Curriculum:

Amazon ECS Overview
- What is Amazon ECS?
- How Does It Compare with Other Services?

Preparation for the Hands on s
- Introduction
- Setting up an Initial Course Folder
- Installing Docker
- Getting Set up on AWS
- Installing and Configuring the AWS CLI
- Benefits of Using the AWS CLI
- Creating an SSH Keypair
- Creating a Security Group
- Creating ECS IAM Roles

Deep Dive with Amazon ECS
- Breaking Down Each ECS Component
- Clusters
- Container Agent
- Container Instances
- Task Definitions
- Scheduler
- Scheduling Services
- Starting Tasks
- Private Docker Registry (ECR)
- ECS CLI
- Tearing Down Our Cluster

Developing the Ruby on Rails Application
- Introduction
- Generating a New Rails Project
- Setting up a Strong Foundation
- Dockerizing Your Rails Application
- Running the Application Locally
- Working with the Application
- Building the Demo Application
- Other Web Frameworks and Custom Apps

Preparing to Deploy Everything on AWS
- Introduction
- Using and Configuring nginx
- Setting up an S Bucket
- Setting up RDS for Postgres
- Setting up ElastiCache for Redis
- Setting up an Elastic Load Balancer
- Visualizing the Application's Architecture
- Profiling the Ruby on Rails Application

Estimating AWS Costs Based on Facts
- Introduction
- Going over the Cost Spreadsheet
- Experimenting with Different Traffic Figures
- Comparing Costs to Other Cloud Providers
- Benefiting from Amazon's Free Tier

Deploying Everything with Amazon ECS
- Introduction
- Creating the Production Cluster
- Creating the Private Registry Repositories
- Spinning up Multiple Container Instances
- Registering the Task Definitions
- Scheduling Services
- Pushing Application Changes without Downtime
- Automating Your Deployments with a Script
- Exploring the AWS Console and Container Logs

Domain Names and SSL
- Introduction
- Wiring up the ELB Endpoint to a Domain Name
- Creating Free SSL Certificates with Amazon ACM
- Updating the Security Group to Handle SSL
- Updating the ELB to Handle SSL
- Updating nginx to Handle SSL