

JOCHEN CHRIST

**Teamwork im Home-Office**

**Remote**

**Mob Programming**

**At home,  
but not alone**

**INNOQ**



**Simon Harrer**

Senior Consultant  
INNOQ



**Jochen Christ**

Senior Consultant  
INNOQ



**Martin Huber**

Senior Consultant  
INNOQ



**Simon Harrer**

@simonharrer

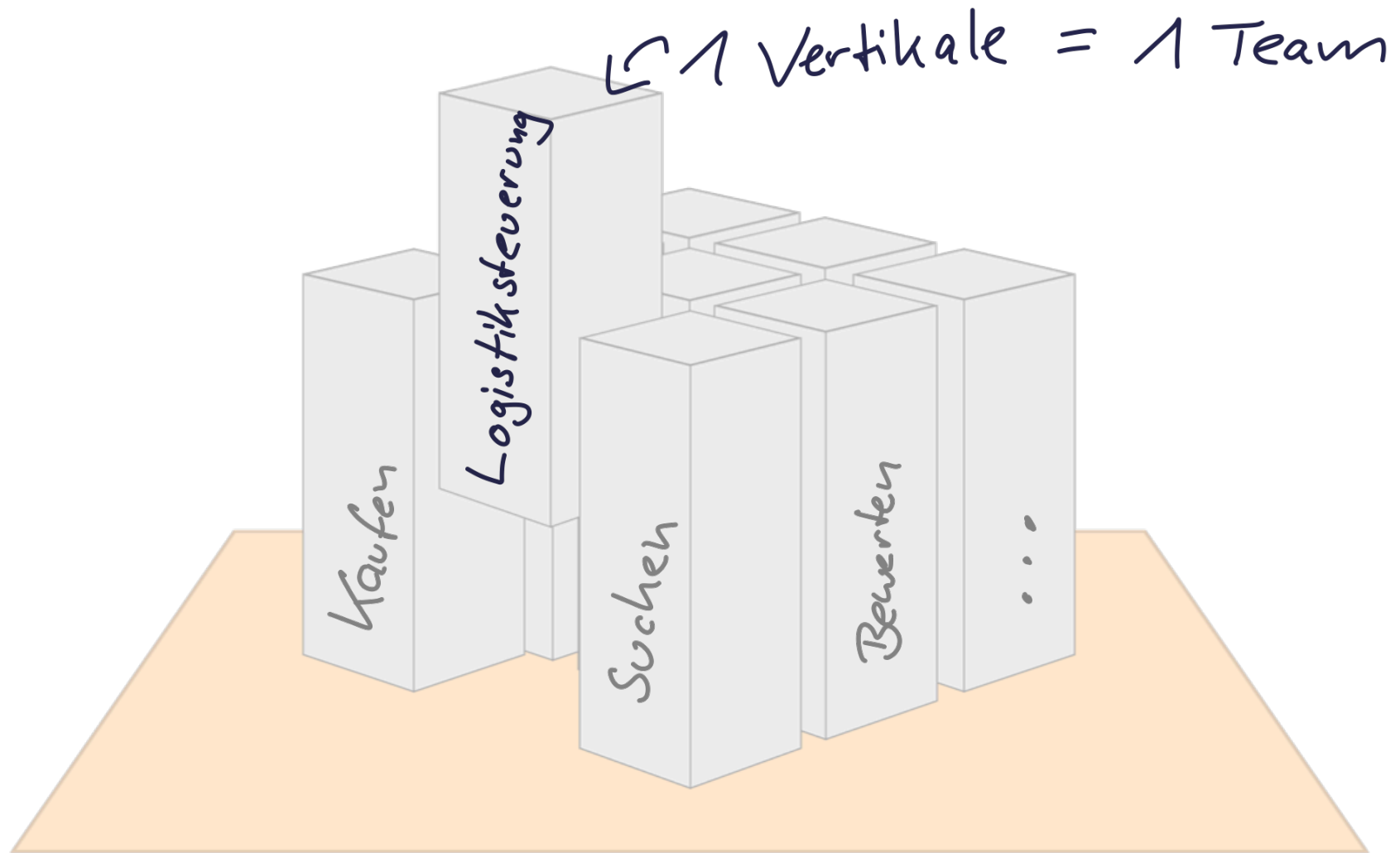
I have been doing remote [#mobprogramming](#) full-time for a year now. One year without daily stand-ups. One year without waiting for reviews. One year without handovers before holidays. One year at home without feeling alone. I don't want to work differently anymore.

♡ 543 8:31 PM - Aug 12, 2019



💬 206 people are talking about this

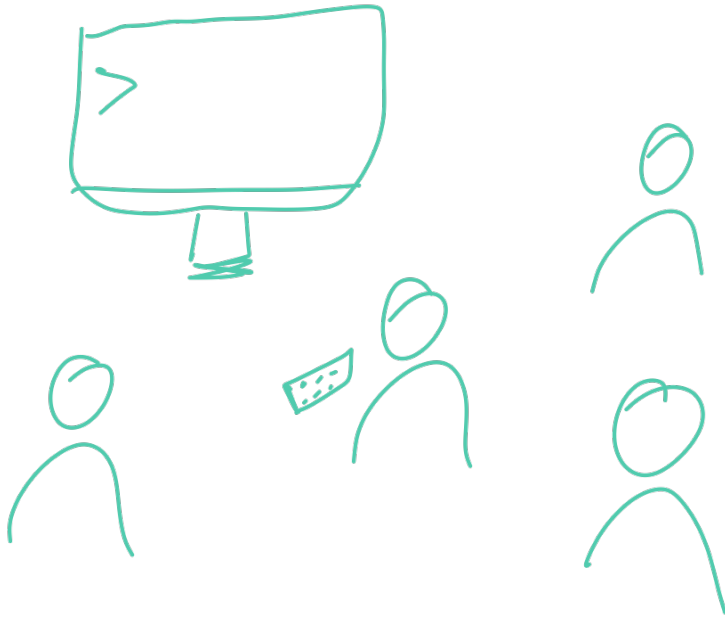




**Das Gesamtsystem besteht aus eigenständigen fachlichen Vertikalen**

# **Selbstorganisierende Teams**

# Kick-Off gemeinsam vor Ort



- **Gemeinsam 2 Wochen**
  - **Fachlichkeit verstehen**
  - **Definition des Bounded-Context**
  - **Architektur und Technologie-Auswahl**
- **Unterschiedlicher Background und Know-How**
  - **=> Erster Service gemeinsam begonnen**



# **Und dann?**

**Wir wollten den begonnen Service gemeinsam fertig machen**

**... und sind bis heute in diesem Arbeitsmodus geblieben**



**Welcome to**  
**Remote Mob Programming**

appear.in - one click video

https://appear.in/innoc

IntelliJ IDEA File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

mob [~/Projects/mob] - .../mob.go

```
123 git( args... "fetch", "--prune")
124 git( args... "pull")
125
126 if hasMobbingBranch() && hasMobbingBranchOrigin() {
127     sayInfo( s: "rejoining mob session")
128     git( args... "branch", "-D", wipBranch)
129     git( args... "checkout", wipBranch)
130     git( args... "branch", "--set-upstream-to="+remoteName+"/"+wipBranch, wipBranch)
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149     git( args... "checkout", wipBranch)
150     git( args... "push", "--set-upstream", remoteName, wipBranch)
151 }
152
153 if len(os.Args) > 2 {
154     timer := os.Args[2]
155     startTimer(timer)
156 }
157 }
158
start()
```

Jochen Christ

Simon Harrer

Martin Huber

Simon Harrer

Help

Share screen Record Mic off Cam off Open chat Leave

# Screen Sharing



**We feel most comfortable working in our own individual environment. It is where we are most productive.**

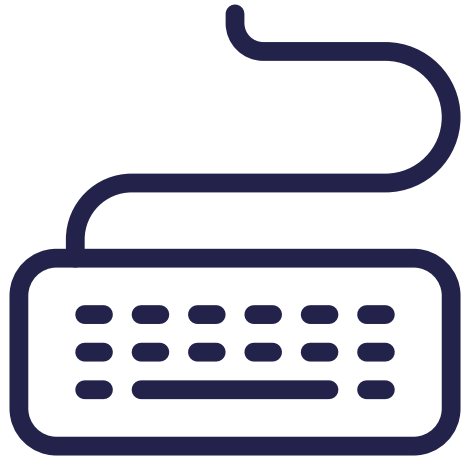
**The typist shares their primary screen, showing the IDE.**

*We all look at the same shared screen.*

**It is highly efficient to work with actual code in contrast to having abstract meta discussions.**

**We share while working on Issues or Requirements.**

# Typist and the Rest of the Mob



*Typist:* One person controls the keyboard,

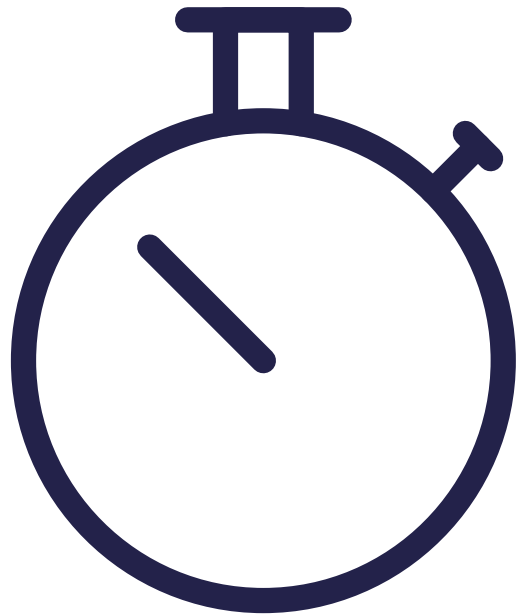
*The rest of the mob:* Discusses the problem, agrees on the solution, and instructs the typist.

*We value the typist as they allow the rest of the mob to focus on solving the problem.*

**The typist must not code on their own.**

Terminology is adopted from [Code with the Wisdom of the Crowd](#) by Mark Pearl.

# 10 Minutes Intervals



**In a mob session, the typist role rotates periodically. Short rotation periods keep everyone concentrated and every opinion in the mix.**

*We rotate every ten minutes.*

**Surprisingly, taking your turn as a typist allows you a mental relaxation. You just wait for instructions.**

# Git Handover



**With on-site Mob Programming, you just pass on the keyboard to hand over to the next person. This is a challenge for a distributed team.**

*We hand over with WIP commits on a temporary git branch.*

**To have a clean master branch, we work on a temporary mob-session branch.**

# mob

```
→ fizzbuzz git:(master) mob start 10
✓ [git fetch --prune]
✓ [git pull]
> create mob-session from master
✓ [git checkout master]
✓ [git merge origin/master --ff-only]
✓ [git branch mob-session]
✓ [git checkout mob-session]
✓ [git push --set-upstream origin mob-session]
✓ 10 minutes timer started (finishes at approx. 18:41)
> mobbing in progress

→ fizzbuzz git:(mob-session) mob next
✓ [git add --all]
✓ [git commit --message "Mob Session DONE [ci-skip]"]
✓ [git push origin mob-session]
README.md | 2 ++
1 file changed, 2 insertions(+)
✓ [git checkout master]
```

<https://github.com/remotemobprogramming/mob>

# Remote Everybody



If one is remote, everybody is remote.

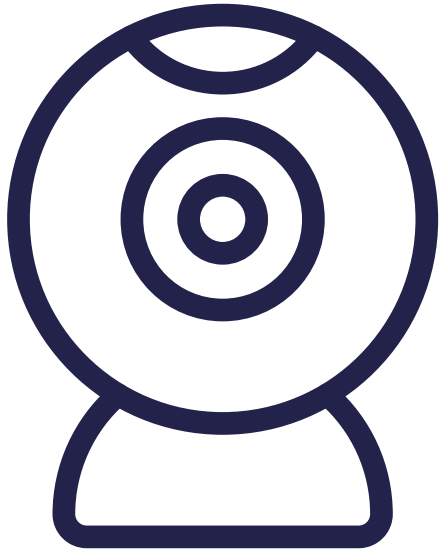
It does not work if part of the team works on-site.  
This would lead to information asymmetry.

*We all work from home, but don't feel alone.*

In home office it is easier to communicate than in most open-plan offices.



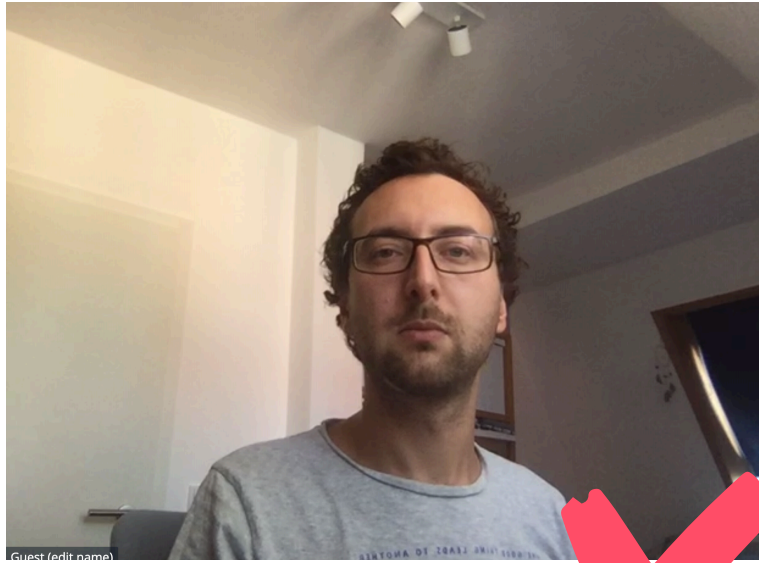
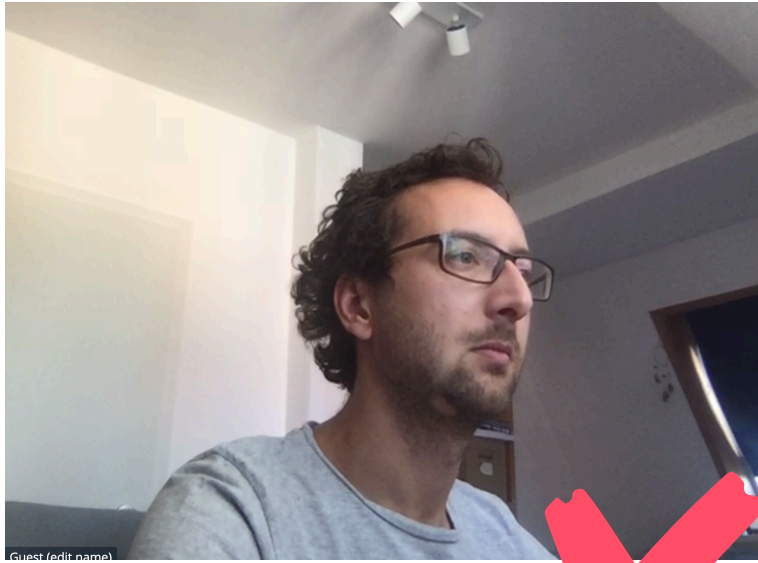
# Camera Always On



**Working face-to-face is powerful because we communicate with the whole body, not just our words.**

*We activate our cameras all the time.*

**It gives a sense of presence in the team, almost like working in the same room together.**



# Same Time



**One of the prerequisites of Mob Programming is working at the same time.**

*We mob at least six hours a day.*

**We align our core working hours.  
We also agree on the same lunch hour.**

# Small Team



The whole team works and focuses on the same thing.  
Only one person can talk at the same time.  
In larger teams it is harder to stay focused.

*We are four.*

The minimum size to form a mob is 3.  
In our experience, teams with 3-4 developers provide the best benefit-cost ratio.

# Group Decisions



**Group decisions are superior over individual decisions. In Remote Mob Programming, all decisions are group decisions.**

*We minimize technical debt.*

**When we are coding, we all agree on changes and code style. As a consequence, we don't need code reviews or pull requests.**

**We document decisions with extensive consequences using Architecture Decision Records.**



# Idempotenz

Created by Jochen Christ, last modified on 27.09.2018

Die Kommunikation mit Umsystemen und innerhalb unserer Vertikale findet asynchron über Nachrichten statt.

Bei der Abwägung **At-Least-Once-Delivery vs. At-Most-Once-Delivery** wird At-Least-Once-Delivery gewählt, da wir keine Bestellungen verlieren dürfen. Es kann aus technischen Gründen daher vorkommen, dass Nachrichten mehrfach ankommen. Es muss verhindert werden, dass eine Bestellung mehrfach ausgeliefert wird.

## Entscheidung

Alle Systeme verhalten sich idempotent.

## Status

Akzeptiert.

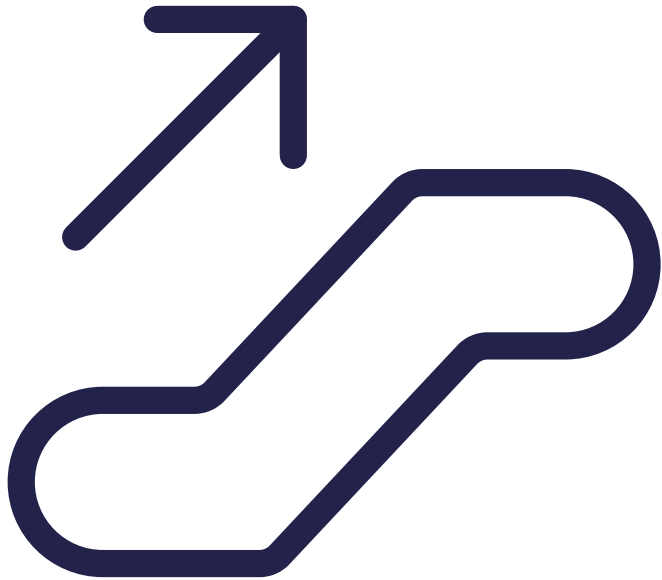
## Konsequenzen

- Deduplication von Kafka-Nachrichten bzw. Erkennung von Duplikaten ist consumer-seitig notwendig.
- Producer können leichtgewichtiger implementiert werden.
- Alle Systeme müssen Tests auf idempotentes Verhalten beinhalten.

Like Be the first to like this

No labels

# Constant Momentum



In a feature branch-based workflow, you are blocked waiting for the code review of your pull request.

While waiting, you start another feature and need to switch context.

*As we aren't blocked by ourselves.*

We have continuous and implicit code reviews  
– no feature branches, no waiting, no context switches.

# Learn from the Team



Sharing knowledge is at the heart of Mob Programming. Everything the mob does is the result of in-depth discussions.

Nothing is done without agreeing on the why. That's where everybody learns.

*We get better every day by learning from each other*

With Mob Programming, on-boarding only takes weeks, not years.



# Regular On-Site Meetings



The better everybody knows each other, the better everybody can collaborate remotely.  
Getting to know each other works best on-site.

*We meet on-site once a month.*

On-site, we do: Long-term Plannings, Retrospectives, Whiteboard Sessions, Fun.

# Trust



**Our client does not see us working. So, management has a natural fear of losing control over the team.**

**Also, there is an inherent doubt of the team's productivity with everyone working on the same issues.**

*We build trust by actively communicating.*

**We write daily check-ins in our team's chat channel.**

Favoriten

- Redacted favorite entries

- # pruefen-best
- # pruefen-best-alerts-dev
- # pruefen-best-alerts-prod

# pruefen-best-checkins

- pruefen-best-intern

Unterhaltungen

Kanäle

- Redacted channel entries



**Simon Harrer** @exsharrer BEST PRFN 16:43

Heute eine tolle Diskussion mit Seb gehabt zum Thema "Reservierung - Eigener Bounded Context: ja/nein/vielleicht". Ergebnis hier <https://confluence.br3uning.de/display/PRUF/Reservierung+in+eigenem+Kontext> nachlesbar. Es bleibt vorerst bei einem eigenen Context, und wir bewerten die Situation neu wenn wir evtl. Umlagerungen anstoßen müssen und dadurch eine Abhängigkeit auf den DOM Context bekommen.

Dabei haben wir beschlossen, bei der Reservierung den reservierung-feed über zwei JSON-Home Einträge erreichbar zu machen, einen für den reservierungsfortschritt und einen für die anforderung. Beide Einträge zeigen aber auf die gleiche Feed Instanz. Das ermöglicht uns später mal, diese Feeds aufzuteilen und ergibt ein klareres Bild nach außen für die anderen Vertikalen (CTRL interessiert sich nur für den Reservierungsfortschritt, SFS interessiert sich nur für erstellte oder stornierte Anforderungen).

In eigener Sache: bald erscheint ein kleines Büchlein zu Remote Mob Programming <https://leanpub.com/remotemobprogramming>



leanpub.com  
**Remote Mob Programming**

Remote Mob Programming combines two ways of working: Mob Programming and working as a distributed team. J...



**Martin Huber** @exmhuber BEST PRFN Owner 17:42

heute

...prinzipiell nur noch zu zweit, haben Christoph und ich uns den Fulload des AX-Bestandes vorgenommen und die Verbindung zum FTP-Server getestet und nachgewiesen und überlegt ob und wie wir einen IntegrationTest machen könnten. Wir haben uns dann aufgrund erhöhter Komplexität dafür entschieden auf einen IntegrationTest zu verzichten und nur die tatsächliche (Fach-)Logik zu testen. Dazu müssen wir die aktuelle Implementierung zwar etwas refaktorn, sollte aber weniger Aufwand sein, als den IntegrationTest zu bauen um nachzuweisen, dass die Frameworks die wir dafür verwenden das können was sie versprechen 😊

Morgen geht es dann mit diesem Thema und Teilaufgaben aus dem Reservierungskontext weiter.

Nachricht

# Save the Planet



Daily commuting causes traffic jams, crowded trains, and significant greenhouse gas emissions. Even worse, some consultants fly to their customers' offices.

*We don't travel, so zero greenhouse gas emissions.*

No travel means no travel costs for us and our customers.

# Dine with your Family

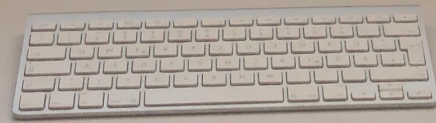
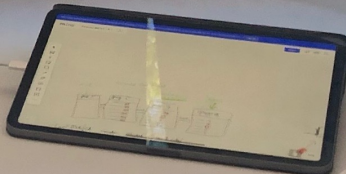
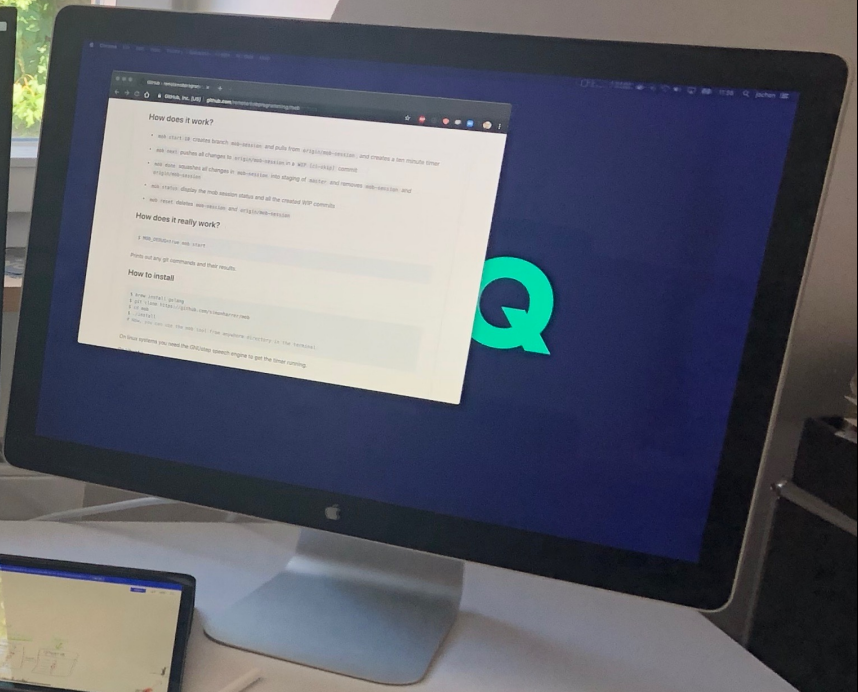
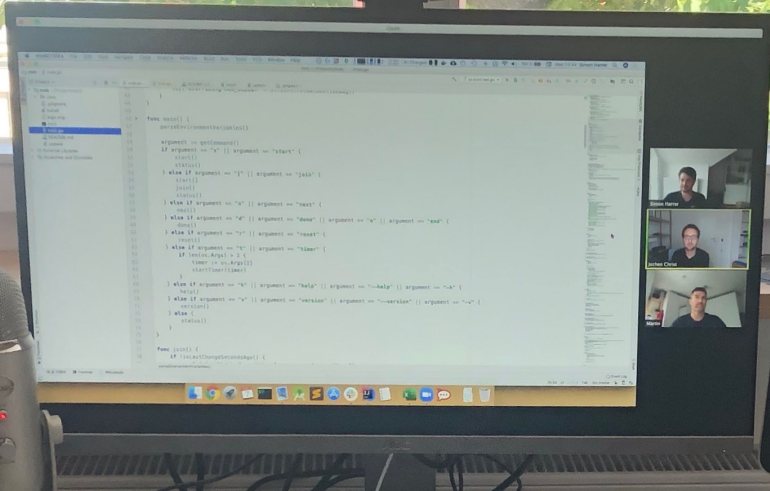
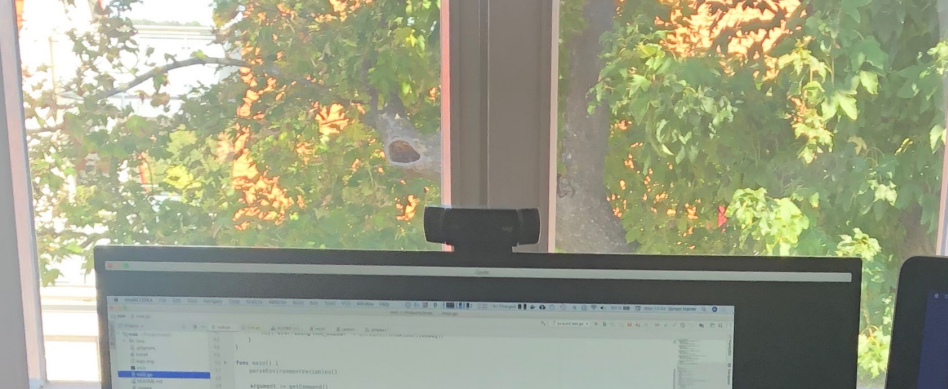


As software engineers, we often struggle to balance challenging and rewarding work with time for family and leisure.

*We enjoy more quality time with our families.*

With Remote Mob Programming we get both, rewarding work and quality time with our families and kids.

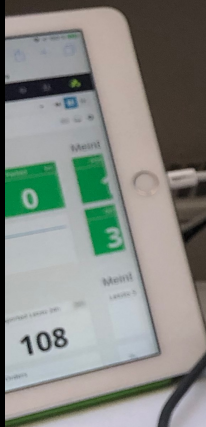
# Our Setup





```
132 sayInfo("create " + wipBranch + " from " + baseBranch)
133 git(args: "checkout", baseBranch)
134 git(args: "merge", remoteName+"/"+baseBranch, "--ff-only")
135 git(args: "branch", wipBranch)
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}

I
(os.Args) > 2 {
  timer := os.Args[2]
  startTimer(timer)
}
```







HD 1080p

logi

# zoom

The screenshot displays a Zoom meeting interface. The main window shows the IntelliJ IDEA code editor with a Go program. The code defines a `main` function that handles various command-line arguments: `start`, `join`, `next`, `done`, `end`, `reset`, `timer`, `help`, `version`, and `status`. The `main` function calls `parseEnvironmentVariables()`, `getCommand()`, and then branches based on the argument. The `join` function is also partially visible, starting with `if !isLastChangeSecondsAgo()`.

On the right side of the Zoom window, there are three video thumbnails of participants:

- Simon Harrer
- Jochen Christ
- Martin

The bottom of the screen shows the macOS dock with various application icons, including Finder, Chrome, and Zoom. The system status bar at the bottom right indicates the time is 35:33 and the date is Wednesday, 14:43.



# Whereby

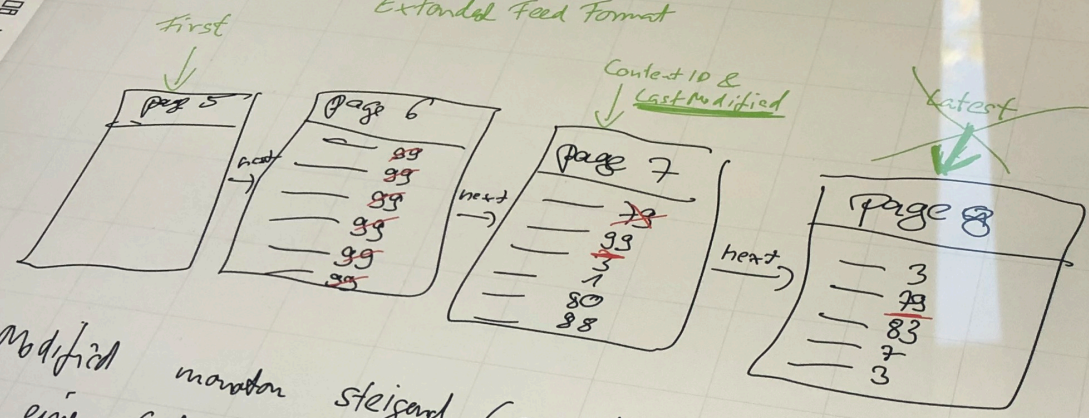
(was: [appear.in](https://appear.in))

The screenshot shows a Zoom meeting in progress. The main window displays the IntelliJ IDEA code editor with the following Go code:

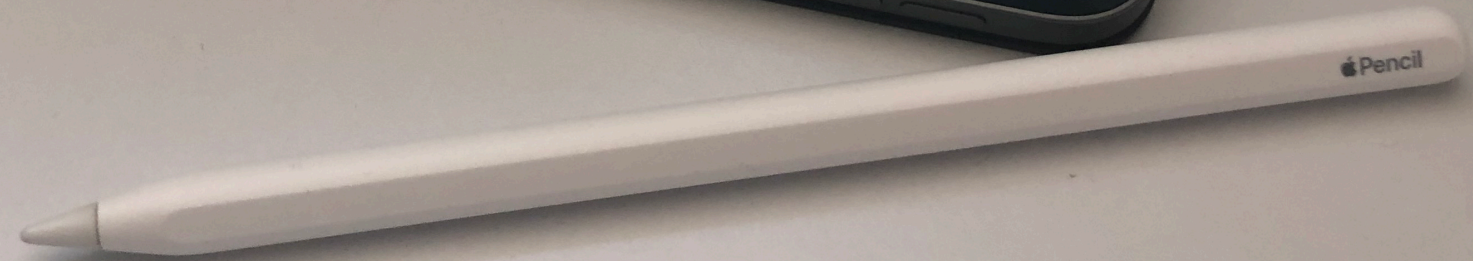
```
123 git(args... "fetch", "--prune")
124 git(args... "pull")
125
126
127 if hasMobbingBranch() && hasMobbingBranchOrigin() {
128     sayInfo(s: "rejoining mob session")
129     git(args... "branch", "-D", wipBranch)
130     git(args... "checkout", wipBranch)
131     git(args... "branch", "--set-upstream-to="+remoteName+"/"+wipBranch, wipBranch)
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151     git(args... "push", "--set-upstream", remoteName, wipBranch)
152 }
153
154 if len(os.Args) > 2 {
155     timer := os.Args[2]
156     startTimer(timer)
157 }
158
159 }
```

The Zoom interface shows three participants: Jochen Christ, Simon Harrer, and Martin Huber. The bottom of the screen displays the Zoom control bar with buttons for 'Share screen', 'Record', 'Mic off', 'Cam off', 'Open chat', and 'Leave'.

### Extended Feed Format



Last Modified  
 Jahr hat eine Content ID  
 monoton steigend (append only)  
 ecom id muss mindestens einmal im Feedshot  
 enthalten sein. Content ID ecom id wird genutzt



# Main Benefits

**Time to market**

# **Knowledge Sharing**



**Simon Harrer** @simonharrer · Aug 12, 2019

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**Claudio Zizza**  
@SenseException

This must be this "teamwork" everyone is talking about. It is even literally team work.

♡ 2 11:00 AM - Aug 13, 2019



[See Claudio Zizza's other Tweets](#)







[www.remotemobprogramming.org](http://www.remotemobprogramming.org)

**Free Booklet:**  
[leanpub.com/remotemobprogramming](http://leanpub.com/remotemobprogramming)

JOCHEN CHRIST

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