

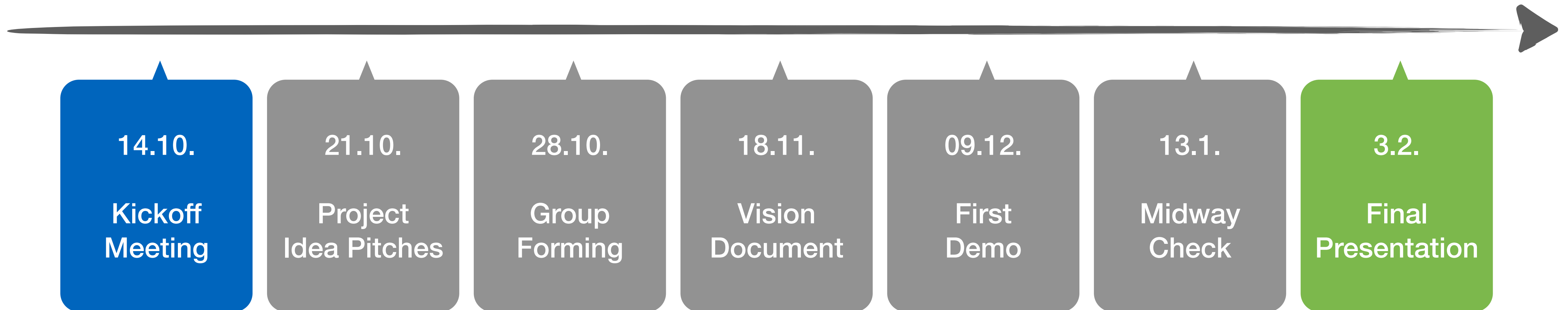
Programming Database Web Applications

Prof. Dr. Thomas Neumann, Maximilian Reif, Mykola Morozov

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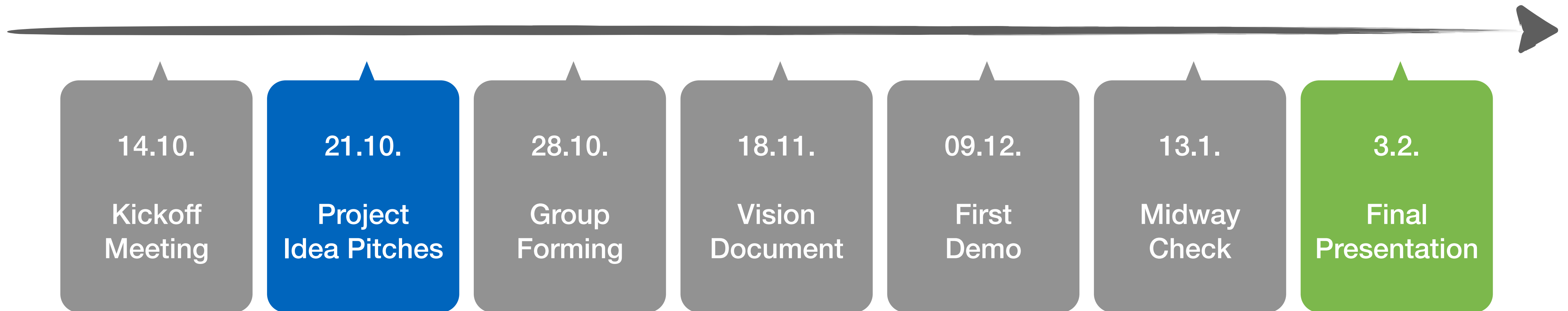
Course Structure

Timeline



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Timeline

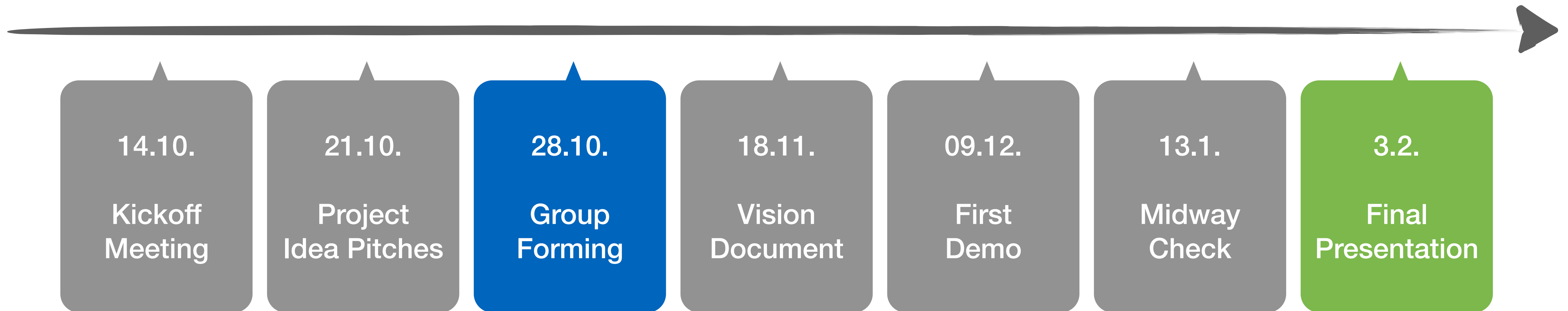


Project ideas

- Come up with an idea (everybody)
- Pitch: 1-2min, slides, rough mockup/picture
- Send the .pdf **before** the lecture → reif@in.tum.de

Course Structure

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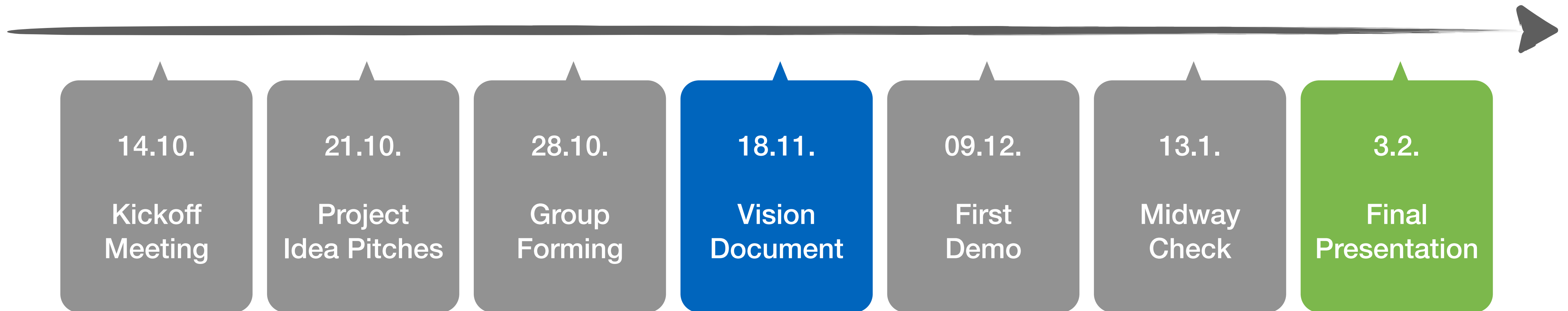


Group finding

- Organise yourselves into groups
- **more info next session**

Course Structure

Timeline



Vision document

- Define minimal viable product
- Define final project goals
- Slides with mockups + technology stack (2 - 5min)

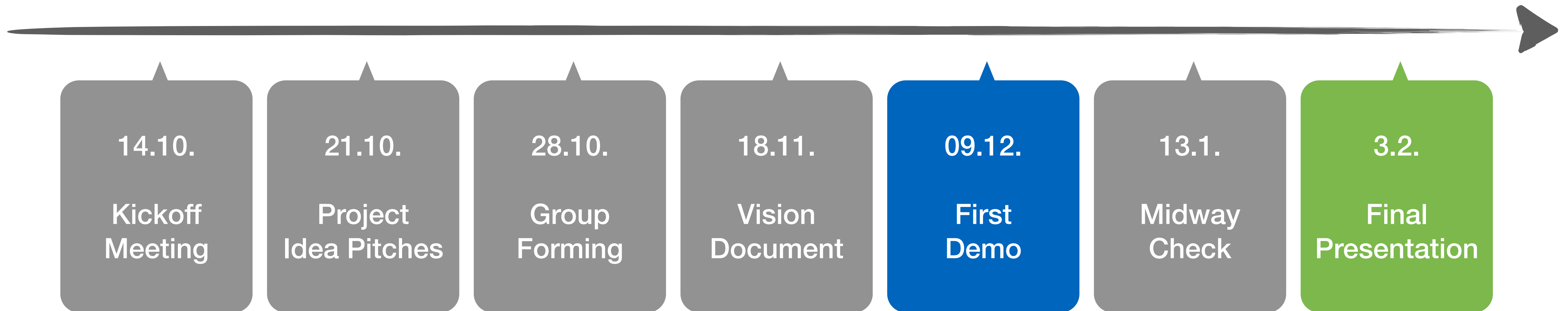
Vision Document

Content

- **Requirements statement (“Lastenheft”):**
 - Motivation + problem description
 - Project goal (what would the final product look like)
- **Scope statement (“Pflichtenheft”):**
 - System architecture
 - Technology stack
 - Project scope (what will we implement for this course)
- **Roughly 2-3 pages**

Course Structure

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First Demonstration

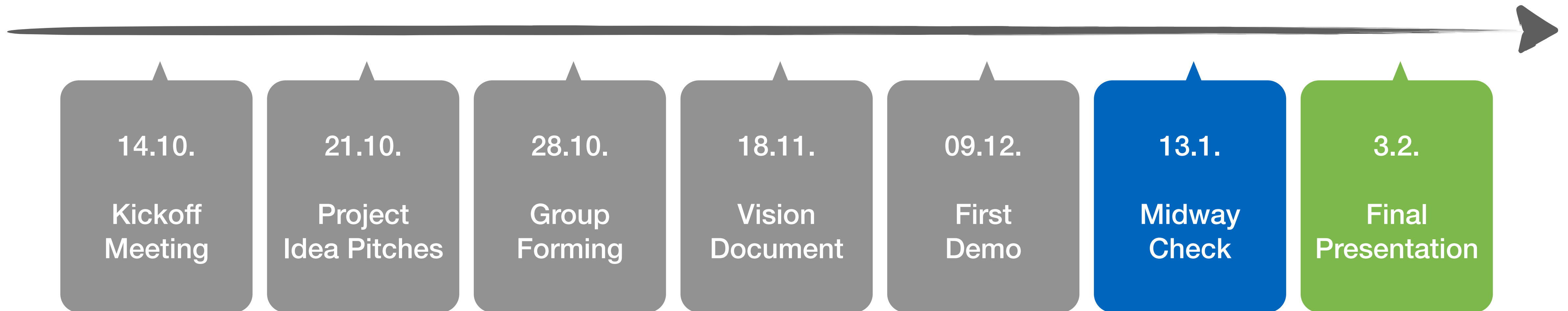
- Implement first / minimal viable prototype
- Demo some functionality
- Technology stack analysis

First Demonstration

- **Implement the first prototype**
- **Demo some functionality**
- **Technology Stack Analysis:**
 - Justify the choices for the stack
 - Focus on database interaction
- **Lessons learnt**
 - What were the problems that you faced?
 - How did you solve them?
 - How did you divide the work among you?
- **5-8 slides (<10min)**

Course Structure

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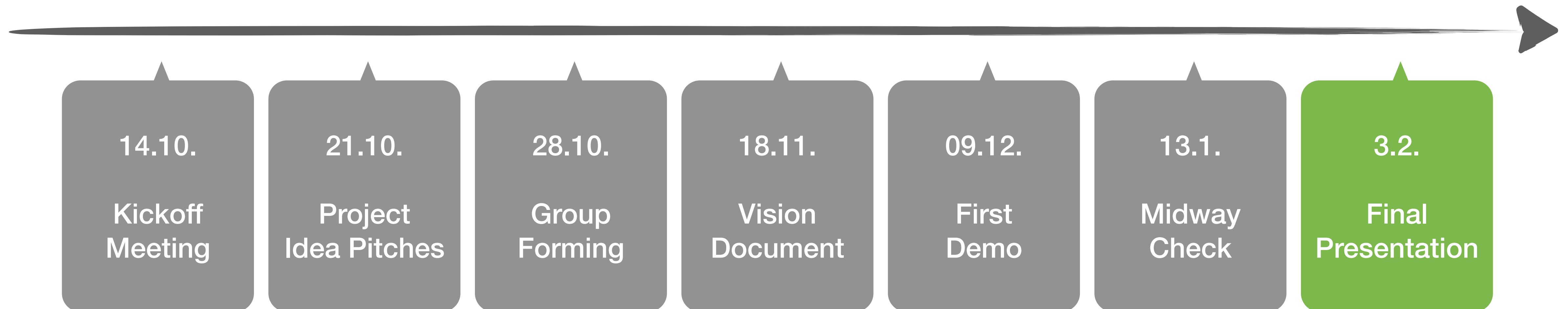


Midway Checkpoint

- To show off progress
- For questions and feedback

Course Structure

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Final Presentation

- **12 minute presentation in 20 minute slot**
- **Motivation**
 - Why is it relevant?
 - What is new?
- Description of the tech-stack you used for your project
- Short lessons-learned regarding the technologies you chose
- **Demo of your system**
- **Self-contained:**
People unfamiliar with your system should understand it

Final Presentation

- **If you run in-depth analysis or predictions on data, make sure to briefly describe the process:**
 - The algorithms used
 - The data you use for the analysis/predictions
- **Further content of the presentation is up to you and should be targeted at "showing off" your application:**
 - Highlight an amazing feature
 - show how it is a technically challenging problem
 - demonstrate its performance/scalability
 - argue how it is super important

Grades

- **Idea**
 - originality of the idea
 - desirability of the idea
 - novelty, practical relevance
- **Execution**
 - appropriate effort and appropriate usage of tools / frameworks
 - consideration of related work
 - your contribution (beyond related work)
 - quality, e.g. not super slow, no sql-injections, ...
- **Presentation**
 - clear story and professional presentation (e.g. timing)
 - working live demo
 - analysis of mistakes, self-critique, future work

Pizza Ninja

2017

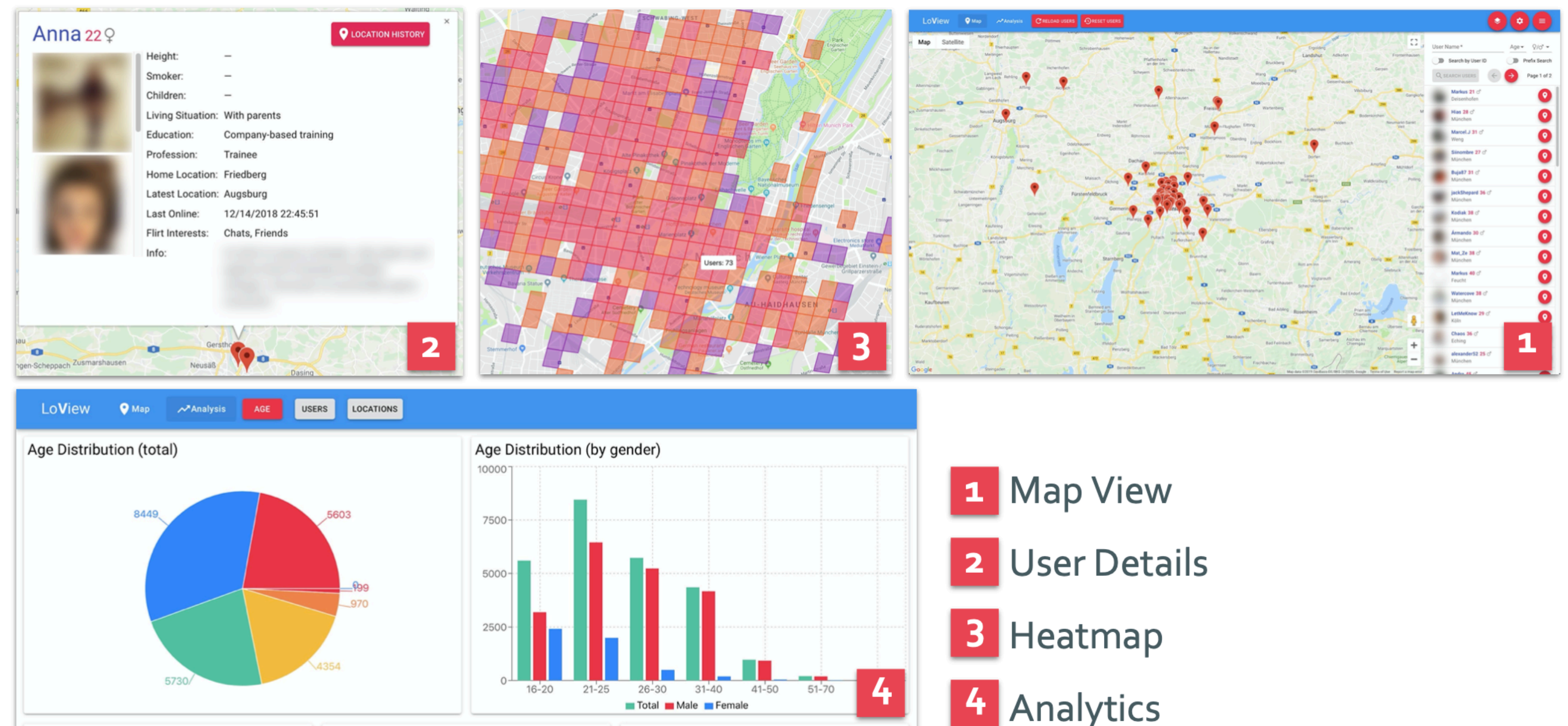
- Crawl data from pizza delivery services
- Decouple ordering from choosing a restaurant
- Order in a group



LoView

2018

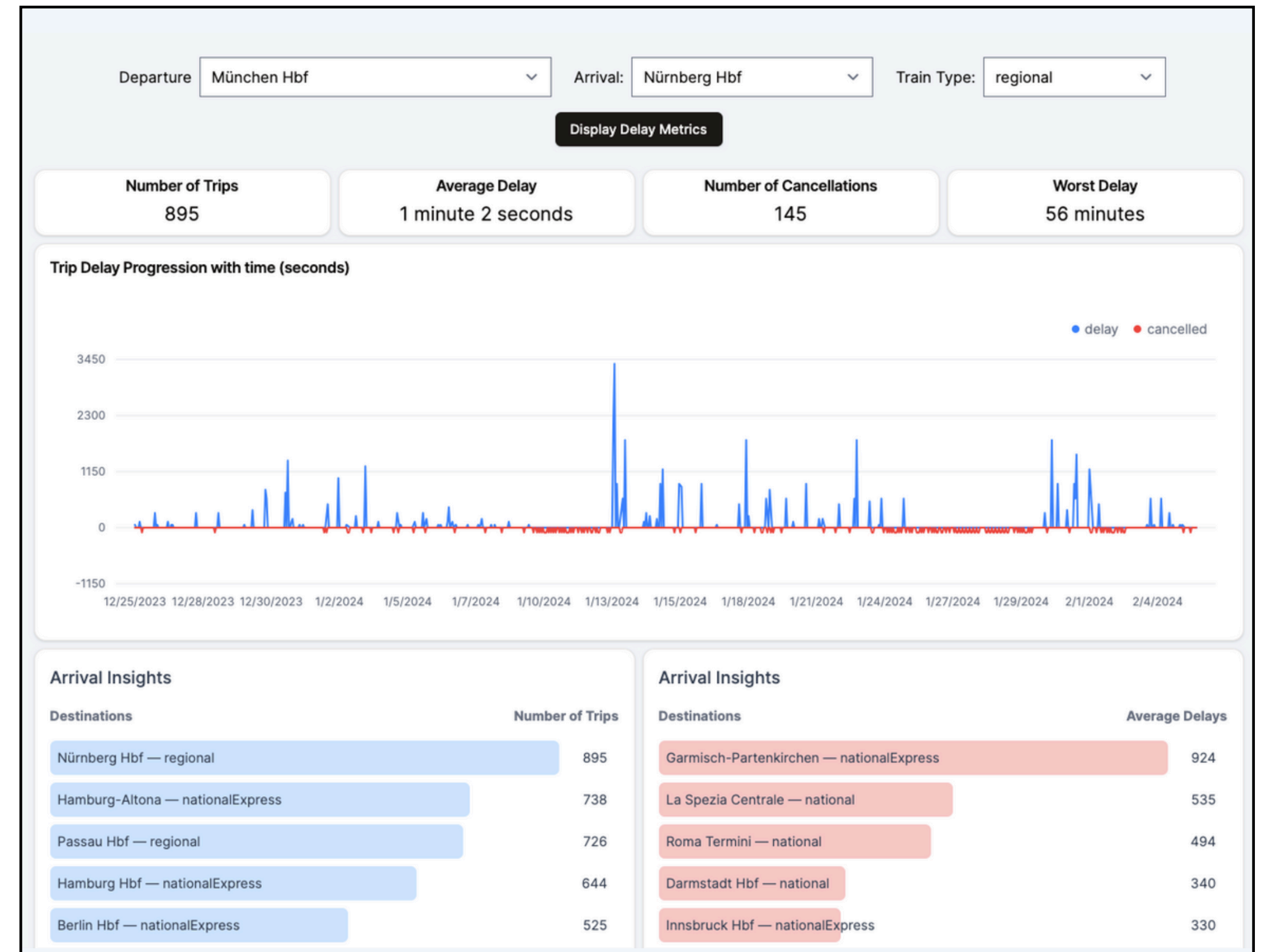
- Crawl Dating App APIs
- Track users
- Analyse behaviour
- Visualize information



DelayBahn

2023

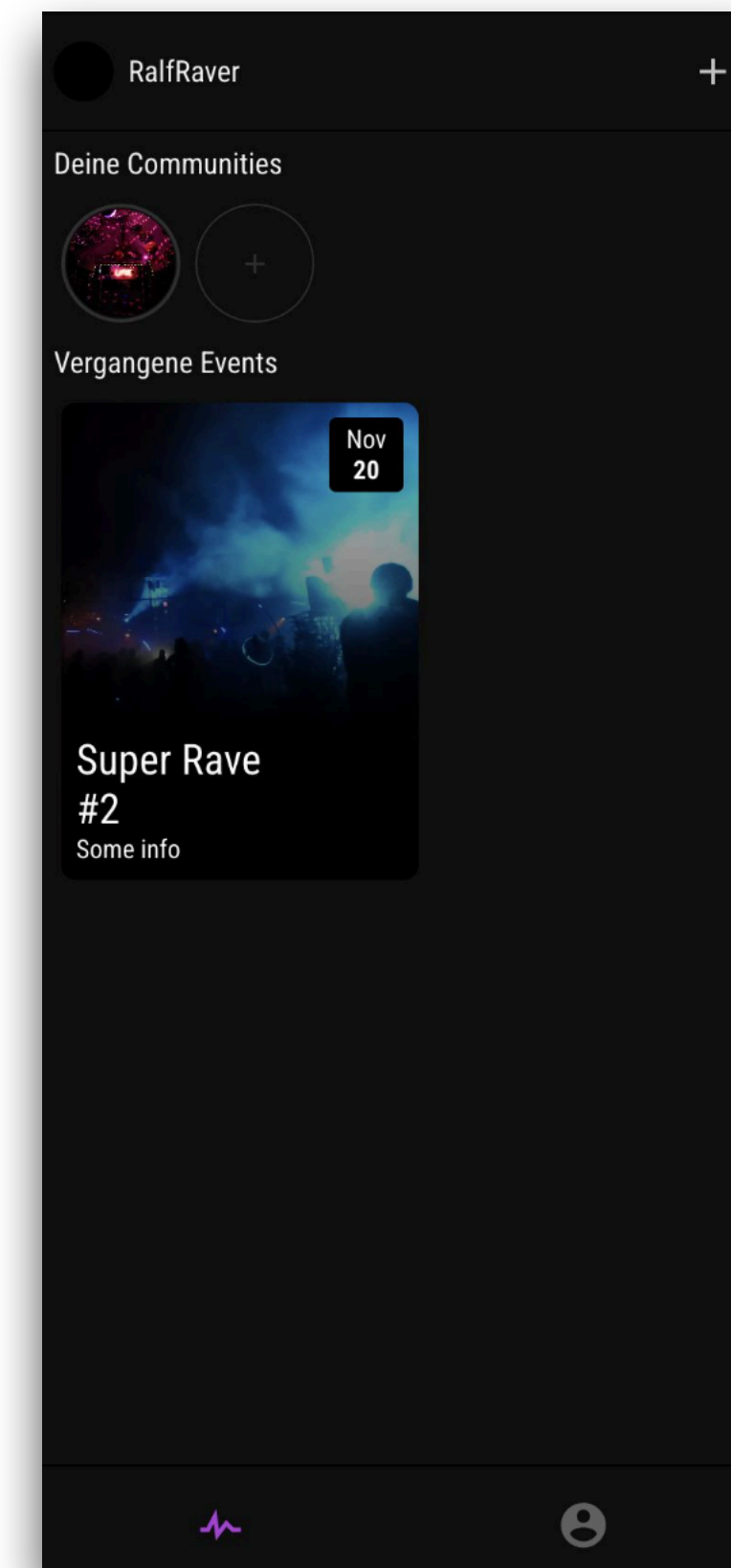
- Crawl online DB APIs
- Visualize delays for specific routes
- Delay estimates for planned trips



RaveRadar

2023

- App to organize raves
- Challenges:
 - Participants want to remain anonymous
 - Organizers only want to invite „trusted“ people



A bit of inspiration...

SpiegelMining

<http://www.dkriesel.com/spiegelmining>

BahnMining

<http://www.dkriesel.com/blog/>

2019/1229 video und folien meines 36c3-vortrags bahnmining

Talks also discuss ethics and code of conduct of mining public apis.
Check them out!

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