Lab Instructions: Provisioning Database Configuration in AWS using Terraform.

Introduction

In this lab, you will learn how to use Terraform to provision a simple database configuration in AWS (Amazon Web Services). Terraform is an infrastructure code tool that allows you to define and provision infrastructure resources in a declarative configuration language.

Prerequisites

Before starting this lab, make sure you have the following:

1. An AWS Academy lab account with appropriate permissions to create EC2 instances.
2. Terraform installed on your local machine. You can download Terraform from the official website.

Task

Your task is to write Terraform code to provision the following configuration in AWS in a fresh configuration.

1. Provision an RDS resource with a postgres engine as we discussed in the class

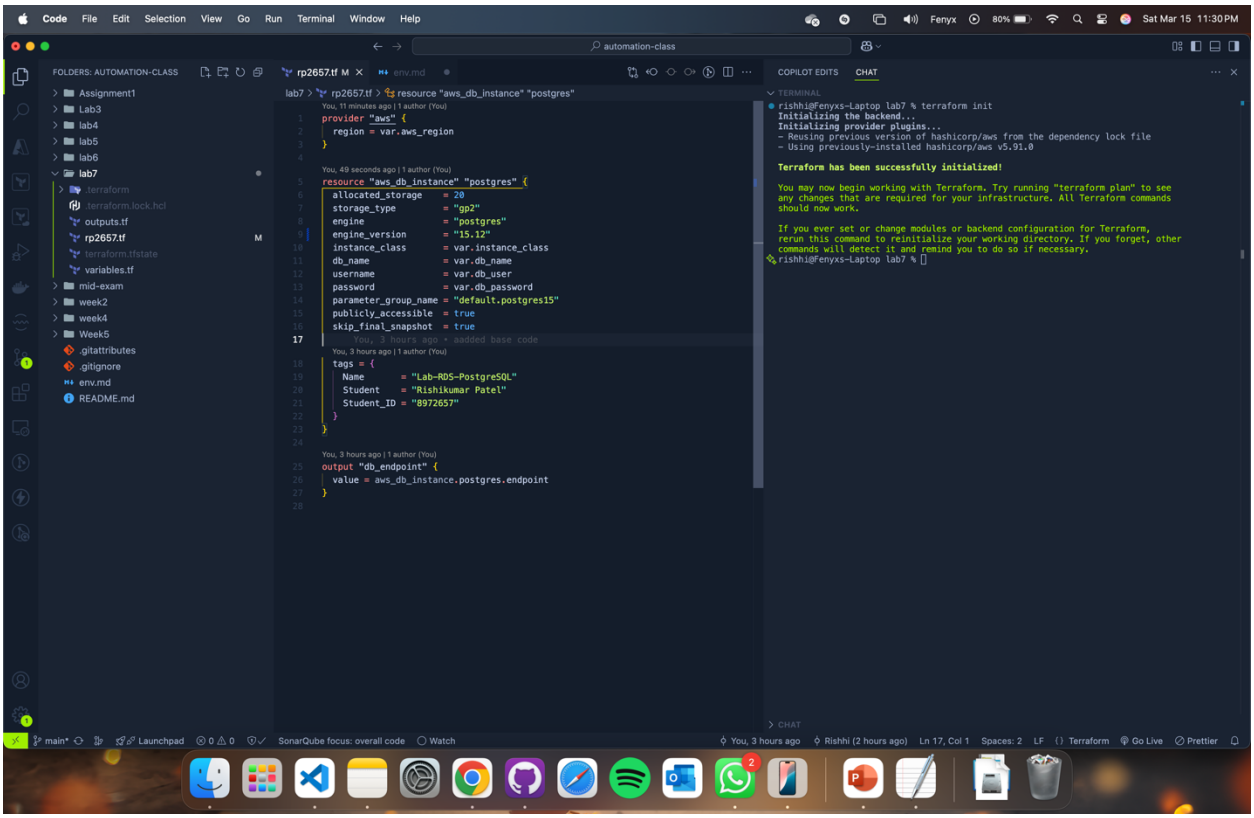
Deliverables

Submit your terraform code file, screenshots of your init, plan, apply commands and a screenshot of your provisioned resource in AWS. Also login to the provisioned resource from the aws console and attach screenshots.

Instructions

1. **Initialize Terraform**: Open a terminal window and navigate to the directory where you have your Terraform configuration file (e.g., main.tf). Run the following command to initialize Terraform:

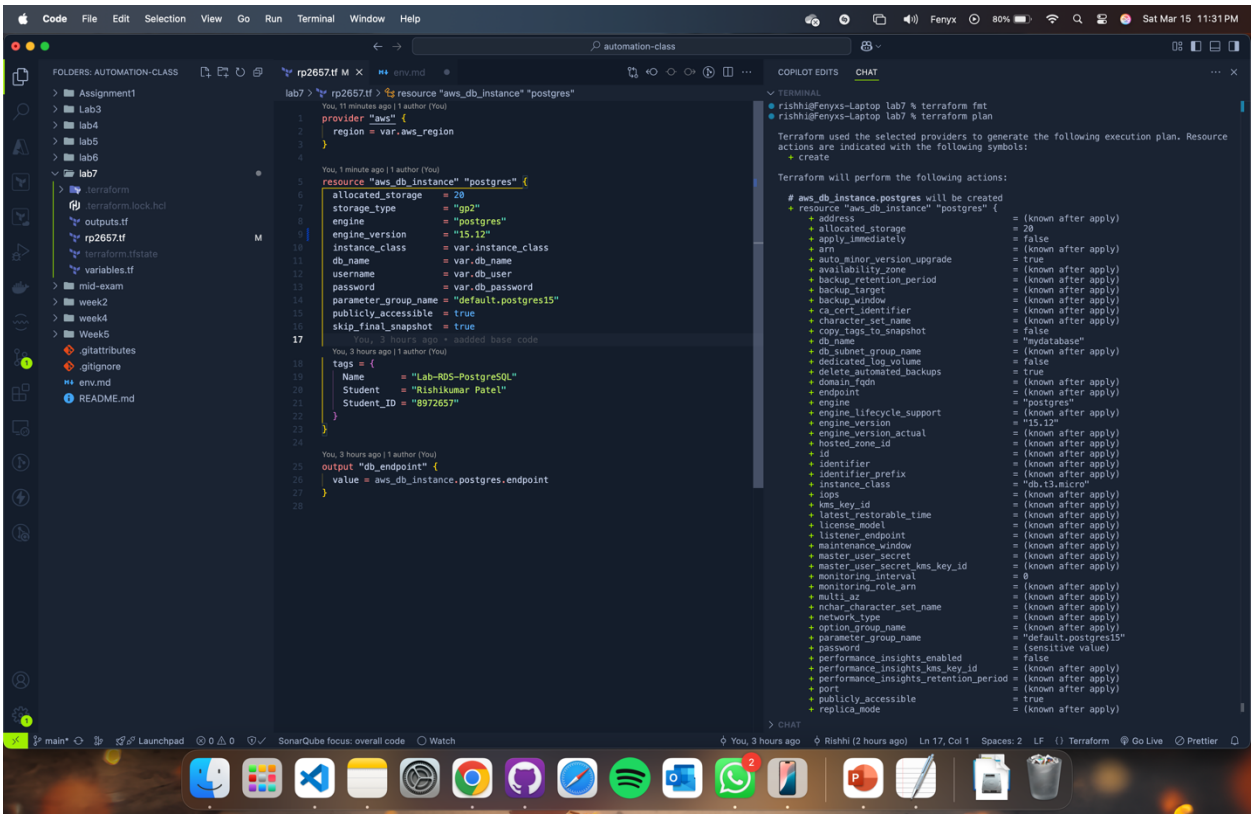
terraform init



2. **Write Terraform Configuration**: Create a new file (e.g., main.tf) and write Terraform configuration code to define the AWS resources needed for the server.

3. **Provision Infrastructure**: Once you have written the Terraform configuration, run the following command to preview the changes that Terraform will make:

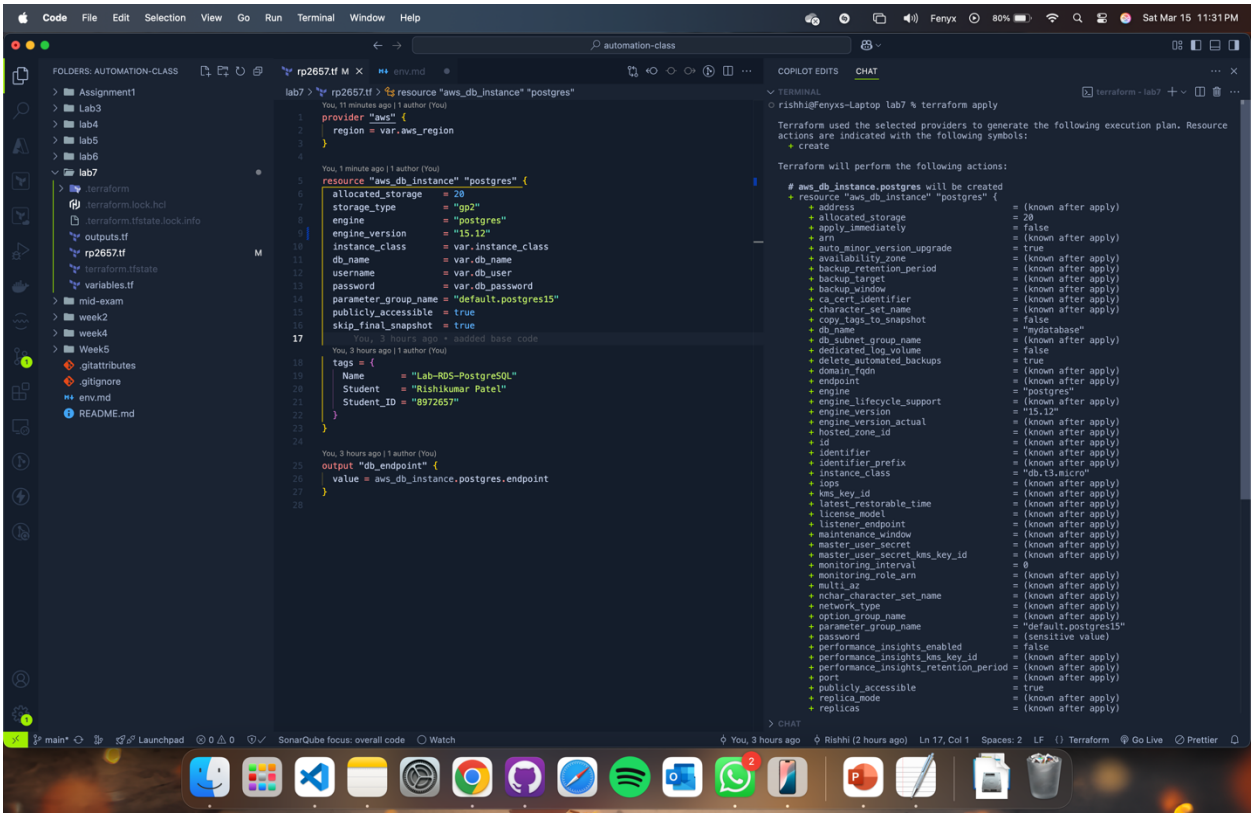
   terraform plan



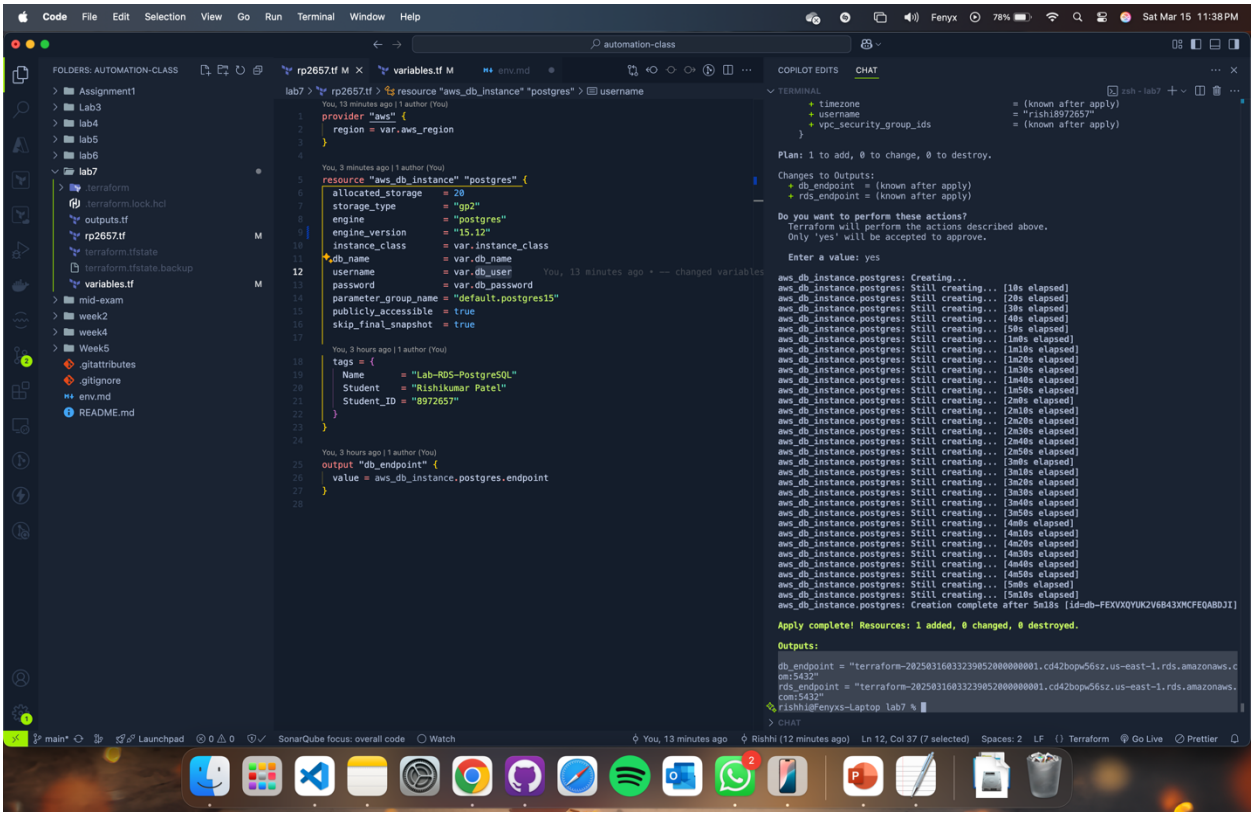
   Review the plan to ensure it matches your expectations.

4. **Apply Changes**: If the plan looks correct, apply the changes to provision the server in AWS:

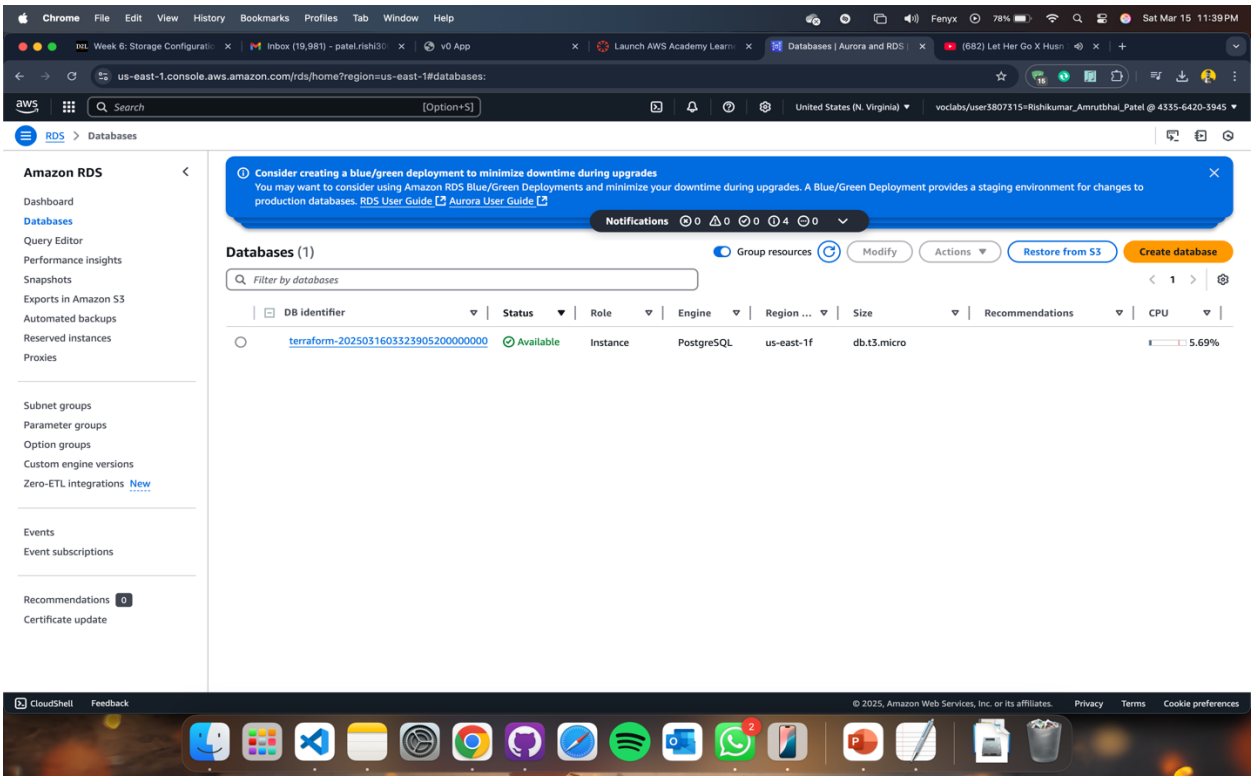
terraform apply

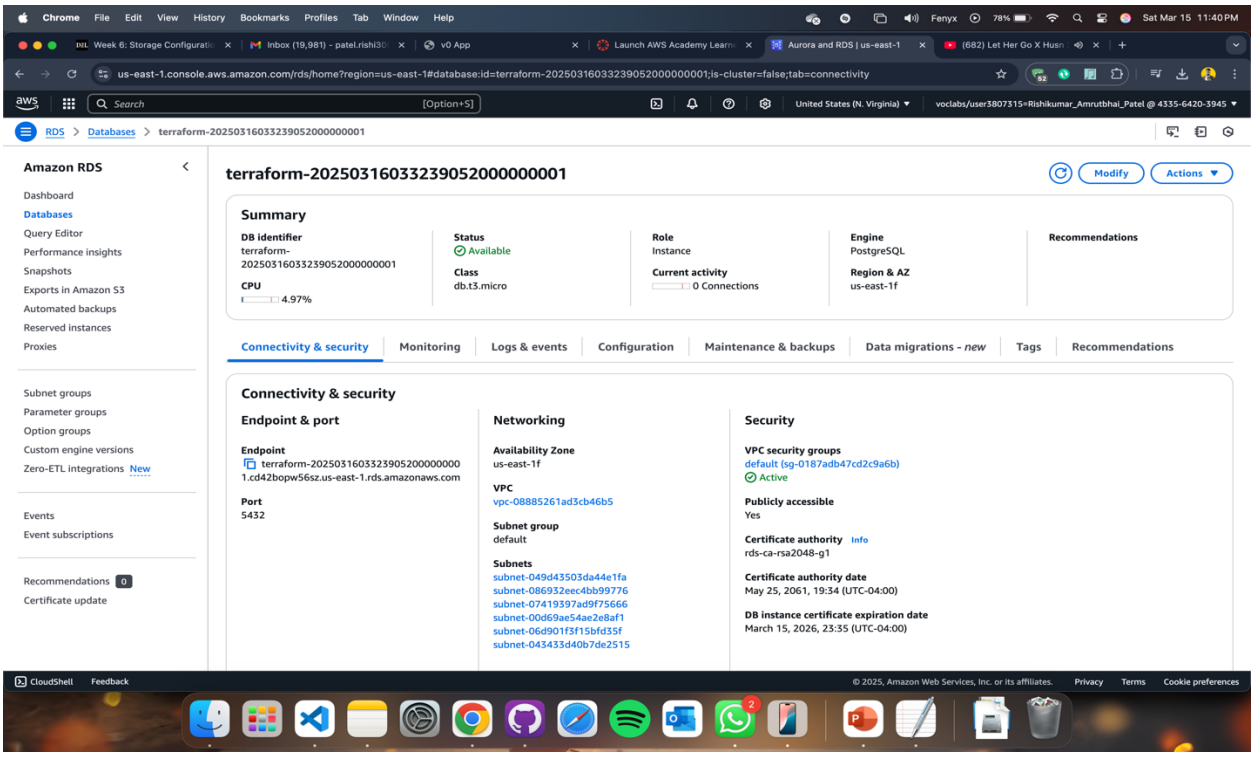


Type yes when prompted to confirm the action.



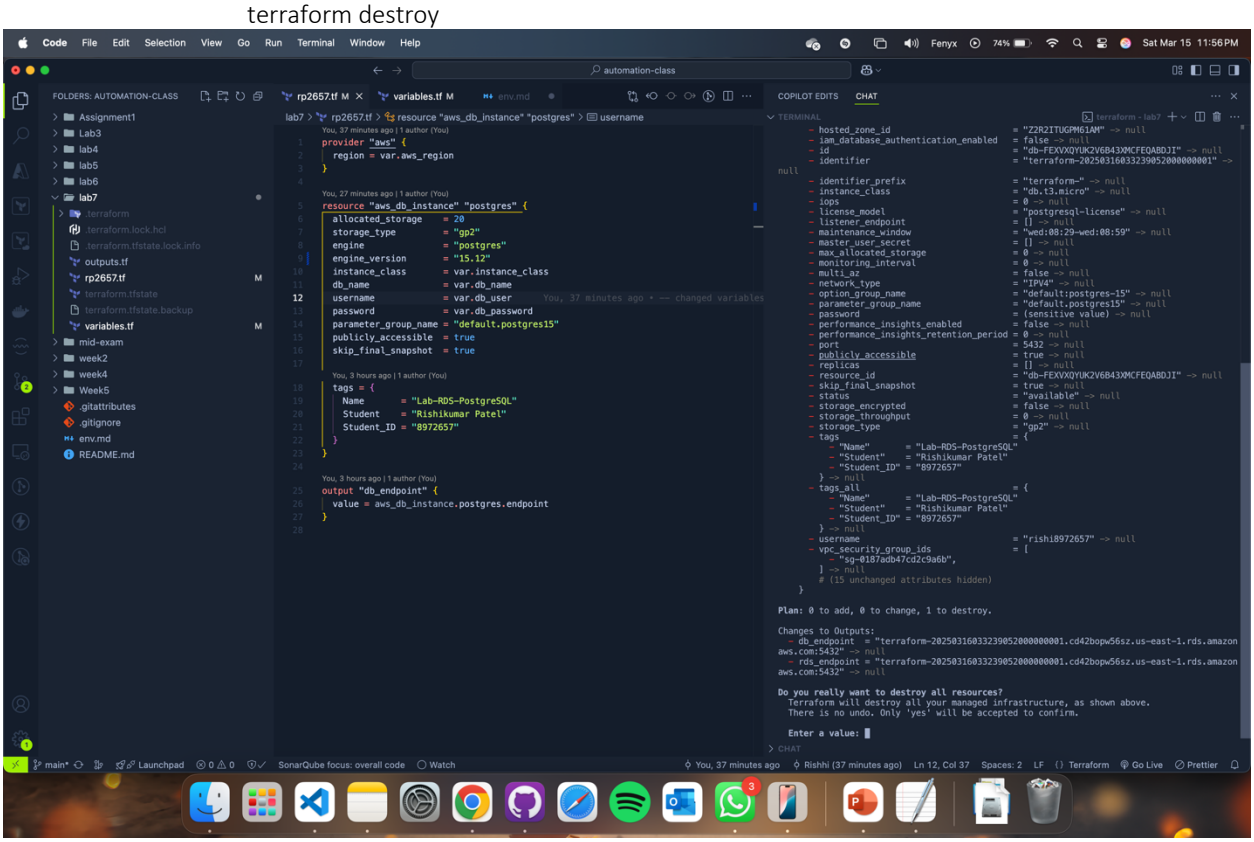
5. **Access the Server**: Once Terraform has finished provisioning the server, you should see the output with the server's public IP address





6. **Cleanup**: After completing the lab, remember to destroy the resources to avoid incurring unnecessary charges:

terraform destroy



Type yes when prompted to confirm the destruction of resources.