Assignment #8
Hi-Fi Prototype

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1. Value Proposition

AskSimple is a tool that helps students participate in class anonymously and supports them in getting the answers they need as fast as possible.

2. Problem and Solution Overview

AskSimple solves the need of shy students to be able to ask questions in class without the fear of getting embarrassed. Also, the concept fosters class participation in general and might encourage more unmotivated students to participate and be interested in class topics again.

3. Tasks & Final Interface Scenarios

Register (complex)

When using the app for the first time, the user has to register and insert name, user name, choose if student, teacher or TA and choose a password.
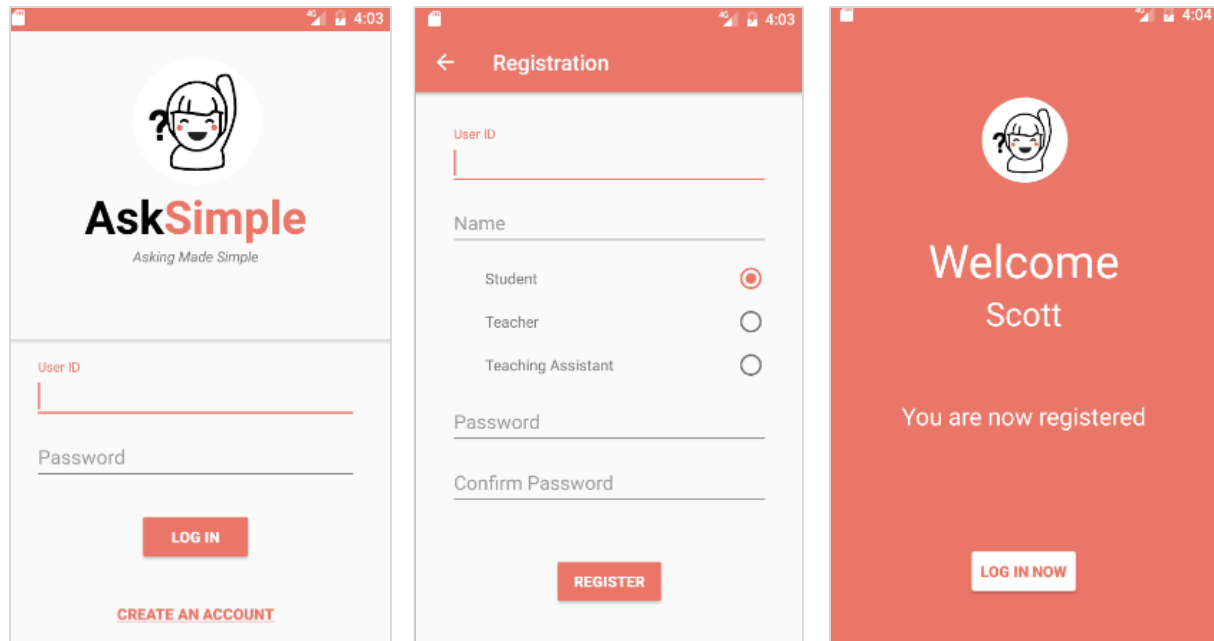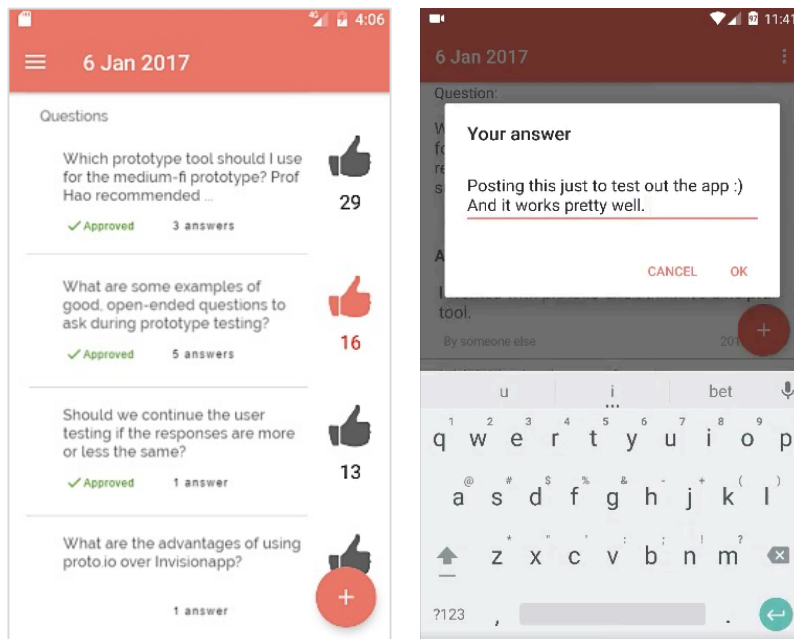

Why did we choose it?
Important task of every app, creates options for customized greetings and saving of answers /questions.

Answering questions (medium)

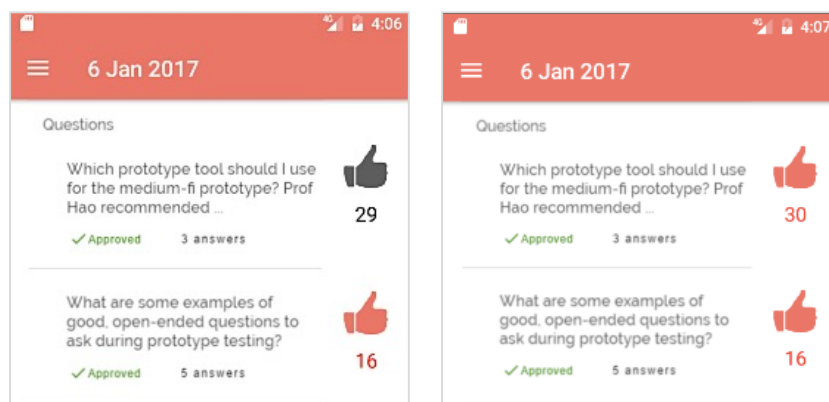One of the main function of the app, users can add questions to an already existing list of questions.

Why did we choose it?
It is the main function that our app provides.

Upvote a question (simple)

Users can upvote questions to show that they like them or that they would like to have this questions answered as well by clicking on a thumbs-up icon.
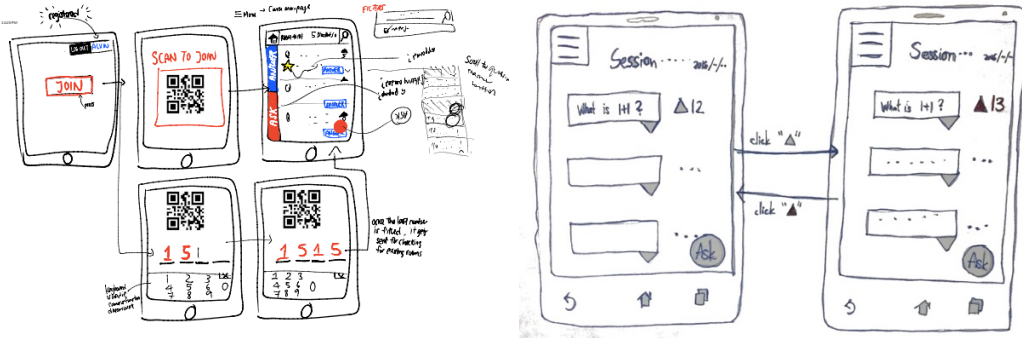

Why did we choose it?
It serves another important feature of our app: Receiving answers as fast as possible (as they are more likely to be seen if they are upvoted by many users).

4. Design Evolution

Initial sketches:

The initial ideas were based on our own assumptions about layout and user flow.

Paper prototype (for user testing):

The elements of the paper prototype were designed according to our initial sketches and storyboard.

Medium-Fi/High-Fi Prototype:

The medium-fi prototype was designed according to the Material design guidelines (by Google) as well as the results that we collected from user testing of the paper prototype.
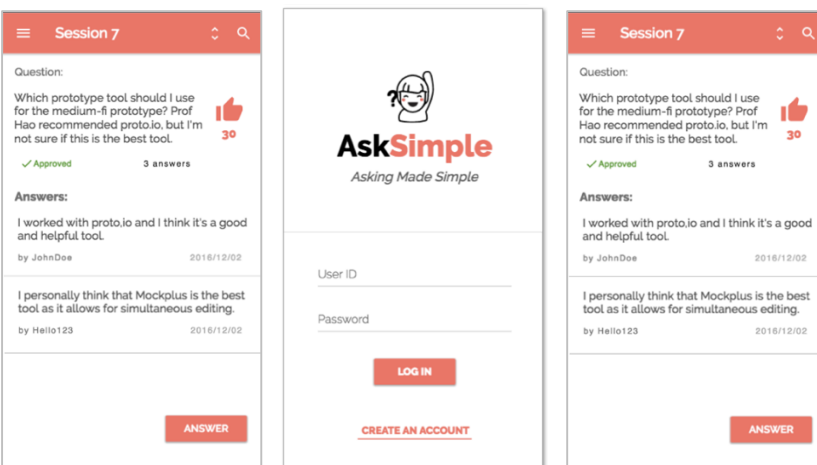
5. Major Usability Problems Addressed

5.1 List of Violations

[Fixed]

1. [H2-2 Match Sys & World] [Severity 3]
"Session active" is confusing, might look like a progress bar. I think "LIVE" with fire may be a more intuitive symbol

→ The "session active" notation was changed to "LIVE", the green bar at the session bottom was kept, however, as we consider it to be the best layout option with the newly changed LIVE notation.

Medium-Fi   Hi-Fi

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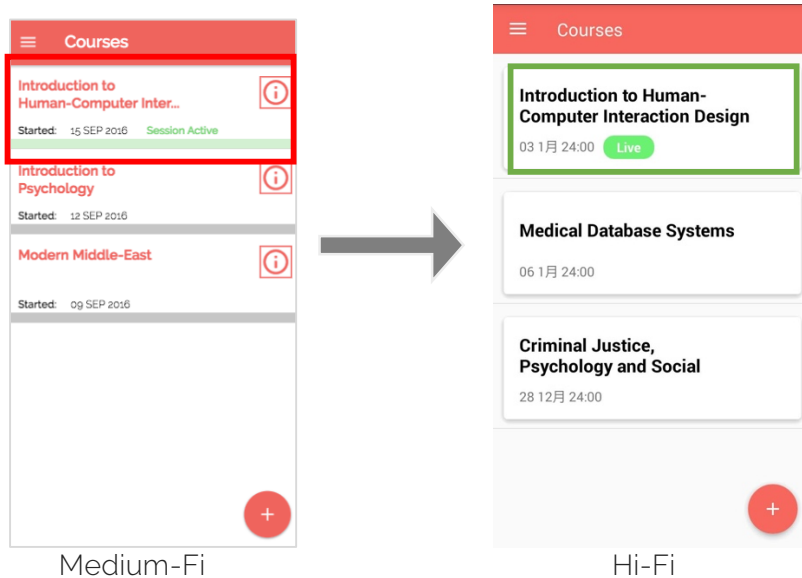
2. [H2-2 Match Sys & World] [Severity 3]
Although it is good to separate the questions for different days, the concept of session is not strongly related to the actual world. Replace it with date or # of class.

→ The session title (which was number previously) is now represented as date (e.g. 12/30)

Medium-Fi   Hi-Fi

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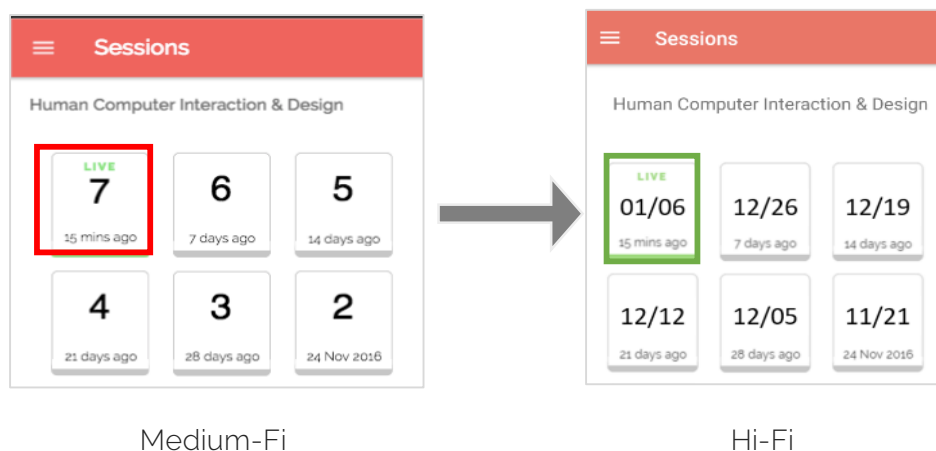
3. [H2-4 Consistency & Standards] [Severity 3]
  Cannot find the back button in many pages. Tapping on the question to return to the previous
  page is not obvious.

→ As we think that having a back button is a vital part of the app (which we forgot previously), we
decided to add it to the high-fi prototype to make the user journey through the app more intuitive
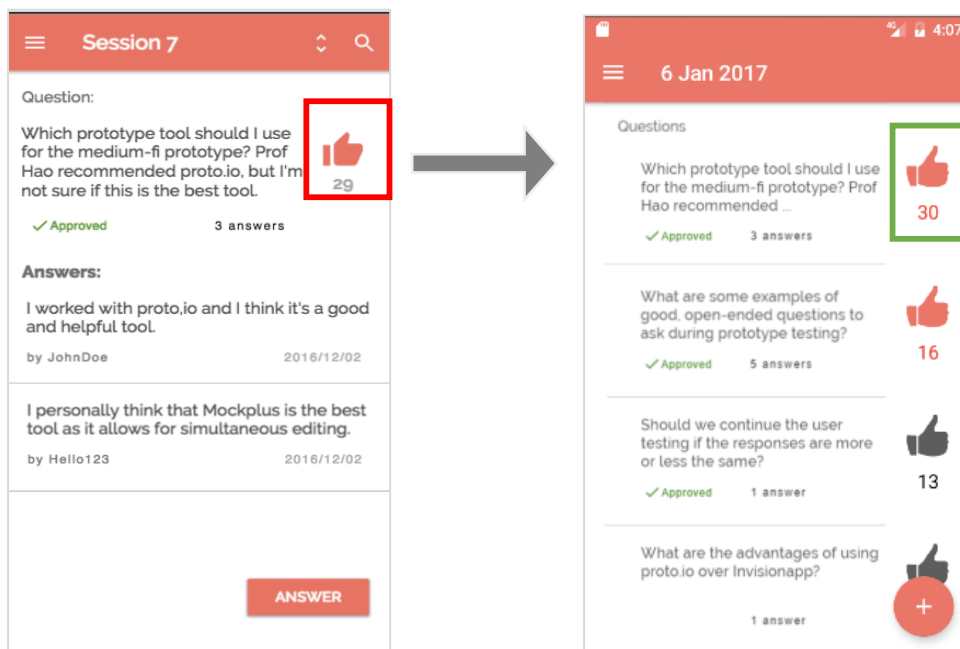and error-free.
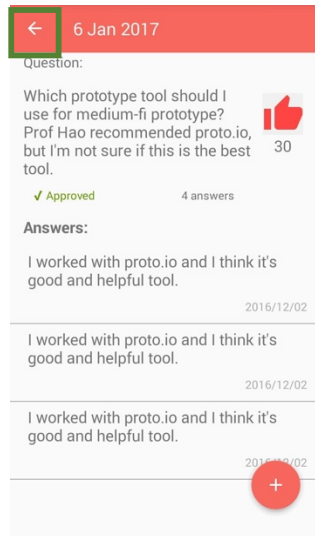
Hi-Fi

4. [H2-4 Consistency & Standards] [Severity 4]
  The thumbs up do not add up to the correct number, clicking the numbers shows weird things.

→ As this was a major functionality bug, we fixed it in our high-fi prototype.

Medium-Fi   Hi-Fi

Unfixed:

1. [H2-1 Visibility of Status] [Severity 3]
The sorting button isn't intuitive. I don't know what is going to happen after I click it.

→ Due to time constraints and due to the complexity of the button (as we would have to use different sorting icons and different sorting functions), we decided to not have the sorting function in our medium-fi prototype.

2. [H2-2 Match Sys & World] [Severity 3]
The interface of TAs, teachers and students should differ in some ways. Make interface(s) for TAs and teachers.

→ Due to time constraints, different versions of the app for teachers and TAs (with added functionalities) are not realized in the high-fi prototype.

3. [H2-3 User control and freedom] [Severity 3]
Add a "My questions" section in the menu so that the user can get to his/her own questions easily.

→ Due to time constraints as well as the increased complexity of grouping a specific user's own questions on a separate screen, a "My questions" feature is not realized in the high-fi prototype.

4. [H2-4 Consistency & Standards] [Severity 3]
The icon for Add courses and Add questions is the same, which can be quite confusing. Make them different.

→ We think that we should stay with the current "+"-button as it is a standard button that most users will understand and we think that its different underlying functionalities can be seen from the context (e.g. when looking a question in detail, we think it is clear that a plus-button indicates adding a new answer to it)

5. [H2-4 Consistency & Standards] [Severity 3]
I cannot access the search model when I am watching the answers of a question. Fix it.

→ Due to time constraints as well as the increased complexity of coding an accessible and properly functioning search bar in all screens, the search option for questions and answers feature is not realized in the high-fi prototype.

6. [H2-5 Error prevention] [Severity 3]
Should the user not remember his SN and password, there is no way of resolving this problem. Provide a button that allows the user to reacquire access/account. Guide the user on an alternative means for this by verifying his/her identity via a phone text, alternate email, answering questions (favorite color, etc.) or some other checking feature.

→ Due to the complexity of creating real user accounts (data base) and collect data about the users that can be used for password checking, we decided to leave out this feature for the high-fi prototype.

7. [H2-9 Help Users with Errors] [Severity 3]
The user cannot delete his/her answer/question. This could be realized with a two-finger swipe or could be included in a "My questions/answer" section in the menu.

→ As this is an important feature that helps students in case they submitted a wrong answer and fear subsequent embarrassment, we tried to implement it in our high-fi prototype.

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6. Prototype Implementation

Before we started the coding for the app, we listed all the different screens and functions that are necessary. Afterwards, we divided the screen and the tasks among all group members.

○ **Tools**

For our Hi-Fi Prototype we used Android Studio 2.2.3 and GitHub for code sharing.

How the tools helped:

We consider Android Studio to be better than the Eclipse alternative. Also, Android Studio is great with version control.

How the tools did not help:

Unfortunately, the loading of the virtual device in Android Studio is very slow. This makes the whole coding and checking process a little more difficult.

○ **Hard-coded Data**

There are many items of hardcoded data. Some examples are:
- Answer database is only a screenshot and it is only available for one of the questions
- Users always register as Scott Summers
- Numbers of upvotes
- QR code screening screens any QR or bar code

The main parts that were soft-coded are:
- Adding answers to a question
- Registering a user in the user database

○ **Missing features**

The TA/teacher screens are still missing and the asking questions functionality is not fully developed. Also, some functions still contain bugs that could be eliminated in the future.

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7. Summary

All in all, our app fulfills the main criteria of a high-fi prototype. There are still several functions that are not adequately developed and some additional functions and screens are missing, but the basic tasks and the main purpose of the app becomes clear for the user.