

En-lighten Technology Ltd

Testing with K6: Beyond the Basics

Overview

This course is for engineers who know ES6 and the basics of K6 and want to learn how to write and deploy tests that take full advantage of both the K6 framework and the ES6 language in tests.

Attendees will learn how to

- Write tests using ES6 language features such as classes
- Execute tests using a variety of executors
- Use custom tags and develop custom metrics
- Generate and analyse test reports
- Package and run tests in containers
- Write unit tests for ES6 scripts
- Use and develop K6 extensions

Audience and Recommended Background

A basic knowledge of k6 and ES6 is assumed.

Course Approach

Taught material will be delivered in short sessions and will be followed by the opportunity to practice what has been taught and reflect on how to put it into practice.

Course Duration: 2 days

Course Content

Writing ES6 Based Tests

- Using ES6 language features such as classes in K6 tests
- JavaScript compatibility mode
- Base and extended modes
- Performance comparison of modes
- Unit test ES6 scripts
- K6 extensions and extending K6

Executors

- Overview of available executors
- Selecting an executor
- Common options

Custom Metrics and Tags

- Built in metrics and metric types
- HTTP specific metrics
- Developing custom metrics: counter gauge, rate and trend

En-lighten Technology Ltd

- Tagging metrics and custom metrics
- Filtering test results using tags

Test Reports

- Aggregated summary reports
- Generating HTML reports
- Streaming metrics
- Processing metrics with JQ

Packaging and Executing Tests

- Packaging tests in a container
- Executing tests in a Kubernetes cluster

Unit Testing ES6 Scripts

- Introduction to Jest
- Using Jest to test ES6 scripts
- Mocking imports
- Testing K6 scripts

K6 Extensions

- The K6 extension ecosystem
- Examples: xk6-chaos, xk6-counter,
- Creating a K6 extension
- Building an extension
- Using the extension