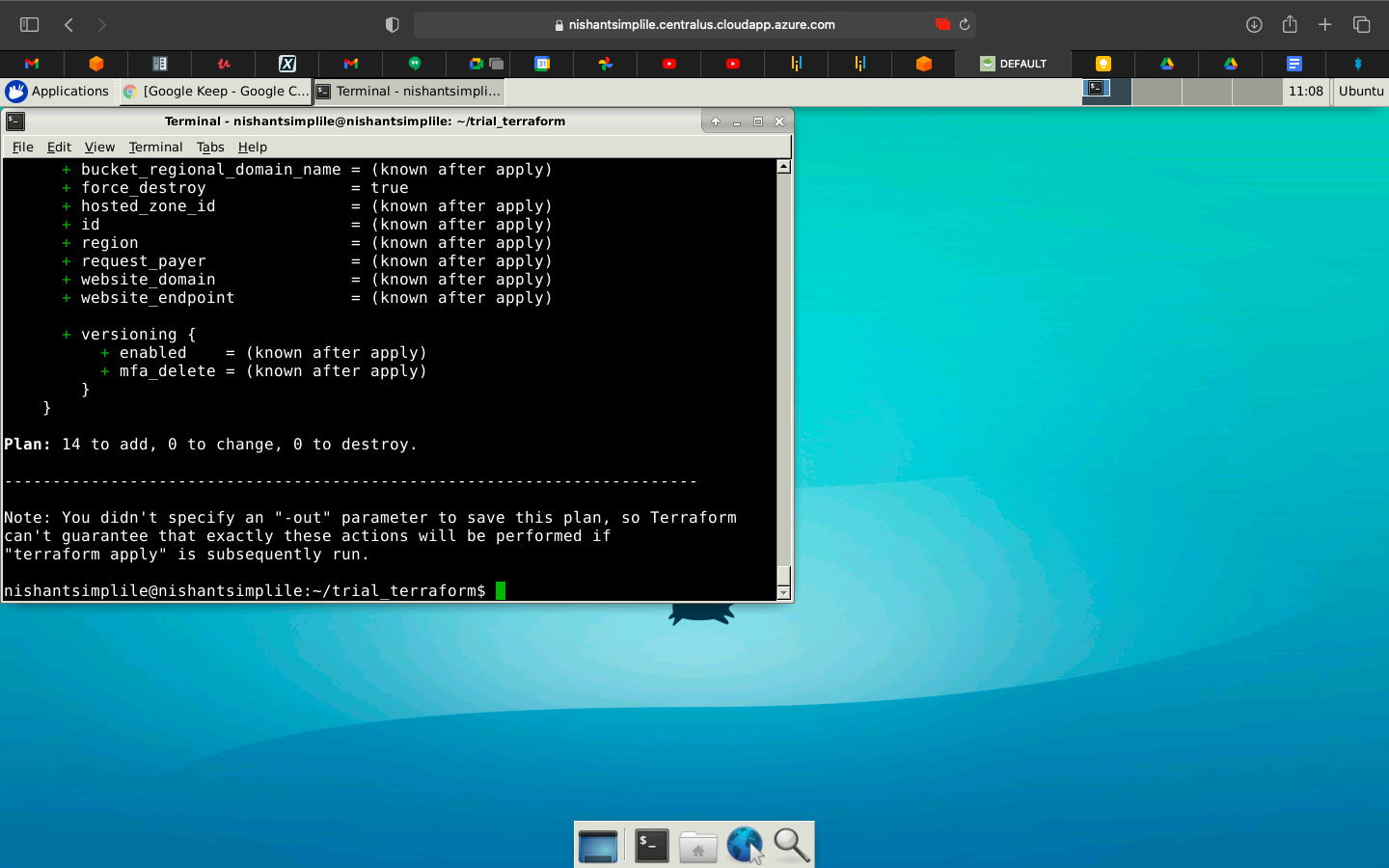
* Run the below command to initialize Terraform in the **testing\_terraform** directory:

**terraform init**



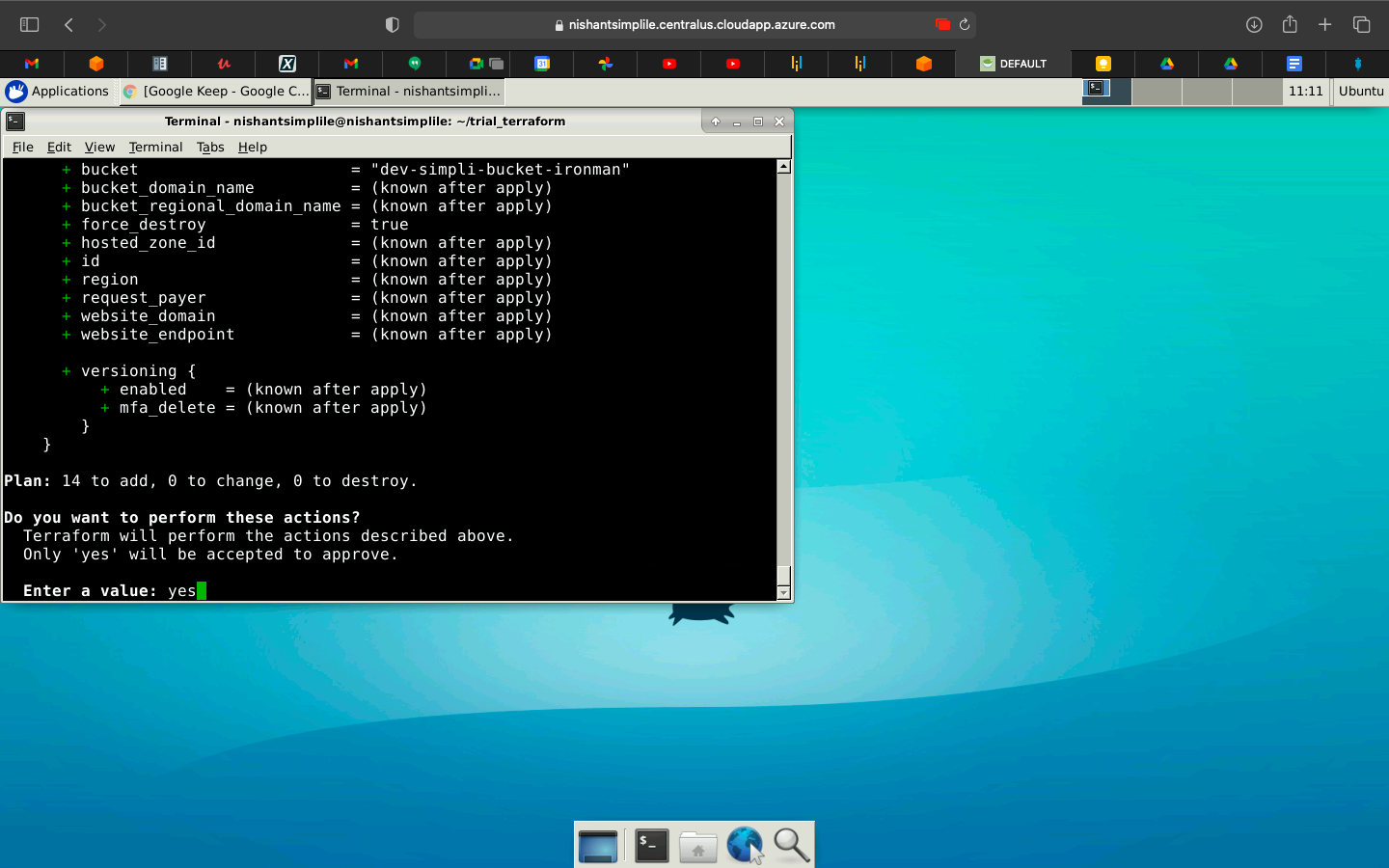
* Run the below command to check the changes that Terraform will make:

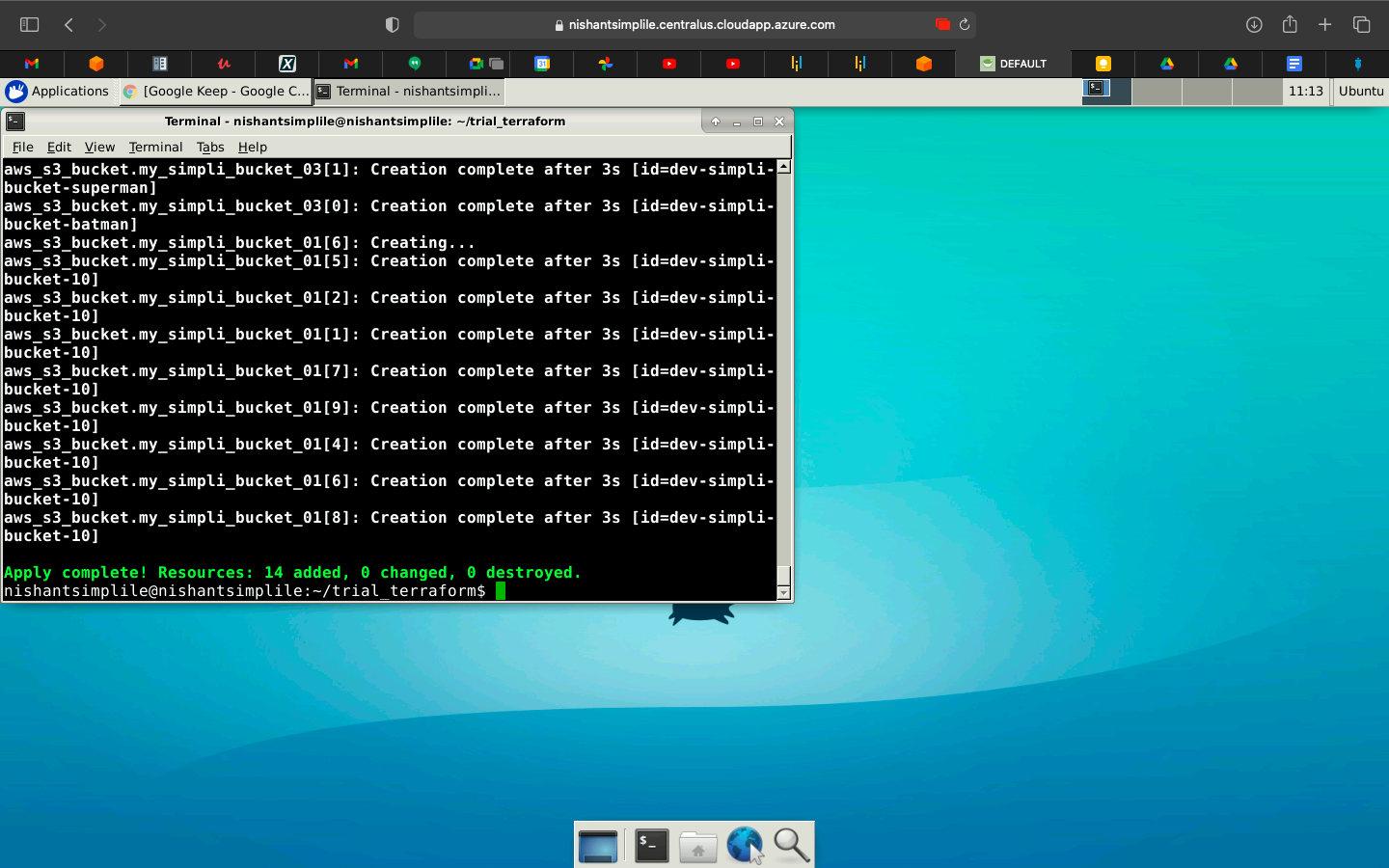
**terraform plan**



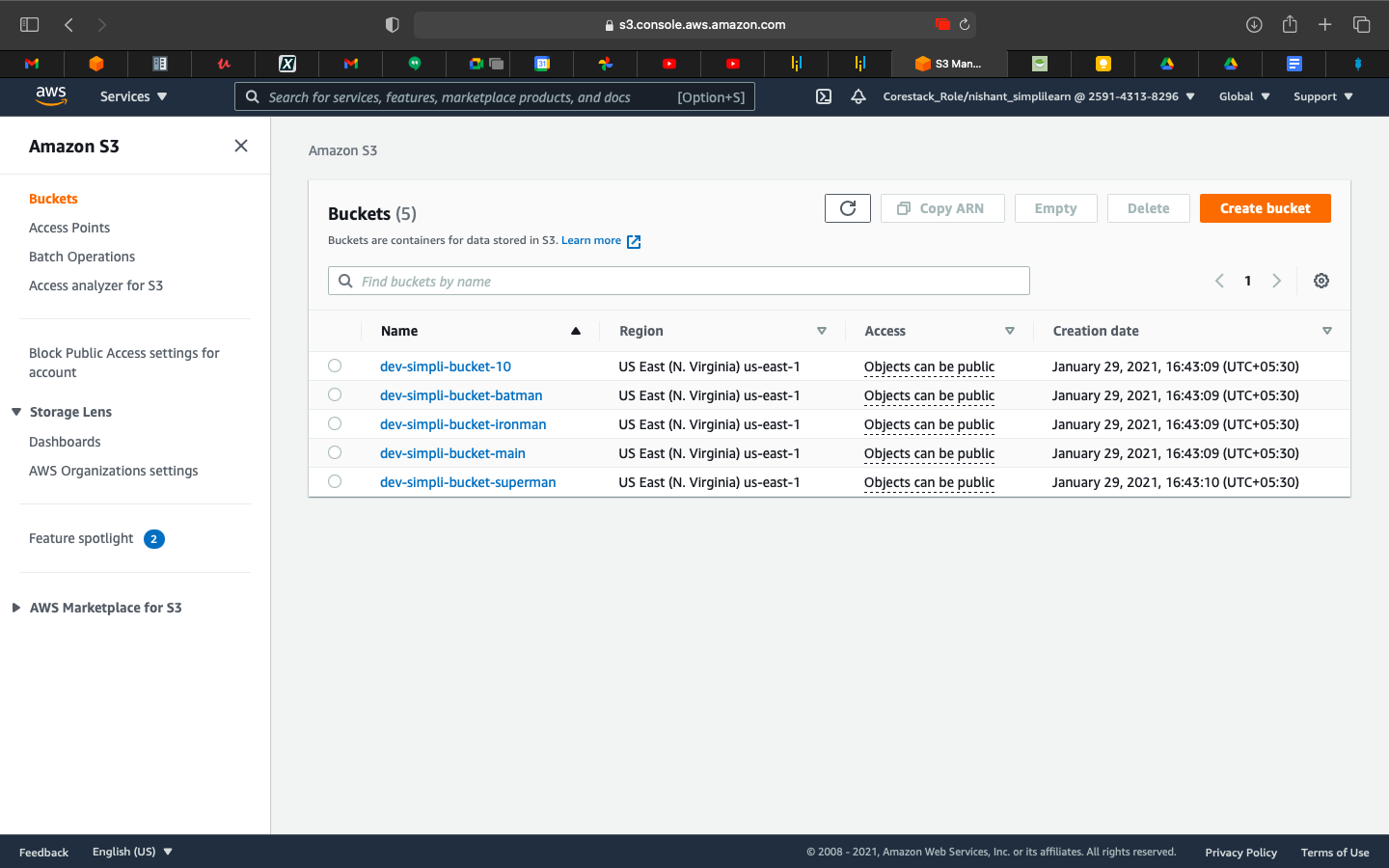
* Run the below command to apply the Terraform plan on AWS:

**terraform apply**





* Refresh the webpage of your S3 Buckets Dashboard in your AWS account after the execution of this demo to see the changes:



* Finally, you need to navigate back to the **/home/<YOUR\_LAB\_USERNAME>** location from the current **testing\_terraform** directory using the below command:

**cd ..**