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Senior Project Proposal

Problem:
The Newman Center and it's community currently have two distinct sources of information about the community and it's activities that are maintained by two groups. One by those who work in the offices at the Newman Center and the other by a number of individuals who have a presence on social network sites like Facebook. The goal of this Senior Project is to centralize this information as well as add additional functionality that would benefit the community.

Scope:
These are the general functional goals for the project:

- Provide a cross-platform mobile app
- A general news/front page for community-wide events.
- An event organizing tool with a carpool scheduling system
- Tiered multi-user access (Admin, privileged user, regular user...)
- Connections to social media like facebook.
- Individual user settings/preferences
- Ability for a user to receive notifications about "topics" they are interested in.

Tentative Schedule:
- Bi-weekly meetings with the customer
- Weekly to bi-weekly meetings with the professor
- First Quarter
    - Week 2   – Feature list
    - Week 3/4   – Horizontal prototypes
    - Week 5/6/7   – Vertical Prototype
    - Week 8   – Front page/news section implemented
    - Week 9/10   – Other GUI pages implemented

- Second Quarter
    - Week 1/2   – User access/registration and settings/preferences
    - Week 3/4   – User ability to add an event
    - Week 5/6   – Push notifications for users
    - Week 7   – Carpool scheduling system
    - Week 8   – Add connections to social media
    - Week 9/10 – Polishing

Special Equipment:
- Virtual machine to host server/database
- iPhone to test cross-platform capabilities
- iPad to test functionality on a tablet

<u>Senior Project Criteria:</u>

<u>Independence</u> – The project begins when the scope has been fleshed out, a schedule has been created, and the code portion of the project starts on a blank canvas. The project ends when all items in the project's scope have been fully implemented. The success of the project will be determined by the percent of features completed.

<u>Ownership</u> – This project will be implemented solely by the student, Alejandro Cervantes, thus, the responsibility for the success of the project lies in the hands of the student.

<u>Background Research</u> – Having been a member of the community for 4 years I have an extensive knowledge of it's workings. However, developing a mobile app from scratch will be a relatively new experience for me. In order to reach out to as many students as possible, a multi-platform mobile solution will be pursued, which will involve having to learn new languages such as HTML5, CSS, and Javascript. Phonegap is a potential solution, providing multi-platform capabilities, user account handling, as well as push notifications. Some light research suggests that an app for a religious organization that serves a student community, such as Newman, does not exist. Ignio, an app which focuses primarily on the social networking, came the closest in functionality.

<u>Creativity</u> – An extensive app as outlined in this proposal clearly lacks any obvious, straightforward solutions.