**Terraform**

**Assignment – 1**

Write a terraform script using aws ec2 instance and GitHub and apply the following kind of variables.

* Types of Terraform variable – Number.
* Types of Terraform variable – String.
* Types of Terraform variable – List.
* Types of Terraform variable – Map.
* Types of Terraform variable – Boolean.

and Declare variables in

* Terraform file.
* Override through Command Line

**Assignment – 2**

Write a Terraform script that creates a ubuntu ec2-instance and copies an ansible playbook, installs ansible, and runs it.

* Step 1 – Create ec2-instance with key and group.
* Step 2 – Copy the playbook using the file terraform provisioner.
* Step 3 – Install Ansible using remote terraform provisioner.
* Step 4 – Run Ansible playbook command using remote terraform provisioner.

**Assignment – 3**

Write a 2 Module in Terraform. One Local Module, Second remote module.

* Local Module Spec – in Ubuntu – Setup a webserver
* Remote module – Setup VPC

**Assignment – 4**

Hello World – Terraform Configuration Files

* Create a Hello World – Terraform Configuration file that outputs Hello World when you submit the Template.
* Learn how to validate the Terraform Configuration file Content in Visual Studio Code
* Learn how to validate the Terraform Configuration file using Terraform Validate and ADO Pipeline

**Assignment – 5**

Create the below Terraform Modules

* Resource Group
* Virtual Machine
* IP Address
* NSG
* NIC
* Diagnostics Service