

MICHIGAN STATE

U N I V E R S I T Y

Project Plan
Claims First Notice of Loss Application
The Capstone Experience

Team Auto-Owners

David Kircos

Alex Morton

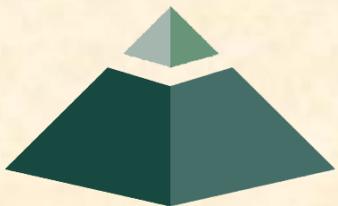
Anthony Tesorero

Si Wang

Department of Computer Science and Engineering

Michigan State University

Spring 2015



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

Functional Specifications

- Mobile App
 - Ability to file a First Notice of Loss Claim
 - Support Auto and Home
 - Support media upload (Pictures and audio)
 - Capability to contact a real person via phone or in-app chat client
 - Provide nearby emergency services location and contact information (Police, Fire, Towing, etc.)
- Web App
 - Manage notification Preferences
 - Receive via SMS, e-mail or automated voice mail
 - Be able to choose which types of policies and which policyholders to receive notifications from
 - View claims filed through the mobile app
 - Create usage statistics reports

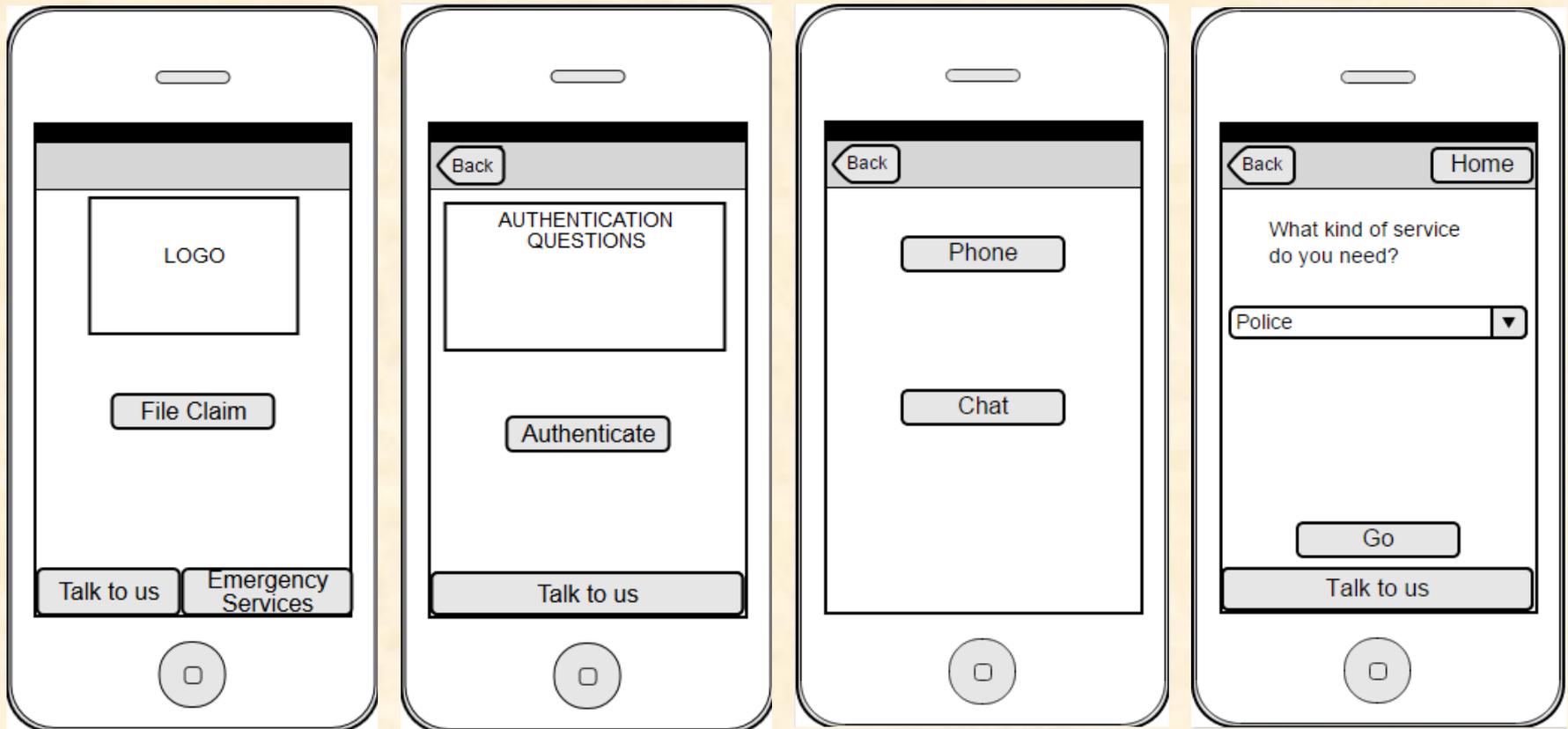


Design Specifications

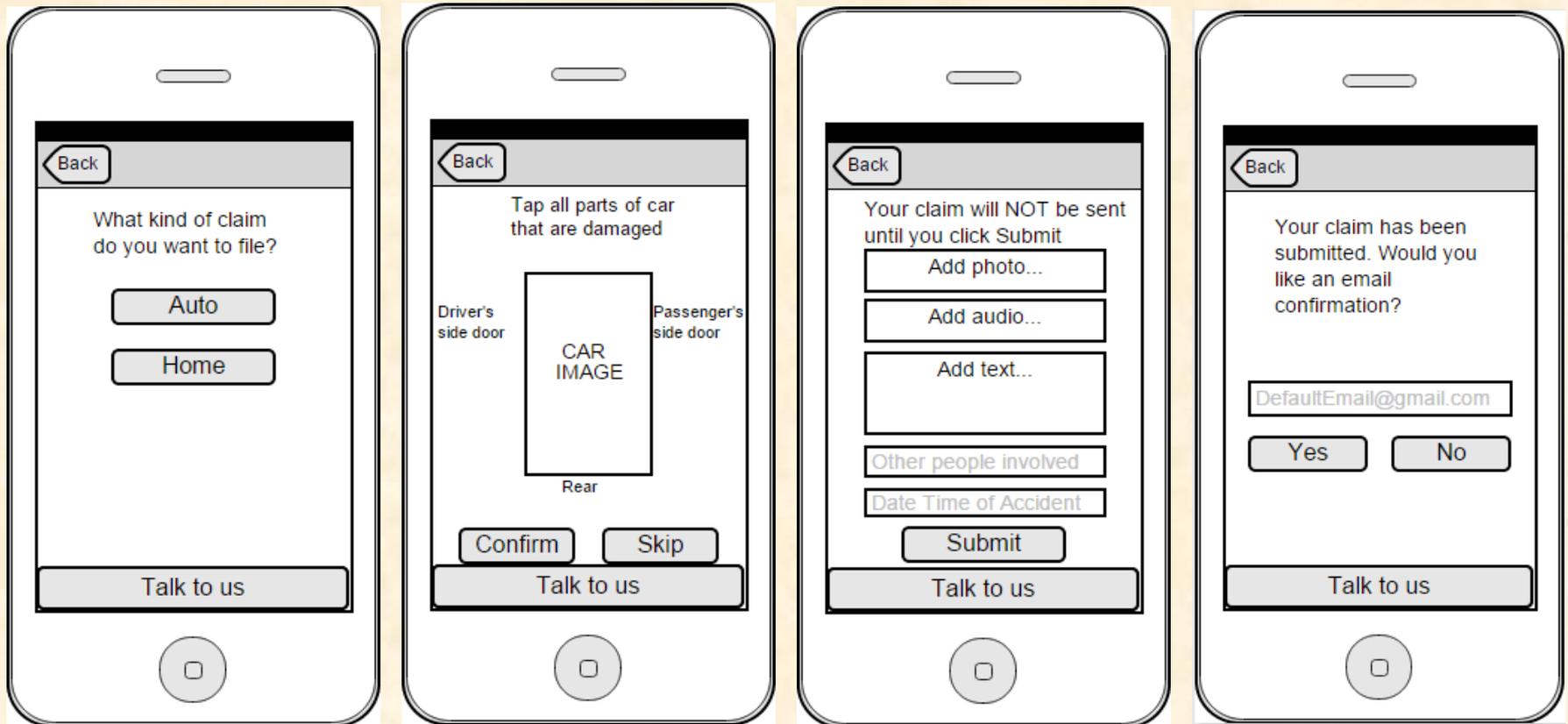
- Mobile App
 - Able to contact real person at any time by clicking “Talk To Us”
 - Select type of claim to file (Auto or Home)
 - Describe damage
 - Clickable car parts for auto
 - Options of different types of damage for home (fire, water etc.)
 - Ask for media and additional information upload
 - Ask for confirmation e-mail
 - Ask if emergency services are needed (EMS, tow truck, etc.)
 - Display services location and contact information on maps
- Web App
 - Dashboard for agents
 - Table of policyholders related to logged in agent with notification preferences



Screen Mockup: Home Screen Options



Screen Mockup: Auto Claim

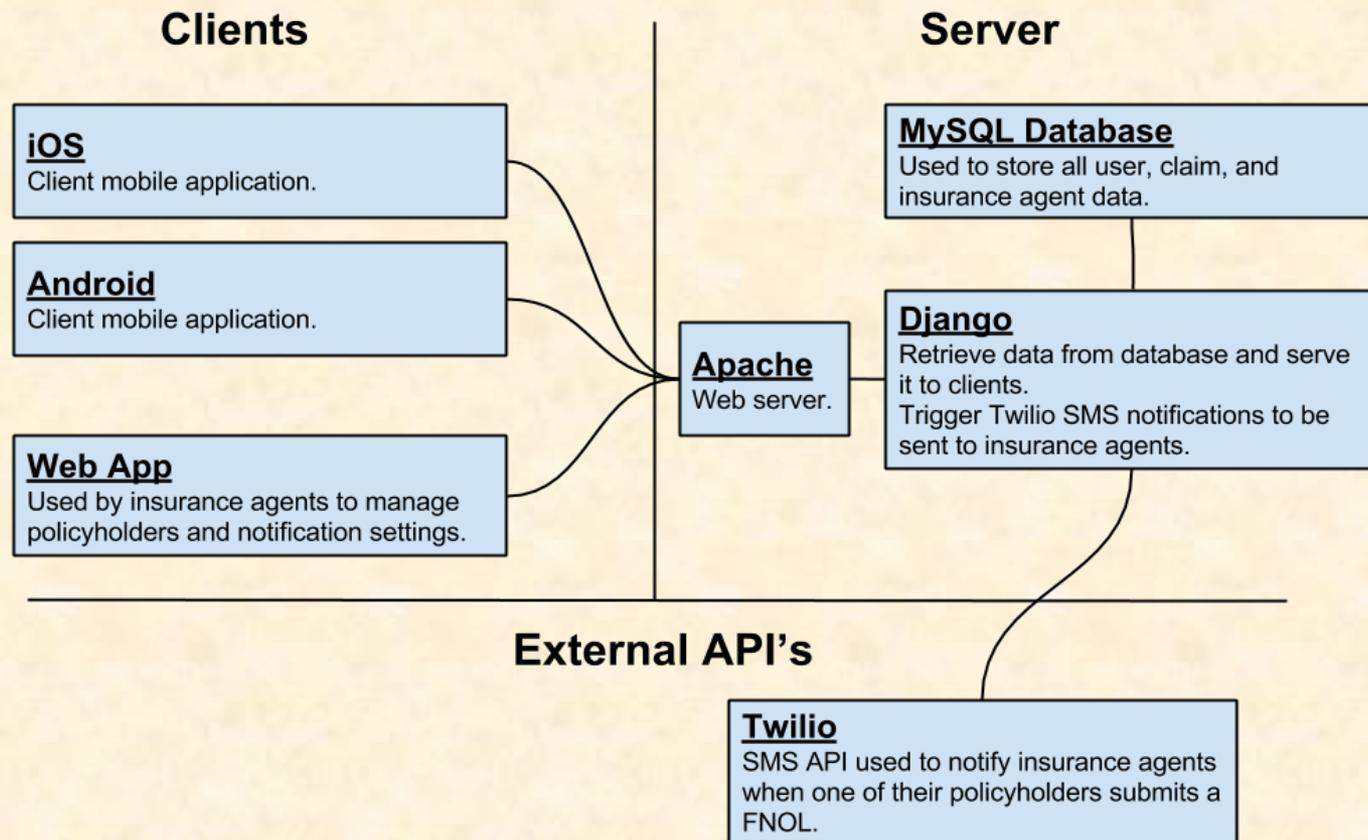


Technical Specifications

- Server
 - Django web framework and ORM to store and serve data from MySQL database
 - Django uses Apache to serve information over the internet
- Client
 - iOS and Android web based applications built in HTML5, CSS3, JavaScript
 - Insurance Agent Web App also built in HTML5, CSS3, JavaScript
- Developer Tools
 - PyCharm IDE for backend Python development and HTML frontend development
 - Xcode and Android Studio for building the web app wrappers as native applications



System Architecture



System Components

- Hardware Platforms
 - Backend Dell rack server
 - iPhone and Android phone client
 - Insurance Agent PC's that will access the web application
- Software Platforms / Technologies
 - Ubuntu operating system
 - SSH and FTP services
 - Django, Apache and MySQL
 - Twilio for sending SMS and automated voicemail
 - Google Maps for locating emergency services



Testing

- Server Code
 - Create a test database with dummy data to see if our authentication process functions properly
- Mobile Clients
 - Acquire different sized devices to test on, both iOS and Android
- Web Application
 - Test cross-browser compatibility. Chrome, Safari, Firefox and Internet Explorer



Risks

- Authentication Process:
 - A user should never be blocked out of the system, but steps must be taken to get as much information as possible in order to correctly identify the app user.
 - Mitigation: Discuss with Auto-Owners to establish the best way to do this.
- Messaging Client
 - The Talk To Us screen will have a live messaging feature in addition to a phone number. Auto-Owners does not currently have any customer support personnel in place that can talk with the app users.
 - Mitigation: Research chat/messaging solutions and see what could work in our application. Make a prototype messaging application.
- Process for Home and Business Insurance Claims
 - We do not have a good understanding of home and business insurance claims.
 - Mitigation: Learn about home and business insurance claims by speaking with Auto-Owners
- iOS Development and Device Testing
 - No one on our team has experience building or testing iOS applications.
 - Mitigation: We will use tutorials and create prototypes to get familiar with the Xcode, objective-c, and swift. Test on devices with different screen sizes.

