*** EXPERIENCED **DevOps** ENGINEER ***

-: PRE REQUISITES :-

(1) Laptop with dual boot – Windows and Ubuntu-18.04
(2) Github, Gmail and AWS Trial user accounts
(3) Basic vi commands in Linux.[create/edit/save/view a file]
(4) Cisco Webex application with WebCam working in your laptop

-: COURSE CONTENT :-

1. **DevOps – DEV**elopment and **OP**eration**S**
   a. What it, Why, Benefits, Build/Release workflow etc
2. **Version Control System – Git**
   a. clone, add, commit, push, branch, checkout, merge, pull, fetch, diff, log, status, stash, status, reset, rebase cmds
   b. Product dev – project/training code repository
   c. Product automation repository – test code, automation etc
   d. Webhooks configuration to trigger Jenkins job for pull requests and comments etc
3. **OS Fundamentals – LINUX Basics – Ubuntu18.04**
   a. Introduction and Most widely used/asked commands.
   b. Basic shell scripting. (Code push to GIT)
4. **Introduction to Cloud Computing - SaaS, PaaS, IaaS - AWS**
   a. **Launch VM in AWS EC2 – Elastic Compute Cloud**
      i. Instances, Regions, Security groups, and RSA pem key
      ii. Access VM using SSH (22) with Public key.
   b. **Deploy Jenkins on above VM (Ubuntu18.04)**
      i. Installation steps – dependencies - JRE/JDK etc
      ii. Deployment of Jenkins on AWS VM
      iii. Enabling outbound/inbound traffic - http(80)
      iv. Access Jenkins http://<AWS VM Public IP>:8080 for config
   c. **Using AWS S3 – SSS – Simple Storage Service - for storage requirements**
      i. Upload Build artifacts
      ii. Upload Build/test logs etc – File server
5. **CI/CD – Jenkins application (hosted in AWS)**
   a. Create Build job (1) – **Maven**, Upload artifacts (s/w) to S3
   b. Create Setup(2) and Automation job (3) – Download artifacts from S3
   c. Integrate all jobs
   d. Configure **Email** (for your Gmail id), and Git Pull Request PlugIn.
6. **Containers – Docker, Docker swarm, Kubernetes**
   a. Create Docker image, Write docker file, Run, Use, Stop.
   b. What is Docker swarm?
   c. Introduction to Kubernetes
7. **Bug Reporting/Tracking Tool – JIRA**
   a. Install and configure open source bug tracking tool
   b. Create tickets, dashboard etc walkthrough
8. **IaC – Infrastructure as Code – Terraform**

NOTE: Interview Questions. Mock Interviews. Placement assistance.