iCreate Mobility Challenge 2012

Proposal

Team Name:
Team Members:

Name	Matric No.	Attend Kickoff Event (18th May)	Attend Training (Win, iOS, And, HTML)	Attend Showcase (7th August)	Attend Award Ceremony (7th August)
Wang Zhuochun	A0069903X	No	No	Yes	Yes
Xie Lekai	A0078107E	No	No	Yes	Yes
Tang Zhonghua	A0078086U	Yes	Yes	Yes	Yes
Xiao Yuguang	A0077900E	No	No	No	No

Project Name: aLibrarian

Related Information:
2012 Website:
http://cit.nus.edu.sg/icreate/2012.html
2011 Winners:
http://files.campus.edublogs.org/blog.nus.edu.sg/dist/0/119/files/2011/08/icreate-winning-teams.pdf
http://ivle.nus.edu.sg/public/icreate2011.aspx

Schedules and Deadlines

Date and Time	Description	In-Charge	Status
12th May 2012	Registration Deadline	Wang Zhuochun	Done
18th May 2012	Kickoff Event	Tang Zhonghua	
18th May 2012	PhoneGap Testing	Everyone	
20th May 2012	Development Planning	Wang Zhuochun	
30th May 2012	Familiar with Amazon APIs	Xie Lekai, Xiao Yuguang	
30th May 2012	UI Designs Prototype	Wang Zhuochun	
6th July	Application Submission	To be confirmed	
24th - 27th July	Presentation	To be confirmed	
24th - 1st August	SMS Voting	To be confirmed	
7th August	Showcase and Award Ceremony	To be confirmed	

Introduction

aLibrarian is an app that connects NUS Library, Amazon user comments and Second-hand textbooks resale together.

Firstly, aLibrarian allows NUS students to check library resources, which aim to provide checking, booking and reserving books on mobile devices. Besides, students can view related user comments on the book through integrated Amazon user comments.

Secondly, aLibrarian aims to improve second-hand textbooks exchange. This is because there are some limitations of the current IVLE used books forum: difficult to find desired textbooks because the forum is categorized in faculty, difficult to compare the price of a textbook and lack of pictures of the textbooks to justify the book condition (take photo and upload it to forum is

troublesome).

We are aimed to provide a neat and convenient platform for students to get textbook for their modules. We collect information on student used textbooks, books available in NUS library or selling books on Amazon to provide flexible solutions for students. With more organized and complete information, such as average and lowest price among the search results, picture of used textbook uploaded by seller, students can make better choices.

Planned Features

1. Searching Library using Book Name, ISDN, Barcode
1. Searching Used Text Books using Name, ISDN or Module Code
2. Check and Reserve book on NUS Libraries
3. Read related comments on Amazon
4. Buy and Sell second-hand books on Amazon or via IVLE used textbooks forum
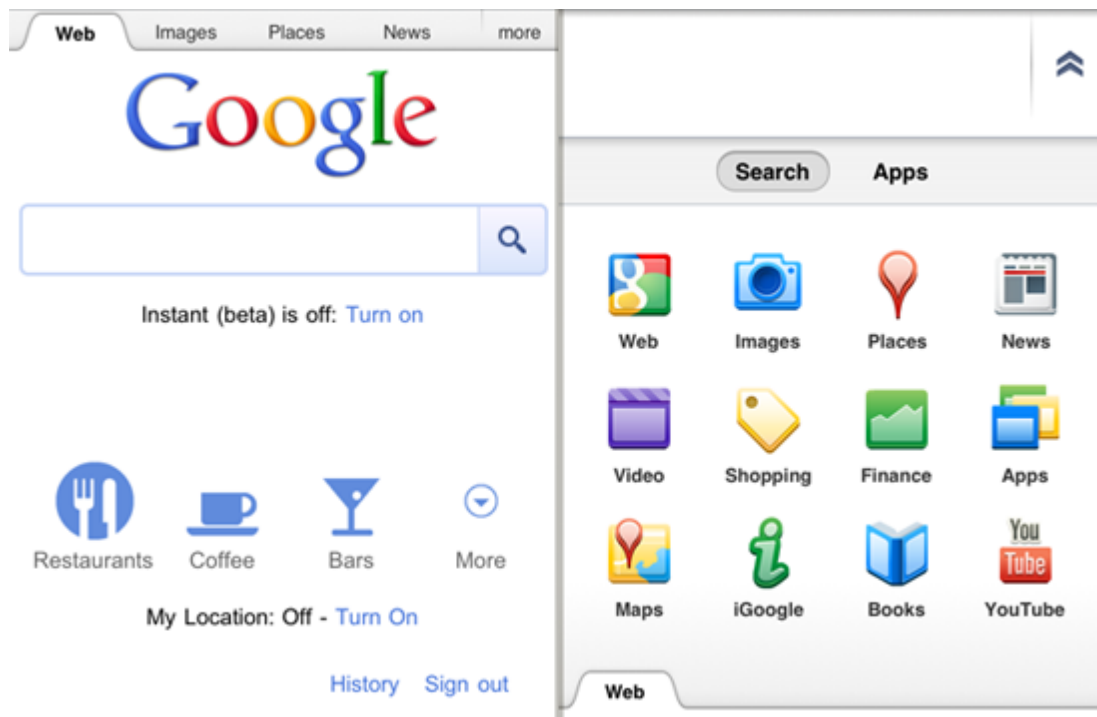
Use Cases

1. Search a book
   User enter book name/module code, available books in NUS library, students second-hand textbooks, books on Amazon will be displayed to user. For student second-hand textbooks, average and cheapest price will be displayed for the user, as well as the pictures of the books.
2. Reserve a book
   Among the search results in NUS library, a reserve option will be provided for the user.
3. Buy book (Buyer)
   Among search results in student used books, user can contact seller directly through their mobile number. User also can buy book on Amazon if they prefer.
4. Sell book (Seller)
   For selling used books, users are required to enter the book name(or by barcode scanning), price, related module, upload pictures to show the condition of the book using cellphone camera (optional) and also mobile number for contact. After the deals, user can delete the topic to avoid messages from other buyers.
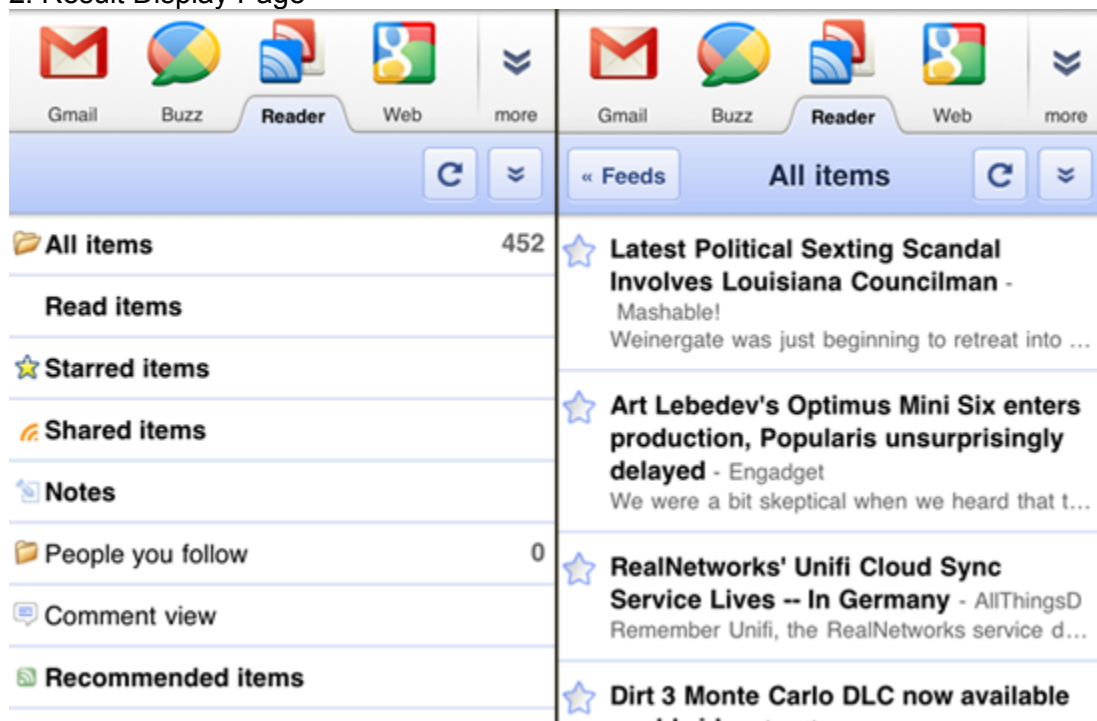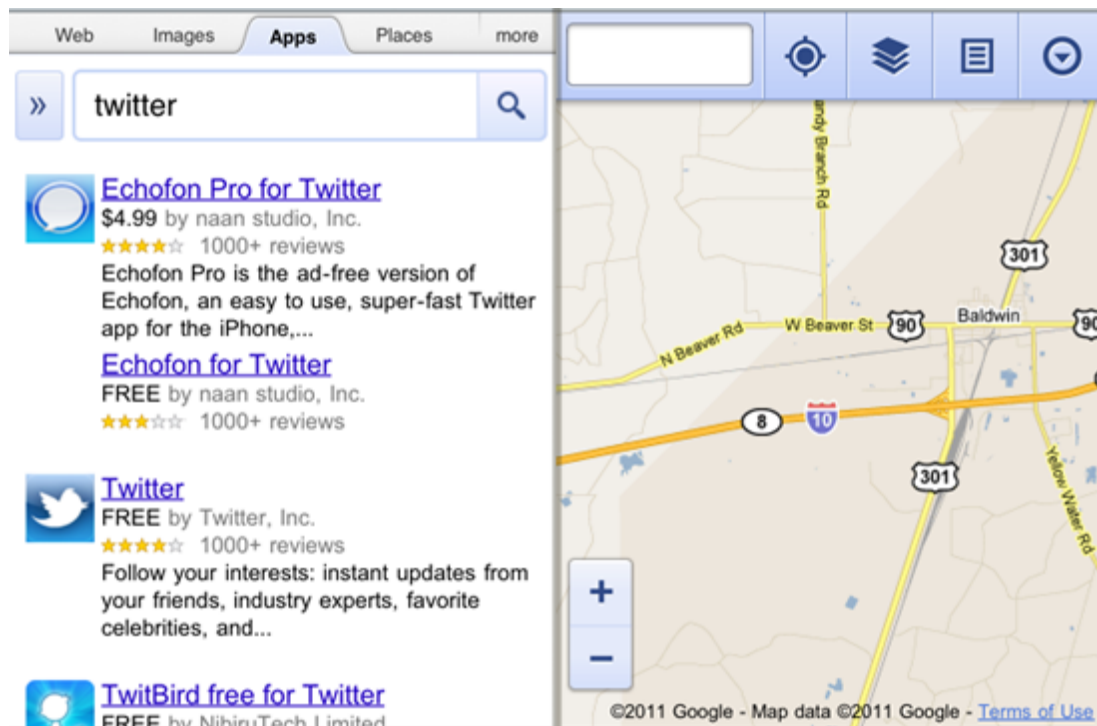5...

UI Prototyping

Prototyping Tool: http://www.codiqa.com/

http://m.topsy.com/
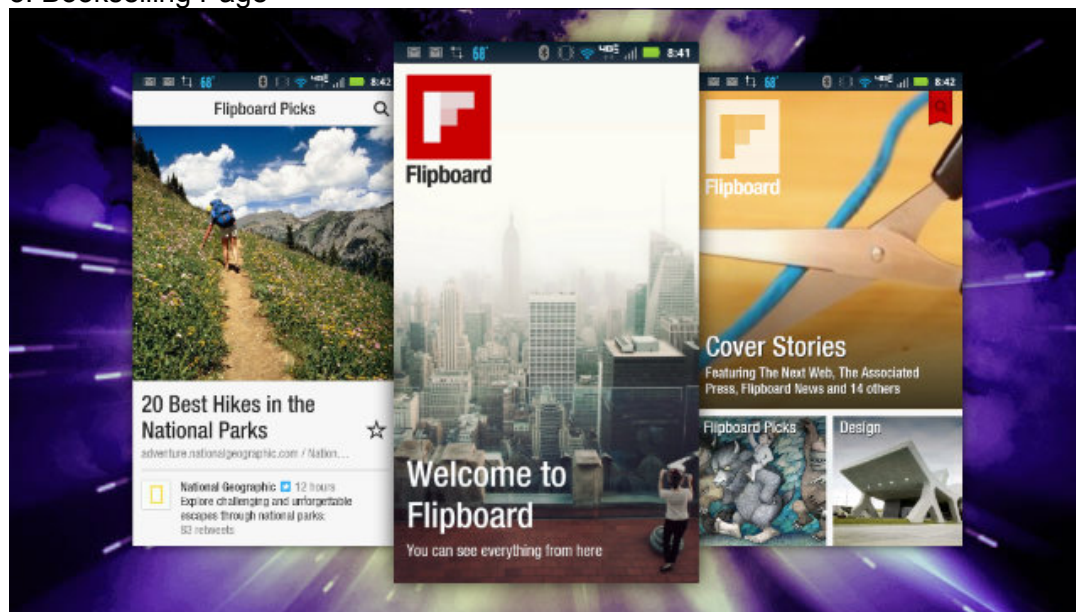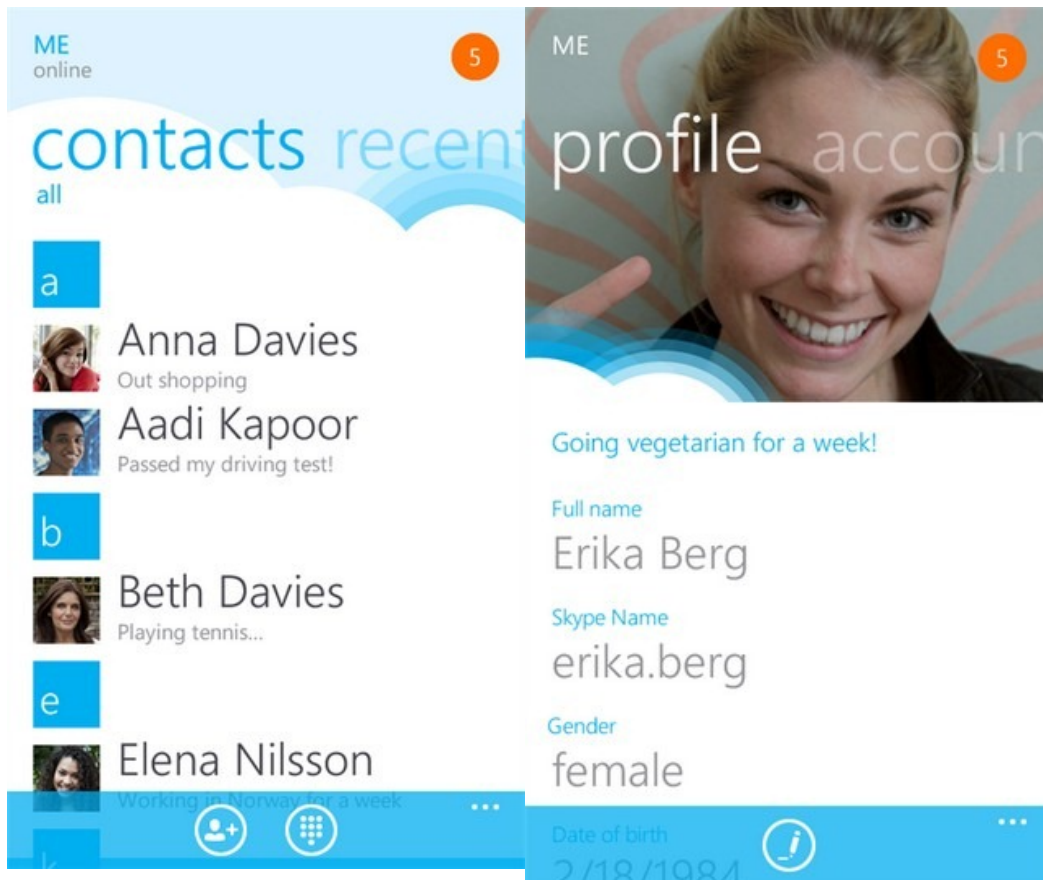
1. App Open Page

2. Result Display Page

3. Bookselling Page

4. Book Buying Page

5. User Comment Page

Development and Resources

Platform: iOS
Related:
https://developer.apple.com/
http://ipodtoucher55.blogspot.com/2010/12/installing-ios-sdk-and-xcode-on-windows.html
http://bryanwire.wordpress.com/2011/03/05/ios-sdk-on-windows-7-with-os-x-snow-leopard-via-vmware/
http://mashable.com/2010/11/07/how-to-mobile-app-development/ **(General for iOS/Android/ WP7)**

Version Control: git + github
Tutorials:
http://git-scm.com/
https://github.com/

Framework: PhoneGap - http://phonegap.com/about
Support Platform: iOS, Android, Windows Phone and BlackBerry OS

Tutorials:
http://wiki.phonegap.com/w/page/35501397/Tutorials

UI Framework: jQuery Mobile - http://jquerymobile.com/
Tutorials:
http://www.noupe.com/tutorial/jquery-mobile-tutorial-creating-a-restaurant-picker-web-app.html

Server-side: PHP + MySQL
Tutorials:
http://www.raywenderlich.com/2941/how-to-write-a-simple-phpmysql-web-service-for-an-ios-app
http://davidwalsh.name/web-service-php-mysql-xml-json

API 1: IVLE API Used-Book Forum
Note: We will retrieve all the posts used-books from Forum, process all the information, list all the valid sell information and save them on our server-side database for mobile app.
Tutorials:
http://www.ibm.com/developerworks/xml/library/x-youtubeapi/

API 2: Amazon Book Search API
Tutorials:
https://affiliate-program.amazon.com/gp/advertising/api/detail/main.html
(PHP) http://zendframework.com/manual/en/zend.service.amazon.html

API 3: OpenLibrary eBook API
Note: Alternative to Amazon APIs. It also provided free ebook download
Tutorials:
http://openlibrary.org/developers/api

Search Box Design:
http://www.noupe.com/showcases/showcase-of-inspiring-search-box-designs.html