Programming Database Web Applications
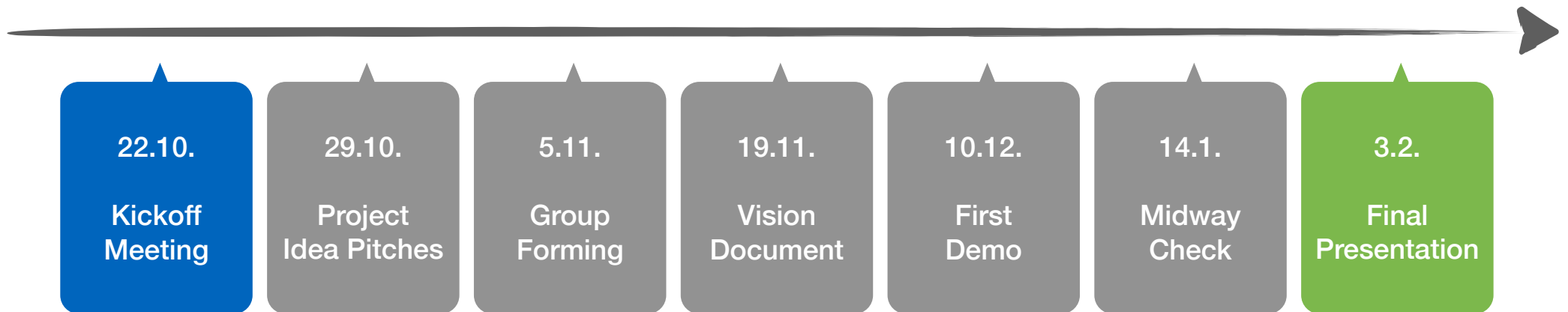
Prof. Alfons Kemper, Maximilian Reif, Mykola Morozov

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Assisted by Michael Zinsmeister
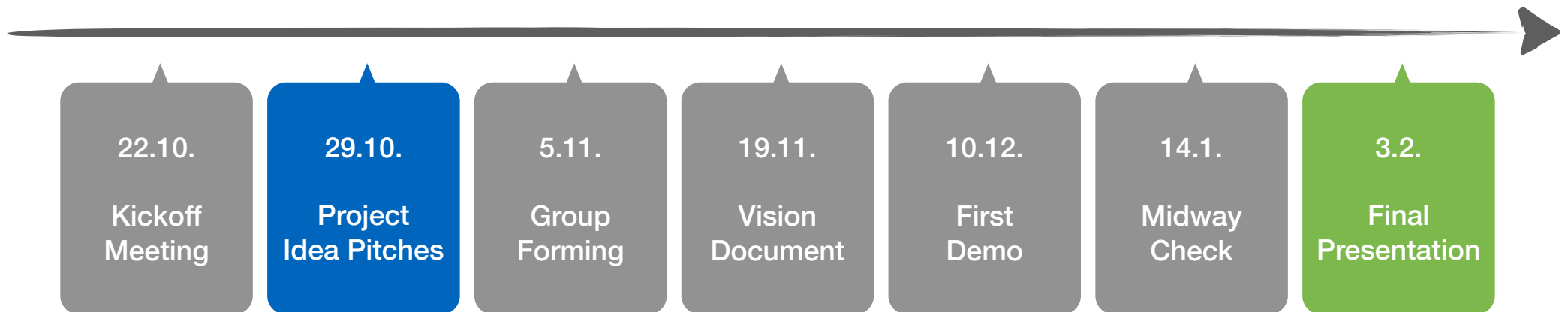
Course Structure
Timeline

22.10. Kickoff Meeting	29.10. Project Idea Pitches	5.11. Group Forming	19.11. Vision Document	10.12. First Demo	14.1. Midway Check	3.2. Final Presentation

Course Structure
Timeline

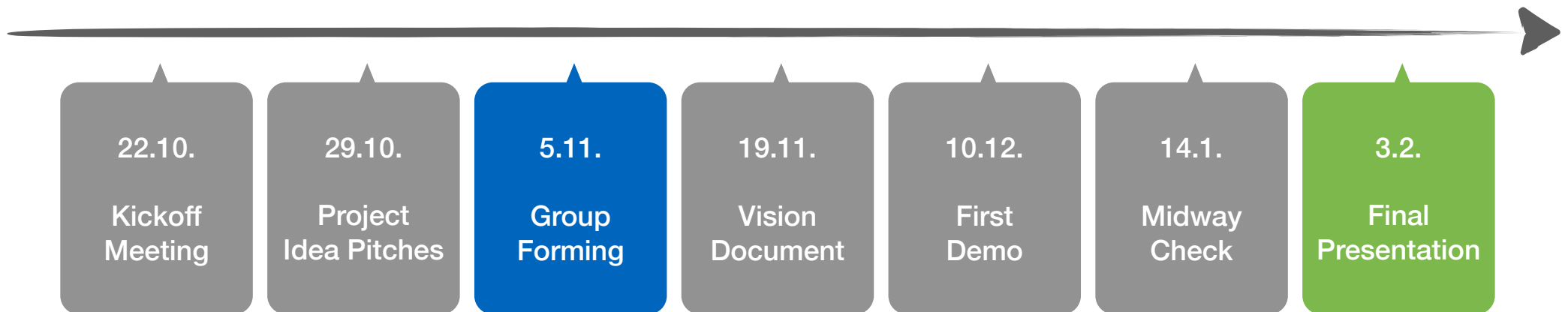| 22.10.	29.10.	5.11.	19.11.	10.12.	14.1.	3.2.
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Project ideas

• Come up with an idea (everybody)
• Pitch: 1-2min, slides, rough mockup/picture
• Send the .pdf **before** the lecture
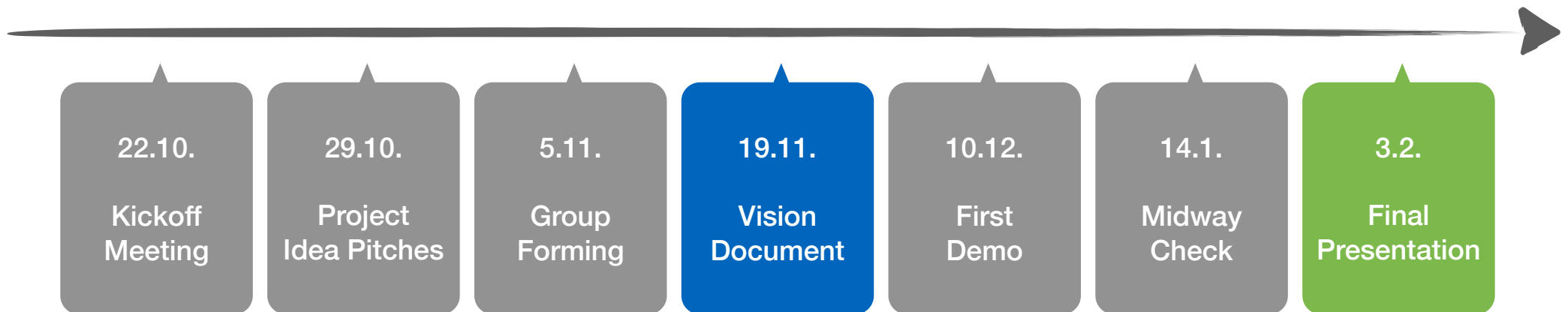
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Group finding

- Organise yourselves into groups
- Details next week

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Vision document

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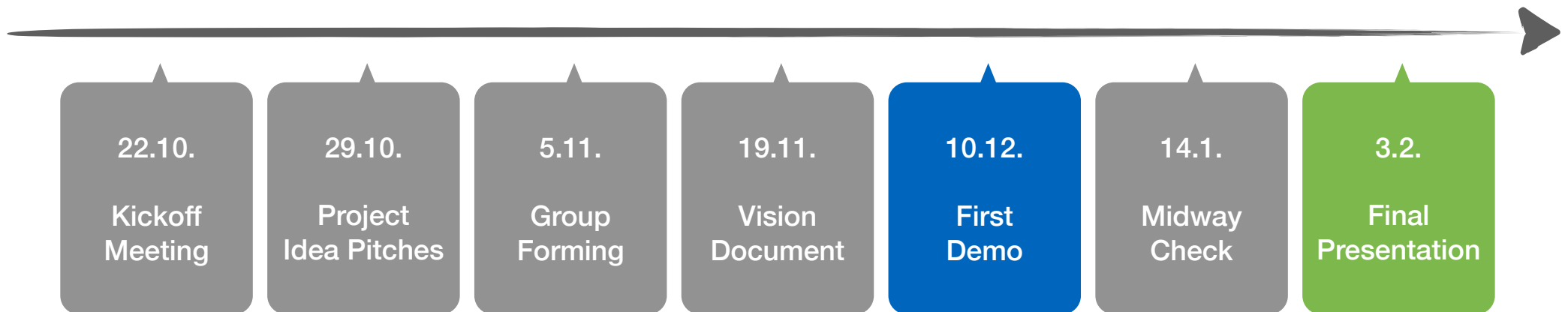- Slides with mockups + technology stack (2 - 5min)

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**
- **Due 19. November**

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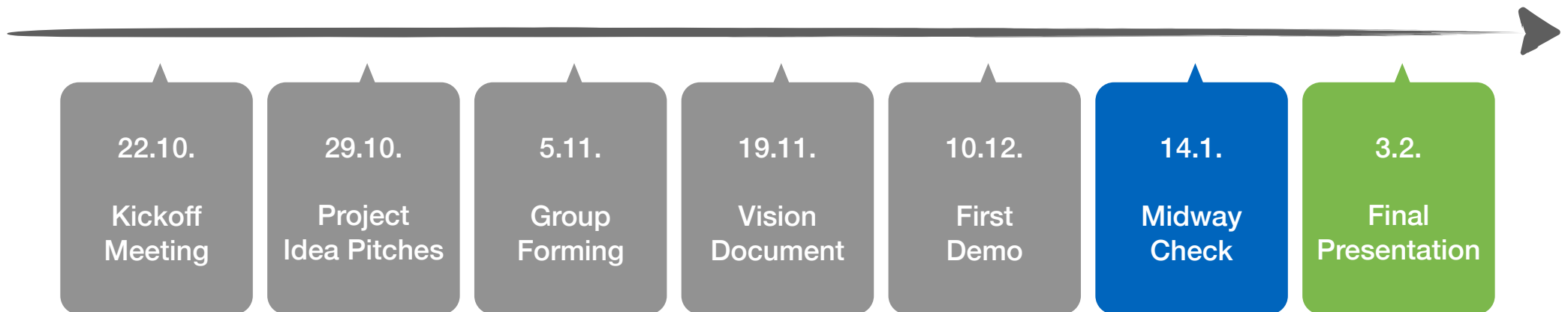| 22.10.	29.10.	5.11.	19.11.	10.12.	14.1.	3.2.
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First Demonstration

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

First Demonstration

- **Due 10. December**

- **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?
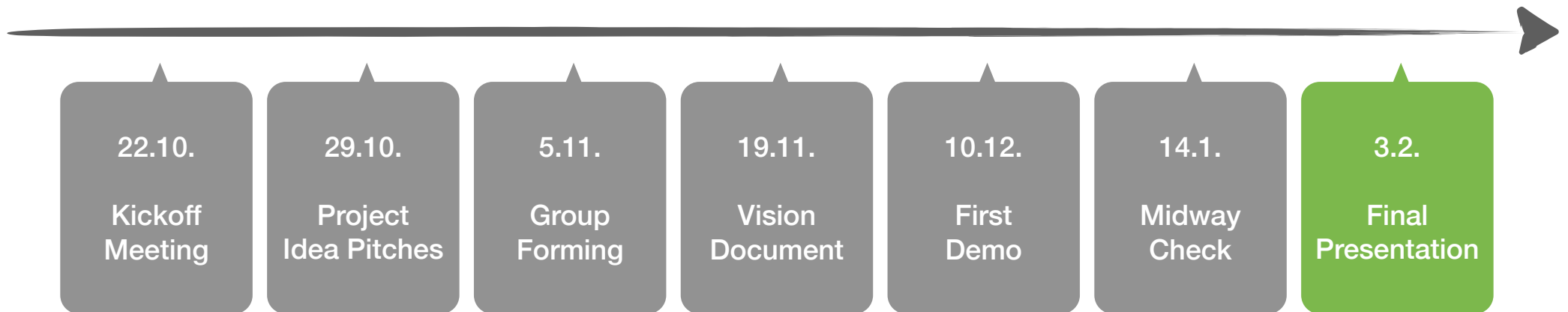
- **5-8 slides (<10min)**

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Midway Checkpoint

- To show off progress
- For questions and feedback

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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

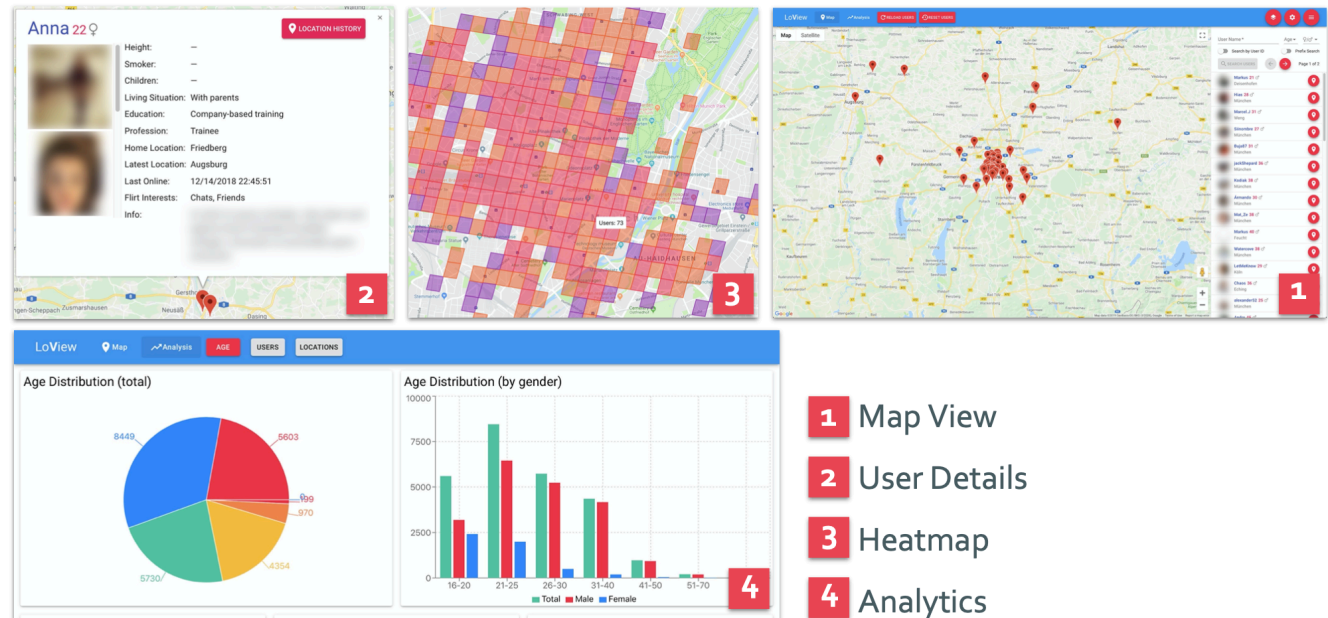# Pizza Ninja
2017

- Crawl data from pizza delivery services

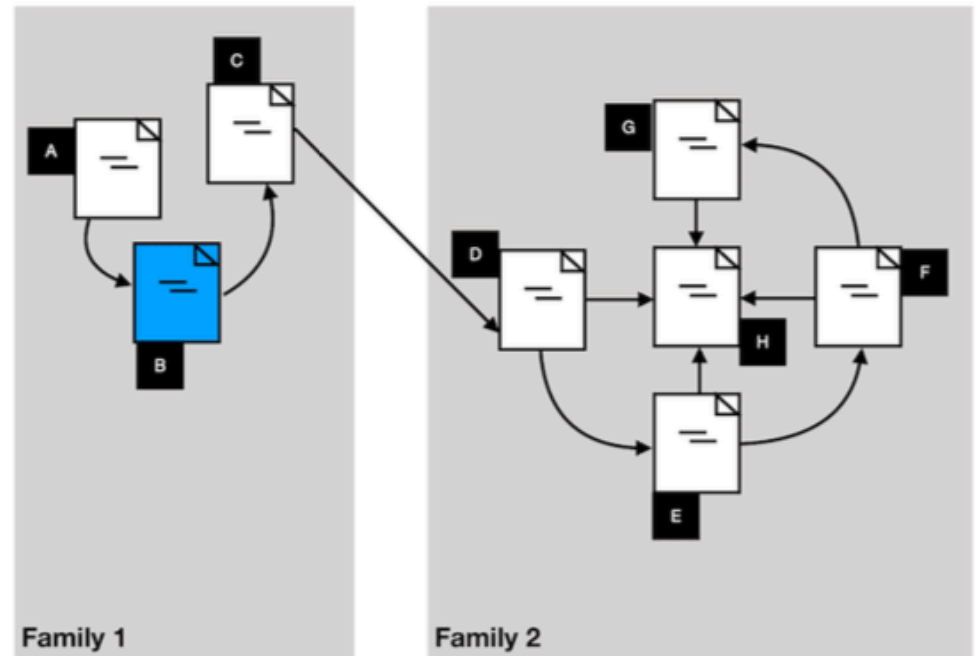- Decouple ordering from choosing a restaurant

- Order in a group

LoView
2018

- Crawl Dating App APIs

- Track users

- Analyse behaviour

- Visualize information

1 Map View
2 User Details
3 Heatmap
4 Analytics

Research Graph
2019

- Crawl online paper APIs

- Find familiarities between papers (weighted citations)

- Visualize !!!

Family 1   Family 2

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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