

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University
Fall 2015



Course Goals

- Build a Significant Software System
- Work in a Team Environment
- Learn New Tools and Environments
- Build and Administer Systems
- Develop Communication Skills
- Develop Interview Talking Points
 - Consider Issues of Ethics and Professionalism



Course Goals

- Teams of Students
- Build Significant Software System
 - Design
 - Develop
 - Debug
 - Document
 - Deliver
- For Corporate Clients
- In 15 (Short) Weeks

Project Deliverables

- Project Plan Document & Presentation
- Alpha Presentation
- Beta Presentation
- Project Software & Documentation
- Project Video
- Design Day

See Major Milestones.



The Capstone Experience

All-Hands Meetings

- MW, 3:00-3:50pm, 2400 Engineering Building
- Presentations By
 - Professor
 - Teams
 - Status Reports
 - Formal Presentations
 - > Project Plan
 - **≻**Alpha
 - > Beta
 - Project Videos
 - Guest Speakers



All-Hands Meetings

09/02: Capstone Overview

09/07: (Labor Day, No Meeting)

09/09: Project Plan

09/14: Risks and Prototypes

09/16: Team <u>Status Report Presentations</u>09/21: Team <u>Project Plan Presentations</u>

09/23: Schedule and Teamwork

09/28: Team Project Plan Presentations

09/30: Career Gallery

10/05: Team <u>Project Plan Presentations</u>
10/07: Team <u>Project Plan Presentations</u>

10/12: Resume Writing and Interviewing

10/14: Creating and Giving Presentations

10/19: Team <u>Alpha Presentations</u>10/21: Team <u>Alpha Presentations</u>10/26: Team <u>Alpha Presentations</u>

10/28: Team Alpha Presentations

11/02: Design Day and the Project Videos

11/04: Camtasia Demo

11/09: Team Beta Presentations 11/11: Team Beta Presentations

11/16: Team Status Reports 11/18: Team Status Reports

11/23: Team <u>Beta Presentations</u> 11/25: Team Beta Presentations

11/30: Team Beta Presentations

12/02: Team Beta Presentations

12/07: Project Videos

12/09: Project Videos and All Deliverables

12/10: Design Day Setup

12/11: Design Day

12/17: Project Videos







Team Amazon

Department of Computer Science and Engineering
Michigan State University
Fall 2015

amazon



Movies Included with Prime Membership at No Additional Cost

See more

Unlimited instant streaming of movies & TV shows

Team Amazon Project Overview

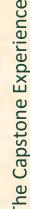
Seller Forums Echo Companion

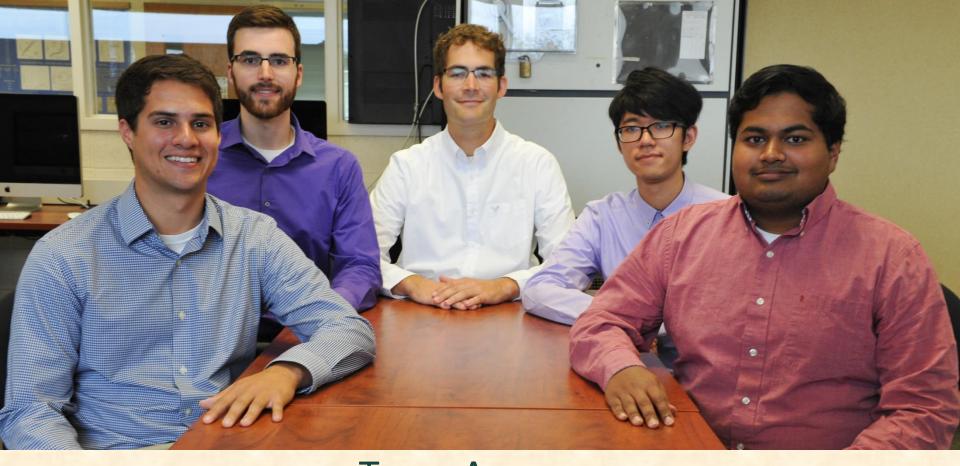
- Functionalities
 - Amazon Echo Companion
 - For Amazon Sellers
 - To Interact with Amazon Seller Forums
 - Hands-Free By Voice Using Alexa
- Features
 - Support Sellers' Hands-Free Ability To
 - Ask and Submit Questions
 - Submit Replies to Existing Threads
 - Have Threads Read by Alexa
 - Discover Intent by Creating Amazon Skill
 - Create Endpoint Web Service Using AWS Lambda
- Technologies
 - Amazon Web Services (AWS)
 - AWS Lambda
 - Amazon Echo and Alexa
 - Java





Seattle, Washington



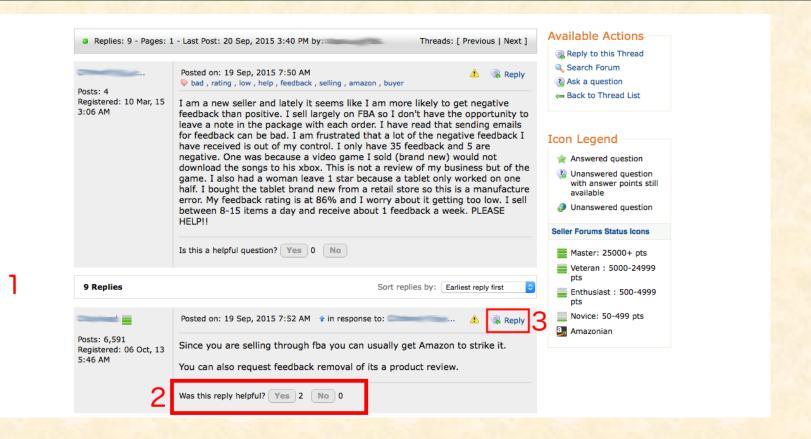


Team Amazon

Marc Habermann, Patrick Williams, Jake Jensen, Archer Tang, Apoorv Singh

Team Amazon Project Plan Presentation

Screen Mockup



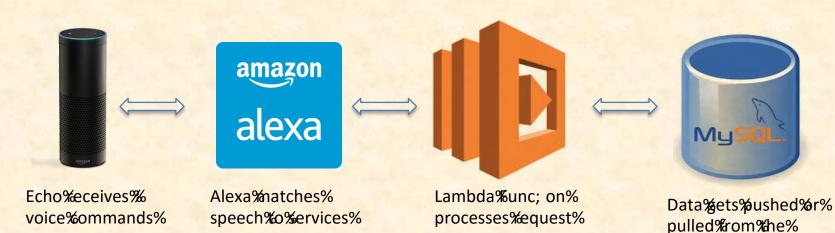




Team Amazon Project Plan Presentation

database%

Team Amazon Project Plan Presentation Architecture Diagram





or%peaks%%

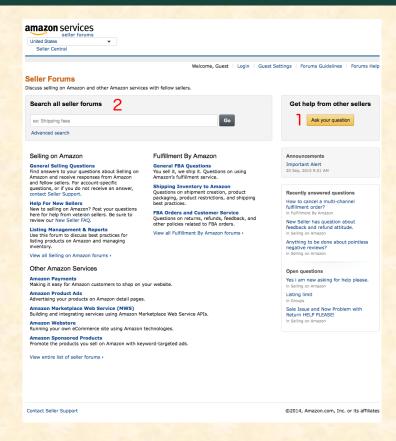
request%esponse.%



Team Amazon Project Plan Presentation

Team Amazon Project Plan Presentation

Screen Mockup







Team Amazon Alpha Presentation

Team Amazon Alpha Presentation

Reading a Post

Alexa, read the most recent post.

- What else can I do for you today?
- Alexa, mark that post as helpful.
- I have marked that post as helpful.
 What else can I do for you today?
- I would like to reply to the post...





Team Amazon Alpha Presentation

Posting A Question

Alexa, make a new post.

- Alexa prompts the user for each field.
- Alexa, <fill desired fields>.
- You have finished building a post, you can now review your post.
- Alexa, review my post.
- Alexa reads back post.
- Alexa, post it.







Team Amazon Alpha Presentation

Team Amazon Alpha Presentation

Getting Notifications

Alexa, what are my notifications?

- Alexa checks when you last accessed the Seller Forums.
- Alexa then gathers your notifications such as:
 - Markings on your questions
 - New replies to your question







Reading a Question

Alexa, read the most recent post.

- The user "" said "". What else can I do for you today?
- Alexa, mark that post as helpful.
- I have marked that post as helpful. What else can I do for you today?
- I would like to reply to the post...



Posting a Question

Alexa, make a new post.

- Alexa prompts the user for each field.
- Alexa, <fill desired fields>.
- You have finished building a post, you can now review your post.
- Alexa, review my post.
- Alexa reads back post.
- Alexa, post it.





Alexa, what are my notifications.

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Team Amazon Design Day





Team Auto-Owners

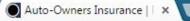
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Michigan State University
Fall 2015



Auto-Owners Insurance Life Home Car Business

The "No Problem" People®













Auto-Owners Insurance

OUR PRODUCTS

CORPORATE INFORMATION

CUSTOMER CLAIMS

Enter a Keyword

Customer Center | Find a Career with Us



Enter a Zip Code



or Search by Address



Customer Log In



Life Insurance Protecting your family

Home Insurance Property and liability

Car Insurance Security while on the road **Business Insurance** Guarding your investment

Team Auto-Owners Project Overview

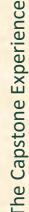
HR Recruiting System

- Functionalities
 - Simplify Job Application Process
 - For Both Applicants and Auto-Owners
 - Using Mobile, Tablet and Web Apps
- Features
 - Support Multiple Input Methods
 - o Text
 - o LinkedIn
 - Resumes
 - Speech
 - Manage Entire Application Workflow Process
 - From Assignment of Recruiter
 - To Sending of Offer or Decline Letter
 - Handle Referrals by Existing Auto-Owners Associates
 - Use Google Analytics
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - Web App Development
 - Database Technologies





Lansing, Michigan



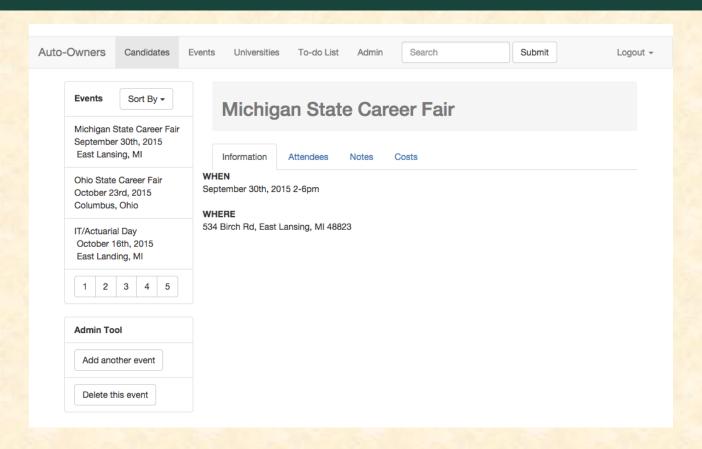


Team Auto-Owners

Abigael Onchiri, Gauthier Devolder, Jun Gao, Ashwin Jayakumar

Team Auto-Owners Project Plan Presentation

Screen Mockup

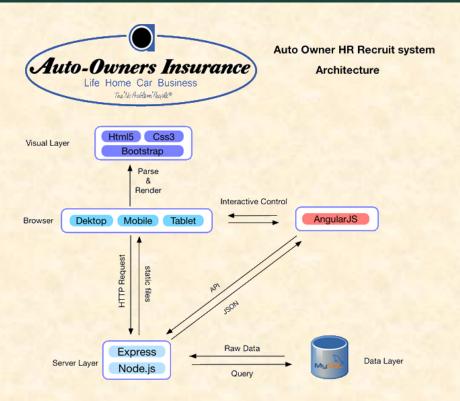






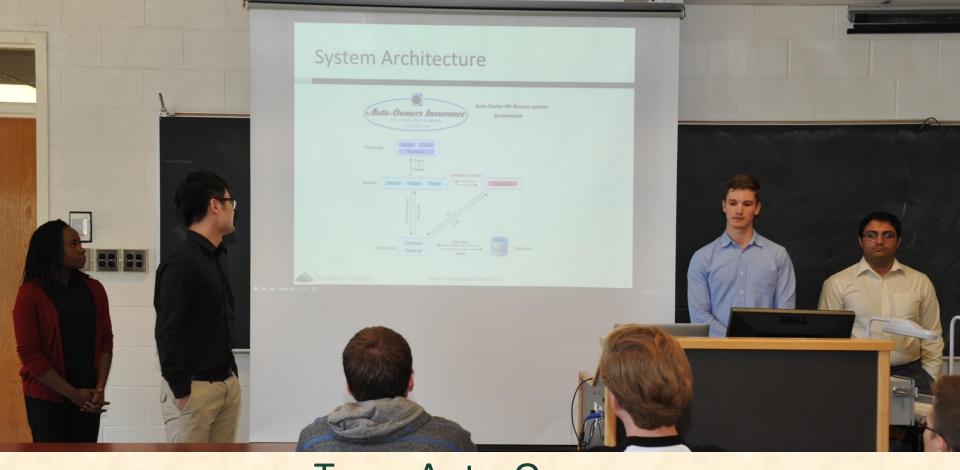
Team Auto-Owners Project Plan Presentation

Team Auto-Owners Project Plan Presentation Architecture Diagram





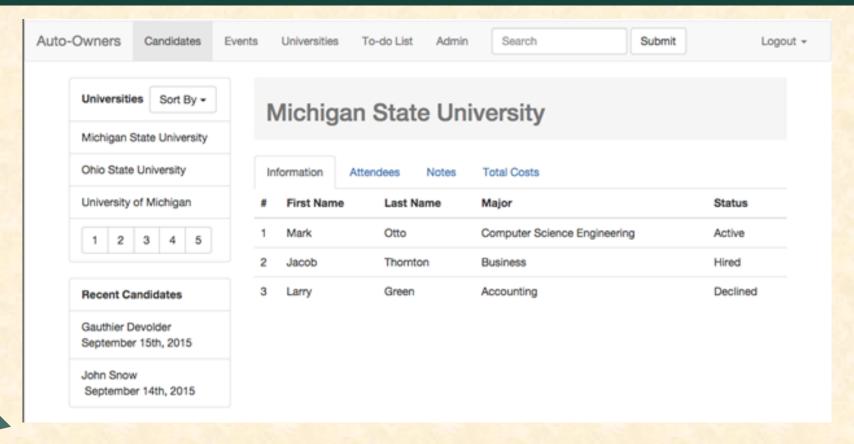
The Capstone Experience



Team Auto-Owners Project Plan Presentation

Team Auto-Owners Project Plan Presentation

Screen Mockup





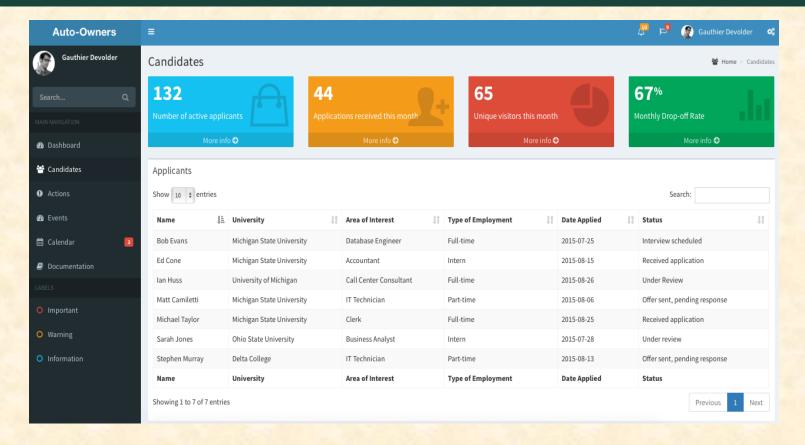
The Capstone Experience



Team Auto-Owners Alpha Presentation

Team Auto-Owners Alpha Presentation

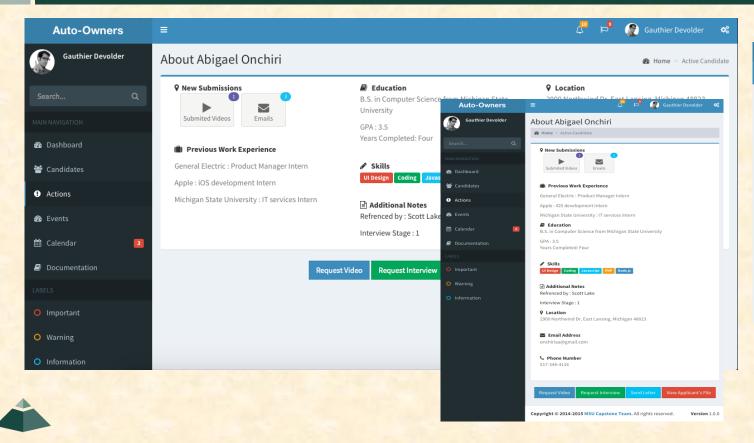
Candidates Page

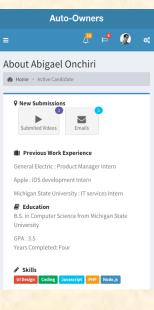


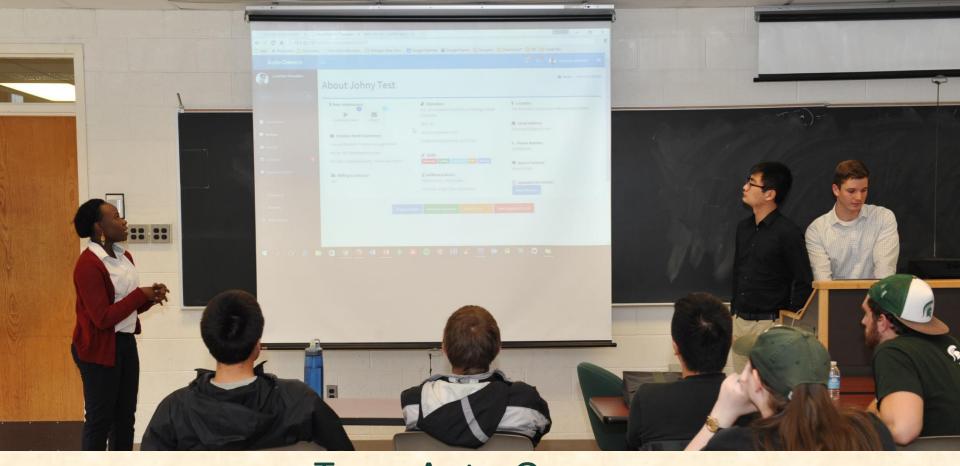


Team Auto-Owners Alpha Presentation

Actions Page



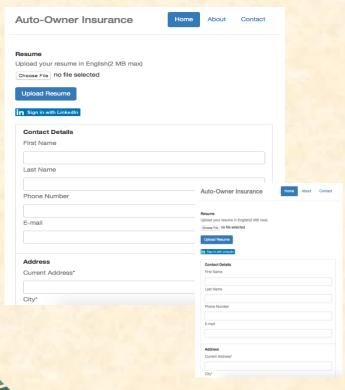




Team Auto-Owners Alpha Presentation

Team Auto-Owners Alpha Presentation

Application Form



Auto-Owner Insurance	Home	About	Contact
Resume			
Jpload your resume in English(2 MB max)			
Choose File no file selected			
Upload Resume			
Contact Details			
First Name			
Last Name			
Phone Number			
E-mail			
Address			
Current Address*			



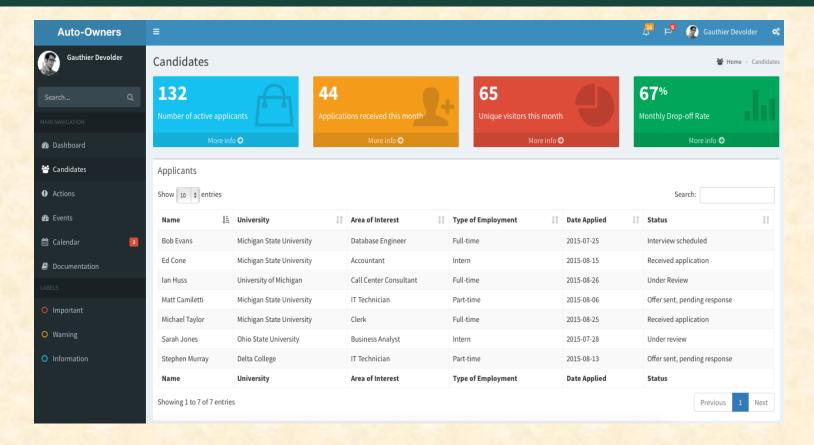
The Capstone Experience



Team Auto-Owners Beta Presentation

Team Auto-Owners Beta Presentation

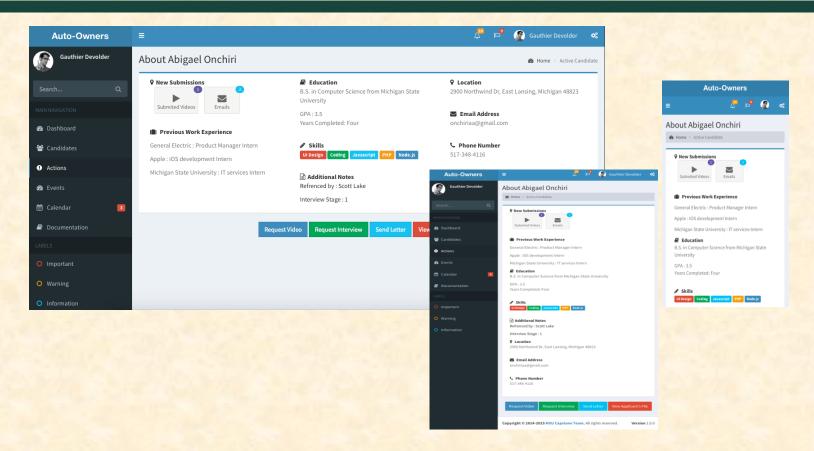
Candidates Page





Team Auto-Owners Beta Presentation

Actions Page



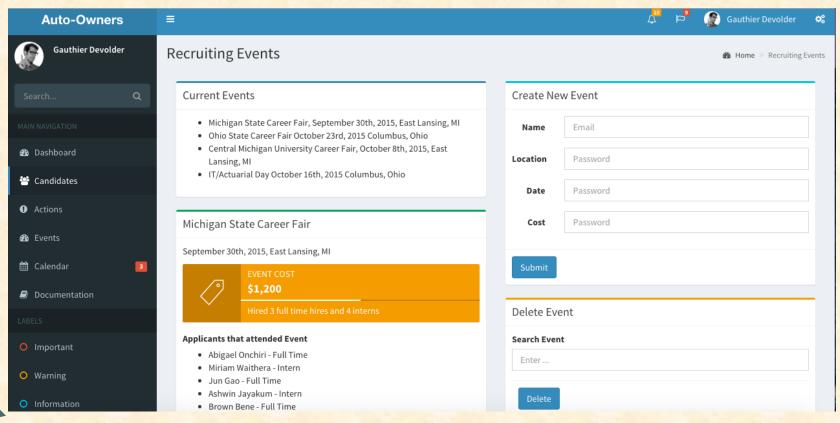




Team Auto-Owners Beta Presentation

Team Auto-Owners Beta Presentation

Events Page







Team Auto-Owners Design Day

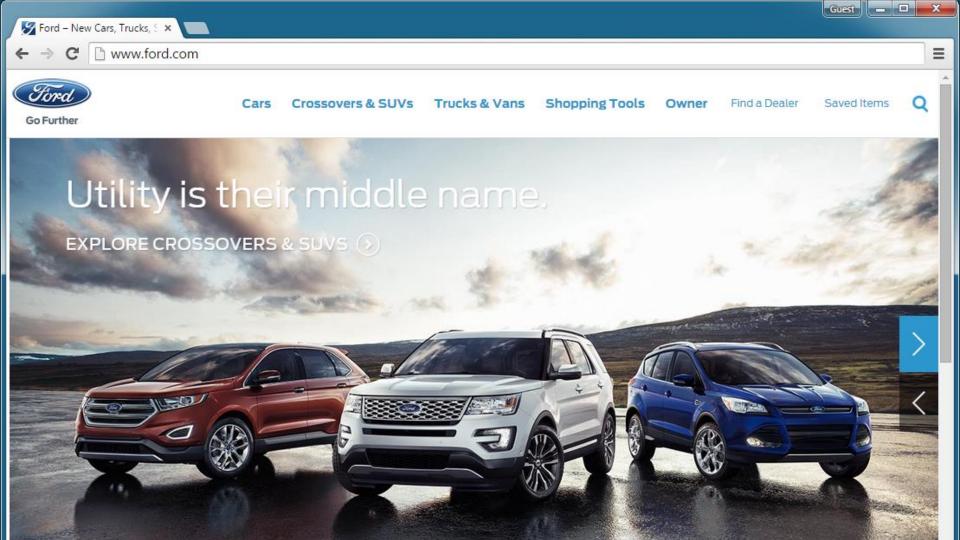




Team Ford

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Michigan State University
Fall 2015





Team Ford Project Overview

Connected Vehicle Protocol Test Harness

- Functionalities
 - Evaluate Connected Vehicle Communication Protocols
 - For Suitability for Enhanced Customer Experiences
 - Faster Cellular Networks
 - Greater Customer Expectations
 - Using Software Test Harness
- Features
 - Execute Various Communication Protocols
 - Repeatable Consistently
 - Measurable
 - Store and Visualize Metrics Securely
 - Support Range of File Sizes From 10MB to 10GB
 - Interface with Various Ford Connected Vehicle Hardware
 - Provide Strengths and Weaknesses of Each Protocol
- Technologies
 - RESTful Web Services
 - Cloud Services (Microsoft Azure)
 - MQTT
 - JSON
 - XML
 - AMQP





Dearborn, Michigan





Team Ford

Weilong Li, Eric Coldwell, Ryan Bruns, Alex Bergman, Usman Majeed

Team Ford Project Plan Presentation

Screen Mockup



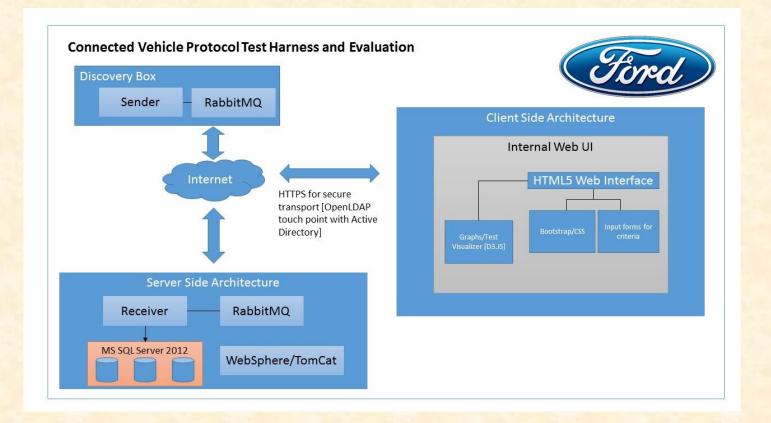


The Capstone Experience



Team Ford Project Plan Presentation

Team Ford Project Plan Presentation Architecture Diagram





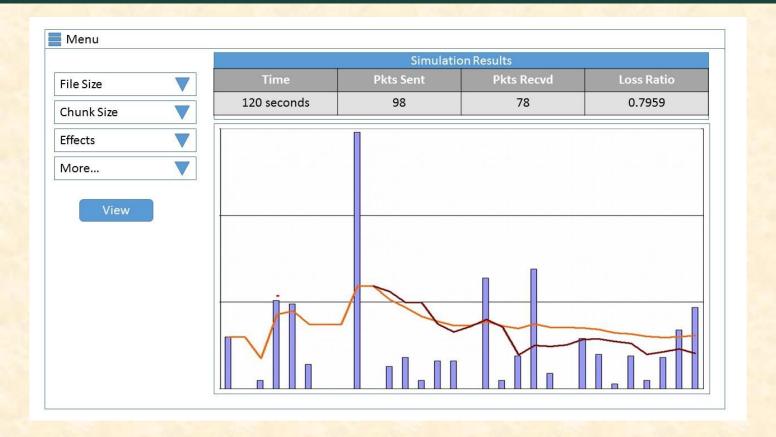
The Capstone Experience



Team Ford Project Plan Presentation

Team Ford Project Plan Presentation

Screen Mockup



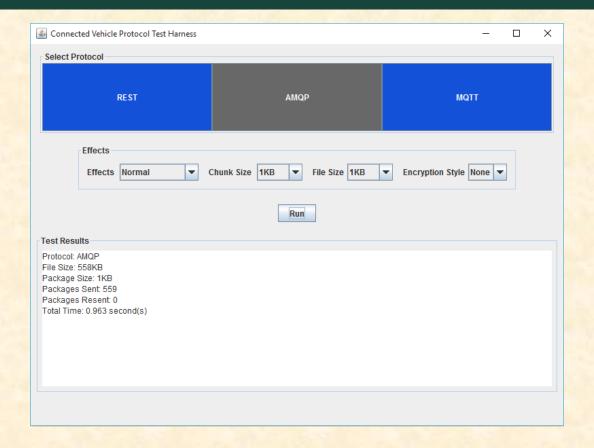




Team Ford Alpha Presentation

Team Ford Alpha Presentation

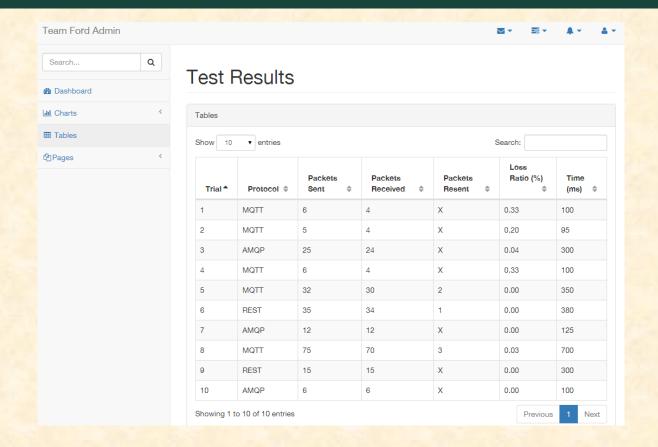
Discovery Box GUI





Team Ford Alpha Presentation

Web Dashboard Table View

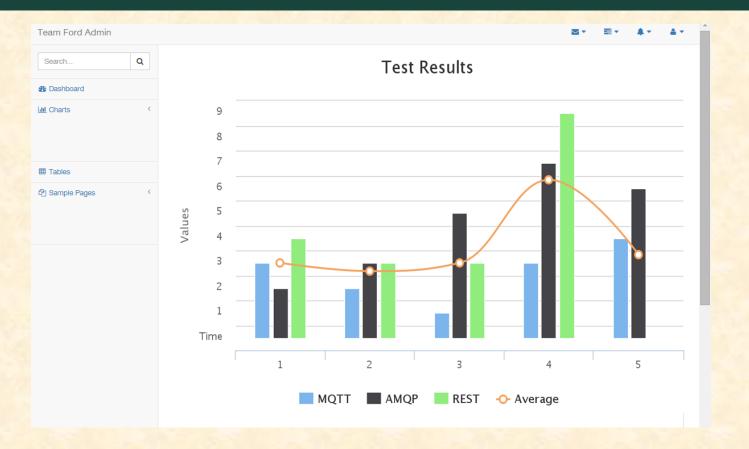






Team Ford Alpha Presentation

Team Ford Alpha Presentation Web Dashboard Visualization





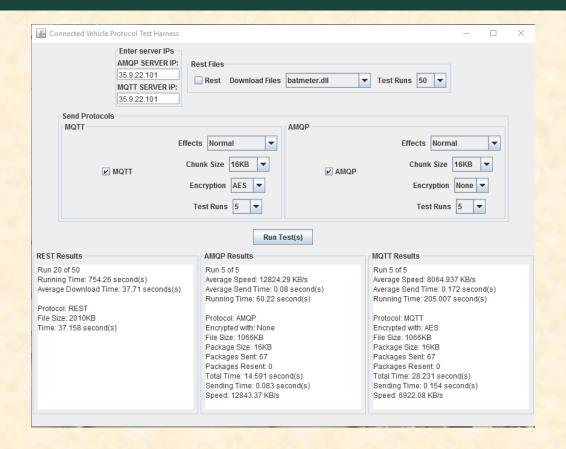
The Capstone Experience



Team Ford Beta Presentation

Team Ford Beta Presentation

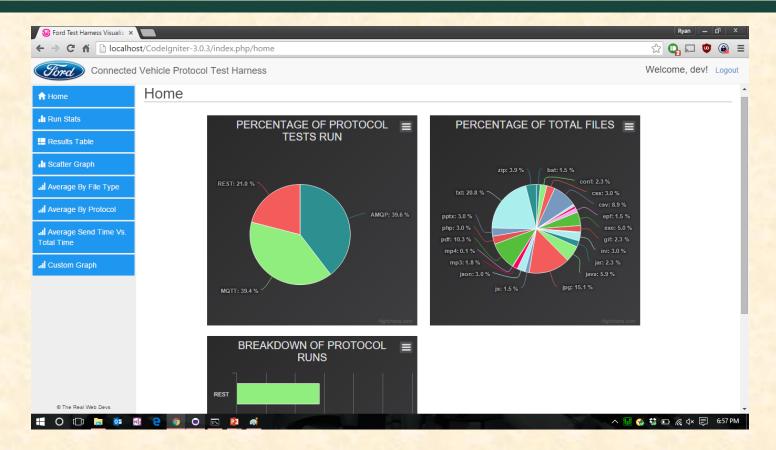
Discovery Box GUI





Team Ford Beta Presentation

Home Page



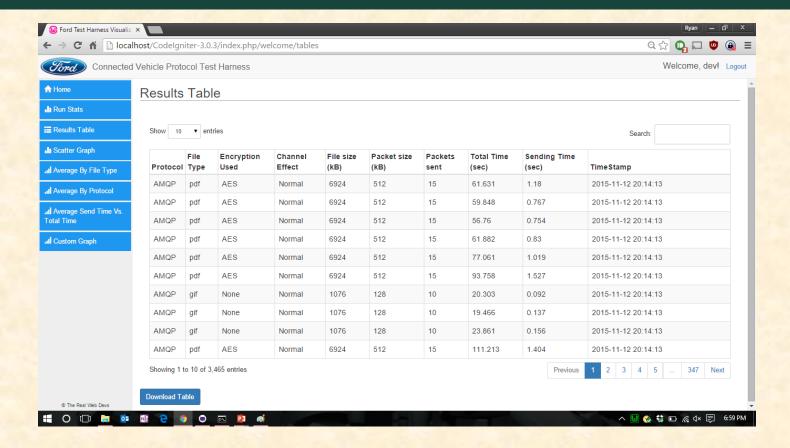




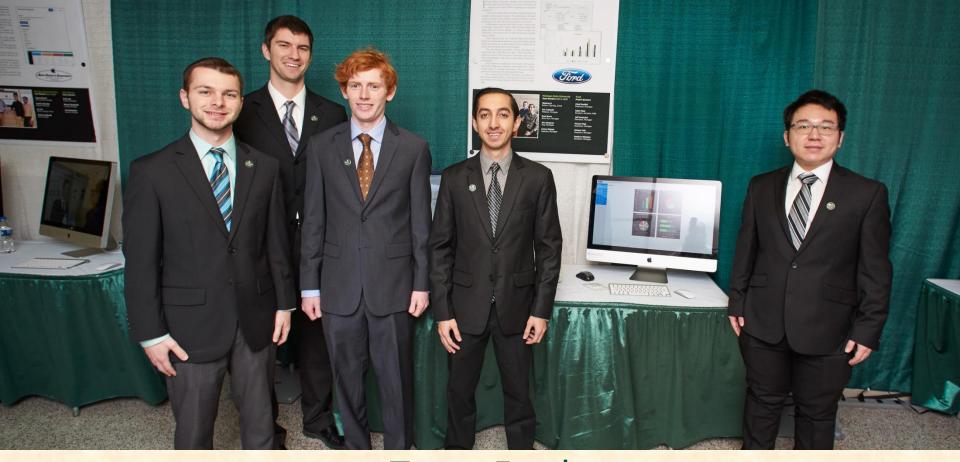
Team Ford Beta Presentation

Team Ford Beta Presentation

Results Table







Team Ford Design Day

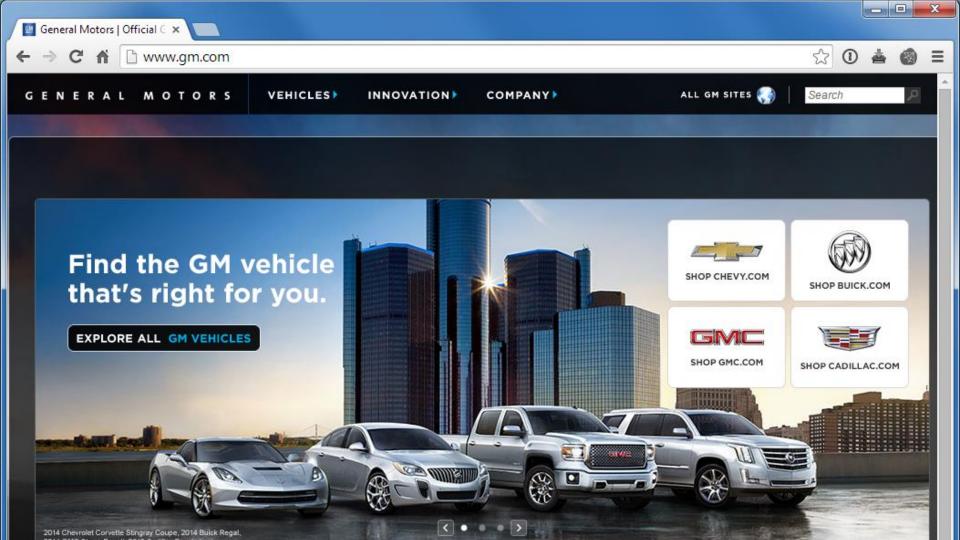




Team GM

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Michigan State University
Fall 2015





Team GM Project Overview

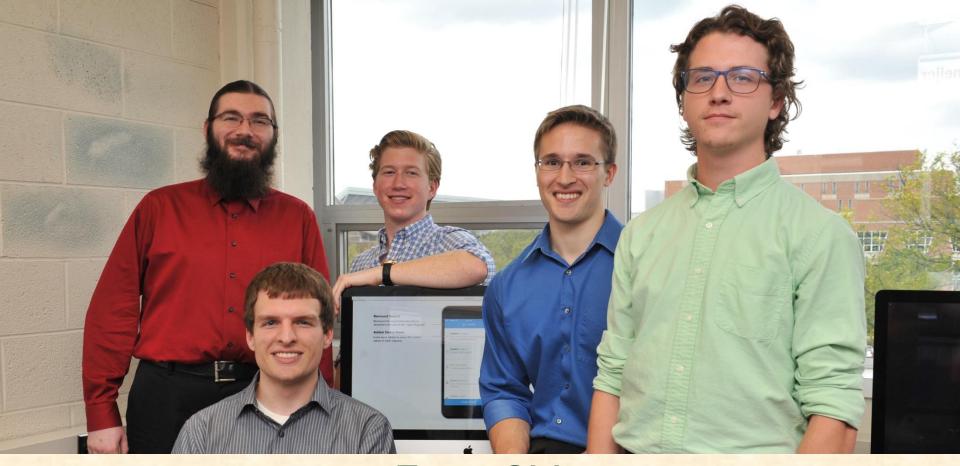
Asynchronous Service Desk Callback App

- Functionalities
 - Submit Request for Help and Callback
 - By GM Employee
 - To Global Service Desk
 - Using Mobile App
- Features
 - Integrate with Knowledge Management System
 - Show Potential Solutions
 - Cancel Help Request if Problem Solved
 - Provide Intelligent Queueing Mechanism
 - Select Optimal Callback Time
 - Based on Availability of Service Desk Operator and Employee
 - Support both Apple and Android Devices
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - RESTful Web Services
 - CSS / HTML / JavaScript
 - Exchange / Outlook







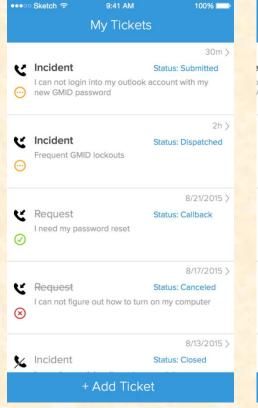


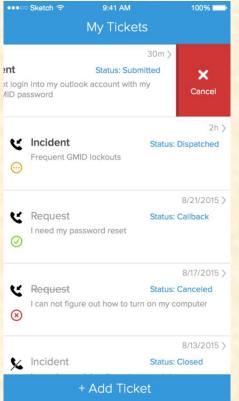
Team GM

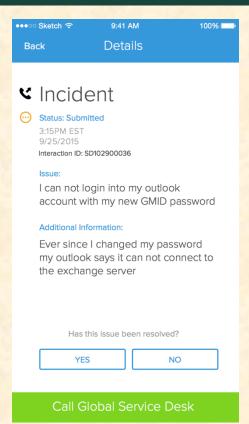
Brian Hart, Michael Palmer, Corbin Rangler, Evan Hlavaty, Sean Rabaut

Team GM Project Plan Presentation

Screen Mockups





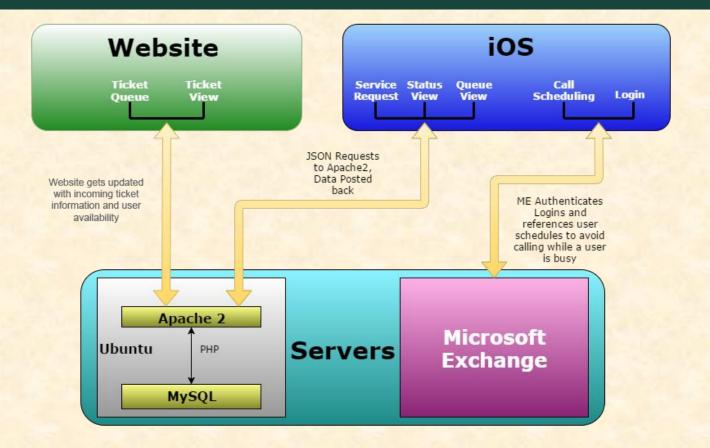






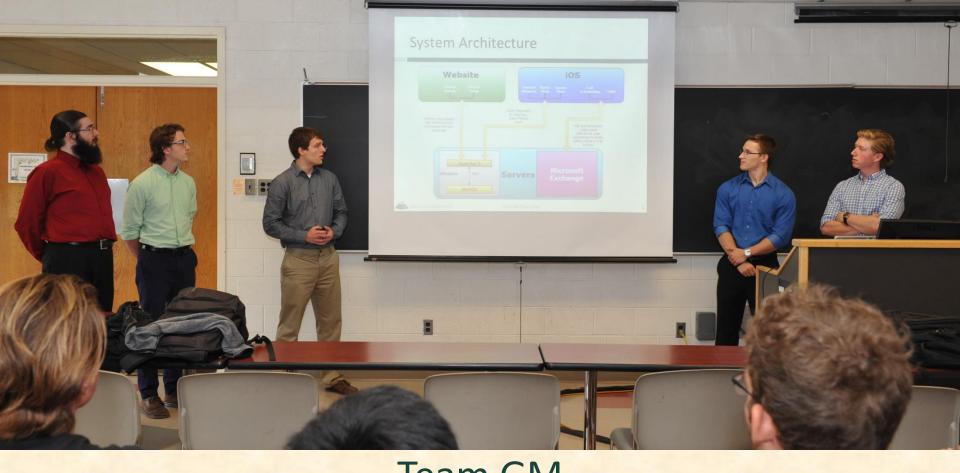
Team GM Project Plan Presentation

Team GM Project Plan Presentation Architecture Diagram





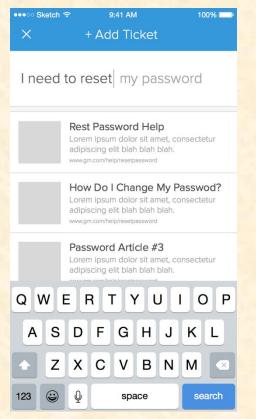
The Capstone Experience

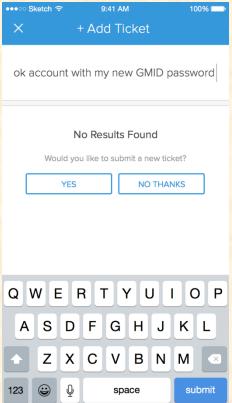


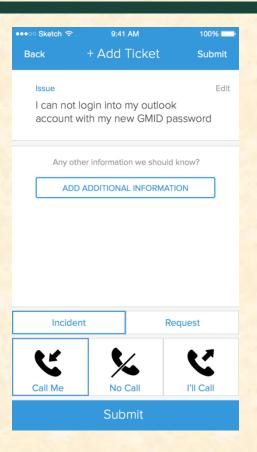
Team GM Project Plan Presentation

Team GM Project Plan Presentation

Screen Mockup







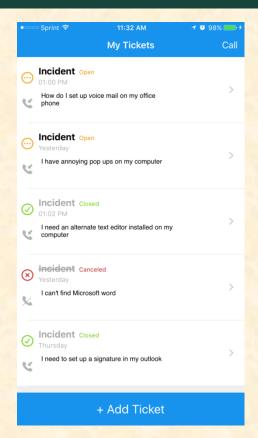


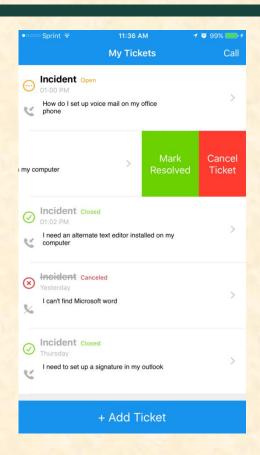


Team GM Alpha Presentation

Team GM Alpha Presentation

Tickets List

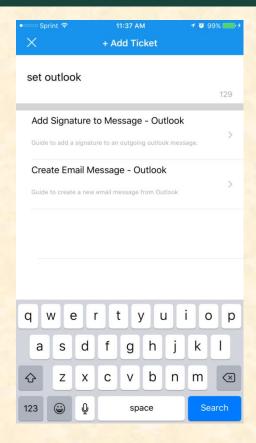


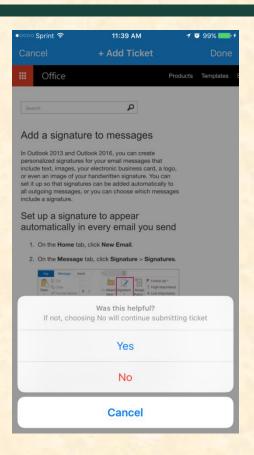




Team GM Alpha Presentation

Issue Input/Search





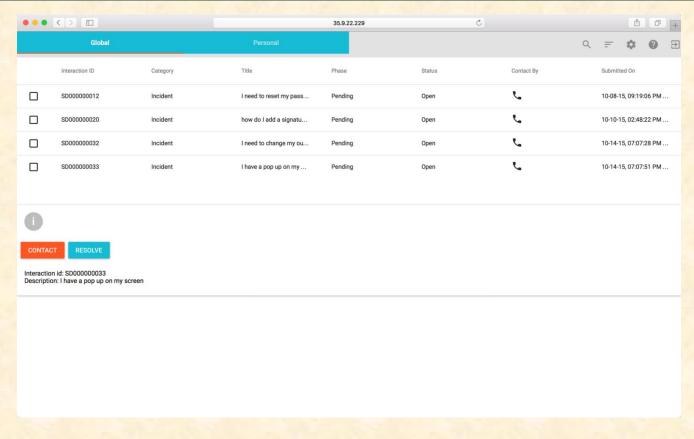




Team GM Alpha Presentation

Team GM Alpha Presentation

Web Ticket Queue





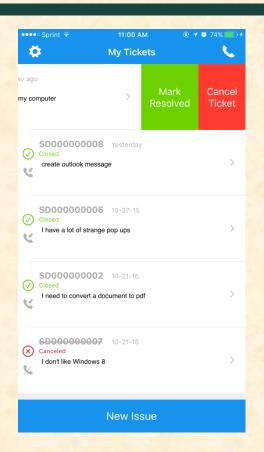


Team GM Beta Presentation

Team GM Beta Presentation

My Tickets

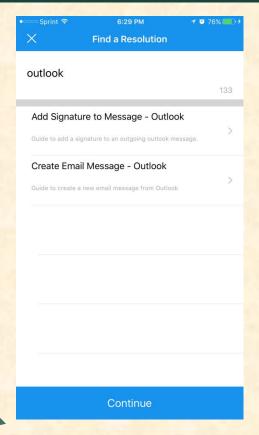


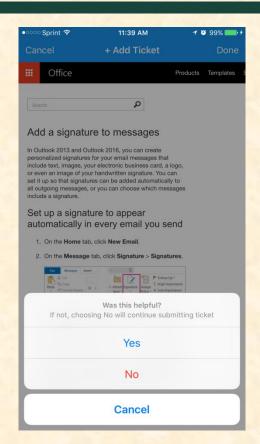


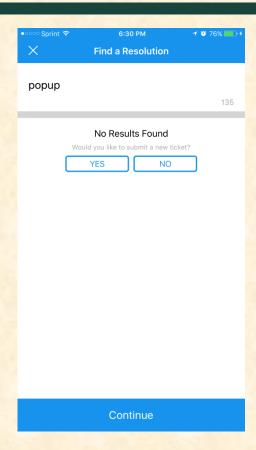


Team GM Beta Presentation

Find a Resolution







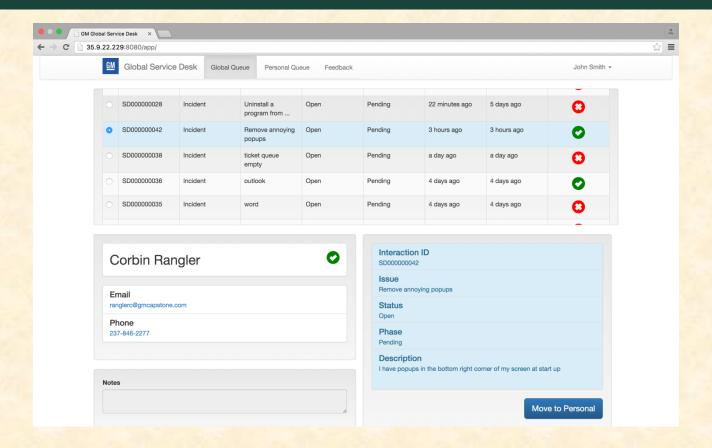




Team GM Beta Presentation

Team GM Beta Presentation

IT Service Manager







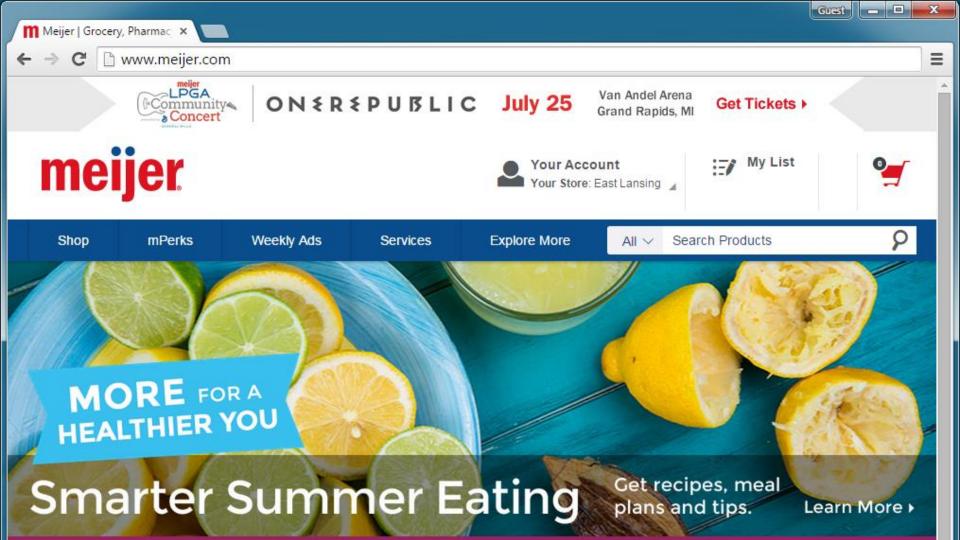
Team GM Design Day





Team Meijer

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Michigan State University
Fall 2015



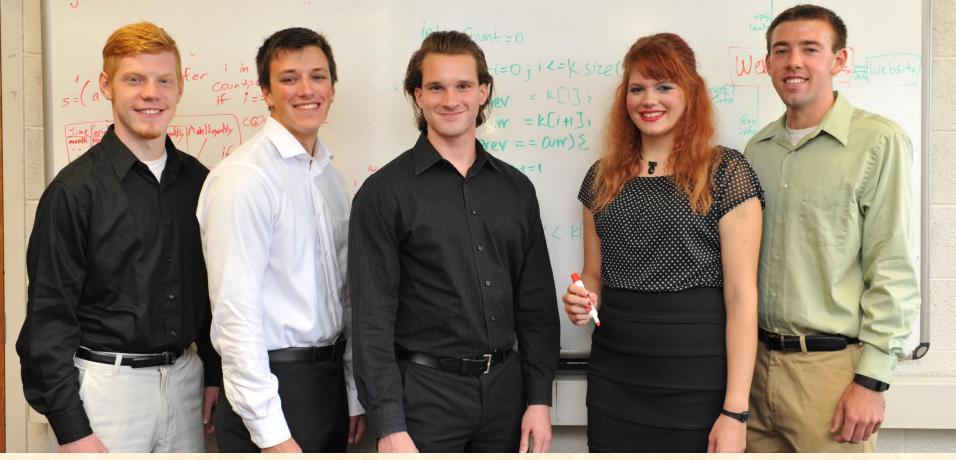
Team Meijer Project Overview

In-Store Price Compare

- Functionalities
 - Compare Meijer Price Against List of 3rd Party Stores
 - Brick and Mortar
 - Online
 - Near Me
 - By Scanning Barcode
 - Using Mobile Device
- Features
 - Provide Web Service to Interface with Devices
 - Support 3rd Party Services (Best Buy, Walmart, Amazon, Etc.)
 - Store Results and Provide Meijer Business Intelligence Web App
 - What products are being scanned the most?
 - Where are the largest price gaps?
 - O What are the smallest and largest prices and what competitors have them?
 - o Etc?
 - Possibly Provide Custom Meijer Coupon Based on Price Gap
- Technologies
 - Apple iPhones (iOS) / Swift or Objective-C
 - Xamarin or PhoneGap
 - Microsoft .NET Framework / C# / ASP.NET / Azure Mobile Services
 - SQL Server 2012
 - Meijer Web Services
 - Crashlytics
 - GitHub





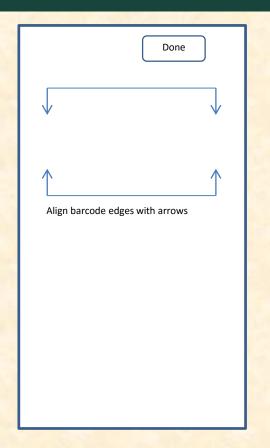


Team Meijer

Brian Wyss, Brandon Bielicki, Spencer Ottarson, Zandra Russell, Tony Laurain

Team Meijer Project Plan Presentation

Screen Mockup



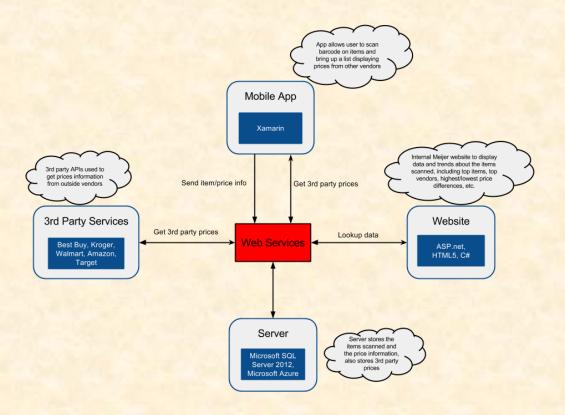






Team Meijer Project Plan Presentation

Team Meijer Project Plan Presentation Architecture Diagram



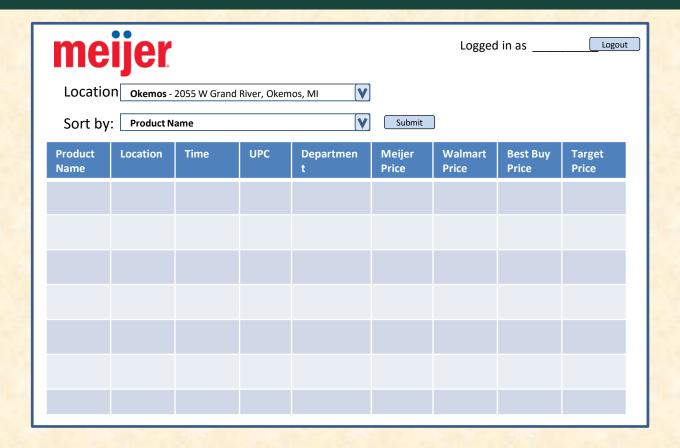




Team Meijer Project Plan Presentation

Team Meijer Project Plan Presentation

Screen Mockup

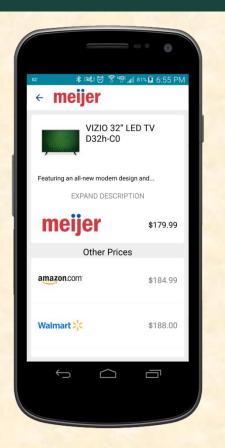






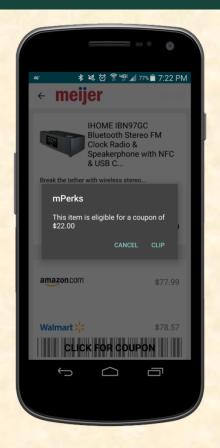
Mobile App: Scan and Result







Mobile App: Coupon Popup







Team Meijer Alpha Presentation

Website Scan Table



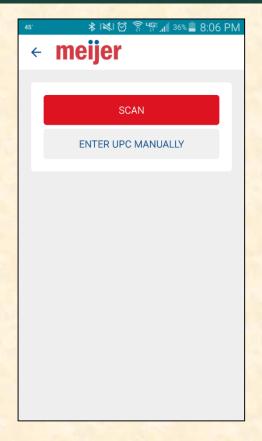




Team Meijer Beta Presentation

Team Meijer Beta Presentation

Mobile Scan Screen

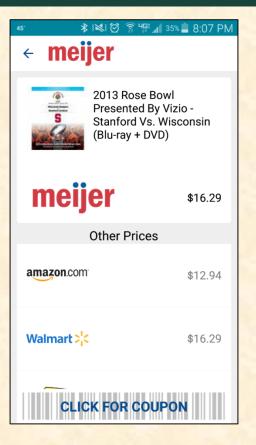


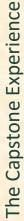




Team Meijer Beta Presentation

Mobile Results Screen

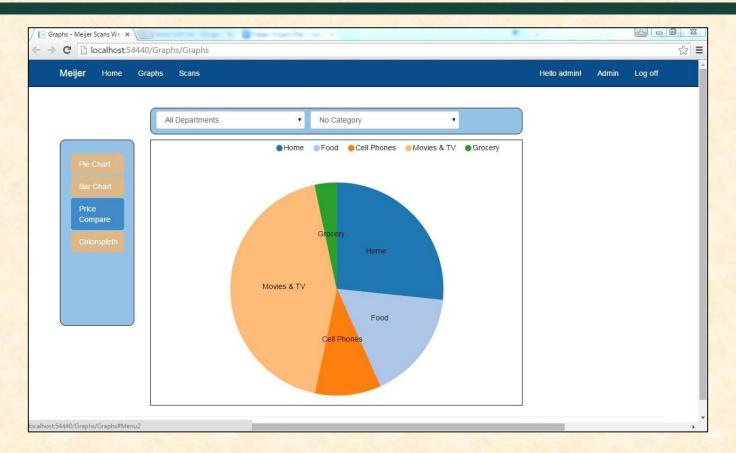






Team Meijer Beta Presentation

Web Graphs Page: Pie Chart







Team Meijer Beta Presentation



Team Meijer Design Day



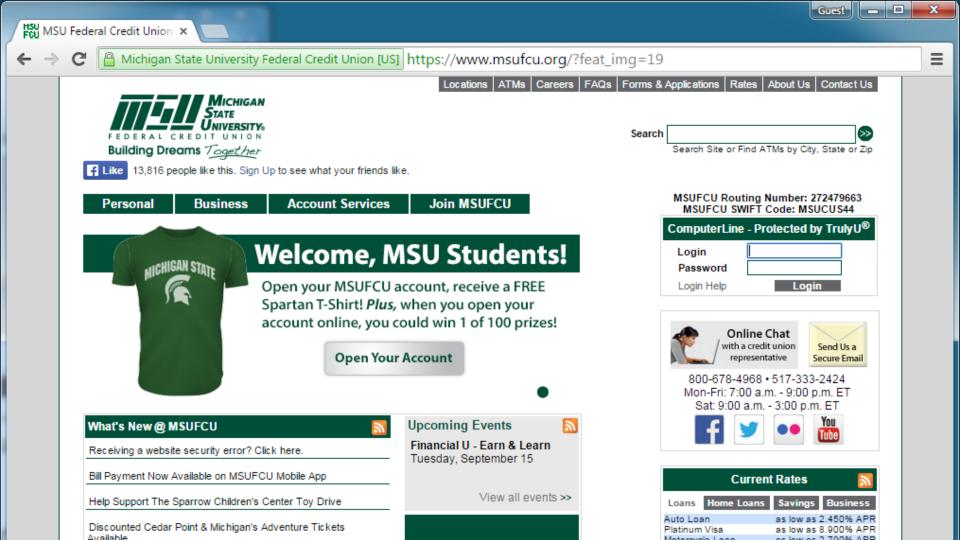
The Capstone Experience



Team MSUFCU

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Fall 2015



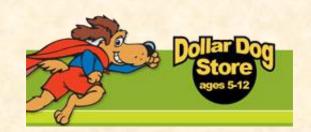


The Capstone Experience

Team MSUFCU Project Overview

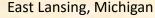
Online Dollar Dog Store

- Functionalities
 - Promote Financial Education of Children Everywhere
 - Deposits Earn Dollar Dog Coins
 - Can Be Redeemed in Dollar Dog Stores
 - But Currently Only in 13 Lansing Branches
 - By Expanding Dollar Dog Program
 - From Limited Physically Branch-Based
 - o To Unlimited Virtually Mobile and Web-Based
- Features
 - Provide Access to Dollar Dog Program Online
 - View Dollar Dog Coin Balances
 - Award Coins for Participation in Online Educational Activities
 - Shop for Prizes at the Dollar Dog Store
 - Support Apple (iOS), Android and Web Apps
 - Integrate Seamlessly With Existing MSUFCU Software
 - Provide MSUFCU Management Web App
 - Add/Remove and Inventory Prizes
 - Adjust Dollar Dog Coin Balances
 - Send Text Messages to Users
 - Ensure High Level of Security
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - CSS / HTML
 - PHP
 - JavaScript
 - Encryption Based on SQL Standards

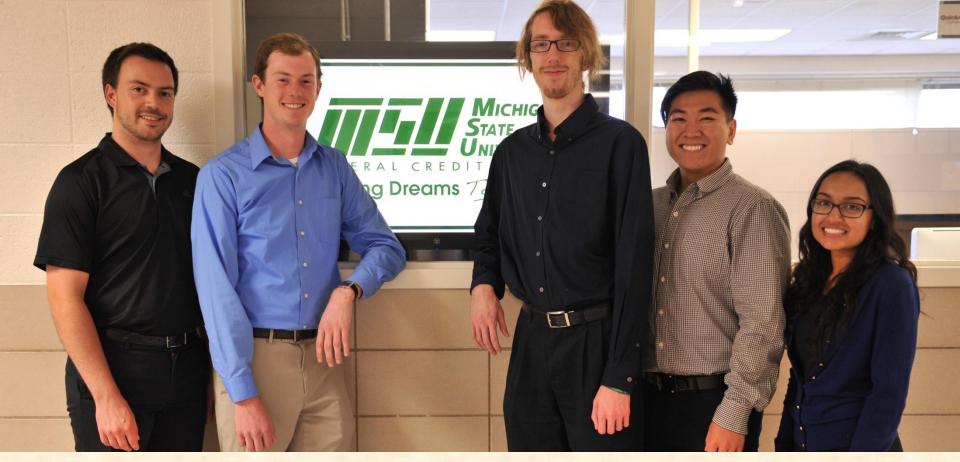










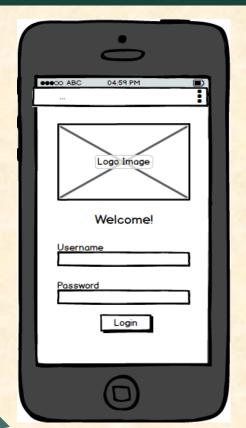


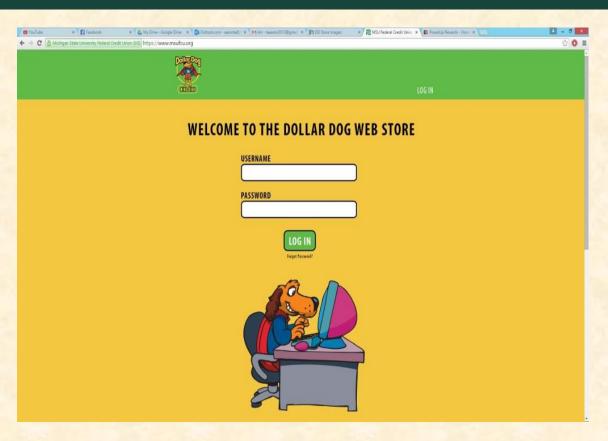
Team MSUFCU

Zac Walters, Ryan McIntyre, Andrew MacAfee, Aaron Ta, Neha Gupta

Team MSUFCU Project Plan Presentation

Screen Mockup



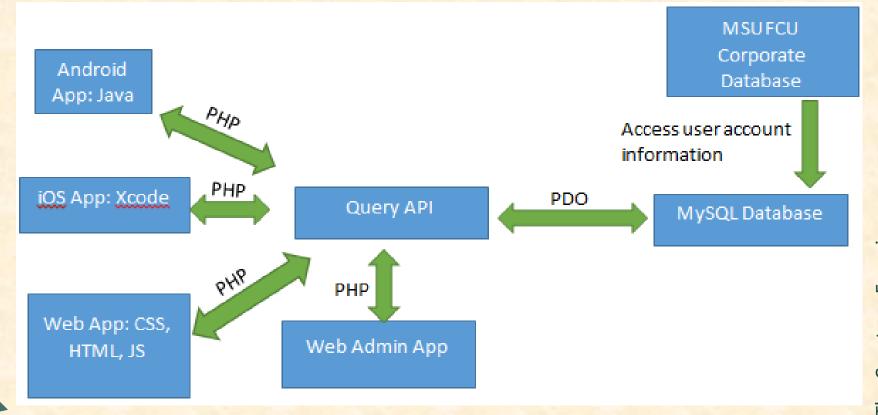




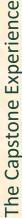


Team MSUFCU Project Plan Presentation

Team MSUFCU Project Plan Presentation Architecture Diagram





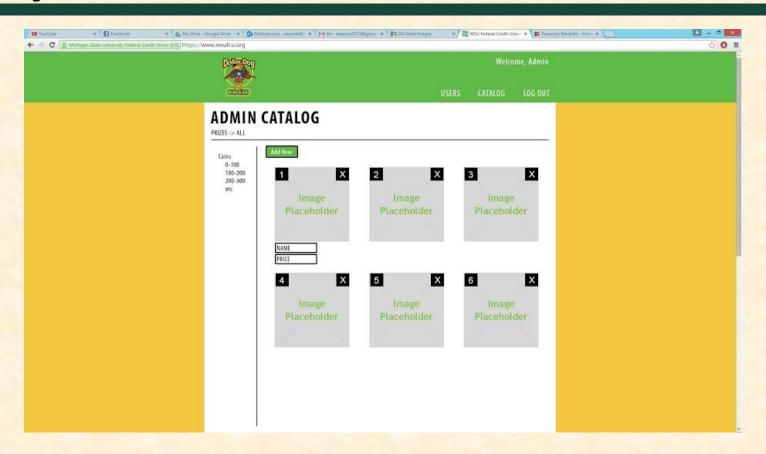




Team MSUFCU Project Plan Presentation

Team MSUFCU Project Plan Presentation

Screen Mockup





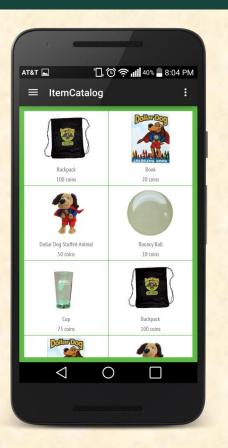


Team MSUFCU Alpha Presentation

Team MSUFCU Alpha Presentation

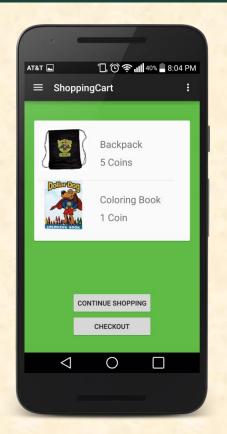
Mobile Login & Item Catalog

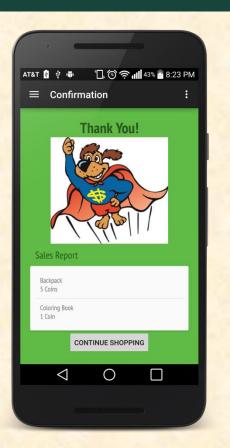






Team MSUFCU Alpha Presentation Shopping Cart & Confirmation





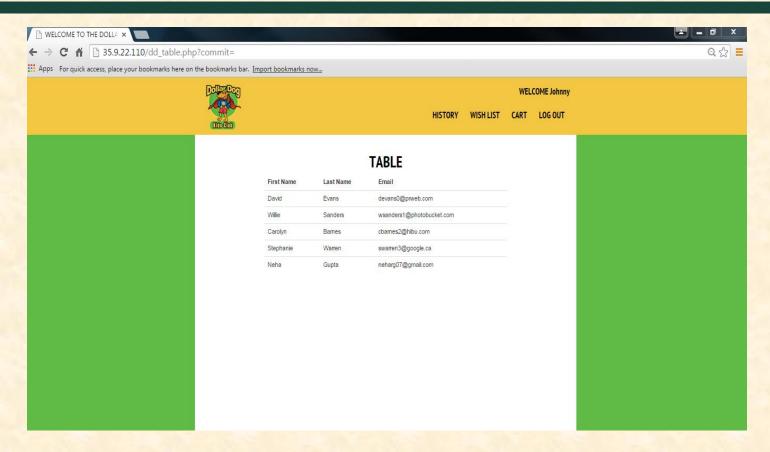




Team MSUFCU Alpha Presentation

Team MSUFCU Alpha Presentation

Admin Website User Table

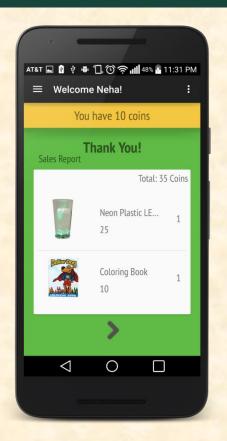


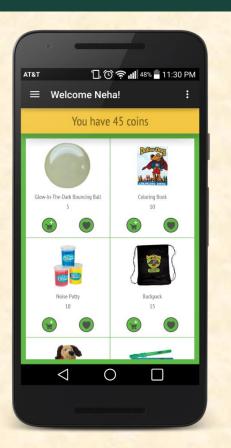


The Capstone Experience



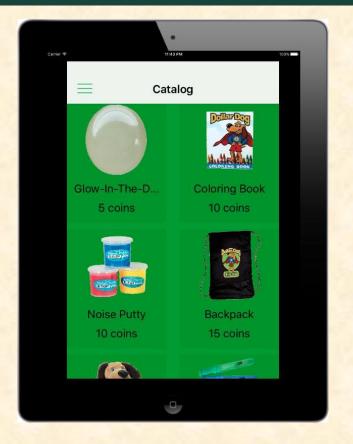
Android Purchase and Catalog







iPad Catalog



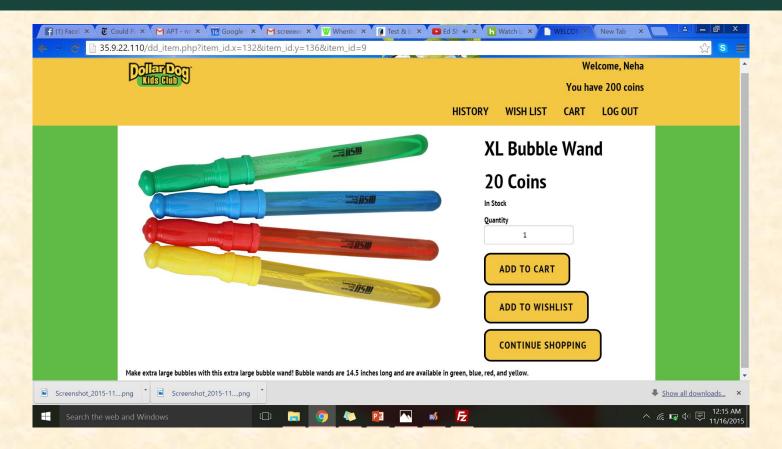




ne Capstone Experience

Team MSUFCU Beta Presentation

User Item Page: Web







Team MSUFCU Design Day



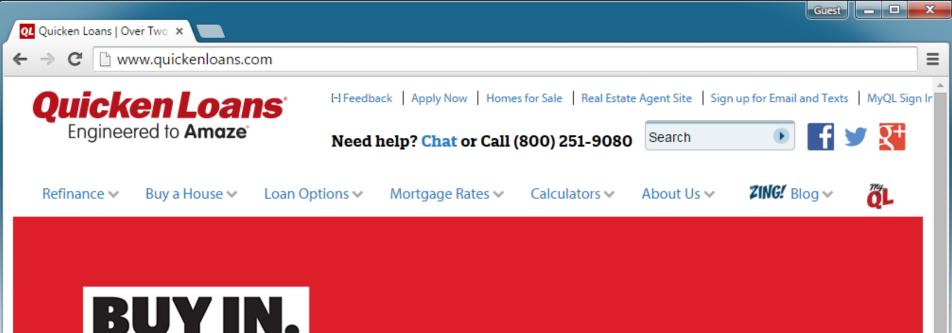
The Capstone Experience



Team Quicken Loans

Department of Computer Science and Engineering
Michigan State University
Fall 2015

Quicken Loans Engineered to Amaze **The company of the company o



BUYIN. HOME BUY. REFI. POWER.

START HERE

Purchase

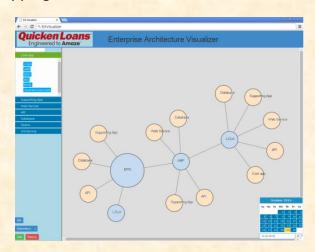
Refinance

The Capstone Experience

Team Quicken Loans Project Overview

Enterprise Roadmap Tool

- Functionalities
 - Visual Computer Systems Enterprise Road Mapping Tool
 - For Senior Leadership
 - To Show Future
 - Major Computer System Changes
 - New Application Development
 - Replacing Word Documents
- Features
 - Model Initiatives
 - High Level Features
 - Business Value
 - Size
 - Start Date
 - Dependencies
 - Show Interdependencies and Roadmaps
 - Provide Search Capabilities
 - Generate Reports
 - Roadmaps for Initiatives
 - Reports on Business Values
- Technologies
 - .NET / Web Development
 - SQL Server
 - UI / UX Expertise





Detroit, Michigan



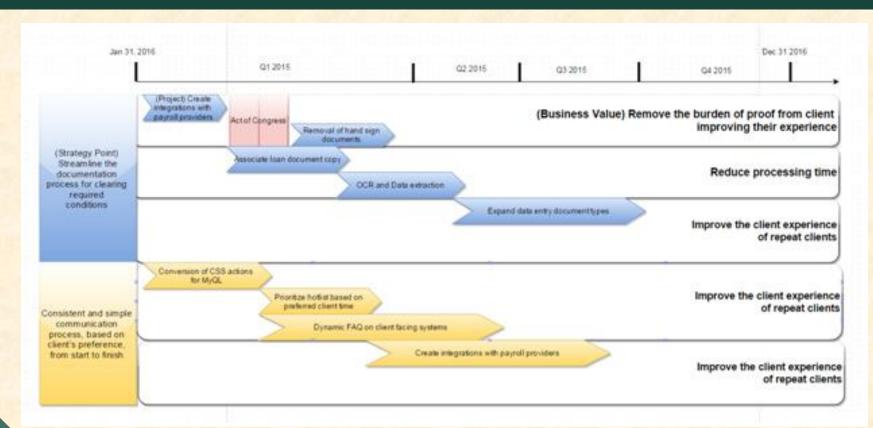


Team Quicken Loans

Brian Chivers, Chase Grove, Emily Klopfer, Eric Nartker, Ben Toth

Team Quicken Loans Project Plan Presentation

Screen Mockup



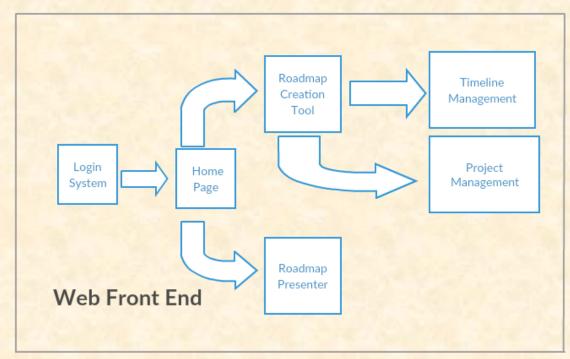




Team Quicken Loans Project Plan Presentation

Team Quicken Loans Project Plan Presentation Architecture Diagram





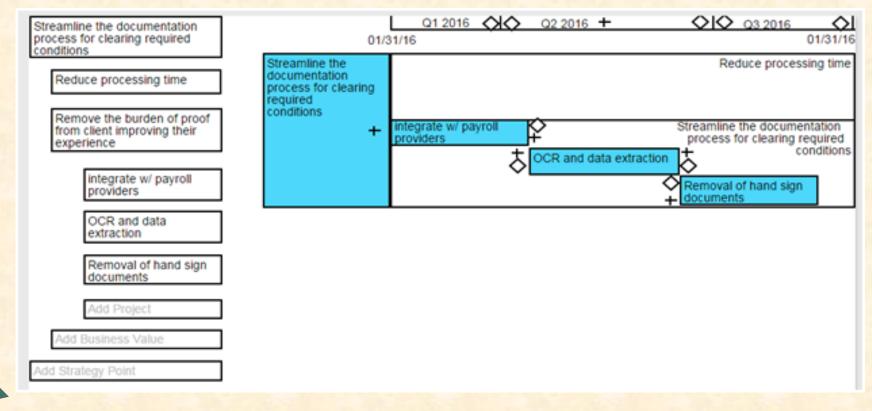




Team Quicken Loans Project Plan Presentation

Team Quicken Loans Project Plan Presentation

Screen Mockup





The Capstone Experience

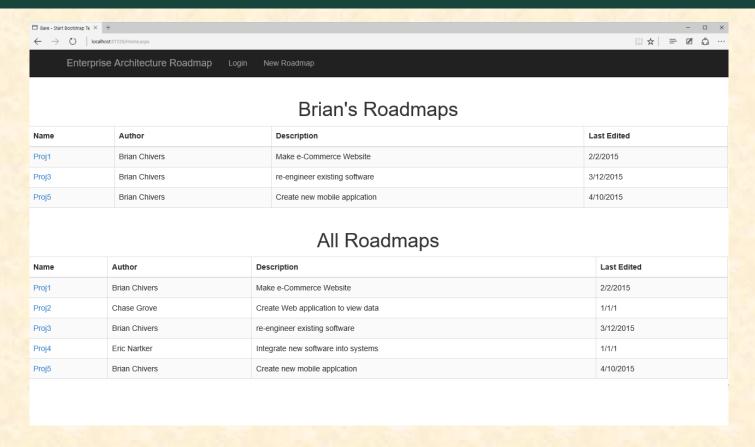


Team Quicken Loans Alpha Presentation

he Capstone Experience

Team Quicken Loans Alpha Presentation

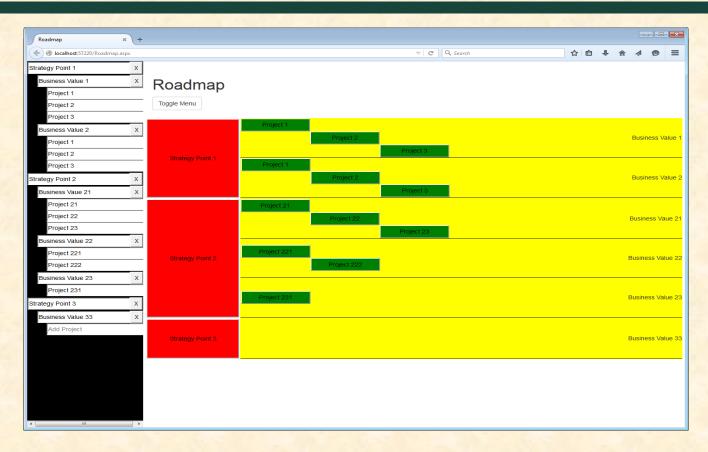
Home Page





Team Quicken Loans Alpha Presentation

Roadmaps Page



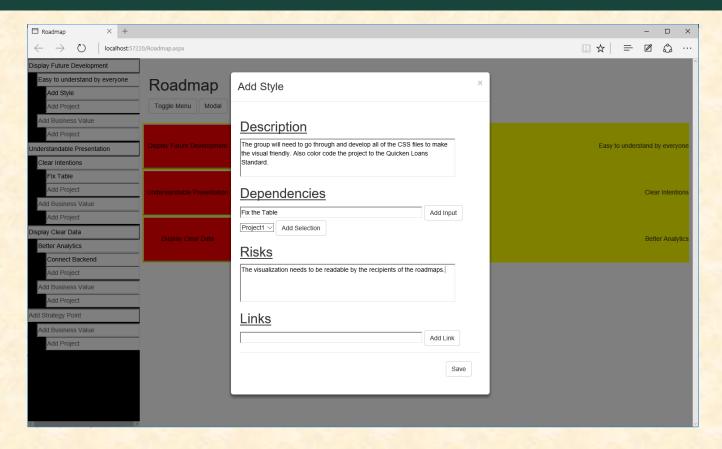




Team Quicken Loans Alpha Presentation

Team Quicken Loans Alpha Presentation

Roadmaps Modal Page



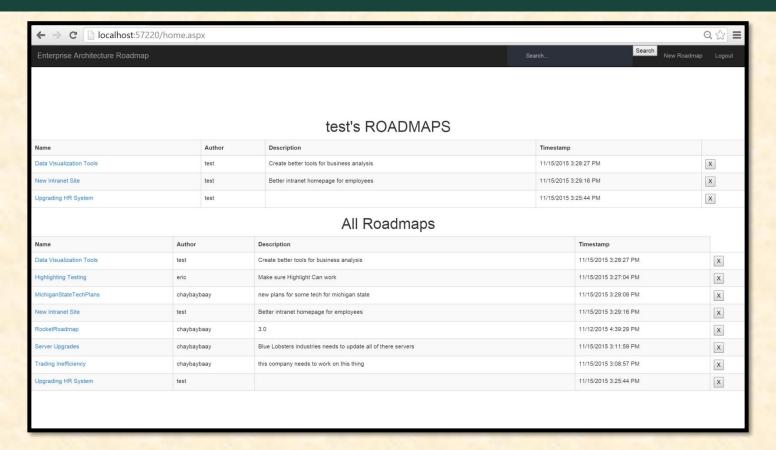




Team Quicken Loans Beta Presentation

Team Quicken Loans Beta Presentation

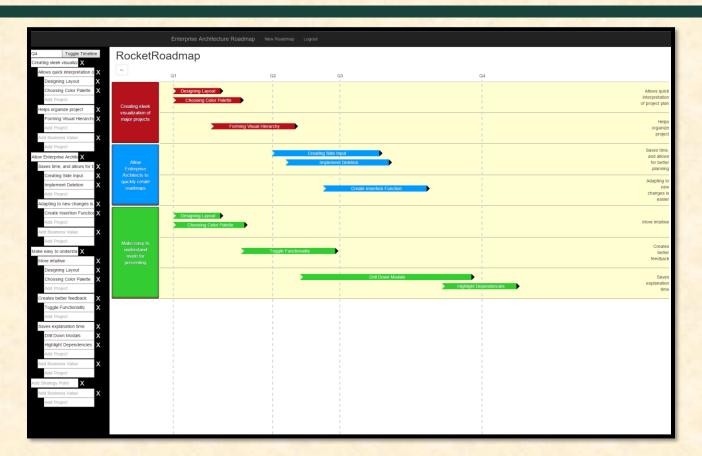
Home Roadmaps Page





Team Quicken Loans Beta Presentation

Completed Roadmap



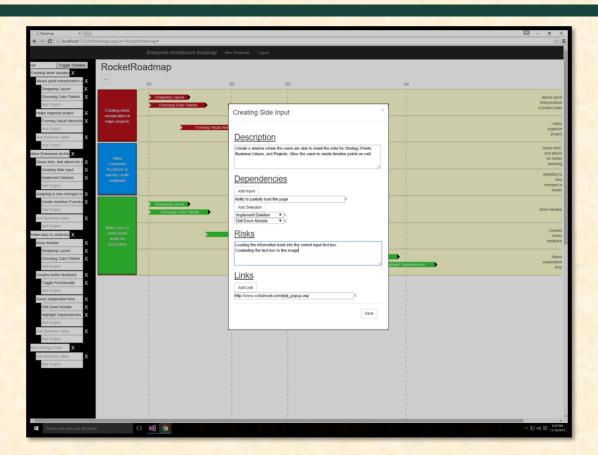




Team Quicken Loans Beta Presentation

Team Quicken Loans Beta Presentation

Roadmap Modal Information







Team Quicken Loans Design Day

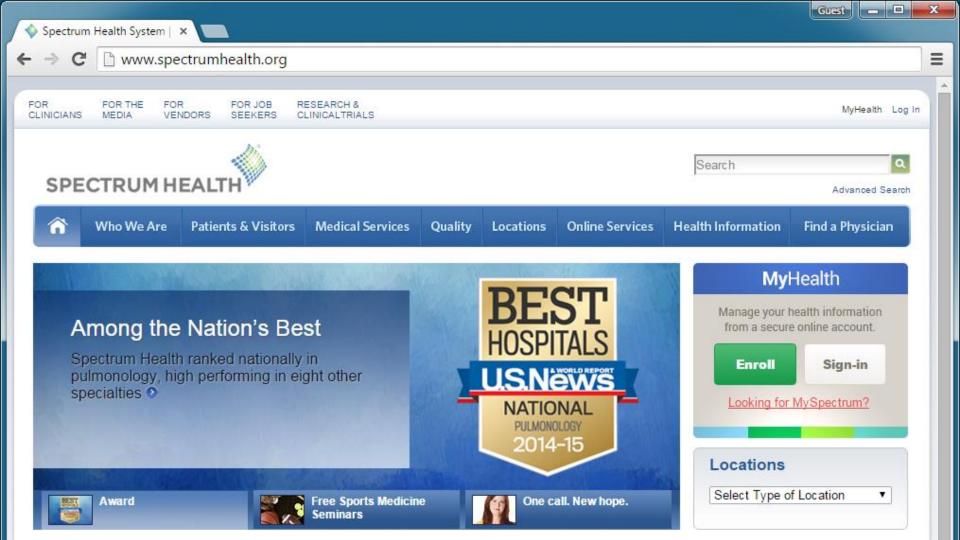




Team Spectrum Health

Department of Computer Science and Engineering
Michigan State University
Fall 2015

SPECTRUM HEALTH



Team Spectrum Health Project Overview

Patient Service Delivery Planning

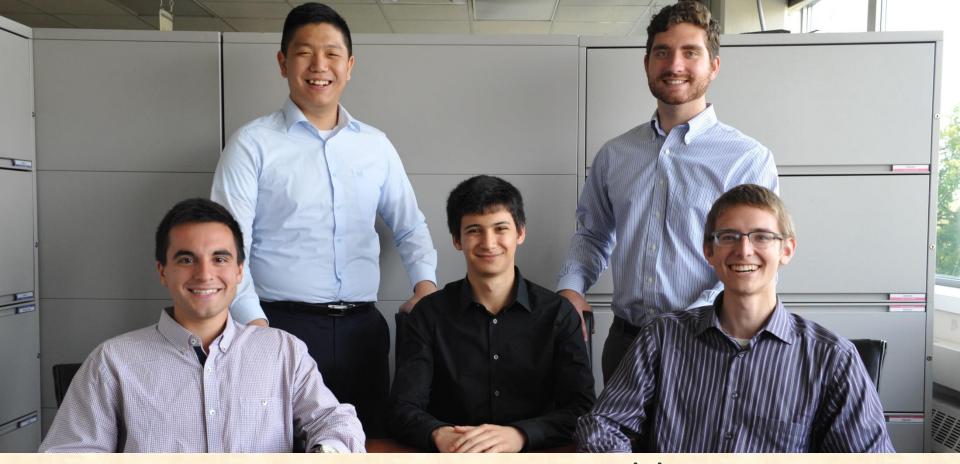
- Functionalities
 - Optimize Patient Care Service Delivery
 - For Patients By Identifying Facilities with Shortest Wait Times
 - For Spectrum Health By Predicting Staffing Needs In Advance
- Features
 - Gather and Integrate Data from Multiple Sources
 - Spectrum Health Census Web Service
 - Center for Disease Control
 - Weather Services
 - Track Patient Loads at Facilities
 - Build Predictive Model of Staffing Two Weeks in Advance
 - Provide
 - Mobile App for Patients
 - Web App for Spectrum Health
- Technologies
 - CSS / HTML / JavaScript / AngularJS
 - ASP.net Web API (C#)
 - Microsoft IIS 7.5
 - NoSQL / Cassandra
 - RESTful Web Services
 - Browser-Based Visualization





Grand Rapids, Michigan



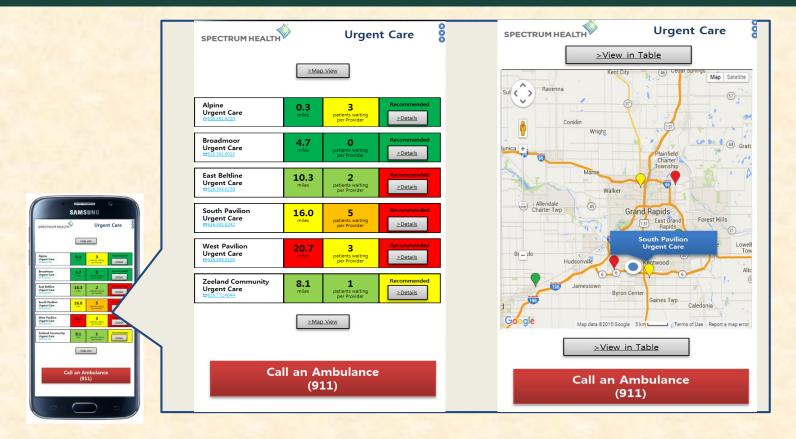


Team Spectrum Health

Jim Torres, Justin Oh, Josh Curl, Chaz Bean, Luke Stanton

Team Spectrum Health Project Plan Presentation

Screen Mockup

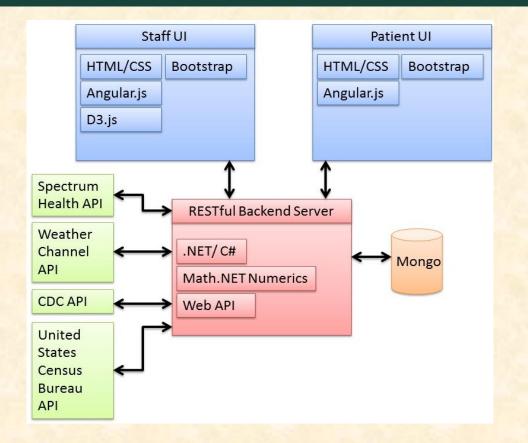




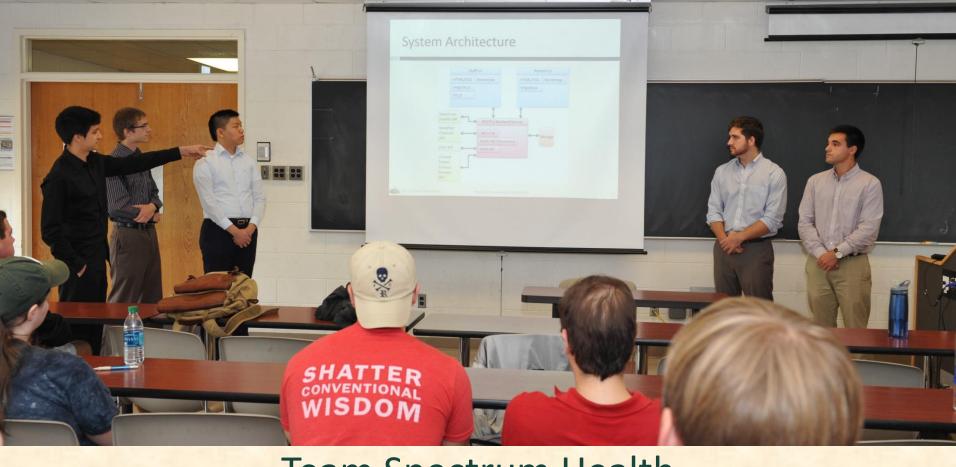


Team Spectrum Health Project Plan Presentation

Team Spectrum Health Project Plan Presentation Architecture Diagram







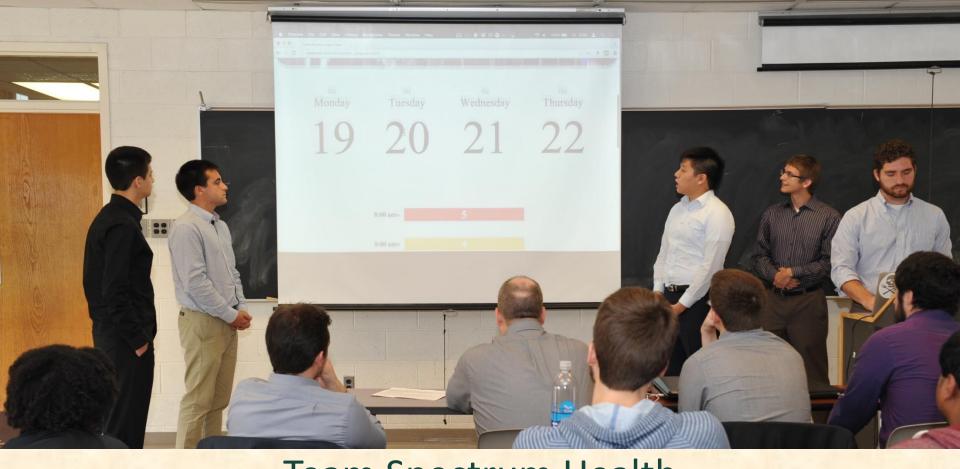
Team Spectrum Health Project Plan Presentation

Team Spectrum Health Project Plan Presentation

Screen Mockup



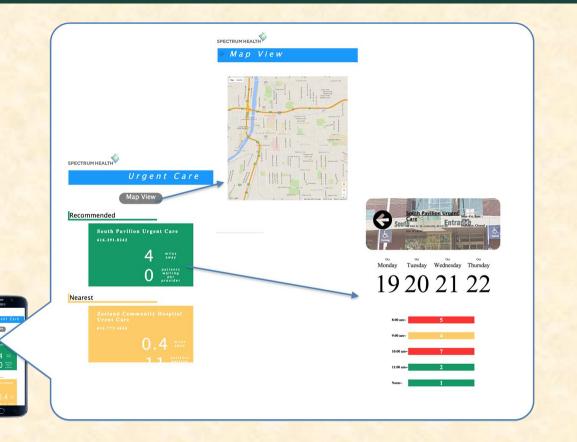




Team Spectrum Health Alpha Presentation

Team Spectrum Health Alpha Presentation

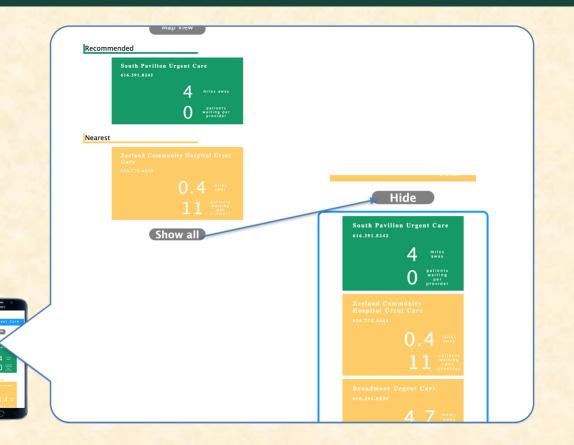
The Patient Interface





Team Spectrum Health Alpha Presentation

The Patient Interface



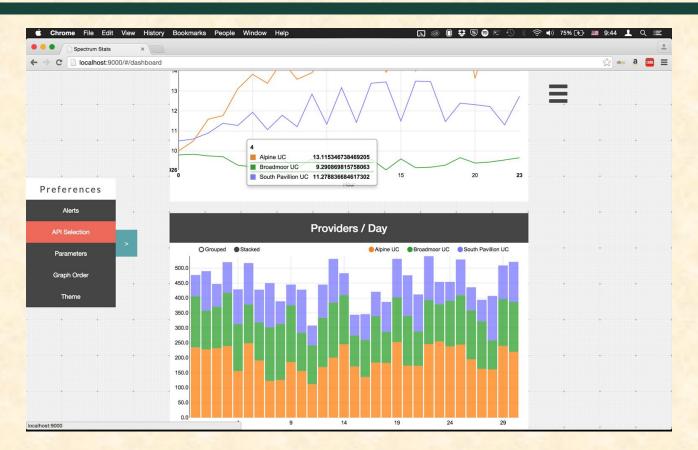




Team Spectrum Health Alpha Presentation

Team Spectrum Health Alpha Presentation

Spectrum Health Interface







Team Spectrum Health Beta Presentation

Team Spectrum Health Beta Presentation

Patient Mobile Apps







Team Spectrum Health Beta Presentation

Staff Web App



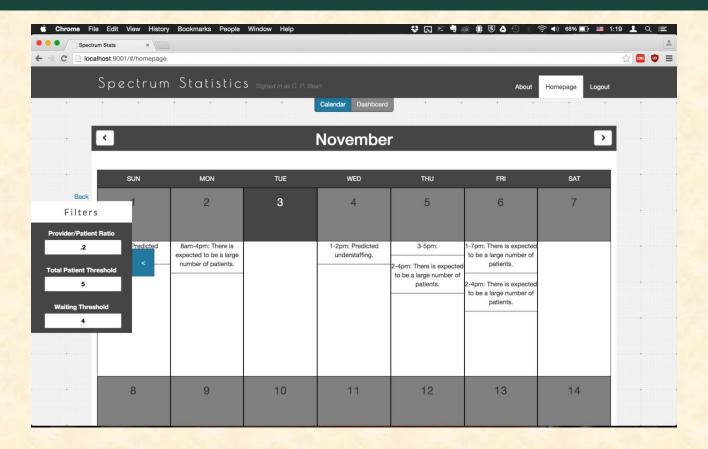




Team Spectrum Health Beta Presentation

Team Spectrum Health Beta Presentation

Staff Web App







Team Spectrum Health Design Day

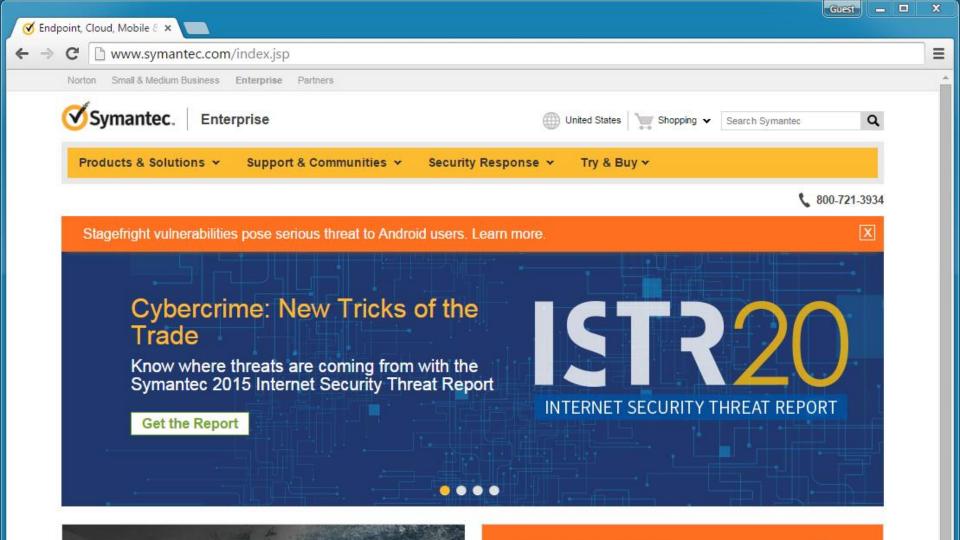




Team Symantec

Department of Computer Science and Engineering
Michigan State University
Fall 2015

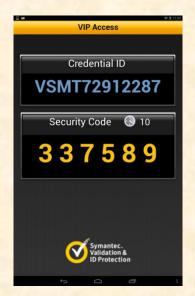




Team Symantec Project Overview

Integrated Silent Authentication via Symantec VIP

- Functionalities
 - Embed Two Factor Authentication
 - Into Native Mobile Apps
 - Sending Six-Digit Authentication Code
 - Automatically
 - o "Silently"
- Features
 - Require User to Enter Only Userid and Password
 - Send Six-Digit "Second" Factor
 - Without Direct User Interaction
 - Using Symantec VIP SDK
 - Demonstrate on Both Android and iPhone
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - Symantec VIP









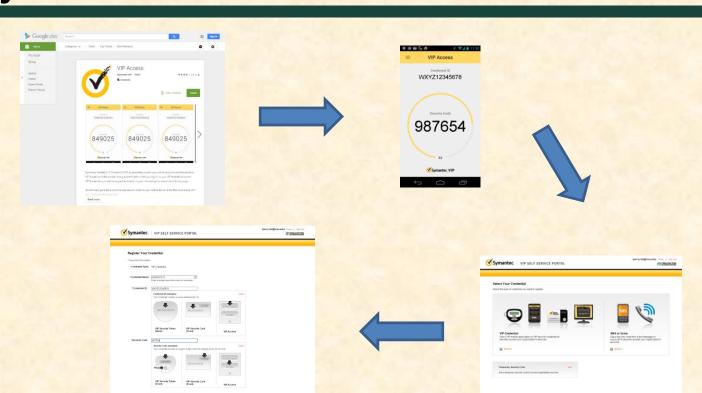
Team Symantec

Chris Perry, James Mariani, Tyler Erskine, Scott Binter, Dan Parlin

Team Symantec Project Plan Presentation

Cancel Submit

Screen Mockup



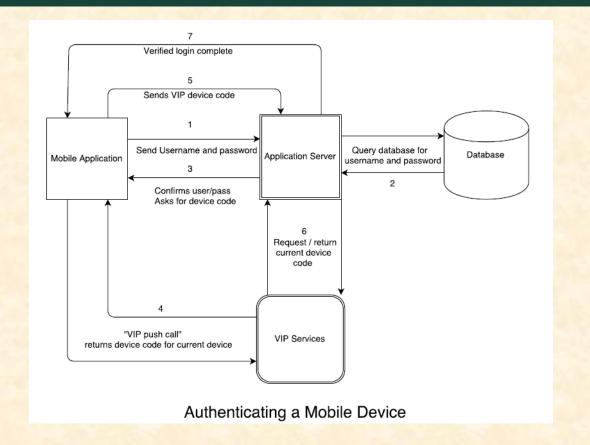
Steamer Norton





Team Symantec Project Plan Presentation

Team Symantec Project Plan Presentation Architecture Diagram





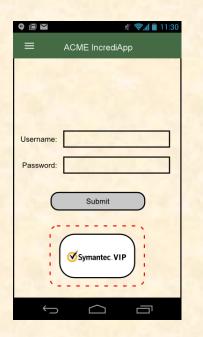
The Capstone Experience



Team Symantec Project Plan Presentation

Team Symantec Project Plan Presentation

Screen Mockup





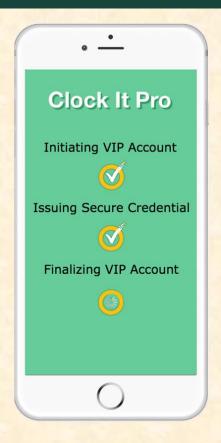


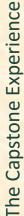






Initiating VIP Account







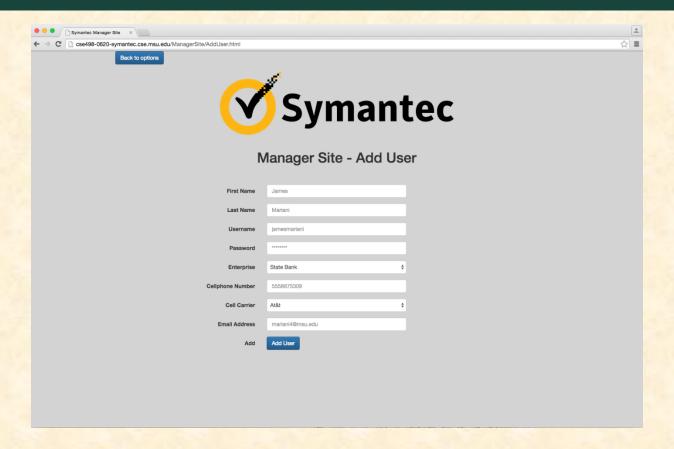
Login Page







Adding Users to VIP



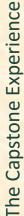


The Capstone Experience



Initiating VIP Account







Login Page







Enterprise Mail Pin Screen







Team Symantec Design Day



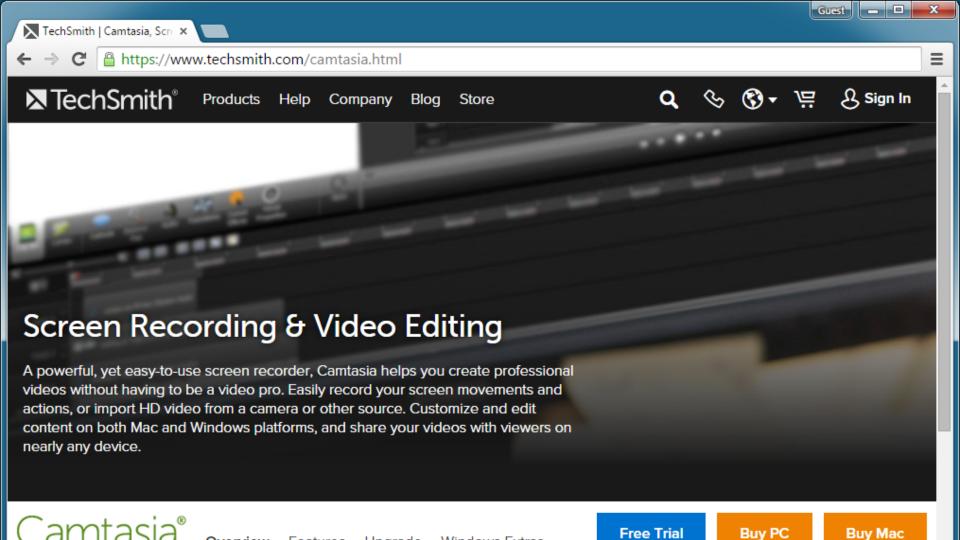
The Capstone Experience



Team TechSmith

Department of Computer Science and Engineering
Michigan State University
Fall 2015

X Tech Smith



Team TechSmith **Project Overview**

Intelligent Real World Text Recognition

- **Functionalities**
 - Using Mobile Device (Camera)
 - Recognize Text in the Real World
 - Perform Useful Actions
 - Call a Phone Number
 - Go to a URL
 - Map a Street Address
 - Tweet a Hashtag
 - Etc.
- Features
 - Highlight Recognized Text in Camera View
 - Offer to Take Action on Recognized Text
 - Save Recognized Text in Appropriate Places
 - Use Windows 10 UWP OCR Engine API
 - Demonstrate Raspberry Pi "Reading Station"
 - Visually Impaired
 - Learning to Read
 - Store Things Seen in Cloud Backend
- **Technologies**
 - Windows 10 Universal Windows Platform Apps
 - Raspberry Pi









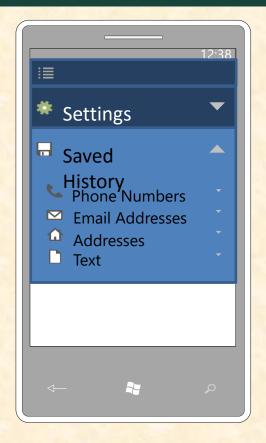


Team TechSmith

Jordyn Castor, Deb Deb, Whitney Mitchell, Max Miller, Cody Pearson

Team TechSmith Project Plan Presentation

Screen Mockup



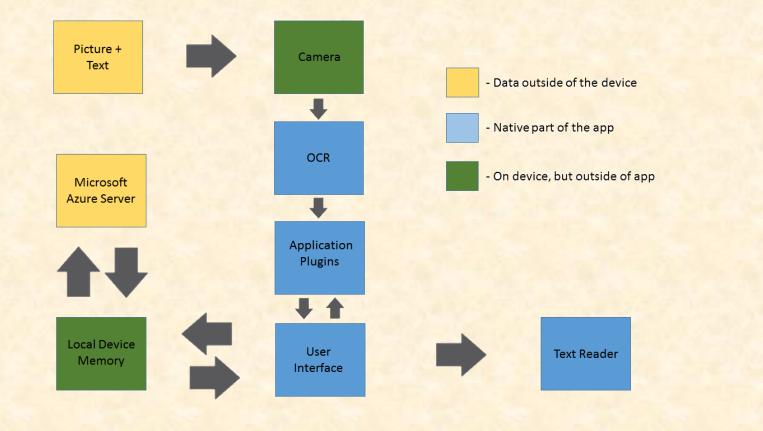






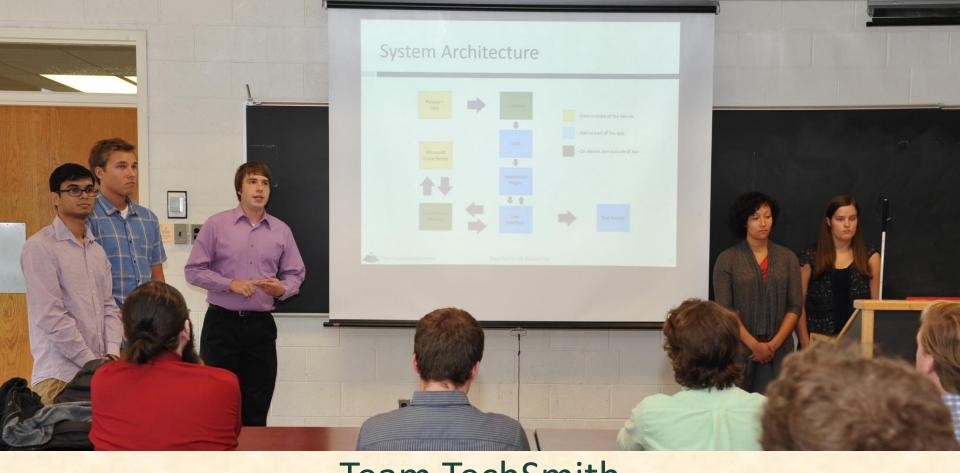
Team TechSmith Project Plan Presentation

Team TechSmith Project Plan Presentation Architecture Diagram





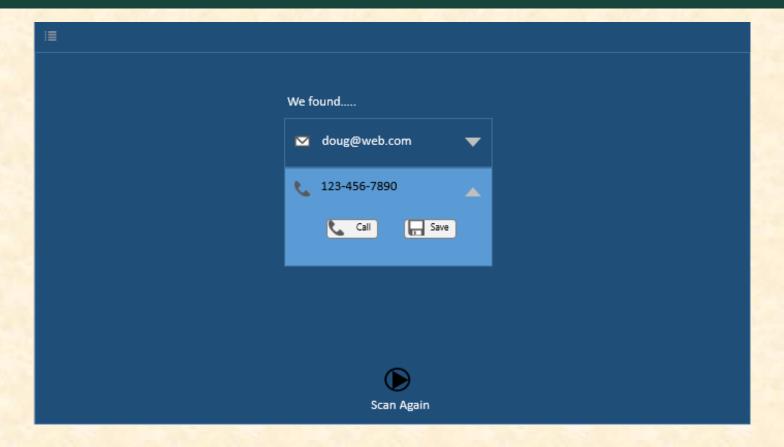
The Capstone Experience



Team TechSmith Project Plan Presentation

Team TechSmith Project Plan Presentation

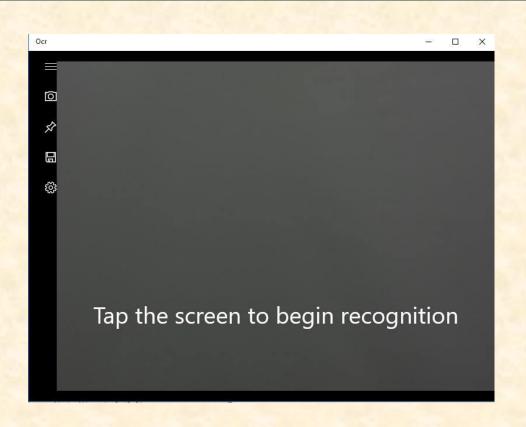
Screen Mockup

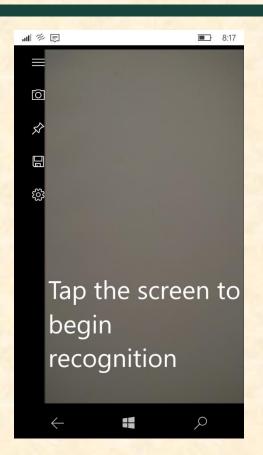






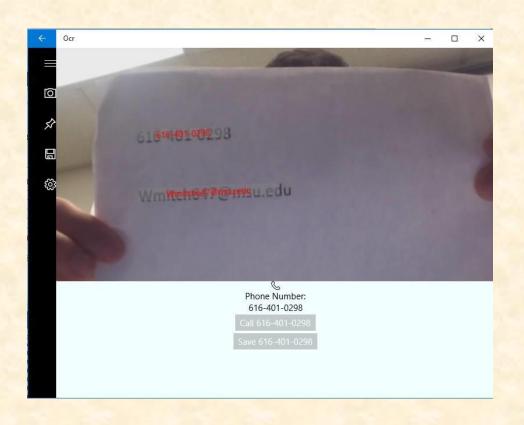
Camera Page







Results Page





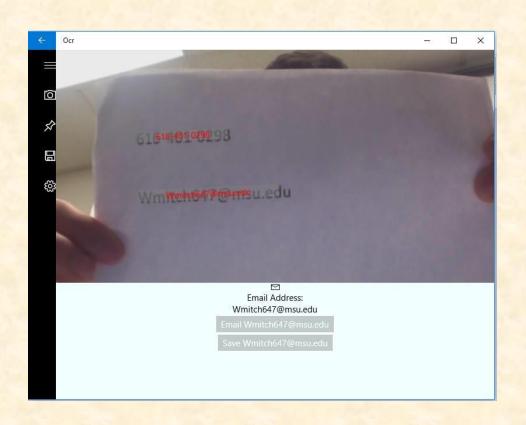




The Capstone Experience

Team TechSmith Alpha Presentation

Results Page

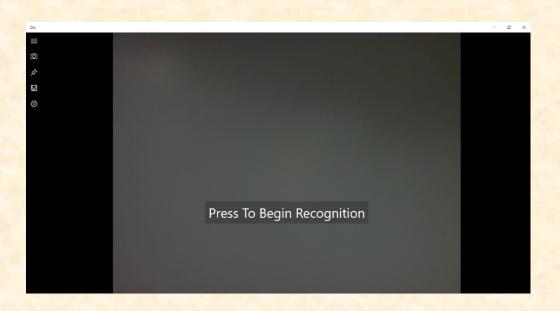








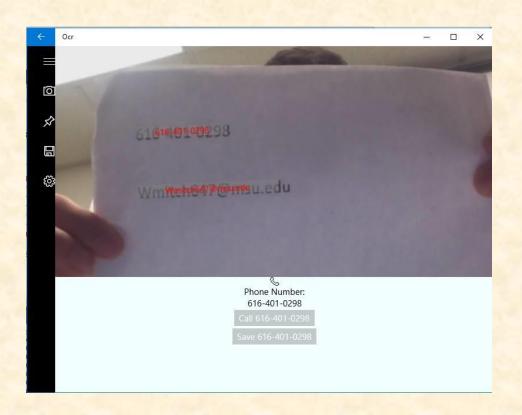
Camera Page







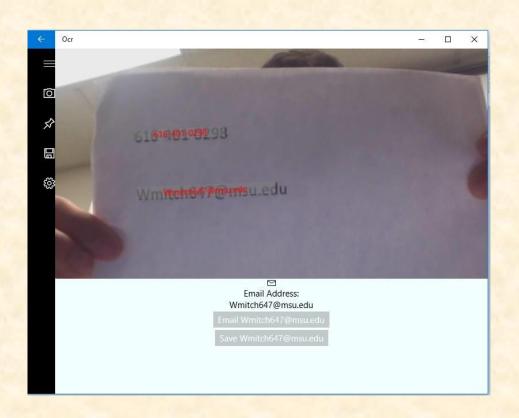
Recognized Phone Number







Recognized Email Address











Team TechSmith Design Day



The Capstone Experience

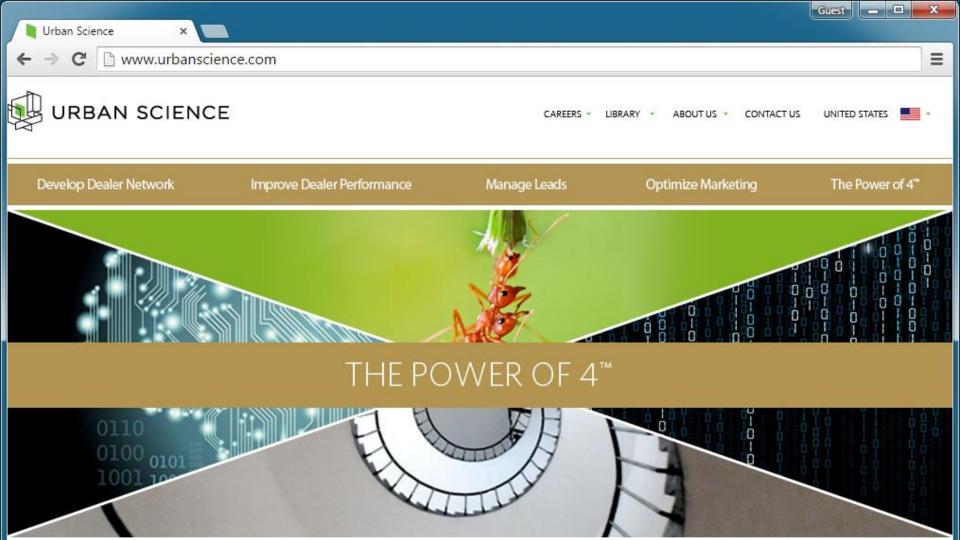


Team Urban Science

Department of Computer Science and Engineering
Michigan State University
Fall 2015



URBAN SCIENCE.



The Capstone Experience

Team Urban Science Project Overview

Visualizing Brand Loyalty

- Functionalities
 - Visualize Brand Loyalty
 - For OEM Loyalty Managers
 - Using Native Tablet Apps
- Features
 - Visualize
 - Repurchase Loyalty Rates by Brand and Segment
 - Conquest / Defector Ratios for All Brands
 - Trends on All Key Performance Indicators (KPIs)
 - Support KPI Grouping by Geographic Region
 - National
 - Regional
 - o Market
 - Provide Native Apps for Both Android and Apple iOS
 - Send Intelligent Alerts
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - SQL Server 2012
 - Visual Studio 2013







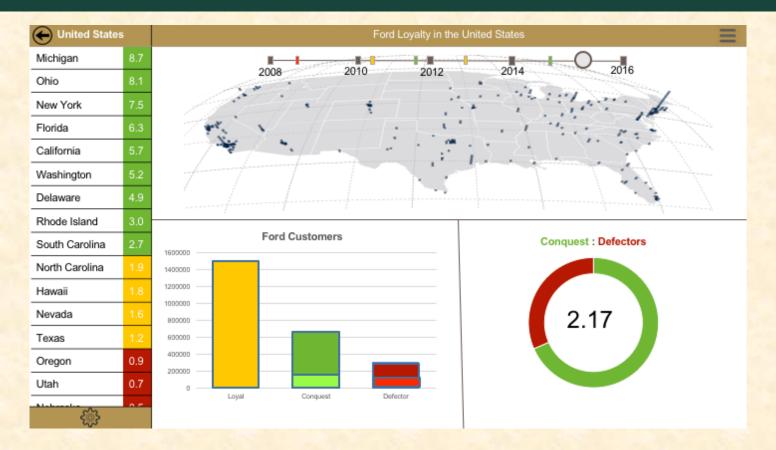


Team Urban Science

Meghan Huynh, Jeff Baum, Nick Durak, Richard Brush, Asha Patel

Team Urban Science Project Plan Presentation

Screen Mockup

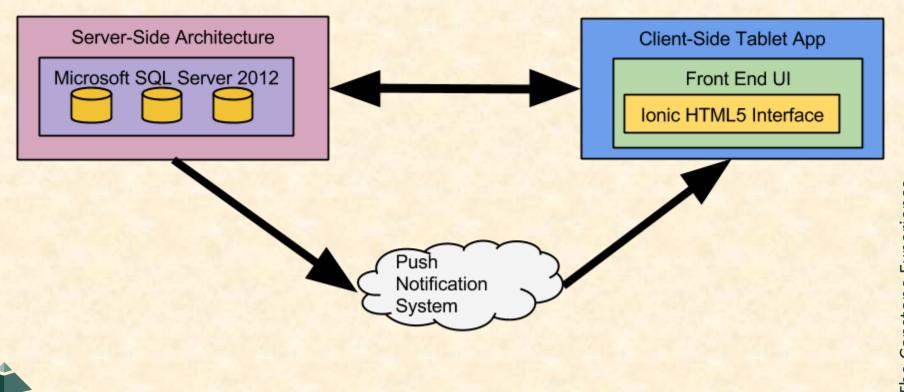




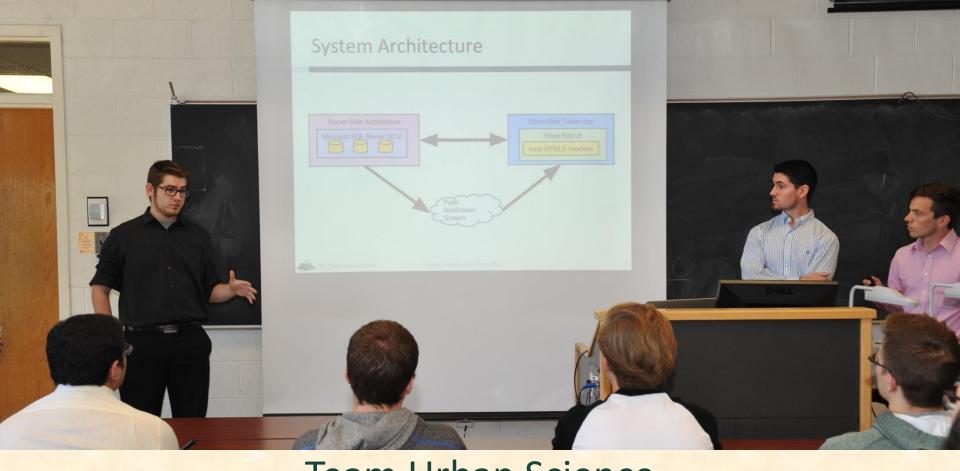


Team Urban Science Project Plan Presentation

Team Urban Science Project Plan Presentation Architecture Diagram



The Capstone Experience



Team Urban Science Project Plan Presentation

Team Urban Science Project Plan Presentation

Screen Mockup





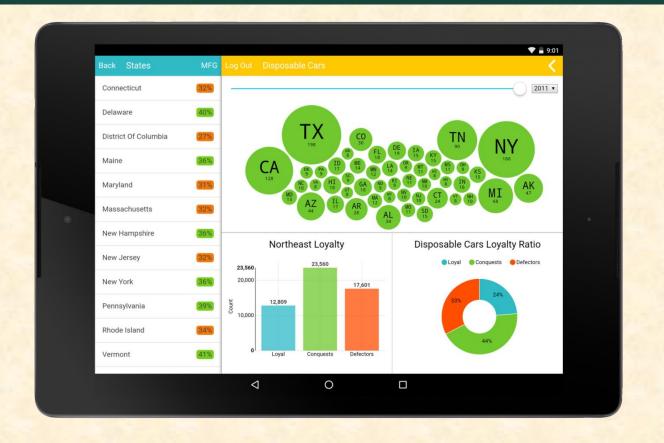


Push Notifications





Geography Hierarchy Menu







Criteria Menu







Team Urban Science Beta Presentation

Choropleth Map

Team Urban Science Beta Presentation





Bubble Chart

Team Urban Science Beta Presentation







Push Notification Creation







Team Urban Science Design Day



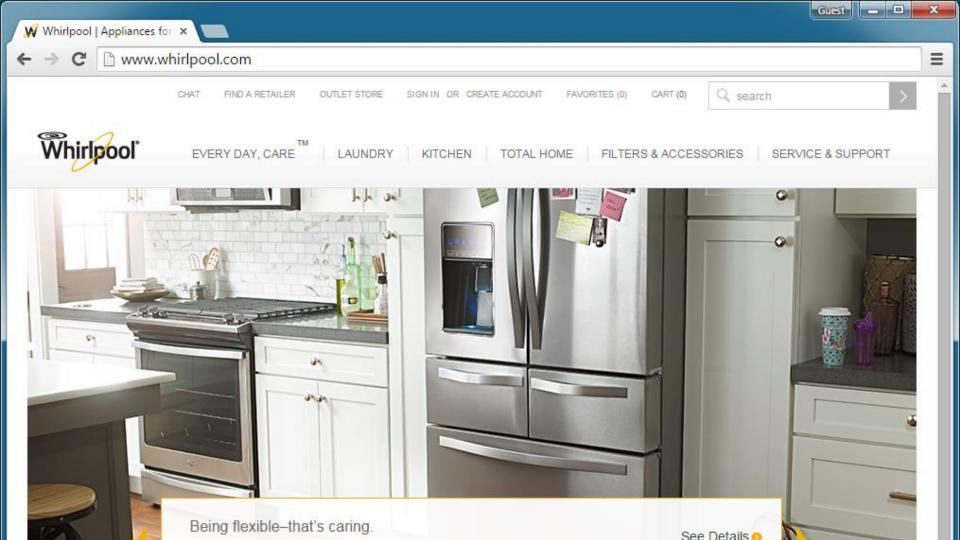
The Capstone Experience



Team Whirlpool

Department of Computer Science and Engineering
Michigan State University
Fall 2015

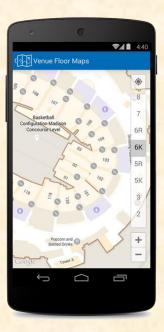




Team Whirlpool Project Overview

Whirlpool Indoor Maps

- Functionalities
 - Help Whirlpool Employees Navigate Buildings
 - By Providing
 - Search by Room and Employee
 - Maps
 - Turn-By-Turn Directions
 - Using Mobile Apps
- Features
 - Authenticate Users with Google Authentication
 - Display Whirlpool Facility Maps
 - Gather Room Details from XML Data
 - Locate Available Conference Rooms
 - Integrate with Google Calendar
 - Support Both Native Android and Apple iOS Apps
 - Provide Web App
- Technologies
 - Google Android Tablets and Phones / Java
 - Apple iPads and iPhones (iOS) / Swift or Objective-C
 - Google Maps SDKs (for iOS and Android)
 - Google Enterprise Authentication
 - Micello JavaScript API
 - SQL Server
 - Custom XML Parser
 - RESTful Web Services





Benton Harbor, Michigan





Team Whirlpool

Christian White, Steph Brown, Zoe Hayes, Jallal Elhazzat, Greg Richard

Team Whirlpool Project Plan Presentation

Screen Mockup





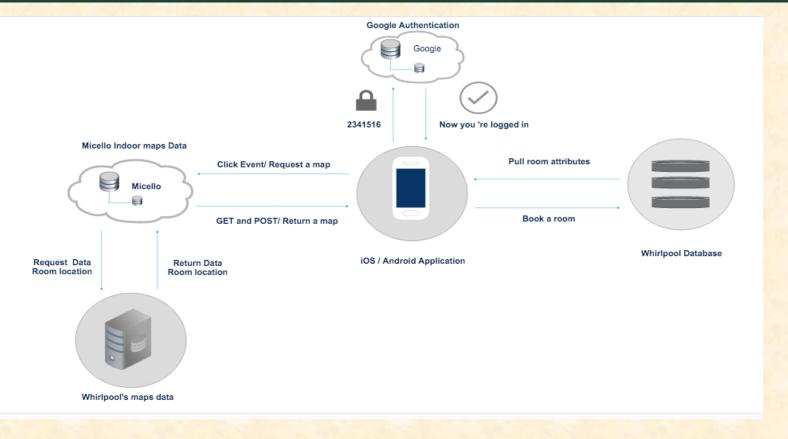




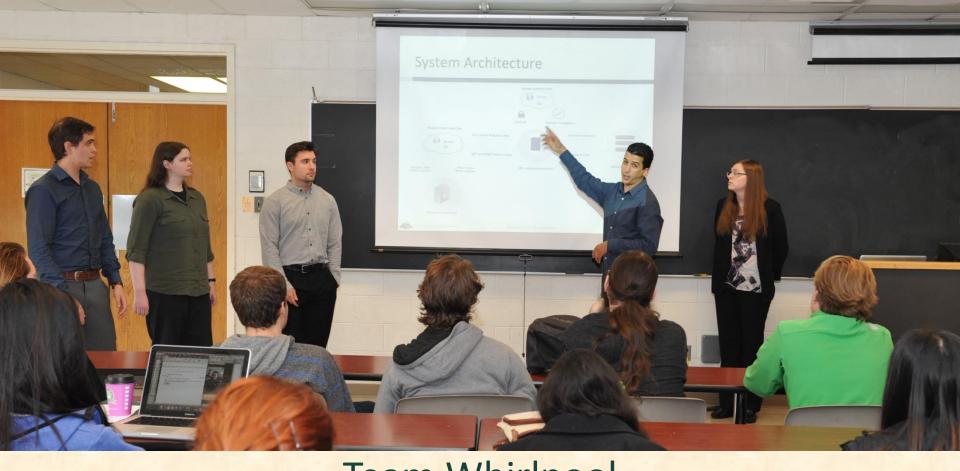


Team Whirlpool Project Plan Presentation

Team Whirlpool Project Plan Presentation Architecture Diagram



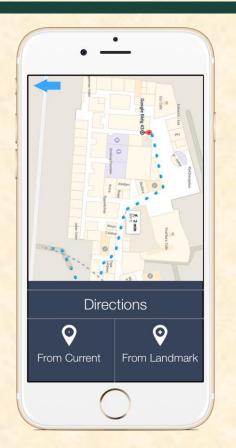


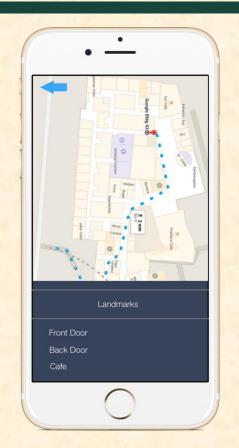


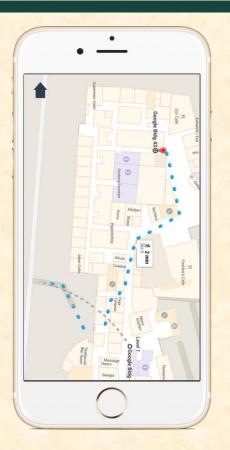
Team Whirlpool Project Plan Presentation

Team Whirlpool Project Plan Presentation

Screen Mockup



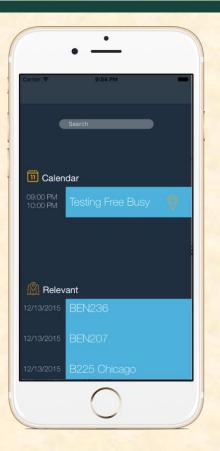






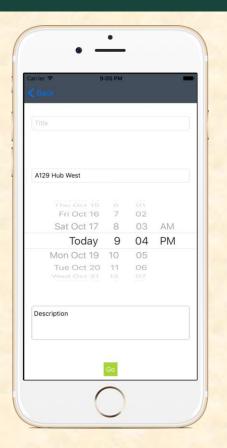


Home Screen





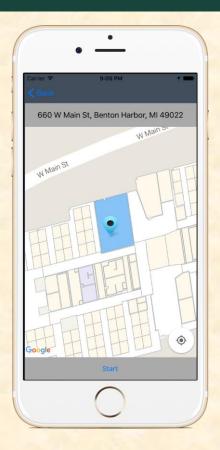
Create Event







Whirlpool Building Map







Team Whirlpool Beta Presentation

Home Screen





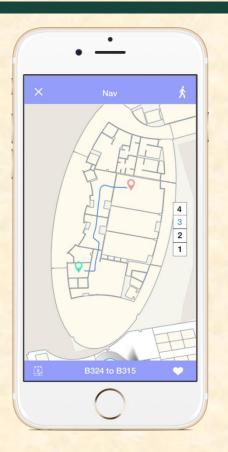
Room Information







Navigation Screen







Team Whirlpool Design Day



Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University
Fall 2015

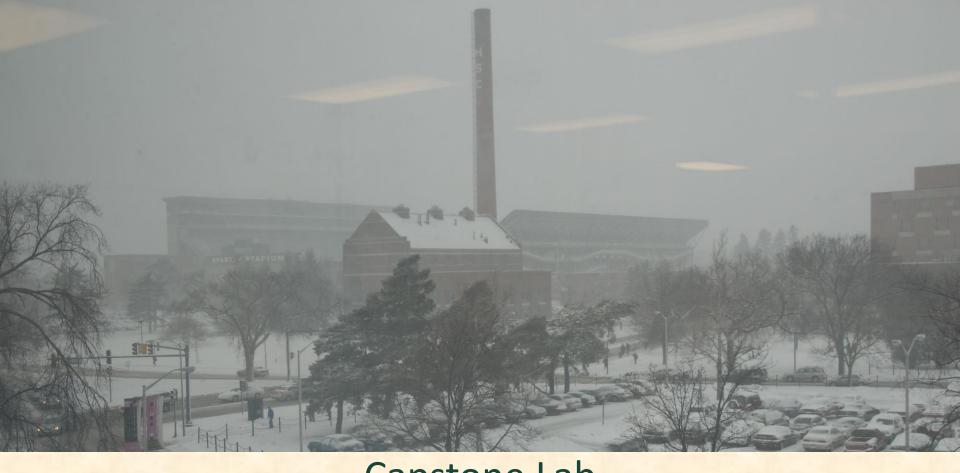




Capstone Lab View of Spartan Stadium



Capstone Lab View of Spartan Stadium sans Smokestack



Capstone Lab Winter View of Spartan Stadium



Design Day Award Winners

December 11, 2015





All-Hands Design Day, December 5, 2014











Design Day Award Winners

May 1, 2015





All-Hands Design Day, May 1, 2015











Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University
Fall 2015



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