

# **HOMEWORK 3: INDIVIDUAL MINI-DESIGN**

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## **SearchMe**

An application to locate missing belongings following a disaster.

**CS/PSYC 6750 HUMAN COMPUTER INTERACTION**

## TASK

The destruction of a tornado or hurricane is horrific. The power of storm surge and flood water flow is awesome. The water and huge winds can result in objects being picked up and carried for miles. **SearchMe** is a system for helping people locate their missing belongings following such a disaster.

- It is a distributed Lost and Found system. It supports reporting and cataloging items as well as reporting losses, and searching for lost items (“Missing- three garden gnomes, four feet tall, green colour”).
- The information in the application is through crowdsourcing.
- It would be activated by FEMA in an emergency situation wherever disaster strikes to help facilitate the storage of lost items.
- It is a web-based application that can be deployed on a mobile or desktop platform. It will also be accessible through a kiosk. It should not rely on a single central person who does the pattern matching. That should be distributed, automated, or both.
- The system will notify the user upon discovering a potential match and give details about who he/she should contact.

## CONTEXT

After a natural disaster such as a hurricane or tornado people lose their personal belongings and find it hard to locate it because it has been carried miles away. Facebook pages that try to act as a lost and found are not sufficient because it is very hard for a person to scour through tons of posts to try and locate each of his items. A more personalised application that lets you keep track of your lost items and get notified if someone finds them is much more convenient. The user should be able to broadcast details about the items he has lost and be notified if someone find it so that he can be reunited with his belongings. Pets, Photographs etc. have a high personal value and being able to find the owners and ensure the objects return to is the main goal of this application.

## USERS

The users of 'SearchMe' will be people who have recently been affected by any kind of disaster such as a hurricane, tornado, earthquake, tsunami etc. They need to be able to locate their personal belongings which may now be miles away and completely inaccessible to them because they do not know where to look. They are devastated by the loss of their things and the psychological impacts of the disaster can be truly horrific. They need to be able to quickly create an inventory of the items that they have lost and also keep track of the items that they have found and which may belong to other people.

## PERSONA



*"I never imagined that something like this could ever happen to me"*

**Name:** John Smith

**Age:** 46

**Nationality:** Swedish

**Technology Used:** Mobile phone and Laptop

John is a financial advisor and has travelled to the USA on business. He decided to bring his cat along as it was a long trip and he wanted some company. He was sitting by the poolside of the Grand Royal hotel when suddenly a tsunami hit. Though he managed to escape uninjured, he lost his cat and has been desolate since. He wants to find his cat and be reunited with her once again. Since he is leaving the country soon he needs all the help he can get to find his cat.



*“Those photographs were the last physical memory I have left of my mother and losing them just broke my heart”*

**Name:** Leticia DiSalvo

**Age:** 24

**Nationality:** American

**Technology Used:** Mobile phone and Laptop

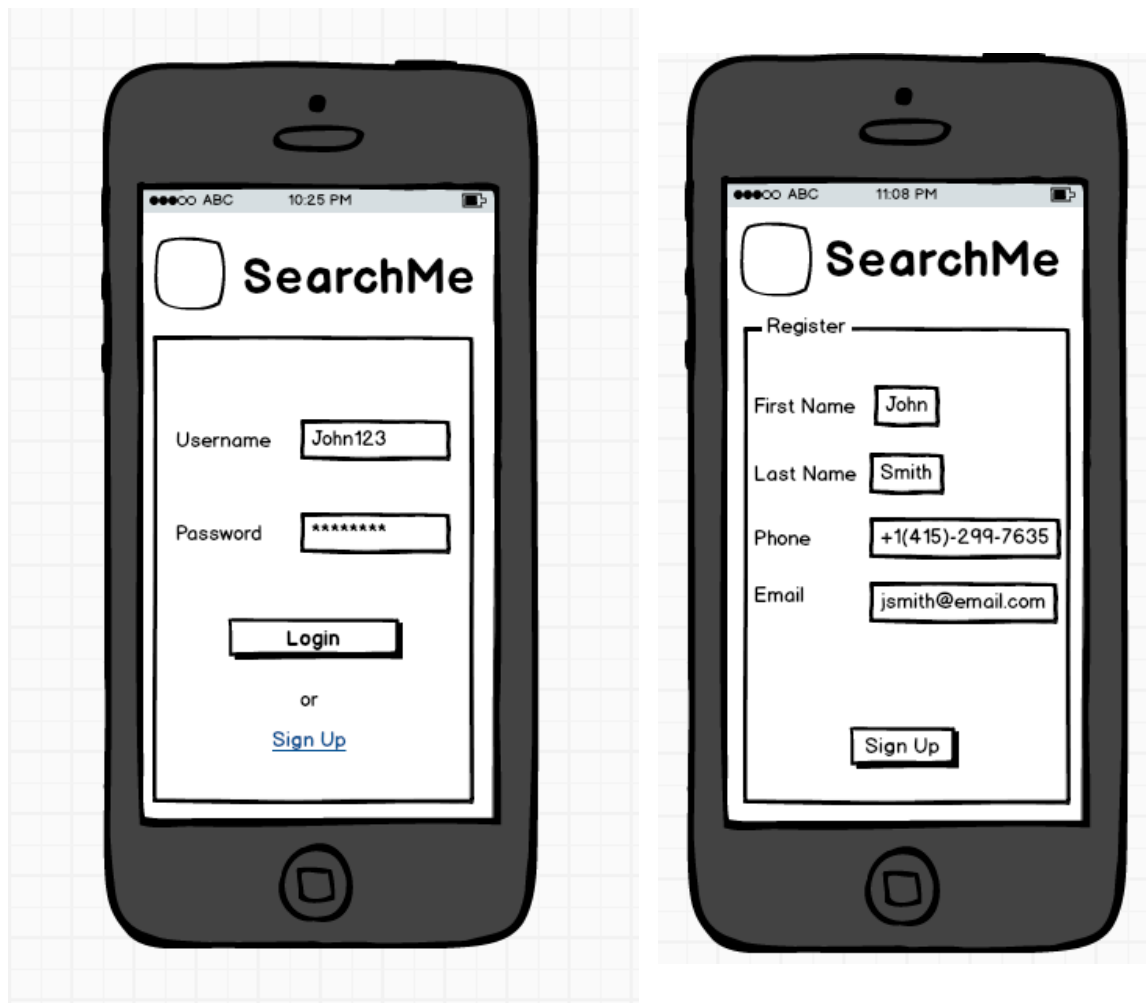
Leticia is a student at the University of New Orleans. She is studying English Literature and was walking back home after classes when Hurricane Sandy hit. She quickly took shelter but unfortunately lost her backpack. She was carrying pictures of her mother in her bag to get them framed at the local art store that day. They were the only pictures she had left of her mother and it was therefore very precious to her. She is devastated by the loss of the pictures and is hoping that someone will find her backpack and be able to return it to her.

## DESIGN

“**SearchMe**” is a mobile and desktop application that can also be accessed through a kiosk that will be set up in select locations depending on where the disaster strikes. The kiosks will be quick and easy to set up as this will be a cross platform application that can be setup in a few minutes on any kind of mobile or desktop platform. Users will normally be using their cellphones to access SearchMe as it is the most accessible device and the application is easy to use and very efficient.

- **Homepage**

The application will open with a sign in page so that each user can keep track of the items that they have either lost or found. If the users have not created an account they can do so by clicking on sign up. The reason the application creates profiles for users is to add a level of security by verifying their phone number and also allowing them to keep inventory of the items.



The sign up process is easy and uncomplicated as it requires only four fields and hence does not take too much time to fill in. Because the users are going to be stressed and want the process to be as fast as possible this would be a good design.

- **Verification Screen**

As this application is dealing with personal belongings, verification is required to ensure that they are the legitimate owners of the items. As the phone number is secure and attached to a credit card, it is the best way to provide verification and confirm that they are authentic users.



- Selection of Lost and Found Items and Settings

In order to report lost items, found items or change your profile and contact settings, the user can select three options from a drop down list.





- Reporting Lost Items

In order to report lost items the user simply has to click on a plus sign on the top right hand corner of the 'Lost' screen. It will allow the user to add in items based on categories that are easy to identify. The page will then display a visualisation of various items matching the description that have been found by other people in the vicinity. Upon tapping the item on the map the user can see who reported the item, when they reported it and where they left the item to be collected. The application assumes that an agency such as FEMA has set up temporary holding structures for storing various items that have been reported lost and have been found by other people at least for a few months after the disaster has taken place to allow people access to their belongings if found. Users can also add a picture of the item they lost if they have one. The search function allows users to see what they have lost and keep track of it. The search function allows them to look up keywords in items they have reported as lost.



- Mapping Lost Items

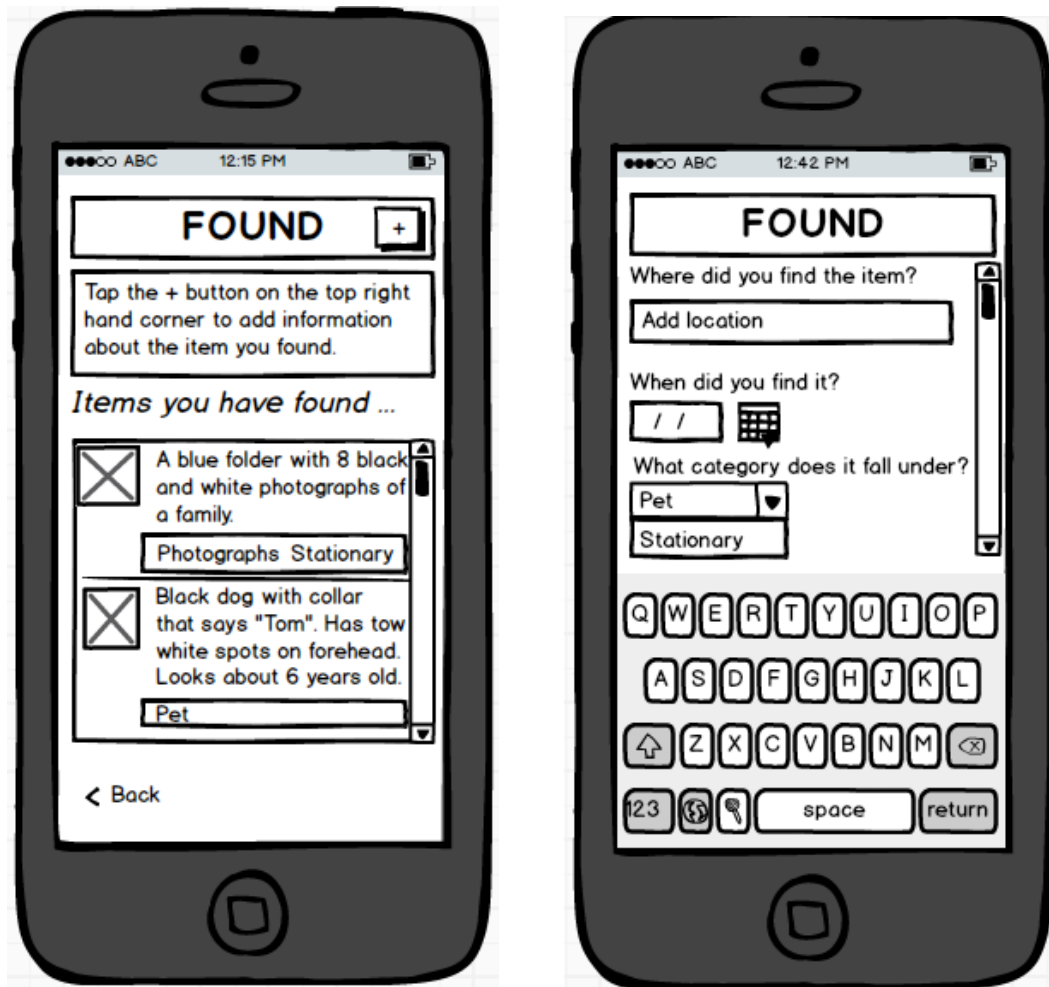
In order to see which items belonging to the user others have found, the user simply needs to tap on Map items. The purple dots indicate the items that have been found by others and that may match the users lost items description. Tapping on the dot gives more details about who found the item, when and where the item currently is. It also gives the user the option to call the finder and ask for more details about the item. This ensures that it is the right item and the user doesn't waste time by going to the location to pick up an item that may not belong to him.



- Reporting Found Items

The user of the application can report items that he finds that may belong to other people. He can tag where he found the item and when and also let people know where he left the item to be picked up. The user can also select what category an item falls under so that it is easy to search. When adding found items, the user can also add a picture of the item they found.





- **User Settings**

The user can edit his settings and preferences. He can choose whether he would like to be alerted about an 'found ' item matching his 'lost' item description and how he should be alerted of the same (text message or email). He can also choose to appear as anonymous to other users. The mobile phone number will also be used by FEMA to alert the user in case of another impending emergency situation.

