MIT 6.170 Fall 2014
Project 3. Small Group Project
Phase 1. Problem Analysis
Author: Dana Mukusheva

Project title: Food Hunter

Motivation:

***FoodHunter** is a web app that provides visualization of the current free food event locations on campus for MIT community. It supports displaying current events on the map, creating new events, updating the status of the ongoing events, and notifying users interested in the evens in some particular buildings via email. Free food events include the entire events themselves as well as the announcements of food leftovers.*

1. Purposes

1.1. Share the real-time information about free food events currently on campus.

FoodHunter will provide a more convenient and easier way to display free food events info in comparison with the simple mailing list due to the usage of maps.

1.2. Reduce the amount of dumped good quality food leftovers.

Organizers of the large-scale events usually just leave the food in the pubic space areas with a hope that people passing by will just take it. While it's not always true that passing by people are interested in picking unwanted food, FoodHunter will give information to a more determined group of consumers, ensuring that as much of leftovers as possible are utilized.

1.3 Optimize time of users who are interested in attending free food event.

FoodHunter users can update the status of the event, e.g. saying that there is no more food left or the food got spoiled. Thus, other users can save their time by not attending such an event.

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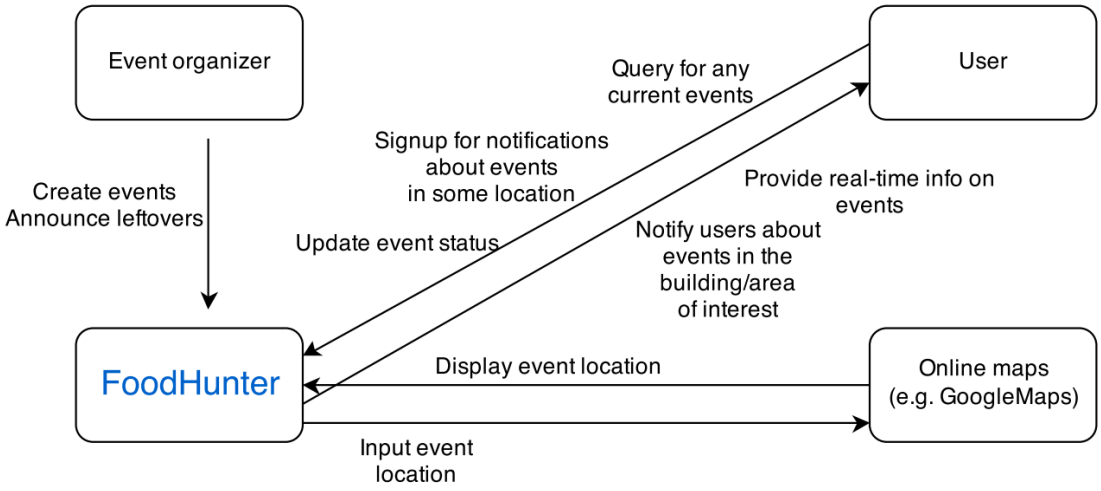
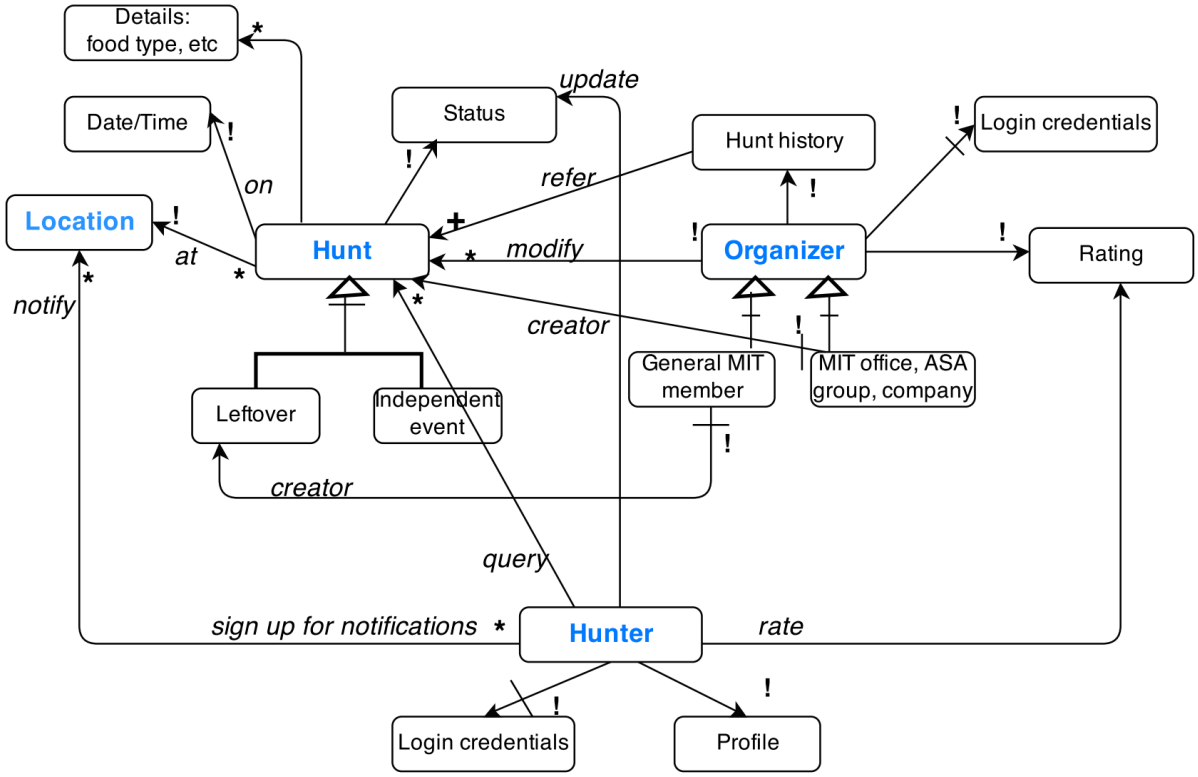
2. Context diagram



3. Concepts

- **Hunter –** an application user who is interested in any ongoing free food events on campus. Only MIT community members can be considered as hunters. Hunters can just use the general real-time event map or also sign up for free food event notifications in the MIT buildings/areas of interest. Serves purposes 1,2
- **Hunt -** free food event, can fall into two categories: leftovers from some other event or independent events. Serves purposes 1,2
- **Organizer –** an MIT community member who can submit information about ongoing or coming hunt. Serves purposes 1,2
- **Status** - status of the hunt, can be coming, ongoing, finished, cancelled, etc. Both hunters and organizers can modify the status. Serves purposes 1,3
- **HuntMap** – mapping application instance, connecting Hunt coordinates and the location on the campus map. Serves purposes 1,3

4. Data model



5. Design challenges

- **Challenge:** who can use the web application?
  Concerns: If the app is accessible by general public, it can attract some unwanted and potentially dangerous public such as strangers or homeless people.
  Potential Solution: In order to ensure the campus safety, only those with MIT certificate can sign up and access the web page.
- **Challenge:** who can be an organizer?
  Concerns: If all MIT community members can create “hunts”, there is a possibility that some events, not meant to be free food events or requiring registration and maintaining attendance list, can be sabotaged or overcrowded. On the other hand, if we require strict registration requirements for organizers, the web app will violate the purpose 2, which enables easy and quick way to notify about the free food events.
  Potential Solution: Hunts should be separated into categories: independent events and leftovers. Leftovers hunts

can be created by general public. Large scale events, which are usually organized by MIT offices or ASA groups or companies, must provide their company/group emails and confirm the email.

- **Challenge:** What if the quality of food is very low?
  Concerns: Hunters need to be aware of what kind of food is expecting them.
  Potential Solution: Organizers will have a rating and a history of created hunts. All hunters can rate the organizer or browse through the history of previously submitted hunts.
- **Challenge:** How will be users notified about hunts in the areas of interest?
  Concerns: There are two ways to handle this: as soon as the hunt was created (event the future one), they can receive the notification. However, it violates purpose 1, which provides hunters with real-time data, not the future info.
  Potential Solution: Hunters will be notified immediately about the ongoing events and will be notified X min prior the future events. (X to be determined later)