

Introduction to MongoDB

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The Big Picture

MongoDB != RDBMS

Setting up the server

Manipulating data

Indexing

Miscellaneous

I Want

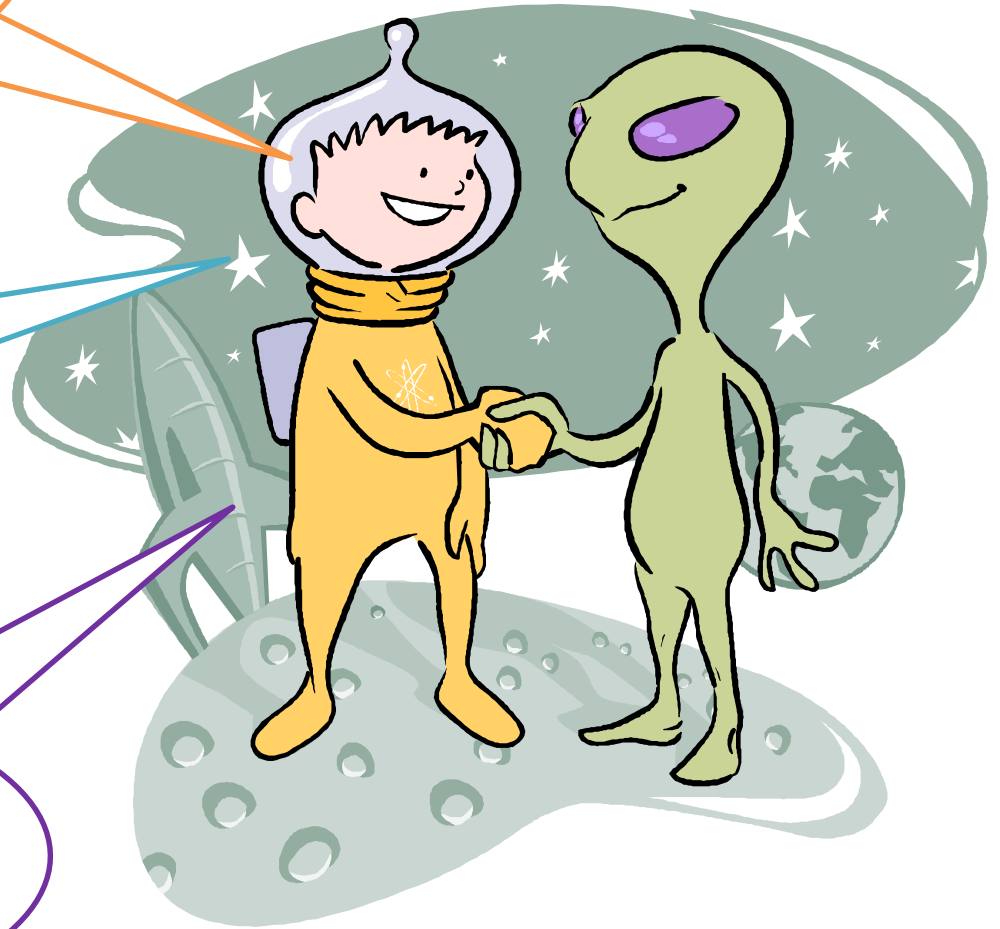


- Easy to use as a developer

I'm a developer

**My objects are not
tables and rows**

**My objects are not
uniform**



Impedance Mismatch

```
// your application code  
class Foo { int x; string [] tags;}
```

x	name		
1	Abc		
2	Xyz		
		tagId	x
		33	1
		34	2
		33	2
tagId	tag		
33	'red'		
34	'blue'		
	'		

No Impedance Mismatch

```
// your application code
class Foo { int x; string [] tags;}

// mongo document for Foo
{ x: 1, tags: ['abc','xyz'] }
```

I Want

- Scalability



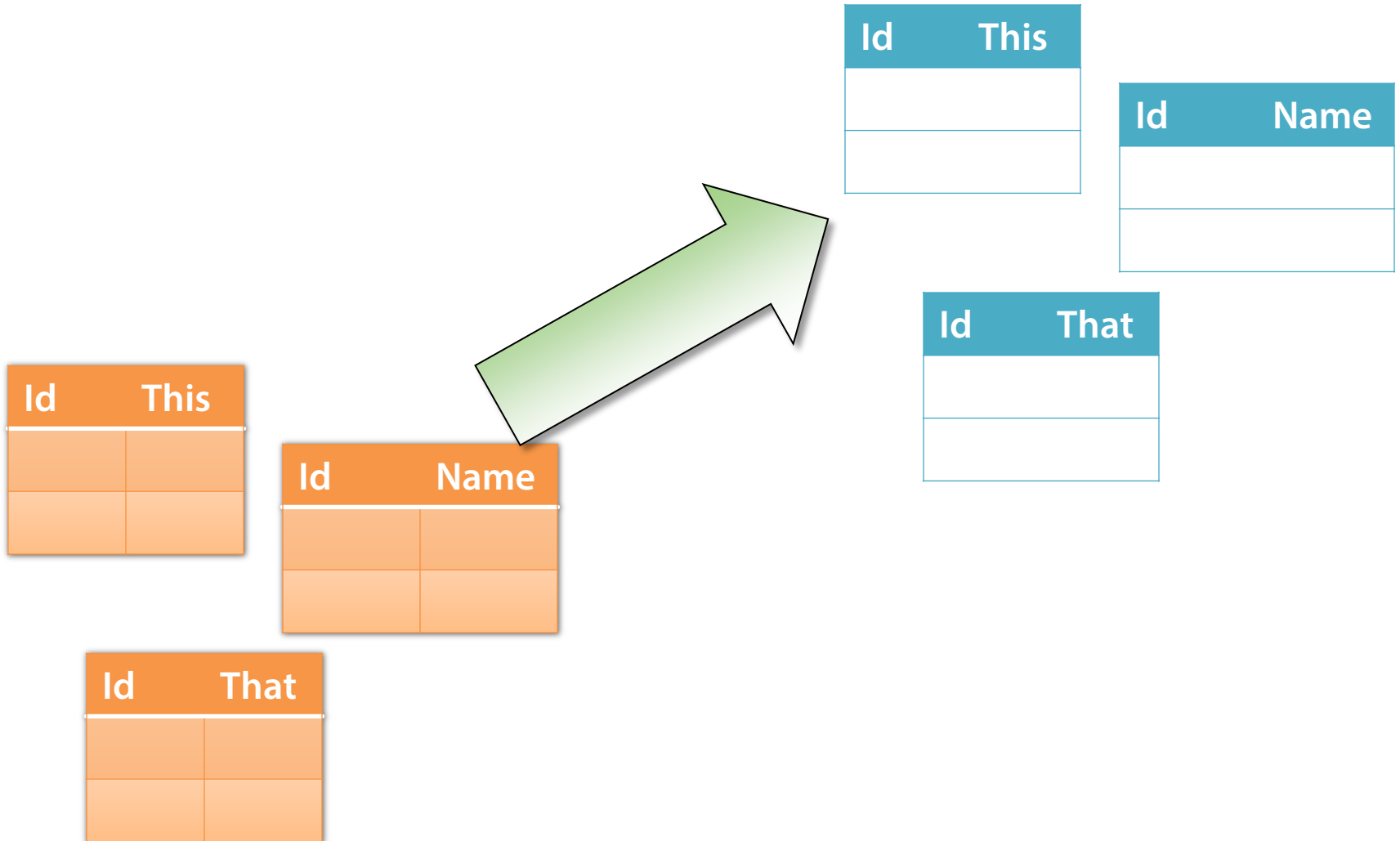
Scalability Issues – Relational Style

- Transaction spans rows and tables
- Rigid consistency model



Scalability Issues – Relational Style

- Replication or sharding



Scalability Issues – Relational Style

■ Solutions?

1. De-normalize tables
2. Relaxed consistency

Id	This

Id	Name

Id	That

Id	is	That	me



Scalability– MongoDB

No schema

Single document write scope

Eventual consistency

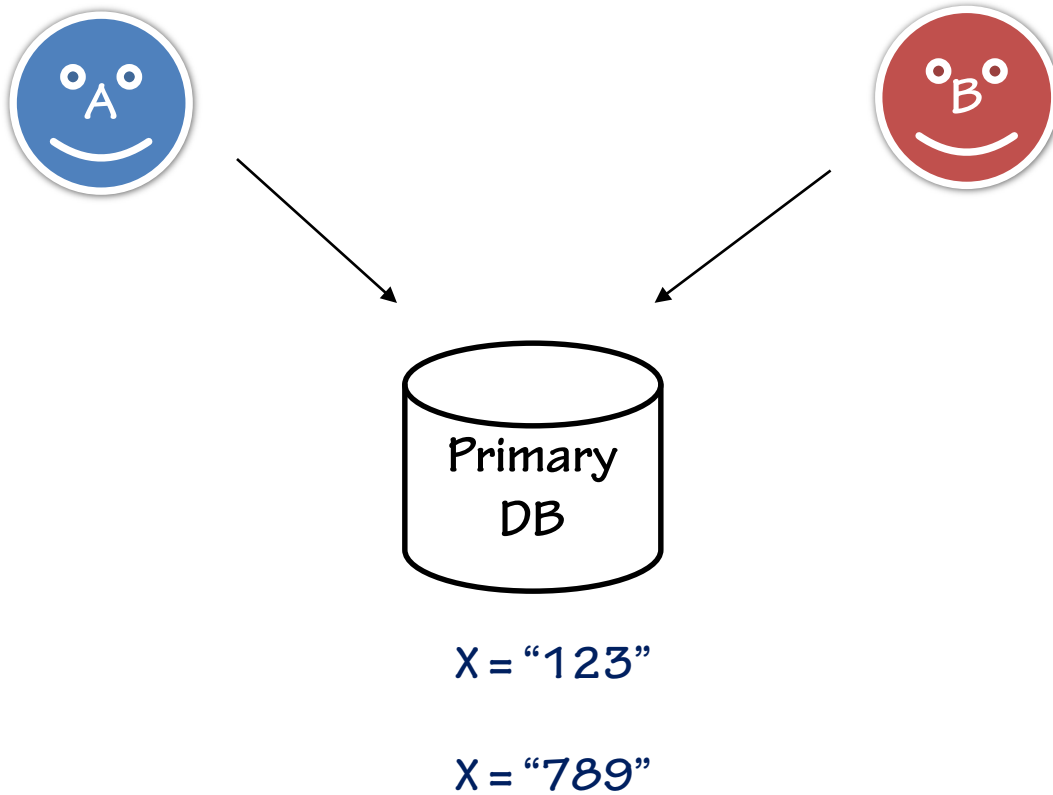
Capped Collection

Id	This

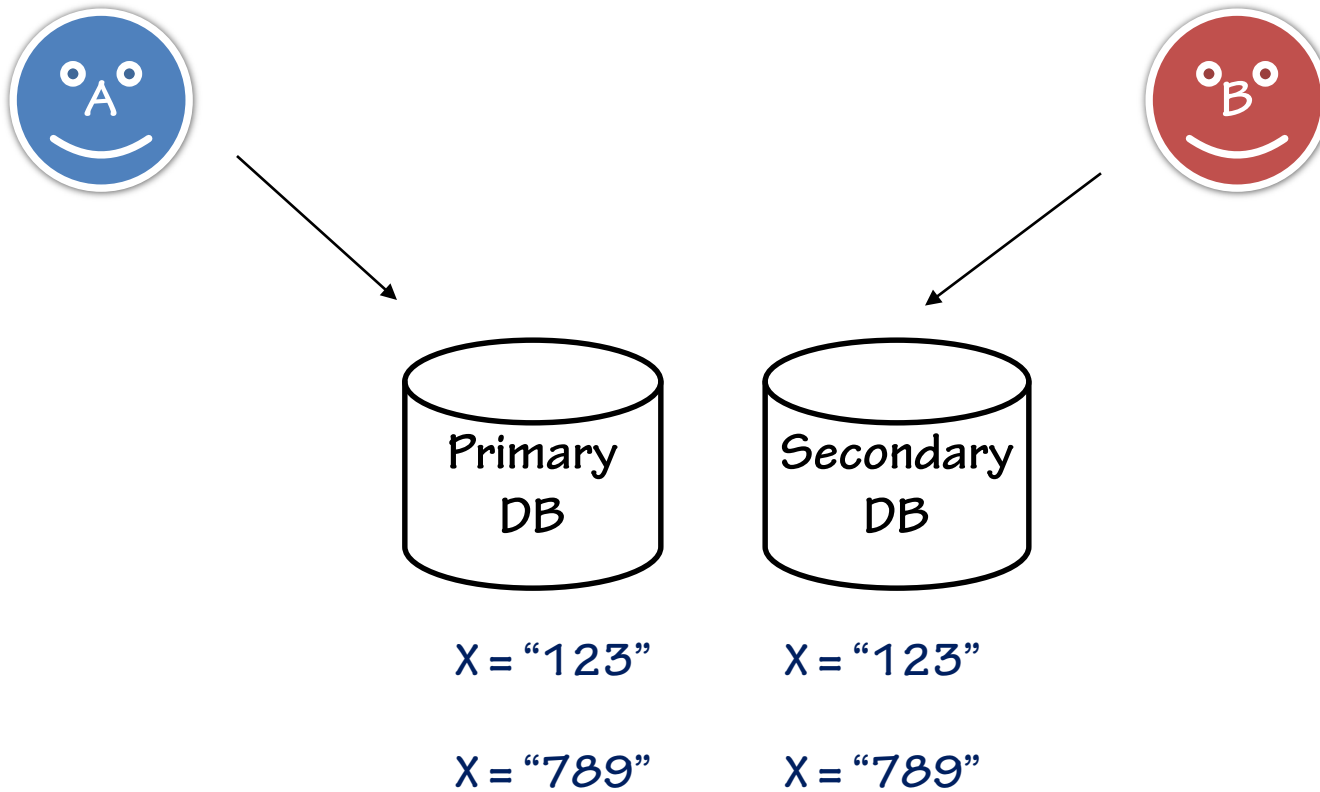
Id	Name

Id	That

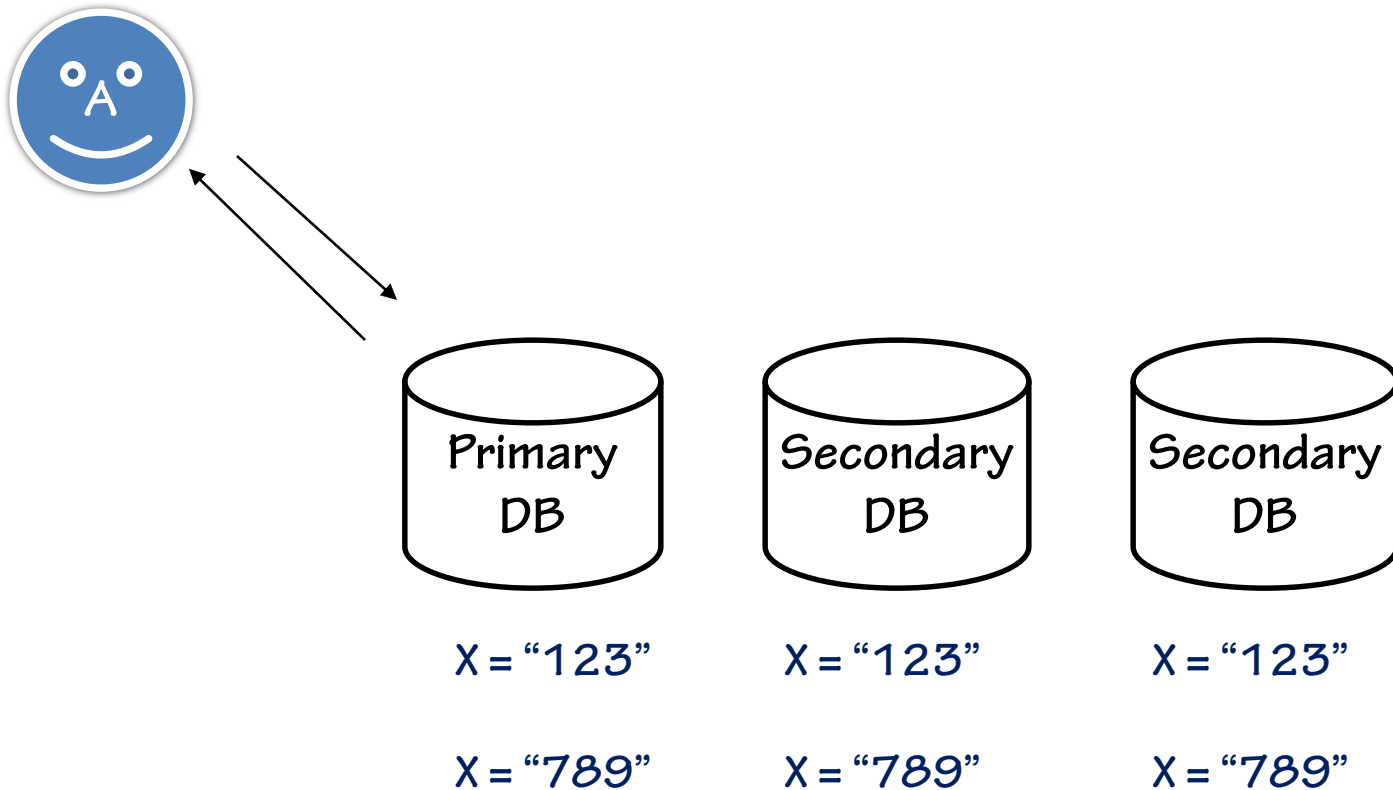
Consistency



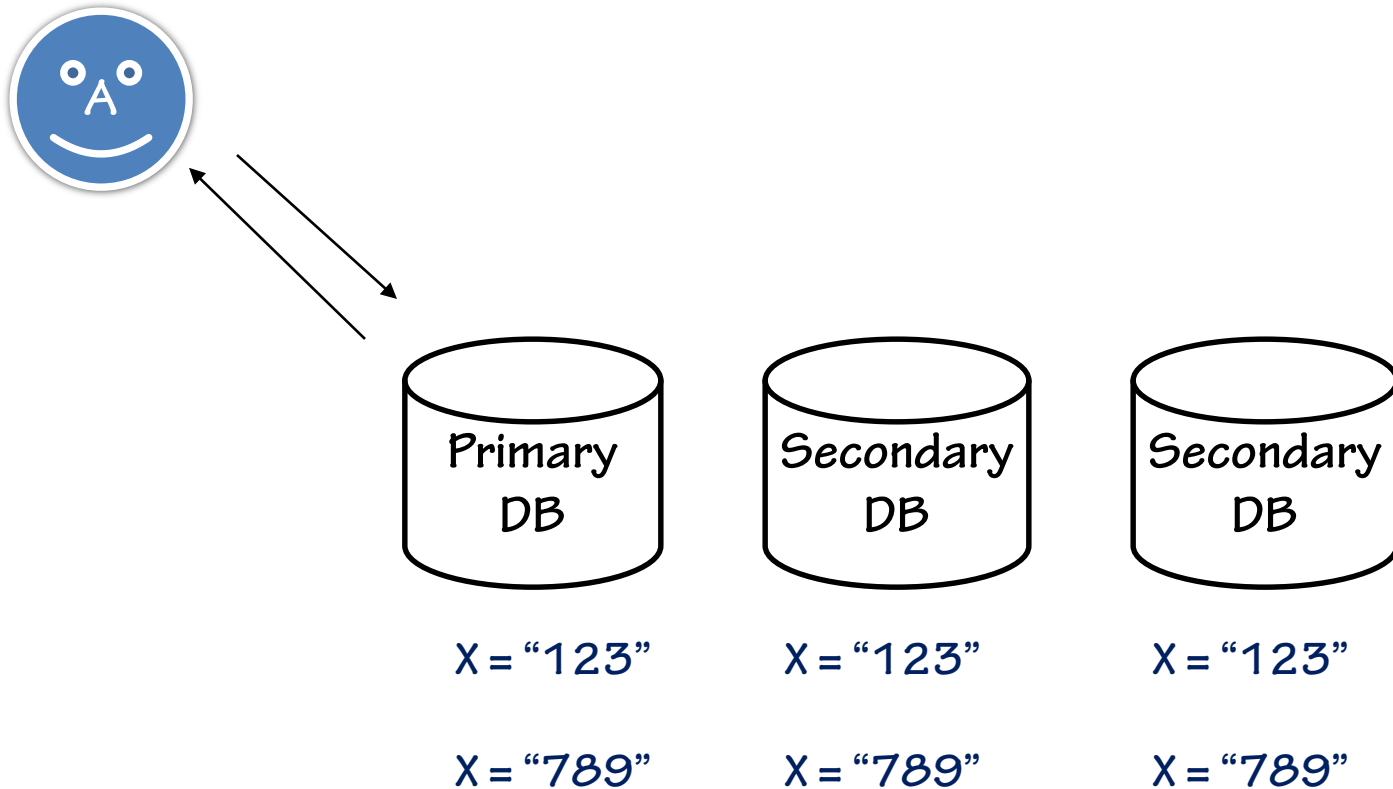
Consistency



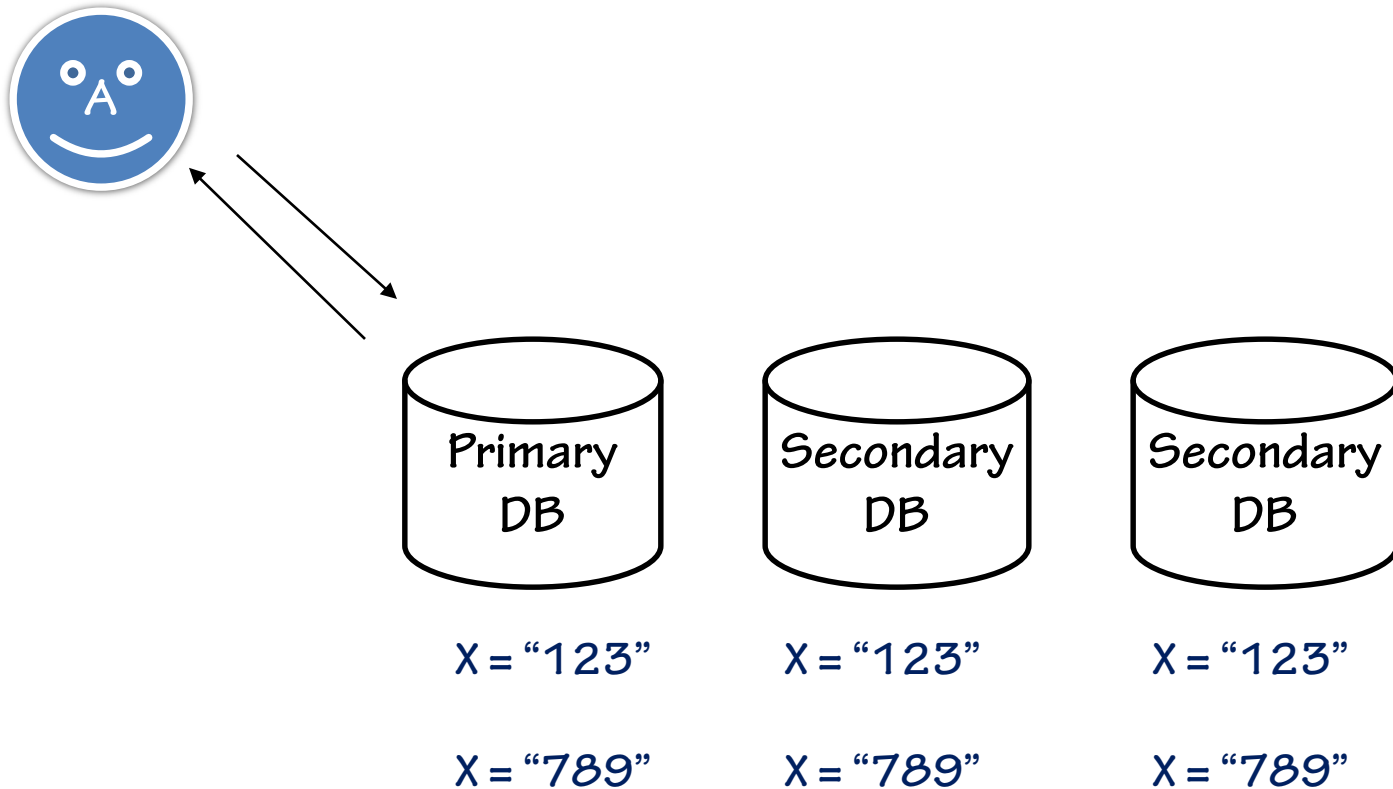
Consistency Choices - Complete



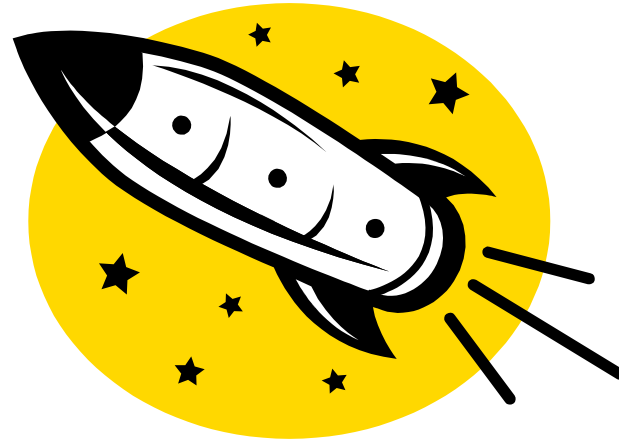
Consistency Choices – Fire & Forget



Consistency Choices - Majority



Summary



MongoDB

- Fast
- Scalable
- Tunable consistency
- No tables
- No schema

