**Lead DevOps Engineer**

**Team**: 5 members

**Tech Stack:**

* IaC
  + Hashicorp - Terraform
  + AWS - CDK (Python)
  + AWS - Cloudformation
* CI/CD
  + Jenkins
  + Github Actions
  + AWS - Code pipeline, Code Build, Code Deploy, Code connections
* Containers & Orchtestration
  + AWS - EKS (Kubernetes)
  + AWS - ECS , ECR
* Security :
  + Cloudflare
  + AWS - Secret manager
  + Hashicorp - Vault
  + AWS
    - IAM
    - IAM - Identity center
    - Organization
    - Cloud trail
    - AWS config
    - Cloud Inspector
    - Security Hub
    - Trusted Advisor
* Monitoring:
  + Prometheus, Loki and Grafana
  + AWS - Cloud Watch (Custom metrics, Logs, Alarms, Log query)
  + DataDog
* AWS Cloud (IaaS & PaaS)
  + AWS - ALB & NLB
  + AWS - EBS, EFS, S3
    - AWS - SNS, SQS
  + AWS - SSM (Parameter store, Session manager, Run command, State manager)
  + AWS - RDS(MySQL), DynamoDB, Data Migration service, Athena
  + AWS - API Gateway, Lambda
* AWS - Event Bridge, Scheduler
  + Networking
  + Route53
  + ACM
  + Cloud front
  + VPC
* Cost Optimization
  + Cost and Billing Management
  + Budgets
  + Cost Optimization hub
  + AWS Health Dashboard
  + AWS Well architected framework

**Responsibilities:**

As a **DevOps Lead**, ensuring that the code, build, deployment, monitoring, and security follow **best practices by AWS** involves integrating AWS-native tools, services, and security standards into the software development lifecycle (SDLC). Below are detailed best practices that should be followed for each phase from **code** development to **deployment**, **monitoring**, and **security**.

**Infrastructure as Code (IaC):** Developed and maintained IaC for finance-based applications' solution architecture.

**CI/CD Pipeline:** Designed and implemented a CI/CD pipeline for a Kubernetes-based microservices architecture, cutting deployment time by 50% and improving system reliability by 30%.

**Autoscaling & Performance:** Developed an autoscaling solution for Kubernetes, reducing infrastructure costs by 25% and improving application performance by 15% during peak traffic.

**Kubernetes Management:** Designed, developed, and maintained Kubernetes clusters and applications, automating deployment, scaling, and monitoring.

**Security & Networking:** Implemented security policies, networking, and storage solutions within Kubernetes, ensuring robust and secure infrastructure.

**Overall Impact:** Focused on enhancing performance, scalability, and reliability of Kubernetes environments, leading to significant cost savings and efficiency improvements.