

Application Development for Ubiquitous Computing

SocialCourses

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First Presentation, 08.11.2019

Agenda

- **General Idea**
- **Application Scenario**
- **Mockups**
- **Challenges**
- **Technologies**
- **Work plan**

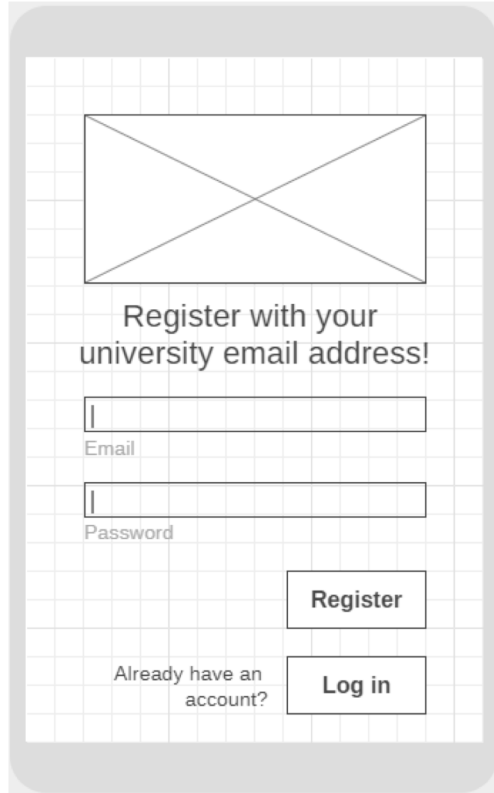
General Idea

- Students usually have a lack of information regarding who their course mates are.
 - Communication and interaction between them is beneficial and desired by all parties.
- Approach:
 - Develop an app to give such a service that easily provides information sharing between students of the same course.

Application Scenario

1. Register with TU mail address
2. Login with TU mail address
3. Create Profile / Decide on information you want to publish
 - a. Optional:
 - i. exclude certain courses (or people) from seeing certain parts of your information
4. Enter course groups
 - a. Enroll for course in jExam
 - b. Receive Token
 - c. Search for Course in Search Bar in App / Find it in Overview Section
 - d. Enter Token to enroll for course group in App
5. Course group Overview
 - a. Students enrolled in this course have access to their course mates profile
 - b. Optional:
 - i. Private Chat function for each student
 - ii. Public Chatroom for the course

Mockups



A registration form mockup on a grid background. At the top is a large rectangular box with an 'X' inside, representing a missing image. Below it is the text "Register with your university email address!". There are two input fields: the first is labeled "Email" and the second is labeled "Password". Below the input fields are two buttons: "Register" and "Log in". The "Log in" button is preceded by the text "Already have an account?".

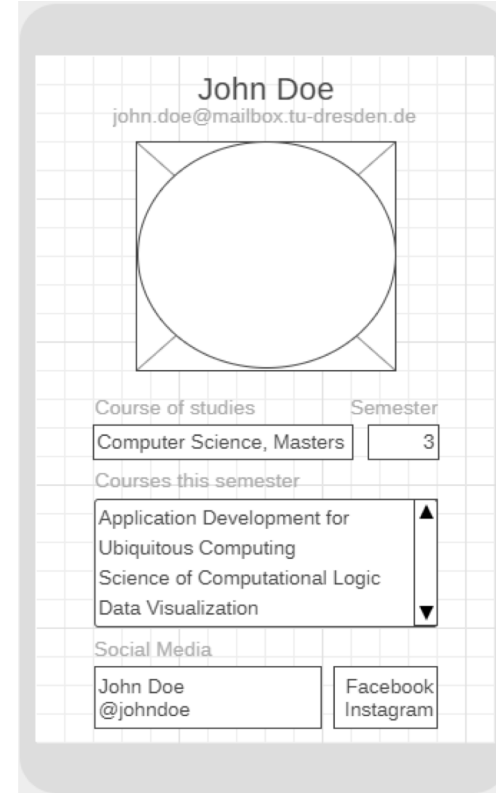
Register with your university email address!

Email

Password

Register

Already have an account? Log in



A user profile mockup on a grid background. At the top is the name "John Doe" and the email address "john.doe@mailbox.tu-dresden.de". Below this is a large square placeholder for a profile picture. Underneath are two input fields: "Course of studies" with the value "Computer Science, Masters" and "Semester" with the value "3". Below these is a section titled "Courses this semester" with a list of three items: "Application Development for Ubiquitous Computing", "Science of Computational Logic", and "Data Visualization". At the bottom is a "Social Media" section with two input fields: "John Doe @johndoe" and "Facebook Instagram".

John Doe
john.doe@mailbox.tu-dresden.de

Course of studies Semester
Computer Science, Masters 3

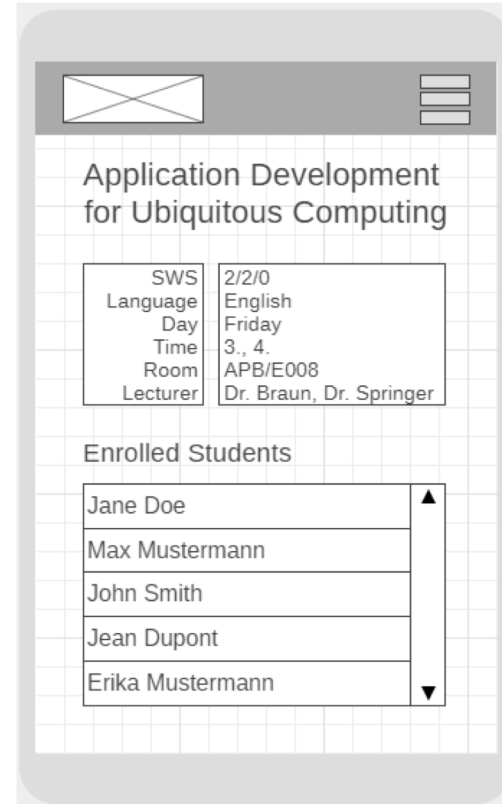
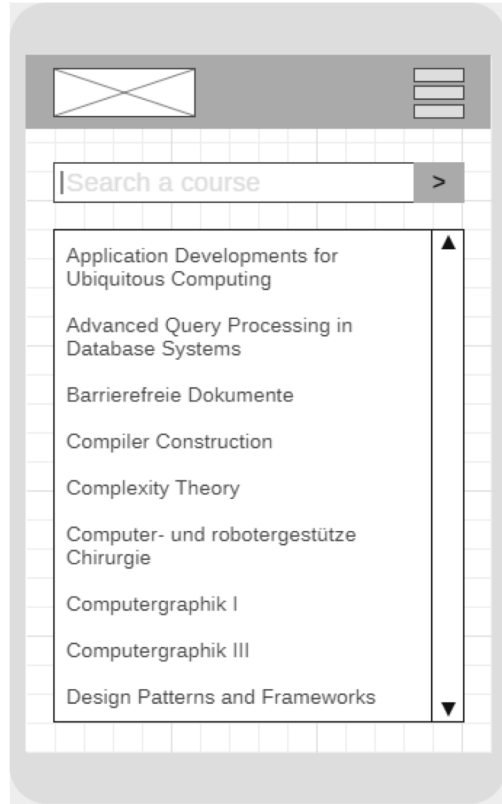
Courses this semester

Application Development for Ubiquitous Computing
Science of Computational Logic
Data Visualization

Social Media

John Doe @johndoe Facebook Instagram

Mockups

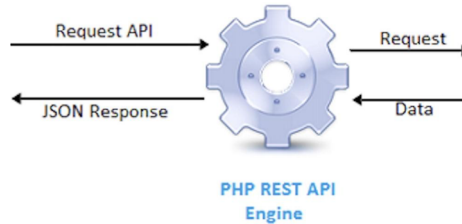


Challenges

- Offline Challenges
 - Make the app functional in offline mode.
 - Fetch data locally when offline and update when connection available
- Energy Challenge
 - Tackle the problem to design the app in such a way that uses minimalist energy consumption
- Connectivity Challenge
 - Local caching for important and small amount of data
- Usability Challenge
 - User profile personalization

Technologies

Client-Side Technologies & Tools
Technologies & Tools



Server-Side



Work Plan

- **November**

- Presenting different app ideas
- Deciding on the final app idea
- Discussing the technologies to be used
- Defining the scenarios and the mockups
- **08.11.2019** - First Presentation
- Getting familiar with the new technologies
- Component and architecture discussion
- Starting implementation

- **December**

- Working on implementation
- Tackling the defined challenges
- **13.12.2019** - Second Presentation
- Finished first prototype

- **January**

- Testing first prototype
- Minor enhancement and optional features
- **31.01.2020** - Final Presentation

Thank you for your attention !