HashiCorp Vault

Duration: 3 Days (8 hours per day)

Prerequisites: Basic Linux Knowledge Required

Module 1 – Introduction to Vault

What is Vault?
How Vault Works
Why Organizations Choose Vault
Benefits and Use Cases of Vault
Comparing Versions of Vault

Module 2 – Vault Architecture

Vault Components
Vault Architecture and Pathing Structure
Vault Data Protection
Seal and Unseal
Unsealing with Key Shards
Unsealing with Auto Unseal
Unsealing with Transit Auto Unseal
Pros and Cons of Unseal Options
Vault Initialization
Vault Configuration File
Storage Backends
Audit Devices
Vault Interfaces

Module 3 – Installing Vault

Installing and Running Vault Server
Running Vault Dev Server
Running Vault Server in Production
Configuring the Consul Storage Backend
Configuring the Integrated Storage Backend

Module 4 – Compare Authentication Methods

Introduction to Auth Methods
Working with Auth Methods
Configuring Auth Methods using the CLI
Configuring Auth Methods using the API
Vault Authentication using the API
Using the API Explorer
Vault Entities
Vault Identity Groups
Choosing an Auth Method
Differentiate Human vs System Auth Methods
AppRole Auth Method
Okta Auth Method
UserPass Auth Method

Module 5 – Create Vault Policies

Introduction to Vault Policies
Managing Policies using the CLI
Managing Policies using the UI
Managing Policies using the API
Anatomy of a Vault Policy
Vault Policies – Path
Vault Policies – Capabilities

Customizing the Path
Working with Policies

Module 6 – Access Vault Tokens

Introduction to Vault Tokens
Token Hierarchy
Controlling the Token Lifecycle
Periodic Tokens
Service Tokens with Use Limits
Orphan Tokens
Setting the Token Type
Managing Tokens using the CLI
Managing Tokens using the UI
Managing Tokens using the API
Root Tokens
Token Accessors
Explaining Time to Leave (TTL)
Create a Token Based on Use Cases

Module 7 – Compare and Configure Secrets Engines

Static vs Dynamic Secrets
Introduction to Secrets Engine
Working with a Secrets Engine
Configuring a Secrets Engine for Dynamic Credentials
Key/Value Secrets Engine
Working with KV Secrets Engine
Encrypting Data with the Transit Secrets Engine
Using the Transit Secrets Engine