Plan: DevOps Lab on AWS + EKS

Step 1   Create network module (VPC, Subnets, IGW, NAT, Routes)

Step 2   Write documentation for network module (README.md)

Step 3   Create eks module (EKS cluster + node group)

Step 4   Write documentation for eks module

Step 5   Create IAM roles for EKS cluster and node group

Step 6   Connect eks module in environments/dev

Step 7   Access check to cluster (kubectl, kubeconfig, outputs)

Step 8   Install ArgoCD via Helm

Step 9   Configure GitOps (Applications, App of Apps)

Step 10   Deploy application (2 Flask microservices + ingress)

Step 11   Configure RDS and ElastiCache (modules, security groups)

Step 12   Integrate application with database and redis

Step 13   Install Prometheus and Grafana (Helm chart)

Step 14   Expose metrics from microservices

Step 15   Setup GitHub Actions (Terraform, build, push, deploy)

Step 16   Final documentation: structure and usage