

CHAT APPLICATION

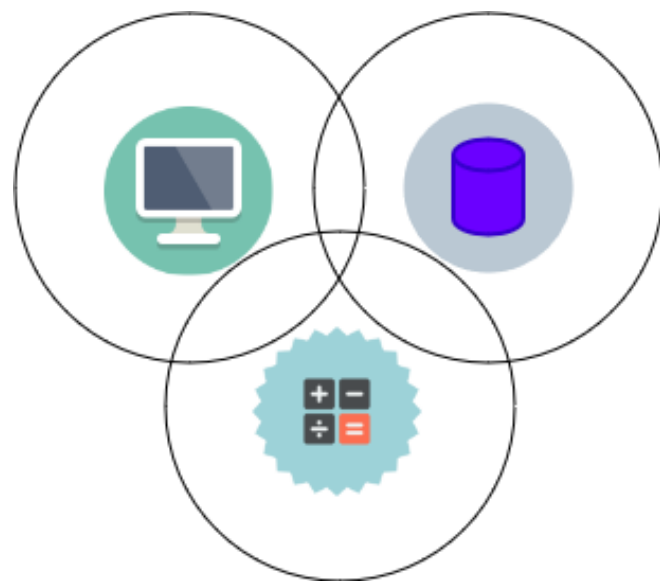
Nils Jung, Jule Martensen, Marc Engelmann, and Jan Steeg

University of Applied Sciences Kiel

Requirements & Goal

This accompanying JavaScript-based project has been realized as part of the mandatory course **Advanced Software Programming**. General requirements were:

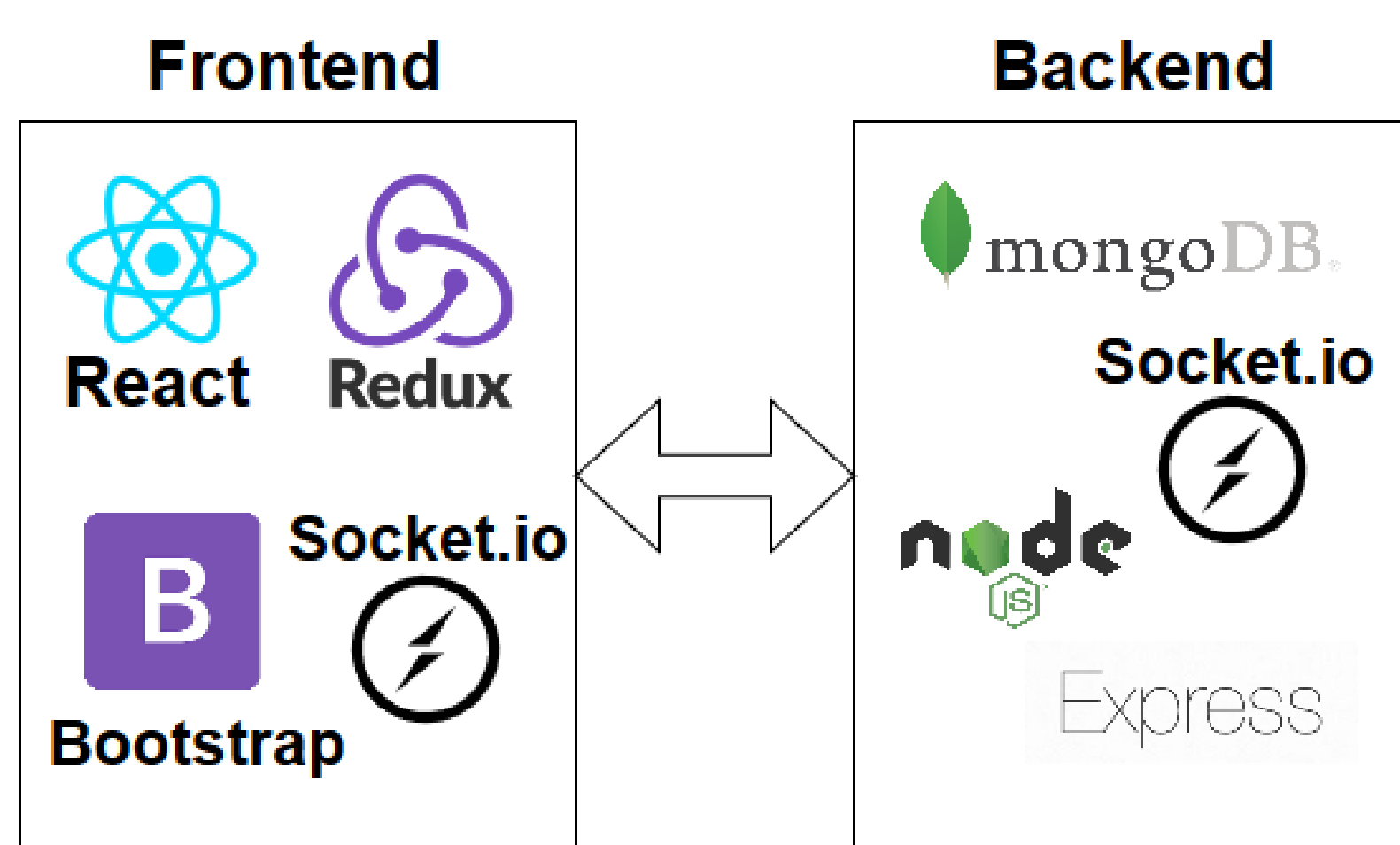
- **Git** as version control service
- User sign-up and **authentication**
- **Database** access
- **Websockets**



The goal behind these requirements is to reach abilities of **full stack**-development across modern web technologies throughout frontend and backend.

Technologies

- **Frontend** (ReactJS, Redux, Bootstrap)
- **Backend** (NodeJS, Express, MongoDB)
- **Websockets** (Socket.IO)
- **Deployment** (Docker and Docker-Compose)



References

<https://github.com/nilsjung/chat-application>
<https://reactjs.org/>
<https://redux.js.org/>

<https://socket.io/>
<https://getbootstrap.com/>
<https://nodejs.org/>
<https://expressjs.com/>
<https://www.mongodb.com/>

Project idea

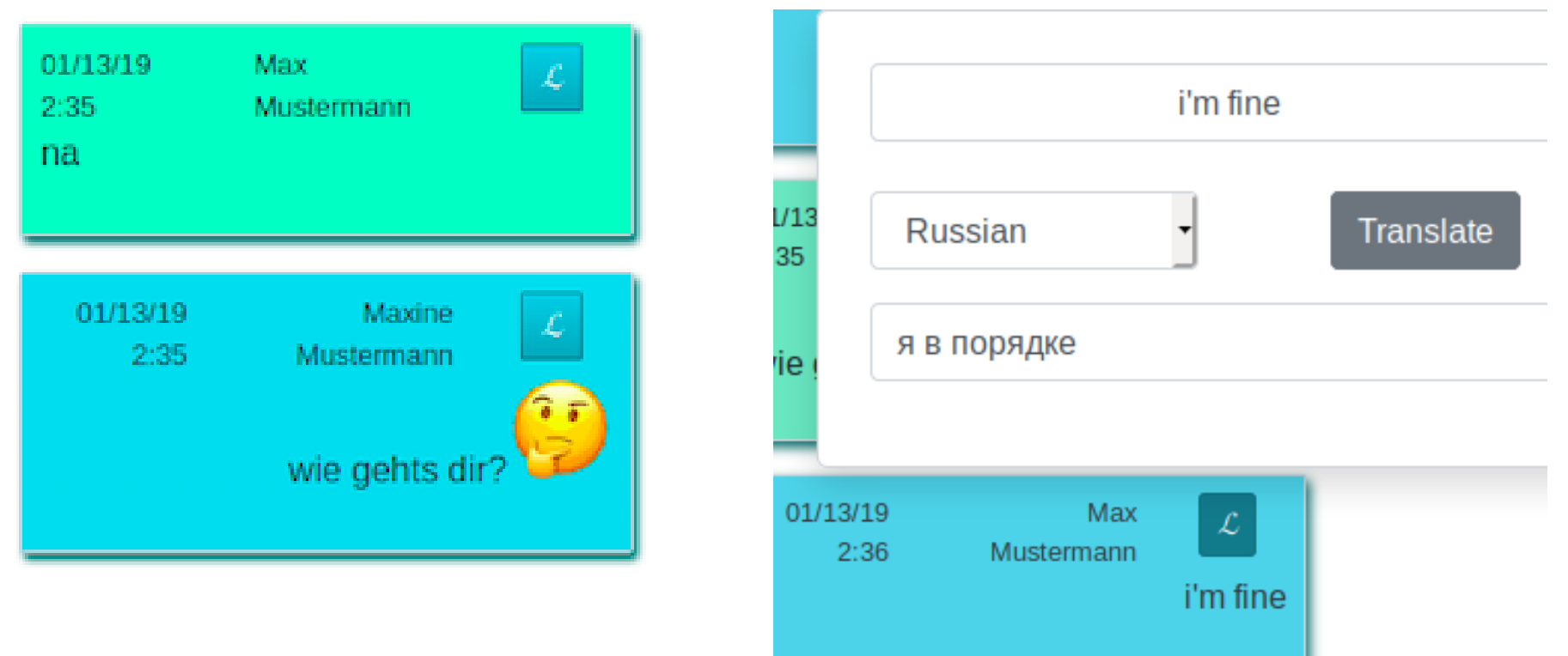
The general idea was to develop a Chat Application on modern web technologies and frameworks with iterative integration (sprints) of new features such as:

- **in-chat-translation**
- **Emoji's**
- **Markdown** support
- **Recommendation of chatrooms** specific to user preferences

Features

The following features based on user stories had been implemented during the semester:

- Fundamental chat functionality
 - user registration & authentication
 - chat room communication
- Translation of messages
- Emoji's



Learnings

- Modern web development with focus on ReactJS and Redux
- Real-time communication with Socket.IO
- Importance of Code Review
- Estimation of time for training of new technologies and development setup
- Experiments and training with new and unknown technologies / frameworks
- Docker as deployment technology
- Cooperation with gitflow workflow