

Rust Programming

Level: Intermediate

Duration: 6 hours

Explore the power and efficiency of Rust, a modern language designed for speed, security, and low-level memory access. This course is ideal for experienced developers looking to enhance their skills and productivity by leveraging Rust's unique capabilities.



Course Outline

- **Introduction to Rust:** Overview of the Rust language focusing on speed, security, and low-level memory access.
- **Setup:** Setting up a basic Rust environment.
- **Language:** Exploring key language features, including the borrow checker.
- **Data analytics:** Building a command-line application for data analytics over large datasets.
- **Python integration:** Introduction to Rust's speed and integration with Python using PyO3 for native extensions.
- **Performance:** Exploring technologies to enhance Python performance with Rust.

Learning Outcomes

Session 1:

By the end of session 1 participants will...

- understand the basics of Rust.
- know how to set up a Rust environment.
- explore Rust language features:
 - variables and immutability
 - functions with numbers
 - structs and derive
 - references and calls
 - borrowing
- build a command-line application.

Session 2:

By the end of session 2 participants will...

- understand how Rust integrates with Python.
- be able to use PyO3 for building native extensions.
- enhance Python performance using Rust.

Prior Knowledge

This course assumes participants have prior experience in programming and basic knowledge of Python and Rust.

Attendee Feedback

Contact

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