Project Milestone 1

Stackoverflowers - Team 7 - Section 101

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1 Application Name

CU PD Lost & Found

2 Application Description

The CU PD Lost & Found program is a mobile application for CU Boulder staff and students to locate lost items and/or turn in found items. Users will have the ability to create an account and browse an inventory of recovered belongings that were found on/around the CU campus and Buff Bus. Item listings will include photos and other identifying information such as type, color, date, and location found. Additionally, users will have the ability to easily locate the correct Lost-and-Found office location where the item was turned in.

Users of this app (both students and staff of Lost-and-Found offices) will be able to post listings for found items, including photos and identifying information. The administrator (office staff) will manually mark items as recovered while storing the identikey of the student who claimed it for security purposes. This program will make it easier and safer for CU students and staff to locate their lost belongings and reduce the need for unnecessary back-tracking and searching.

3 Vision Statement

This application is being made for CU staff and students who have lost items on or around campus. The CU PD lost and found is a mobile application that allows users to more easily locate/inquire about lost items on/around campus. Unlike having to search at the designated areas for lost items or file a formal report, our product is much more convenient.

4 Version Control

We will be using GitHub for our Version Control. Our GitHub repository is located here:
https://github.com/CSCI-3308-CU-Boulder/101-7-stackoverflowers

5 Development Method

Agile: We will first develop a roadmap of each of the requirements we will need to complete along with an approximate time to complete these in order to complete our application. We will then create a more time specific roadmap in order to start implementing features required for an initial base launch of the application. This launch will not necessarily have all of the features intended, but will be a working prototype. We will then start a process of most likely 1-2 week sprints, at the end of each sprint we will analyze the backlog and begin planning for the next sprint. When the product has a functioning prototype, we will plan our future sprints according to all of the features we wish to have.

6 Communication Plan

Weekly meetings will be held on Zoom (link: https://cuboulder.zoom.us/j/5389523619) unless we need to move to Discord or something similar. Additionally we have a Google drive folder dedicated to our project, and a group chat where we communicate regularly.

7 Meeting Plan

1:00 to 2:00 PM Tuesdays and Thursdays Weekly: Team Meeting (via Zoom)

12:15 on Thursdays Weekly: Meet with Carl (via Zoom)

If times/schedules allow, we may schedule in-person meetings as well.

8 Proposed Architecture Plan

Frontend: Our front end architecture is composed of XML and Java (for android application development) within Android Studio.

Backend: Our backend architecture is composed of cloud database access to store user data, any C++, Python, Java scripts for the functionality of the application within Android Studio.

Android Studio will contain both frontend and backend for our application.

9 Use Case Diagram

1. Actor: User who lost something

   Use Cases:

   1. Create a new account using Canvas sign-in (but not mandatory?)
   2. Use a tag based sorting system to do an exact search for a lost item (by type and/or color)
   3. Browse items by type
   4. Browse items by color
   5. Browse items by date found
   6. Browse items by location found/turned in (or any mix of the above 3-6)
   7. Get notified of found items matching a specific description
   8. Post listing for lost item before it has been recovered (type, color, date lost, location lost)
   9. Open PMs from other users who have found any listed lost items, respond to the messages
   10. Edit a listing
   11. Delete a listing

2. Actor: User who found something

   Use Cases:

   1. Create a new account using Canvas sign-in (but not mandatory?)
   2. Post new listing for a found item (date found, type, color)
   3. Take a photo of the found item to be included in the description
   4. Add pinned location of where the item was found using a map of CUr
   5. Locate the closest building to turn a found item in using a pinned location of all Lost-and-Found offices on the CU campus (item location will be updated here)
   6. Browse lost item postings
   7. PM user looking for lost items to let them know that their item has been found and where it can be picked up
   8. Edit a listing
   9. Delete a listing

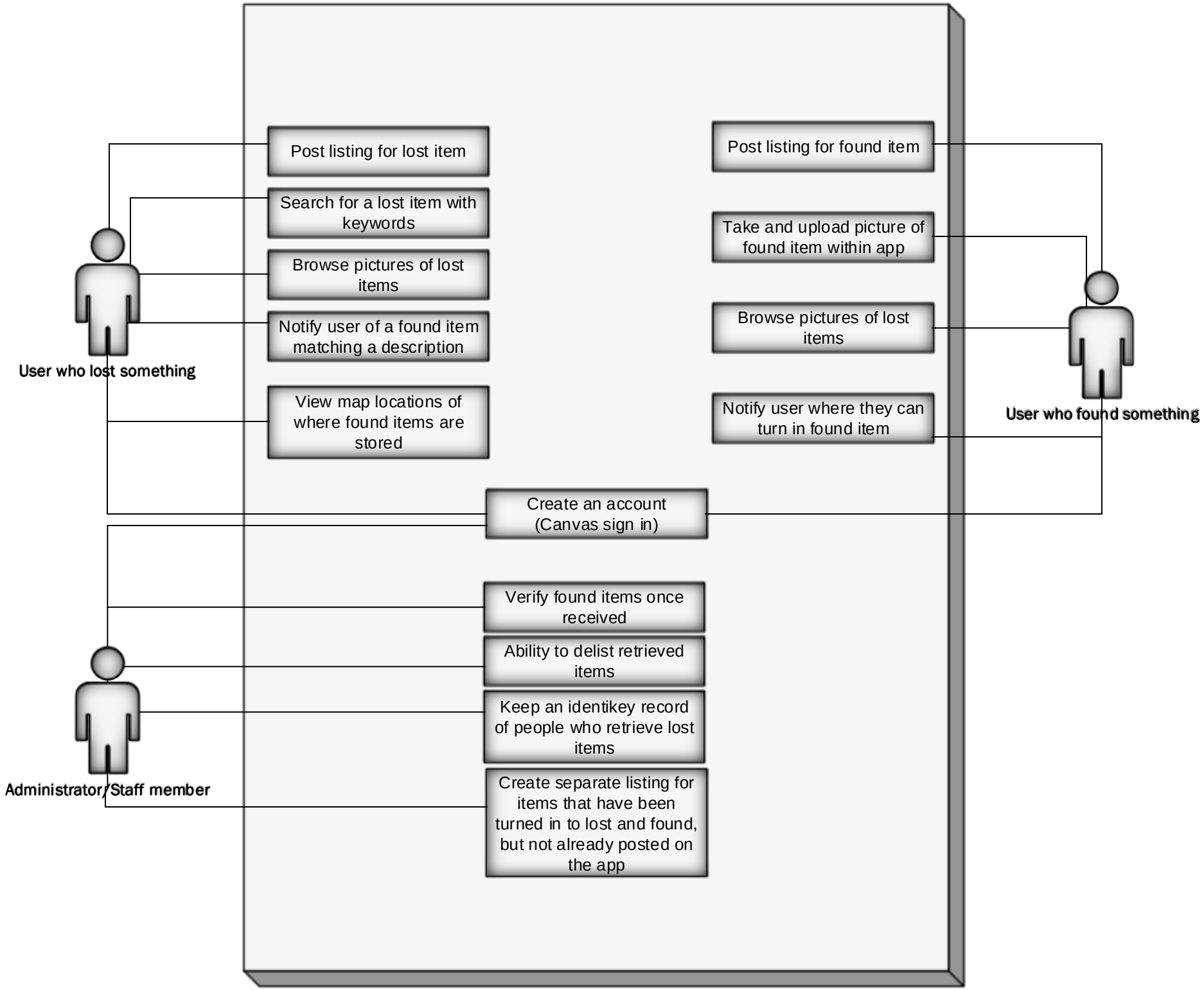
3. Actor: Administrator/Staff who updates information about lost/found items

   Use Cases:

   1. Create new listings in a database for retrieved items using identifying information and the date recovered
   2. Search/verify/record the identikey of people who retrieve lost items (in the case the item did not really belong to the person that picked it up)
   3. Access an electronic waiver for recoverer to sign stating that they are not collecting an item that isn't theirs, save the waiver
   4. Manually de-list recovered items from the current listings
   5. Create a new listing when a found item is brought into the office and hasn't been posted in the app yet (date found, type, color, location found, office location)
   6. Take a photo of the found item to be included in the description
   7. Edit a listing
   8. Delete a listing

10 Use Case Diagram Drawing

See next page. Some of the use cases that aren't included in the drawing are ones we plan on asking questions about with Carl (feasability of having Administrator/Staff perform said tasks).


Post listing for lost item
Search for a lost item with keywords
Browse pictures of lost items
Notify user of a found item matching a description
View map locations of where found items are stored
Post listing for found item
Take and upload picture of found item within app
Browse pictures of lost items
Notify user where they can turn in found item
User who lost something
User who found something
Create an account (Canvas sign in)
Verify found items once received
Ability to delist retrieved items
Keep an identikey record of people who retrieve lost items
Create separate listing for items that have been turned in to lost and found, but not already posted on the app
Administrator/Staff member