

AWS Discovery Day: AWS Security and Containerization

Duration: 4 Hours

Module 1: IAM, Secrets & Serverless Architecture — 2 Hours

IAM & Secrets Management

- IAM roles, policies and permissions — practical overview
- Least privilege and workload identity
- Secrets Manager vs Parameter Store
- Best Practices & Common Anti-Patterns
- Demo: Lambda accessing Secrets Manager using an IAM role

Serverless & Event-Driven Architecture

- API Gateway + Lambda architecture
- SQS vs SNS — when and why
- Synchronous vs asynchronous processing
- Retries, DLQ and idempotency
- Best Practices & Common Anti-Patterns
- Demo: API Gateway → Lambda
- Demo: SNS → SQS → Lambda

Module 2: Containers on AWS — 2 Hours

ECS & Fargate

- Container architecture on AWS
- ECS core concepts: Cluster, Task, Service
- Fargate and serverless containers
- Load balancing and autoscaling — overview
- When to use ECS/Fargate
- Best Practices & Common Anti-Patterns
- Demo: Deploy a containerized application using ECS/Fargate

EKS

- Kubernetes and EKS overview

- EKS architecture: Control Plane, Nodes, Pods
- When EKS makes sense
- ECS vs EKS — practical decision-making
- Best Practices & Common Anti-Patterns
- Demo: High-level EKS application deployment walkthrough