**Write a custom module for multiple virtual machines deployment with the same configuration.**

You must have a Microsoft Azure account to proceed with the VM creation in Azure using Terraform. Please refer to the official guide for instructions:

You must now have your Azure account ready. You must assign a contributor role to "terraform" (app name).

Step 1: Access your Azure portal.

Step 2: Locate and select Subscriptions from the left side menu bar.

Step 3: Select Access Control IAM and then Add.

Step 4: In the Add Permissions window, choose contributor as the role. Enter the app name you created in Azure AD (Created in Azure Active Directory) in the select input box and click OK.

Step 5:After successfully granting permission, click Refresh in your subscription window to see your app appear in the list.

Several azure data (such as subscription ID, client ID, tenant ID, and client secret) are now required for authorization and authentication in Terraform. To obtain the necessary IDs, use the methods listed below:

subscription — subscription ID — 9ffd5g6h6-8044-XXXX-XXXX-XXXXXXXXXXXXXXXXXXXX

Azure Active Directory — tenant ID 47d6f37d-XXXX-XXXX-XXXX-XXXX-XXXX

Azure Active Directory — App Registration — Once registered, we will receive the following Application (client) ID: 9463437-XXXX-XXXX-XXXX-XXXX-

Once the app has been created, click on it (Display Name) — Secrets and certificates — New client secret — This provides the "client secret"

I'm using the azurerm provider version 2.0.0 in this example.

You must now create three files:

**main.tf** — This file will contain the actual code for creating virtual machines.

**variables.tf** — This file is used to declare variables that will be used in TF code. You can also override the default values.

**terraform.tfvars** — This file is used to define variables declared in variables.tf (if and only if it is not already defined in variables.tf)

Note: I'm going to use both variables.tf and terraform.tfvars to demonstrate the importance of both files.

Put the following code in variables.tf, main.tf and terraform.tfvars--- AS I MENTIONED IN FOLDER

After that, run the following commands to format, validate, and initialise the Terraform code.

**terraform init**

**terraform validate**

Please run: to view or create the execution plan.

**terraform plan**

If you are happy with the execution plan, please use the following code to create the VMs:

**terraform apply—auto-approve**