CSUSBAlumni

iOS Mobile App

Spring 2016

Jaron Patena
Advisor: Dr. Concepcion

Background

- Clients:
  - Monica Alejandre, Interim Director of Advancement Services
  - CSUSB Alumni (Alumni Association)
- Project started in January 2016 (Winter)
- Formerly Gift-Giving
  - Became CSUSB Alumni
  - CSE 455 team:
    - Miguel Saldivar - Project Manager
    - Brian Anthony Long - Project Assistant Manager
      - Software Engineers:
        - Jaron Patena
        - Alan Garcia
        - Michael Moreno
- Project continuation in April 2016 (Spring)
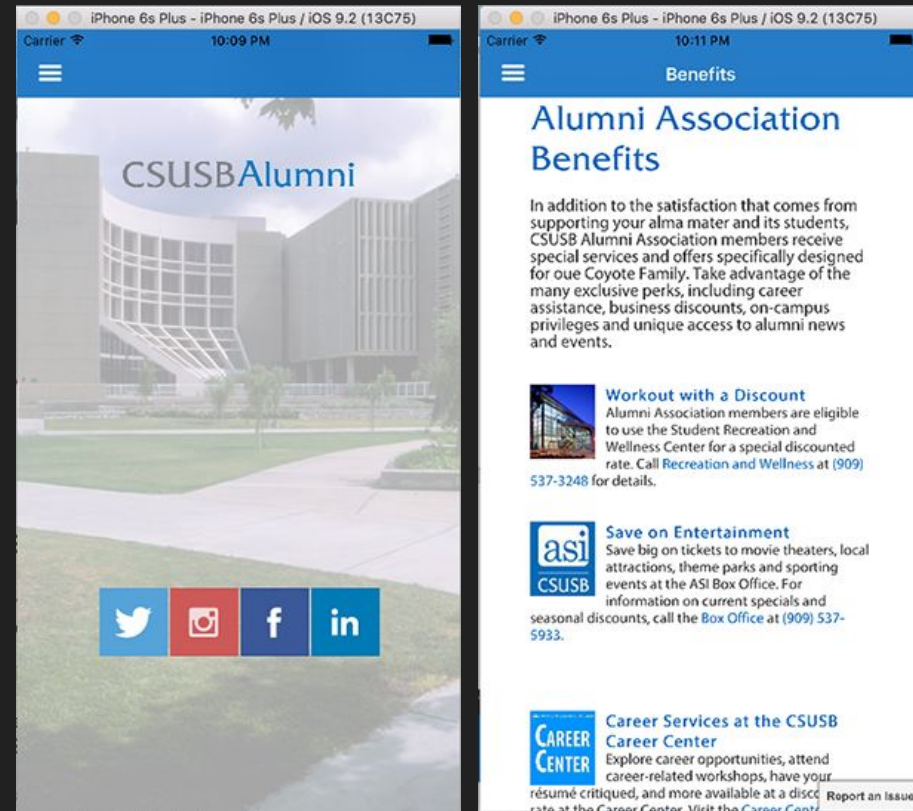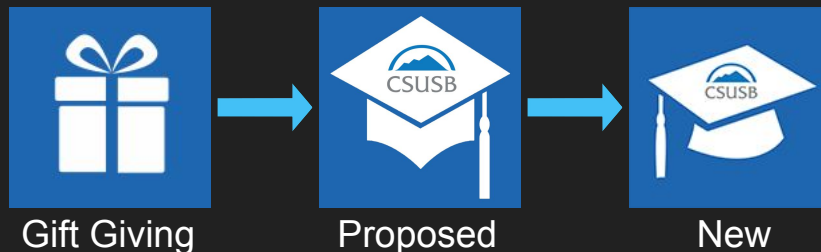
CSUSB Alumni App

- Goal is to provide a portal for Alumnis and students who are interested in the Association
  - News
  - Member benefits and discounts
  - Giving
  - Alumni and Athletic Events
  - Connect with Social Media
  - Volunteering

- Written in Swift Language
  - Using Xcode 7.3.1 for OSX

- Supports 8.0+ iOS devices
  - Portrait mode only in iPhone
  - Supports iPad
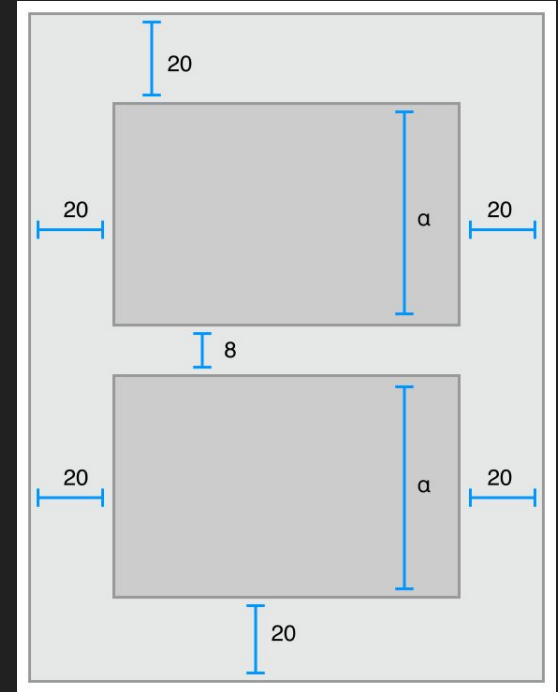 - Android app version is planned for later

Previous Iteration
(March 2016)

- Prototype created
- App shows about, news, benefits, events, and donate
  - Side menu nav was implemented using SWRevealViewController.
  - Twitter API used in news, shows Alumni tweets.
  - Most pages used WebView to load webpages
- App logo design by Suner Mauerhan
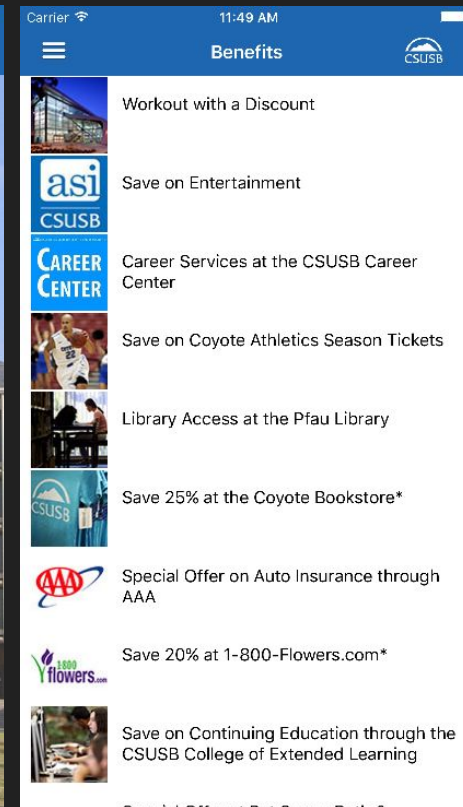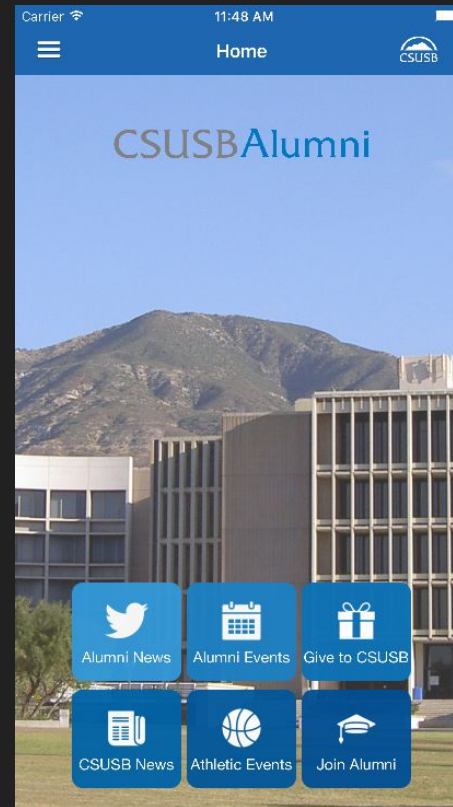

Gift Giving   Proposed   New

Constraints

- Dealing with auto layout constraints
  - Not easy as drag-n-drop
  - Auto layout determines view layout in multiple screen sizes (4s, 6s plus, iPad)
  - Calculates size, positions, and spacings for objects (button, image, text) in the view
- Single developer
- Learning new technologies/techniques
  - Dynamic TableViews
  - PHP, MySQL
  - Cocoapods; Alamofire, SwiftyJSON, HanekeSwift

Latest Iteration (June 2016)

- Pages run natively
- Major UI improvements
  - Homepage design and quicklinks
  - Side menu icons
  - Renamed pages
- Added Volunteer, CSUSB News, Athletics Events pages
- Implemented a RSS Feed to display CSUSB News and Athletics Events
- Weblinks are loaded to the browser instead of WebView
- Replaced WebView with TableView (for Events/Benefits)
  - Uses JSON (Javascript Object Notation) parsing with Alamofire
  - App fetches JSON text and the app displays it

Latest Iteration
(June 2016)

- Created a Web App to maintain the MySQL database
    - Written in PHP
    - Allows the admin to add/edit/delete events and benefits
    - Generates JSON text from database
- App tested by clients, gave feedback
- Accessibility (Completed), Branding (In progress), and Security

How JSON parsing works

PHP/SQL
Script

```
mysql> select eventname, eventdate, eventtime from events;
+----------------------------------------+------------+----------------------------------------+
| eventname                              | eventdate  | eventtime                              |
+----------------------------------------+------------+----------------------------------------+
| Mock Interview Trials                  | 2016-06-07 | 6:30pm                                 |
| Standing out: Getting Started with LinkedIn | 2016-05-20 | 10:00am                           |
| Standing out: Leveraging LinkedIn      | 2016-05-20 | 12:00pm                                |
| Accounting & Finance Alumni Mixer      | 2016-06-03 | 6:00pm                                 |
| CSUSB Music Alumni Showcase            | 2016-06-04 | Concert time 5:00pm, Reception 6:30pm  |
| CSU-NYC Alumni Network June Mixer      | 2016-06-23 | 6:30pm                                 |
| Alumni and Family Day at the 66ers     | 2016-06-26 | 5:00pm                                 |
+----------------------------------------+------------+----------------------------------------+
```

MySQL database

PHP/SQL
Script


```
{"alumnievents":[{"name":"Standing out: Getting Started with
LinkedIn","date": "May 20, 2016","time": "10:00am"},{"name": "Standing out:
Leveraging LinkedIn","date": "May 20, 2016","time": "12:00pm"},{"name":
"Accounting & Finance Alumni Mixer","date": "June 3, 2016","time":
"6:00pm"},{"name": "CSUSB Music Alumni Showcase","date": "June 4,
2016","time": "Concert time 5:00pm, Reception 6:30pm"},{"name": "Mock
Interview Trials","date": "June 7, 2016","time": "6:30pm"}]}
```

JSON text

Alamofire +
SwiftyJSON

Web App (Admin)

App (User)

Live Demo

- Side by side app comparison, old and new
- Web app demo adding/deleting events

Issues (and Solutions)

- Handling forms and transactions
  - Team had no access to the Alumni website database
  - So.. redirect to the webpage.
- Benefits page kept reloading images
  - Very bad, eats up data
  - Used Hanekeswift to fetch the image and store it on cache
- JSON text cannot be modified (before the web app)
  - Text files must be edited using text editor
  - Requires server access through terminal (not user friendly)
  - Created a web app and database to manage it (now user friendly)

Next Steps (and Recommendations)

- Publish the app to the App Store
- Future Improvements
  - Able to change background image remotely
  - Better Web App interface (apply stylesheet/css)
  - Google Analytics
  - Push notifications
  - Android version

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