

DESIGN-FIRST FRAMEWORK FOR REST API DEVELOPMENT IN ERLANG

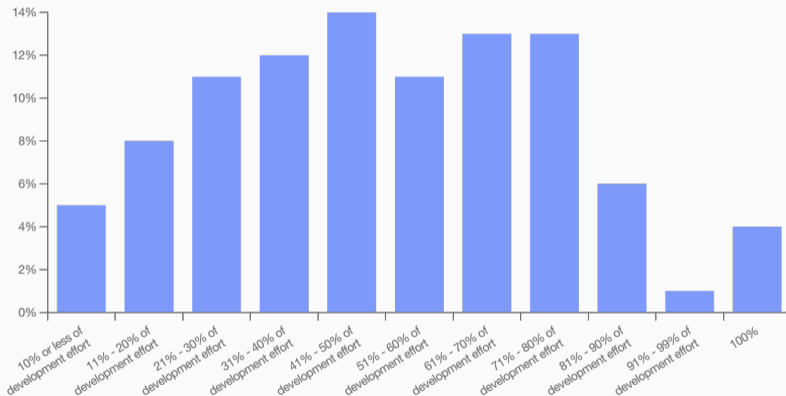
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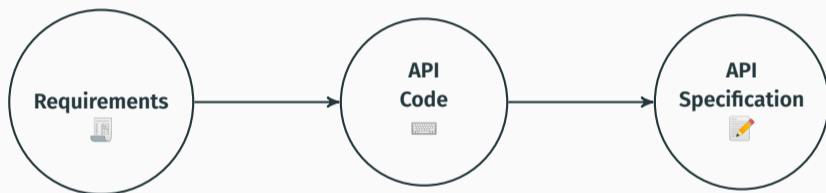
- 1 What is design-first?
- 2 A design-first REST framework
- 3 Evaluation
- 4 Open Source
- 5 Conclusions

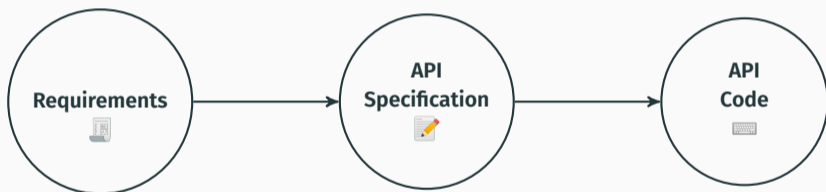
API DEVELOPMENT EFFORT

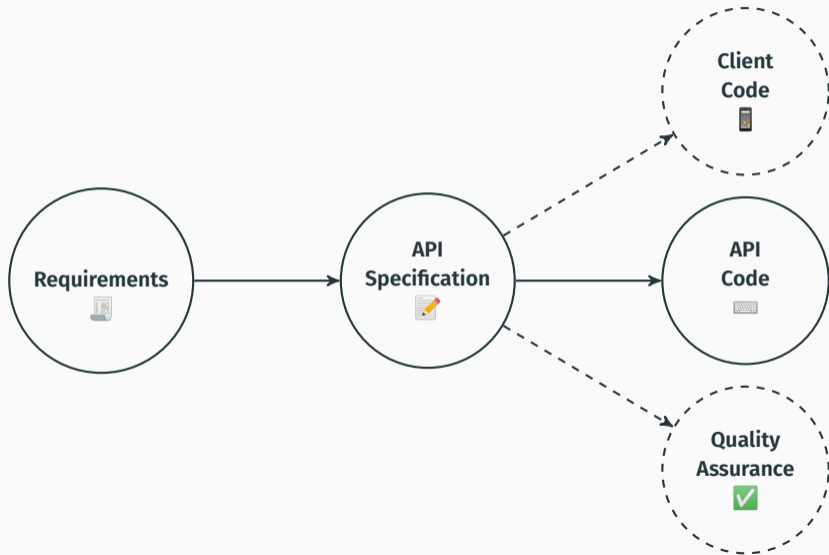
👍 Organisations spend **lots of effort** in API development.



[2023 State of the API Report]





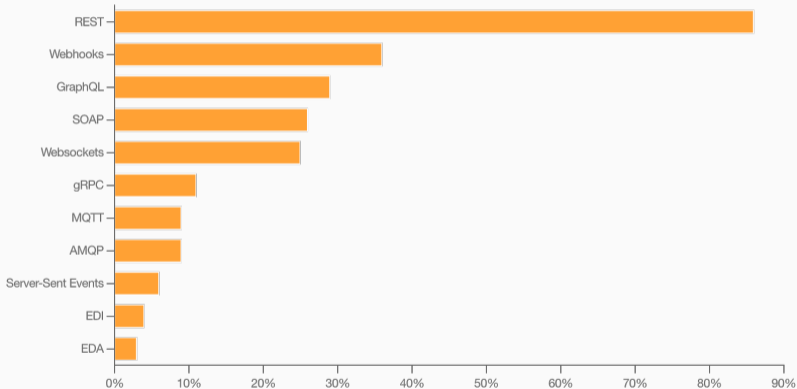


OUTLINE

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RESTful APIs

👍 Representational State Transfer (**REST**) is the most **popular** API paradigm.



[2023 State of the API Report]

IMPLEMENTING A REST API

**Request
Validation** + **Request
Routing** + **Business
Logic** + **Unit
Testing** + **Integration
Testing**

IMPLEMENTING A REST API



Demonstration

👉 Erlang modules metaprogramming.

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👉 Abstract Syntax Trees and Facades.

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👉 Hot-configuration reloading.

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👉 Schema reductions.

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- 👍 The developed framework proposes **innovative features**.

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restcheck

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CONCLUSIONS

Goals:

- ✓ Develop a design-first REST framework in Erlang.
- ✓ Develop an Open Source project.
- ✓ Evaluate the work within the state-of-the-art.
- 🏆 Use the developed tools in production environments.

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Future work:

- New formats + HTTP versions.
- Mock server.
- Enhance errors + type-casting.
- Test HTTP semantics + coverage.
- Pre and post-test hooks.
- Benchmarking.
- Client-code generator.

Thank you for your attention!