

Operational Infrastructure as Code

OEM: IBM • Duration: 3 Days (24 hrs) • Code: 8H501G

COURSE MODULES & TOPICS

Objectives

- Gain comprehensive knowledge of HCP Terraform and best practices for usage in Infrastructure as Code (IaC)
- Understand how to use Packer for creating machine images
- Understand HCP Packer and its automation & compliance features
- Understand infrastructure deployment patterns and automation
- Use course tools to develop and deploy applications in an automated deployment pipeline using IaC
- Course assumes familiarity with HashiCorp Configuration Language (HCL), how to write Terraform, basic Git usage, and basic Terraform Provider concepts

Agenda:

- Terraform fundamentals review
- HCP Terraform features including State, Workspaces, Teams, Projects & Variables
- Terraform VCS workflow
- Advanced HCP Terraform features including Run Tasks & Agents
- Packer fundamental
- Packer features including Builders, Communicators, Provisioners, & Post-Processors
- HCP Packer features including Automation, Artifacts, & Revocation
- Integrating HCP Terraform and HCP Packer in a deployment pipeline
- Hands-on Labs
- Course Summary

Day 1

- Terraform Fundamentals Review
- Terraform Providers, State, Workspaces, & Variables
- VCS Workflow & Role Based Access Control
- Projects, Teams, & Workspaces
- Terraform Agents

Day 2

- Packer & the Packer CLI

- Packer Builders, Communicators, & Data Sources
- Packer HCL for images as code
- HCP Packer fundamentals

Day 3

- Automating Packer
- Packer compliance features
- Integrating HCP Terraform and HCP Packer in a deployment pipeline