

Brian Pattie	Ember Applications
V00757655	Opportunity App
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Version	When	Who	What
1.0			Initial Drafting

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1.0 Problem description / expression of need

Customers are limited to time based alarms for notifications, and are missing opportunities based on factors other than time.

2.0 Project Objectives

We want to build a mobile application that:

- notifies users based on user defined conditions
- notifies users if products on their shopping list are being sold nearby

3.0 Current System(s)

None

4.0 Intended users and their interaction with the system

Potential users include anyone carrying a mobile device. Users would interact with the system through the application on their phone by creating new conditional alerts, then waiting to be notified.

5.0 Known interaction with other systems within or outside the client organization

The app will require:

- location data from cell service providers
- product inventory data from partnered vendors' websites
- weather conditions
- access to the user's contacts.

6.0 Known constraints to development

- Product vendors will be limited to only those who have their inventories accessible through an API, or provide their inventory in another manageable format
- The app must not drain the device battery at an unreasonable rate
- Available alarm conditions will be limited to information accessible through the user's a data and partner information (ie. Snow depth from a ski resort)

7.0 Project Schedule

Formal Requirements Specifications	Feb 16
Detailed Requirements Specifications	Mar 1
Prototype demo	Mar 3
Final Requirements Specifications	Mar 15
User Manual	Mar 22
Final product demo	Mar 29

8.0 Project team

To be determined

9.0 Glossary of terms

Product Vendors – vendors whose inventory will be checked by the app to determine if they carry the product that the user is looking for

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Many tools exist to remind a person of upcoming times and events. It's common to set an alarm to wake you up in the morning, but a needed reminder isn't always time dependent. Sometimes a person wants to be notified only if multiple conditions are met. Perhaps a users wants to buy ski lift tickets, but only if they're near a ski resort, the weather is sunny, and there are at least 60 inches of snow. A different user might be looking for a new headset, but only if it costs less than \$100 and the store is within a kilometer of his normal commute. In these situations, an automated reminder could help a user take advantage of an opportunity that they might have otherwise been missed.

I propose the creation of a mobile application that allows users to specify complex and flexible conditions under which a notification will be sent. Users could base these reminders on a broad set of conditions, including weather, proximity, prices, and the presence and availability of contacts. A shopping list can be set that will notify when the user passes a vendor selling that item, and compare prices if multiple locations carry it. Such an application could help users manage their time efficiently, and find more opportunities for spontaneous decisions.

The app will require a server base that handles user profiles, condition checking, notifications, and price comparison. The mobile client will provide an interface with the server for setting alarms and receiving notifications. Most of the work can be done using UVic hardware, but the server prototype will be hosted on a personal computer.

Work on the app will run from Jan 14 to Mar 29, by a team of 4 putting in 5-10 hours a week. A demo-able prototype will be completed by Mar 3, and the final product by Mar 29.

The final product must reliably send prompt notifications to users when conditions are met, without over consuming client resources or mobile data limits. The user interface must be intuitive and streamlined to promote its use.

Résumé

Brian Pattie V00757655

Project management experience

Project Leader on multiple group projects during UVic courses on topics including physical system analysis, code analysis, and robot design

Writing experience

Strong persuasive and technical writing skills, developed in UVic Philosophy and Communications courses
Confident and effective presenter with a background in theatre

Webmaster experience

8 months of web development experience on co-op with Terapeak
Assisted development of a product sourcing widget
Overhauled Terapeak's product value landing pages
Database content management

Software tool expert

Experienced with jQuery, SASS, and Bootstrap

Programming skills

Languages: C, C++, Python, HTML5, Javascript, PHP, and CSS

Design experience

Designed a robot to locate and cover an infrared emitting cone

Requirements engineering experience

Analyzed requirements for previously mentioned robot project