Search and Go

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# Section 1: Identification and Requirements

## Background Environment

Our group is a part of Dr. Maurer’s research team at the Agile Software Engineering Lab. In the lab, we are currently working on the Brigade project, a system aimed to introduce a multi-surface environment into retail spaces. The system will allow users to interact with product information across different devices, such as tabletops, iPhones and wall displays. This idea inspired our group to develop a system tailored to retailers, thus scaling down the Brigade project (suitable for the course scope) and implementing an interactive information kiosk for a retail environment.

In order to simplify our task we decided to customize Search and Go specifically for Sport Chek. Sport Chek is the largest Canadian retailer of sporting goods with locations all across Canada. We chose Sport Chek due to the large variety offered merchandise. Large stores with a variety of products are difficult for customers to navigate. It is also difficult for the employees to find products quickly. Currently, Sport Chek employees use a console-based application (running on Windows 2000) to look up product information. These systems are slow and only accessible to the employees. If a customer wants information on an item they must seek the assistance of a customer representative. The method for product searching involves the same systems used for purchasing. Therefore if all the cash registers are being used to process people’s products, the customer must wait for a computer to become available in order for the representative to begin searching. The current system also requires the search criteria to be very specific, the employee needs to know the products exact name or the “UPC” code. Employees at Sport Chek say that, most often, if they do not have the product name or UPC code it is faster to manually search the store for the item. The above-described issues are reasons for which a system like ours could improve the overall workflow of the retail store. The goal of our system is to enhance the customer experience and to help employees work more efficiently.

## What the System Will Be Used For

Primarily use of our system is searching and viewing product information. With our system customers and employees will be able to quickly check product information such as availability, location, description, ratings and reviews, price, sales and similar items. Users can browse categories such as sale items and customers can request the help of an employee. Unlike the current system in place at Sport Chek we decided to separate the actual sale of goods from searching for merchandise. Our system is intended to be running on computers placed throughout the store for quick access. The general expectation of our system is that users will be able to access desired product information swiftly and efficiently. In other words, our system is expected to be more efficient in searching for products than the current procedure in place.

## System Constraints

### Personal Constraints:

We as a group face various factors that will constrain our system and limit the design. As per the course requirements, we will be developing our system in C# using Visual Studio 2010 therefore our system will only be able to run on a Windows computer. Since this is a course project we have no budget so we are limited to the resources we can access for free, such as the computers in the tutorial room. We are also limited by time, in the sense that the project must meet deadlines specified in the course outline.

### Sport Chek’s Constraints:

If a company as large as Sport Chek brought in our system they would have much different constraints on the system that would limit the design. They would have to have a large enough budget to install a few kiosks in all their locations. It would have to be compatible with their database and it would have to be implemented in both English and French since they are a national retailer.

## Identification

### Expected Users

Our expected users can be broken down into two groups:

1. Customers
   * + Adults and Teenagers
       - New customers
       - Returning customers
2. Employees

### Work Context

Search and Go is designed to enhance customer experience by providing a method for shoppers to inquire about products without the necessity to contact a service representative. Therefore customers seeking to learn more about an item will primarily use the system along with employees who are assisting customers that may wish to not interact with a computer.

### Concrete Task Examples

Our tasks were collected in a few ways. First we went to a few Sport Chek locations. At each location we observed how people shop in the store as it currently is in order to see what kind of people come in and their shopping patterns. We then talked to a few customers and asked them how they liked the store layout, if products were easy to find and what kind of information they would like to see in a system like the one we are making. We also spoke with employees, asking them about the current system and what they thought would be useful for them. Next we went to Chapters because they have an information kiosk very similar to the system we are making in place at there locations. Again we first observed how people interacted with they system noting typical behaviors, difficulties and expectations. Then we talked to the customers and the employees asking them how they liked the system, how it could be improved and how easy they found it to use.

We used our findings from our observations and the feedback we gathered from talking to users to create the following task examples:

1. Task:
   * + Willard is an older man looking to buy a pair of runners that his granddaughter recommended to him. He has the name of the company and a picture but does not know any other product information. He finds a kiosk and types in the name of the company and specifies “shoes”. He finds the right style and sees they are in stock in his size. He then requests the assistance of a sales associate. When the sales associate arrives he notes the shoe style and size then takes Willard to the shoe section, retrieves the shoe from the back storage and gives them to Willard to try on. Willard likes the fit so he takes the shoes to the front of the store and pays cash for them. Willard knows how to work a computer but he is not very “tech savvy”. He also does not like to spend a lot of time shopping.

Discussion:

* This is an example of a routine task, as validated by a Chapters employee and observations. At Chapters many people come into the store and immediately go to a kiosk to search for an item. Many people also do not have exact information. Sport Chek employees also validated this task as routine. Many customers come in and want to know specific information like size and availability and they require assistance.
* Willard is an example of a typical user. He is familiar with computers but not necessarily proficient with them. He knows what he is looking for but not all the specific information. He wants to accomplish his task quickly.

Task Centered process



























