



MentorMate

LocationMate iPhone
Functional Design Specification

MentorMate Internal

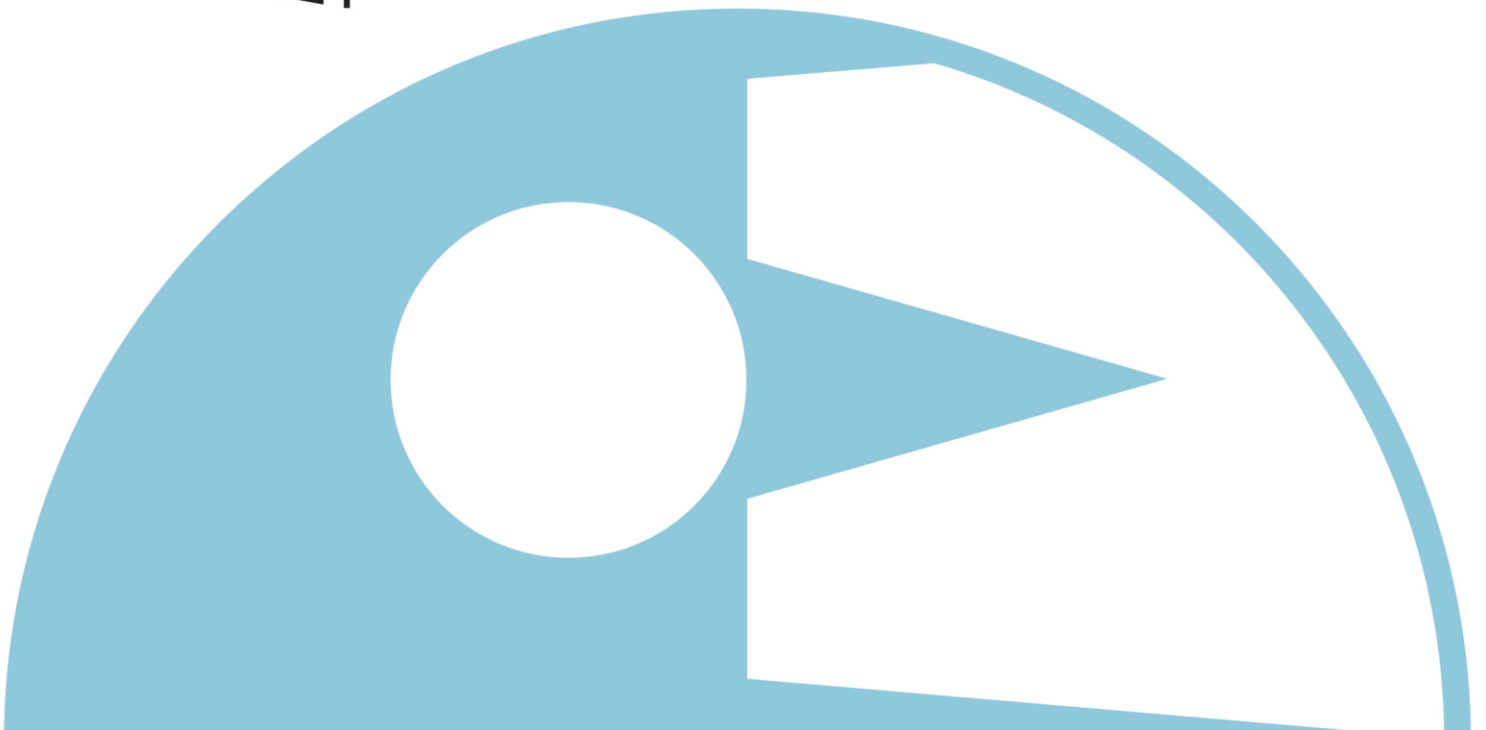




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1 Introduction

The purpose of this project is to create a mobile application that utilizes the location services on Apple iPhone to report a user's current position and visualize it on Google Maps. This project will be used as foundation to build a series of mobile applications that take advantage of the location services and integrate with legacy systems through a web service.

1.1 Business Purpose for Users

1.1.1 Business Users

- Track employee location
- Evaluate free version before buying more secure, privately hosted version
- Evaluate MentorMate GPS capabilities for possible integration with custom software

1.1.2 Individual Users

- Post current location to Facebook wall/news feed
- Find friends by proximity

1.2 Business Purpose for MentorMate

LocationMate serves two business purposes for MentorMate. The first is to provide an example of the iPhone and Android development MentorMate has done. The second is to virally spread awareness of MentorMate's services.

1.2.1 Work Example

In order to provide a compelling example of MentorMate's work, LocationMate should exemplify the following qualities:

- Intuitive and easy to use
- Quality design
- Genuinely useful

1.2.2 Viral Marketing

LocationMate's viral marketing success relies on the following key criteria:

- Users want to start using LocationMate because they think it will be useful.
- Users want to keep using LocationMate because it is easy to use.
- Using LocationMate exposes it to a large number of each user's friends/colleagues.



1.3 Product Features

The LocationMate suite of applications comprises applications for the iPhone and Android mobile platforms, a website, and a Facebook application.

1.3.1 iPhone

- Company registration
- Employee management
- Individual registration
- Record my location
- Continuous tracking
- Post directly to Facebook wall from phone
- View employee's location from phone

1.3.2 Website

- Company registration
- Employee management
- View employee's location

1.3.3 Facebook

- View friend's locations
- Search for friends by proximity
- Post directly to wall from phone
- Profile box with my last location

1.4 User Classes and Characteristics

1.4.1 Managers

Managers can create an account for themselves, create and edit employee accounts, and view employee locations. Managers do not use the Facebook application.

1.4.2 Employees

Employees can not register for an account themselves. They must be given an account by a manager. Employees are restricted to logging their location only. Employees do not use the Facebook application.

1.4.3 Individuals

Individuals log in to the mobile applications with Facebook Connect and can post their location to the Facebook app. Individuals do not use the website application.



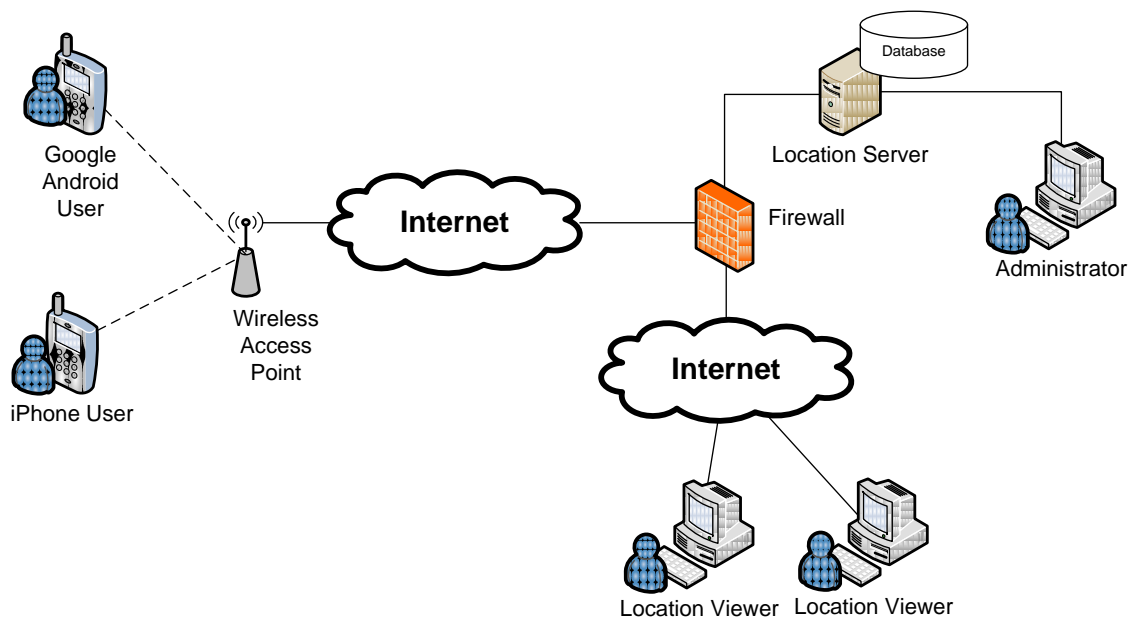
1.5 Operating Environment

The LocationMate system will consist of the following components

- Location Service – this SOAP service will be implemented in Java.
- Administrative Web Application - called for short (Admin Application) and will be implemented in Java as JSP pages.
- Location Viewer Web Application - called for short (Location Viewer Application) and will be implemented in Java as JSP pages.
- Mobile Client Application for Apple iPhone – this application will be built using the XCode iPhone SDK in C++.
- Mobile Client Application for T-Mobile G1 phone that uses Google Android platform – this application will be built using the Google Android SDK in Java.

The Location Service, Admin Application and the Location Viewer Application will share the same database as backend.

The web UI will work on the following web browsers: Internet Explorer 6, 7 and 8, Safari, Firefox 2+. Page load should be no more than 10 seconds. The pages will be developed as JSP/JSTL pages using PostgreSQL database for storage.



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2 System Overview

2.1 Mockups



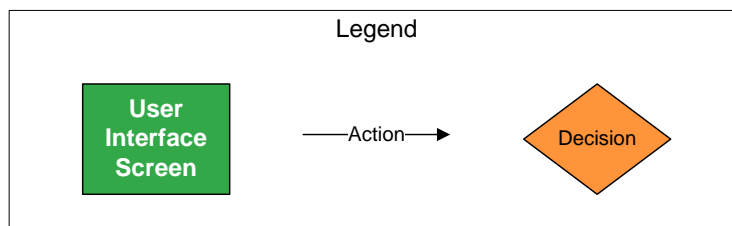
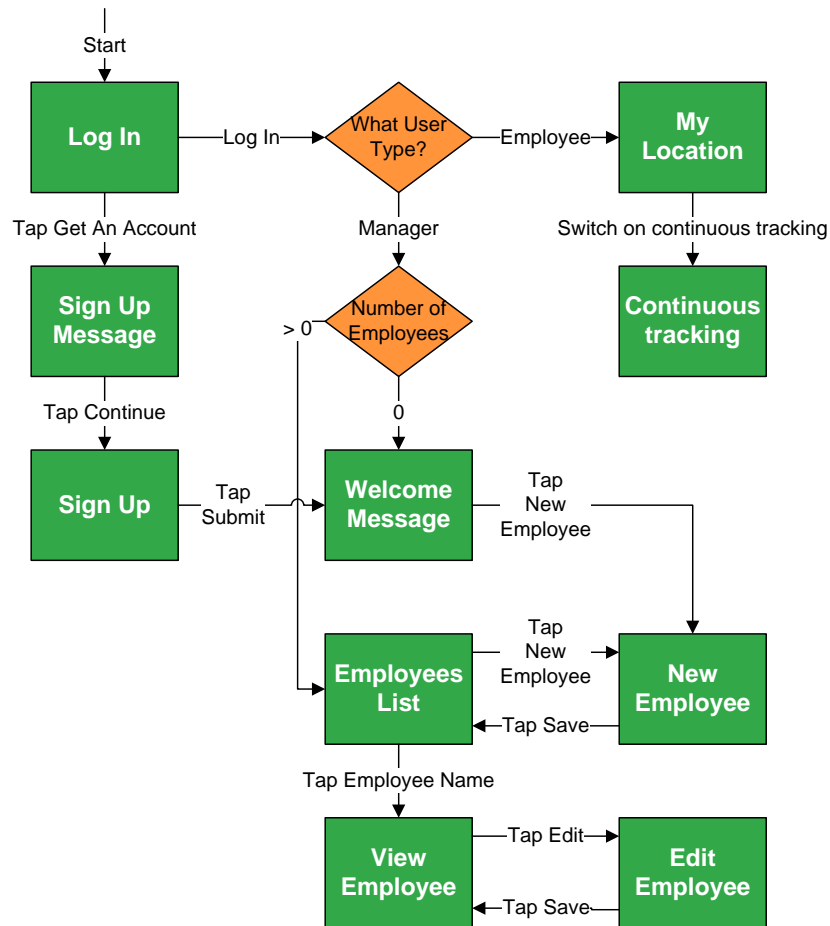
Employee Functionality

Manager Functionality



2.2 Navigation

The following screens comprise the LocationMate iPhone application. Each screen consists of specific functionality which is explained in the following section. Users navigate through the application as shown.





3 System Features

3.1 Log In

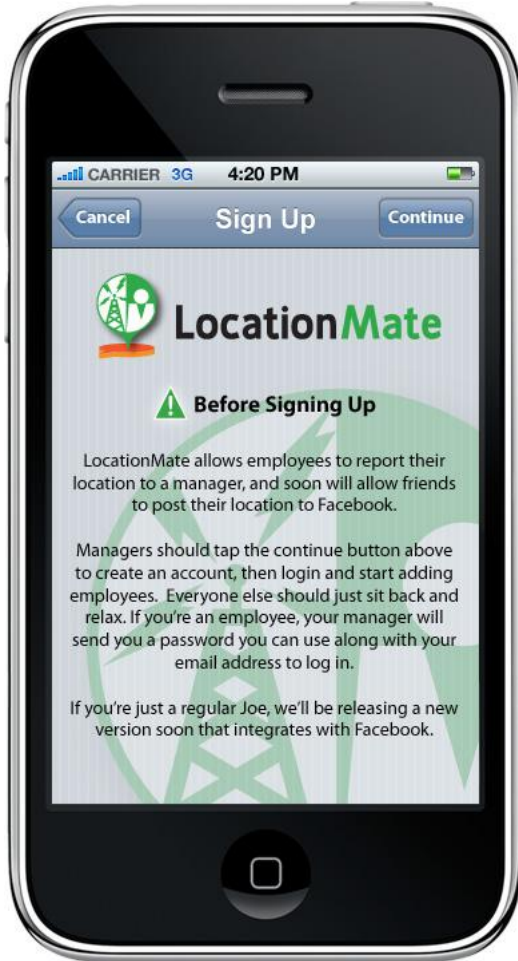


3.1.1 Functionality

#	Item	Business Rules
1	Username and Password	Tapping Username or Password allows user to enter text in-line with the virtual keyboard (shown above).
2	Remember Me	Causes the user to stay logged in between application uses. User will stay logged in until tapping the Log Out button.
3	Get an Account	Brings the user to the Sign Up Message.



3.2 Sign Up Message

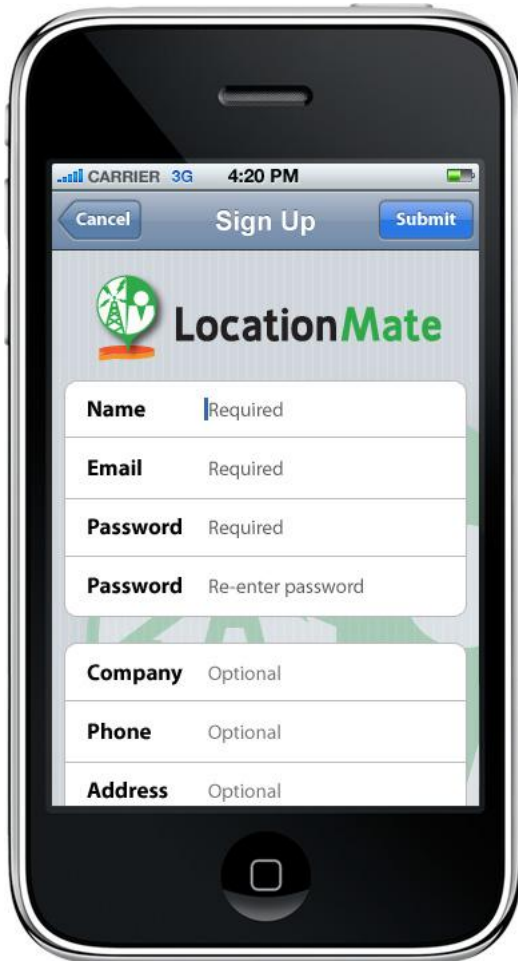


3.2.1 Functionality

#	Item	Business Rules
1	Cancel	Brings the user back to the Log In page
2	Continue	Brings the user to the Sign Up page



3.3 Sign Up



3.3.1 Functionality

#	Item	Business Rules
1	Cancel	Brings the user back to the Log In page
2	Submit	Attempts to register the user by connecting to the web service. The following errors may be presented: <ol style="list-style-type: none">1. Passwords do not match.2. No data connection available. Please try again later.3. Email address is already registered.4. [Field Name] is required. After successful registration submission the user is automatically logged in and brought to the Welcome

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		Message.
3	Input Fields	Tapping a field allows user to enter text in-line with the virtual keyboard.
3.1	Name	Required
3.2	Email	Required
3.3	Password	Required. Text input will be masked.
3.4	Password	Required. Text input will be masked. Users are required to re-enter their password.
3.5	Company	Optional
3.6	Phone	Optional
3.7	Address	Optional
3.8	Address 2	Optional
3.9	City	Optional
3.10	State	Optional
3.11	Zip	Optional



3.4 Employee List

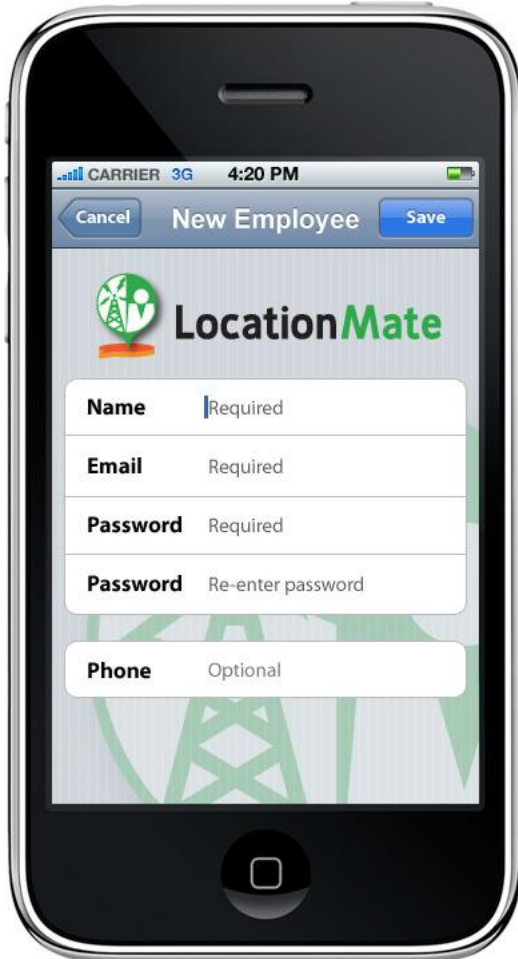


3.4.1 Functionality

#	Item	Business Rules
1	Log Off	User is logged out and returned to the Log In screen
2	+	Brings the user to the New Employee Screen
3	Employee List	All employees will be shown in a list, labeled with their Name field. Tapping an employee brings the user to the View Employee screen. If no employees exist for the currently logged in manager account, the message shown above will appear.



3.5 New Employee



3.5.1 Functionality

#	Item	Business Rules
1	Cancel	Brings the user to the Employee List screen
2	Save	Attempts to register the employee account by connecting to the web service. The following errors may be presented: <ol style="list-style-type: none">1. Passwords do not match.2. No data connection available. Please try again later.3. Email address is already registered.4. [Field Name] is required. After successful employee creation the user is brought

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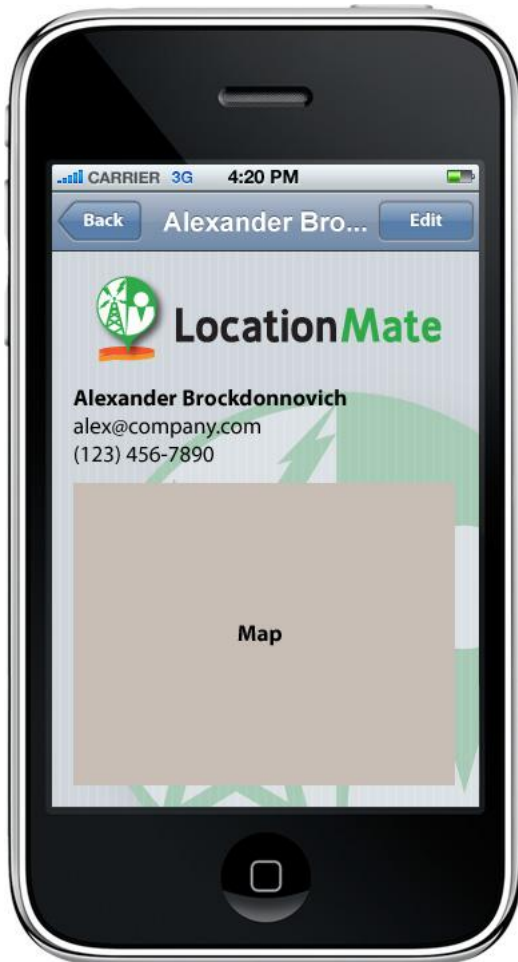
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		to the Employee List page and given the following confirmation message: Successfully created employee account.
3	Input Fields	Tapping a field allows user to enter text in-line with the virtual keyboard.
3.1	Name	Required
3.2	Email	Required
3.3	Password	Required. Text input will be masked.
3.4	Password	Required. Text input will be masked. Users are required to confirm their password.
3.5	Phone	Optional



3.6 View Employee



3.6.1 Functionality

#	Item	Business Rules
1	Back	Brings the user to the Employee List screen
2	Edit	Brings the user to the Employee Edit screen.
3	Name	
4	Email	
5	Phone number	
6	Map	Displays a Google map of the employees last logged location, with a timestamp showing date and time.



3.7 Edit Employee



3.7.1 Functionality

#	Item	Business Rules
1	Cancel	Brings the user to the Employee View screen.
2	Save	Attempts to update the employee account by connecting to the web service. The following errors may be presented: <ol style="list-style-type: none">1. Passwords do not match.2. No data connection available. Please try again later.3. Email address is already registered.4. [Field Name] is required. <p>After successful employee creation the user is brought to the Employee List page and given the following confirmation message:</p>



Successfully updated employee account.

3.8 My Location



3.8.1 Functionality

#	Item	Business Rules
1	Log Off	User is logged out and returned to the Log In screen
2	Map	Shows the current location of the employee.
3	Continuous Tracking	When turned on, the following message is shown: Continuous Tracking Because iPhone does not support multitasking, continuous tracking will only work while this application is running. Continuous tracking will keep

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		<p>working if your phone goes into sleep mode.</p> <p>[Cancel] [OK]</p> <p>If the user taps Cancel, Continuous Tracking is not turned on.</p> <p>If the user taps OK, Continuous Tracking is turned on and the My Location page changes to Continuous Tracking mode.</p>
4	Record My Location	<p>Tapping Record My Location sends the user's current location to the location web service. The following messages may be returned:</p> <ol style="list-style-type: none">1. No data connection available. Please try again later.2. Location successfully recorded.



3.9 Continuous Tracking



3.9.1 Functionality

#	Item	Business Rules
1.	Log Off	User is logged out and returned to the Log In screen
2.	Map	Shows the current location of the employee.
3.	Continuous Tracking	While Continuous Tracking is switched on, the user's current location is sent to the location web service once per minute. Turning Continuous Tracking off returns the user to the standard My Location screen mode.