Evolving a data system

Patterns & Antipatterns

Simon Metson

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Evolving a data system

Patterns & Antipatterns

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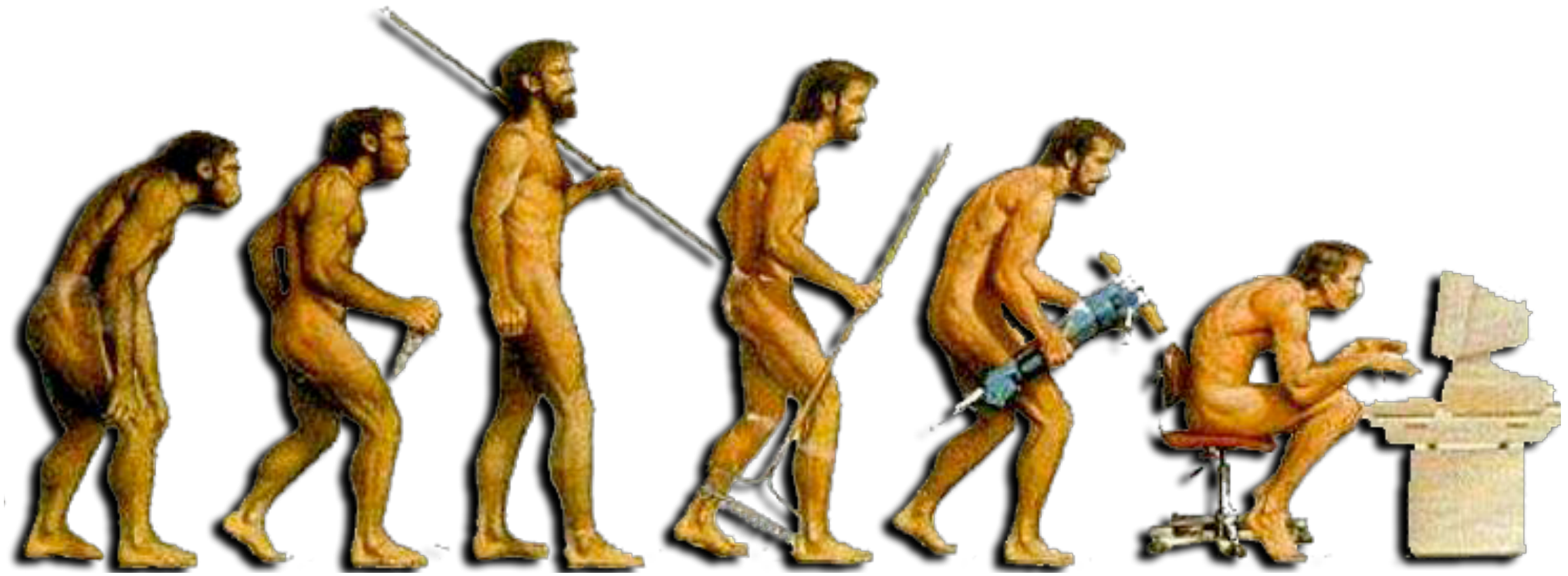
Outline

- Terms
- Patterns, anti-patterns & tricks
- Process

Evolution



Data systems

???

DBMS

Web Application

DBMS

Web
Client

Web
Application

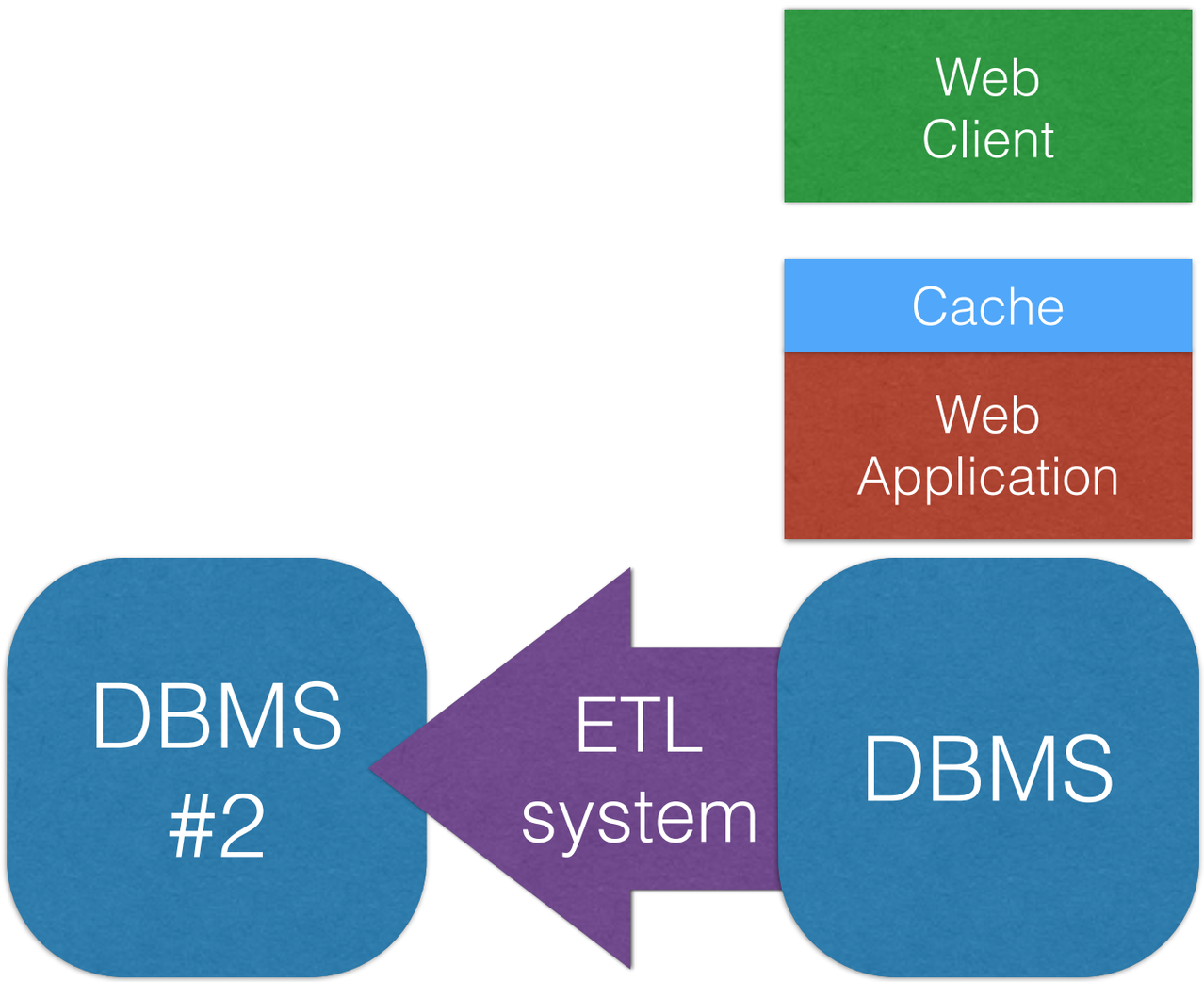
DBMS

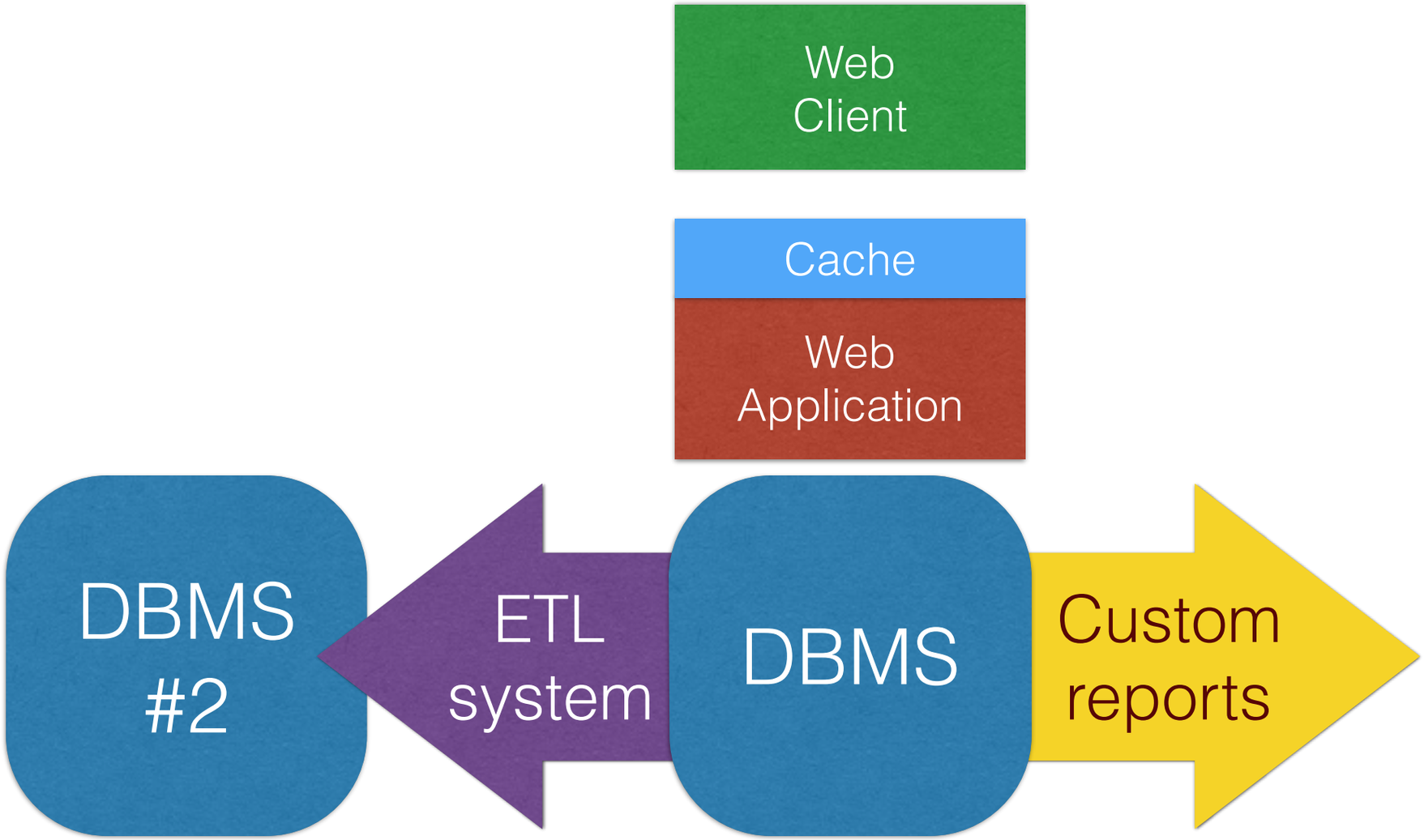
Web
Client

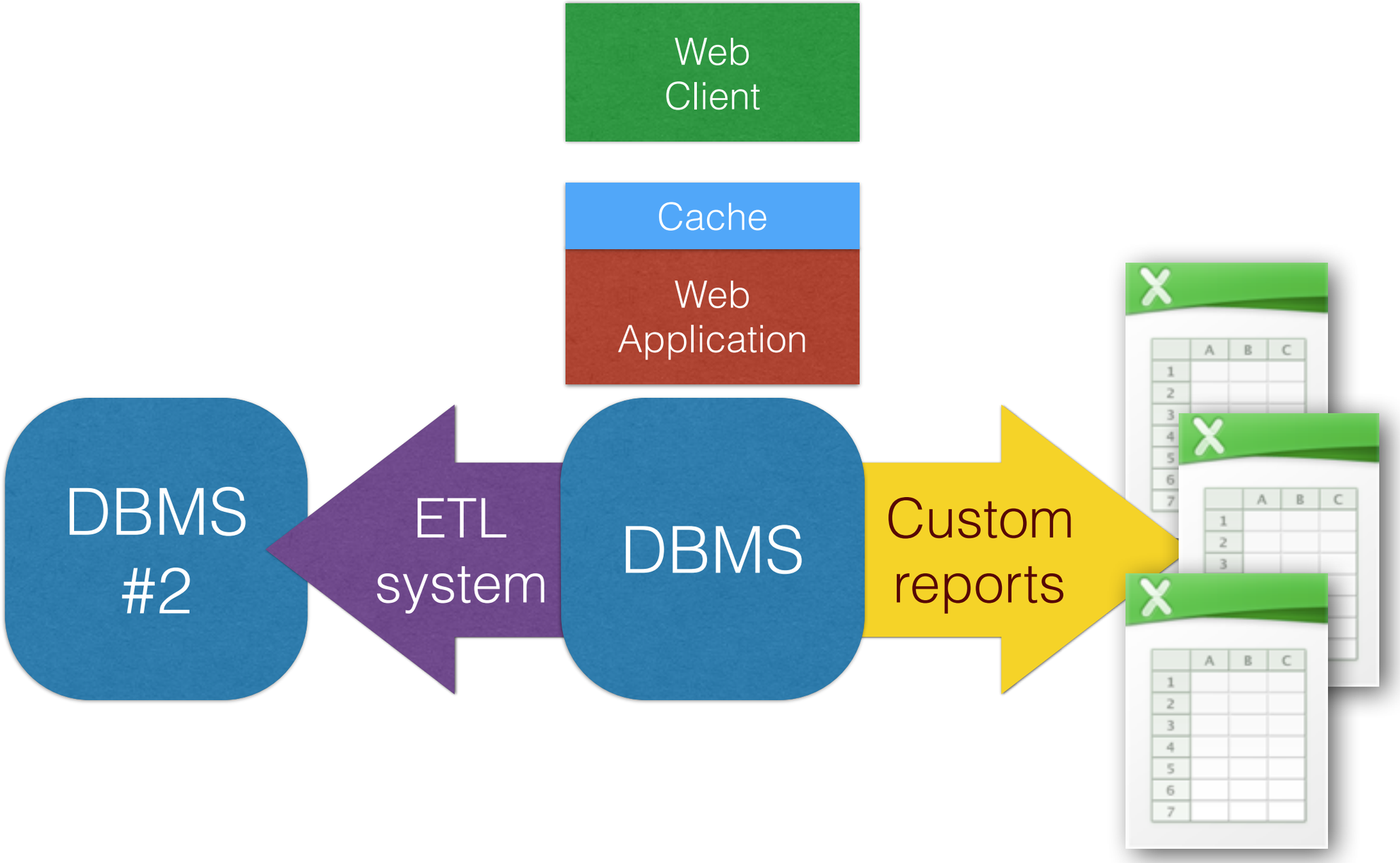
Cache

Web
Application

DBMS


Web
Client
Cache
Web
Application
DBMS
#2
ETL
system
DBMS


Web
Client
Cache
Web
Application
DBMS
#2
ETL
system
DBMS
Custom
reports


Web
Client
Cache
Web
Application
DBMS
#2
ETL
system
DBMS
Custom
reports

Web Client

Cache

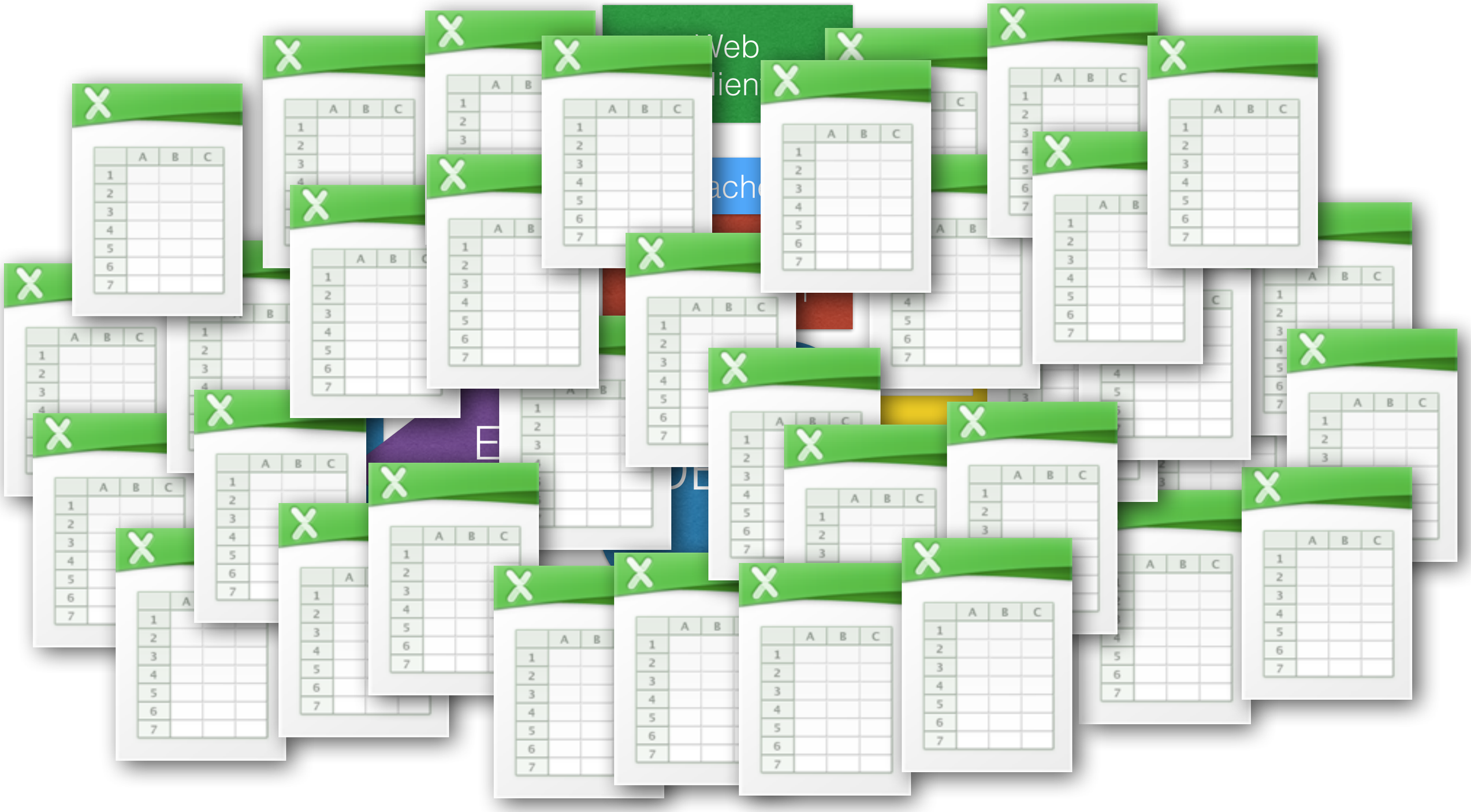
Web Application

DBMS #2

ETL system

DBMS

Custom reports



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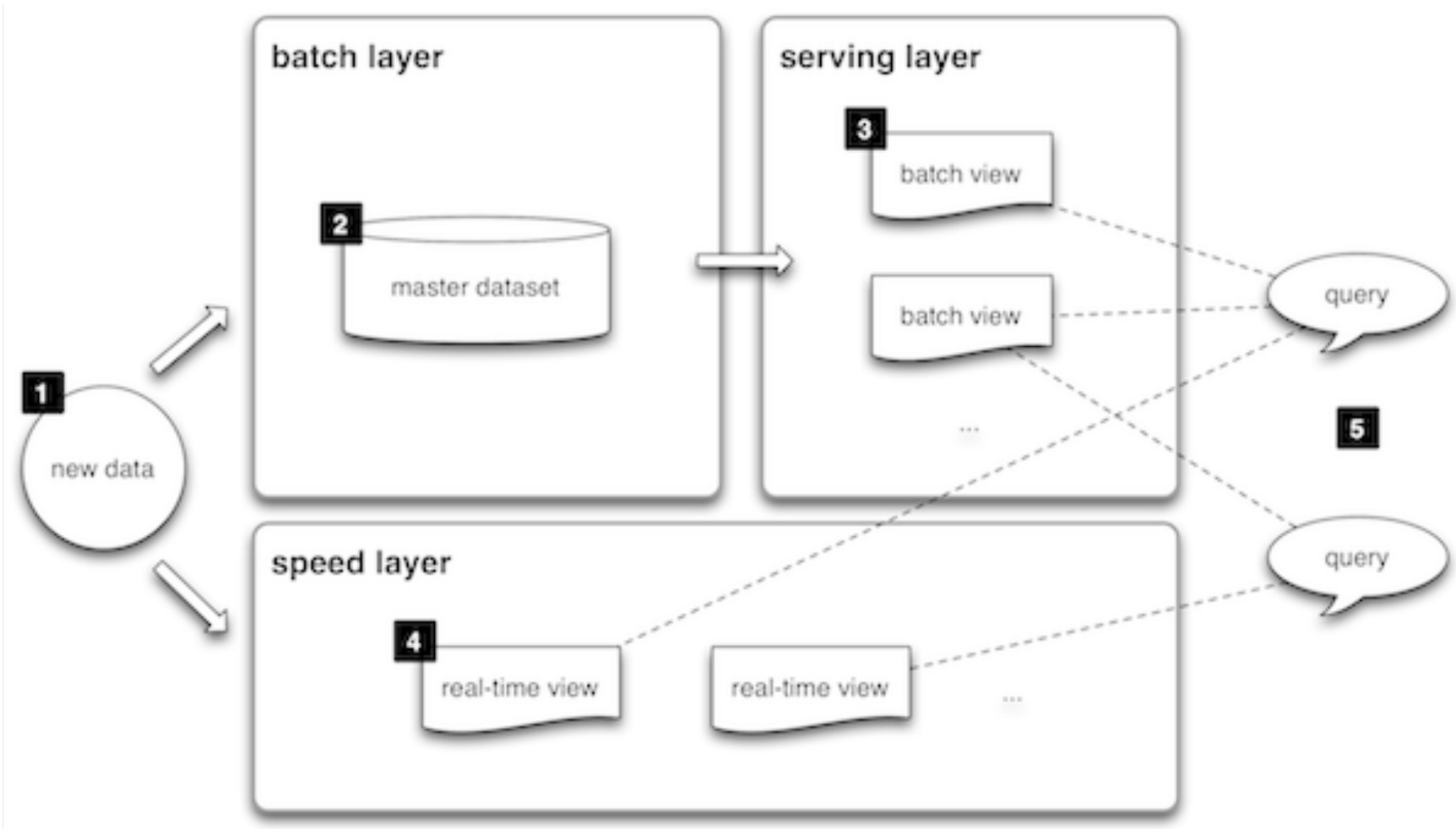
Canonical data sources

-VARGO-
TITANIUM

Patterns



http://lambda-architecture.net/

Polyglot persistency

Lava layers

Mike Hadlow

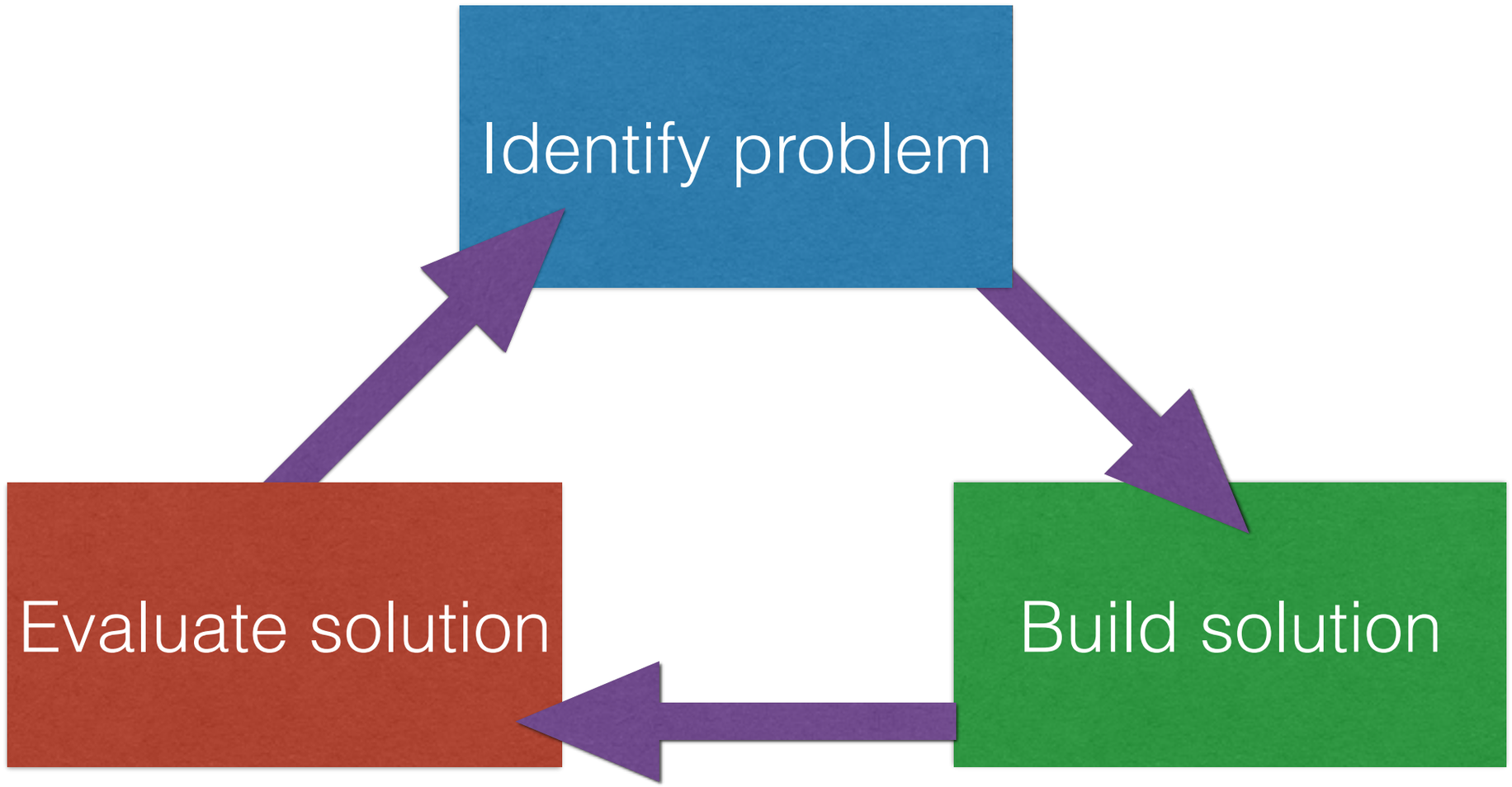
http://mikehadlow.blogspot.co.uk/2014/12/the-lava-layer-anti-pattern.html

Getty

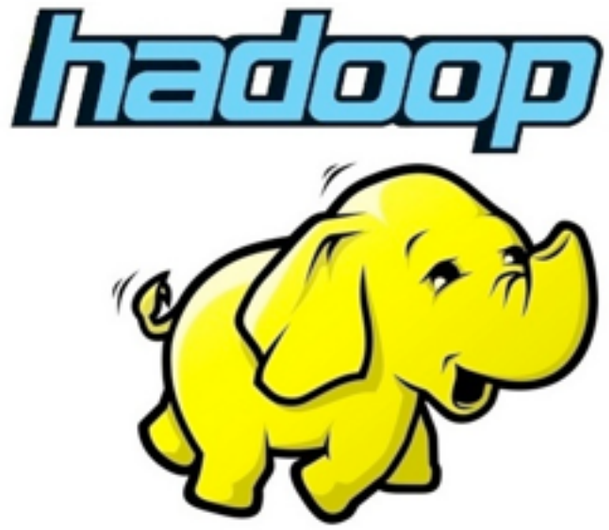
Data silos

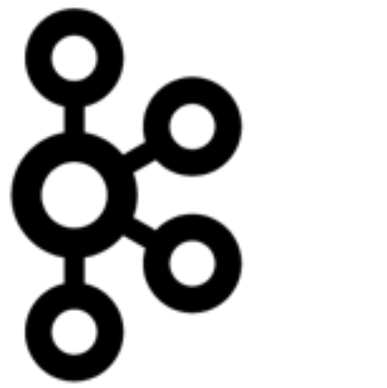
What's in a name?

/Cosmics/Commissioning2014-HcalCalHOCosmics-PromptReco-v3/ALCARECO#c3f3b916-28a1-11e4-87ab-0023aefe9c68/a8098c1a-f86e-11da-bd1a-00112444be1e.root


Identify problem
Build solution
Evaluate solution

STOP
?





kafka

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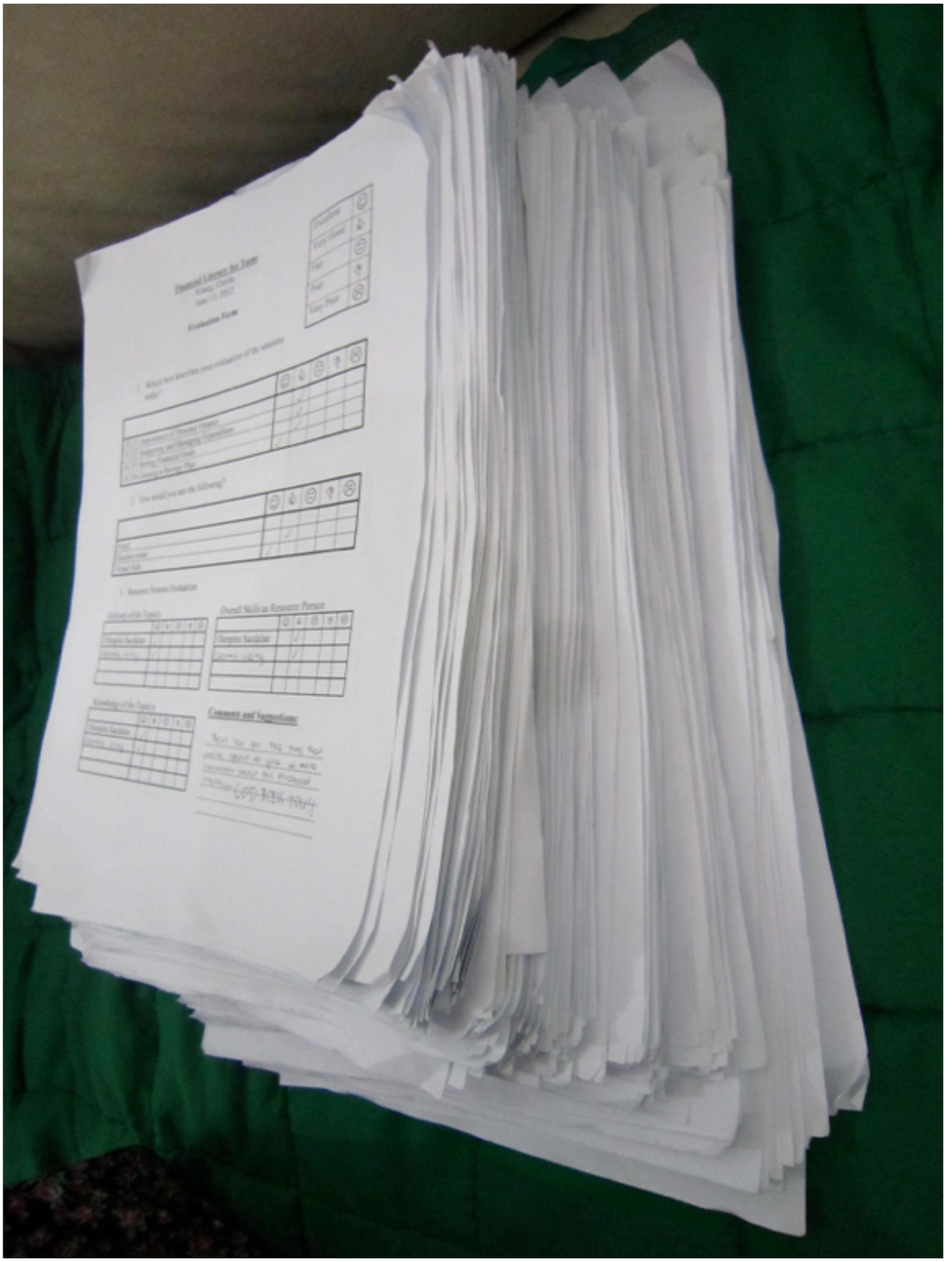
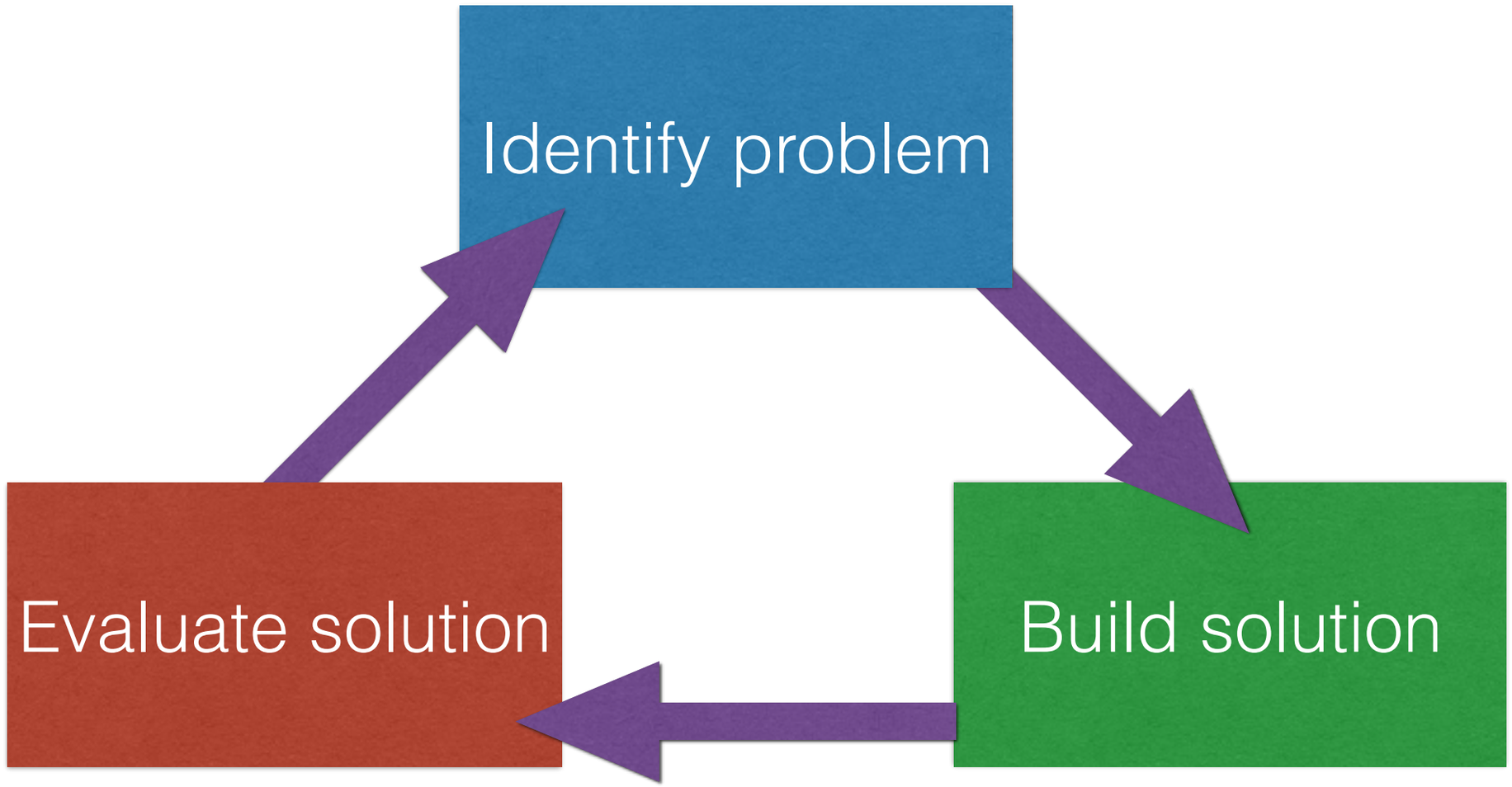

Evaluation Form
Excellent
Very Useful
Fair
Poor
Very Poor
Comments and Suggestions:


Identify problem
Build solution
Evaluate solution

Take aways

- Start from a real problem & get buy in
- Pick off pieces you can solve - don't leave lava
- Follow an experimental process, with a good feedback loop
- Institutionalise knowledge, engage your team
- Learn from mistakes, capitalise on successes