Learning Reloaded: Conception & Prototyping

Project brief: Dec. 16th, 2013, 9:00 AM   **Group size:** exactly 5
Concept presentation: Jan. 6th, 2014 in the lab

Description
For the final project, you will develop an iOS application to enhance learning experience for students at RWTH Aachen university. For this, your application will leverage resources available on L^{2}P to facilitate a specific task in students' learning activities.

Task
Week 1: Conception (9.–16.12.13)
Brainstorm to identify the task that your application will support. Engage with the real users by observing how they currently do the task. Talk to them about your ideas to get feedback of how your application will help their student life. Answer the following questions as specific as possible.

- ❏ Who are the users?
- ❏ What are the tasks that they want to accomplish?
- ❏ What is the status quo of performing the task?
- ❏ How you envisioned your app to improve the situation?

Week 2: Prototyping and technology survey (16.–20.12.13)
Split your team into two. The first group should create quick and dirty low-fidelity prototypes and ask your potential users to test them, aiming to find big design bugs early. Do this in as many iterations as you feel necessary.

The second group should investigate the related iOS frameworks that you may use. Create small proof-of-concept single-purpose apps use the framework to get the feeling of them, and to identify potential setbacks that you may have during the implementation. At the end of the week you should be able to answer these questions:

- ❏ What iOS frameworks will be used in the project?
- ❏ What external libraries will be used in the project?
- ❏ How to code the frameworks and libraries to accomplish basic tasks?
- ❏ What functions are needed to be implemented by your team?

Submission
- ❏ Week 1: `ProjectBrief.pdf` — Modify the template to match your information and submit as a PDF file. Keep the length to one A4 page. (Due: 16.12.13, 9:00)
- ❏ Week 2: Create a zip file containing your paper prototype and a list of adjustments you have made after testing with the user. (Due: 06.01.14, 9:00)
- ❏ Prepare a 10-minute presentation that show the overall concept of your application. Your presentation must provide clear answers to the four questions of Week 1, your paper prototype, and the changes after you tested the prototype. Present it in the lab on 06.01.14. No submission is necessary before the lab.

Email your submission to `iphone@cs.rwth-aachen.de`

Grading

For a passing grade (4.0), your project must to satisfy all of the the following requirements:

- You must create one low-fidelity prototype (e.g., a paper prototype), test with real users, and report the changes that you made in your final UI.

- You must submit source code of your app for grading. All rights of your source code belongs to you. We will not distribute the code.)

- Your app must be significantly worked on during this semester. Although you may use existing source code, projects, and libraries, you have to explicitly indicate any existing codes that you've adopted in your source code and documentation.

- Your app must allows users to accomplish at least one main use case (see above).

- Your app must be able to run the main use case without crashes or hangs.

- Your app must use L2P API. We will evaluate how your code handle network communications.

- At least one of your team member present your app in the final presentation session announced above.

- Your app and source code must be in English

For an excellent grade, we are looking for creativity, usability, and implementation quality. We will help guide you to that direction during the labs in January.

Hints on identifying the user group and the task

Target user group: Students at RWTH Aachen University. Selecting a specific group of students will allow you to fine-tune your app to their need; hence, this makes your app stands out. For example, you may choose to cater students from a major, a semester year, or a course. Alternatively, you may choose to develop an app for a specific disability (sight, hearing, motor disability) or for a situational disability (e.g., an app that chemistry students will use during their chemical experiment that they cannot continuously look at the screen).

Main task: Activities related to learning. You must specify at least one concrete use case in users' language. The use case must include the context that the app will be used, goals that the user want to achieve, and roles of your app.

Example of tasks from existing iOS apps:

- Yelp allows users to look for restaurants nearby based on rating an reviews generated by other users.

- Things allows users to manage their tasks with a system of check lists.

- Level Money graphically shows users' daily cash flow to encourage them to better manage their money.

- Shazam recognizes music playing in the vicinity to allow users to explore and buy music.

Example of **bad** tasks:

- ~~view PDF~~ (View what PDF? In which context? Why do the users want to view PDF?)

- ~~download file~~ (Download what file? What's the utility of the file?)

Looking forward

Here is the rough schedule of the project

Date and **deadlines**	Task	Deliverable
09.12.13 – **16.12.13**	Project definition	One-page project brief
16.12.13 – 20.12.13	Prototyping and technology survey	–
06.01.14		• Low-fidelity prototype and change list • Five-minute presentation in the lab
06.01.14 – **13.01.14**	Implementation week 1	Implementation plan
13.01.14 – 20.01.14	Implementation week 2	–
20.01.14 – **27.01.14**	Implementation week 3	Function–complete demo in the lab
27.01.14 – 03.02.14	Polishing and presentation preparation	–
04.02.14		10-minute presentation and demo in the lecture
10.02.14		Code submission

For the capability that is enabled by L^{2}P API, check the documentation that is uploaded to Shared Documents section on L^{2}P

P.S. Merry Christmas and Happy new year! — Chat :)