DEVNET Create

Going to Infinity and Beyond Documentation with OpenAPI Specification

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self documenting APIs

Single Source of TRUTH

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What is the OpenAPI Specification?

(formerly known as Swagger)

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Standard, structured approach for describing APIs that is both human and machine readable

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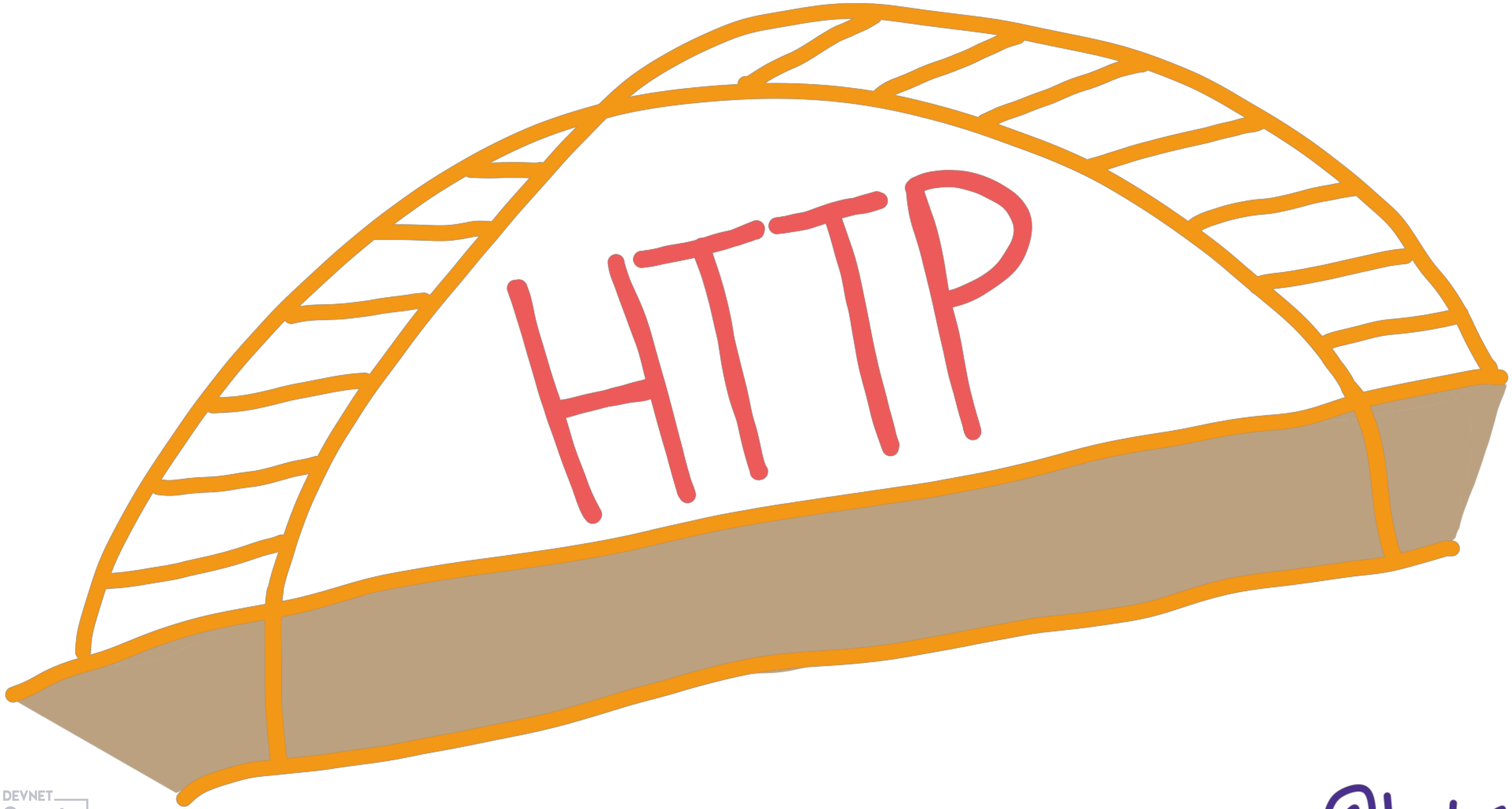
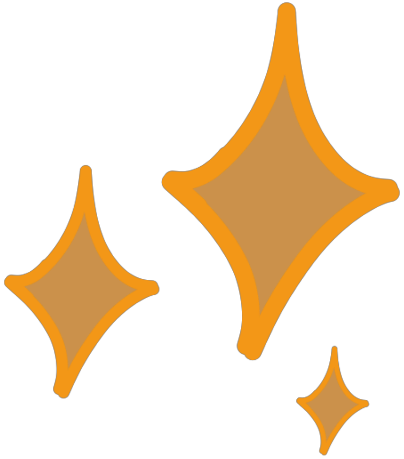

HTTP

and humans

Hidden OpenAPI Benefits



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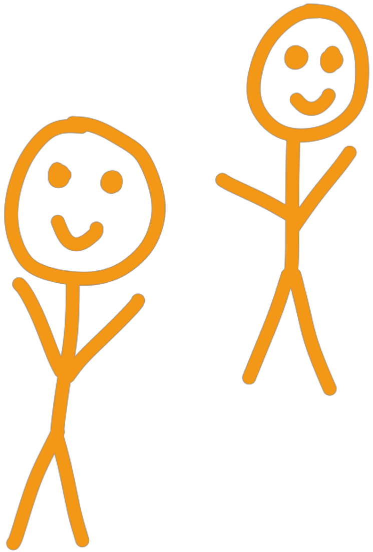
It is NOT just for API References

- Development contract
- Prototype and mocking
- Client libraries and SDKs
- Testing
- Server stubs

More than a technical representation

Tool for Collaboration



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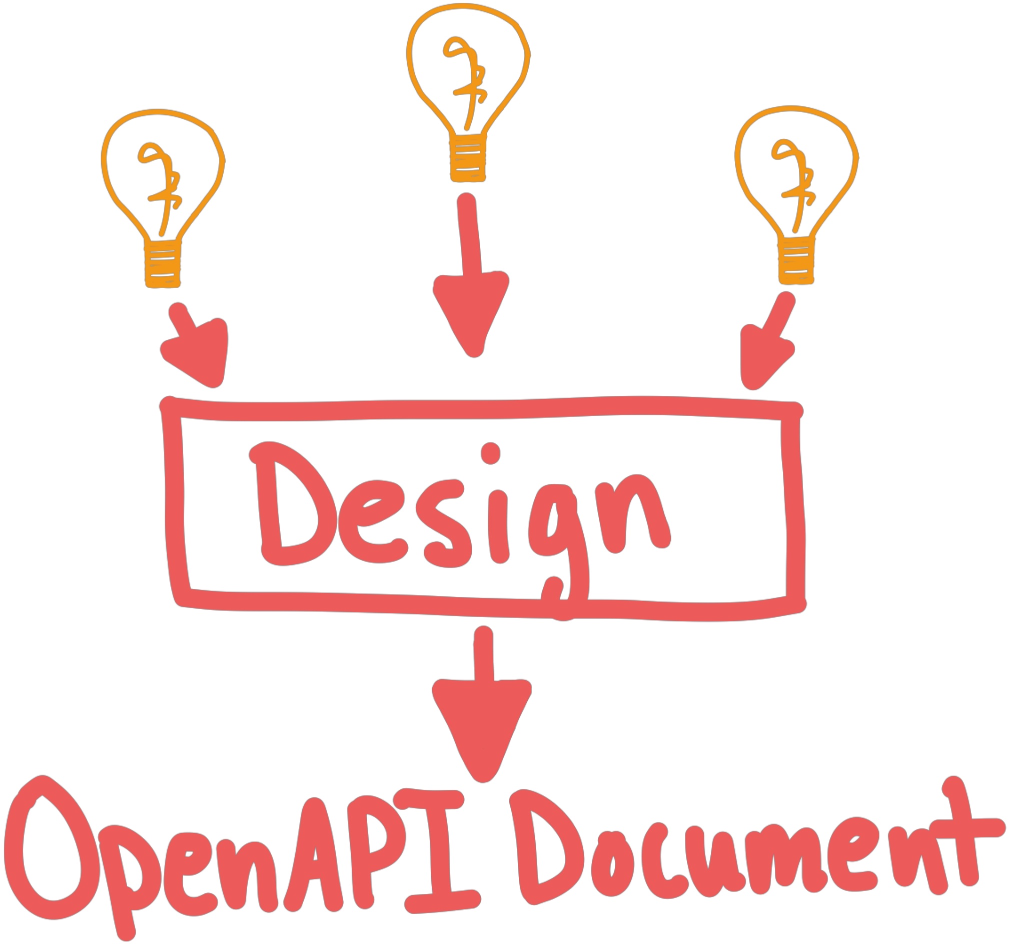
Simplifies

Standardizes

#1 Design-First

#2 Mocking and Feedback

#3 Testing

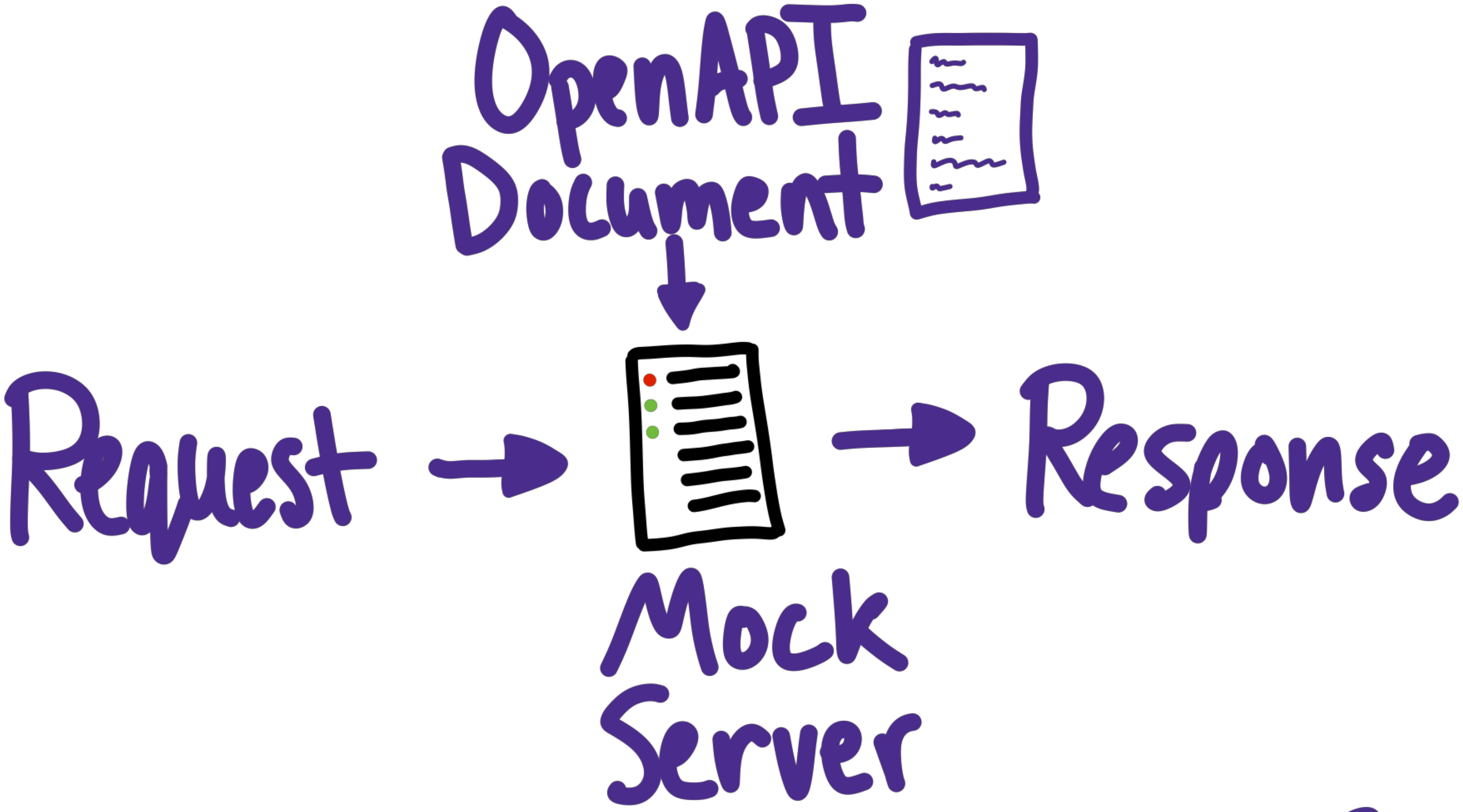

Design
OpenAPI Document

#1 Design-First

- Consistency

- Code-First is expensive $$$
- Gain full benefits of OpenAPI

#2 Mocking and Feedback


OpenAPI Document
Request
Mock Server
Response

If you use or build internal APIs (including libraries/SDKs), you can...

- Build faster
- Parallelize development
- More options

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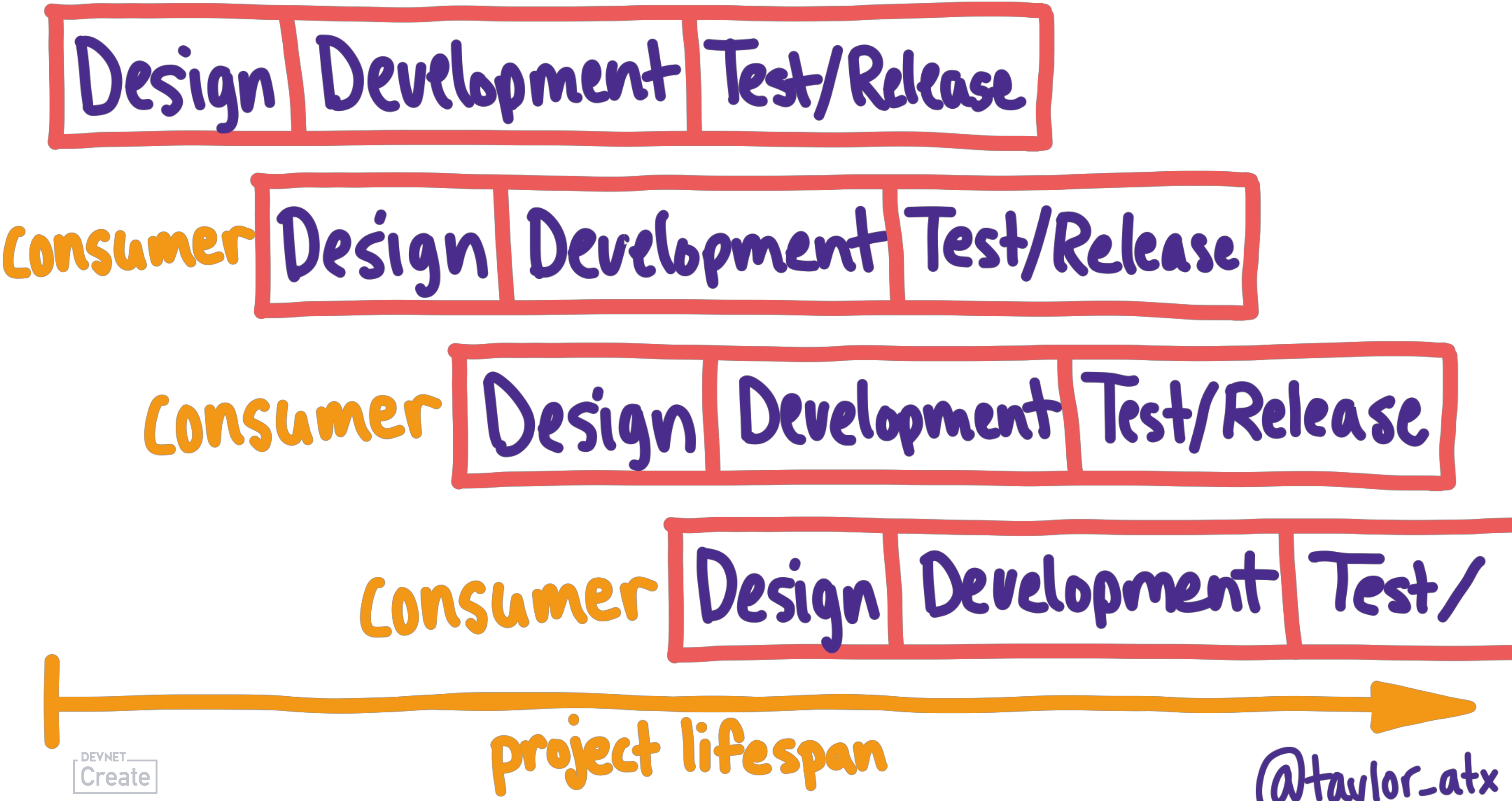
Design
Development
Test/Release
Consumer
Design
Development
Test/Release
Consumer
Design
Development
Test/Release
Consumer
Design
Development
Test/
project lifespan

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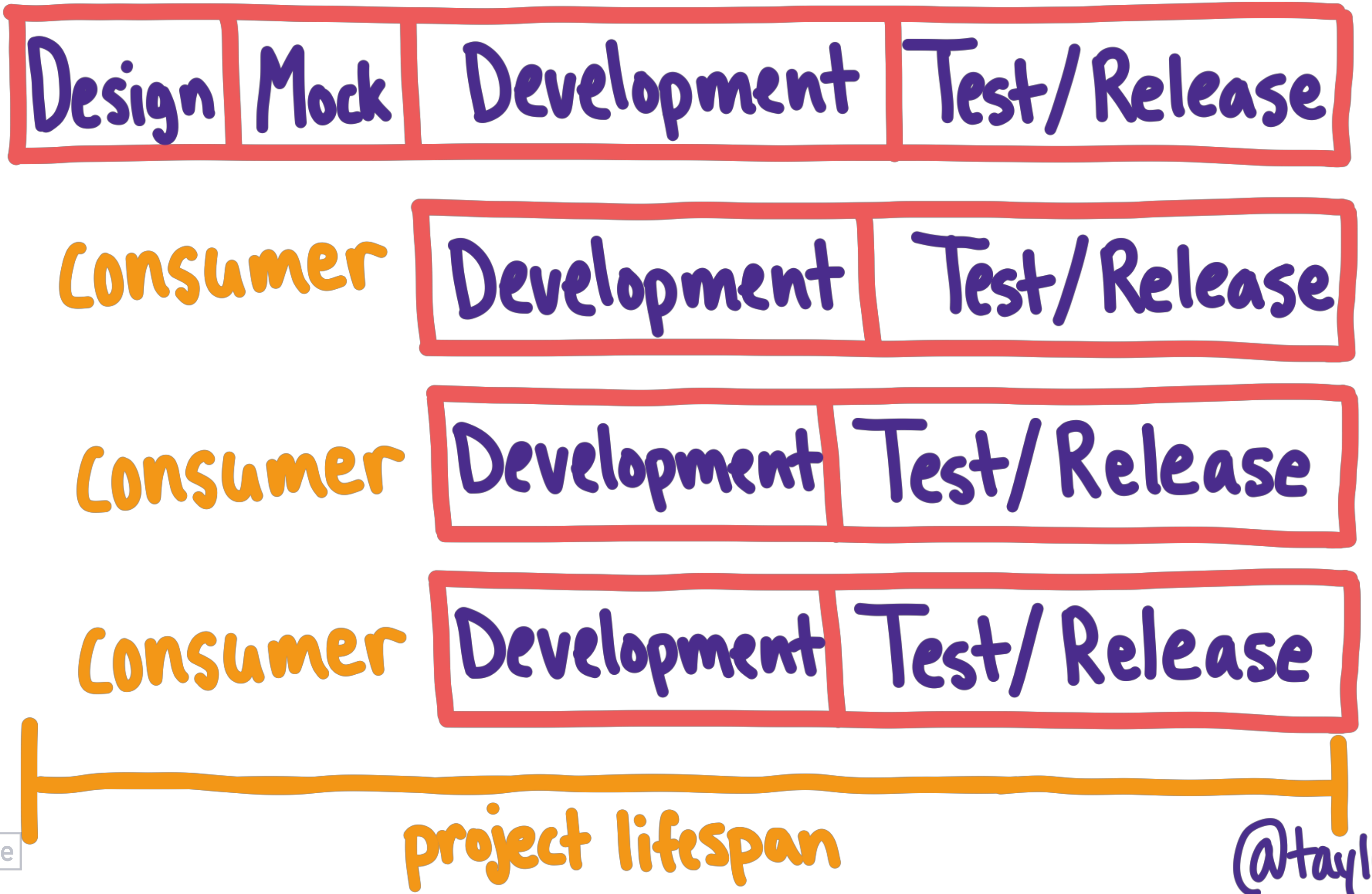
Design
Mock
Development
Test/Release
Consumer
Development
Test/Release
Consumer
Development
Test/Release
Consumer
Development
Test/Release
project lifespan

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If *you* write docs or tutorials, you can...

- Start writing sooner
- Give feedback
- Have interactive docs

If *you* care about developer experience or advocate for users, you can...

- Power feedback loops
- Put real endpoints in front of users

#2 Mocking and Feedback

"Experimental APIs"

from Capital One DevExchange, "Design Thinking and API Design"

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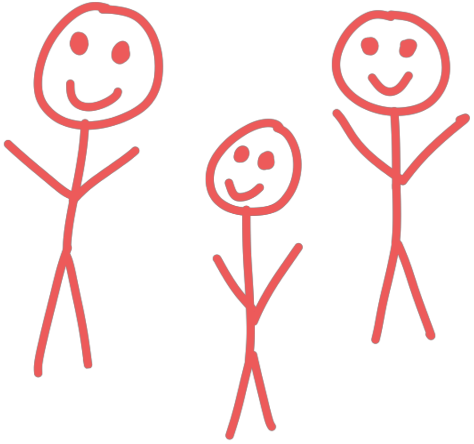
Start with humans



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Questions to ask:

What are the tasks users want to accomplish?

Questions to ask:

Will the API help users achieve these tasks?

Are the endpoints confusing?

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Public OpenAPI Specification documents

Stripe

Nexmo

Sendgrid

New York Times

Netlify

Box

Kubernetes

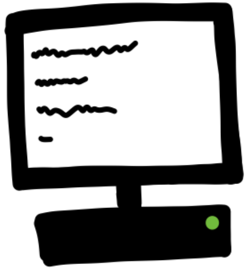
Flickr

Azure

Adafruit

#3 Testing

- Machine Readable



- Linting
- Validation Testing

What is Contract Testing?

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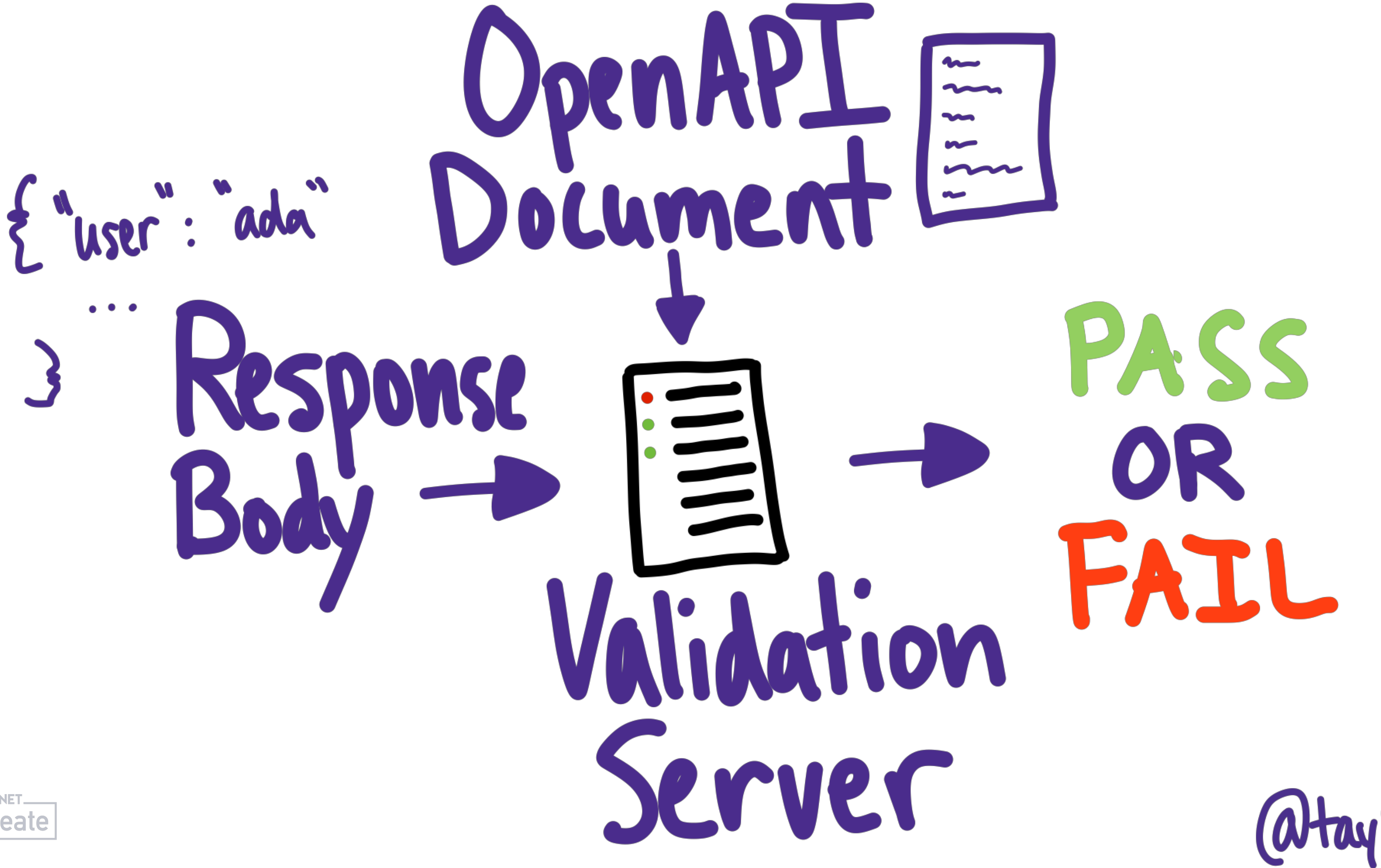
OpenAPI Document
{ "user" : "ada"
...
}
Response Body
Validation Server
PASS
OR
FAIL

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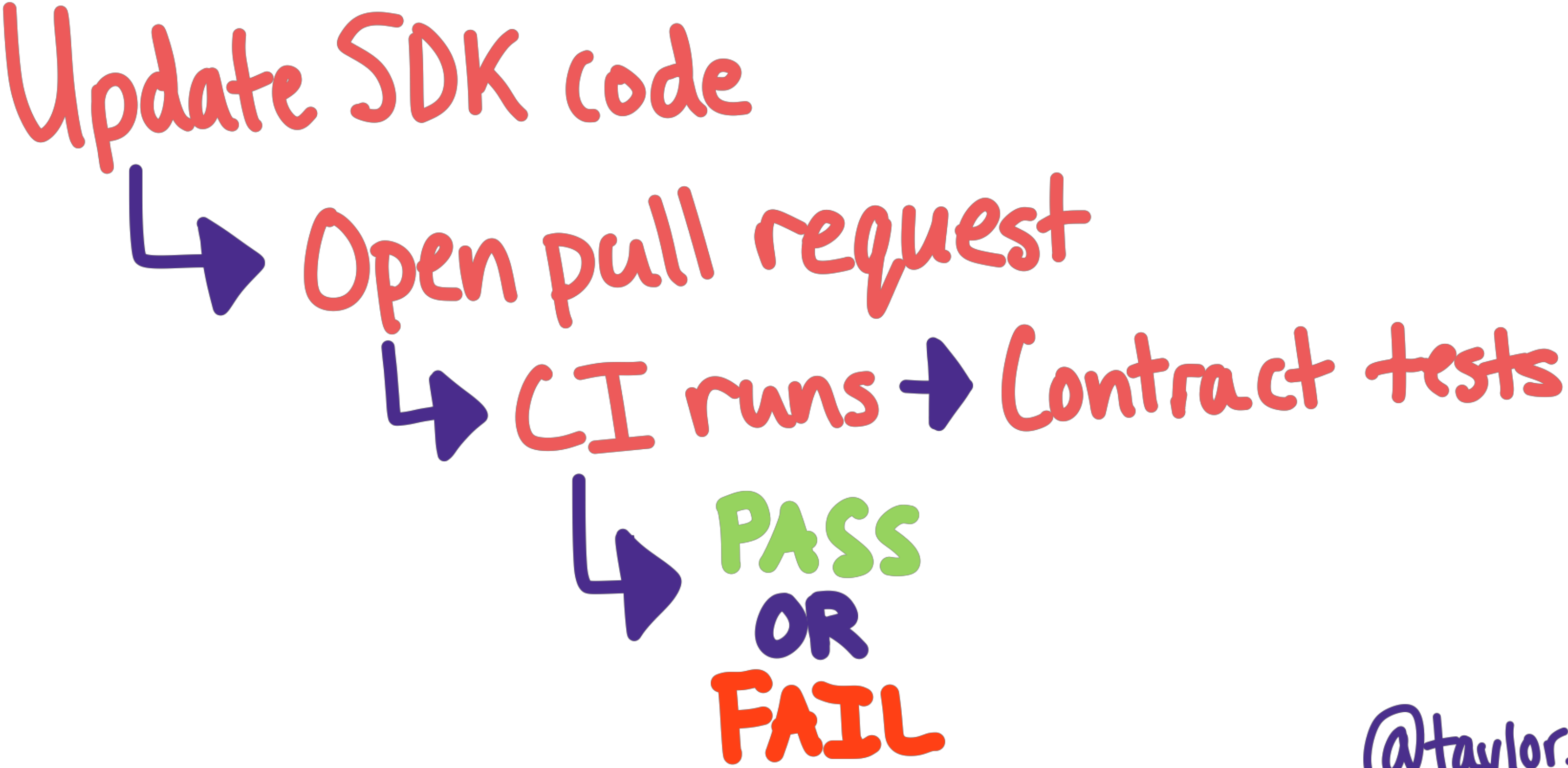
Less broken SDKs

Example:



Update SDK code

→ Open pull request

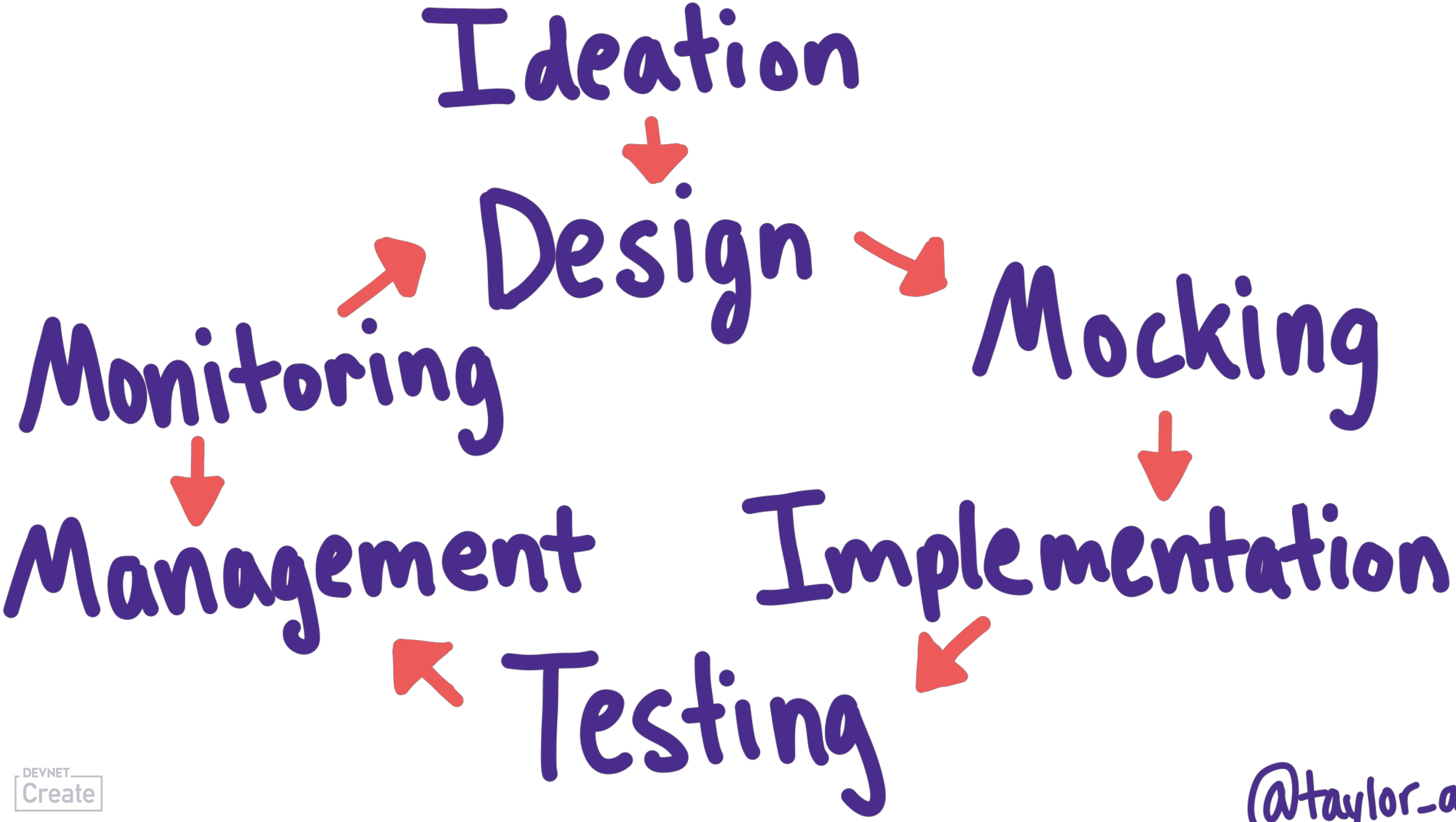
→ CI runs → Contract tests

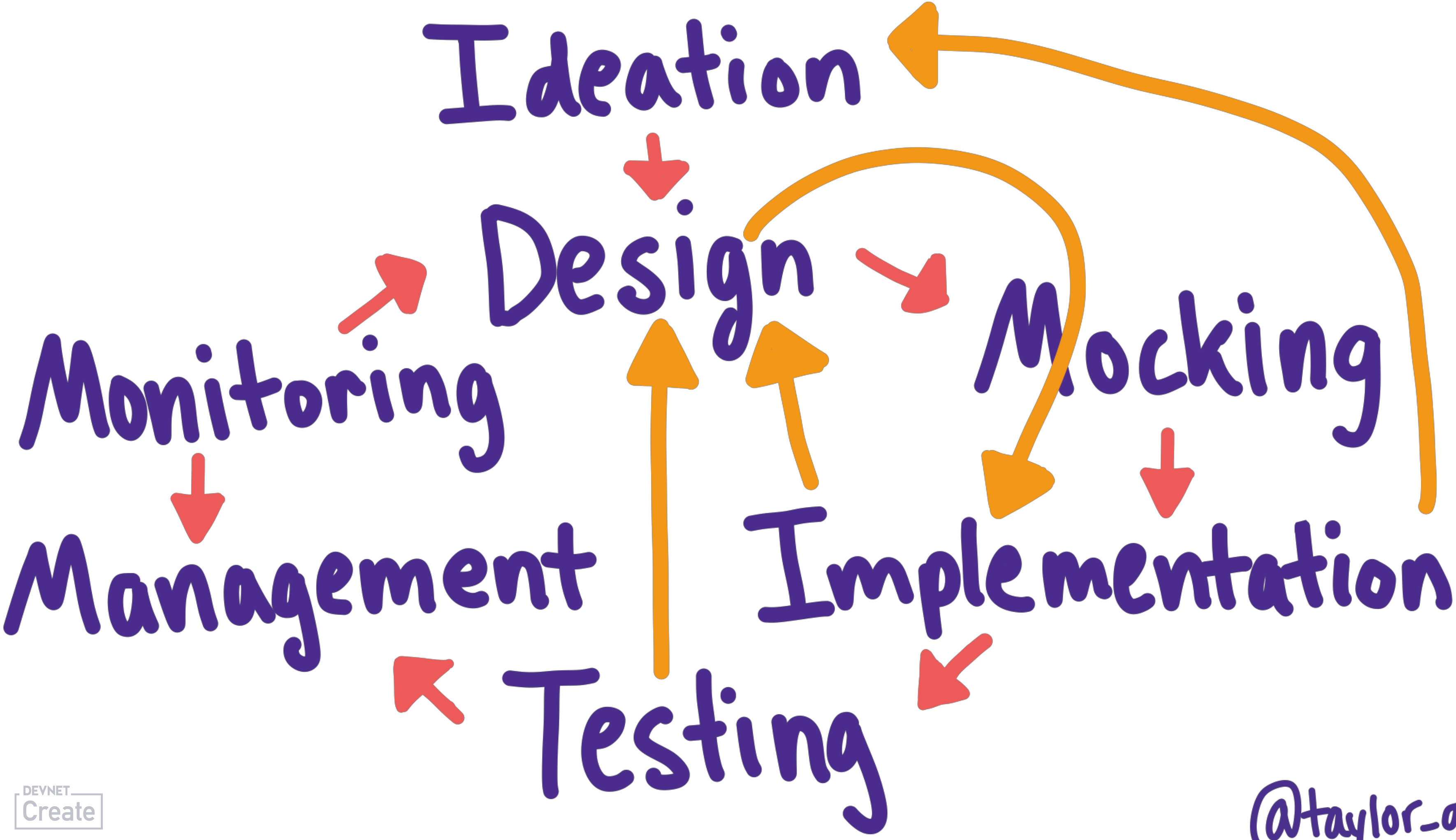
→ PASS

OR

FAIL

The Reality


Ideation
Design
Mocking
Implementation
Testing
Management
Monitoring


Ideation
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What would allow you to focus more on the API Experience?

twitter → @taylor_atx

email → taylor@stoplight.io

slides → noti.st/tbarn

tools → openapi.tools