Store Mapper

Introduction:

Have you ever been walking through a giant warehouse like Costco, wondering where those darn paper towels are? No matter how much you look, you just can't seem to find them. And then you have to find an employee, wait for him to finish helping someone else, and then have him take you to where the paper towels are? It is a frustrating process, but one that we have all been through and will continue to go through. That is, until the Store Mapper was created and released to the public. An app made for your convenience and saving your time, the Store Mapper would be an app to provide the user with an interactive map for any type of store they might enter. The app would allow the user to highlight areas of the store and see what products are available in which areas. The user would also be able to search for specific items to find their location and create a list from which the shortest path around the store could be calculated.

Application Objectives:

For Customers:

• Provide users with an easy to use interactive map interface to browse through and determine what is in the store inventory
• Provide users with a search bar to look up specific items and find whether they are available and where they are located
• Provide users with a detailed path/instructions on how to arrive at the desired location

For Business Owners:

• Provide businesses with an easy to use GUI interface to build their store map and track store inventory
• Optimizes the store layout for maximum business and consumer benefit

Design Plan:
We propose that 1-2 weeks be spent designing the program and learning the following:
- HTML, Javascript, PHP, for web version
- Android SDK for phone version
- C++/Java for core module
- GTK+ for GUI interface

Preliminary research also yields:
- Google Maps Indoors/ Google Floor Plans
- OpenFloorPlan

3 weeks be devoted to implementation, and 3 weeks for testing and revision

Challenges:
The biggest challenge is the time constraint. Because only 8 weeks are provided it will be hard to estimate the exact amount of time we will need for design, implementation and testing, and since there is potentially a lot of new frameworks to learn, some of the proposed features may not be achievable. For example, it may only be possible to produce a prototype, web version of the app within 8 weeks.

The second challenge is determining if there is any value to map stores and optimize the layout. There are certainly floor mapping programs and programs for tracking inventory, and there are certainly map programs for finding the nearest store, etc. Malls, for example, have a map usually at the entrance, but is there value in change that map to a touchscreen, interactive map at every entrance of a mall?

Future Potential:
The great thing about Store Mapper is that if successful, it can be extended to any range of maps, including Mall Mapper, Sky Mapper(towers/buildlings), City Mapper.