VOCATIONAL RUST 1/2

This two-module-long Rust course is made for developers that already have some experience in functional programming and wish to build upon it an advanced expertise in Rust. As a low-level language, it ties robustness and performance in one package which makes it a serious contender to replace C and C++.

This first module deals with every basic concept of Rust and its ecosystem. It also leaves a great deal of room for experimentation through practical tasks. All sections include exercises and projects that participants solve in-session, with help from the trainer(s).

INFORMATION

Price: 1500 EUR/pers. excl. taxes
Duration: 1,5 days
Practice: 50%

Public
Developers ●●●●●

Pre-requisites
Functional Prog. ●●●●○○

Pedagogical Objectives
- Introduction
- Ecosystem
- Basic notions
- Ownership and Mutability
- Polymorphism and Traits
- Higher-Order

Langages
French ●●●●●
English ●●●●●

Indicateurs de résultats
Pas encore disponibles.

CONTACT

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TRAINERS

Adrien Champion (Rust)

Adrien is a senior R&D developer at OCamlPro since 2018 after a PhD in Computer Science and a post-doc in Japan. Adrien develops in Rust since the first versions of the Rust compiler, and maintains several open-source crates in Rust, such as hashconsing, rsmt2, zdd ou safe_index.

TRAINING PROGRAM

Introduction

- History and context
- A multi-paradigm systems language mixing imperative and functional programming
- Motivation: safety, speed, and concurrency

Ecosystem

- Basic project management
- Handling dependencies
- Module Organization
- Release stragegy and schedule, editions

Basic notions

- Syntax
- Types and expressions
- Functions
- User-defined types
- Branching
- Panics
- Implementations
- Loops

Ownership and Mutability

- References and mutability
- Copy and move semantics
- Borrowing and pattern matching
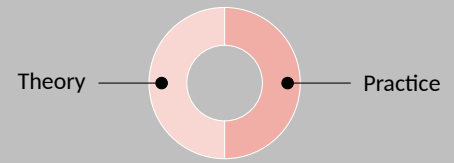- Mutability
- Basic lifetime notions
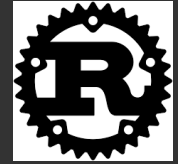- Slices

Polymorphism and Traits

- Simple, unbounded polymorphism
- Defining and implementing traits
- Bounded polymorphism
- Basics of trait objects

Higher-Order

- Function traits: Fn, FnMut, FnOnce
- Closures
- Move closures

THEORY VS PRACTICE

Theory ———— Practice

EVALUATING PROGRESS

We make the progress of our trainees and its evaluation a core aspect of our courses. Indeed, guaranteeing the durable acquisition of the skills at hand is key, especially for the newer comers. To that extent, we will have trainees undergo tailored group works, exercises and hands-on practice which modalities can all be customised to your specific needs.

At the end of the course, you will have an opportunity for feedback to help us improve upon our methods. This is crucial as we believe there is always room for learning on both sides of the desk and no opinion other than yours matters more for us to do so.

CONSIDERING RQTH(RECOGNITION OF HANDI-CAPPED WORKER STATUS)

If people with disabilities are part of the course, do reach out to us so we can adapt the training accordingly.

PEDAGOGICAL RESSOURCES

The ressources are written by the OCamlPro team prior to the courses. Documents are generally written in english and can be translated to french if need be.

FUNDING RESORTS IN FRANCE: OPCO AND CPF

The funding of the training by the OPCO is possible as OCamlPro has received the Qualiopi certification. The two following conditions must then be attained:

- The funding must cover all expenses relative to the course.
- The funding agreement must get to us five days prior to the training session at the latest.

INTER CORPORATION TRAININGS

Les horaires pour nos formations inter-entreprises in-situ sont :
Start - 9:30AM Lunch Break - 12:00PM to 01:00PM End - 05:30PM