## Module 1: Introduce AWS

* AWS Concept
* AWS Identity and Access Management (IAM)
* Amazon Elastic Compute Cloud (EC2)
* Elastic Block Store
* Amazon Simple Storage Service (S3)
* Network & Security
* Load Balancing
* AWS PVC
* AWS Auto scaling

## Module 2: GITLab

* Git local repository
* Git command
* Git branch
* Git remote repository
* Using Github, GitLab
* Gitlab repository
* Gitlab registry
* Gitlab Runner
* Gitlab CI/CD pipeline

## Module 3: Ansible

* YAML
* Inventory
* Playbook
* Vars
* Modules
* Roles
* Ansible-galaxy

## Module 4: Docker

* Docker images
* Docker network
* Docker Volume
* Docker Container
* Docker compose
* Docker Desktop
* Docker registry
* Database cluster

## Module 5: Kubernetes

* Install K8S Cluster: master node, worker node
* K8S deployment
* K8S network
* Services
* Namespace
* Storage (PV, PVC)
* ConfigMap, secret
* Services Accounts and RBAC
* NetworkPolicy
* Security Context
* Autoscale
* Kubernetes Dashboard
* Helm – Kubernetes Package Manager
* Rancher

## Module 6: Jenkins

* Install Jenkins
* Jenkins build tools
* Create Users & Manage Permissions in Jenkins
* Create Job in Jenkins
* Create Jenkins File
* Jenkins CI/CD Pipeline
* Blue Ocean Pipeline Editor

## Module 7: Terraform

* Resource Dependencies and Modules
* Providers
* Data Sources
* Templates and Files
* Variables
* Project Layout
* Plans
* State
* Workspaces
* Provisioners

## Module 8: Monitoring and Logging

* Monitoring
* Prometheus
* Grafana
* Logs management
* Grafana Loki