

# Course 1: Mastering AWS ECS (Elastic Container Service)

**Subtitle:** Deploy, Manage, and Scale Containers Without Managing Servers



**Duration: 2 Weeks (8-10 hours total, including hands-on labs)**

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## ◆ Week 1: ECS Fundamentals & Core Concepts



### Theory

- **What is ECS?**
  - ECS vs EKS
  - Launch types: Fargate vs EC2
- **Core Components**
  - Task Definitions, Services, Clusters
  - Networking: VPC, Subnets, Security Groups
  - ECS with Application Load Balancer



### Hands-On Labs

- Containerize a simple app and push to ECR
  - Deploy to ECS using Fargate
  - Logging with CloudWatch Logs
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## ◆ Week 2: Advanced ECS + CI/CD



### Theory

- **Scaling & Availability**
  - Auto Scaling ECS services
  - Capacity Providers
- **Security**
  - Task IAM roles
  - Secrets Manager & Parameter Store
- **CI/CD and Deployment**
  - ECS Blue/Green deployments
  - CodePipeline + CodeBuild integration

## **Hands-On Labs**

- Setup CI/CD pipeline to ECS
- Inject secrets securely
- Perform Blue/Green deployment using CodeDeploy

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## **Mini Project**

Deploy a 3-tier app on ECS with CI/CD, autoscaling, and secrets management.