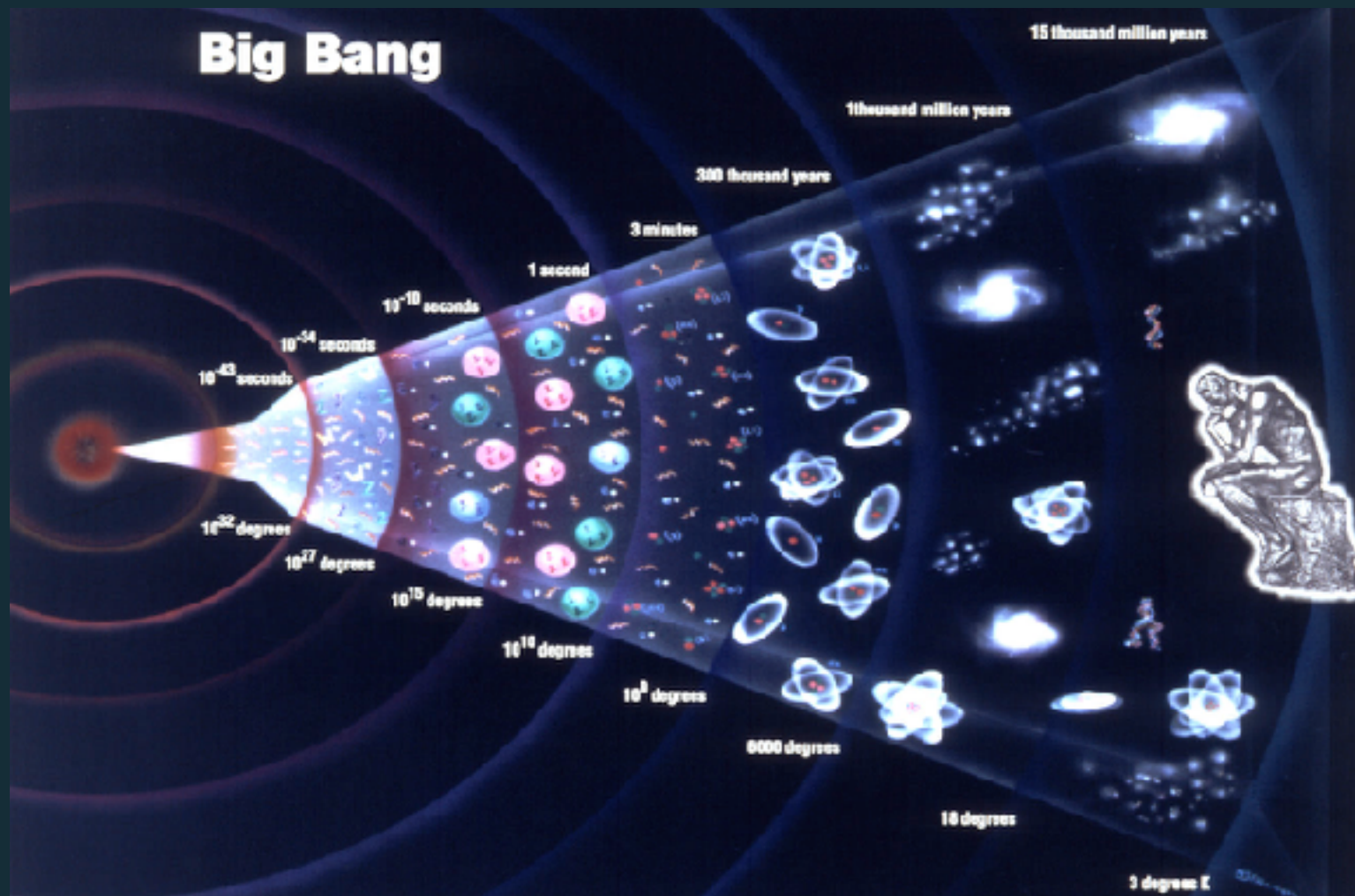


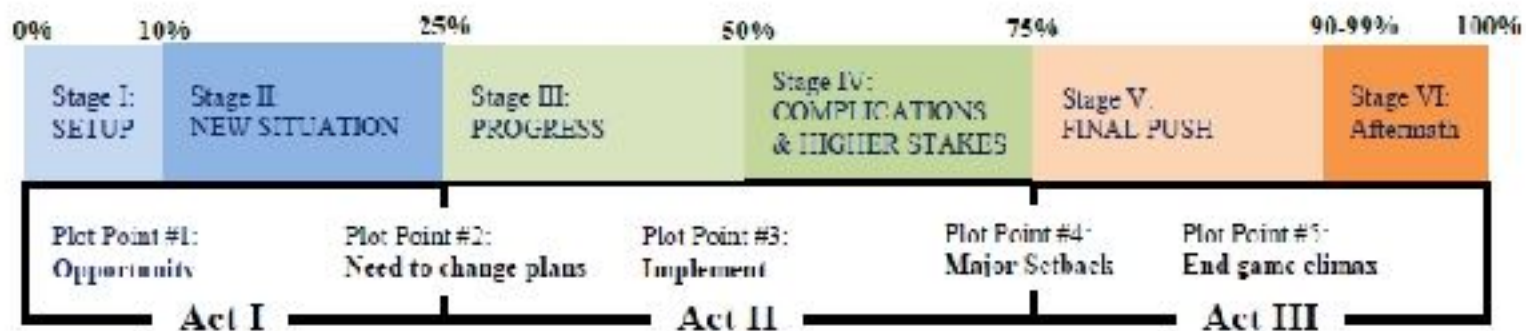
Hidden Costs of Microservices

Ignasi Marimon-Clos - @ignasi35

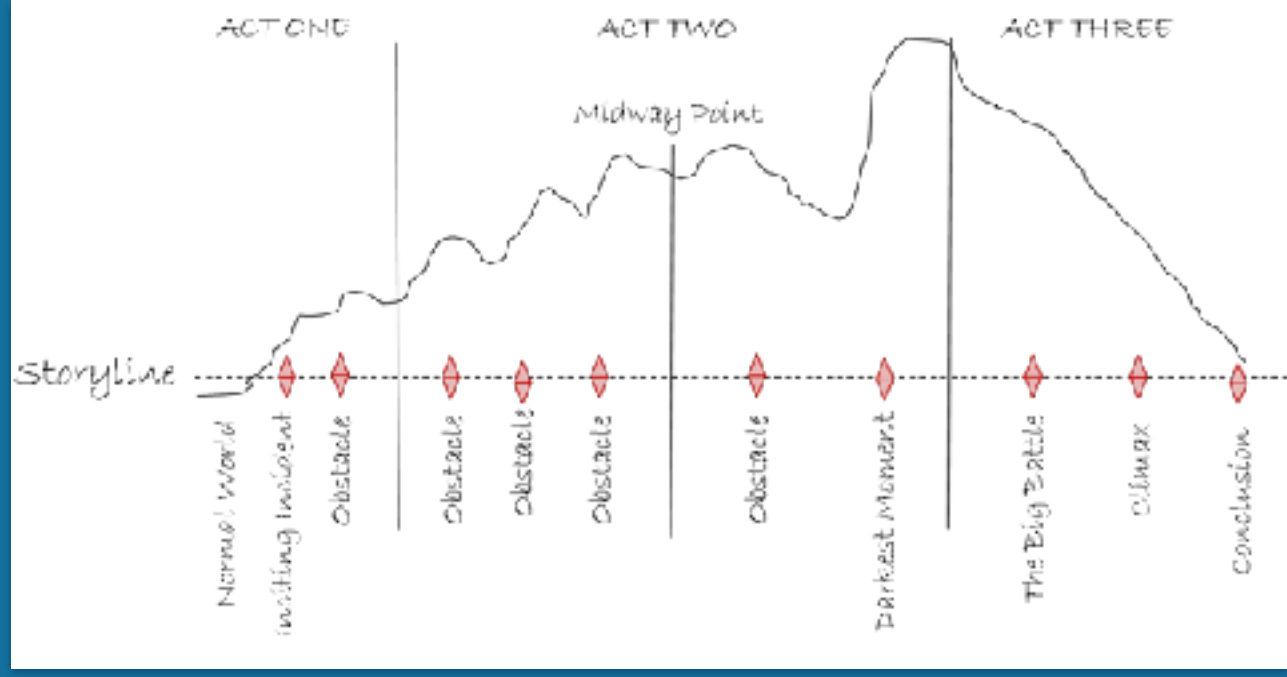
Once upon a time...

Big Bang





www.reelauthors.com



Normal World

Inciting Incident

Obstacle

Obstacle

Obstacle

Obstacle

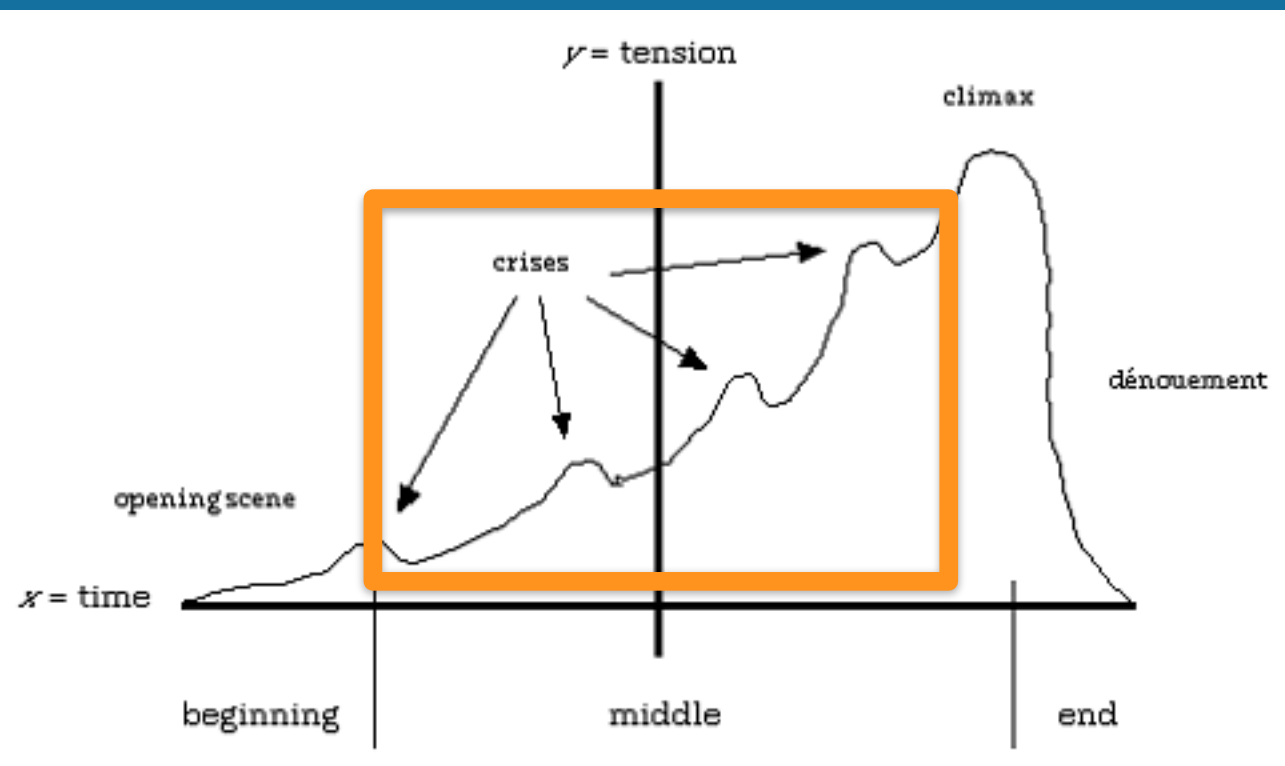
Obstacle

Darkest Moment

The Big Battle

Climax

Conclusion



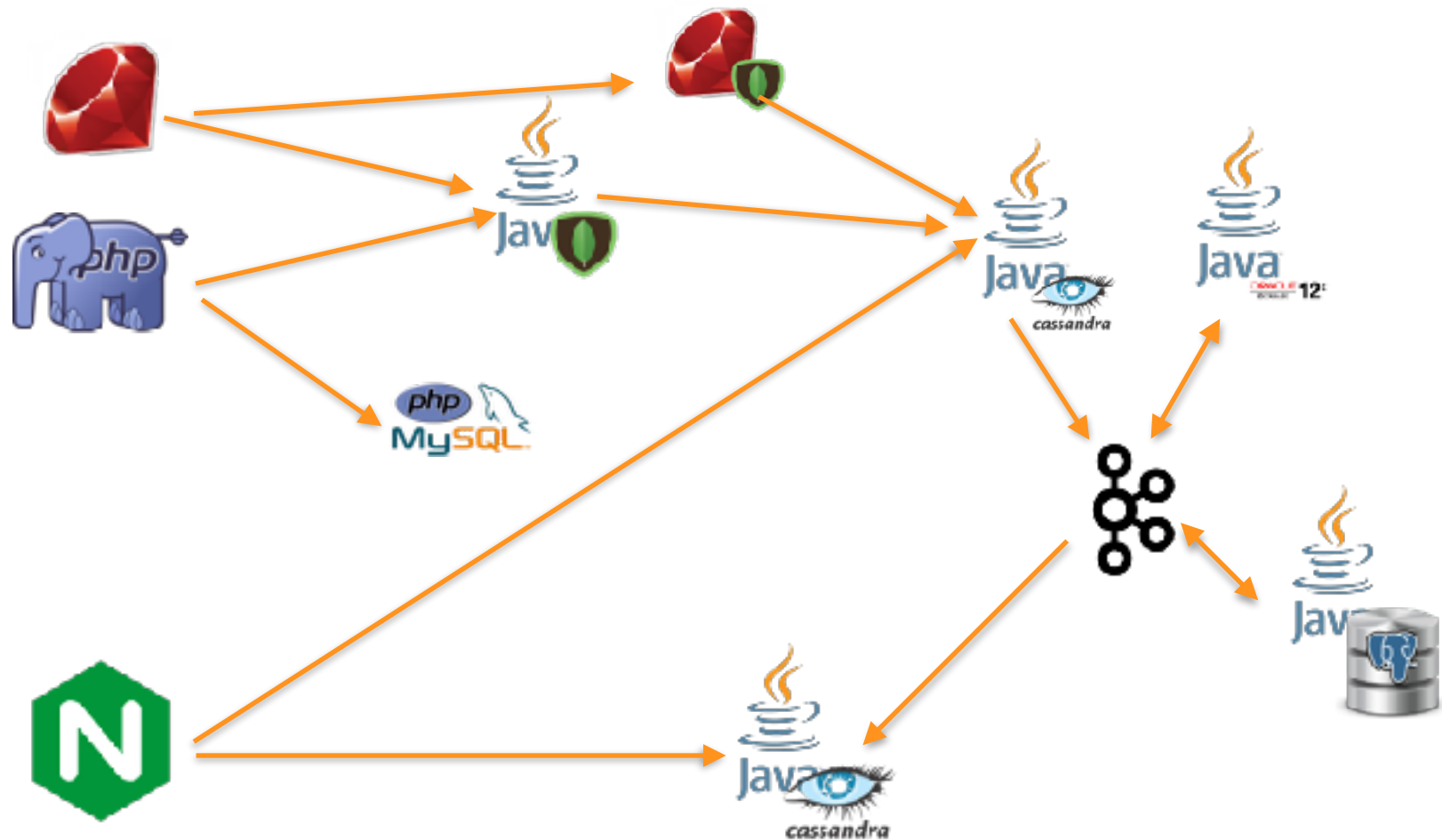
Crisis? What Crisis?

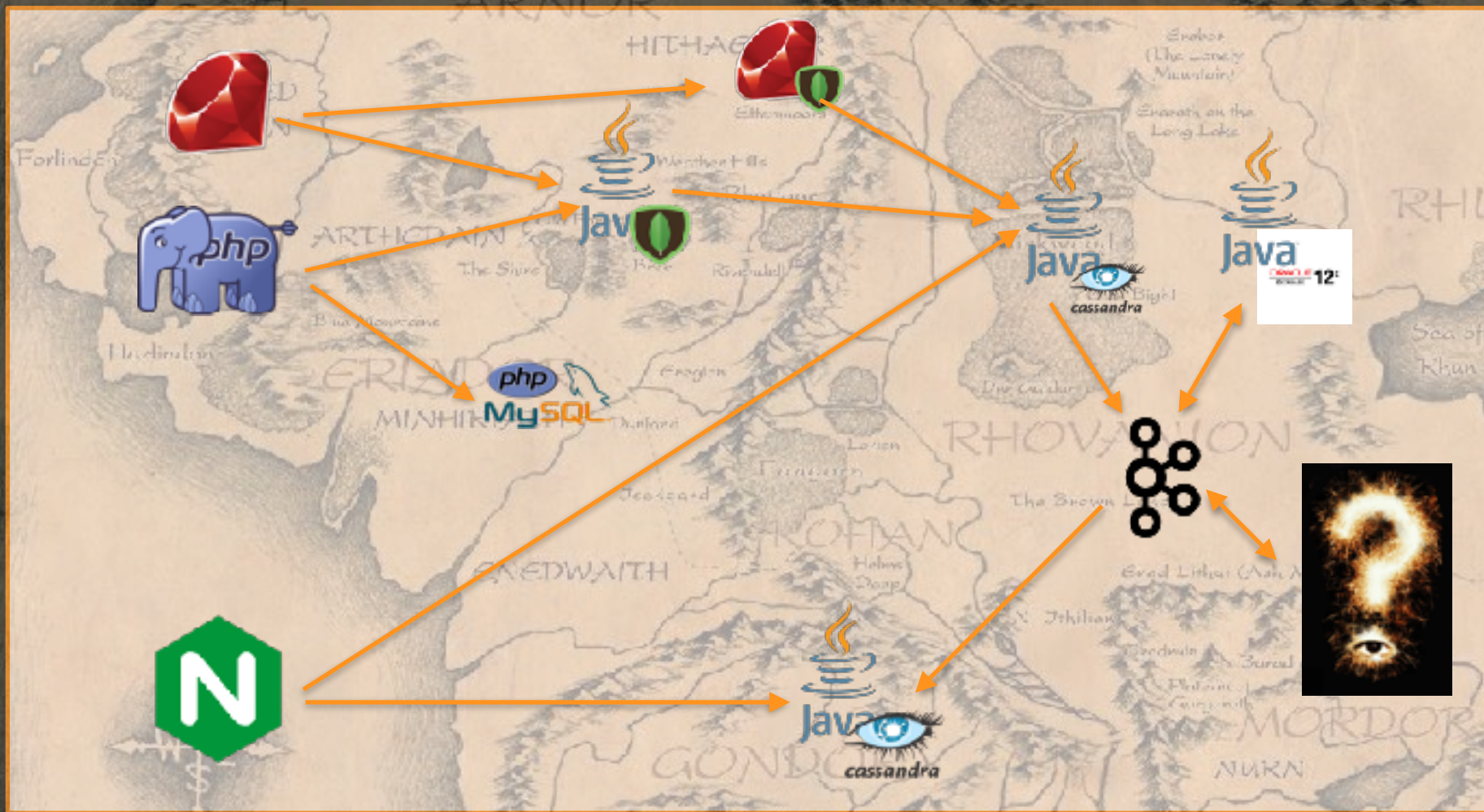


Supertramp

CRISIS? WHAT CRISIS?







Crisis

- Distributed
- Unavailable
- Polyglot
- Untyped
- Hostile
- Lifecycles
- External vs Internal
- Insights
- Unknown location
- Other: _____

Distributed Computing

The fallacies [\[edit \]](#)

The [fallacies](#) are:^[1]

1. The [network](#) is reliable.
2. [Latency](#) is zero.
3. [Bandwidth](#) is infinite.
4. The network is [secure](#).
5. [Topology](#) doesn't change.
6. There is one [administrator](#).
7. Transport cost is zero.
8. The network is homogeneous.

https://en.wikipedia.org/wiki/Fallacies_of_distributed_computing

Distributed

 Not transactional

 Latency

 Eventually consistent



DEVELOPMENT MINDSHIFT

Unavailable

Unavailable

- Downstream service down

- Tell, don't Ask

- DENORMALIZATION !**

 - Eventually consistent

- Embrace failure —> Circuit Breaking



Unavailable



DENORMALIZATION !



Eventually consistent



GDPR

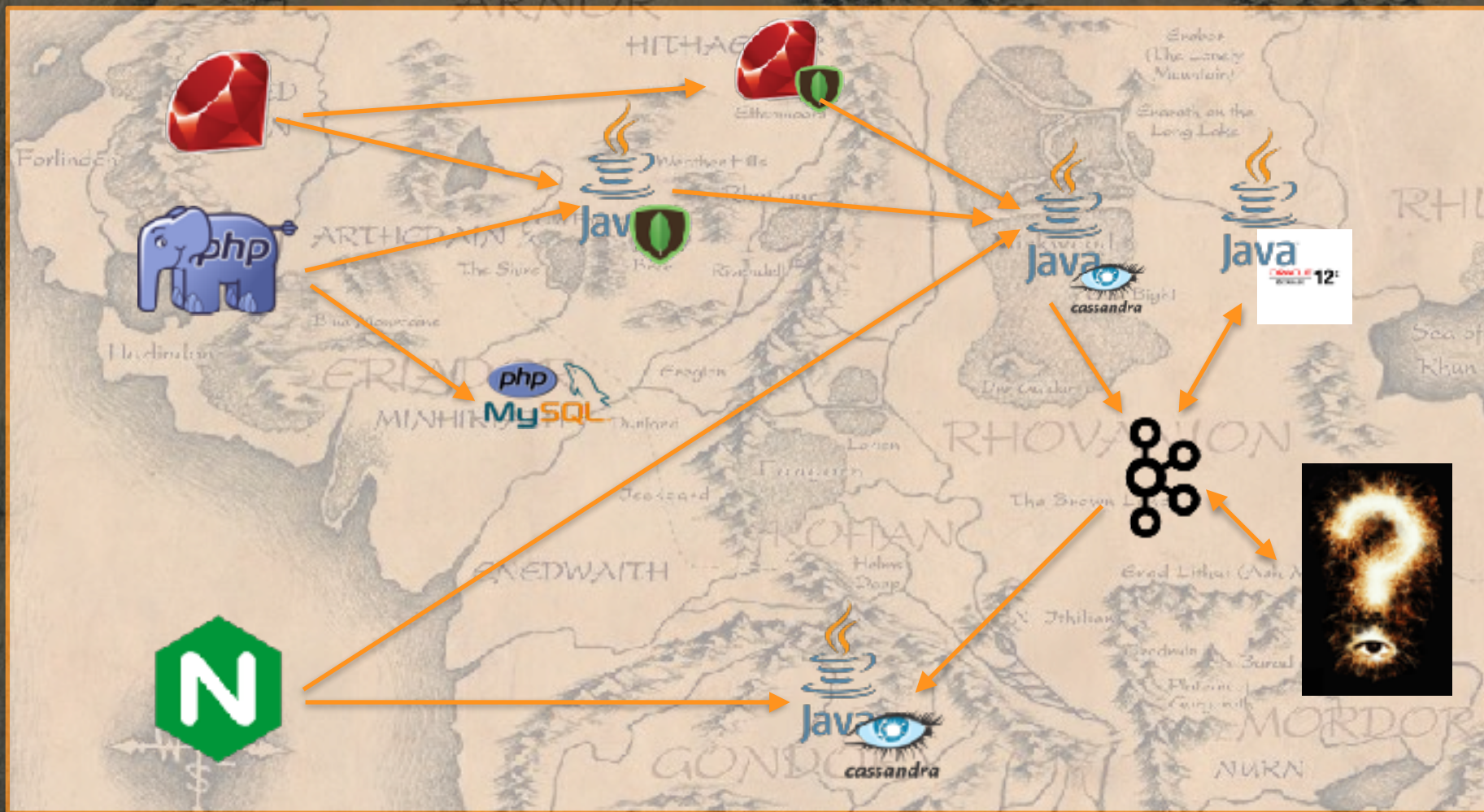


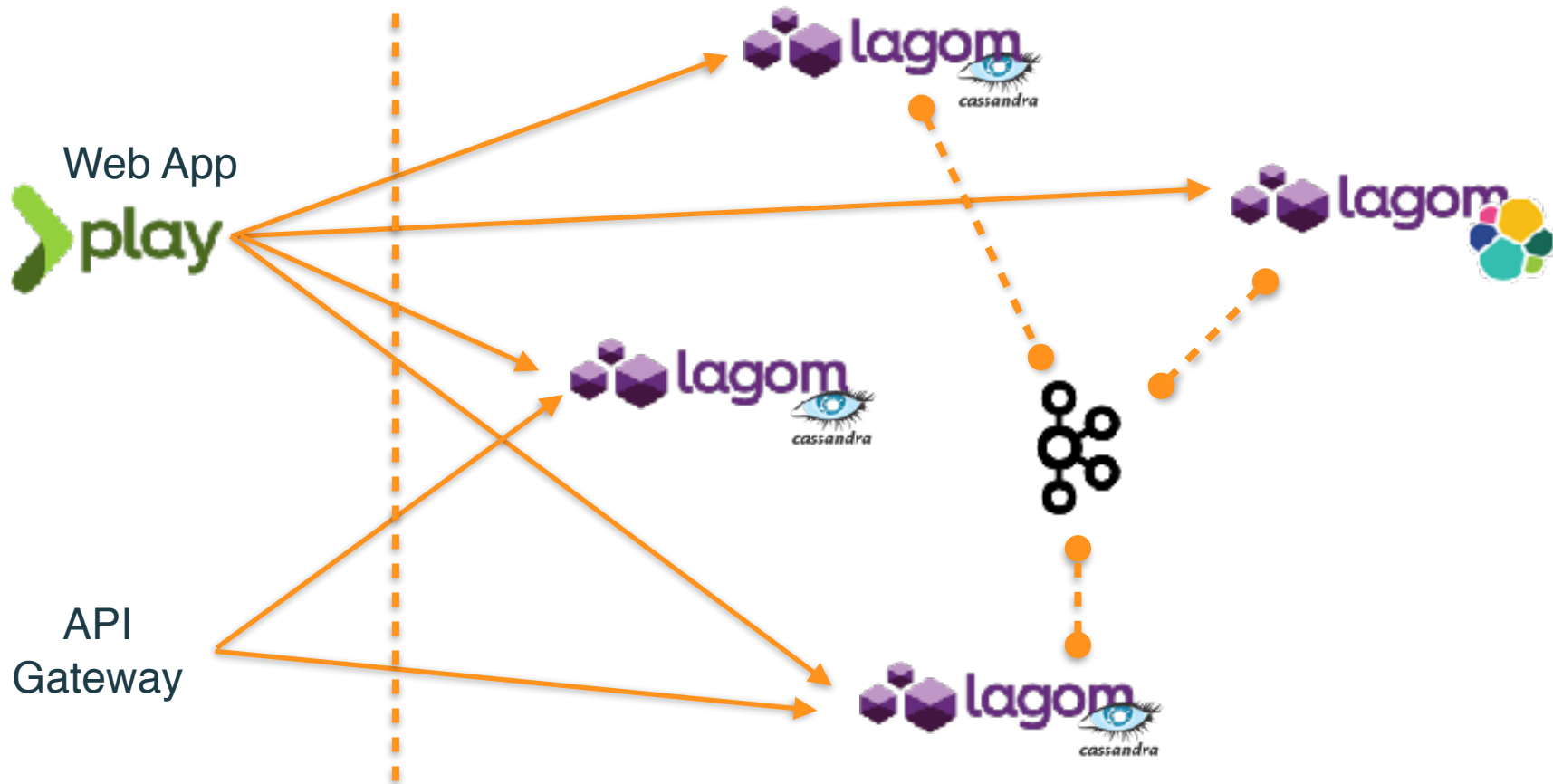
No DELETE CASCADE



DEVELOPMENT MINDSHIFT
CROSS-TEAM COMMUNICATION
TESTING

External vs Internal





SUBTLE

WINK WINK

memegenerator

SILVER-BULLET SYNDROME

Hostile

Hostile

 Authentication schemas

 Noisy neighbours

 Diverse sec policies

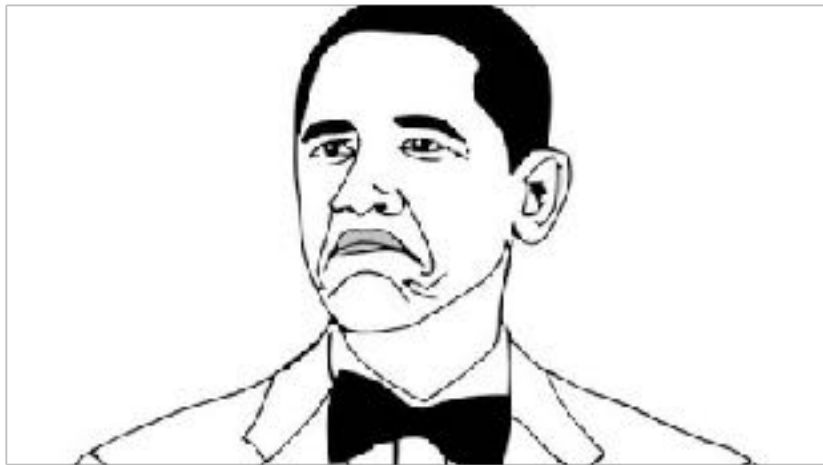


SILVER-BULLET SYNDROME

Polyglot & Untyped

Polyglot & Untyped

- 👤 Hard to switch teams
- 👤 Easier to hire
- 👤 Best tool for the job
- 👤 Document more (OpenAPI, Consumer Driven Contracts,...)
- 👤 Untyped is a fallacy → OpenAPI, gRPC, LagomClient,...



About Fallacies and Code Generators



Use only what you need!



“Be conservative in what you send, be liberal in what you accept” ([Robustness Principle](#))

<https://docs.pact.io/>

DEVELOPMENT MINDSHIFT
CROSS-TEAM COMMUNICATION
TESTING

Lifecycle

Lifecycle

 Internal vs External API

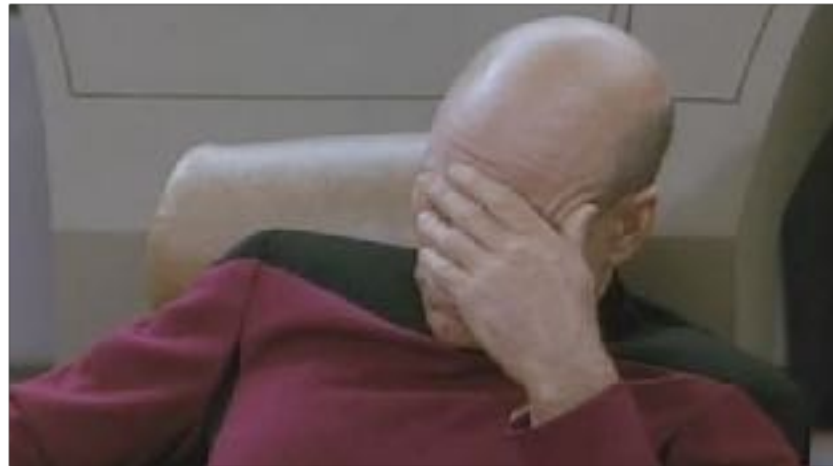
 Deployment Downtime

 Versioning

 Docs

 Team needs

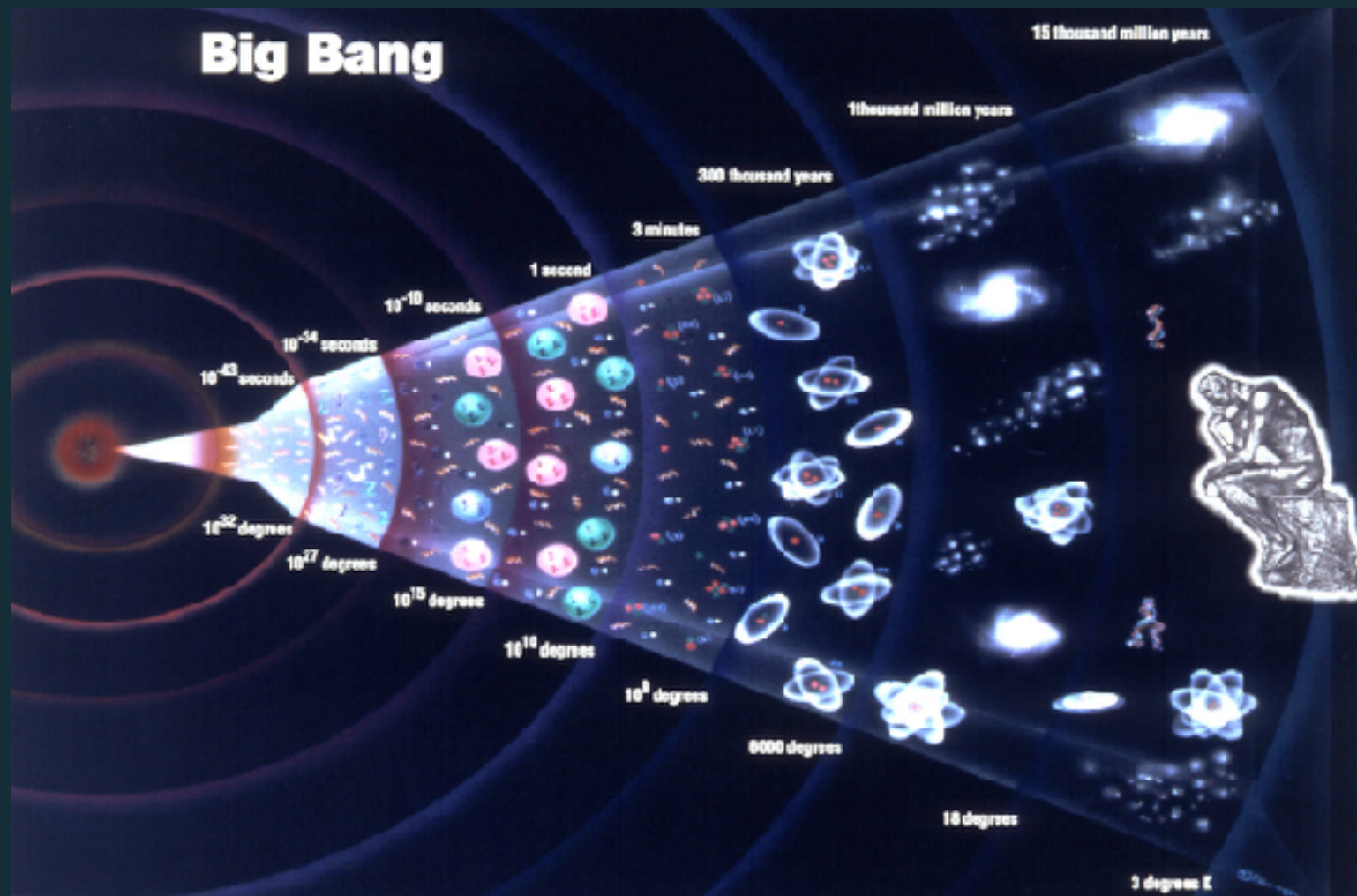
 Deployment automation

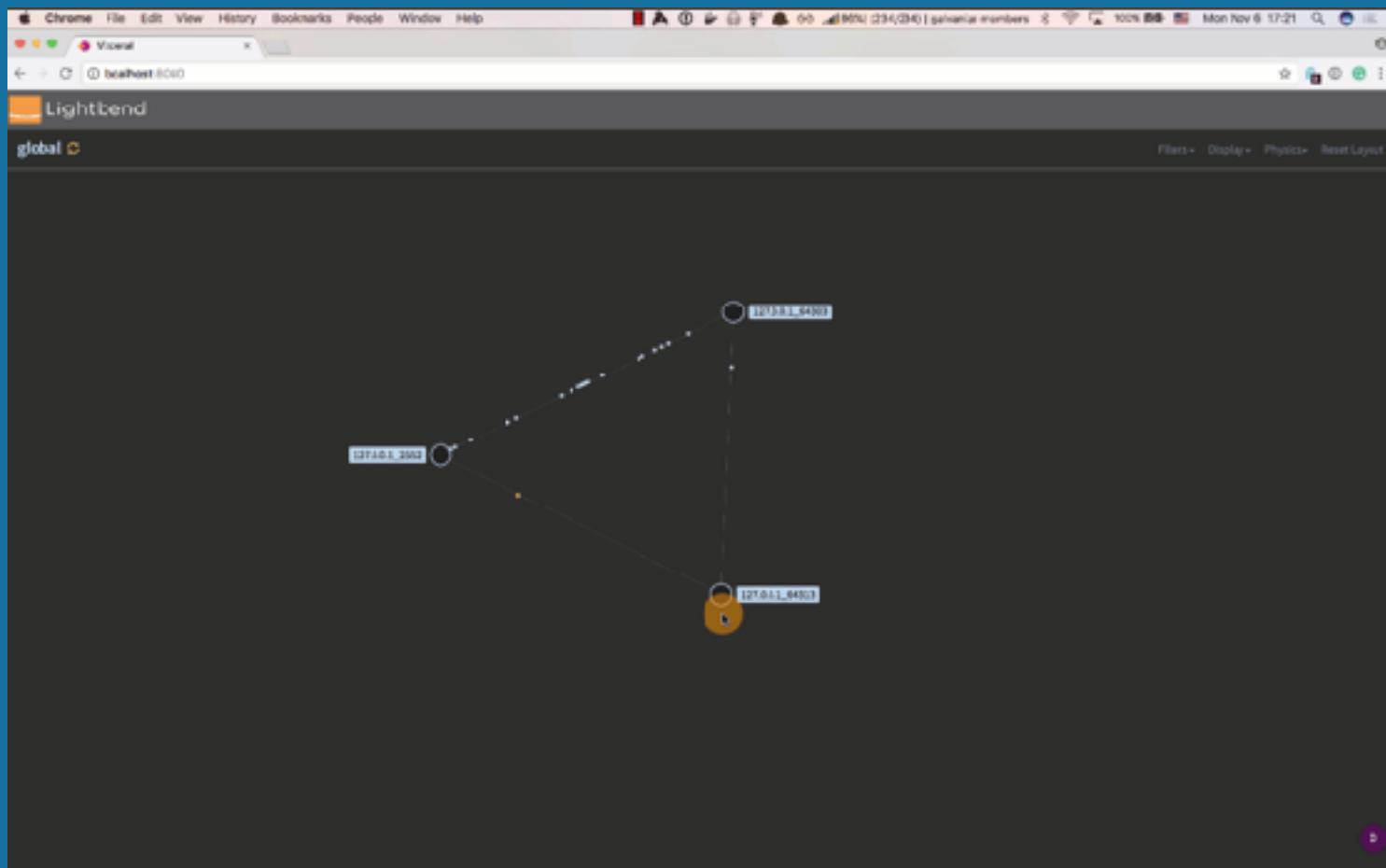


COMPANY CULTURE
DEVOPS
DOCUMENTATION
CROSS-TEAM COMMUNICATION

Insights
(monitoring, tracing, logging,...)

Big Bang





COMPANY CULTURE
DEVOPS
NEW TOOLS

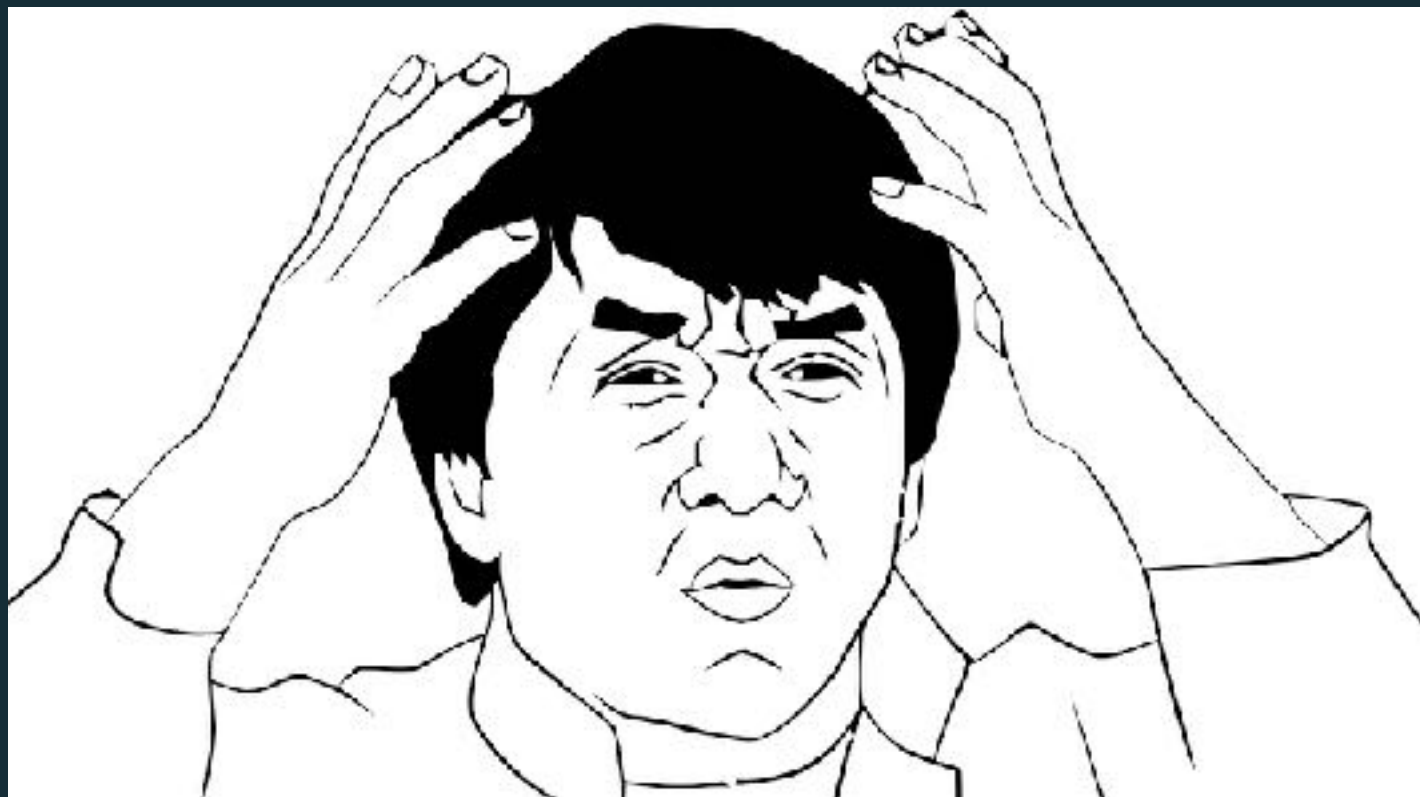
Unknown location





NEW TOOLS
MORE SPOF
DEVELOPER MINDSHIFT

Bonus Cost



Thanks!