

## DEVOPS / CLOUD ENGINEER PRACTICAL ROADMAP (SIMPLE)

### PHASE 0: BASICS

- Linux basics (files, permissions, services, logs)
- Networking basics (IP, DNS, ports, HTTP/HTTPS)
- Git (clone, commit, push, pull, branch)

### PHASE 1: CLOUD FUNDAMENTALS (AWS)

- EC2 (virtual machines)
- VPC, Subnets, Security Groups
- IAM (users, roles, policies)
- S3 storage
- CloudWatch logs and metrics

### PHASE 2: SCRIPTING & AUTOMATION

- Bash scripting
- Python basics
- API usage
- AWS SDK (boto3)

### PHASE 3: CONTAINERS

- Docker basics
- Dockerfile
- Build and run containers
- Push images to registry

### PHASE 4: CI/CD

- GitHub Actions or Jenkins
- Build pipelines
- Automated deployment
- Environment variables and secrets

### PHASE 5: INFRASTRUCTURE AS CODE

- Terraform basics
- Create EC2, VPC, Security Groups using code
- State management

### PHASE 6: KUBERNETES

- Kubernetes architecture
- Pods, Deployments, Services
- ConfigMaps and Secrets
- EKS basics

### PHASE 7: MONITORING & SECURITY

- CloudWatch monitoring
- Prometheus and Grafana basics
- IAM security best practices
- HTTPS and SSL

### PHASE 8: REAL PROJECTS

- CI/CD pipeline project
- Terraform AWS project
- Docker + Kubernetes project
- Monitoring dashboard project

**FINAL GOAL:**

- Automate everything
- Deploy without manual steps
- Debug production issues