CREDO SYSTEMZ
Simplifying IT

Course Syllabus for Terraform Training

Section 1: Introduction to Terraform

- Introduction to terraform
- Infrastructure Automation
- Install Terraform
- Providers
- Resources
- Basic Syntax

Section 2: Getting Started with Terraform

- Terraform Plan, show, Apply, Destroy
- Exploring Terraform Registry
- Interpolation
- Tainting and Updating Resources
- Terraform Console and Output
- Terraform Variables
- Breaking Out Our Variables and Outputs

Section 3: Terraform Modules

- Introduction to Modules
- Module repositories
- First Basic Module
- The Module codes
- Main Terraform Code
- Using git repositories to save modules

Section 4: Terraform: Writing in a More Organised Way

- Maps and Lookups
- Terraform Workspaces
- Null Resources and Local-Exec
- Terraform Console

Section 5: Terraform with AWS

- Setting up the system for AWS
- AWS Storage
- The S3 Bucket and Random ID

- The Root Module
- AWS Compute
- AMI Data, Key Pair, and the File Function
- The EC2 Instance
- User Data and Template Files
- The Root Module
- AWS Networking
- VPC, IGW, and Route Tables
- AWS Networking: Subnets, Security, and the Count Attribute
- AWS Networking: The Root Module

Section 6: Terraform

- Remote state
- Data Sources
- Templates
- Conditionals
- Built-in Functions
- Working with state files
- Outputs, count and Join Function

Section 7: Terraform Integration

- Adding S3 Backend
- Integration with GIT
- Packer Introduction
- Terraform with Packer
- Terraform With Jenkins
- Terraform Formatting and Remote State
- Terraform RandomID and S3 Buckets

Section 8: Terraform Troubleshooting and Testing

- terraform Plan revisited
- Debugging the script
- Terraform Testing

Section 9: Extending Terraform

- Terraform with Azure Cloud
- Terraform with Google Cloud
- Terraform Template
- Terraform Plugins
- Integrating Go Plugins

Section 10: Terraform Best Practices

- Terraform Script Writing
- Workflows in Terraform
- Terraform Projects
- Other Hashicorp tools
- Terraform Features