

Getting Started with OpenTelemetry (LFS148)

Learn how to deploy serverless applications using Knative on Kubernetes, manage event-driven workloads, and implement autoscaling strategies. You'll also configure Knative Serving and Eventing, handle traffic management, and set up monitoring and observability with tools like Prometheus and Grafana.

Duration: 1 Day

Prerequisites for this course

To make the best of this course, you will need to have the following:

- **Programming Knowledge:** A basic understanding in programming, preferably with Python and Java
- **Basic Understanding of Distributed Systems:** Knowledge of how distributed systems communicate and basic concepts of APIs
- **Experience with Observability Tools:** While not strictly required, having some familiarity with existing observability tools like Prometheus, Grafana, or Jaeger can help understand the context and benefits of OpenTelemetry.
- **Command Line Interface (CLI) Skills:** Ability to navigate and execute commands in a terminal or command prompt, as many setup and configuration tasks will involve CLI usage.
- **Environment Configuration:** Experience with setting up and configuring development environments, including virtual environments and containerization technologies like Docker.
- **Version Control System (VCS) Usage:** Familiarity with version control systems like Git, which is essential for managing code and collaborating on projects.

Outline for this course

Chapter 1 – Course Introduction

Chapter 2 – Why Do We Need OpenTelemetry?

Chapter 3 – Overview of the OpenTelemetry Framework

Chapter 4 – Hands-on Lab: OpenTelemetry in Action

Chapter 5 - Instrumentation

Chapter 6 - Hands-on Lab: Automatic Instrumentation and Instrumentation Libraries

Chapter 7 - Hands-on Lab: Manual Instrumentation: Traces

Chapter 8 - Hands-on Lab: Manual Instrumentation: Metrics

Chapter 9. Hands-on Lab: Manual Instrumentation: Logs

Chapter 10. OpenTelemetry Collector

Chapter 11. Hands-on Lab: Telemetry Pipelines with the OpenTelemetry Collector