In this project I will be creating an S3 bucket using Terraform by Hashicorp to demonstrate my knowledge using IaC (Infrastructure as Code) and applying the conceptual practice onto real-world based scenarios to fully prove my skills in this technology. The provider that I will be using for this hands-on practice will be AWS (Amazon Web Services) and I will be explaining the process thoroughly on how to set up an S3 bucket in a cloud environment.

1. We need to log into our AWS account withing the terminal using ‘**$ aws configure’** followed with a prompt to type in your ‘**AWS Access Key ID’** and ‘**Secret Access Key’.** It will also ask you to enter your region name and the output format you want. (shown in image)

A screenshot of a computer program

Description automatically generated

1. The next step is to create a terraform configuration file, you can open up any text editor you desire (in my case VSCode), and create a file named ‘**main.tf’.** The following content was added. (see image for reference)

A screen shot of a computer program

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1. In the ‘**main.tf’** configuration file the name of the bucket is displayed in another page under ‘**variables.tf’** hence the string ‘**var.bucketname’** taking the name of what ever it is for that bucket. Here’s the screenshot for reference. As you can see in the image below this is the unique name of the bucket.

A screenshot of a computer

Description automatically generated

1. Once everything has been completed, my next step was to open the terminal and navigate to my directory containing the ‘main.tf’ file and run ‘terraform init’. This command initializes the Terraform working directory and downloads the necessary AWS provider. It should look like this in the image below.

A screenshot of a computer program

Description automatically generated

1. Once I have completed that process the next step was to apply the Terraform configuration and create the S3 bucket using the **‘terraform apply’** command on the terminal. Here’s how it looked like after I ran the command.

A screenshot of a computer program

Description automatically generated

1. Now that the bucket has been created, I logged into the AWS console to verify if the S3 bucket along with the unique name I gave it will display within my console. As shown in the image below, I have successfully created the bucket within my AWS environment.

A screenshot of a computer

Description automatically generated

This is a very simple yet effective way to use IaC to configure and deploy using Terraform within the cloud environment (AWS in this example).