

Exercise 3: Process Orchestration with Camunda

Deadline: 19.03.2024; 23:59 CET

Project Abstract

In the third week's exercise on Event-driven and Process-oriented Architectures you will learn about using the Camunda BPM Platform for process/workflow orchestration.

① Labs

In the practical part of the lecture we ask you to work on the following labs to get started with using Camunda, Spring Boot and Kafka:

- Lab05 – Customer Onboarding Camunda¹: This lab shows how to use the Camunda BPM Platform embedded into a Spring Boot application. In class we ask you to try out this lab on your own machine and suggest to extend it with an additional BPMN-based process.
- Lab06 – Camunda Kafka Demo²: In this lab we ask you to have a look at the interaction between the Camunda BPM Platform and Kafka within a Spring Boot application. Execute the example process as described in the README and investigate the flow of messages in Kafka.

② Suggestions for Software Project

For your software application we suggest that you implement your own process solution using the Spring Boot Framework and Camunda. Here you can think about your own BPMN-based processes with simple HTML user interfaces to start processes, and extended sets of process elements, e.g., different types of gateways, external tasks, user tasks, as well as timers, message events and exceptions as further introduced in the Camunda *Lafayette*³ tutorials. It is highly recommended to use Kafka as a message broker (as demonstrated in Lab6).

Software Project Expectations

The labs in Part 1 of this sheet are meant to be done during class and are **not graded**. In Part 2 we expect you to prepare a report on the project-related implementations that you have done in your group.

Hand-in Instructions

The report and implementation for project-related Part 2 will **be graded** as part of the software application for your group to be handed in for the first part of the lecture until after the semester break. An intermediate hand-in of the results from Exercise 3 via Canvas is expected together with the results from Exercise 4 by the deadline indicated on the top of this sheet. Each group member **must explicitly indicate** which part she/he/they has/have been working on. Please approach the tutors for individual feedback regarding your submission for this assignment.

¹<https://github.com/scs-edpo/lab05-customer-onboarding-camunda>

²<https://github.com/scs-edpo/lab06-camunda-kafka-demo>

³<https://github.com/camunda-community-hub/Camunda-Spring-Boot-Tutorial-Lafayette>