Serverless on Kubernetes with Knative

All Abilities - 1 day

Overview

Introduces serverless deployment with Knative on Google Kubernetes Engine.

Participants are guided through deploying Istio and Knative to a Google Kubernetes Engine cluster, followed by instructions on how to deploy an application to the cluster using Knative services. The application is iterated upon and improved throughout the day, simulating a real-life development lifecycle.

Later, advanced deployment patterns using Knative and Istio traffic shaping are covered.

Learning Outcomes

Knowledge:

- Understand the architectural overview of both Knative and Istio to gain an understanding of the benefits that they provide to application developers

- Security considerations when running an application using Knative

- How to access service logs and metrics to perform diagnostics and debugging

Skills:

- Deploy and update an application using Knative

- Auto-scale the application to allow the service to react intelligently to demand

- Use Istio to configure traffic routing and perform advanced deployment and rollout patterns

Participant Level

Participants should have used Kubernetes and written some simple applications and Dockerfiles manually or with some kind of service. To get the most out of the day participants must bring their own laptop, with a development environment ready to use.