

Day - 1

- What is DevOps Vs DevSecOps Vs SRE?
- Tool sets in DevOps Vs DevSecOps Vs SRE?
- Overview of infrastructure during SDLC?
- Problems with many infrastructure tools?
- Introducing Infrastructure as Code
- Declarative vs. Imperative
- Introduction of Terraform
- Advantage & Disadvantage of Terraform
- How Terraform works for Infrastructure as Code?
- Alternative of Terraform
- Terraform Use cases
- How to install Terraform?
- Introductions of Terraform Components?
 - – Terraform Providers
 - – Terraform Registry
 - – Terraform Resources
 - – Terraform Resources Argument Reference
- Deploying Your First Terraform Configuration

- Terraform Basics Workflow using Terraform CLI
 - – terraform validate
 - – terraform init
 - – terraform plan
 - – terraform apply
 - – terraform show
 - – terraform destroy
- Updating Your Configuration with More Resources
- Configuring a Resource after Creation
- Adding a New Provider to Your Configuration
- Understanding Terraform state file
- Terraform Resource Behavior & Lifecycle
- Understanding Terraform HCL syntax & Style
- Terraform Resources Meta-Argument
 - – depends_on
 - – count
 - – for_each
 - – provider
 - – lifecycle
- Using Terraform for Create Cloud Provider Compute Resources

Day - 2

- Introduction of Terraform Variables & Values
 - - Input Variables
 - - Output Values
 - - Local Values
- Where to declare a Terraform Input Variables?
- Deep dive into Types of Terraform Input Variables
 - - string
 - - number
 - - bool
 - - list
 - - set
 - - map
 - - object
 - - tuple
- How to access Terraform Input Variables value?
- Terraform Input Variables precedence & Scope
- Working with Terraform Output Values
- Working with Terraform Local Values
- Introduction of Terraform Data sources?

- Accessing Terraform Data sources?
- Working with Terraform HCL Operators
- Overview of Terraform Functions
- Working with Terraform Functions
 - - Numeric Functions
 - - String Functions
 - - Collection Functions
 - - Encoding Functions
 - - Filesystem Functions
 - - Date and Time Functions
 - - Hash and Crypto Functions
 - - IP Network Functions
 - - Type Conversion Functions
- Introducing Terraform Provisioners
- Working with Terraform Provisioners
 - - file
 - - local-exec
 - - remote-exec
- Using Terraform for Create Cloud Provider Storage & Networking Resources

Day - 3

- Working with Terraform Templates
- Working with Workspaces for multiple environments
- Working with Remote Backend for managing State file for team
- - artifactory
- - s3
- - azurearm
- - gcs
- Understanding Terraform State locking
- Terraform Troubleshooting using logs & common errors
- Introducing Terraform Module
- Using with Terraform Module from Registry
- Developing Custom Terraform Module
- Publishing Modules on the Terraform Registry
- Introducing Terraform Console
- Introducing Terraform Tags
- Introducing Terraform Cloud
- Using Terraform for use Multiple providers for CI/CD