

***EVENT SOURCING
WITH LAGOM***



A FEW WORDS ABOUT **ME**

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ID.1

50

ID.1

51

ID.1

52



Uncle Bob Martin

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Following



The biggest problem with ORM's is that they don't really map O to R. Tables _are not_ objects. They never were; and never will be.

4:12 PM - 30 Sep 2013

144 Retweets 42 Likes



23



144



42



$$50 + 1 + 1 = 52$$

$$50 + 1 + 1 = 52$$

COMMANDS

EVENTS

AGGREGATES

COMMANDS

EVENTS

AGGREGATES

COMMANDS

EVENTS

AGGREGATES

CMD



CMD ***EVENT***



CMD ***EVENT*** ***OLD***



CMD ***EVENT*** ***OLD*** ***NEW***



EVENT



AGGREGATE

```
{  
  food: [],  
  drinks: []  
}
```

COMMANDS

EVENTS

AGGREGATE

```
{  
  food: [],  
  drinks: []  
}
```

COMMANDS

EVENTS

```
{ addBurger }
```

AGGREGATE

```
{  
  food: [],  
  drinks: []  
}
```

COMMANDS

```
{ addBurger }
```

EVENTS

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger],  
  drinks: []  
}
```

COMMANDS

```
{ addBurger }
```

EVENTS

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger],  
  drinks: []  
}
```

COMMANDS

```
{ addBeer }
```

```
{ addBurger }
```

EVENTS

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger],  
  drinks: []  
}
```

COMMANDS

```
{ addBeer }  
{ addBurger }
```

EVENTS

```
{ beerAdded }  
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger],  
  drinks: [beer]  
}
```

COMMANDS

```
{ addBeer }  
{ addBurger }
```

EVENTS

```
{ beerAdded }  
{ burgerAdded }
```


AGGREGATE

```
{  
  food: [burger],  
  drinks: [beer]  
}
```

COMMANDS

```
{ addSalad }
```

```
{ addBeer }
```

```
{ addBurger }
```

EVENTS

```
{ beerAdded }
```

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger],  
  drinks: [beer]  
}
```

COMMANDS

```
{ addSalad }
```

```
{ addBeer }
```

```
{ addBurger }
```

EVENTS

```
{ saladAdded }
```

```
{ beerAdded }
```

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger, salad ],  
  drinks: [beer]  
}
```

COMMANDS

```
{ addSalad }
```

```
{ addBeer }
```

```
{ addBurger }
```

EVENTS

```
{ saladAdded }
```

```
{ beerAdded }
```

```
{ burgerAdded }
```

AGGREGATE

```
{  
  food: [burger, salad ],  
  drinks: [beer, water]  
}
```

COMMANDS

```
{ addWater }
```

```
{ addSalad }
```

```
{ addBeer }
```

```
{ addBurger }
```

EVENTS

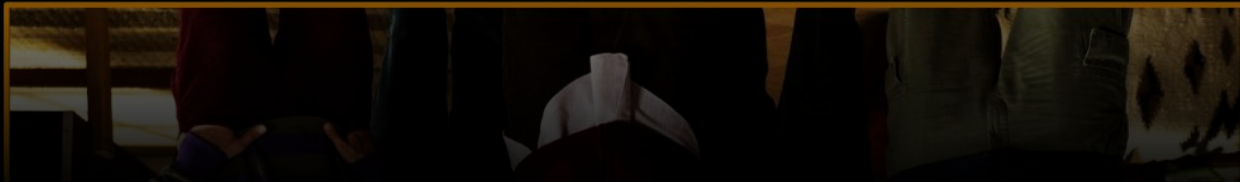
```
{ waterAdded }
```

```
{ saladAdded }
```

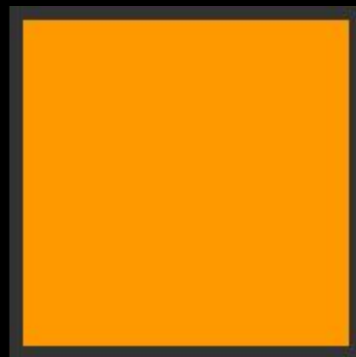
```
{ beerAdded }
```

```
{ burgerAdded }
```





AKKA





SPEED

AUDIT LOG

TIME TRAVEL

CHANGE HISTORY

SPEED

AUDIT LOG

TIME TRAVEL

CHANGE HISTORY

SPEED

AUDIT LOG

TIME TRAVEL

CHANGE HISTORY

SPEED

AUDIT LOG

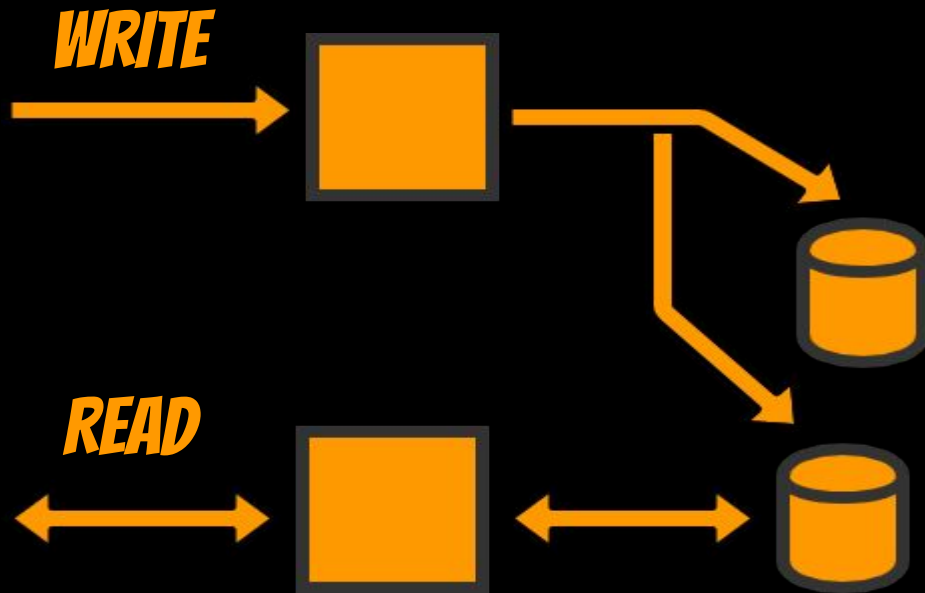
TIME TRAVEL

CHANGE HISTORY

EVENT STORMING

READ?

CQRS



EVENTUAL CONSISTENCY

... A NECESSARY EVIL

MICROSERVICES

SILVERBULLET!

SILVERBULLET!

ALTERNATIVES

Axon framework

Sebastian Daschner (youtube)

Eventuate

EventStore

Slides

<https://goo.gl/5HY7PV>

code

<https://goo.gl/t8iUrc>

- lagom - lagomframework.com/
- Akka - <https://akka.io/>
- reactive microsystems - <https://t.co/dm4wLJKV6f> by Jonas Bonér
- develop reactive microservices - <https://www.lightbend.com/blog/developing-reactive-microservices-free-oreilly-mini-book-by-java-champion-markus-eisele> by Markus Eisele
- Event Sourcing - <https://martinfowler.com/eaDev/EventSourcing.html> by Martin Fowler
- Sebastian Daschner - EventSourcing and JavaEE tutorial <https://www.youtube.com/watch?v=CYocFQvl6s0&list=PLEV9ul4qfG0Z5gWIPMlFGMUpenSs1EvxZ>
- Axon framework - <http://www.axonframework.org/>
- Eventuate - <http://eventuate.io/>
- EventStore - <https://eventstore.org/>

QUESTIONS?

survey

<https://goo.gl/5mpNCG>