

### HashiCorp Certified: Terraform Authoring and Operations Professional

OEM: Terraform • Duration: 5 Days (40 hrs) • Code: TP-PROF

#### COURSE MODULES & TOPICS

##### Section 1: Manage Resource Lifecycle

- Initialize a configuration using terraform init and its options
- Generate an execution plan using terraform plan and its options
- Apply configuration changes using terraform apply and its options
- Destroy resources using terraform destroy and its options
- Manage resource state, including importing resources and reconciling resource drift

##### Section 2: Develop and Troubleshoot Dynamic Configuration

- Use language features to validate configuration
- Query providers using data sources
- Compute and interpolate data using HCL functions
- Use meta-arguments in configuration
- Configure input variables and outputs, including complex types
- Analyze best practices for managing sensitive data, such as using Vault for secrets management

##### Section 3: Develop Collaborative Terraform Workflows

- Manage the Terraform binary, providers, and modules using version constraints
- Configure remote state
- Use the Terraform workflow in automation
- Share data across configurations and workspaces

##### Section 4: Create, Maintain, and Use Terraform Modules

- Create a module
- Use a module in configuration
- Refactor a module and use module versioning
- Refactor an existing configuration into modules

##### Section 5: Configure and Use Terraform Providers

- Understand Terraform's plugin-based architecture
- Configure providers, including aliasing, versioning, sourcing, and managing upgrades

- Manage provider authentication
- Troubleshoot provider errors

## **Section 6: Collaborate on Infrastructure as Code Using HCP Terraform**

- Analyze the HCP Terraform run workflow
- Understand HCP Terraform workspaces and their configuration options, including access management
- Manage provider credentials in HCP Terraform
- Analyze policy as code and governance features