

Updated on 16/05/2023

Sign up

Lagom training: Reactive Microservices Framework

3 days (21 hours)

Presentation

Lagom is a microservices framework launched by Lightbend, the first version of which dates back to 2016. Lagom is an open source microservices framework for Java and Scala based on Akka and Play, proven technologies that are in production in some of the world's most demanding applications. Lagom is specially designed for reactive applications, with CQRS and Event Sourcing as its main foundations.

Lagom's integrated development environment lets you focus on solving business problems rather than wiring up services. A single command creates the project, starts supporting the components and your microservices, as well as the Lagom infrastructure. The compilation is hot-reloaded when it detects changes to the source code.

In this course you will learn the principles and advanced use of Lagom from installation to production. After installing and understanding the basic concepts of Lagom, you will use Lagom features such as build creation and server assignment. At the end of this course, you'll be able to use Lagom in your projects and solve the main problems of a distributed architecture.

As with all our training courses, we'll be using the latest stable version of [Lagom 1.6](#) software.

Objectives

- Understanding Lagom technology
- Adapt Lagom to the chosen Java/Scala technology
- Developing in resilient mode and managing data persistence

Target audience

Java / Scala developers, Big Data engineers, Architects

Prerequisites

Previous practical knowledge of Scala or Java

Further information

The Lagom Framework can be adapted to a wide range of technologies and languages:

- Our [Dapr](#) training
- Our [Kubernetes](#) training
- Our [Scala](#) training
- Our [Java](#) training

Lagom : Microservices Training Program Introduction

- What is Lagom?
- What's in the name?
- Lagom design philosophy
- Lagom installation
- Import a Lagom integrated into your IDE

Basic Lagom concepts

- Microservices at Lagom
- Multilingual systems with Lagom
- Lagom component technologies
- Lagom construction philosophy
- Immutable objects
- Event Sourcing and CQRS

Using lagom

- Defining a Lagom build
 - Dividing a system into several builds
 - Running Lagom in development
- Development environment
 - Running Services
 - Assigning ports to departments
 - Localization service
 - Cassandra server

Editing Lagom services

- Service descriptors
- Service implementation
- Consumption of services
- Test services
- Message serialization
- Error handling
- Bundled services
 - Persistent entity
 - Read-Side
 - Publish-Subscribe
 - Serialization

Lagom goes into production

- Overview
- Lightbend ConductR
- ReactivePlatform
- Recording
- Recording configuration

Advanced options on request (+2 days)

- Integration with Akka & Play
- Integration with non-Lagom services
- Akka Management: a set of tools for running applications using Akka, as well as support for deployment with Kubernetes or OpenShift
- Akka Cluster Bootstrap: hot discovery of existing nodes in the environment, instead of use a static list of origin nodes
- Incubating (unstable) support for gRPC inter-service communication with HTTP/2
- Akka Persistence Couchbase

Companies concerned

This course is aimed at companies, large or small, wishing to train their teams in a new, advanced computer technology.

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.