Project Description for the Alliance of Civically Engaged Students

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To: Hilary Cullivan, Director, Co-Curricular Service Programs, Northeastern University
Cc: MIchael Weintraub, Northeastern University Professor
Re: Project Description for NU ACES

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Project Overview

Each year, Northeastern University students volunteer thousands of hours of their time to impact positive change on both their campus and local communities. With this in mind, the ACES staff is looking for a way to manage to logistical side of this operation in such a way that volunteering data is easily accessible and neither the staff nor the volunteers are overly burdened.

Project Purpose

The Alliance of Civically Engaged Students (ACES) is attempting to increase community involvement among students. In order to do this, ACES is providing students with established volunteering partners. Furthermore, students have the option to find their own partners and volunteer as well.

The goal of our project is to provide the ACES administration with a website that can be used by both students and administrators to schedule and track the volunteering done by students over the course of the year. As well as tracking this data, administrators need a convenient way to view aggregate data and generate statistics related to student volunteering. On the other hand, students need an easy-to-use system to track when their events are and to track their total volunteering hours.

The Current Situation

The current system for managing this entire organization that serves thousands of students involves a combination of biweekly timesheets, regular emails containing event info, and an integration with Salesforce that is incomplete,

unmaintained, and broken. On top of this, statistics are almost always generated by hand, which is error prone and a time consuming process. While the existing system is

Stakeholders

Client: The client in this case is The Alliance of Civically Engaged Students (ACES), specifically its director, Hilary Sullivan.

1) **Northeastern University**
   The reputation of the university as a whole is affected, either positively or negatively, by the volunteering efforts of the students involved in ACES. With a successful system, the idea is that more students will be actively involved in their surrounding communities, which results in more positive work being done that is directly facilitated by the university.

2) **Surrounding Community**
   With the implementation of a successful system, more students will be volunteering in an increasing number of events, resulting in more involvement in the surrounding community for causes that require volunteers

3) **Service Partners**
   Service partners are often nonprofits that survive off the help of volunteers such as university students. With the implementation of a system that allows students to actively find service partners that require volunteers, the service partners will ideally be presented with a larger number of willing volunteers than under the current system.

4) **ACES Staff**
   The goal for the ACES staff is to increase community involvement by Northeastern students. Having a successful website would allow the ACES staff to conveniently show the students more volunteering opportunities while also keeping track of the volunteering that students do. It would also allow them to answer specific data inquiries from Northeastern leadership about the state of the program.

5) **Students**

The students of Northeastern University have a stake in this project because the goal of it is to make volunteering and recording hours easier. Upon successful completion of the website, students will be able to see upcoming volunteering opportunities, and they can receive notifications for the opportunities as well. Furthermore, they can keep track of the hours and the locations at which they've volunteered. Ideally, this easy-to-use system will result in students volunteering more often.

Use Cases

1) Students register for an account (req #5)

   Primary Actor: Student

   Goal In Context: To allow students in service programs to create accounts on the Web app.

   Preconditions: Student is a member of some service program. Student has access to a web enabled device. Student has a husky email.

   Trigger: The student is beginning a service program and needs to set up an account

   Scenario:

   1. Students navigates to the website registration form
   2. Student enters their personal husky email, NEU id, along with personal information (college, DOB, etc.)
   3. A confirmation link is sent to their husky email
   4. User confirms their account and is registered

   Extensions:

   1. Presented email isn't a husky email. The system will notify the user this and tell them to contact Northeastern to resolve.
   2. The user doesn't click the link sent to them within 10 minutes. The link will expire and the user must restart the process.

   Priority: High priority, this is necessary for any iteration of the system.

   When Available: First iteration

Frequency of Use: Moderate
Channel to Actor: Web enabled device and web browser
Secondary Actors: System Administrator
Channel to Secondary Actors: Another web based device
Open Questions:

1. What if the student is not in a service program?
2. What if the student already has an account associated with that email?

2) ACES staff registers for an administrator account (req #5)
Primary Actor: ACES staff member
Goal in Context: To allow ACES staff members to create admin accounts on the web app
Preconditions: Administrator has a husky email. Administrator has access to a web enabled device and a web browser. Administrator works for Northeastern.
Trigger: An administrator needs an account on the app.
Scenario:
    1. Administrator goes through the same flow as a student
    2. After finishing registration and confirming their account, they can request to be made an administrator which will then be approved by an existing administrator

Extensions:

1. The email is not recognized. The form will prompt accordingly and ask to re-enter.

Priority: High Priority
When Available: First iteration
Frequency of Use: Moderate
Channel to Actor: Web enabled device and web browser
Secondary Actors: System Administrator
Channel to Secondary Actor: Web enabled device and web browser
Open Issues:

1. What if there is already an account associated with the email?

3) Students opts-in to email reminders for scheduled events.(Req 8).
    Primary Actor: Student
    Prerequisite: User is on their events page settings. User is in a web browser. User has an account.
    Goal in Context: To enable notifications for this student
    Trigger: Student wants to receive email reminders for events.
    Scenario:

1. User selects a button to edit an event
2. User clicks on a check box labeled “Notify Me by Email”
3. At some time before the event user will receive email about event

Extensions:

1. User wants to disable notifications. This will be the same use case in reverse.

Priority: Medium

When Available: When we have time to implement.

Frequency of Use: Infrequent

4) Administrator generates a data report based on volunteering data

Primary Actor: Administrator

Preconditions: Administrator is on web app. Administrator has an admin account.

Scenario:

1. The user navigates to the reports page available to admins.
2. User enters in the query parameters for the desired report and hits generate button
3. A visual report is shown with statistics as well as an option to export to Excel

Extensions:

1. If no data matches the parameters, the UI will notify the user of this.
2. If the user wants to generate and download an Excel sheet, this will be available.

Open Issues:

1. How should we make the export available?
2. Should certain tables be shown by default here?

5) Users can add new partners (req #3)

Primary Actor: Any user, admin or student.

Goal in Context: To add a new service partner to the partner list.

Preconditions: The user has an account, is on a web enabled device, and has a partner to add.

Scenario:

1. Users click an add-partner button and are taken to a registration page.
2. They fill out information related to the partner such as name, contact info, and location.
3. User submits the form and the partner is added to the partner list.

Extensions:

1. Partner already exists. Check that all fields are the same and if so notify the student that the partner is already listed.

Priority: High Priority
Frequency of Use: Frequent
When Available: First iteration
Open Issues:

1. How do we ensure that a new partner being entered is actually unique?
2. What if a partner doesn't want contact info posted?

6) Students must be able to see a history of their service (req #2)
   Primary Actor: Student
   Goal in Context: To display personalized data to a student.
   Preconditions: The user has an account and is on a web enabled device.
   Scenario:
   1. User clicks on a my service button and is directed to the page
   2. User is shown a list of all the volunteering he/she has done
   3. User can see charts of the work he/she has done

   Extensions:
   1. User has no service yet. Display this to the user

   Frequency of Use: Frequent
   When Available: First Iteration
   Open Issues:
   1. Should user be able to filter data with queries?

7) Students should be able to use location-based check-in (req #1)
   Primary Actor: Student
   Goal in Context: To allow a student to check in at an event based on their Location
   Preconditions: The student has an account, is on a web enabled device, has registered for an event, and has location services turned on.
   Scenario:
   1. The user navigates to the check-in page for the event from the calendar or event notification.
   2. The user is given the option to verify their current location.
   3. The user is given a field to press to check-in to their currently scheduled event

   Extensions:
   1. The student is not at the location. The student is notified of this and the check in is cancelled.
   2. The student is trying to check in long before the event or after it has happened. The check in will be cancelled and the student notified.

3. The student has location turned off. The student will be prompted to turn location on to use this feature.

Frequency of Use: Frequent
Priority: Low
When Available: Likely only if we have time at the end.

8) Students must be able to access their service partner's contact information (req #4)
Primary Actor: Student
Goal in Context: To provide a student with contact information for a service partner
Preconditions: The student has an account, is on a web enabled device, and needs contact info for a partner.
Scenario:
1. The student is provided with a list of service partners on the add partner view, as well as a list of assigned partners in their my service page.
2. Next to each partner's name, there will be a contact info field.

Extensions:
1. The student has no partners. They can still view the contact info of partners in the main list.

Frequency of Use: Frequent
Priority: High Priority
When Available: First iteration
Open Issues:
1. How should we display the contact issue in the list format?

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Use Case: Administrator adds attendable one-off task
Primary Actor: Admin
Goal: Tasks are miniature versions of events that might not have a set date, a partner in the community, or a location.
Preconditions:
- Admin has name, date (if applicable), location (if applicable), and task detail

Priority: High
Frequency of Use: Weekly
Scenario:
1. Admin selects 'add one time task'
2. Admin fills out task information
3. Admin submits form, task is registered in the system

Issues:

1. Are these non-specific one-off “tasks” frequent enough that decoupling them from ‘events’ and spinning up a new system for them is worth it?

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Use Case: Add a task or event
Primary Actor: admins, community partners, students
Goal: Adds a new event to the system that can be completed by students
Preconditions:

- Event must have a date
- Event must have a community partner manager (not applicable for one-off community tasks)
- Event must have a location

Priority: High
Frequency of Use: Daily
Scenario:

1. User navigates to the ‘Add Event’ of the web app
2. User is presented with a choice of ‘recurring’ or ‘one time’
3. User is presented with a form asking for name, location, duration, and contact for event
4. If one time, they must enter a date and time
5. If recurring, they must enter a pattern of dates
6. User hits submit and the event is saved

Issues:

1. Should we distinguish between events like “Go vote!” and “Volunteer with children at YMCA”. The first could be a *task*, the second could be an *event*.

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Use Case: View upcoming events
Primary Actor: Admins, students
Goal: Authorized users (not including community partners) can view upcoming events via a Calendar system
Preconditions:

- Events must be created and saved in the system

Priority: Medium
Frequency of Use: 2-3 times a week
Scenario:

1. User navigates to event calendar view from homepage

2. User is presented with a view of all upcoming events, both one time and recurring, in calendar format

Issues:

1. Do we want to allow community partners to see the complete calendar? Should we show them a calendar at all? Or perhaps only limit to events that are applicable to them?

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Use Case: Student checks in to an event
Primary Actor: Students
Goal: Ensure events are completed and students are not neglecting their duties
Preconditions:

- (Optional) Student's GPS location matches event location
- Event has been registered into the system

Priority: High
Frequency of Use: Weekly
Scenario:

1. User logs in to service
2. User sees upcoming event notification and clicks on it
3. User selects check in to this event

Issues:

1. Is it possible that a student would not be okay with letting their mobile leak GPS data like this? What if they block their devices from sharing GPS information?
2. How are we going detect if a student's location matches the event location? A distance radius? Of what magnitude?

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Use Case: Administrator views list of students who frequently do not check in to their events
Primary Actor: Administrators
Goal: Event completion is an important part of the system, therefore there needs to be an accessible way to see student participation rates and reprimand low-achieving students
Preconditions:

- System records total possible number of events a student could have gone to
- System records total number of events a student has gone to

Priority: Medium
Frequency of Use: weekly
Scenario:

1. The administrator logs in and is sent to their admin dashboard page

2. A dedicated section showing event analytics will appear
3. This section will contain alerts regarding students who frequently fail to check-in

Issues:

1. Since frequent truancy seems like a big issue, should there be automatic emails publishing a weekly list of truant students?
2. What should the participation rate percentage threshold be? 25%, 50%?

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Use Case: Student sees what upcoming events they are registered for
Primary Actor: Student
Goal: The ability to quickly and easily ascertain upcoming obligations is an important part of fulfilling those obligations. To enable high participation rate it is essential that students can find upcoming events.
Preconditions:

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Priority: Medium
Frequency of Use: weekly
Scenario:

1. From their homepage, student goes to their events page
2. A list of upcoming events, sorted in upcoming order, is presented to the user

Issue:

1. This use case is specific to students, but should community partners also be able to view upcoming events?

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Use Case: Student ‘checks in’ to complete a ‘non-localized’ task
Primary Actor: Student
Goal: Not all tasks will have location information. Some tasks, like “collect trash” are vague and do not have a set location. It is important that there’s a check-in interface without GPS verification for tasks like these.
Preconditions:

- Task MUST have been registered without location verification requirement.

Priority: High
Frequency of Use: weekly
Scenario:

1. Student navigates to the checkin page.
2. Student is presented with the event they are registered for that is currently ongoing, or past events that they failed to check in for
3. Student selects the event to check in for and clicks confirm

Issues:

1. Should we distinguish between events (location and community partner validation required) and tasks (no location, no partner verification)

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Use Case: Uploads list of service partners via a CSV file
Primary Actor: Administrators
Goal: Administrators currently record service partner information in Excel .csv files. It's important that they be able to upload this information and port it automatically to the new data model. This is a part of the legacy porting system.
Preconditions:

- Data model and new database must be set up

Priority: High
Frequency of Use: Rarely (maybe just once)
Scenario:

1. Administrators upload a csv file
2. The website parses this file and presents a list of information for the administrator to confirm. Duplicate users will not be included.
3. The administrator confirms that the data is correct and continues or rejects it
4. If the administrator confirms the data, the service partners are added to the list of partners

Issue:

1. Must avoid creating duplicate user documents (this should be handled by database system)