

CSUSB Alumni

iOS Mobile App

Spring 2016

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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

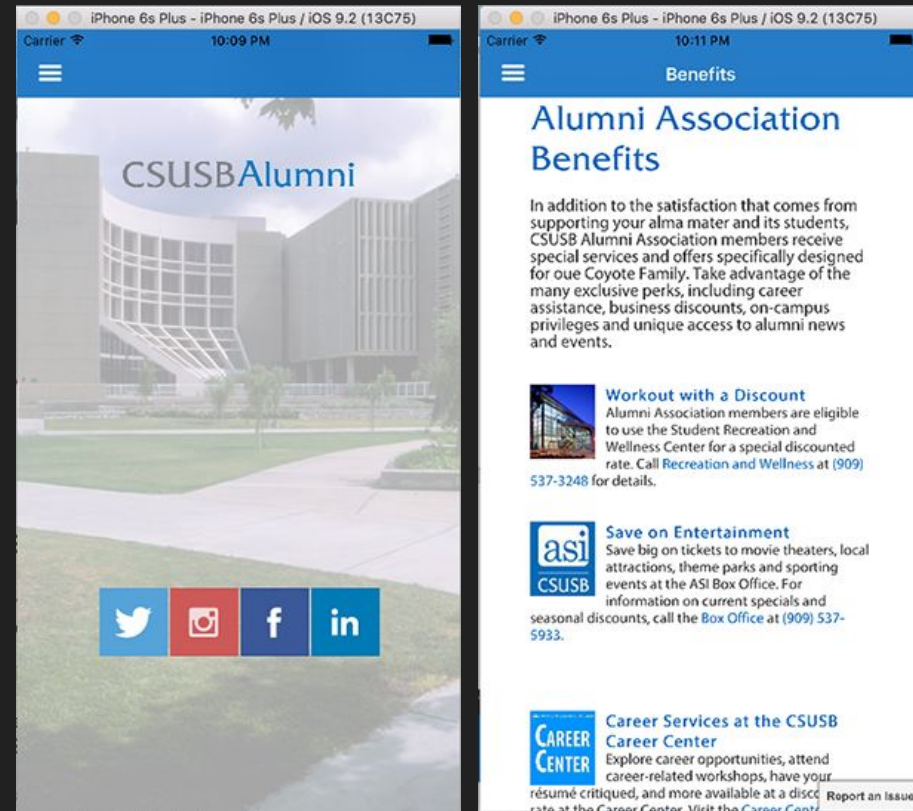
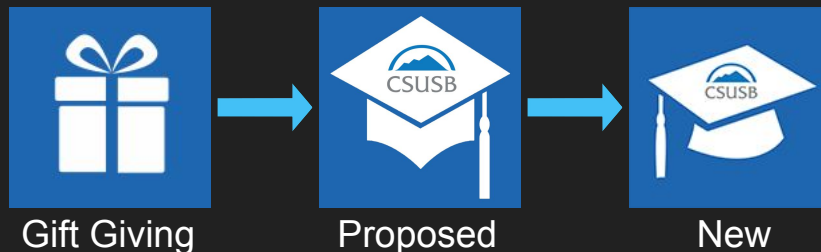
- Goal is to provide a portal for Alumnis and students who are interested in the Association
 - News
 - Member benefits and discounts
 - Giving
 - Alumni and Athletic Events
 - Connect with Social Media
 - Volunteering

- 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



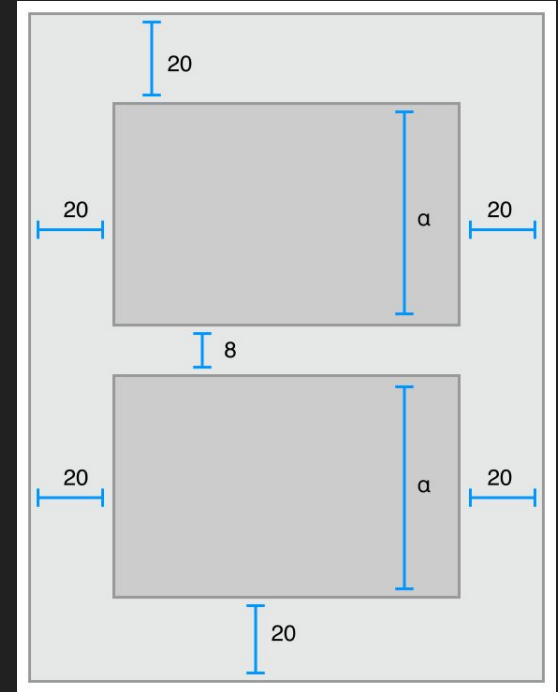
Previous Iteration (March 2016)

- 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



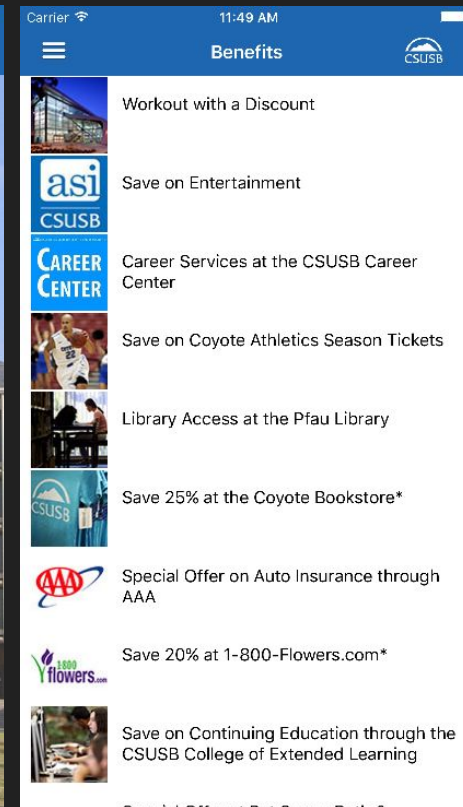
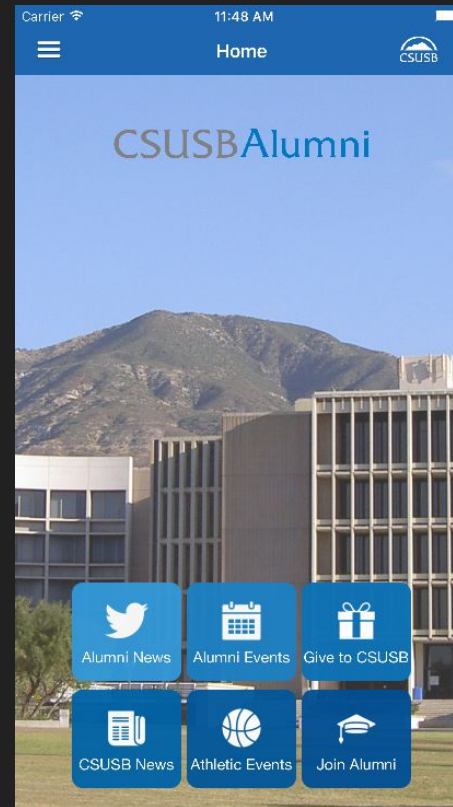
Constraints

- 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

```
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

PHP/SQL
Script

PHP/SQL
Script

MySQL database

Events Page

Logout

Add Event Benefits page JSON format

- [Standing out: Getting Started with LinkedIn - 2016-05-20](#)



- [Standing out: Leveraging LinkedIn - 2016-05-20](#)



Web App (Admin)

```
{
  "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 +
SwiftJSON



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)

The screenshot shows a mobile browser interface for the CSUSB Alumni Association membership form. At the top, the status bar shows 'Back to CSUSB Alumni' and '1:01 PM'. The address bar displays 'advancement.csusb.edu'. The main heading is 'Join the Alumni Association'. Below this, a section titled 'Please select a membership plan *' lists five options with radio buttons: 'Annual Membership \$40', 'Annual Dual Membership \$65 (both alums, both spouses, and living at the same address)', 'Lifetime Membership \$400', 'Lifetime Dual Membership \$650 (both alums, both spouses, and living at the same address)', and 'Annual Membership for Current Year Graduate (Free)'. The form then requests personal information: 'First Name *' (text input), 'Middle Initial' (text input), 'Last Name *' (text input), and 'Birthday' (two dropdown menus for 'Month' and 'Day'). A note states 'Indicate name used at CSUSB if different than current name.' followed by a text input field. A 'Report an Issue' button is located at the bottom right. The mobile navigation bar at the very bottom contains icons for back, forward, share, bookmarks, and tabs.

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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