CSIS0801 - Final Year Project 2013-2014

Mobile Application – Taxi Express

Project Plan

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1. Executive Summary

With a view to improving taxi calling services nowadays, we propose to create a brand new smart-phone app, 'Taxi Express', which can be viewed as an advanced version of those existing taxi calling apps.

Current taxi calling apps provide users with some phone numbers for requesting taxi services and users have to dial in order to contact the service center. Instead of dailing to the service center, Taxi Express helps users deliver their requests directly to the nearest drivers through Internet. It greatly saves the trouble calling to service center and waiting reply from it. Users can also choose to call taxis from a specific service center.

Taxi Express also provides bookmark function. Users can bookmark their favoruite drivers, service centers, starting locations and destionations. This facilitates frequent users to make request more conveniently.

A web-based version will be developed for service centers. It will show customers' orders and their taxis' locations. They can interact with drivers and customers through this web-based version.

The project is scheduled to be completed within semester 1. Testing, collecting feedback and refinement will be done in semester 2.

2. Introduction

Taxi Express is a mobile application that helps customers to deliver taxi-calling requests to taxi drivers through the Internet.

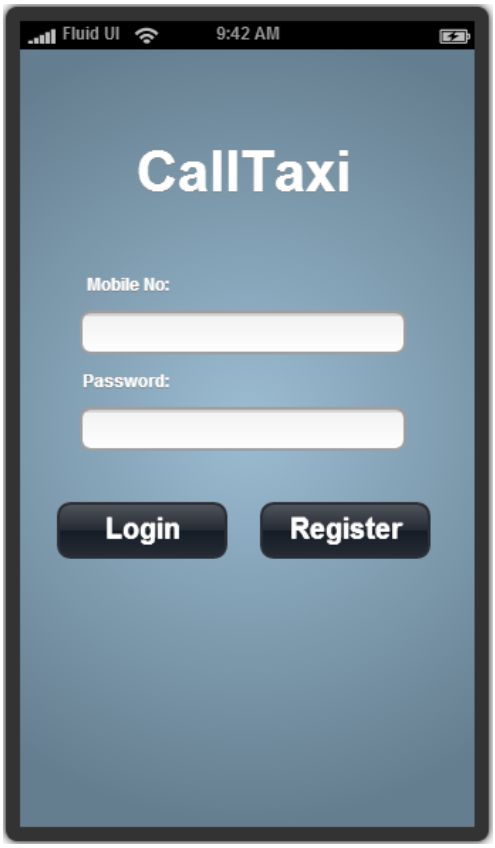
Taxi Express includes a registration system. Users must register before use and they can register as a taxi driver or a customer. A customer can make request by specifying starting location, destination and arrival time. The request is then sent to nearby registered taxi drivers. Those drivers can choose to accept or deny the request. If multiple drivers accepted the request, the customer can choose whichever driver he/she prefers. Lastly, a confirmation message will be sent to the chosen driver.

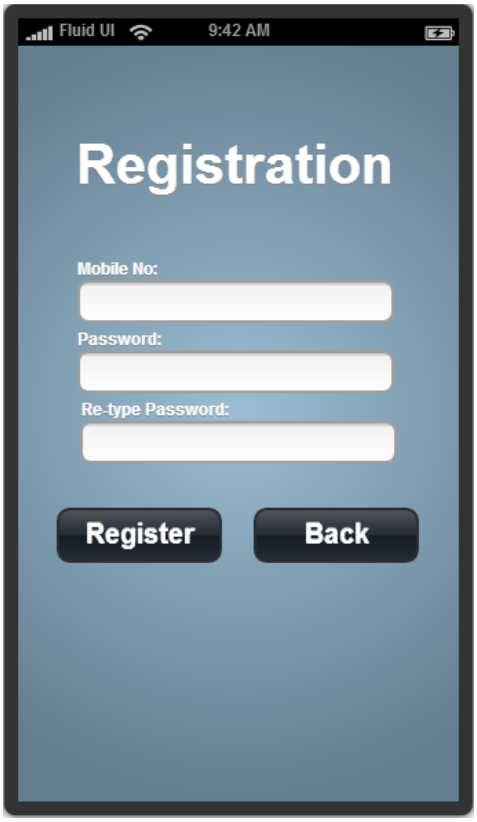
As some of the customers may have a preference for taxis from a specific taxi-calling service center, Taxi Express provides customers with a function to send requests to service centers instead of drivers. To achieve this, a web-based version of Taxi Express will be developed for service centers. It helps service centers to manage their orders and taxis.

3. Project Features and Prototypes

3.1. Homepage

The homepage is simply a login page. Users can login with their registered account or register for a new account.



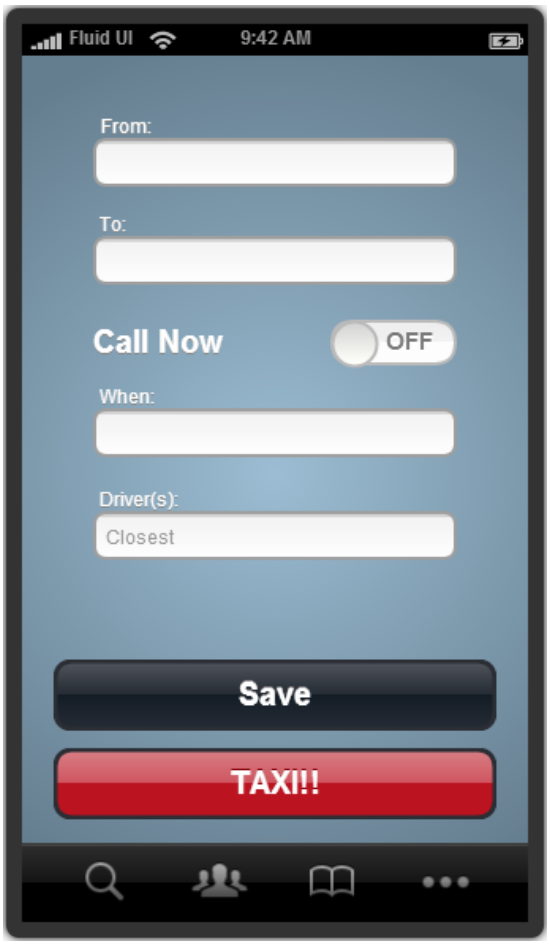


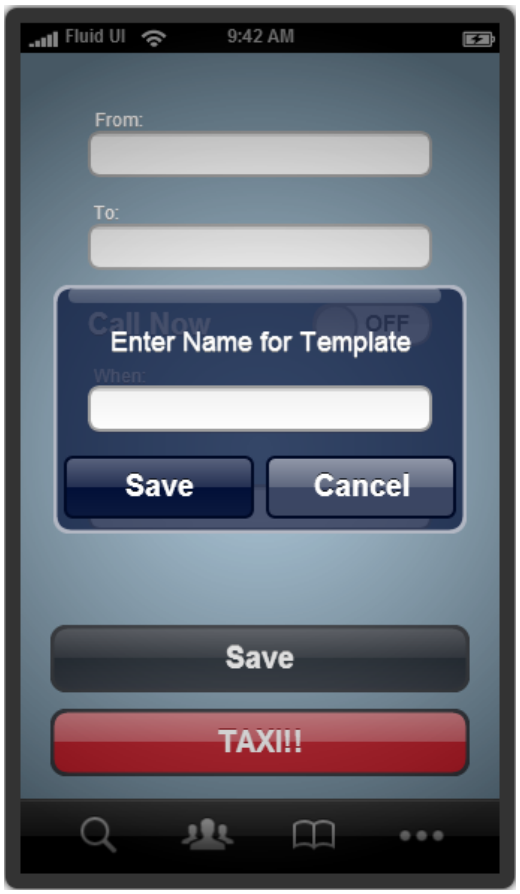
3.2. Registration page

Users can use their mobile phone number to register for an account.

3.3. Request Specification

Customers can specify the details in this page. Details include starting point, destination, arrival time. Users can press “Save” to bookmark the details.



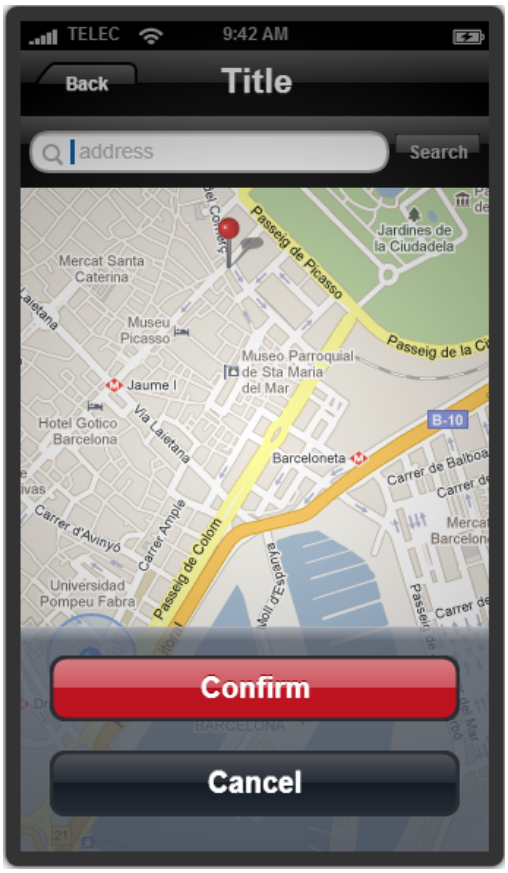


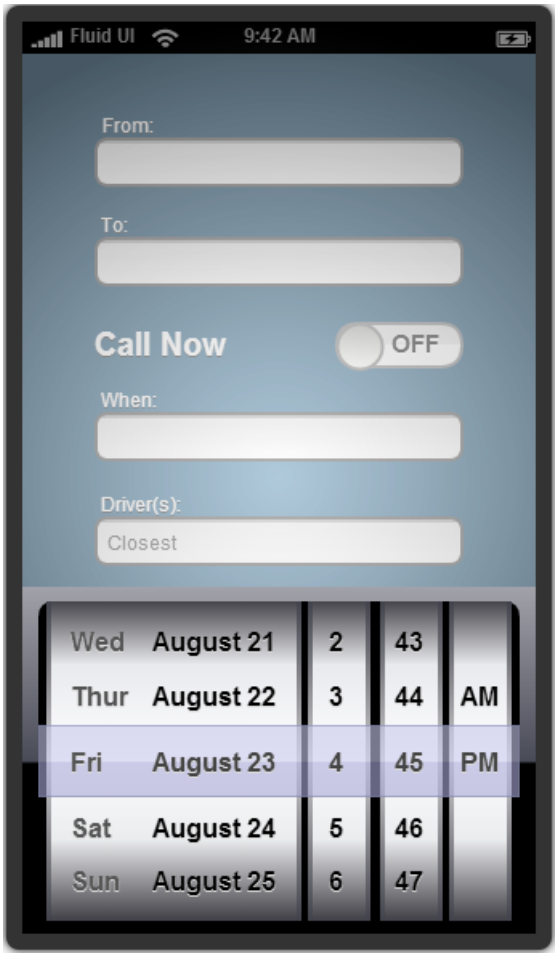
3.4. Bookmark Confirmation Box

When the “Save” button is pressed in the request specification page, this box will be shown for the user to enter the name for this template in order to bookmark it.

3.5. Starting Location and Destination

A map will be shown for users to pinpoint the starting location and destination when they tap the “From” and “To” box in the detail specification page. By default, the starting location is the current location of the user detected by GPS.



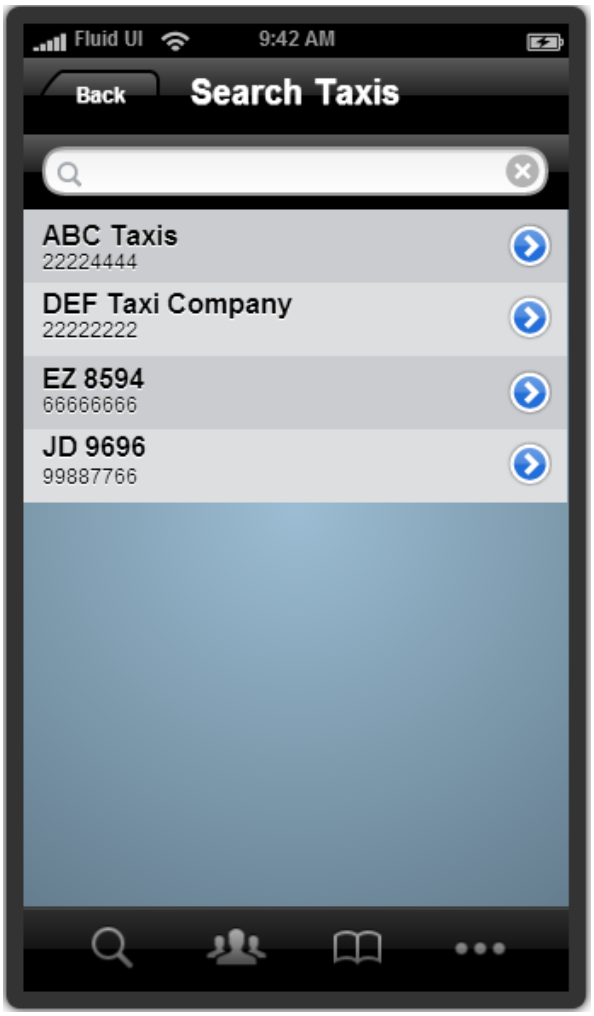


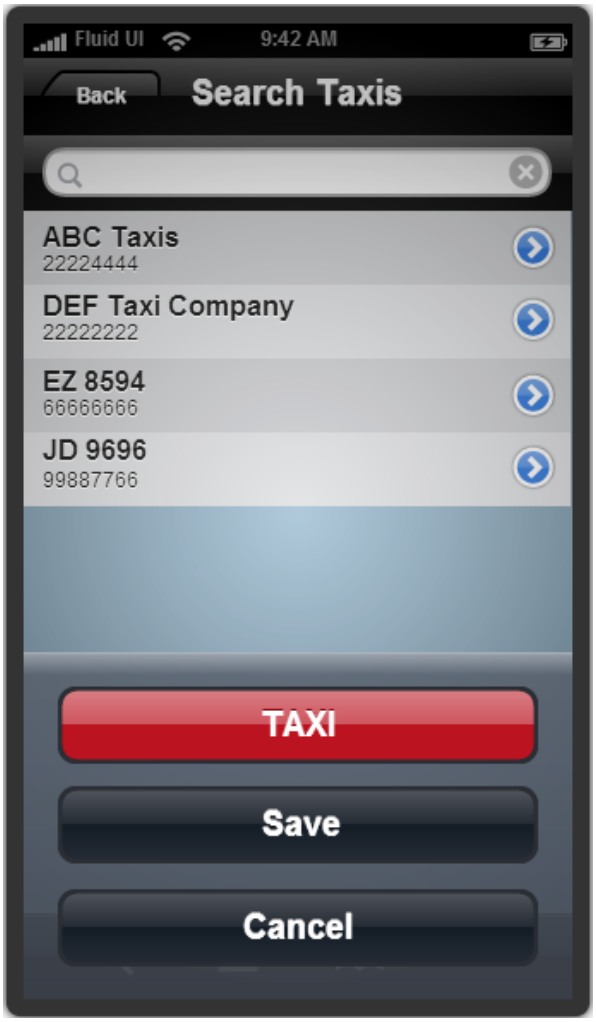
3.6. Arrival Time Selection

When users tap the “When” box, this time selection page will be shown. If the “Call Now” button is set to “ON”, the time will be set automatically to the current time.

3.7. Nearby Responding Taxis

This view shows all taxis which have accepted the request. The user can choose one to confirm the deal. User can also bookmark the taxi they like.



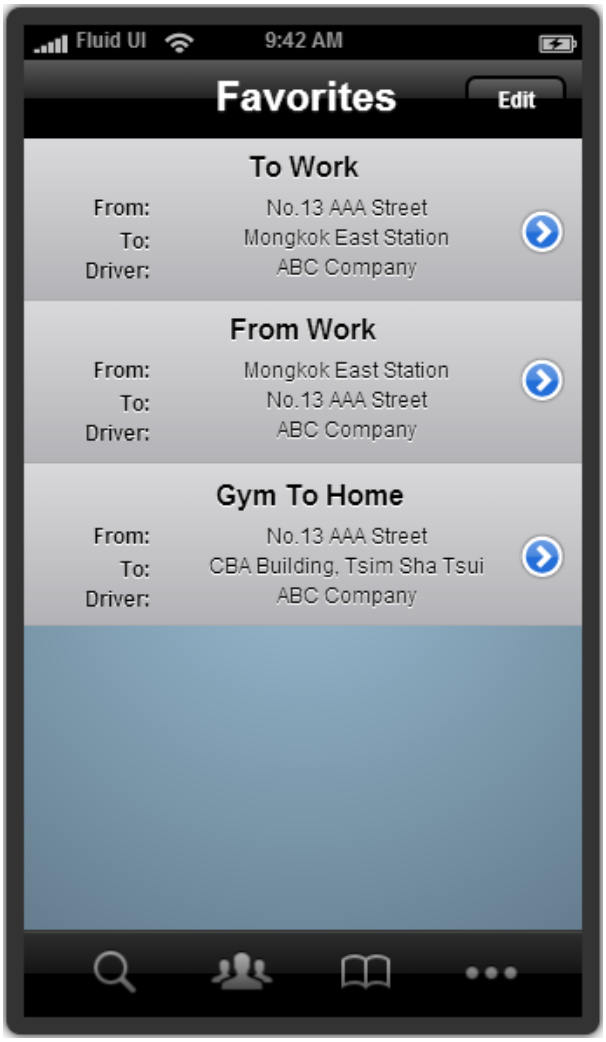


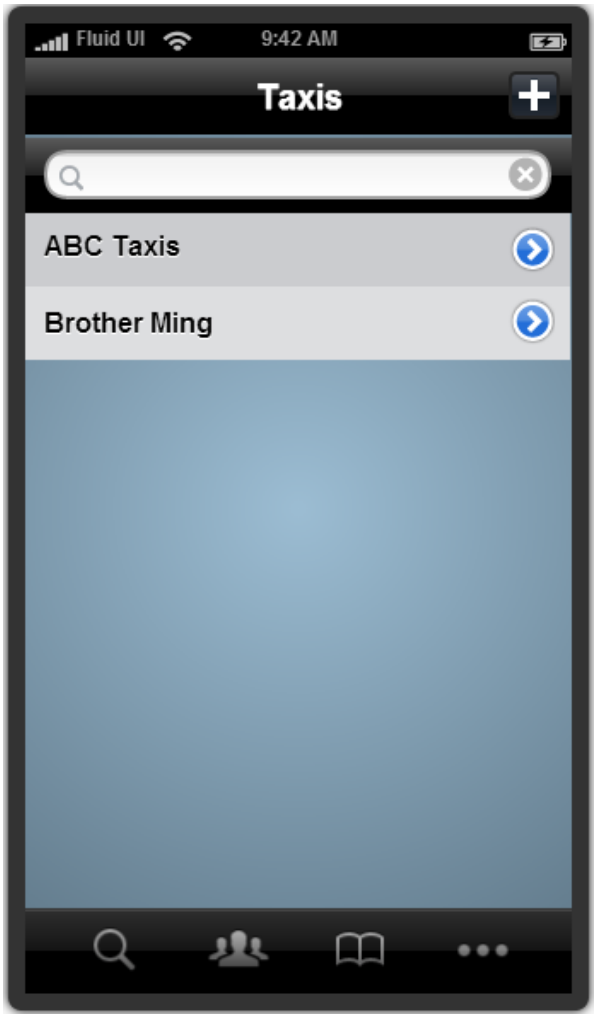
3.8. Confirmation Box

When one of the taxis is tapped, the user can tap “TAXI” to confirm the request or tap “Save” to bookmark the taxi.

3.9. Favourite Request Specifications

This shows the bookmarked favourite request specifications. Users can tap on any one of them to make request. They can also edit or delete them.



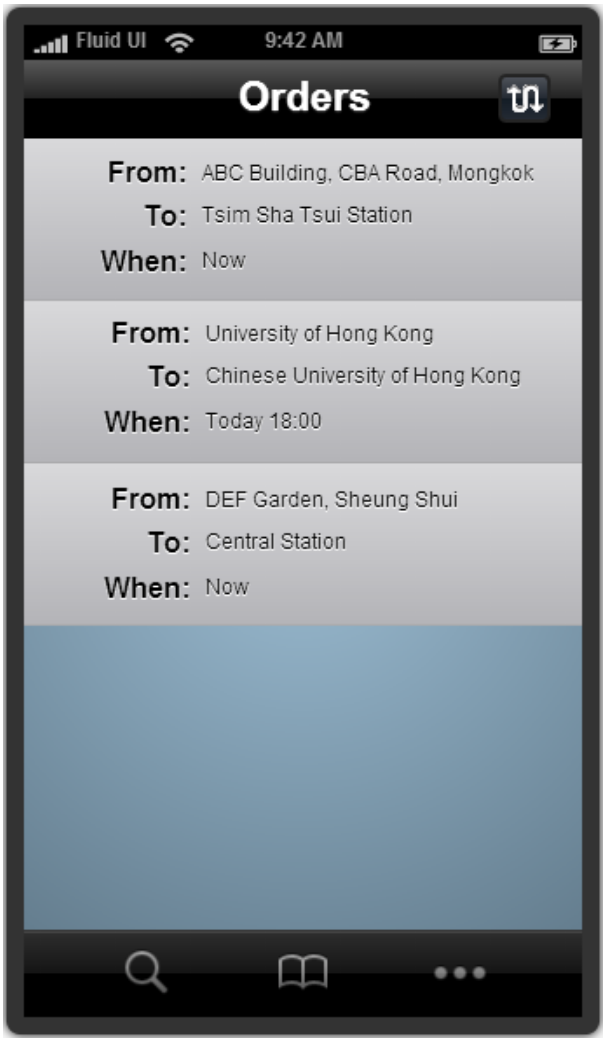


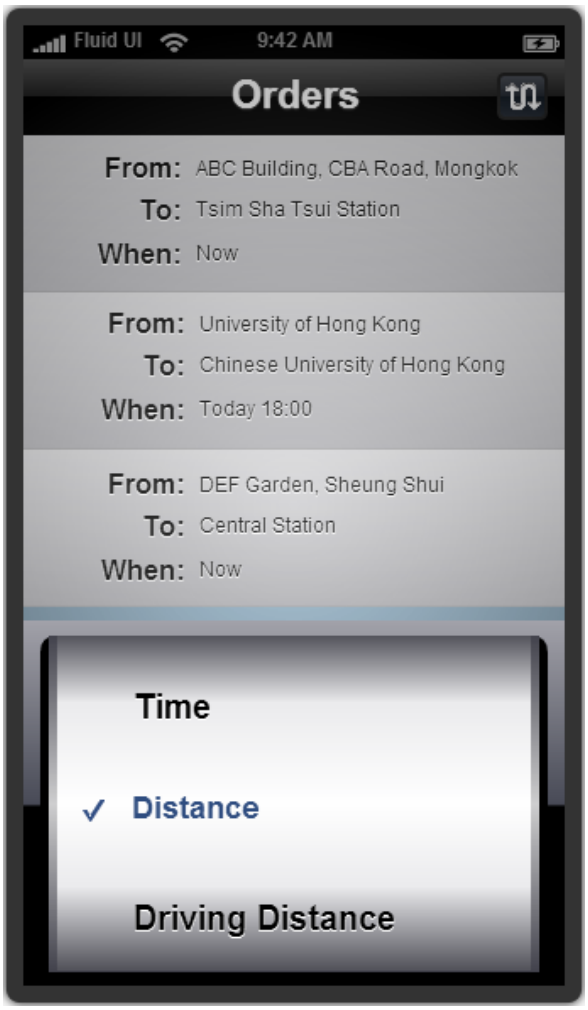
3.10. Favourite Taxis and Taxi-calling Companies

Users can choose to send request to their bookmarked taxis or taxi-calling companies in this page.

3.11. Driver's Order List

This view is used by drivers. They can view orders from nearby customers. They can choose by tapping any one of the orders. Newly detected orders will be automatically shown on top.





3.12. Ordering of Requests

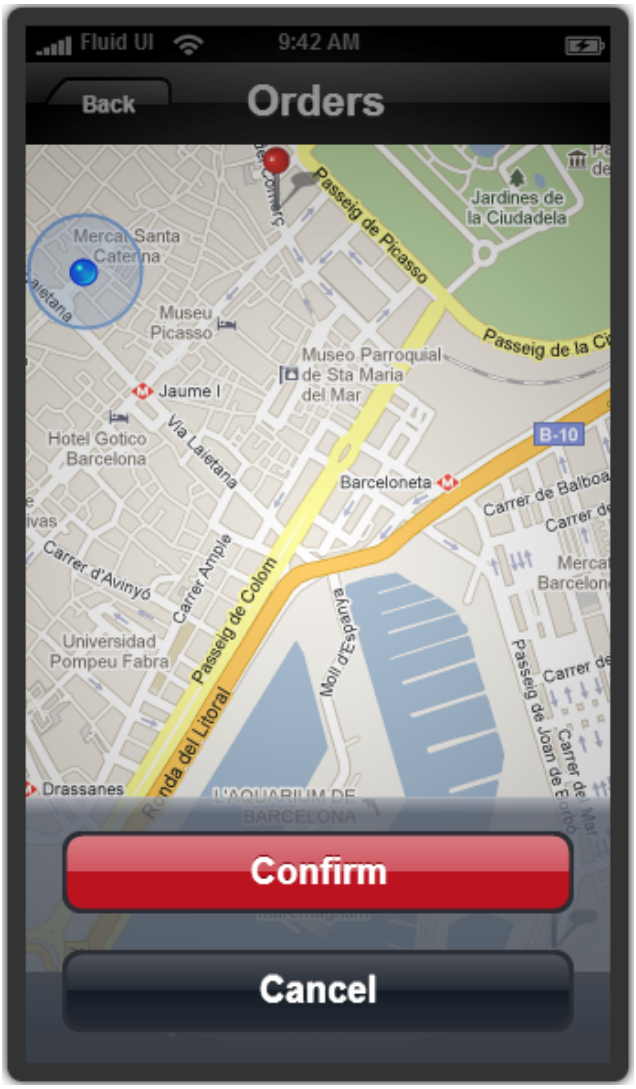
Drivers can order their requests by distance between their current location and the starting location, arrival time or driving distance.

3.13. View Orders on Map

Drivers can also view nearby orders on a map.

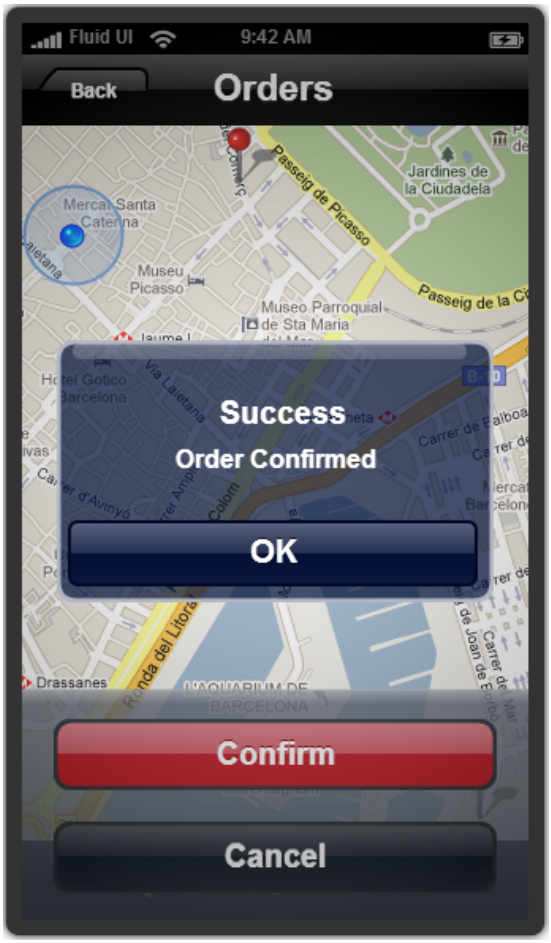
3.14. Confirmation Box

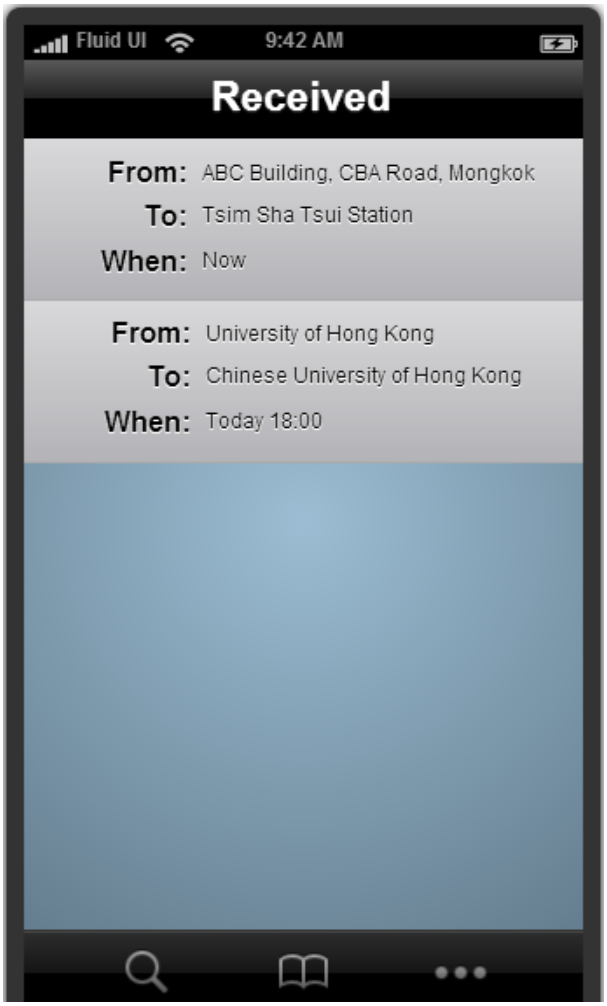
Drivers can tap on a pin on the map to choose order. This confirmation box will be shown upon choosing.



3.15. Confirmation Success

This pop-up window will tell the driver that the order is confirmed.





3.16. Received Order List

This view shows the received but not-yet-completed orders.

4. Project Development Specifications

Mobile Platforms	iOS
Mobile Devices	iPhone
OS on Server	Ubuntu Linux
Database Management System	MySQL
Web-based System	HTML, Javascript, PHP

5. Tentative Schedule

Date / Period	Task
29th September 2013	• Project plan and webpage
October 2013	• Mobile Application – Customer side • Database setup
November 2013	• Mobile Application – Driver side • Server configuration
December 2013	• Web-based system
13th -17th January 2014	• First presentation
26th January 2014	• Preliminary implementation • Interim report
February 2014	• Testing and collecting feedback • Refinement
March 2014	• Documentation
20th April 2014	• Finalized tested implementation • Final report
21st – 25th April 2014	• Final presentation
4th May 2014	• Project exhibition

6. Financial Budget Plan

Total Budget	+$3000
Server	-$700
Balance	$2300

8. Project Team

Team Member	Tasks	Contact
Fu Chun Wai	• Database setup • Server configuration	u3501153@hku.hk
Tang Casey Wing Yan	• Web-based system	cwytang@cs.hku.hk
Wong Cheuk Hang	• iOS application	tommy128@hku.hk