Grand Valley State University

Laker Legacies

Milestone 2: Progress Report

Prepared by:
Kyle Peltier, Matthew Williams, Samantha Williams

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Client: Danielle DeWitt

CS 467

Professor Jonathan Engelsma

Introduction

Laker Legacies is an application solely advocating Laker for a Lifetime and the legacies that previous Lakers and genuine affiliates have left on the Grand Valley community. The application is meant to give users a mobile tour of campus buildings named in recognition of historical figures that have left a mark on Grand Valley. Users will be able to navigate Grand Valley's campuses via Google Maps, learn about buildings, learn about past Lakers, and be able to donate to Grand Valley. Application development began in January of 2014 and this report reflects the current progress of the project.

Intended Progress (*see attached Gantt Chart*)

To date, we hoped to have created a navigational template layout, created all of the known app activities, have the launch slideshow running, integrate Google Maps APIs, create our database, have queries written for the database and have the donate page finished. We also wanted to start working on linking the application views together by adding tabs so the app is "navigational".

UI Layouts

We had hoped to have the launch page fully functional with the slideshow of all the pictures. We also hoped to have tabs that were worked completely with all of the other activities in the application.

Google Maps

By this milestone we intended to have Google Maps working on the devices.

Directory/Database

At this time, we intended to have all of the necessary database information.

Donate

We would have also liked to have Grand Valley's donate page displayed within the app, fully tested and working.

Progress To Date

UI Layouts

      More progress has been made with developing UI layouts for the application. We currently have the tabs in the application displaying, but we don't have all of the activities working within the tabs, so they aren't yet fully functional. The home screen, donate screen, and the near me screens are displaying correctly. Some other functionality has been depreciated from the method we used, so we have been forced to change the way we used tabs. We are currently working on developing a more efficient way of using tabs in the application so all features can be functional. We also have the slideshow of the rotating images for the home screen working now.
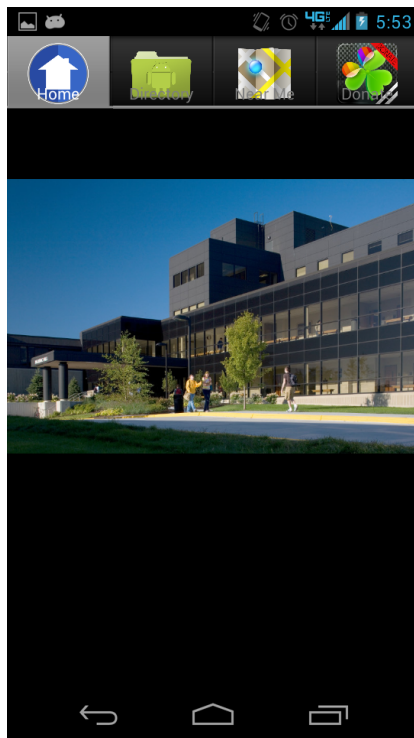

Figure 1:
Home Screen - This tab will show a slideshow of random images of donors and buildings.
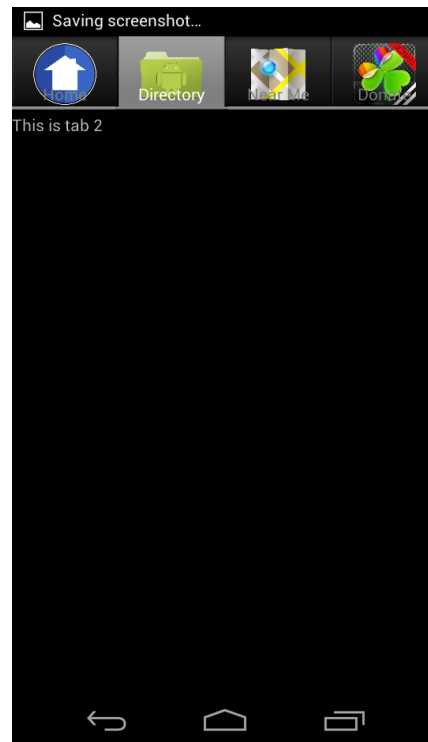

Figure 2:
Directory Screen - This will be populated with the directory view in Figure 4 below.

Directory/Database

About 95% of the data has been gathered for the database. Since all of this information has been added, several updates have been made to the database structure. Figure 3 shows the new ER diagram of the database. The old database had images as a single entity but it was easier in code to handle the images based on whether it was a donor image or a building image. Secondly, sorting by names of donors would sort by the donor's entire name string rather than by last name (what people are more familiar with). To counter this issue, donor names have been split into 5 parts: title, first name, middle name, last name, and suffix. Finally, the "year established" attribute of buildings has been removed because digging up the information has become problematic.

DONOR(DON_ID, title, fname, mname, lname, suffix, bio)
MONUMENT(NAME, campus, latitude, longitude)
MON_DON(MON_NAME, don_id)
DON_IMG(IMG_ID, filename, don_id)
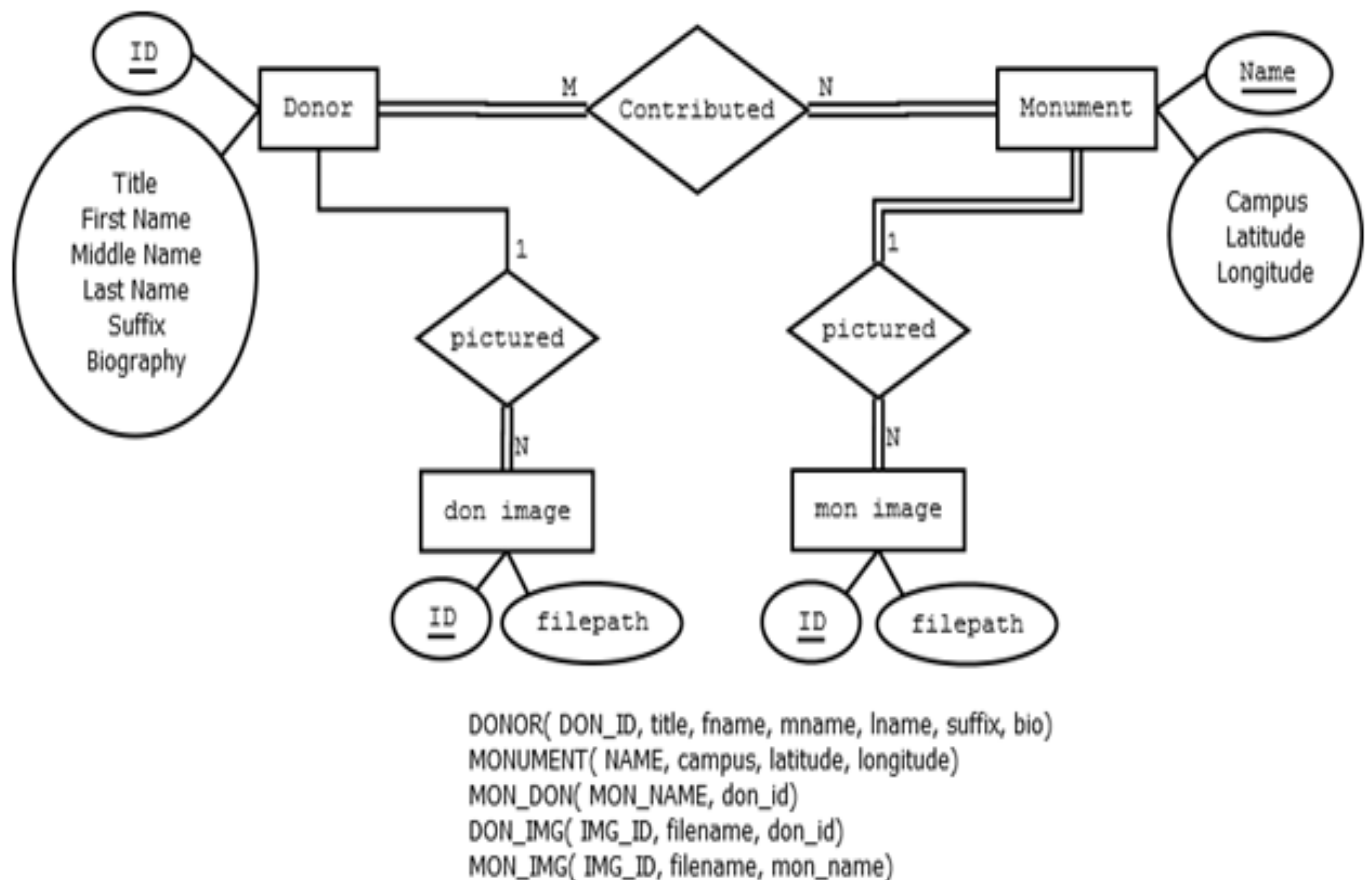MON_IMG(IMG_ID, filename, mon_name)

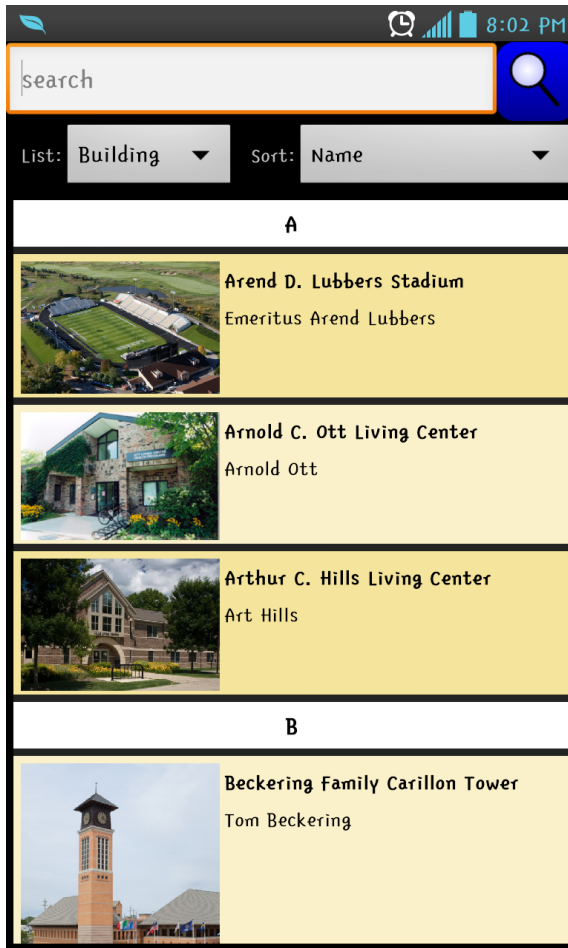**Figure 3:** Laker Legacy database ER diagram and table listings.

Figure 4:
Directory View - Listing Buildings.
New implementations: headers,
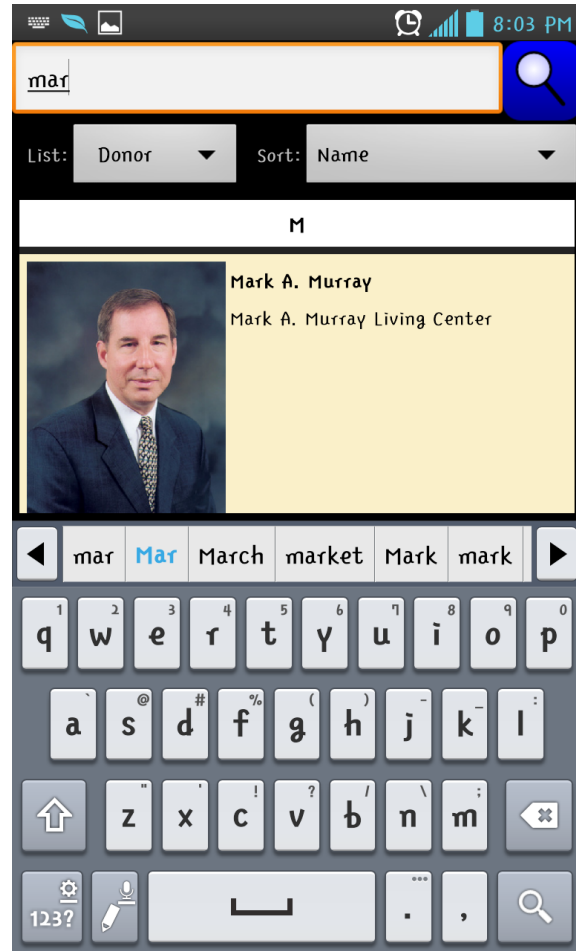even-width images, list/sort.

Figure 5:
Directory View - Listing Donors.
Search bar implementation.

Since Milestone 1, several additions have been made to the Directory view. All images have been scaled to the same width on the screen, headers have been added for each list item, a search bar has been added, and sorting options have been presented. The user is now able to change between listing donors or buildings, and has the ability to sort the list. Everything here is implemented except access to the user's GPS location for finding distances to buildings from current location (although, the algorithm has been put in place).

Google Maps

   We have made significant progress since our last milestone on this segment of the project. We were successfully able to get our application to connect to Google Services satellites. The maps fragment now shows up in our app and renders the images. Progress is being made on including map features such as adding a my location button and directional features included in the Google Maps API. These features will be accessed from a menu button in the top right corner of the map fragment. Also, waypoints will populate on the map when any Grand Valley buildings are in range on the current map screen. We now have Google Maps working on our devices.

Figure 6: Maps in tabs

Donate

Work has been completed on the Donate segment of the application, and the page loads inside the application now instead of in the browser where it was loading in our last milestone.

Figure 7: Donate Page.

Major Setbacks/Roadblocks

General/UI

Our main setback for the UI was using the TabActivity class that was deprecated for versions 13 and higher, so we couldn't use it for our application since the minimum version we are supporting is 15. We spent significant time doing research and implementation, then we had to find a different way to get working tabs in our application. Multiple methods have been found during research and we have been working on implementing them into the application.

Projected Progress

In the next project phase, we plan on having all of our tabs and activities fully functional, and have all the navigation between screens working. We would like to have added functionality to Google Maps including the "My Location" button working, and having the buildings populate on the Map. The directory still needs to access the phone's GPS location to populate a list of buildings based on distance from the user. Also, detailed bio information needs to be presented in a separate view for when a user selects a building/donor.

Conclusion

In this phase of the project, significant and noticeable progress has been made. Although the team was originally set back, and have hit a few setbacks in the current phase of the project, we believe we'll be able to hit our target prototype date the first week of April.

Tasks (rows):
- Create Template for UI Navigation
- Create All View Activities
- Integrate Google Maps APIs
- Create Database File
- Create Database Queries
- Navigationally Link Views
- Complete Core Functionality
- Complete UI Layouts
- Working Prototype
- Testing
- Revision

Dates (columns):
1/16/2014, 1/18/2014, 1/20/2014, 1/22/2014, 1/24/2014, 1/26/2014, 1/28/2014, 1/30/2014, 2/1/2014, 2/3/2014, 2/5/2014, 2/7/2014, 2/9/2014, 2/11/2014, 2/13/2014, 2/15/2014, 2/17/2014, 2/19/2014, 2/20/2014, 2/21/2014, 2/23/2014, 2/25/2014, 2/27/2014, 3/1/2014, 3/3/2014, 3/5/2014, 3/7/2014, 3/9/2014, 3/11/2014, 3/13/2014, 3/15/2014, 3/17/2014, 3/18/2014, 3/19/2014, 3/21/2014, 3/23/2014, 3/25/2014, 3/27/2014, 3/29/2014, 3/31/2014, 4/2/2014, 4/4/2014, 4/6/2014, 4/8/2014, 4/10/2014, 4/12/2014, 4/14/2014, 4/16/2014, 4/18/2014, 4/20/2014, 4/22/2014, 4/24/2014, 4/26/2014, 4/28/2014

LEGEND
- Green: M2 (03/18/2014)
- Orange: Estimated time
- Red: Started (little progress)
- Blue: Solid progress
- Yellow: Estimated Completion