Application Development for Mobile and Ubiqitios Systems

Synaps

A tool to manage and join interdisciplinary projects.

Fr, 26 Jan 2018 (E008)

Erik Lier

Oliver Lenz

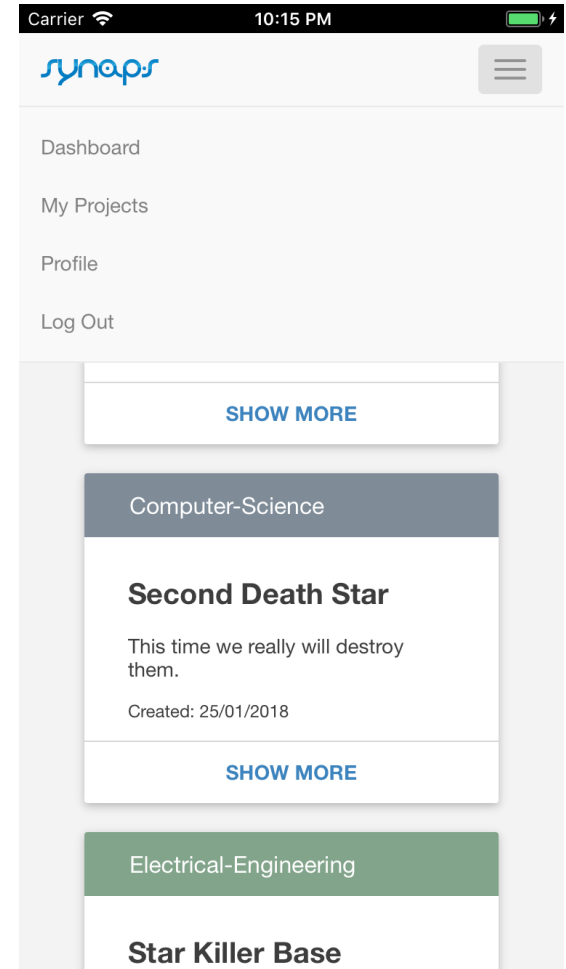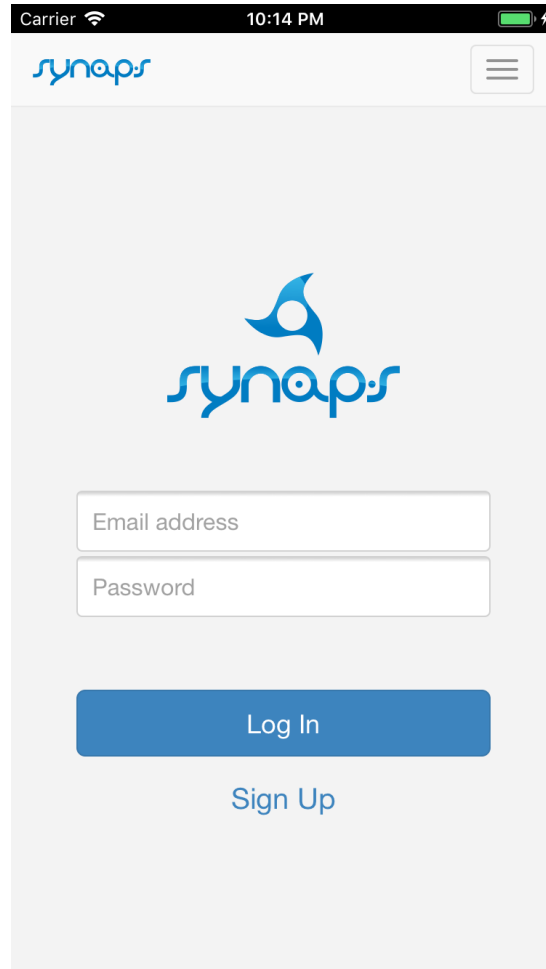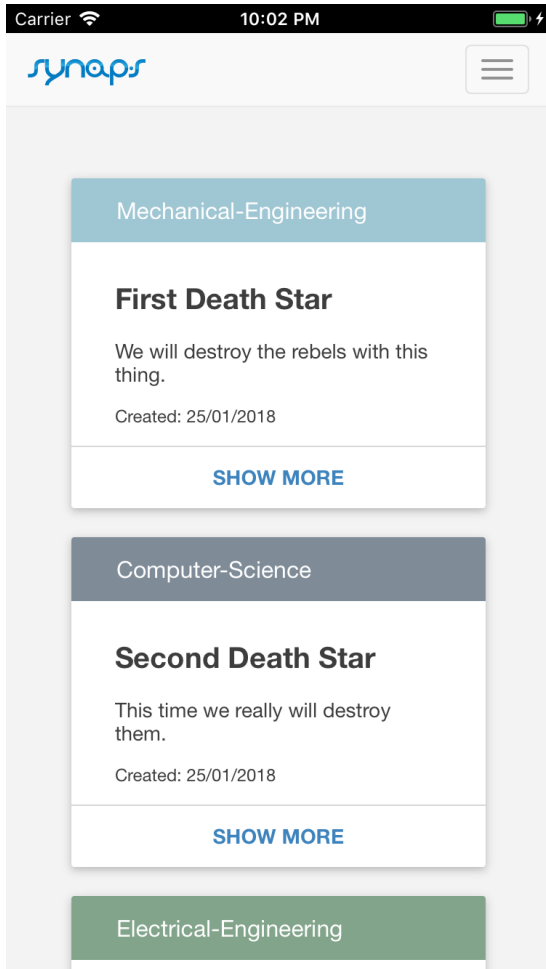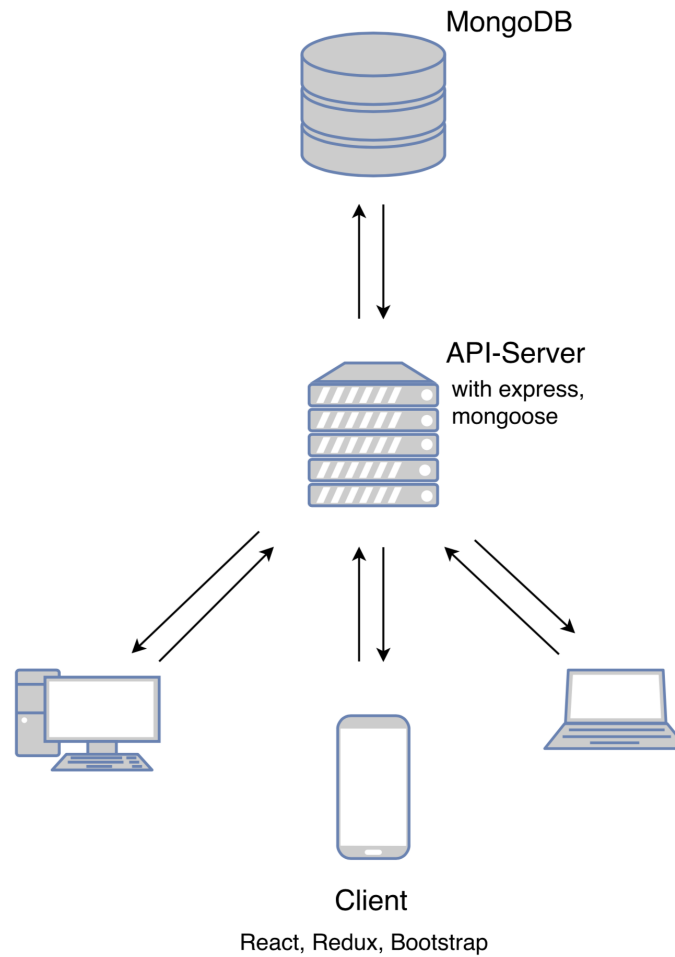Professur Rechnernetze

Fakultät Informatik / TU Dresden

Agenda

synaps

_ manage and join interdisciplinary projects
_ beyond the university context
_ find people from all divisions

The Application

Technologies

MongoDB

API-Server
with express,
mongoose

Client

React, Redux, Bootstrap

Context Information

_ Display Size

> Depending on the current screen size the
> content will be reordered, resized or deleted

_ Online State

> If the server is not reacheable the functionality
> is limited and the cached data will be used.

_ Network Speed

> Lazy loading is used if the network speed is low, so the
> necessary information will be displayed first.
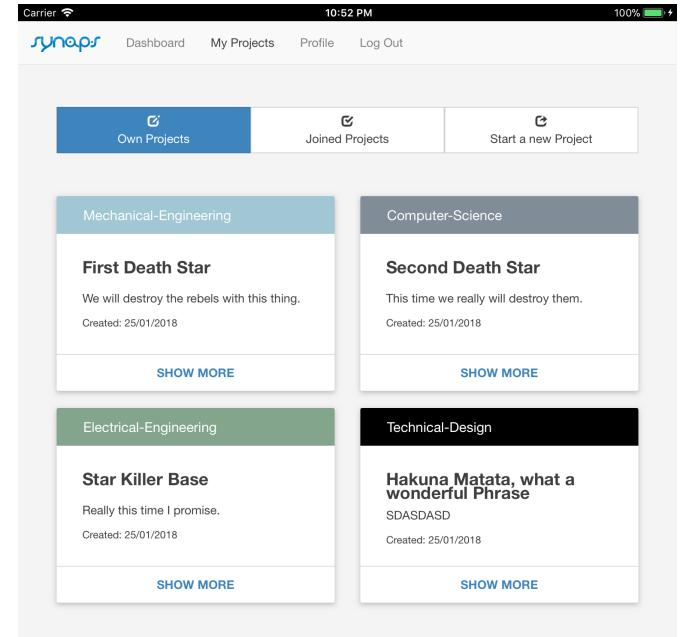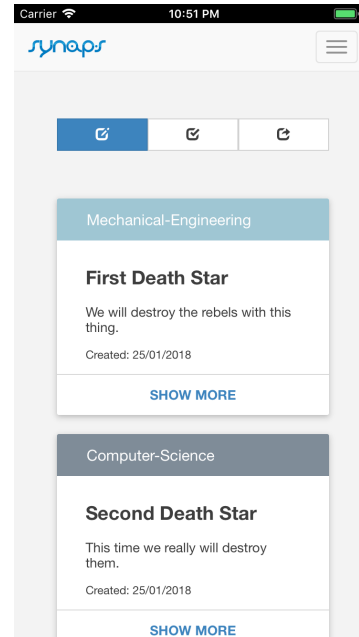
Adapt to screen size

_ Bootstrap

    Detect display size

    different ways of adaption

        1. using the GridSystem

        2. self adapting layout

    reorder, delete or resize content
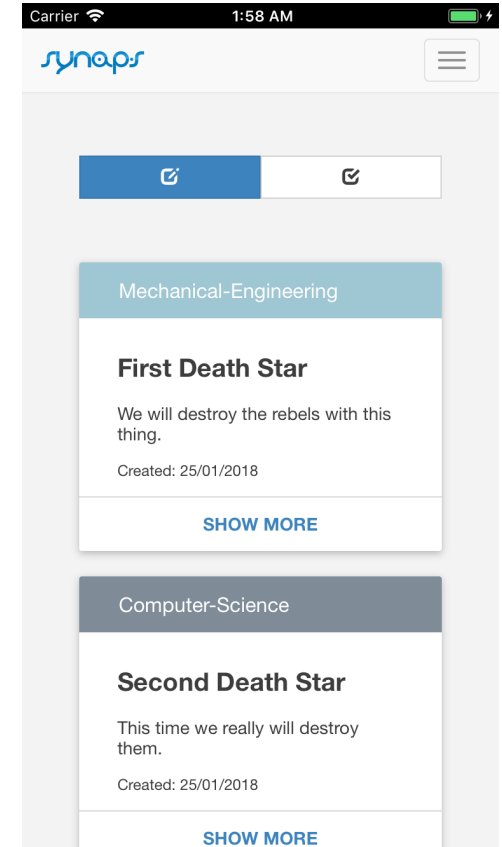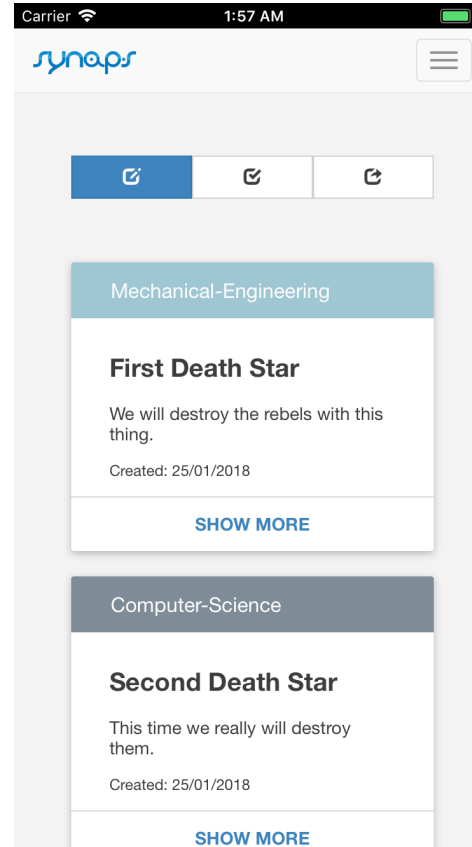
Adapt to connectivity state

_ CacheService

    Fetching Data while entering the Dashboard

    Using local browser storage to persist the data

    if fetching fails cached data is used

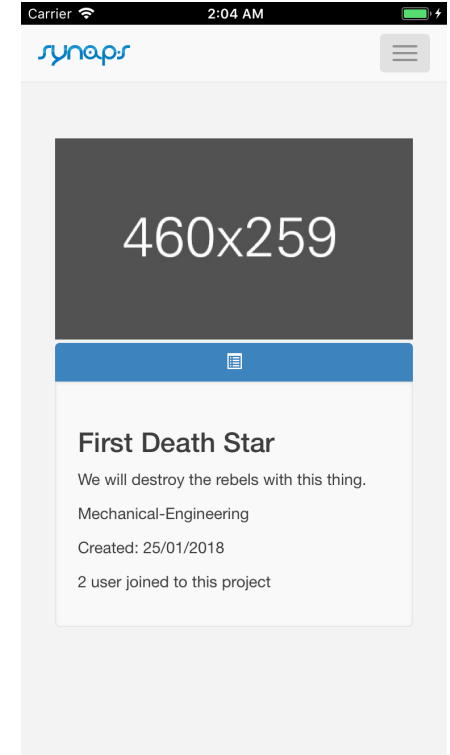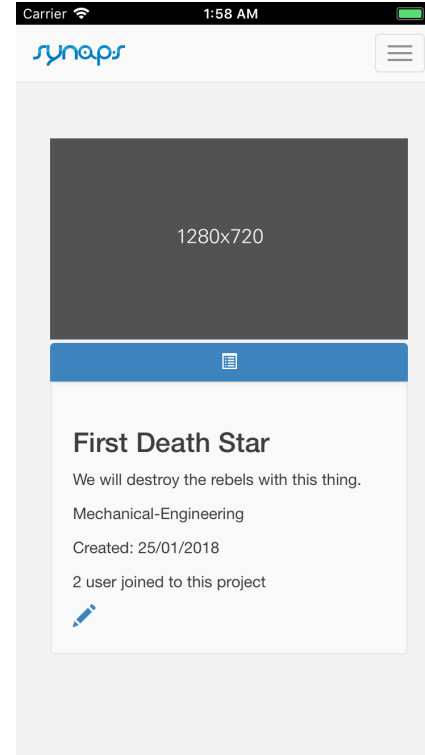   limited functionalities depending on connection to server

Adapt to network speed

mySpeed

    detect network connection speed with mySpeed

    tests connection from our API-Server to the client

    if speed is under a certain amount different sizes

    of images will be loaded

Conclusion

Problems
_ Getting started
_ first time development with many of the used components

Lessons Learned
_ use of React.js, Bootstrap, MongoDB
_ persist data in the Browser storage

Things to do
_ complete the functionality
_ messaging/notification system
_ go online

Thanks!

Any questions ?