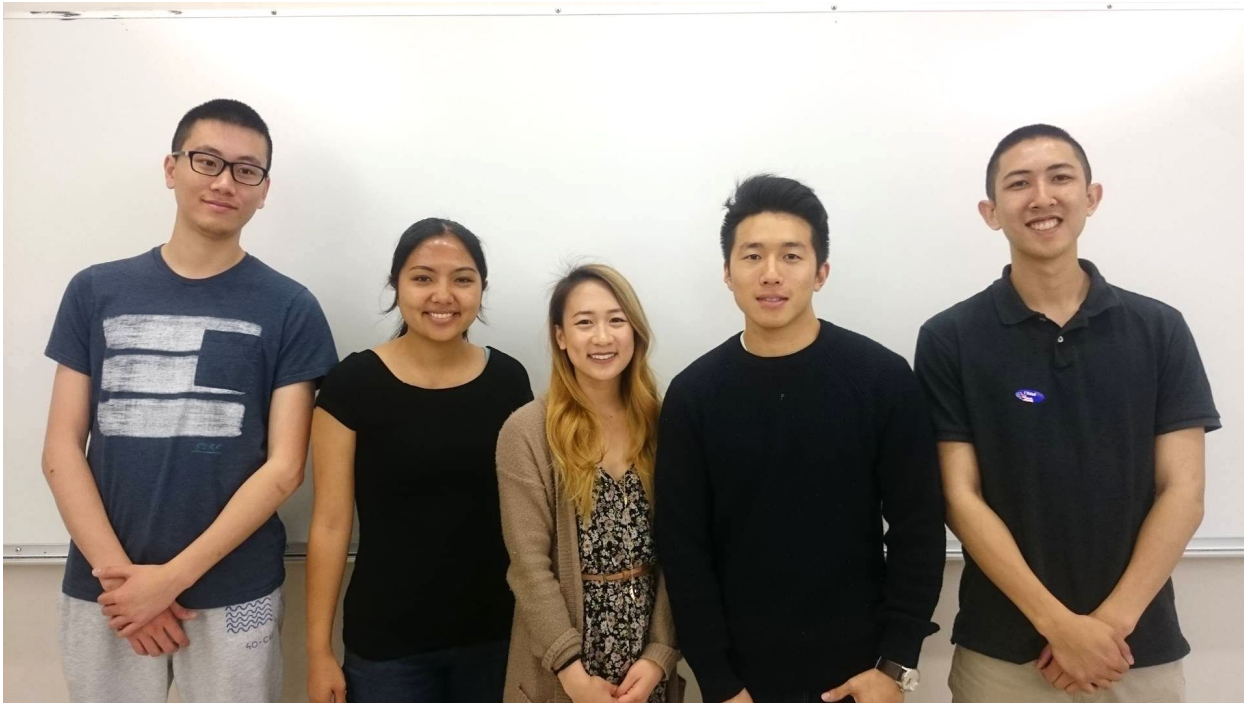


Team A presents

# Zombie ApocaMaps!



Daniel Kim - Steven Lim - Simon Meng -  
Lucky Nguyen - Jordan Yoshihara



# Meet Team A

**Simon Meng**  
Back-end developer

**Jordan Yoshihara**  
Front-end developer

**Lucky Nguyen**  
Team Lead / Front-end  
developer

**Daniel Kim**  
Tech Lead / Back-end  
developer

**Steven Lim**  
Back-end developer

**01**

**Introduction**

# Outline of Presentation

**02**

**Design**

**04**

**User Testing**

**03**

**Architecture /  
Implementation**

**05**

**Demo**



# 01 INTRODUCTION



Many people are not prepared for disasters. Existing preparedness sites are not designed to keep users interested.

20%

CA homes that can  
withstand  
earthquakes

California  
Earthquake  
Preparedness Group  
Study

40%

CA homes w/  
recommended water  
supplies

# Our User



Young adults who are starting to live independently or as a family.

## User Needs

- Communication
- Find resources nearby
- Locate safe place to go to



Introducing:

# Zombie ApocaMaps



# Why Zombies?!



**Extreme Case**



**Popular Craze**

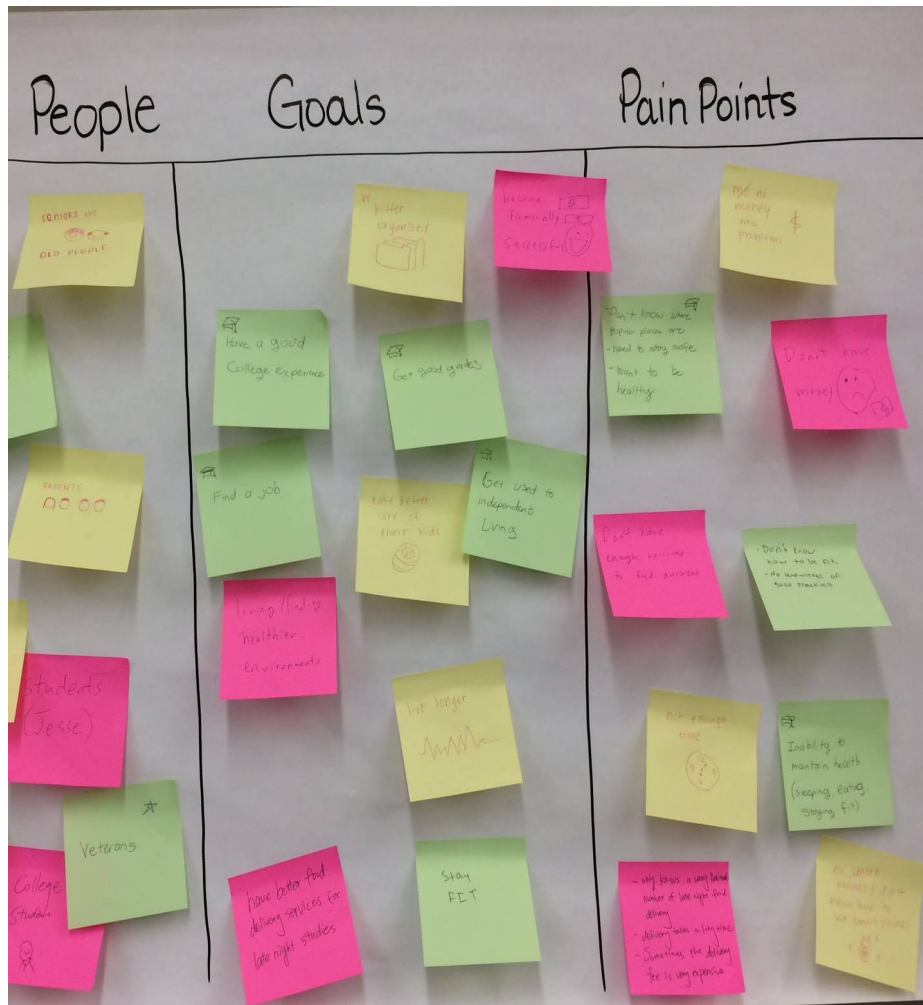


**Sustained Survival**



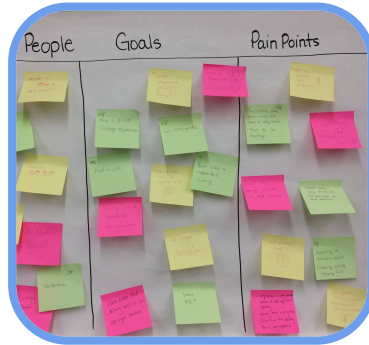
**It's Fun!**



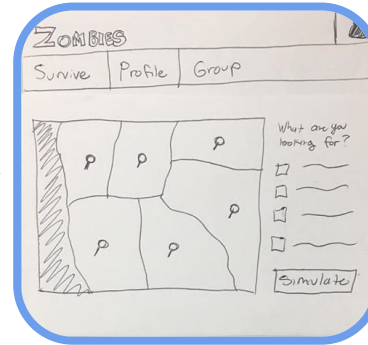


# 02 DESIGN

# Design Process



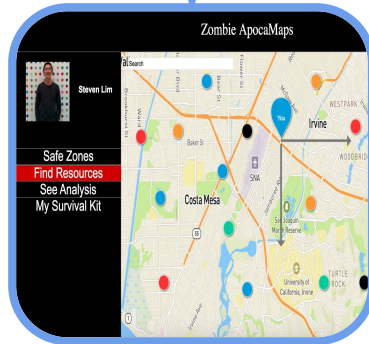
Ideation



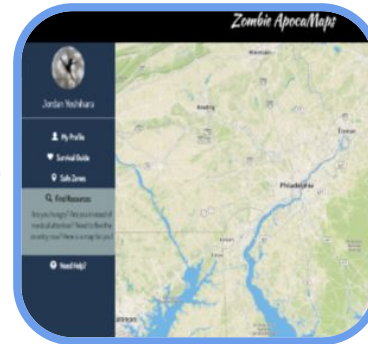
Paper Prototype



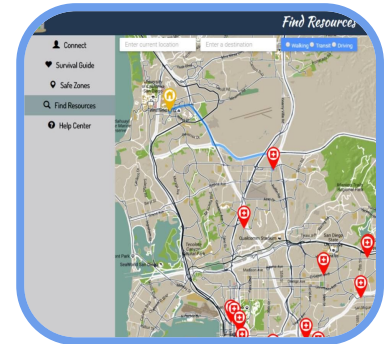
Low Fidelity



High Fidelity



Iteration / Testing



Final Implementation

# HCI Principles

## Visibility of System Status

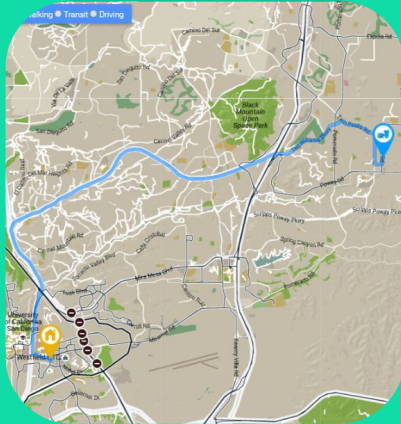
### Checklist

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Water              | <input type="checkbox"/> Batteries     |
| <input checked="" type="checkbox"/> Food               | <input type="checkbox"/> Alcohol       |
| <input checked="" type="checkbox"/> Medication         | <input type="checkbox"/> Utility Knife |
| <input checked="" type="checkbox"/> First Aid Supplies | <input type="checkbox"/> Duct Tape     |
| <input checked="" type="checkbox"/> Hygiene Items      | <input type="checkbox"/> Blankets      |
| <input checked="" type="checkbox"/> Lighter            | <input type="checkbox"/> Clothes       |
| <input checked="" type="checkbox"/> Flashlight         | <input type="checkbox"/> Passport      |
| <input checked="" type="checkbox"/> Gasoline           |  |

Update Your checklist has been updated.

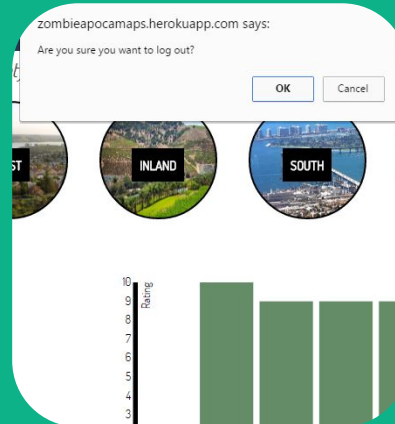
*Notifications, messages,  
visual changes*

## Match between Real/System World



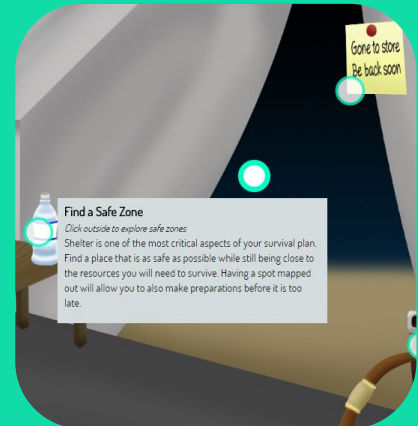
*Common icons used,  
maps, simple language*

## Error Prevention



*Confirmation dialogs,  
prompts*

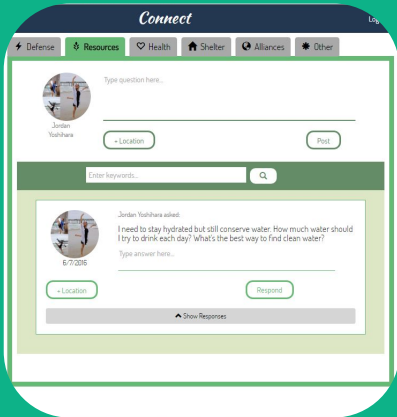
## Consistency & Standards



*Naming conventions,  
color scheme*

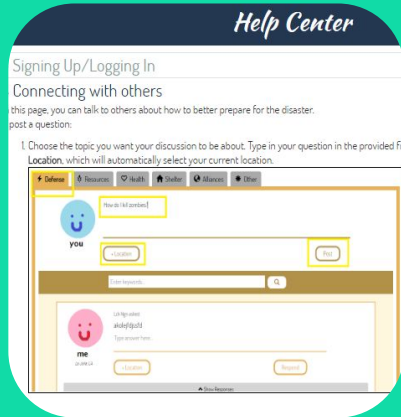
# HCI Principles

## Aesthetic and Minimalist Design



*Collapsing/expanding,  
simple & concise layouts*

## Help and Documentation



*Help page with  
screenshots, hints*

## Recognition over Recall



*Data visibility, images,  
checklist, color coding*

## User Control and Freedom



*Multiple options, different  
layouts, interactivity*

```

1 // Node.js Dependencies
2 const express = require("express");
3 const app = express();
4 const http = require("http");
5 const path = require("path");
6 var session = require("express-session");
7 const MongoStore = require("connect-mongo/es5")(session);
8
9 var mongoose = require("mongoose");
10 var passport = require("passport");
11 var handlebars = require("express-handlebars");
12
13 var parser = {
14   body: require("body-parser")
15 };
16
17
18 require("dotenv").load();
19
20 app.use(passport.initialize());
21
22 var models = require("./models");
23 var db = mongoose.connection;
24
25 var router = {
26   index: require("./routes/index"),
27   user: require("./routes/user"),
28   connect: require("./routes/connect"),
29   check: require("./routes/updateCheckBox")
30 };
31
32 var parser = {
33   body: require("body-parser"),
34   cookie: require("cookie-parser")
35 };
36
37 var conString = process.env.DATABASE_CONNECTION_URL;
38 var FacebookStrategy = require('passport-facebook').Strategy;
39
40 var local_database_uri = 'mongodb://steven:hello@ds053194.mongolab.com:53194/heroku_
41 // Database Connection
42 var db = mongoose.connection;
43 mongoose.connect( process.env.MONGODB_URI || local_database_uri );
44 db.on('error', console.error.bind(console, 'Mongo DB Connection Error:'));
45 db.once('open', function(callback) {
46   console.log("Database connected successfully.");
47 });
48
49 var SESSION_SECRET = '**Random string**' ;
50 // session middleware
51 var session_middleware = session({
52   key: "session",
53   secret: process.env.SESSION_SECRET,

```

# 03 ARCHITECTURE/ IMPLEMENTATION

# Technical/ Product Risks

Some people will have hard time in understanding our app

Technical problems in zombie apocalypse era (facebook no longer use, internet)

Non-facebook users are not able to login to app

Since delphi database data contains past data, data might not be matched with the data in zombie apocalypse

# Technology we used

Google Maps API

Node.js / Express.js

Passport.js

MongoDB

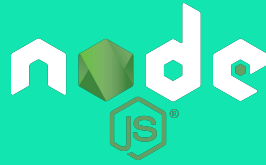
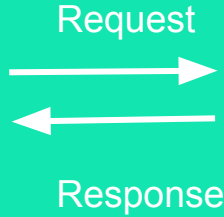
HTML / CSS / Javascript / JQuery / Bootstrap

D3.js

PostgreSQL

Not using Mapbox.js  
anymore due to changed  
plan on safezone page

# Architecture



DELPHI





# Technical Challenges



Loading map didn't always finish



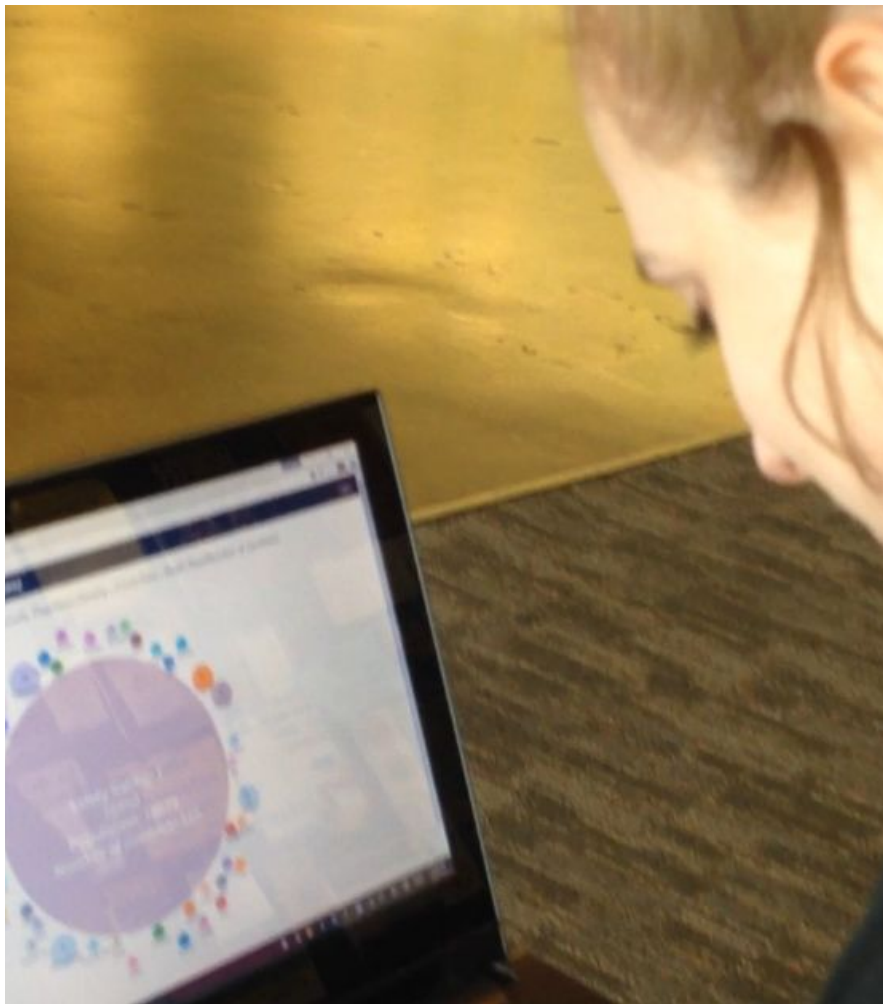
Querying data took some delay



Using Google API without conflicting JavaScript



Figuring out D3 components and visualization



## 04 USER TESTING

# User Testing



## Positives

- + Fun application and great animations
- + Find resources page was really nice and applicable
- + Help page was helpful
- + Facebook login



## Negatives

- Confusion about application and purpose
- Some features did not provide enough feedback
- Data takes a while to load
- Some things were not intuitive (like safe zones ratings)

## THE GOOD:

Team communication and effort

## THE BAD:

So much to do, so little time

## THE NOT SO UGLY:

We all learned a lot about the importance of data visualization and how HCI can be used to make even the most complex data intuitive to understand

## Survival Guide



## 05 DEMO TIME

<https://zombieapocamaps.herokuapp.com>