

Updated on 16/02/2024

Sign up

Open Policy Agent training

2 days (14 hours)

Presentation

Our Open Policy Agent training course will introduce you to the fundamental concepts of OPA, its integration into various environments and its essential role in authorization and policy management.

During our course, you'll get an in-depth introduction to OPA and learn how to use the [Rego language](#) to write powerful expressions. You'll discover how to store values in intermediate variables and create efficient rules.

At the end of our course, you'll also learn how to integrate OPA into your environment, using real-life examples. You'll explore different integration methods.

You'll learn how OPA integrates with Kubernetes, including OPA Gatekeeper and its integration with the golang development language.

As with all our training courses, this one will introduce you to the latest version of Open Policy Agent, which at the time of writing is [Open Policy Agent v0.61.0](#).

Objectives

- Understand the fundamental concepts of Open Policy Agent (OPA)
- Understand and learn to write expressions in Rego language
- Master value storage techniques in OPA
- Optimizing policy performance
- Integrating OPA into different environments

Target audience

- Cloud architect
- Developers
- DevOps

Prerequisites

- Kubernetes basics
- Containerization knowledge
- Go development concepts

Open Policy Agent training program

Introduction

- Open Policy Agent overview
- Its various integrations
- Example
- Discovering Rego
- Evaluation of a first rule

Philosophy

- Policies
- Decoupling policies
- The OPA document template

Rego

- Definition and purpose
- Discover the Rego playground
- The basics
- The different elements of language

Tests

- Learn to test your policy
- Mocking
- Coverage

Performance

- High-performance policy decision

- Query benchmark
- Optimizing resource use

External data

- Tokens JWT
- inputs
- Bundle API
- Data push
- Data pull during evaluation

Integration

- Policy evaluation
- Integration with REST API
- Integration with the Go SDK
- Integration with Go API
- WebAssembly (Wasm)
- Intermediate Representation (IR)
- Comparison

Kubernetes

- Kubernetes reminders
- Overview and architecture
- OPA Gatekeeper presentation
- Deploying OPA Gatekeeper
- Application of hardening policies
- Metrics and observability
- Debugging

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.