

Running Applications on Amazon EKS

AWS Classroom Training

Course description

Amazon Elastic Kubernetes Service (Amazon EKS) makes it easy for you to run Kubernetes on AWS without needing to install, operate, and maintain your own Kubernetes control plane. In this course, you learn some of the fundamentals of container management and orchestration for Kubernetes using Amazon EKS.

- Course level: Intermediate
- Duration: 4 hours

Activities

This course includes presentations, demonstrations and labs.

Course objectives

In this course, you will learn to:

- Explain how Amazon EKS manages the Kubernetes control plane and can manage elements of the data plane.
- Publish container images to Amazon Elastic Container Registry (Amazon ECR) and deploy an application to an Amazon EKS cluster.
- Collect monitoring data and identify metrics for performance tuning.

Intended audience

This course is intended for:

- Developers
- DevOps engineers
- Systems administrators

Prerequisites

We recommend that attendees of this course have:

- Completed the *AWS Cloud Practitioner Essentials* course (or equivalent real-world experience)
- Linux Command Line Interface (CLI) administration experience

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Course outline

This course covers the following concepts:

Introduction

- Introduction to bootcamp
- Access to resources (Hands-on lab interface, instructions)

Module 1: Amazon EKS Fundamentals

- Working with Containers
- Kubernetes Fundamentals
- Amazon EKS control plane and data plane

Module 2: Deploying Applications to Amazon EKS Clusters

- Configuring a Helm repository in Amazon Simple Storage Service (Amazon S3)
- Deploying applications with Helm
- **Hands-on Lab:** Deploying applications

Module 3: Configuring observability in Amazon EKS clusters

- Collecting metrics with the AWS Distro for OpenTelemetry (ADOT)
- Monitoring applications with Amazon Managed Service for Prometheus
- Collecting logs with Fluent Bit
- Visualizing logs in Grafana
- **Hands-on Lab:** Gaining and applying insight from observability

Module 4: Wrap Up

- Recap