[Course Detail Content]

First Month Courses

Foundation – General & Pre-Course

- Computers, Servers & Operating Systems
- Networking Fundamentals for Cloud
- Intro to Cloud Computing
- Software, Apps & Infrastructure
- DevOps, CI/CD & Version Control
- Virtualization & Containers and Testing
- Cloud Security Basics
- Programming & Scripting Basics
- Software Development Life Cycle (SDLC)
- Git and Its Commands
- Introduction to AWS (Amazon Web Services)
- Create & Connect a Linux Server on AWS
- Deploying a Live Web App on AWS EC2

Linux

- Basic Linux Commands
- Linux File System, User & Group Management
- Configuring User and Group Permissions
- File & Cloud Access with chmod and IAM
- Linux Compression Commands
- Linux Archiving Commands
- Soft Link & Hard Link in Linux

Second Month Courses

- System Level Linux Commands
- Mastering EBS Volume Management
- Linux Networking Commands
- Linux File & Log Management
- Linux AWK Commands
- Linux SED Commands
- Linux Grep Commands
- Linux CUT Commands
- find and locate Linux Commands

📜 Bash Scripting

- Bash Scripting_Basics
- Bash Scripting_Basics Projects
- Introduction of AWS S3 Service
- Bash Scripting_Intermediate
- Bash Scripting_Intemediate Projects
- Automate Cloud Infra with Bash Scripting
- Automating Tasks with Cronjobs
- Bash Script Error Handling
- Automating EC2 + S3 Setup via AWS CLI

🐳 Containerization with Docker

- Docker Fundamentals
- Deploying a Flask App using Docker

Third Month Courses

- Deploying a Django App using Docker
- Deploying two-tier application on AWS
- Docker Volumes & GitHub Container Registry
- Docker Networks & GitHub Container Registry
- Docker Multistage Build & AWS ECR
- Secure Docker File & Docker Container
- Deploying a Three-Tier Web Application on AWS
- Deploying a Three-Tier Web Application using Docker Compose
- Secure Three-Tier App Deployment using Docker Compose
- Orchestration the Three-Tier App on ECS (Fargate) with ECR

🔄 CI/CD Pipeline with Jenkins

- Jenkins CI/CD Pipeline Setup on AWS EC2
- Declarative CI/CD Pipeline with Jenkins
- Declarative CI/CD Pipeline with Docker Multistage & Docker Hub
- Declarative CI/CD Pipeline with Docker Compose and GHCR
- Declarative CI/CD Pipeline with Docker Compose and AWS ECR
- Multibranch CI/CD Pipeline with Docker Compose and DockerHub
- Configure Jenkins Agents for Multi-Branch Deployment
- Jenkins Declarative Pipeline with Shared Libraries

☸️ Kubernetes

- Setup Kubernetes on AWS EC2 Instance and Explanation of Kubernetes Architecture
- Deploy Your First Application on Kubernetes

Fourth Month Courses

- Deploy Flask Application on Kubernetes
- Deploy Two Tier Application on Kubernetes
- Secure Deployment of Two Tier on Kubernetes with Configmap & Secrets
- Secure Deployment of Three Tier on Kubernetes with Secrets
- Deployment of Application with Resource Management and Probes
- MERN Application deployment on Kubernetes with StatefulSets & Persistent Volume
- MERN Application deployment on Kubernetes with Ingress Controller
- Roles Based Access Control
- Introduction to Helm and Deployment of Application using Helm
- Introduction of ArgoCD - GitOps Automation tool
- Flask App Deployment on Kubernetes Using Helm & Argo CD & Image Updater
- Introduction of EKS cluster and Deploy Application using EKS & ArgoCD

🛠️ Ansible

- Setup Ansible on AWS and Explain Architecture
- Configure and Patching Multiple Servers Using Ansible Playbook
- Automating Multi-Server NGINX Installation Using Ansible Galaxy and Handlers in a Startup Environment
- Dynamic Web Page Deployment with Ansible & Jinja2 Template
- End-to-End Secrets Encryption in Playbooks using Ansible Vault
- Secure Website Deployment on AWS Using Ansible Collections, Pre-built Roles & Vault
- Automate MySQL, Docker Installation & Secure Continuous Web Apps Deployment using Jenkins & Ansible Vault

Fifth Month Courses

🌐 AWS Networking & Security

- Cloud Networking Foundation
- Mastering AWS VPC Networking
- Secure Web Application Deployment on AWS VPC
- Secure Web Application Deployment using Load Balancers on AWS
- Secure and Scalable Deployment of Flask Application in AWS VPC using Auto Scaling Group
- Secure Multi-VPC Deployment of Flask Application and Jenkins with VPC Peering on AWS

🌍 Terraform

- Explanation of Terraform and Setup on AWS EC2 Instance
- Provisioning an EC2 Instance on AWS Using Terraform
- Multi-Environment EC2 Provisioning using Terraform Workspaces
- Automate AWS EC2 Provisioning for Dev, Staging & Prod Using Terraform (Separate Repos Setup)
- Modular & Scalable IAM Automation across Multiple Environments Using Terraform
- Automated Provisioning of Secure S3 Buckets Using Terraform (Modular & Multi-Environment Approach)
- Create VPC with Terraform
- Introduction to DynamoDB
- Introduction to RDS
- Introduction to Secrets Manager
- AWS Monitoring with CloudWatch and SNS

- Kubernetes real time monitoring with prometheus and grafana
- How to design AWS compliant architecture
- Create Backup and disaster recovery plan
- Implement AWS cost optimization

Sixth Month Courses

🌍 Internship Project

Title:

Architecting a Secure, Scalable Multi-Tenant SaaS Platform on AWS with DevOps Automation (AWS + DevOps)

