

EventStorming for Domain-Driven Design



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Why Domain-Driven Design?

DDD in a Nutshell

- ▶ Build common understanding
- ▶ Separate business logic ↔ technical stuff
- ▶ Structure the code

Build Common Understanding

- ▶ Very important
- ▶ „Knowledge Crunching“

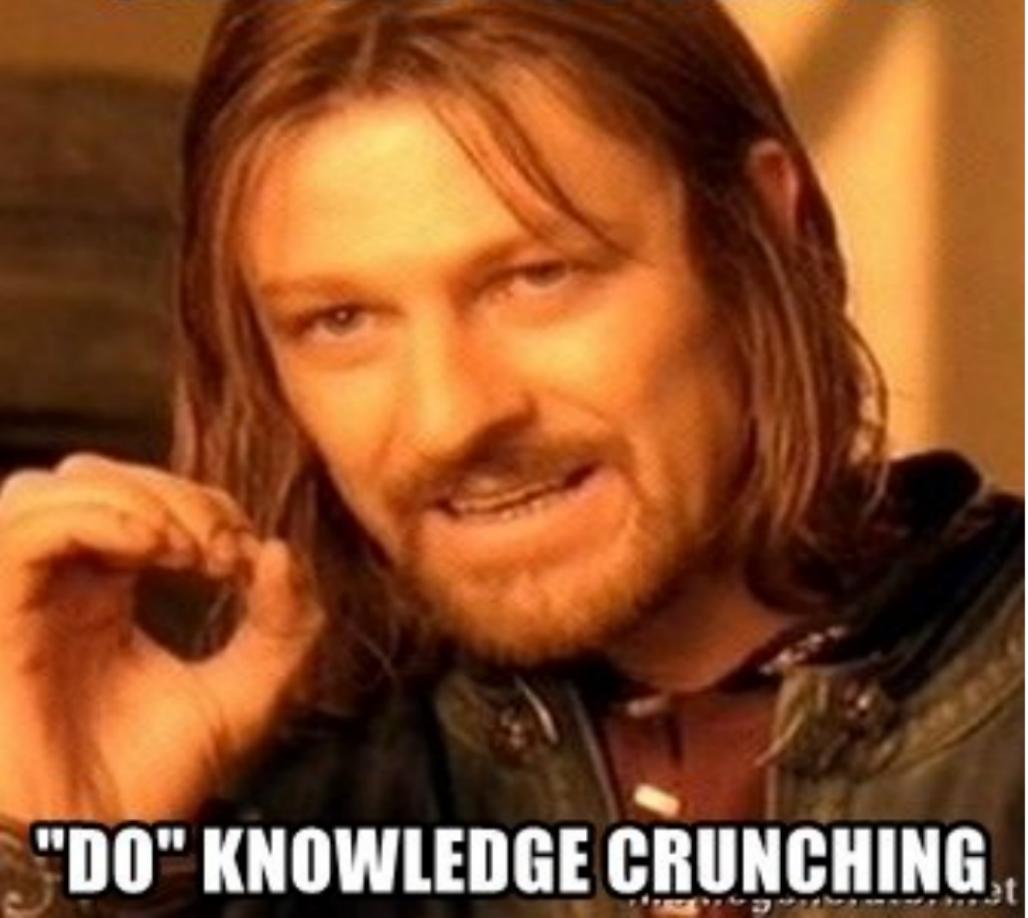
DO KNOWLEDGE CRUNCHING



Spongebob Squarepants vector trace by kssael. ©Nickelodeon

AND ALL WILL BE WELL

ONE DOES NOT SIMPLY



"DO" KNOWLEDGE CRUNCHING,







Create Common Understanding - Why?

- ▶ Make thoughts visible and tangible
- ▶ Model establishes clarity
- ▶ Ubiquitous Language defines the scope of terms



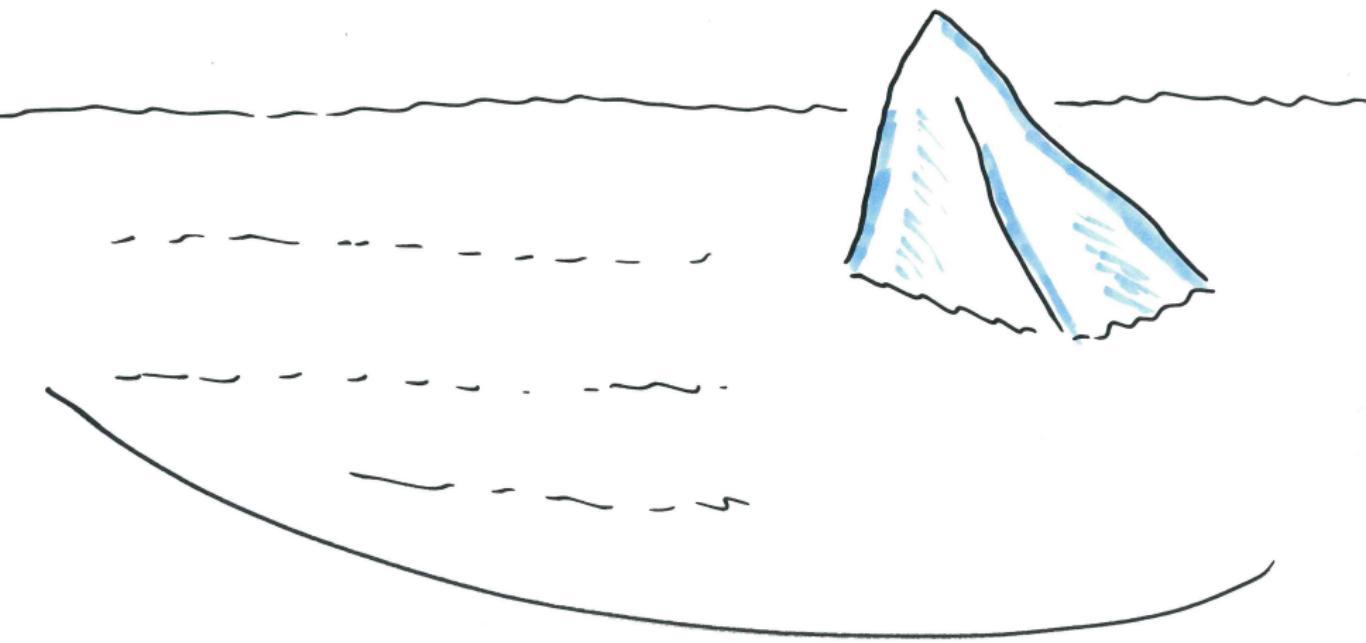
Strand ...
Meer ...
Sonne ...











WARNING

Here the same happens!

WORKSHOP

Our Domain: eCommerce

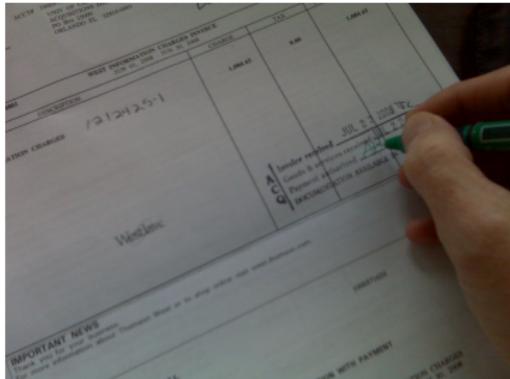
Our Domain: eCommerce



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EventStorming I

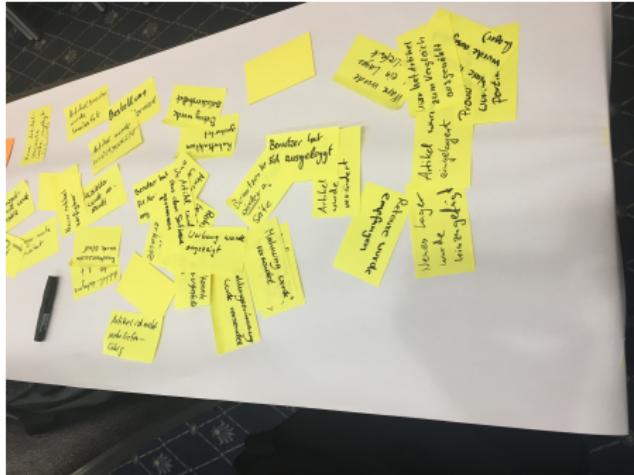
Events

- ▶ Something that happened in the past
- ▶ Relevant for the business
- ▶ Observable in the system
- ▶ Described by a **verb in the past**

Example



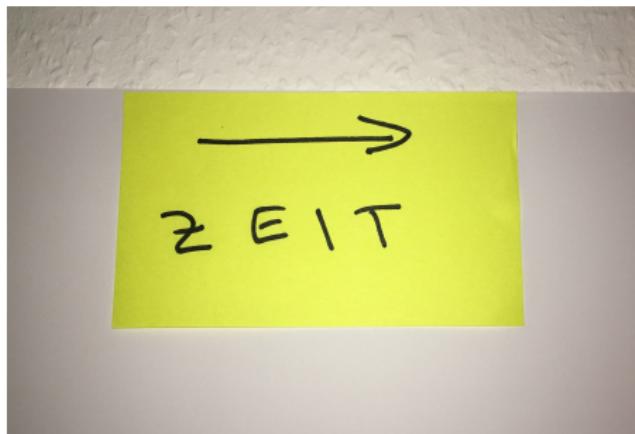
That's how it can look like



EventStorming II

- ▶ Many events are in chronological order
- ▶ Time runs **from left to right**

Time



Example

Artikel
wurde
angezeigt

Artikel wurde
in Warenkorb
gelegt

Warenkorb
wurde
bezahlt

Bestellung
wurde versandt

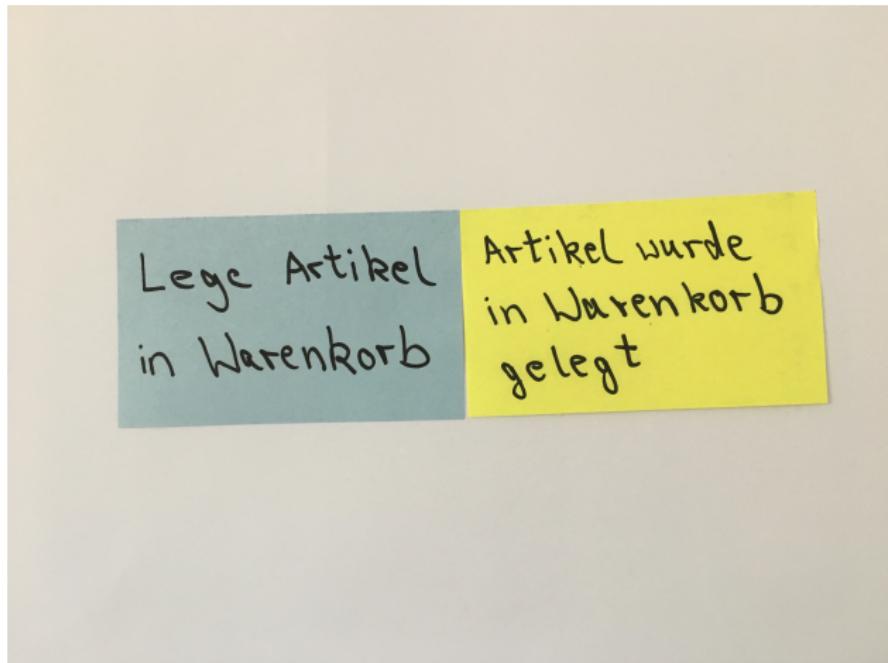
That's what it can look like



EventStorming III

- ▶ Each event must be raised by some activity in the system
- ▶ **Command**
- ▶ Are expressed in the imperative

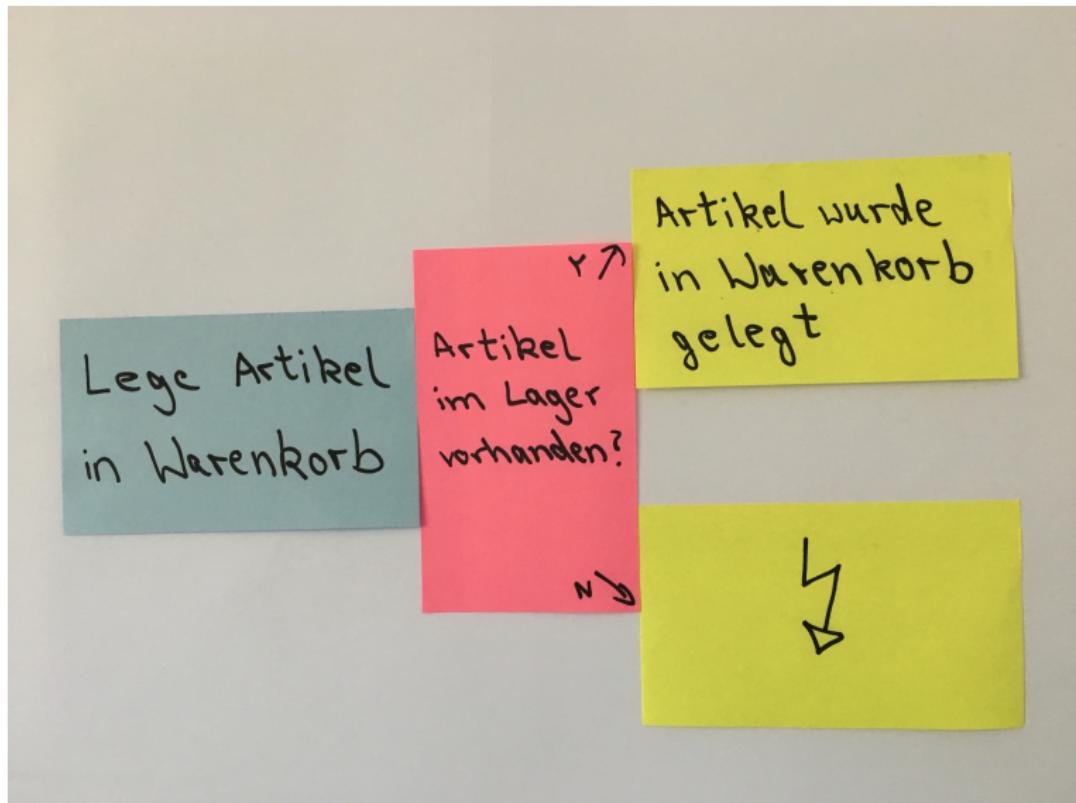
Example



EventStorming III

- ▶ Not all commands lead to an event unconditionally
- ▶ **Constraints** need to be considered
- ▶ Decision is formulated as question
- ▶ Events answer the question

Example

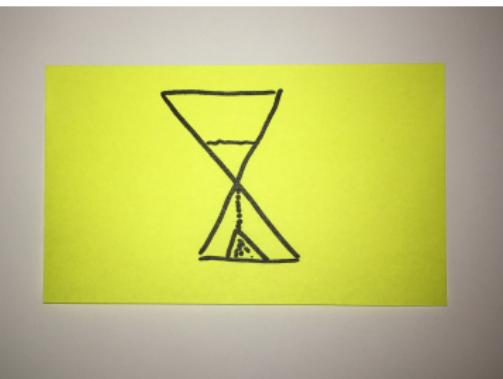


That's what it can look like



Representing Time

Representing Time



Representing Time



A hand-drawn illustration of the number '15' on a yellow sticky note. The number is written in a simple, bold black font. It consists of the digit '1' positioned above the digit '5'. The entire number is enclosed within a thick black rectangular border.

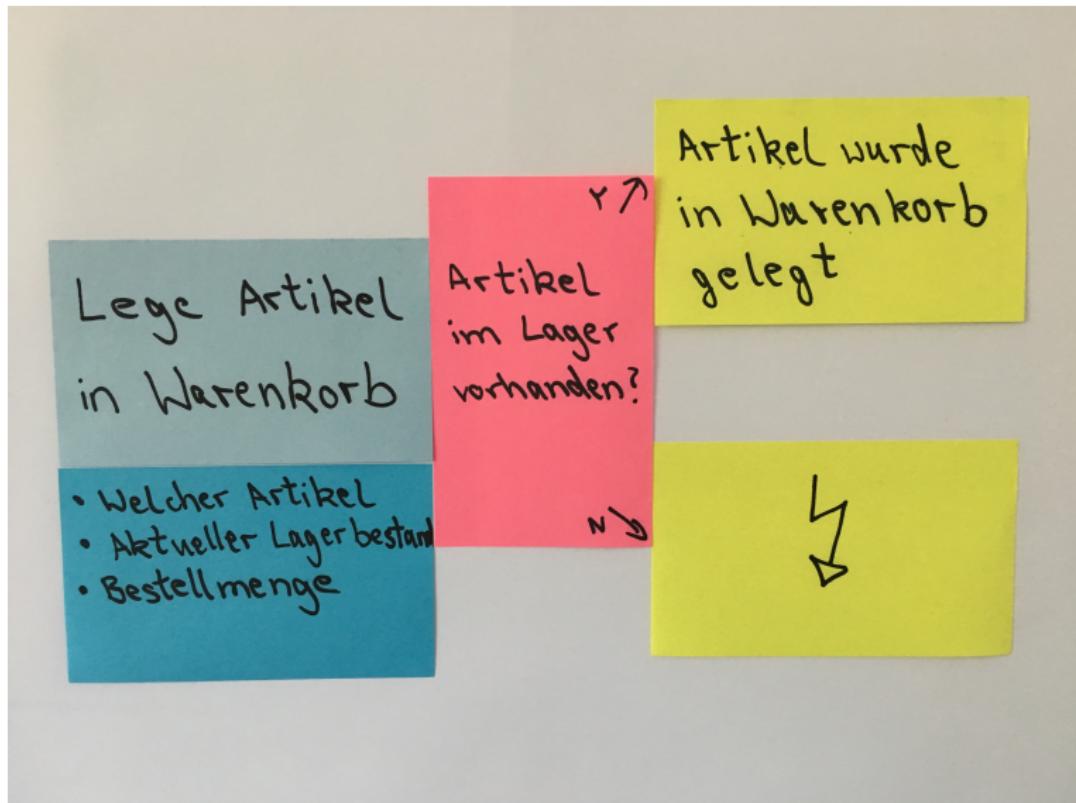
Representing Repetition



EventStorming IV

- ▶ Constraints need **data** for their answers
- ▶ Data must be available
 - ▶ Captured via event before the command
 - ▶ From another part of the system
- ▶ If missing \Rightarrow amend the model

Example



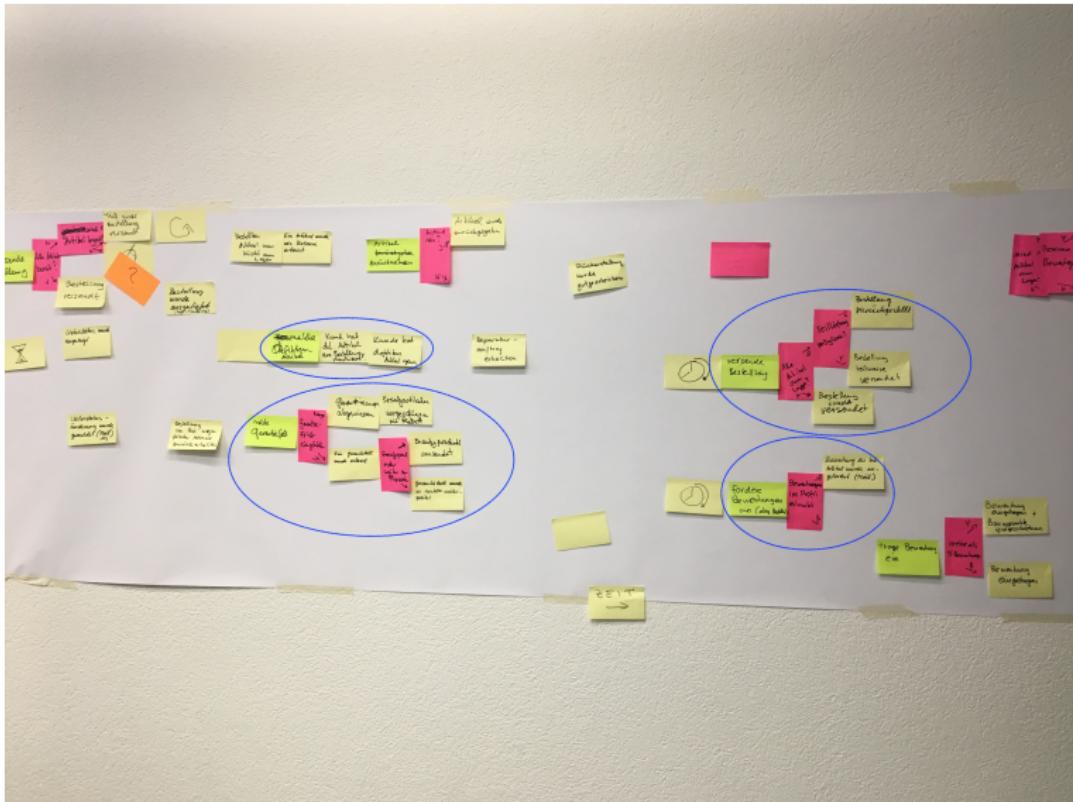
EventStorming V

- ▶ **Bounded Contexts**
 - ▶ high coupling **inside**
 - ▶ Few dependencies **across**
- ▶ Can be modelled with yarn

EventStorming VI

- ▶ Derive development units (user stories)
- ▶ Command + events ⇒ story
 - ▶ If necessary, split into Happy Path + further cases

Example



What's Next?

Implementing a story:

- ▶ Model in great detail, implement immediately
- ▶ Stick model to wall during development
- ▶ Discuss everything based on this model
- ▶ Changes ⇒ update model and code!
- ▶ Easy to implement with event sourcing

Summary

Why Modelling?

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- ▶ Modelling helps make thoughts visible and tangible
- ▶ Everybody develops their own understanding of something they heard
- ▶ Model tries to add clarity
- ▶ EventStorming helps get to a detailed model in a very short period of time

Ask Critical Questions

- ▶ Clarify details with the business people
- ▶ Critically question the model!
- ▶ Discuss alternative models
- ▶ "What if this happens earlier than that?"
- ▶ Follow the Usual SuspectsTM (*always, never, ...*) and invalidate them

Gain Insights into the Domain

- ▶ Collaboration between devs and business is key for a project's success
- ▶ You need your domain experts
- ▶ EventStorming can be used without DDD

Thank You!

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EventStorming · Domain-Driven Design
Training · Coaching · Facilitation
Software Craftsmanship
React.js and Redux
Functional Programming

<https://github.com/NicoleRauch/EventStormingForDDD>

Credits

Palm Beach: Grand Velas Riviera Maya - Beach Palm Trees Riviera Maya

<https://www.flickr.com/photos/grandvelasrivieramaya/3179390917>

Crowded Beach: Deyvis Tejada - Cala Mondrago - Cala Esmeralda
Mallorca

<https://www.flickr.com/photos/143430050@N02/33639336432>

Japan Beach: Aleksander Dragnes - Miyajima Floating Torii

<https://www.flickr.com/photos/adragnes/644727155>

Ice Beach: Kitty Terwolbeck - Colorful waters (Spitsbergen 2012)

<https://www.flickr.com/photos/kittysfotos/7902630982>

Onlineshopping: Elaine Smith - Online Shopping

<https://www.flickr.com/photos/155416046@N05/35933760125>

Warehouse: Gwan Kho - Mediq Sverige Kungsbacka warehouse

<https://www.flickr.com/photos/gwankho/6205837092>

Ordering: cybrgrl - Invoices

<https://www.flickr.com/photos/cybrgrl/2693815369>