Mojo Manual

Welcome to the Mojo Manual, a complete guide to the Mojo🔥 programming language!

Mojo is designed to solve a variety of AI development challenges that no other language can, because Mojo is the first programming language built from the ground-up with MLIR (a compiler infrastructure that's ideal for heterogeneous hardware, from CPUs and GPUs, to various AI ASICs). We also designed Mojo as a superset of Python because we love Python and its community, but we couldn't realistically enhance Python to do all the things we wanted. For a longer discussion on this topic, read Why Mojo.

Beware that Mojo is still a very young language, so there's a lot that hasn't been built yet. Likewise, there's a lot of documentation that hasn't been written yet. But we're excited to share Mojo with you and get your feedback.

Contents

- **Get started**
  - Why Mojo
  - Get started with Mojo
- **Language basics**
  - Introduction to Mojo
  - Functions
  - Variables
  - Types
  - Control flow
  - Structs
  - Modules and packages
- **Value ownership**
  - Intro to value ownership
  - Value semantics
  - Ownership and borrowing
- **Value lifecycle**
  - Intro to value lifecycle
  - Life of a value

    - Death of a value
- Traits and parameters
    - Traits
    - Parameterization: compile-time metaprogramming
- Pointers
    - Unsafe pointers
- Python
    - Python integration
    - Python types
- Tools
    - Debugging
    - Testing
- Project information
    - Roadmap and sharp edges
    - Changelog
    - FAQ

Was this page helpful? 👍 👎

✎ Edit this page