

Erlang From Zero to Hero — Complete Course

MODULE 1 — Introduction to Erlang & BEAM

- Why Erlang?
- Install Erlang/OTP
- First REPL code
- HW: print name & math expression

MODULE 2 — Syntax & Basic Types

- Atoms, tuples, lists, binaries, maps
- Function definitions
- Pattern matching
- HW: add, sub, safe_div

MODULE 3 — Recursion & Lists

- Recursion examples
- List comprehensions
- HW: my_map, my_filter, my_reverse

MODULE 4 — Modules & Compilation

- Create module
- erlc & erl execution
- HW: module with 3 functions

MODULE 5 — Concurrency (Actor Model)

- spawn, message passing
- Mailboxes
- HW: counter process

MODULE 6 — OTP gen_server

- init, handle_call, handle_cast
- HW: list server

MODULE 7 — Supervision

- Strategies
- HW: supervisor tree

MODULE 8 — Applications & Releases

- Application structure
- Releases
- HW: rebar3 app

MODULE 9 — Distribution & Nodes

- Start nodes
- Ping nodes
- Cross-node messaging
- HW: 2-node chat

MODULE 10 — ETS & Mnesia

- ETS usage
- Transactions in Mnesia
- HW: ETS counter

MODULE 11 — REST API in Erlang

- Cowboy basics
- HW: health, echo, users

MODULE 12 — Final Project

Distributed Chat System

- chat_user, chat_room

- distribution

- supervision

- persistence