

**MICHIGAN STATE**  
**UNIVERSITY**

# Project Plan

## Location-Based Services App

### The Capstone Experience

Team Auto-Owners

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*From Students...*  
*...to Professionals*

# Functional Specifications

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- Connect Auto-Owners' associates while out in the community
- Enable innovative customer interactions
- Provide mobile access to customer information
- Able to make notes on policies while out in the field



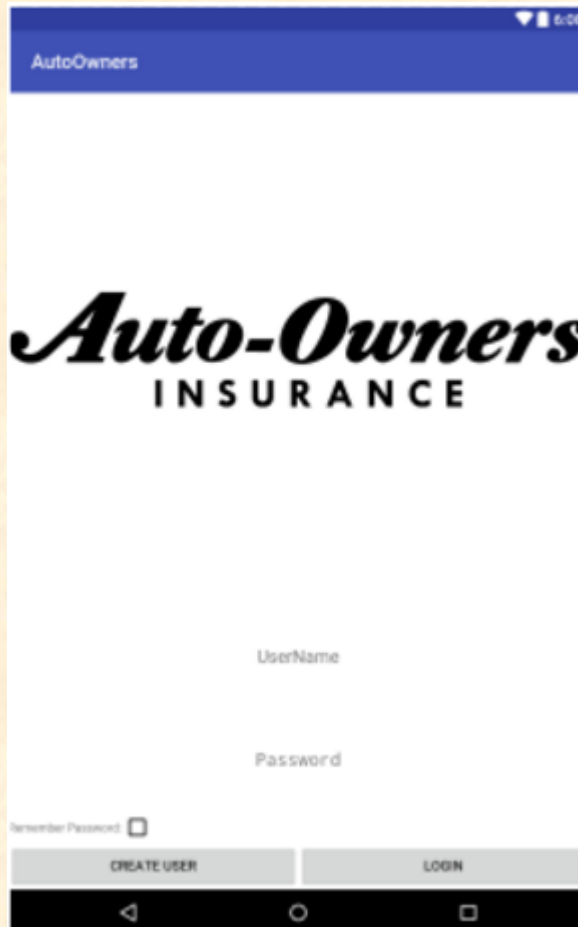
# Design Specifications

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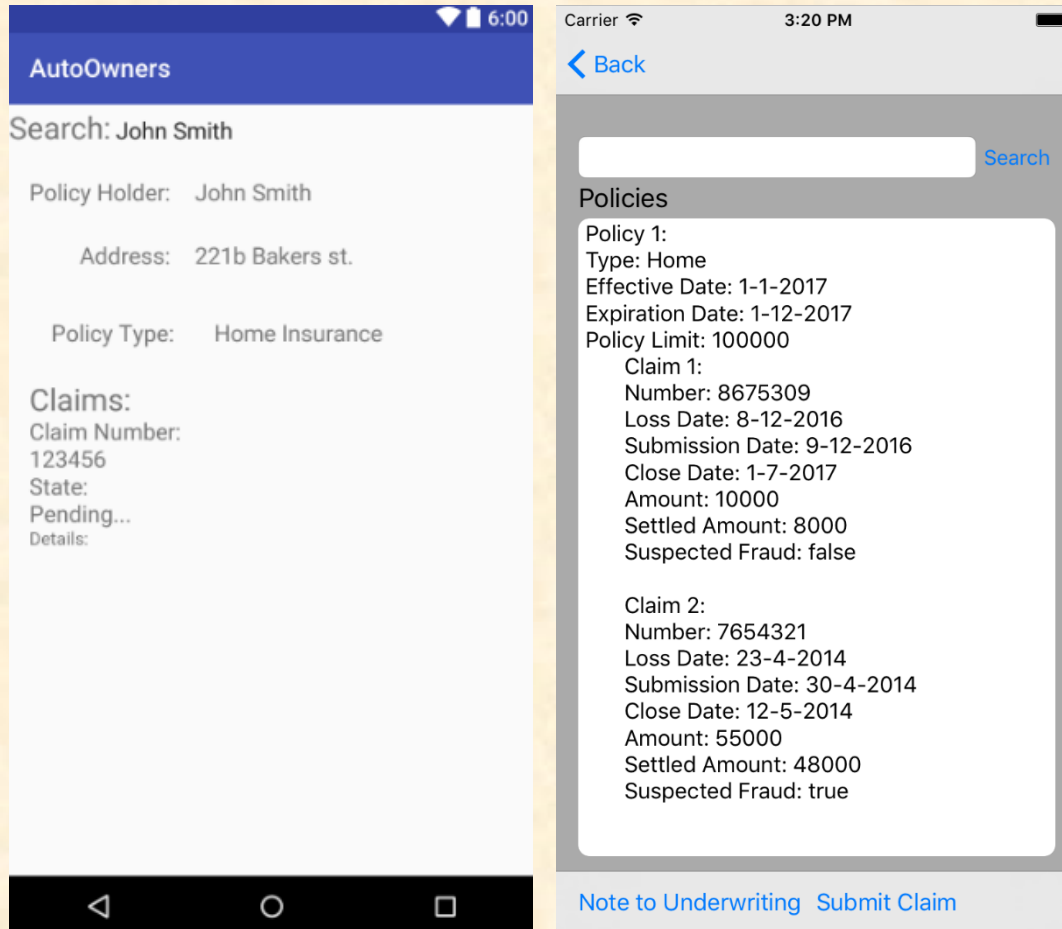
- Support role-based authentication and authorization
- Handle location, based on address or GPS
- Enable claims submissions
- Visualize mapping of customers nearby
  - Policyholders
  - Claims
  - Proposals
- Provide administrative web portal



# Screen Mockup: Login and Map View



# Screen Mockup: Policy Details



# Screen Mockup: Web: List Users

Auto-Owners Log Out

**ACTIONS**

- New User
- List Database Entries
- New Database Entry

## Users

Id	Email	Password	Created	Modified	Actions
4	christj2@msu.edu	\$2y\$10\$HyO2zGMwk67wXywKp9AAI.VOUNkZoFnL8uhqZuFHw1McJc.igT32S	1/23/17, 12:22 AM	1/23/17, 12:22 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
5	test@msu.edu	\$2y\$10\$LZmNw5Tj9gK04UXLaL97s.oLzETKS0yUsuRmVkkh6tn5jsYmEqDS	1/23/17, 1:47 AM	1/23/17, 1:47 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
6	test@gmail.com	\$2y\$10\$QVzz2Ua/5rrsIQCSKmSfbc1MOGAxn39Z.Eh8RzhNYBy7VusHvq3Xu	1/24/17, 12:01 AM	1/24/17, 12:01 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
7	testing@msu.edu	\$2y\$10\$ZIEJNfsaddl00Kb109RUI.fWr6Xptj9XHq1itPclp2pbYQuqwB/P6	1/24/17, 12:04 AM	1/24/17, 12:04 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
8	testing2@msu.edu	\$2y\$10\$A8cFdUDE1LDUXULzPuNSnOsE8RxbUmRB7mNjg2ybx6TivhA5c8IW	1/24/17, 12:06 AM	1/24/17, 12:06 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
9	testing5@msu.edu	\$2y\$10\$syf0Cc97ipEHndw2sowzwex6ze/Ftm5VcXdLcFF/LZB3/Zr169wXW	1/24/17, 12:13 AM	1/24/17, 12:13 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
10	testing6@msu.edu	\$2y\$10\$DbyaT1A.ppBK1Wy7ITyf5OmuMVvl20oVuTbWIOKaAyk8OaSr4pVoO	1/24/17, 12:15 AM	1/24/17, 12:15 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
11	testing7@msu.edu	\$2y\$10\$zEf5PKYFoDcN8x xnR8LU.ecVWNL9mPkVHlr/tkYOFiPsbBGDoGale	1/24/17, 12:18 AM	1/24/17, 12:18 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
12	testing8@msu.edu	\$2y\$10\$qLeuiB9y9jN6K1zKaMG9T.uwgrUAdYONo2FLSDjQZL/Owgl3Qka6	1/24/17, 12:20 AM	1/24/17, 12:20 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>
13	testing9@msu.edu	\$2y\$10\$NendoTeTvEmBUgCnPsncee13zWbe8Cyk5Wof6Gac/C33iR4391QMS	1/24/17, 12:21 AM	1/24/17, 12:21 AM	<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>

# Screen Mockup: Web: Edit Data

Auto-Owners Log Out

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**ACTIONS**

- Delete
- List Database Entries
- List Users
- New User

### Edit Database Entry

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User  
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Title  
claims edit

Description  
database desc edit

Uri  
database field edit

Tags  
funny  
tag-title

**SUBMIT**



# Technical Specifications

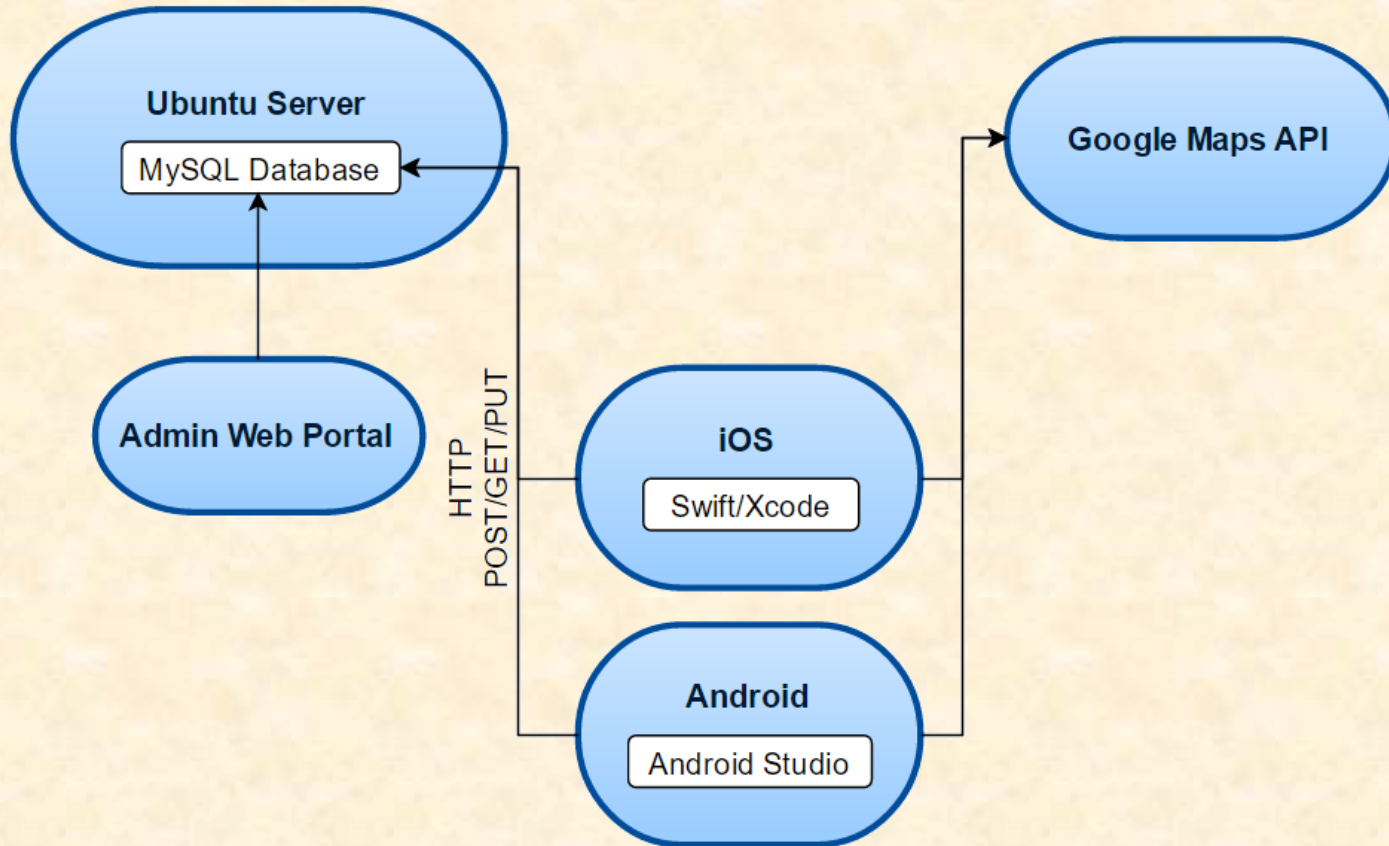
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- Mobile app development to support both IOS and Android
- Location-based services(GPS)
- Integration with a mock database
- Google Maps API and Geocoding API
- Using the medium-tier MySQL server
- CakePHP web framework





# System Architecture



# System Components

- Hardware Platforms
  - Ubuntu
  - IOS
  - Android
- Software Platforms / Technologies
  - Android Studio
  - Xcode
  - Google Maps API
  - MySQL database
  - CakePHP



# Testing

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- End-user testing of admin site
- Multi-Location in-person GPS feature testing
- End-user testing in online and offline modes
- Caching data testing for login data and specific location data
- Updating cached data upon login testing



# Risks

- IOS Development
  - No one in our group has experience programing IOS APPs
  - Assigned Alex to research and develop the app using Swift in Xcode
- Mapping API
  - No prior experience with implementing Google Maps API
  - Assigned Yunfei to research the API and implement it
- Data Caching
  - Application needs to cache data from database when offline
  - Working on building a functional caching prototype



# Questions?

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