Name: Hetal Wadhwa

Roll no: A082

MCA Devops M2

Question:

Write a terraform configuration to create a local Docker container running Nginx . The container should be created using Docker provider in terraform

Please note: Not Availability of admin password that is why terraform is not running on CMD hence sir told to write detailed steps.

Answer:

Step 1: Install Terraform: Download and install Terraform from the official website

Step 2: Install Docker: Download and install Docker Desktop for Windows

Step 3: Enable Docker in Windows: Ensure Docker is running and the Docker Daemon is properly started.

Step 4: Add the folder path to the Windows PATH environment variable so that Terraform can be run from the command line.

Step 5: Open CMD and verify Docker is installed by running

Terraform Configuration:

Step 6: **Create a new directory** for your Terraform configuration, e.g., C:\Terraform\nginx-docker.

Step 7: **Inside this directory, create a file named** main.tf with the following content

provider "docker" {

host = "npipe:////./pipe/docker\_engine" # Docker's default pipe on Windows

}

resource "docker\_container" "nginx" {

image = "nginx:latest"

name = "my-nginx-container"

ports {

internal = 80

external = 8080

}

}

**Step 8: Initialize Terraform**: Open CMD and navigate to the directory where main.tf is located. Run the following command to initialize Terraform

terraform init

Step 9: **Apply the Configuration**: Run the following command to apply the configuration and start the container

terraform apply

Terraform will ask for confirmation to create the resources. Type yes and press Enter.

After a few moments, Terraform will have created the container, and you should see an output

Step 10: Verify the Nginx Container is Running Open a web browser and visit localhost You should see the default Nginx welcome page.

Step 11: Destroy the Container (Optional)

terraform destroy