

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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

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](#).



All-Hands Meetings

- MW, 3:00-3:50pm, 1225 Engineering Building
- Presentations By
 - Professor
 - Teams
 - Status Reports
 - Formal Presentations
 - Project Plan
 - Alpha
 - Beta
 - Project Videos
 - Guest Speakers



All-Hands Meetings

- 01/07: Course Overview
- 01/09: Project Plan
- 01/14: Risks and Prototypes
- 01/16: Schedule and Teamwork
- 01/21: (Martin Luther King Day, No Meeting)
- 01/23: Team [Status Report Presentations](#)
- 01/28: Team [Project Plan Presentations](#)
- 01/30: Team [Project Plan Presentations](#)
- 02/04: Team [Project Plan Presentations](#)
- 02/06: Team [Project Plan Presentations](#)
- 02/11: Resume Writing and Interviewing
- 02/13: Creating and Giving Presentations
- 02/18: Team [Alpha Presentations](#)
- 02/20: Team [Alpha Presentations](#)
- 02/25: Team [Alpha Presentations](#)
- 02/27: Team [Alpha Presentations](#)
- 03/04: (Spring Break, No Meeting)
- 03/06: (Spring Break, No Meeting)
- 03/11: [Design Day](#) and the [Project Videos](#)
- 03/13: Camtasia Demo
- 03/18: Team Status Reports
- 03/20: Team Status Reports
- 03/25: Team Status Reports
- 03/27: Team Status Reports
- 04/01: Team [Beta Presentations](#)
- 04/03: Team [Beta Presentations](#)
- 04/08: Team [Beta Presentations](#)
- 04/10: Team [Beta Presentations](#)
- 04/15: Ethics and Professionalism
- 04/17: Intellectual Property
- 04/22: [Project Videos](#)
- 04/24: [Project Videos](#) and [All Deliverables](#)
- 04/25: [Design Day Setup](#)
- 04/26: [Design Day](#)
- 05/01: [Project Videos](#)



The Capstone Experience

Team Auto-Owners

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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



Auto-Owners Insurance

Life Home Car Business

The "No Problem" People®

Auto-Owners Insurance[Customer Center](#) | [Find a Career with Us](#)[OUR PRODUCTS](#)[CORPORATE INFORMATION](#)[CUSTOMER CLAIMS](#)[Find](#)

▼ Find a Local Agency

[Find](#)

or Search by Address



Quality Coverage in 26 States

[▶ Start an Auto Quote](#)[▶ Customer Log In](#)

"Highest in customer satisfaction
with the Auto Insurance Claims
Experience, five years in a row."

-- J.D. Power and Associates

**Life Insurance**

Protecting your family

Life insurance, annuities, long term care and disability income protection are all products you will rely on many

Home Insurance

Property and liability

Regardless of which homeowners insurance fits your specific needs, Auto-Owners provides the same

Car Insurance

Security while on the road

"No Problem"® claims service with numerous claims offices serving our

Business Insurance

Guarding your investment

We insure a variety of businesses, both large and small. Insurance is available to meet the specific needs

Team Auto-Owners Project Overview

Events Planning Web App

- Functionalities
 - Create, Edit and Track Events
 - Seminars and Classes
 - Social Events
 - Golf Outings
 - Tailgates
 - Register Event Attendees
 - Open Events by Web
 - Restricted Events by Email Invitation and Web
- Features
 - Web and Mobile
 - Display Event Information
 - Register for Open Events
 - Respond to Invitations to Restricted Events
 - Provide Mapping and Directions
 - Administrative
 - Create New Event Types
 - Generate Reports
 - Print Name Tags and Table Tents
- Technologies
 - Java
 - JQuery Mobile
 - IBM DB2 Database



Lansing, Michigan




Team Auto-Owners

Ryan Burr, Trevor Murphy, Minh Do

Team Auto-Owners Project Plan Presentation

Screen Mockup

2



Event Planner

Home Search Settings

Home

Day Week **Month** Today

January 2013

Sun	Mon 1	Tue 2	Wed 3	Thu 4	Fri 5	Sat 6
7	8	9	10	11	12	13
14	15	16	17	18	19 - Golf Outing	20 - Tailgate + 1 More
21	22	23	24	25	26	27
28	29	30	31			

Golf Outing Edit Event

You are **attending!**
☒ Attending
☐ Not Attending

Date: January 19th, 2013
Time: 9:00AM - 5:00PM
Location: Great Oaks Country Club
[123 Fake St](#)
[East Lansing, MI 48825](#)

View More Details

3



Event Planner

Home Search Settings

Home

Day Week **Month** Today

January 14 - 20, 2013

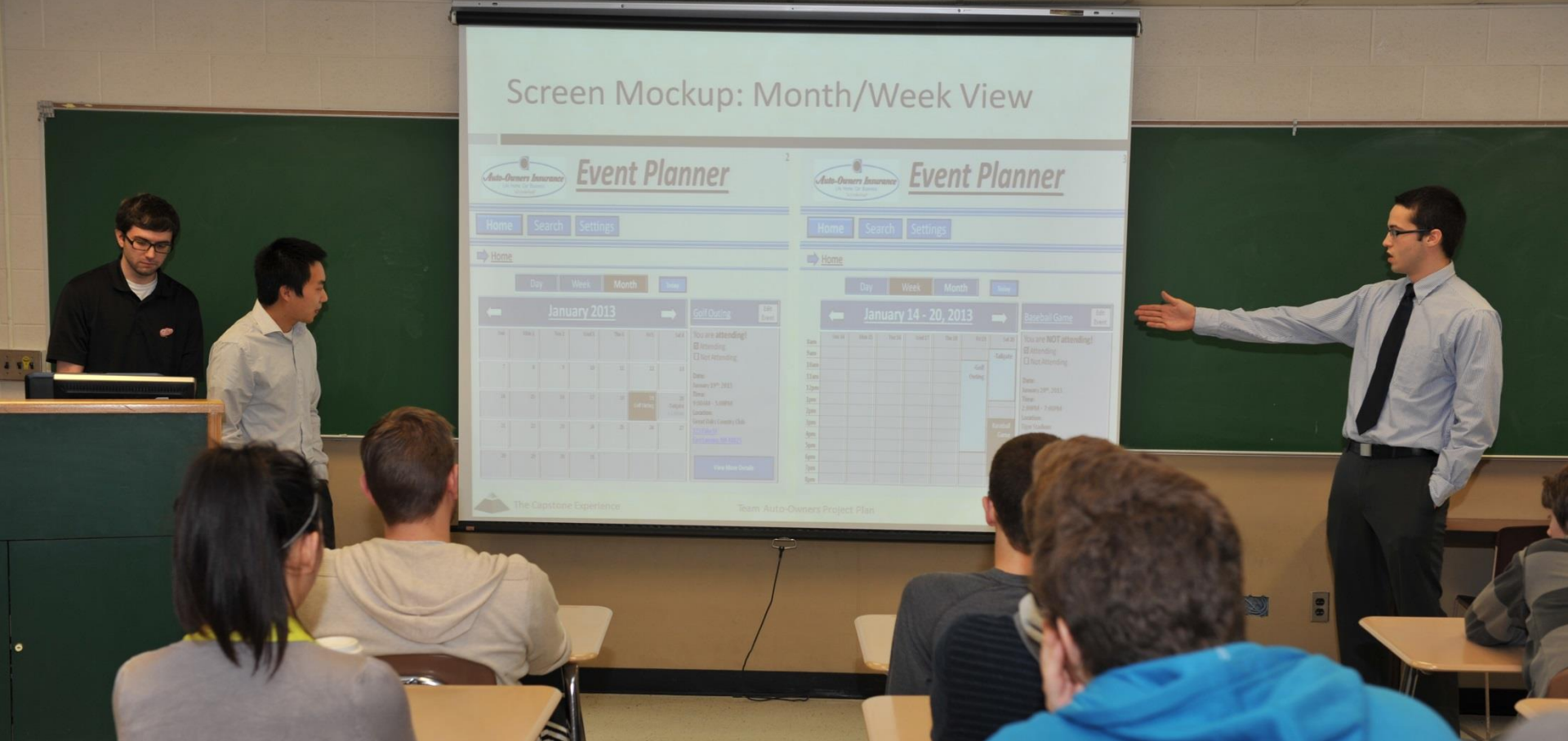
	Sun 14	Mon 15	Tue 16	Wed 17	Thu 18	Fri 19	Sat 20
8am							
9am							
10am							
11am							
12pm							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							

Baseball Game Edit Event

You are **NOT attending!**
☒ Attending
☐ Not Attending

Date: January 20th, 2013
Time: 2:00PM - 7:00PM
Location: Tiger Stadium
[123 Fake St](#)
[Detroit, MI 48275](#)

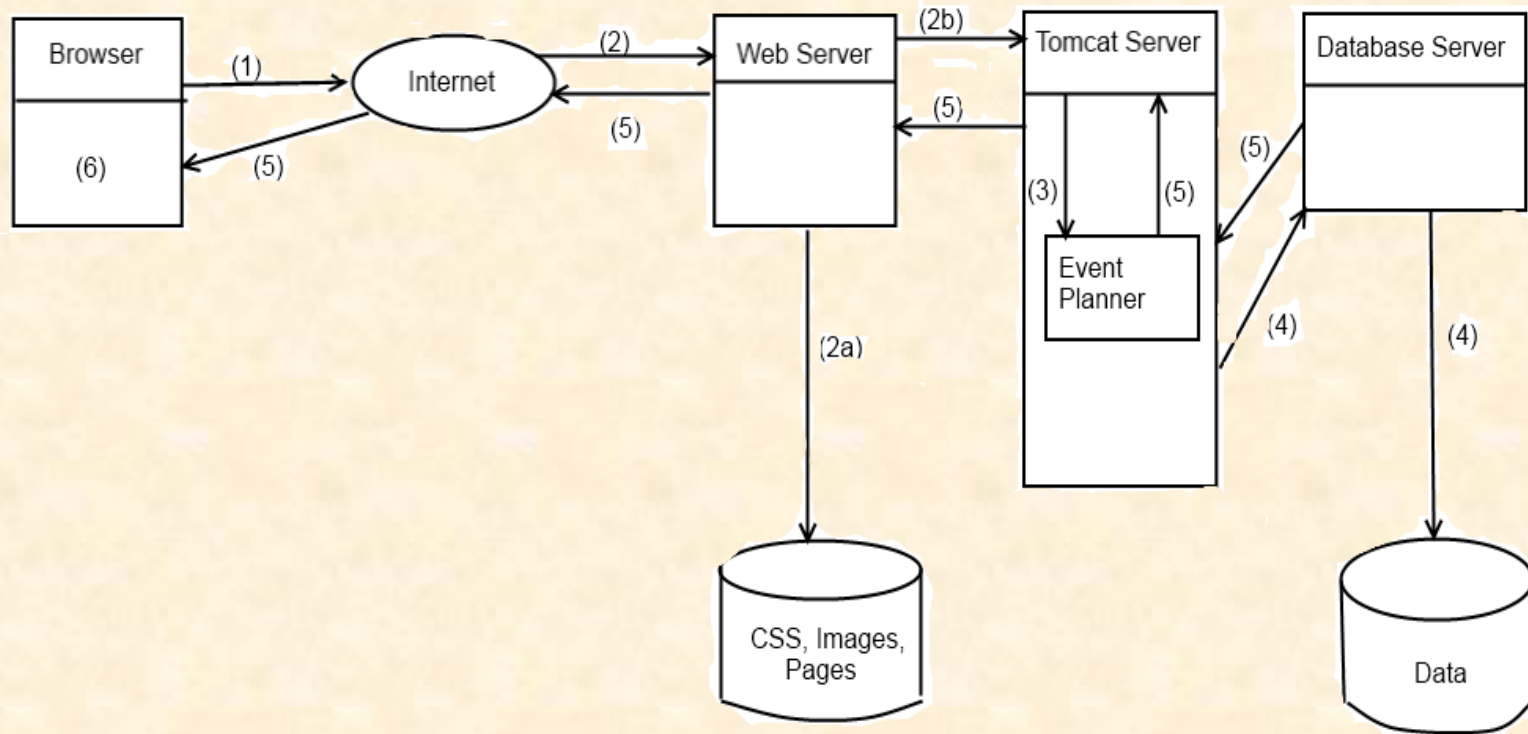
View More Details



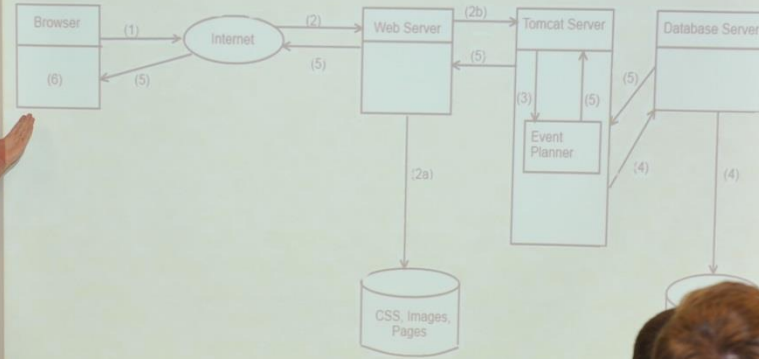
Team Auto-Owners Project Plan Presentation

Team Auto-Owners Project Plan Presentation

Architecture Diagram



System Architecture



The Capstone Experience

Team Auto-Owners Project Plan

Team Auto-Owners Project Plan Presentation

Team Auto-Owners Project Plan Presentation

Screen Mockup

2



Event Planner

Home Search Settings

Home

Day Week Month Today

January 2013

Sun	Mon 1	Tue 2	Wed 3	Thu 4	Fri 5	Sat 6
7	8	9	10	11	12	13
14	15	16	17	18	19 - Golf Outing	20 - Tailgate + 1 More
21	22	23	24	25	26	27
28	29	30	31			

Golf Outing Edit Event

You are attending!
☒ Attending
☐ Not Attending

Date: January 19th, 2013
Time: 9:00AM - 5:00PM
Location: Great Oaks Country Club
[123 Fake St](#)
[East Lansing, MI 48825](#)

View More Details

3



Event Planner

Home Search Settings

Home

Day Week Month Today

January 14 - 20, 2013

	Sun 14	Mon 15	Tue 16	Wed 17	Thu 18	Fri 19	Sat 20
8am							
9am							
10am						-Golf Outing	-Tailgate
11am							
12pm							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							

Baseball Game Edit Event

You are NOT attending!
☒ Attending
☐ Not Attending

Date: January 20th, 2013
Time: 2:00PM - 7:00PM
Location: Tiger Stadium
[123 Fake St](#)
[Detroit, MI 48775](#)

View More Details



Team Auto-Owners Alpha Presentation

Team Auto-Owners Alpha Presentation

Desktop Landing Page

The screenshot displays the 'Auto-Owners Insurance' event planner interface. The header includes the company logo and 'aoins.com'. A user profile 'do.minh' is logged in, with a 'Logout' link. The main area features a calendar for February 2013, with tabs for 'month', 'week', and 'day'. The calendar shows several events: 'Sp Comedy Show' on Monday, February 18th; '10a Poorly Timed Golf Outing' on Thursday, February 28th; and a highlighted date on Saturday, February 16th. A sidebar on the left contains an 'Administration' menu with links to 'Home', 'Search', and 'Create New Event'. A right-hand panel provides details for the 'Poorly Timed Golf Outing' event, including the start date (2013-02-28), time (10:00:00 - 19:00:00), and location (2280 S Harrison Rd East Lansing (517) 355-1635), with a 'View More Details' button.

Auto-Owners Insurance aoins.com
event planner

do.minh 2/16/2013 Logout

Administration
Home
Search
Create New Event

February 2013 month week day

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18 Sp Comedy Show	19	20	21	22	23
24	25	26	27	28 10a Poorly Timed Golf Outing	1	2
3	4	5	6	7	8	9

Poorly Timed Golf Outing

Event Start:
2013-02-28

10:00:00 - 19:00:00

Location:
2280 S Harrison Rd East Lansing (517) 355-1635

[View More Details](#)

Team Auto-Owners Alpha Presentation

Mobile Landing Page

Event Planner							Logout
Home				Search			
February 2013							today
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
27	28	29	30	31	1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
	8p Comedy Show						





Team Auto-Owners Alpha Presentation

Team Auto-Owners Alpha Presentation

Create New Events

Auto-Owners Insurance aoins.com
event planner

do.minh 2/16/2013 [Logout](#)

Administration
[Home](#)
[Search](#)
[Create New Event](#)

Create a New Event

☐ Open Event

Event Type:
-Select an Event Type- [New Event Type](#)

Event Name:

Host Name:

Start Date:

Start Time:
Must be in the format HH:MM:SS (i.e. 13:04:12)

End Date:

End Time:
Must be in the format HH:MM:SS (i.e. 13:04:12)

Registration Open Date:

Registration End Date:

Max Attendance:

Address:

Meal Choice: (optional)
Separate meals by commas (i.e. steak,chicken,hotdog)

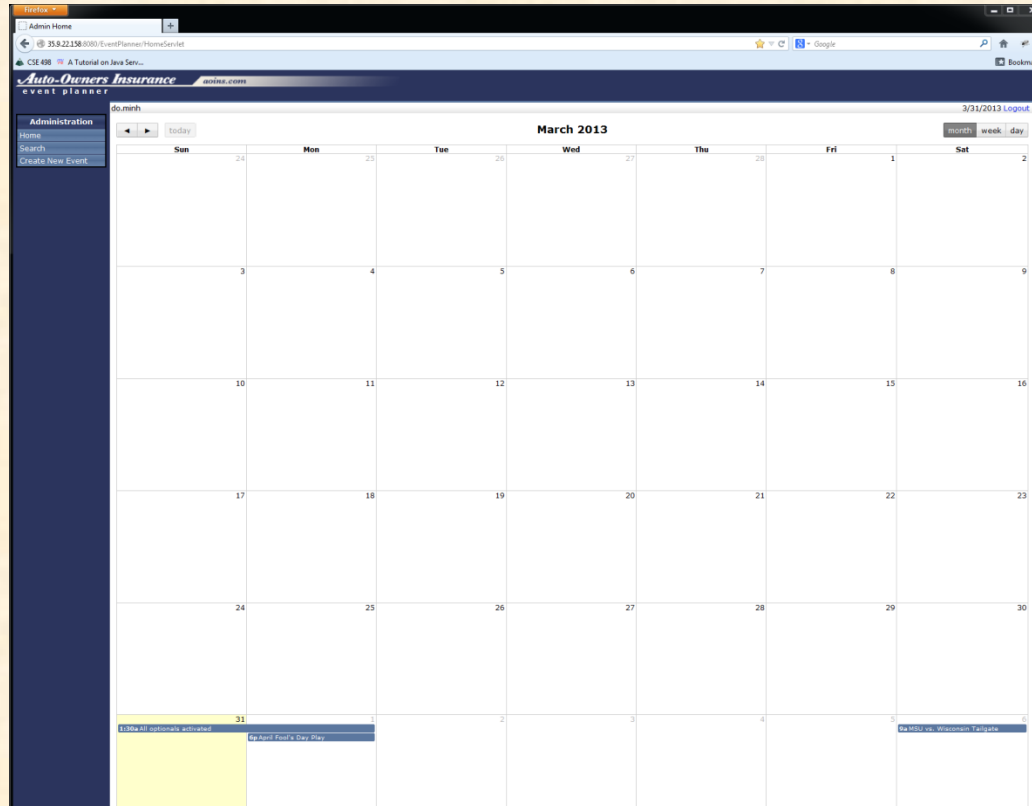




Team Auto-Owners Beta Presentation

Team Auto-Owners Beta Presentation

Desktop Admin Home



Team Auto-Owners Beta Presentation

Create New Event

Firefox - Create New Event
25.9.2138.6080/EventPlanner/createNewEvent.jsp

Auto-Owners Insurance
event planner

Administration
Home
Search
Create New Event

3/31/2013 Logout

Create a New Event

Create new event type:
☐ Open Event

Event Type:
-

Event Name:

Host Name:

Start Date:

Start Time:

End Date:

End Time:

Registration Open Date:

Registration End Date:

Max Attendance:

Location Name:

Location Address:

Meal Choice: (optional)
Separate meals by commas (i.e. steak, chicken, hotdog)

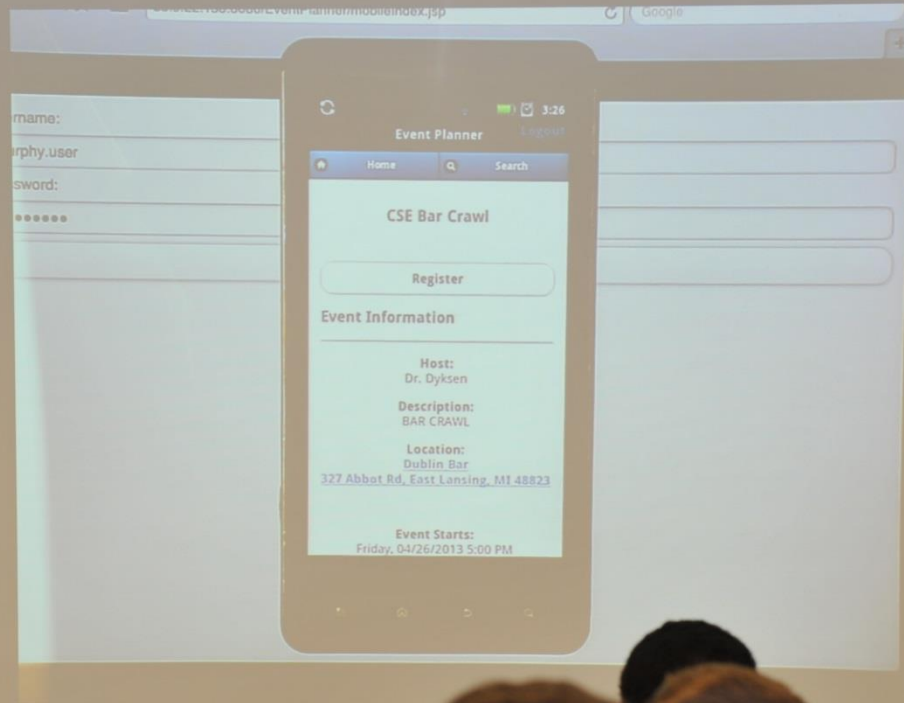
Contact Person:

Contact Phone Number:

Contact Email:

Description: (optional)

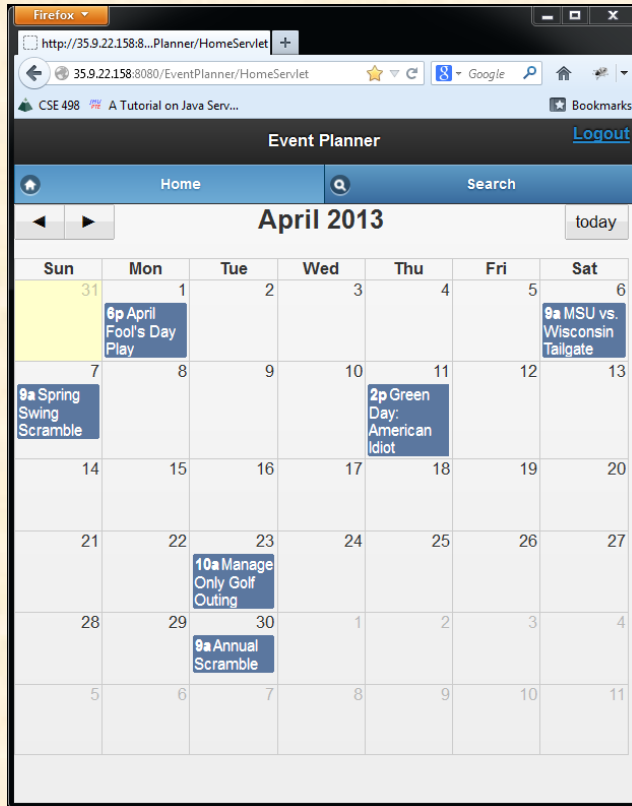




Team Auto-Owners Beta Presentation

Team Auto-Owners Beta Presentation

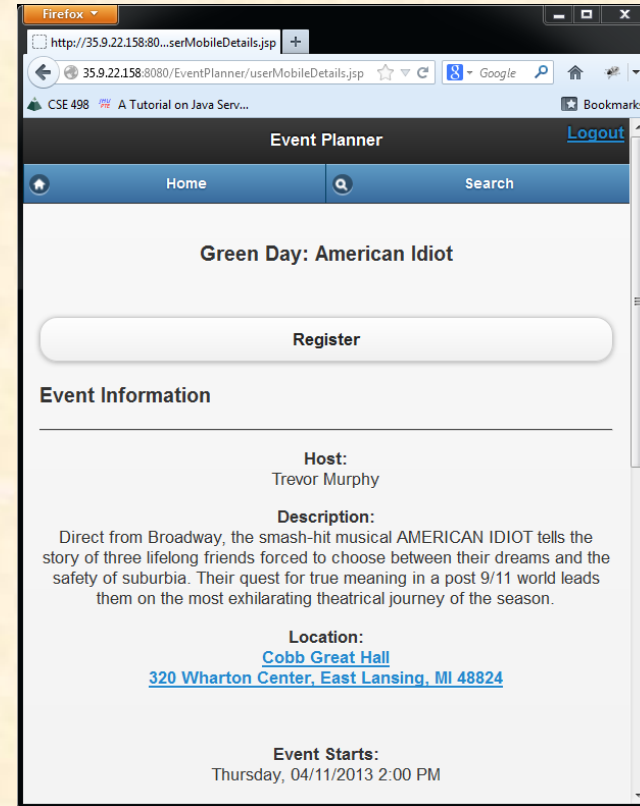
Mobile Home and Event Details



The screenshot shows the 'Event Planner' mobile app interface. At the top, there's a navigation bar with 'Home' and 'Search' tabs. Below the navigation bar, the calendar for April 2013 is displayed. The calendar shows events for various dates:

- April 31 (Yellow background): 6p April Fool's Day Play
- April 7: 9a Spring Swing Scramble
- April 11: 2p Green Day: American Idiot
- April 22: 10a Manage Only Golf Outing
- April 29: 9a Annual Scramble
- April 5: 9a MSU vs. Wisconsin Tailgate

The interface includes a 'Logout' link in the top right corner and a 'today' button on the right side of the calendar header.



The screenshot shows the 'Event Details' page for 'Green Day: American Idiot'. The page has a navigation bar with 'Home' and 'Search' tabs. The event title is prominently displayed at the top. Below the title, there is a 'Register' button. The 'Event Information' section provides details about the event:

- Host:** Trevor Murphy
- Description:** Direct from Broadway, the smash-hit musical AMERICAN IDIOT tells the story of three lifelong friends forced to choose between their dreams and the safety of suburbia. Their quest for true meaning in a post 9/11 world leads them on the most exhilarating theatrical journey of the season.
- Location:** Cobb Great Hall, 320 Wharton Center, East Lansing, MI 48824
- Event Starts:** Thursday, 04/11/2013 2:00 PM

The interface includes a 'Logout' link in the top right corner.



Team Auto-Owners
Design Day

MICHIGAN STATE
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The Capstone Experience

Team Boeing

Department of Computer Science and Engineering
Michigan State University
Spring 2013



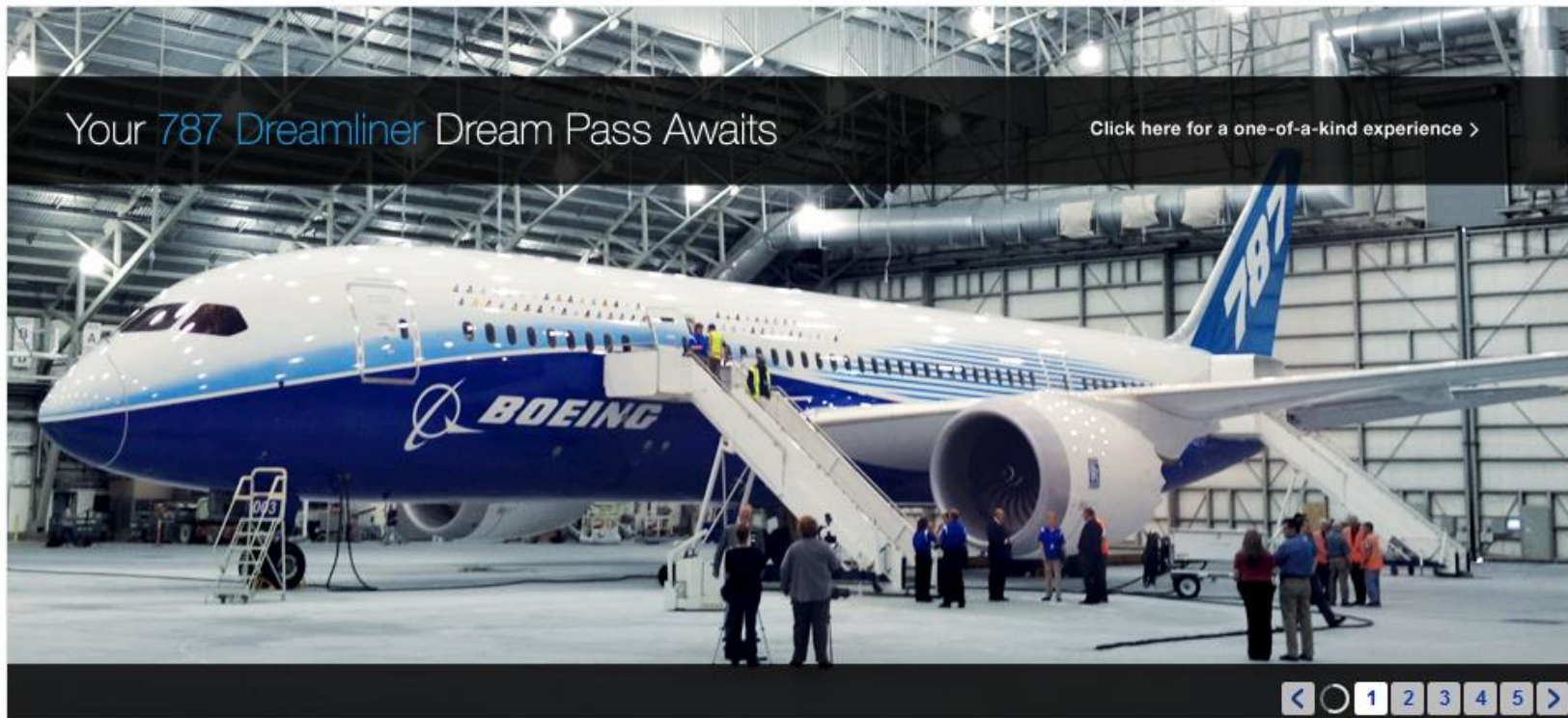
*From Students...
...to Professionals*



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Your 787 Dreamliner Dream Pass Awaits

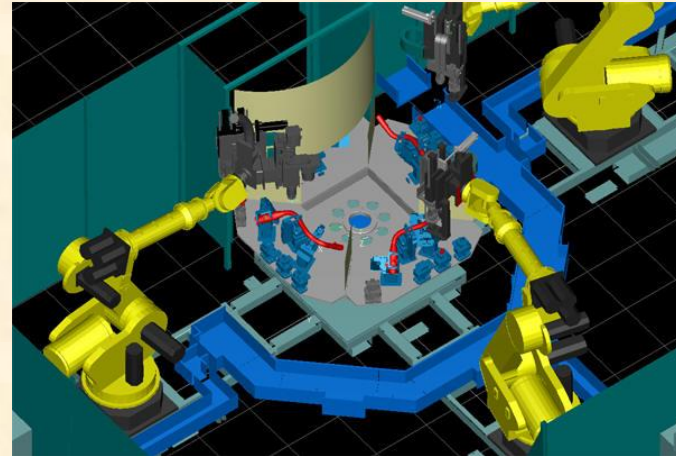
[Click here for a one-of-a-kind experience >](#)



Team Boeing Project Overview

Paper Airplane Building Game Simulator

- Functionalities
 - Factory Simulation Game
 - Build Paper and Model Airplanes
 - By Team of Humans and Robots
 - Player is Factory “Floor Captain”
- Features
 - Networked
 - Humans and Robots with Moveable Parts
 - Arms
 - Hands
 - Wheels
 - Etc.
 - Airplane Assemblies
 - Paper Planes with 5 Degrees of Difficulty
 - Model Planes with 3 Degrees of Difficulty
 - Assignment of Tasks to Humans and Robots
- Technologies
 - C++
 - 3-D Game Modeling
 - Game Engines
 - Robotics Simulation
 - Physics Modeling



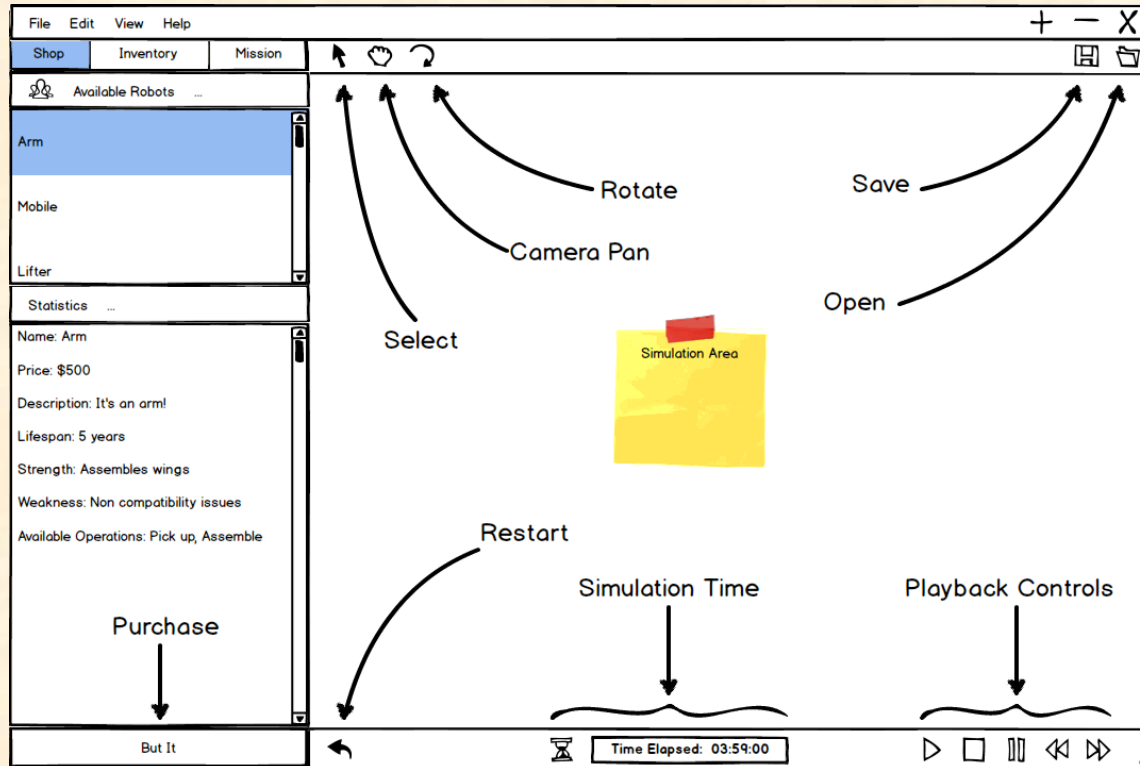


Team Boeing

Greg Klein, Chris Flynn, Grace Lweendo

Team Boeing Project Plan Presentation

Screen Mockup

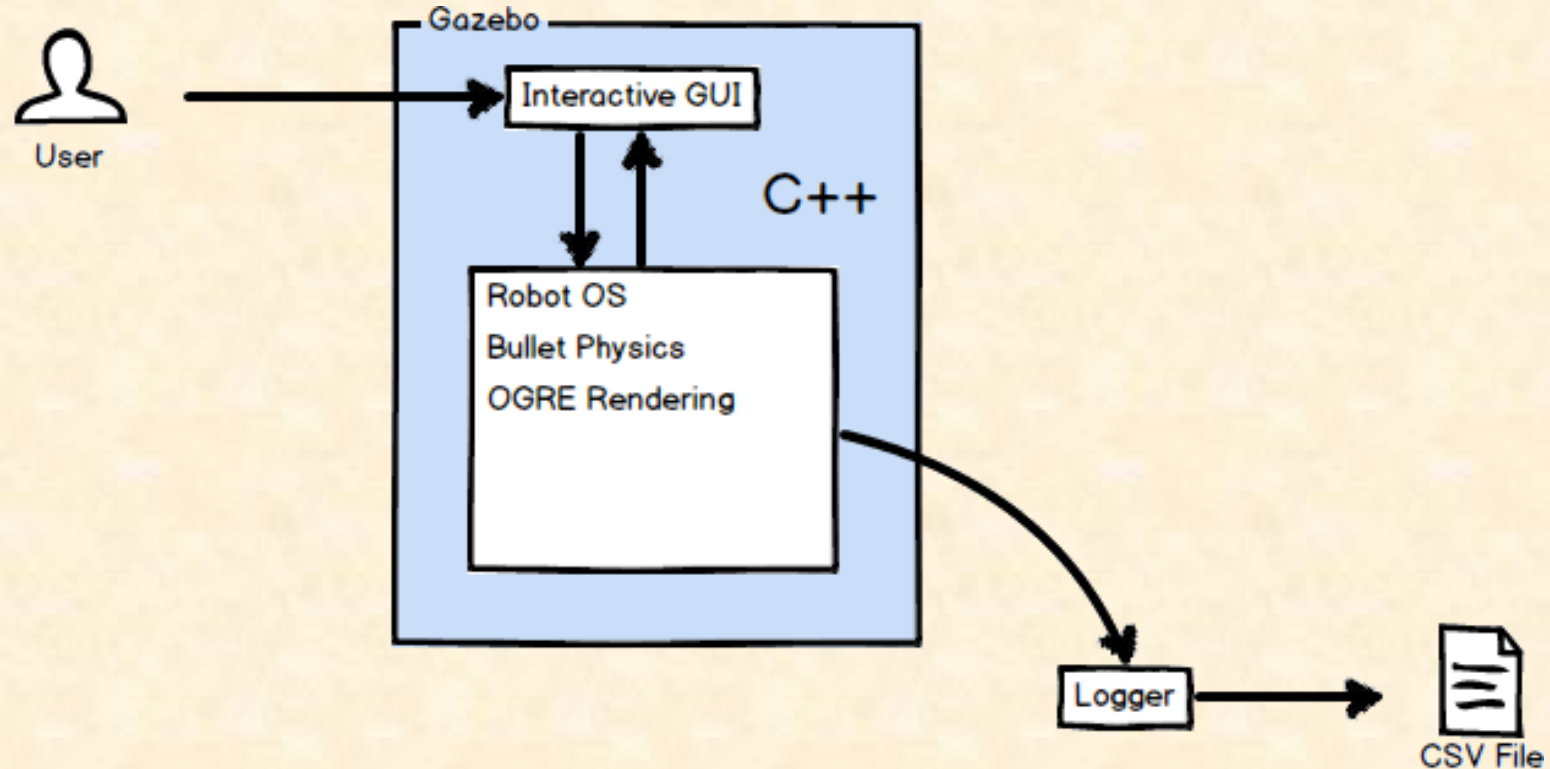




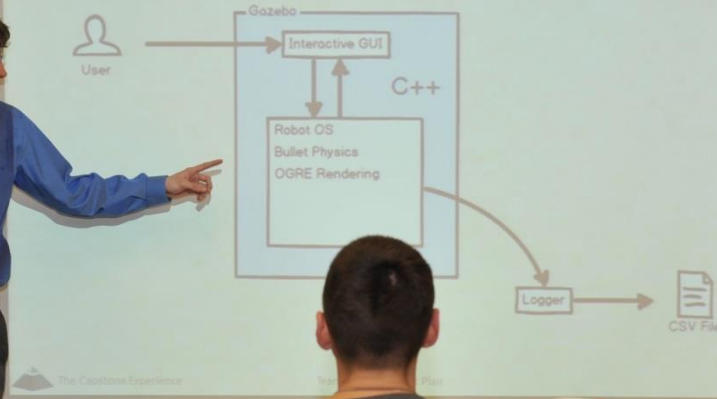
Team Boeing Project Plan Presentation

Team Boeing Project Plan Presentation

Architecture Diagram



System Architecture



Team Boeing
Project Plan Presentation

Team Boeing Project Plan Presentation

Screen Mockup

Shop	Inventory	Mission
☰	Level Criteria ...	
Budget		
Initial Budget: \$100,000 Current Budget: \$50,000		
Efficiency		
Safety		
Speed		

Shop	Inventory	Mission
☰	Level Criteria ...	
Budget		
Efficiency		
Number of Models Needed: 100 Number of Models Built: 20 Number of Models in Progress: 10 Human Efficiency: 90% Robot Efficiency: 70%		
Safety		
Speed		

Shop	Inventory	Mission
☰	Level Criteria ...	
Budget		
Efficiency		
Safety		
Safety Violation Threshold: 15 Number of Safety Violations: 10		
Speed		

Shop	Inventory	Mission
☰	Level Criteria ...	
Budget		
Efficiency		
Safety		
Speed		
Goal: 6:30:00 Time Elapsed: 5:30:00		





Team Boeing Alpha Presentation

Team Boeing Alpha Presentation

Paper Airplane Factory

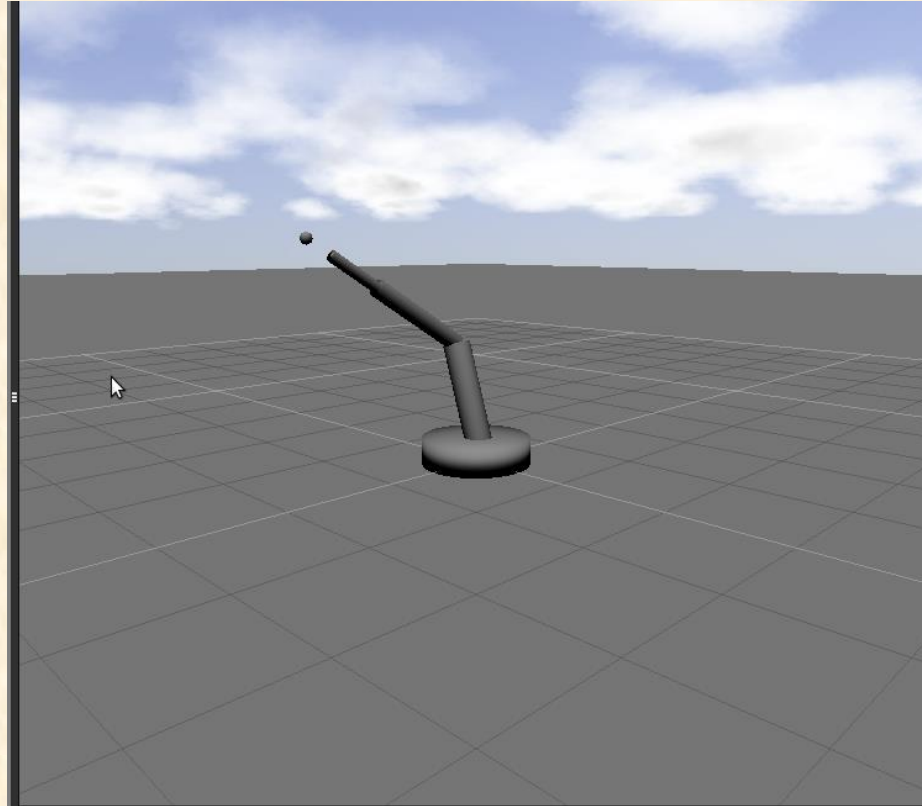


The Capstone Experience



Team Boeing Alpha Presentation

IK Arm Robot



The Capstone Experience

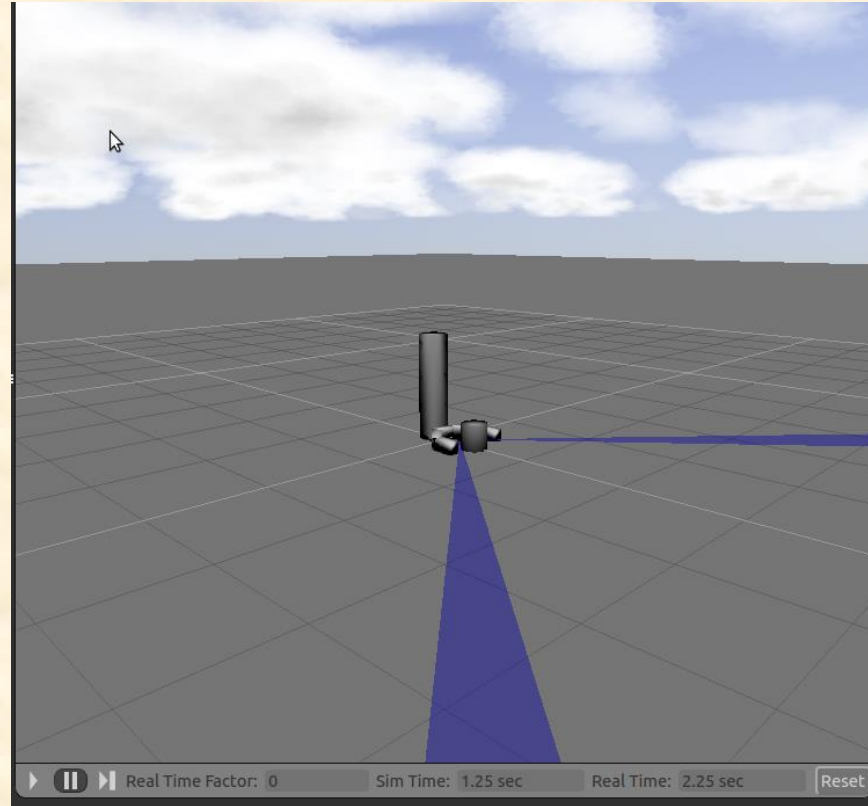




Team Boeing Alpha Presentation

Team Boeing Alpha Presentation

Gripper



The Capstone Experience

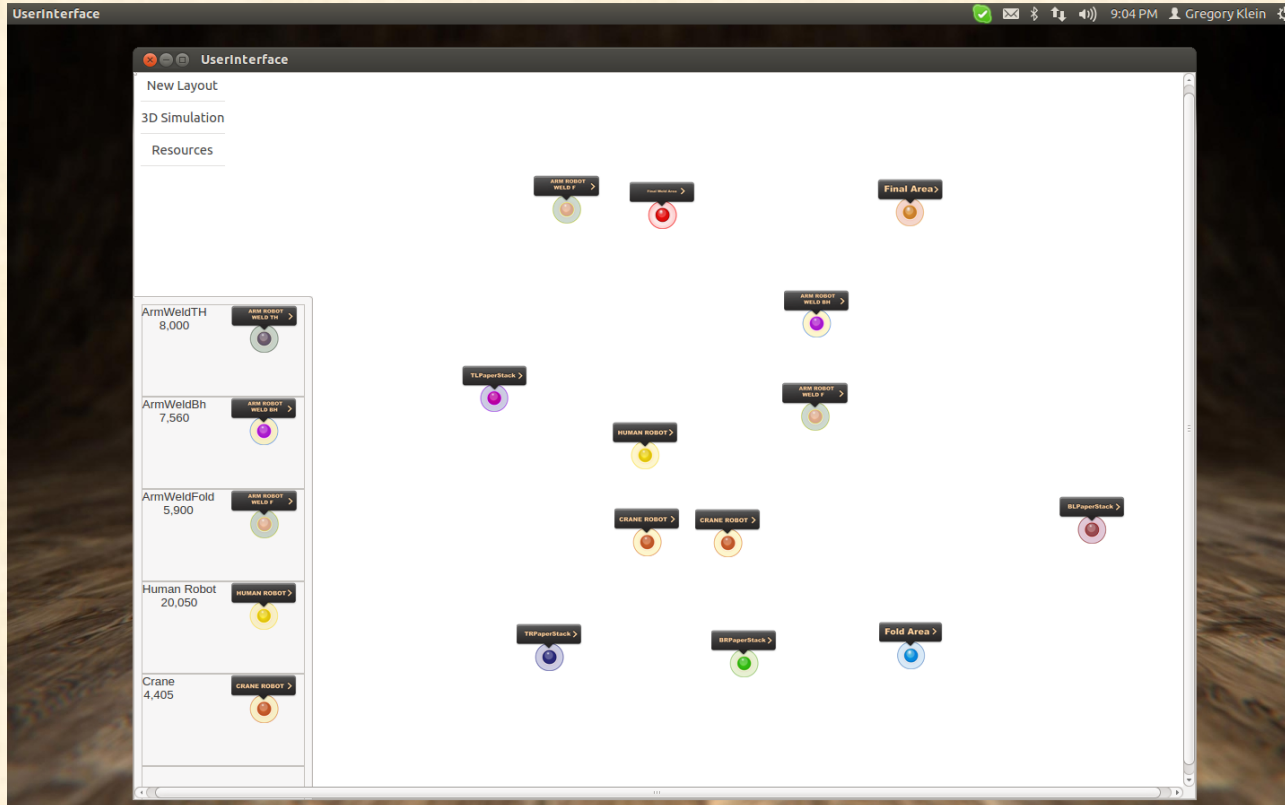




Team Boeing Beta Presentation

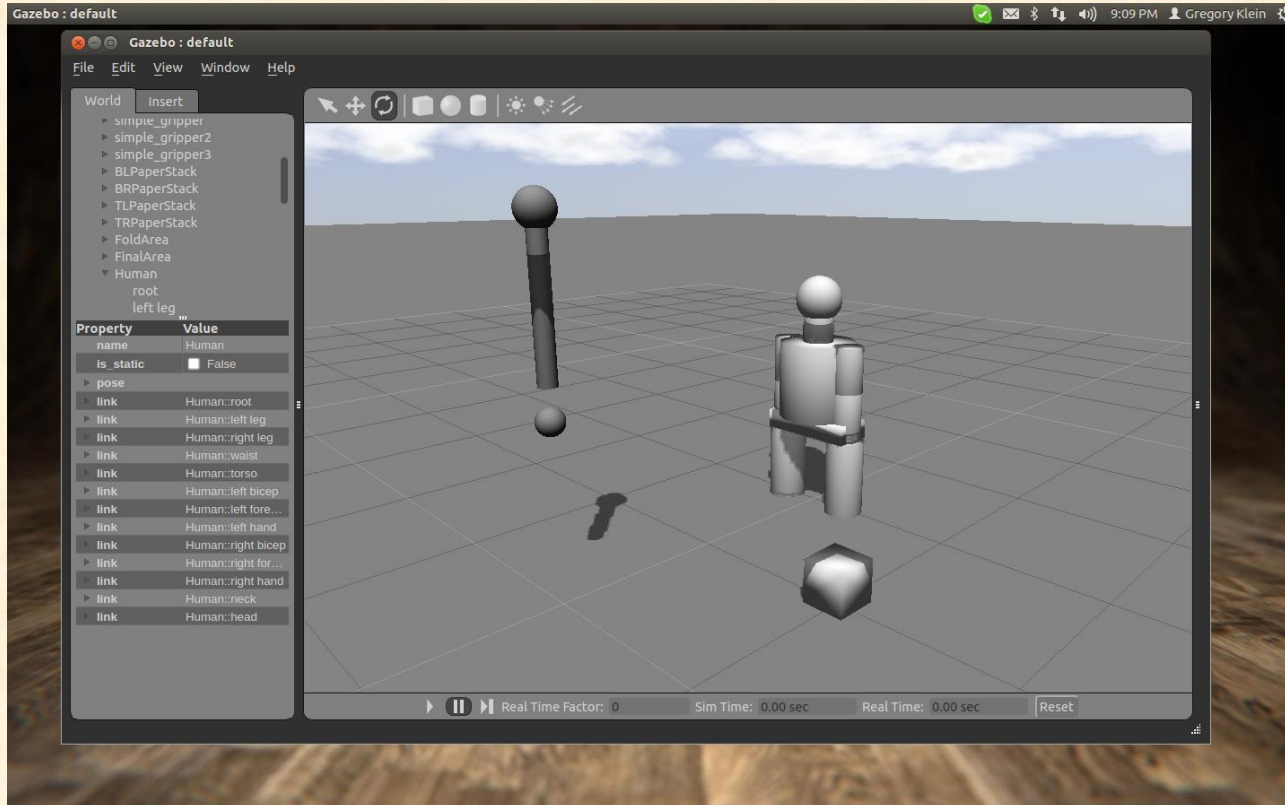
Team Boeing Beta Presentation

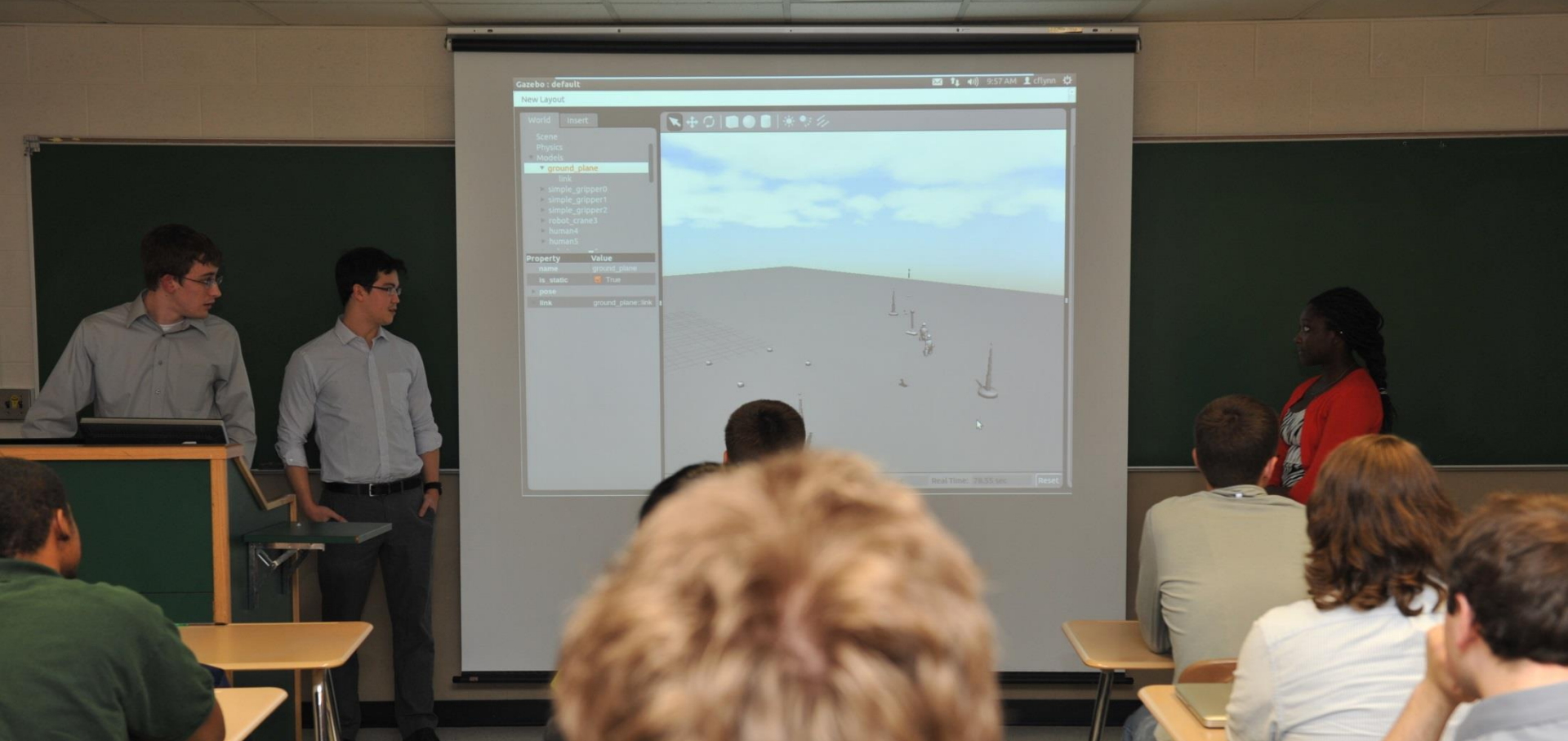
Factory Layout GUI



Team Boeing Beta Presentation

Human and Crane

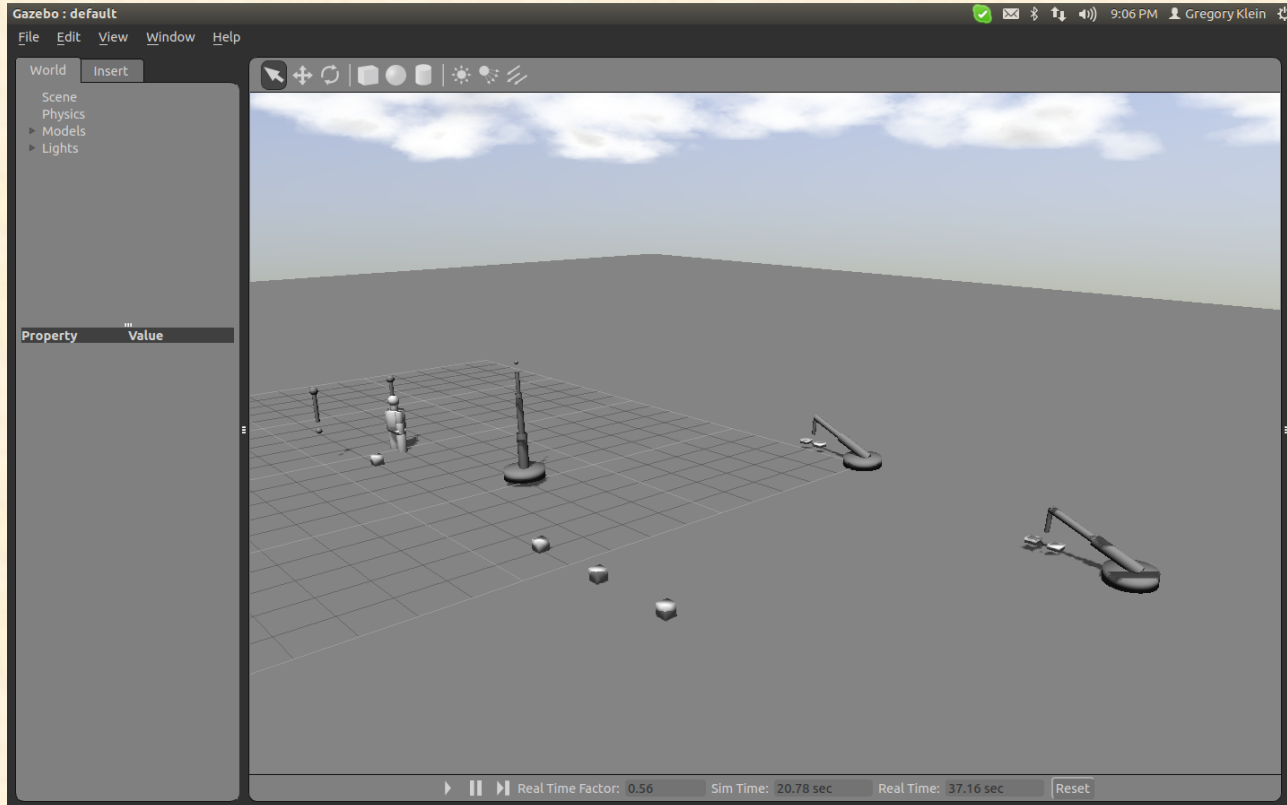


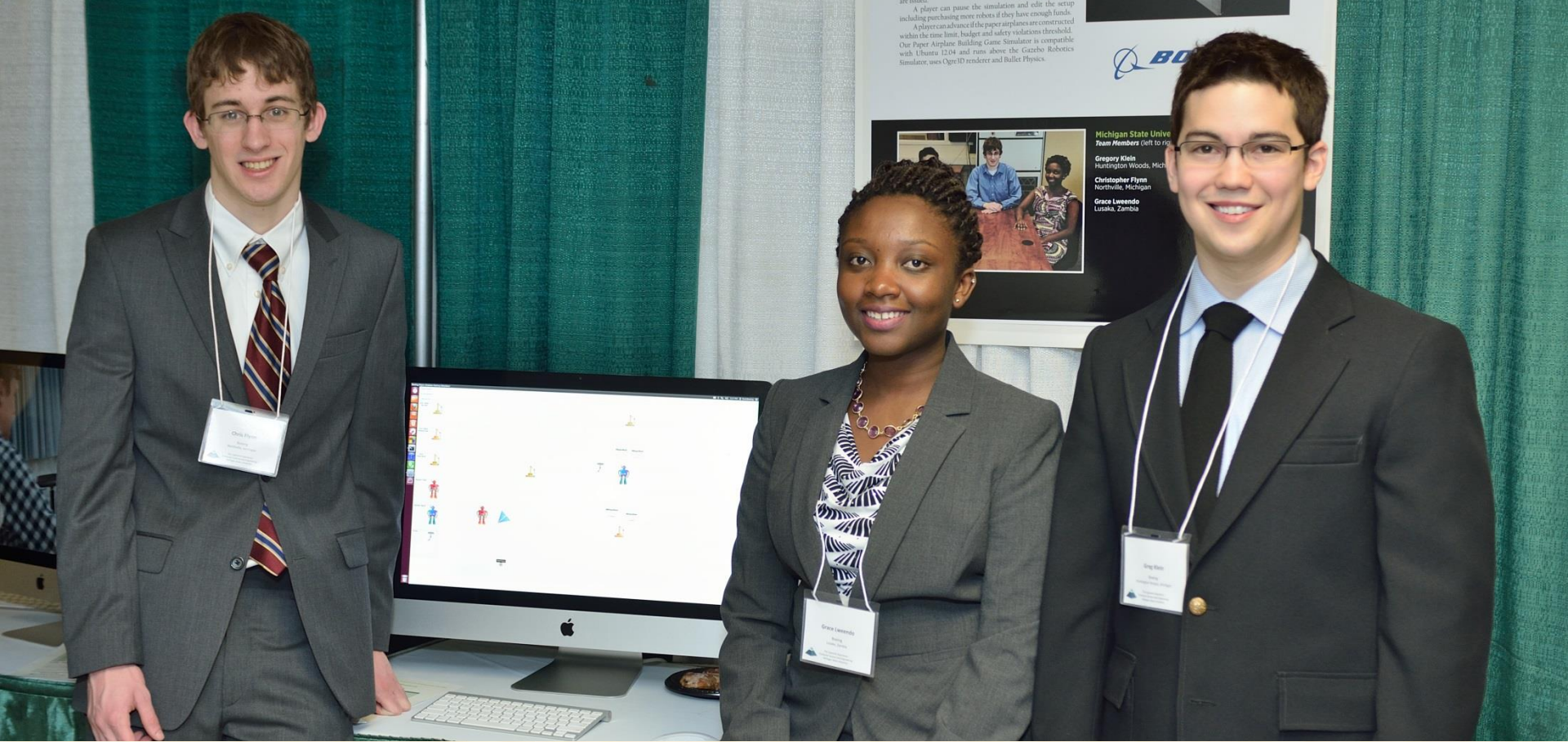


Team Boeing Beta Presentation

Team Boeing Beta Presentation

Factory Simulation





Team Boeing
Design Day

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The Capstone Experience

Team Dow

Department of Computer Science and Engineering
Michigan State University
Spring 2013



*From Students...
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[SOLUTIONS](#)[PRODUCTS](#)[COMPANY](#)[NEWS](#)[INVESTORS](#)[CAREERS](#)[LOCATIONS](#)[Solutions by Market](#)[Agricultural](#)[Consumer & Lifestyle](#)[Energy](#)[Infrastructure &
Transportation](#)

Solutions



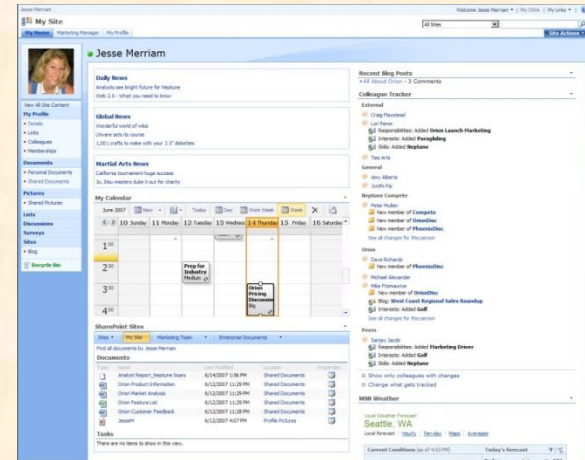
At Dow, we believe that connecting chemistry and innovation can generate new ways to solve global challenges. Driven by our rapidly expanding global population, four megatrends serve as the focus of Dow's market-driven strategy.

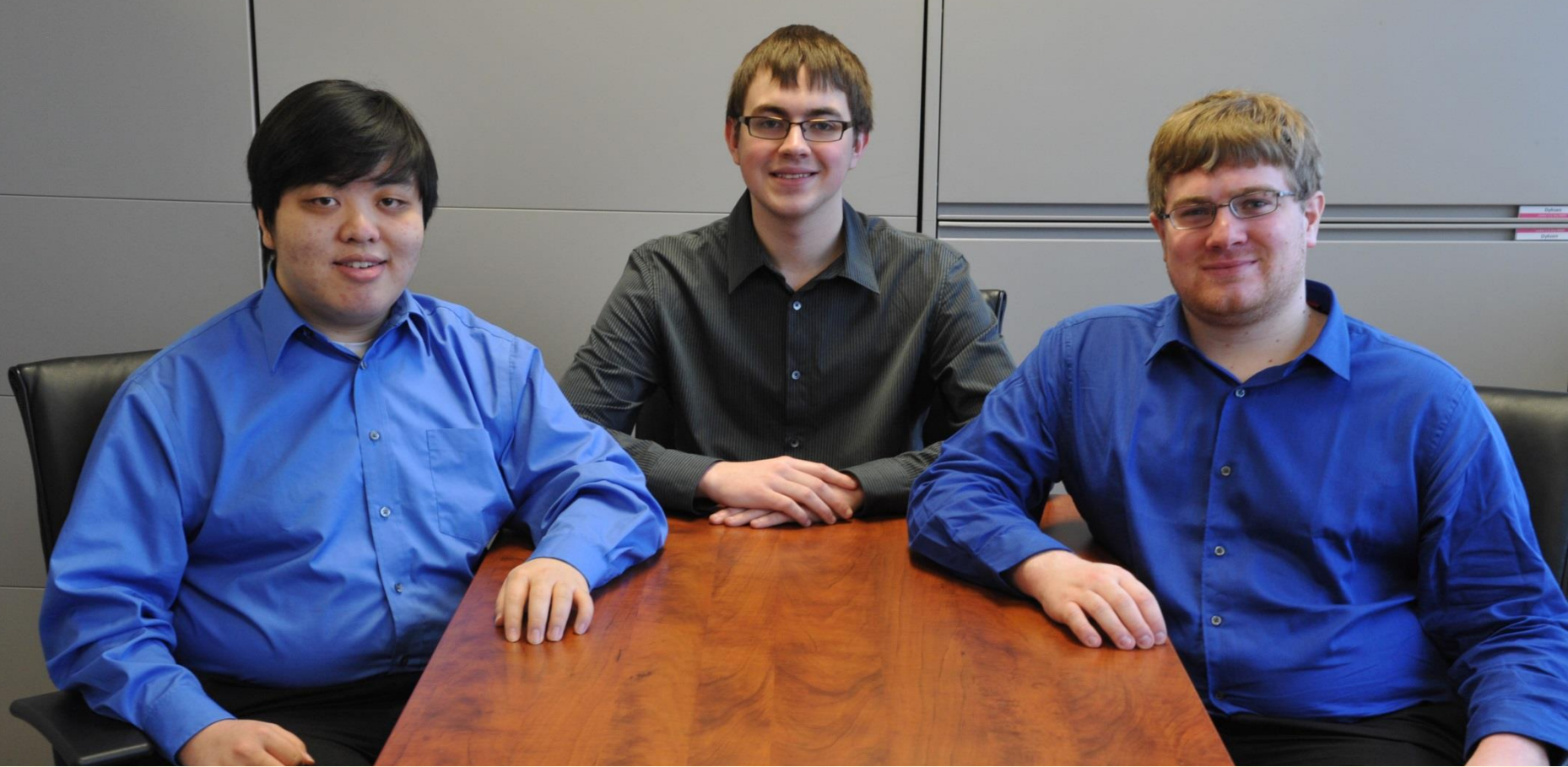


Team Dow Project Overview

Personalized Intranet Portal

- Functionalities
 - Customizable Dashboard
 - Presents Internal Dow Information
 - Based on User's Attributes
 - From SharePoint MySite Profile
- Features
 - Display Corporate News
 - Add and Modify Links
 - Share Document Library
 - Integrate Outlook Tasks or MySite Tasks
 - Display RSS Feeds
 - Information Based on 13 Core Businesses and 5 Functions
- Technologies
 - Microsoft SharePoint 2013
 - Microsoft SQL Server 2012
 - Microsoft Office (Outlook)
 - Visual Studio 2010



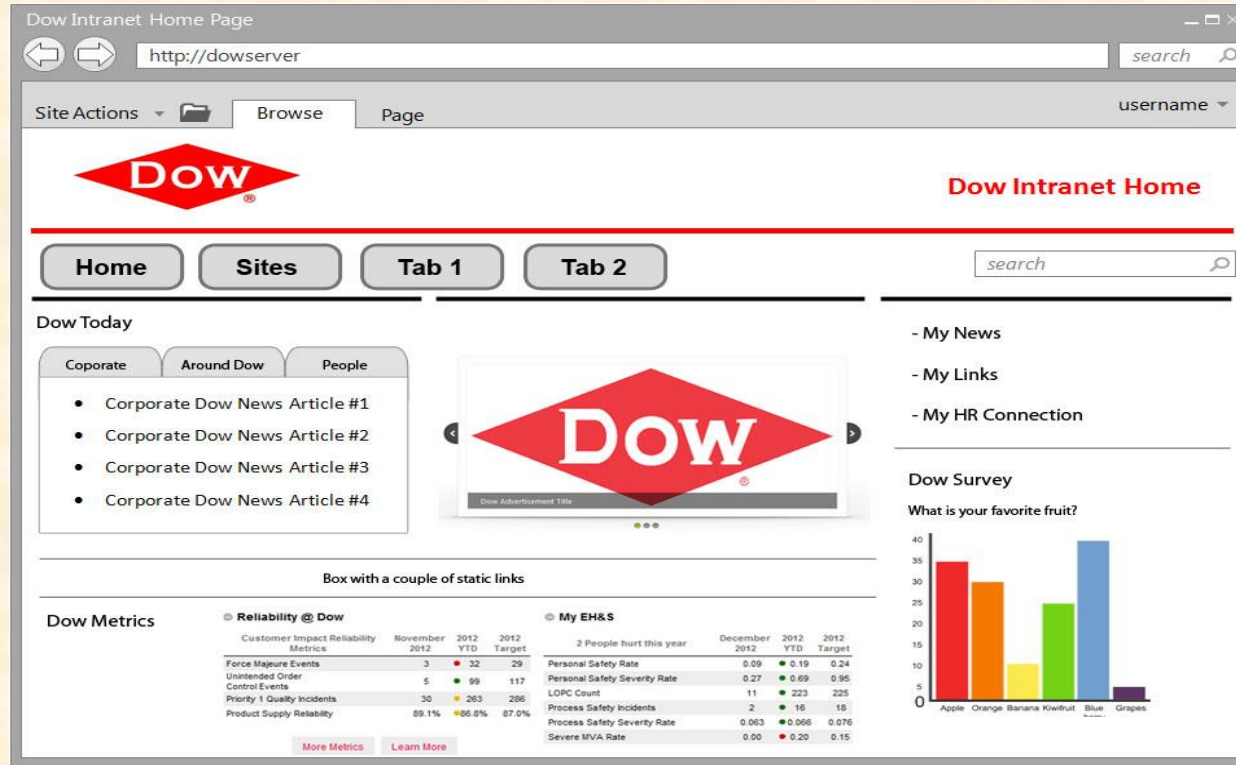


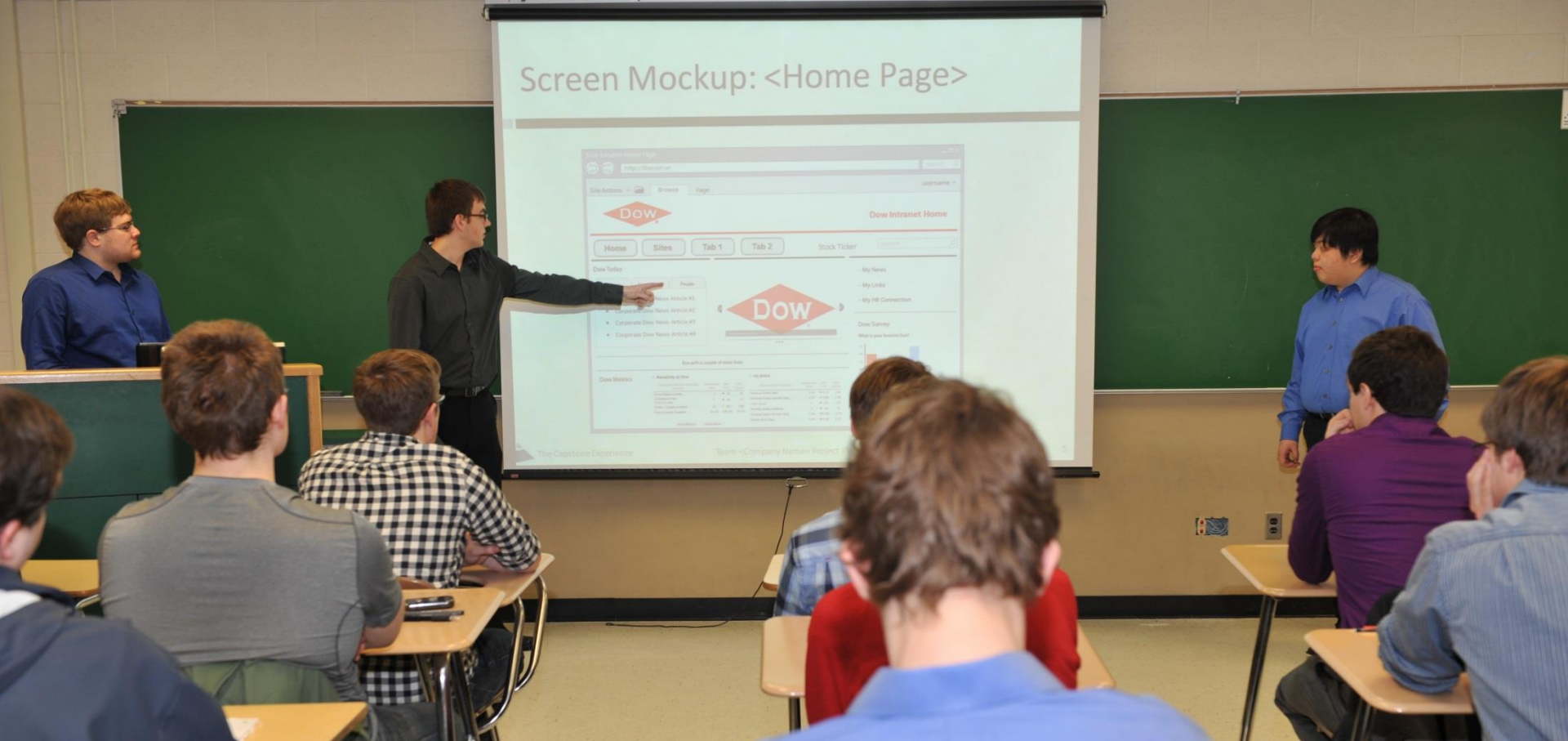
Team Dow

Gordon Leung, Eric Miller, Matt Savela

Team Dow Project Plan Presentation

Screen Mockup

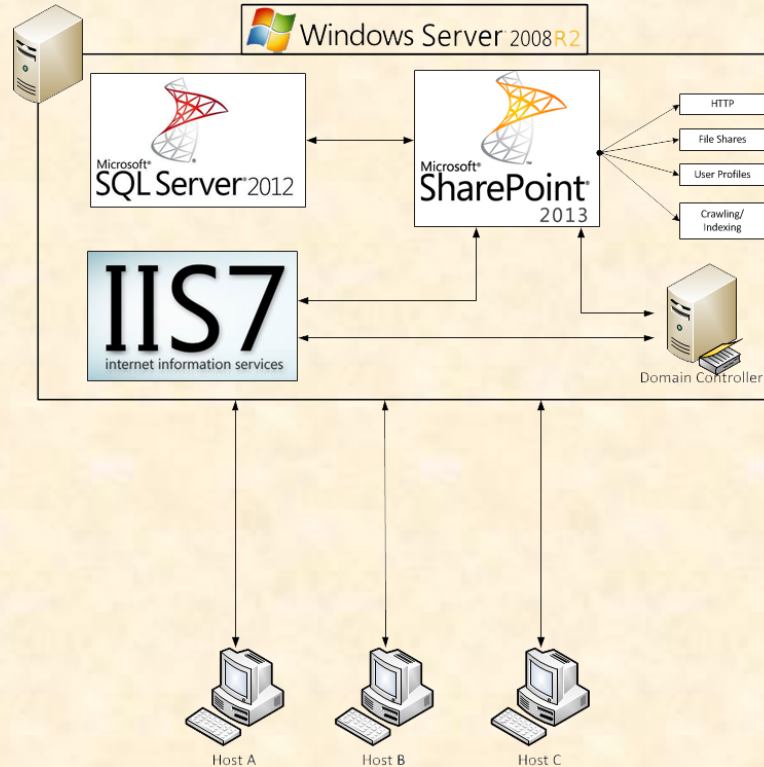




Team Dow Project Plan Presentation

Team Dow Project Plan Presentation

Architecture Diagram

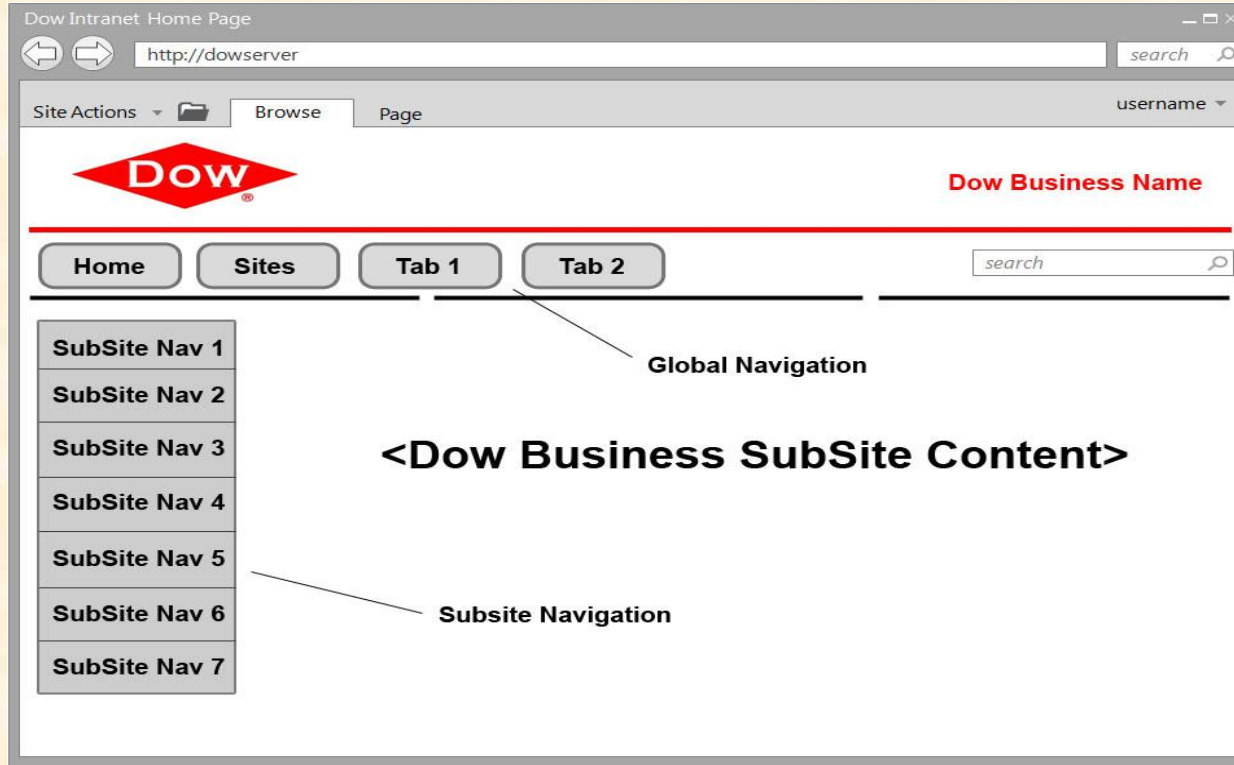


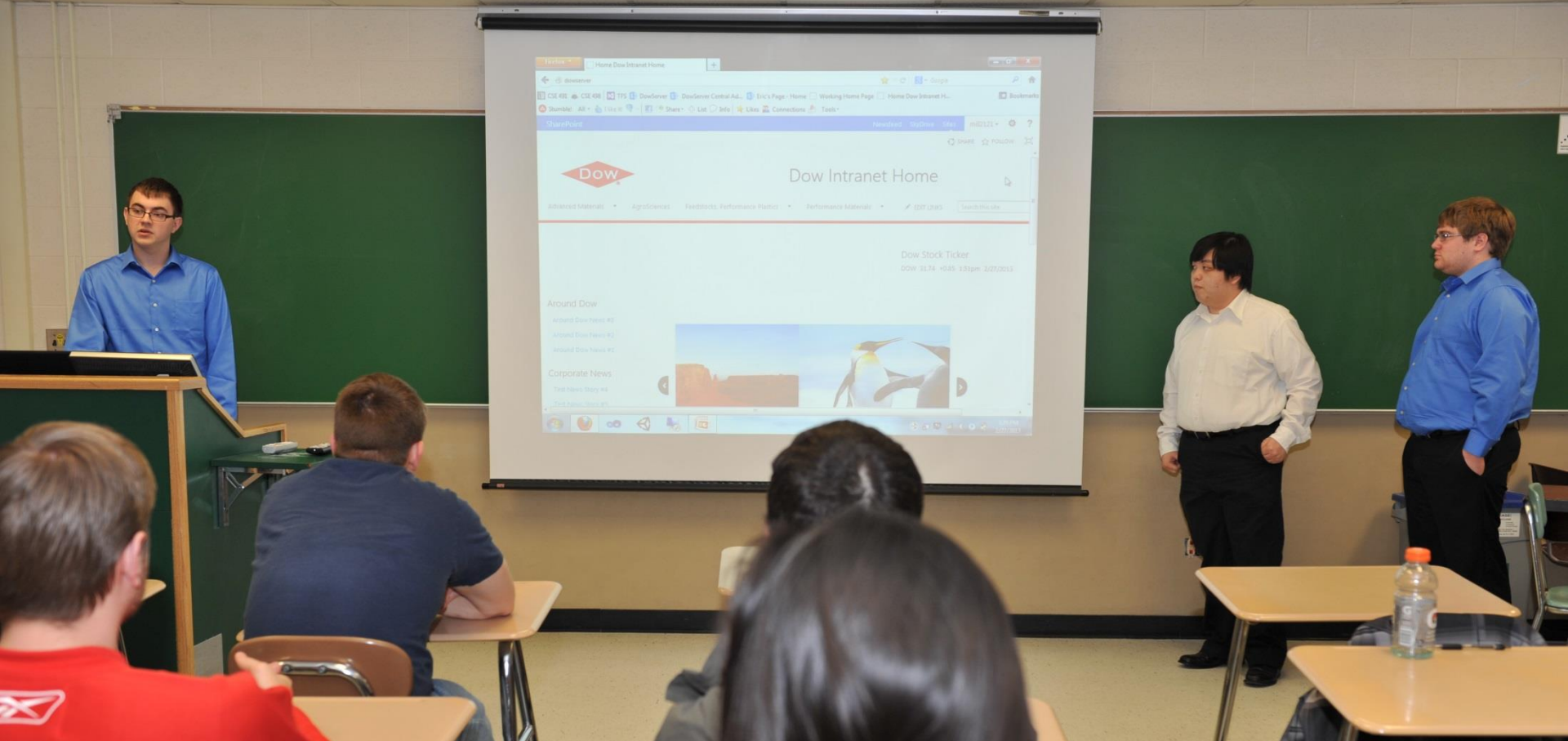


Team Dow Project Plan Presentation

Team Dow Project Plan Presentation

Screen Mockup






Team Dow Alpha Presentation

Team Dow Alpha Presentation

Landing Page

SharePoint Newsfeed SkyDrive Sites mill2121

SHARE FOLLOW

 **Dow Intranet Home**

Dow Stock Ticker Search...


DOW 32.33 -0.33 4:00pm 2/15/2013

Around Dow

- [Around Dow News #3](#)
- [Around Dow News #2](#)
- [Around Dow News #1](#)

Corporate News

- [Test News Story #4](#)
- [Test News Story #3](#)
- [Test News Story #2](#)
- [Test News Story #1](#)

 Test News Story #1

Team Dow Alpha Presentation

Landing Page

SharePoint Newsfeed SkyDrive Sites mill2121

SHARE FOLLOW

DowSurvey

[Respond to this Survey](#) [Actions](#) [Settings](#)

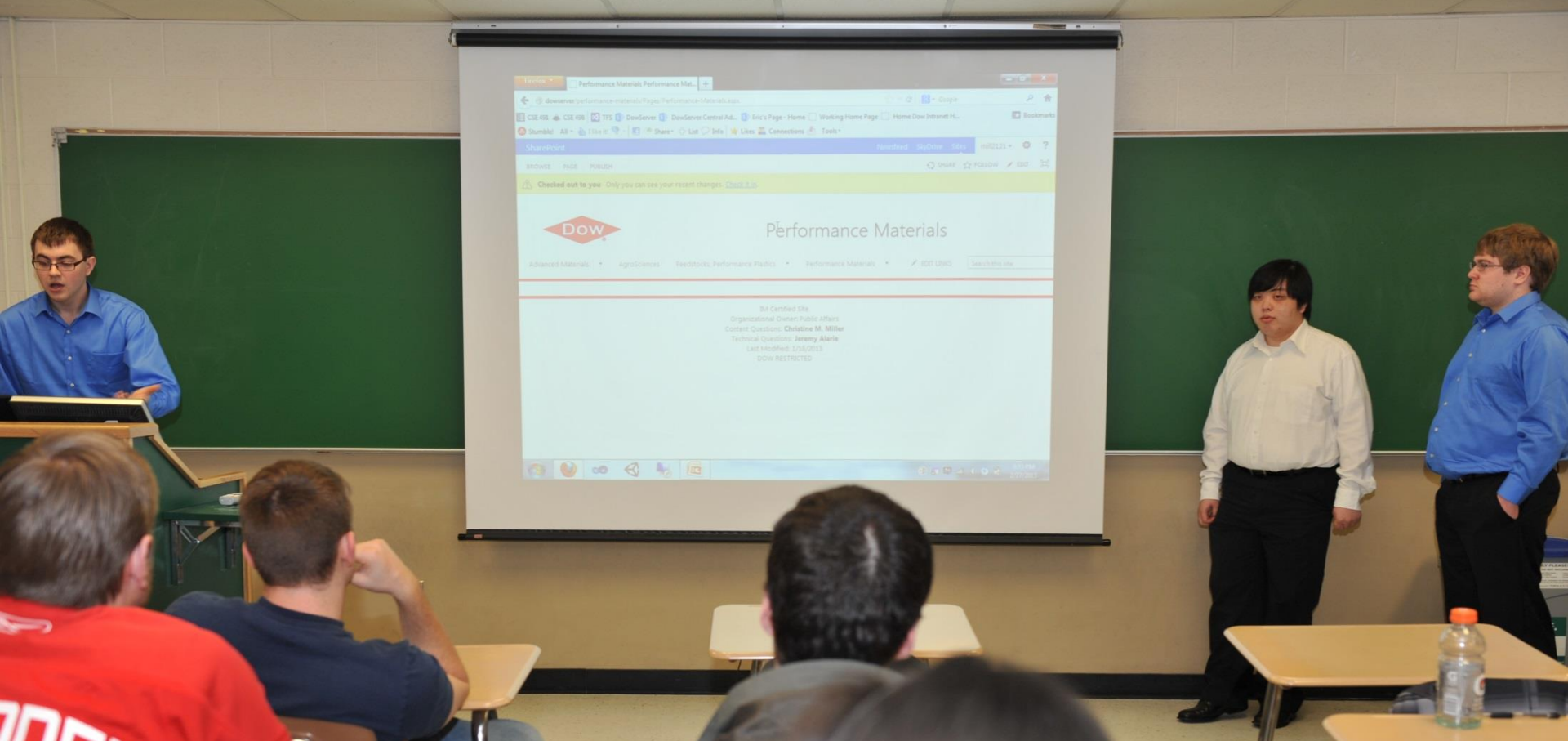
Survey Name:	DowSurvey
Survey Description:	
Time Created:	2/12/2013 6:22 PM
Number of Responses:	1

☐ Show a graphical summary of responses
☐ Show all responses

Michigan State University	Google	Wired.com
MSU - Computer Science	Yahoo!	Slashdot
MSU - College of Engineering	Bing	ThinkGeek

IM Certified Site
Organizational Owner: Public Affairs
Content Questions: **Christine M. Miller**
Technical Questions: **Jeremy Alarie**
Last Modified: 1/18/2013
DOW RESTRICTED





Team Dow Alpha Presentation

Team Dow Alpha Presentation

Edit Mode



[Dow Intranet Home](#)

TopLeft



TopCenter

[Click here to add new content](#)

TopRight

[Click here to add new content](#)

MiddleTopLeft

[Add a Web Part](#)

MiddleTopCenter

[Click here to add new content](#)

MiddleTopRight

[Click here to add new content](#)

MiddleLeft

[Click here to add new content](#)

MiddleCenter

[Click here to add new content](#)

MiddleRight

[Click here to add new content](#)

MiddleBottomLeft

[Click here to add new content](#)

MiddleBottomCenter

[Click here to add new content](#)

BottomLeft

[Click here to add new content](#)

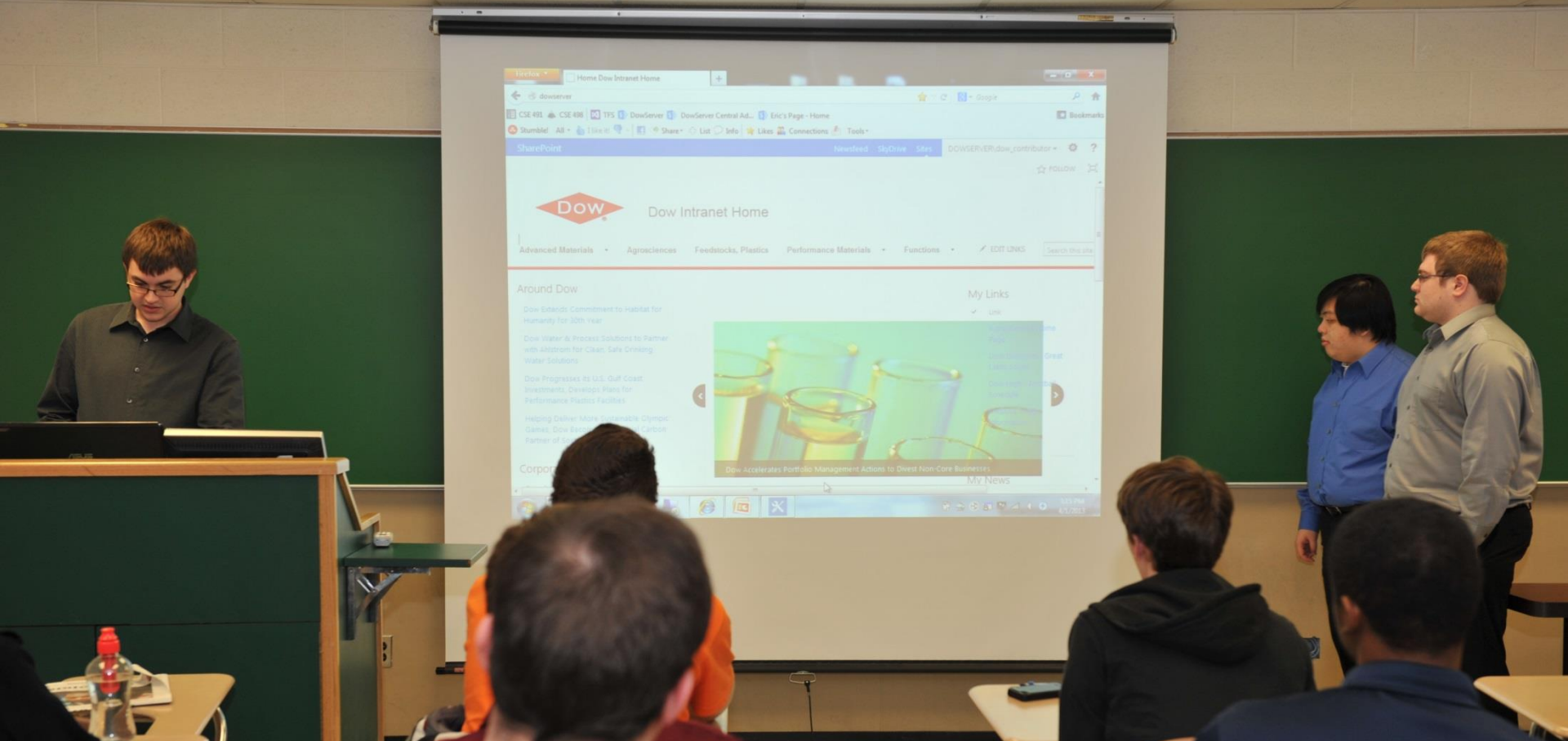
BottomCenter

[Click here to add new content](#)

BottomRight

[Click here to add new content](#)

IM Certified Site
Organizational Owner: Public Affairs
Content Questions: **Christine M. Miller**
Technical Questions: **Jeremy Alarie**
Last Modified: 1/18/2013
DOW RESTRICTED




Team Dow Beta Presentation

Team Dow Beta Presentation

Intranet Home Page

SharePointNewsfeedSkyDriveSitesmill2121⚙?

SHAREFOLLOW⌵

Dow Intranet Home


Advanced Materials ▾ Agrosciences Feedstocks, Plastics Performance Materials ▾ Functions ▾ EDIT LINKS

Around Dow

- [Dow Extends Commitment to Habitat for Humanity for 30th Year](#)
- [Dow Water & Process Solutions to Partner with Ahlstrom for Clean, Safe Drinking Water Solutions](#)
- [Dow Progresses its U.S. Gulf Coast Investments, Develops Plans for Performance Plastics Facilities](#)
- [Helping Deliver More Sustainable Olympic Games, Dow Becomes the Official Carbon Partner of Sochi 2014](#)

Corporate News

- [Dow Promotes Education and Solutions around World Water Day](#)
- [Dow Accelerates Portfolio Management Actions to Divest Non-Core Businesses](#)
- [Bucks, Delaware and Montgomery County Students Advance to State Chemistry Competition](#)
- [Dow Announces Closure of Proceedings in K-Dow Arbitration](#)



My Links

- ✓ [Link](#)
- [Agrosciences Home Page](#)
- [Dow Diamond - Great Lakes Loons](#)
- [Dow High - Football Schedule](#)
- [Midland Tridge Information](#)

My News

- ✓ [Link](#)
- [Midland Daily News](#)
- [Dow Corporate News](#)
- [Yahoo! News - Dow Chemical Company](#)

Team Dow Beta Presentation

Metrics Web Part Added

SharePoint

NewsfeedSkyDriveSitesmill2121⚙️?

🔄 SHARE ☆ FOLLOW

Reliability @ Dow

Customer Impact Reliability	November 2012	2012 YTD	2012 Target
Force Majeure Events	3	32	29
Unintended Order Control Events	5	99	117
Priority 1 Quality Incidents	30	263	286
Product Supply Reliability	89.1%	86.8%	87.0%

My EH&S

2 People Hurt This Year	December 2012	2012 YTD	2012 Target
Personal Safety Rating	0.09	0.19	0.24
Personal Safety Severity Rate	0.27	0.69	0.95
LOPC Count	11	223	225
Process Safety Incidents	2	16	18
Process Safety Severity Rate	0.063	0.066	0.076
Severe MVA Rate	0.09	0.19	0.24

DowSurvey

📄 Respond to this Survey Actions ⌵ Settings ⌵

Survey Name: DowSurvey

Survey Description:

Time Created: 2/12/2013 6:22 PM

Number of Responses: 1

☐ Show a graphical summary of responses

☐ Show all responses

Michigan State University➡

MSU - Computer Science➡

MSU - College of Engineering➡

Google➡

Yahoo!➡

Bing➡

Wired.com➡

Slashdot➡

ThinkGeek➡

IM Certified Site

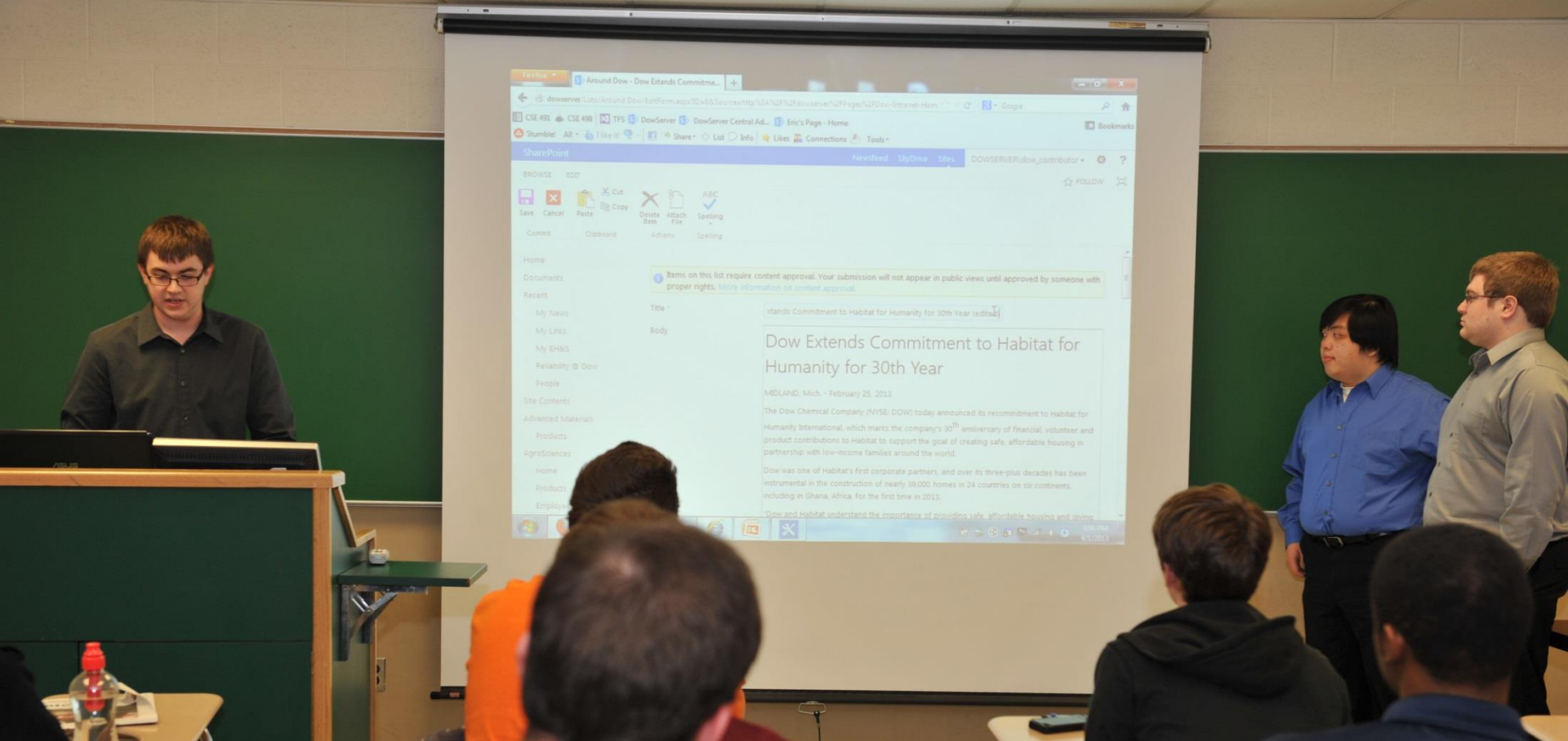
Organizational Owner: Public Affairs

Content Questions: **Christine M. Miller**

Technical Questions: **Jeremy Alarie**

Last Modified: 1/18/2013

DOW RESTRICTED



Team Dow Beta Presentation


Team Dow Beta Presentation

Subsite with Content

SharePoint

Newsfeed SkyDrive Sites mill2121

SHARE FOLLOW



Home > AgroSciences

Advanced Materials

Agrosciences

Feedstocks, Plastics

Performance Materials

Functions

EDIT LINKS

Home

Products

Employee Directory

Careers

About Us

EDIT LINKS

3/11/2013

Eric Miller

Our [products and services](#) are designed to solve pressing crop production problems for our customers, boosting agriculture productivity to maximum sustainable levels to keep pace with the growing needs of our world's rapidly expanding population.

We provide a variety of products and services to meet the needs of our customers. Our research with strategic partners is bringing breakthrough and sustainable solutions to the industry. Walk through any supermarket, and you clearly see sustainable advances have been made in food production, variety, and quality. Now more than ever, there is a critical need for new breakthroughs. Global population forecasts show overall food production must be boosted by about 70 percent in four decades. Although our natural resources are limited, the potential for agricultural production advances is not.

We began as the plant sciences business of The Dow Chemical Company, which was founded in 1897. A joint venture with Eli Lilly and Company in 1989 created DowElanco. With a focus on sustainable agriculture, DowElanco combined the leading chemistries of The Dow Chemical Company with those of the agricultural division of Eli Lilly. In 1997, The Dow Chemical Company acquired full ownership of the business and named the business Dow AgroSciences. Today, we employ more than 7,100 people worldwide, and our 2011 global sales were \$5.7 billion (U.S.).

By 2050, the world's food production systems must support an estimated 9 billion people, with a shrinking base of agricultural land and limited water resources. Dow AgroSciences combines the power of science and technology with the "human element" to discover and develop innovative agricultural solutions for a more sustainable world. We are committed to increasing crop productivity through higher yields, better varieties, and more targeted pest management. We develop innovative chemical and biotechnology solutions to meet the food, feed, and fiber needs of the world.

THE POWER
OF
MORE™

DOW AGROSCIENCES PROVEN SOLUTIONS

IM Certified Site

Organizational Owner: Public Affairs

Content Questions: **Christine M. Miller**

Technical Questions: **Jeremy Alarie**



Team Dow
Design Day

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Team EA

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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...to Professionals*





GAMES ▼

BLOG

HELP ▼

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Origin

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Sign Up

ORIGIN STRATEGY WEEKEND SALE

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HALF OFF TITLES LIKE C&C ULTIMATE EDITION
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Team EA

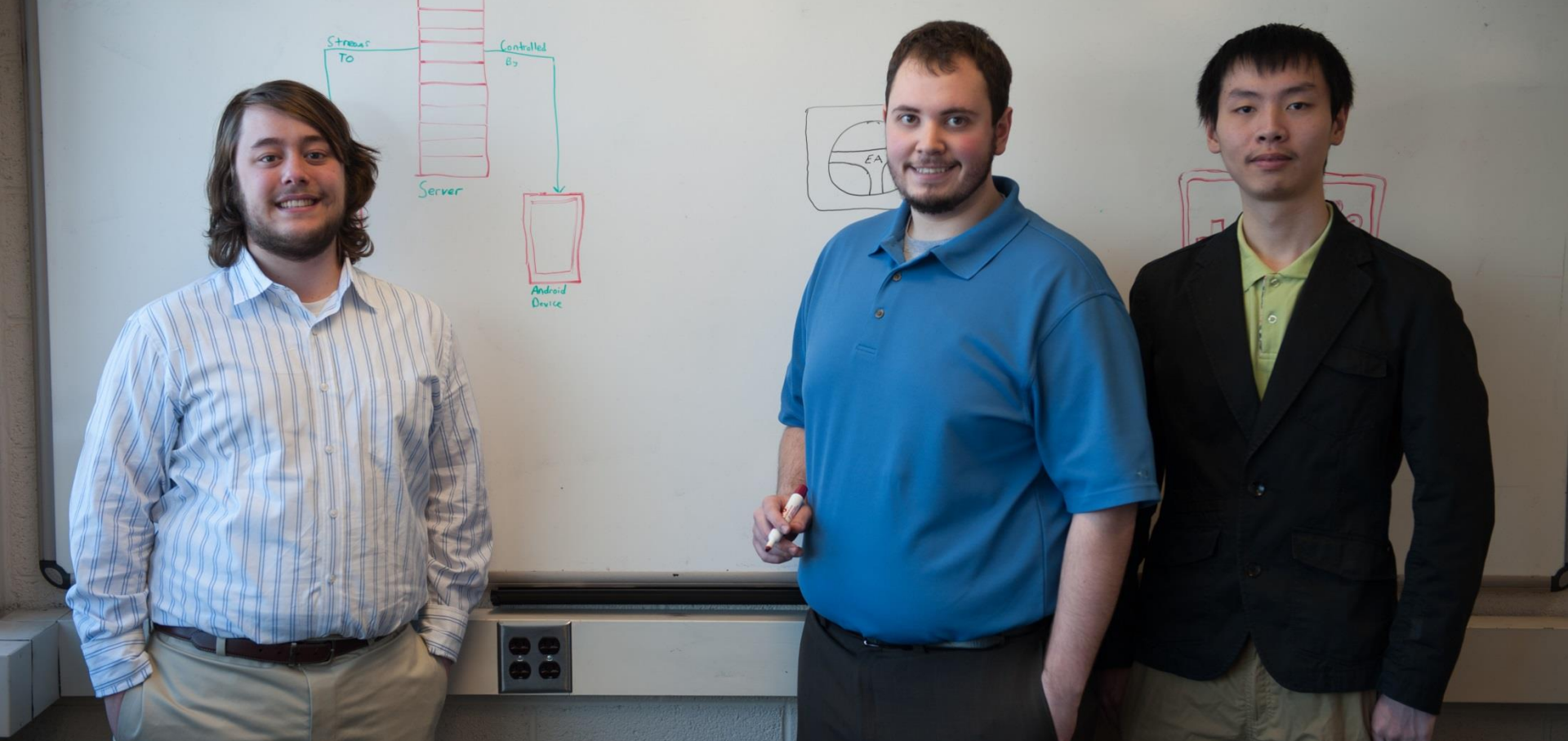
Project Overview

Streaming Android Emulator for EA Games

- Functionalities
 - Android Emulator
 - Streams Mobile Games
- Features
 - Emulator Runs on a PC
 - Communication System and Controller Interface
 - Allows Android Devices to Control Game on PC
 - Interface Based on HTML5
 - Connects Over WiFi
 - Interprets Gestures and Device Tilt Movements
 - Stream Video from Emulator to HTML5 Webpage
- Technologies
 - C++ and C#
 - Android SDK
 - HTML5
 - JavaScript
 - PHP
 - webRTC



Redwood City, California

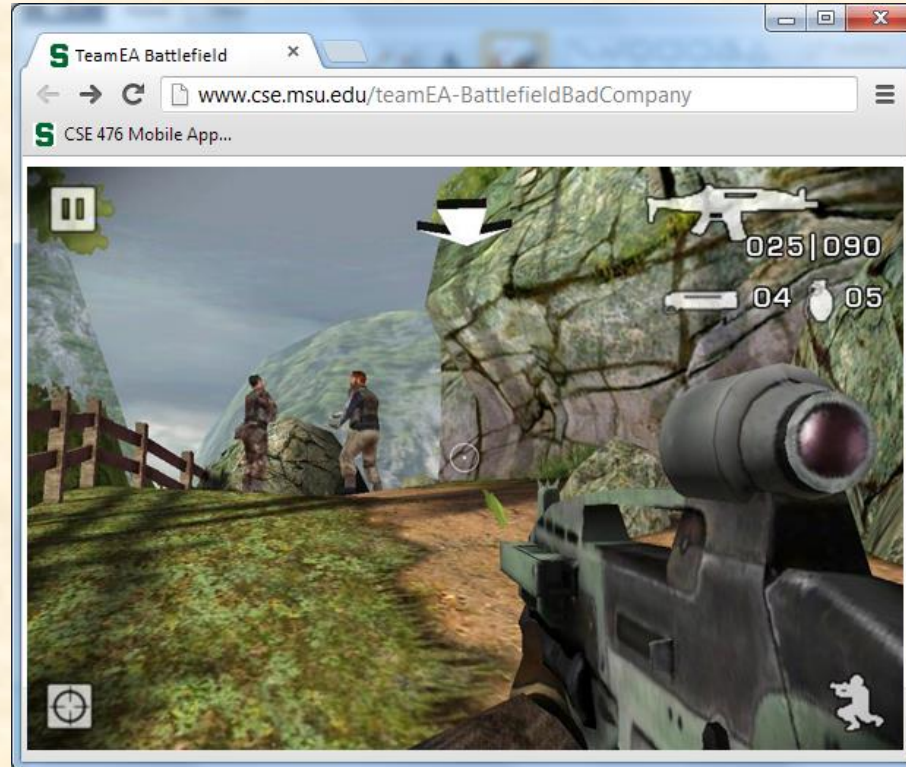


Team EA

Jim Challenger, Scott Steffes, Jeiping Tang

Team EA Project Plan Presentation

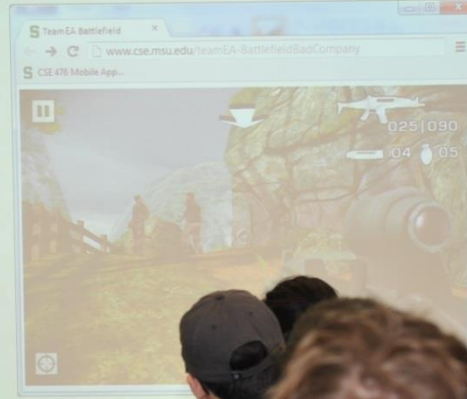
Screen Mockup



The Capstone Experience



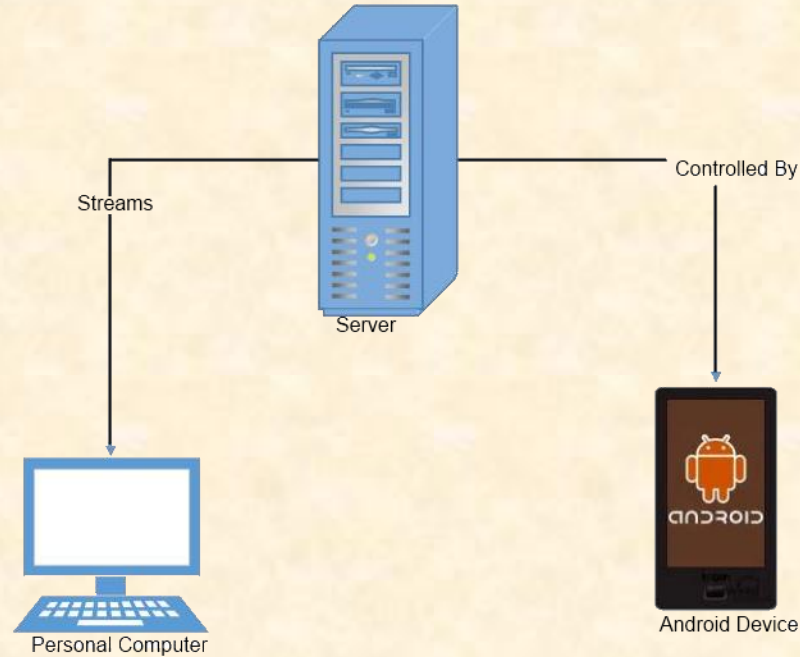
Screen Mockup: Video Streaming

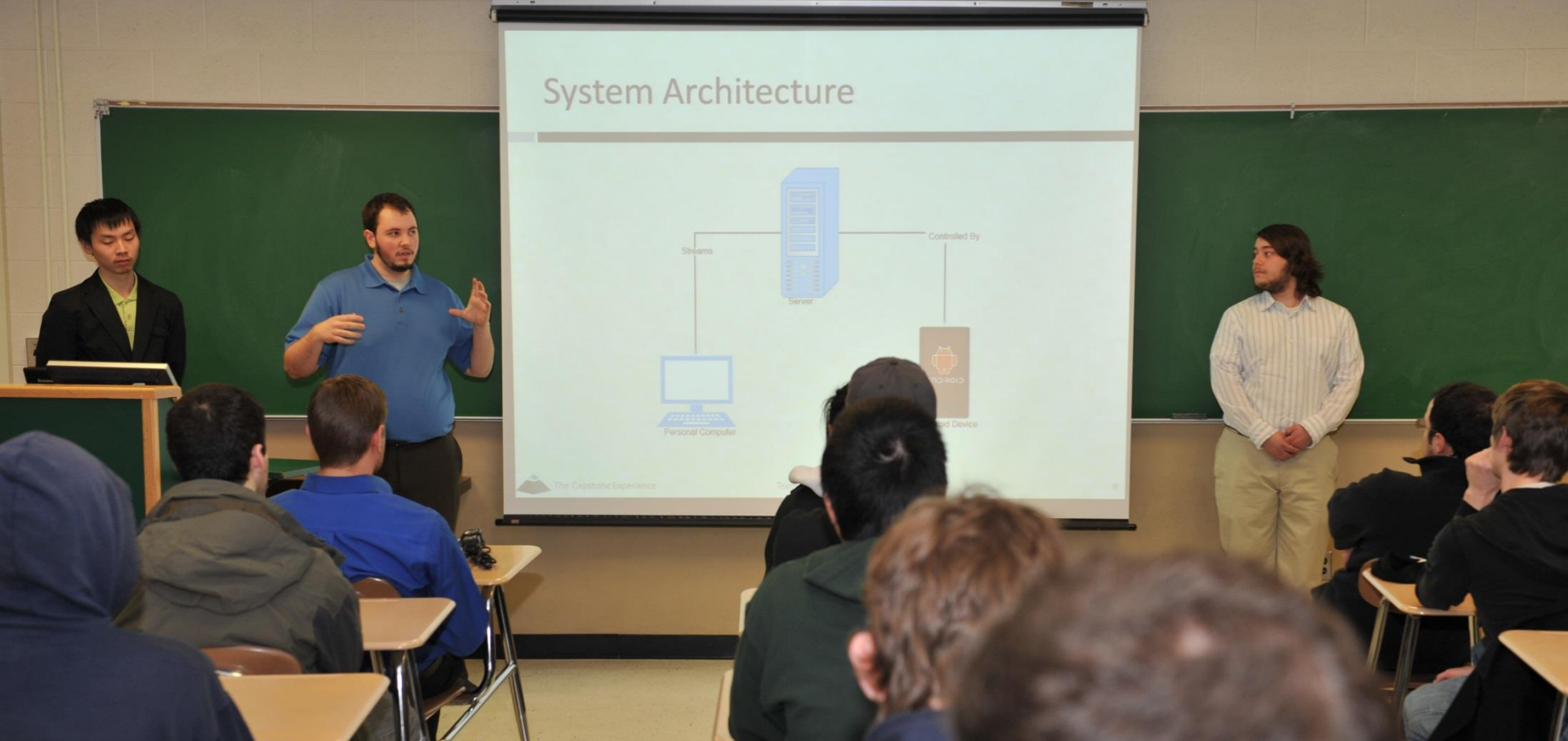


Team EA
Project Plan Presentation

Project Plan Presentation

Architecture Diagram

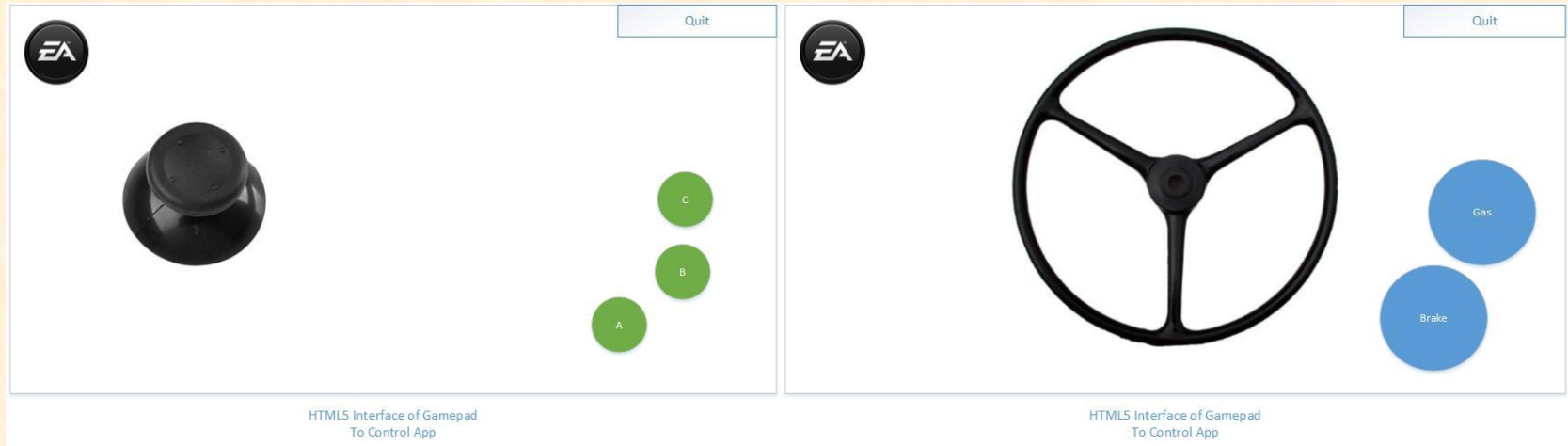




Team EA Project Plan Presentation

Team EA Project Plan Presentation

Screen Mockup

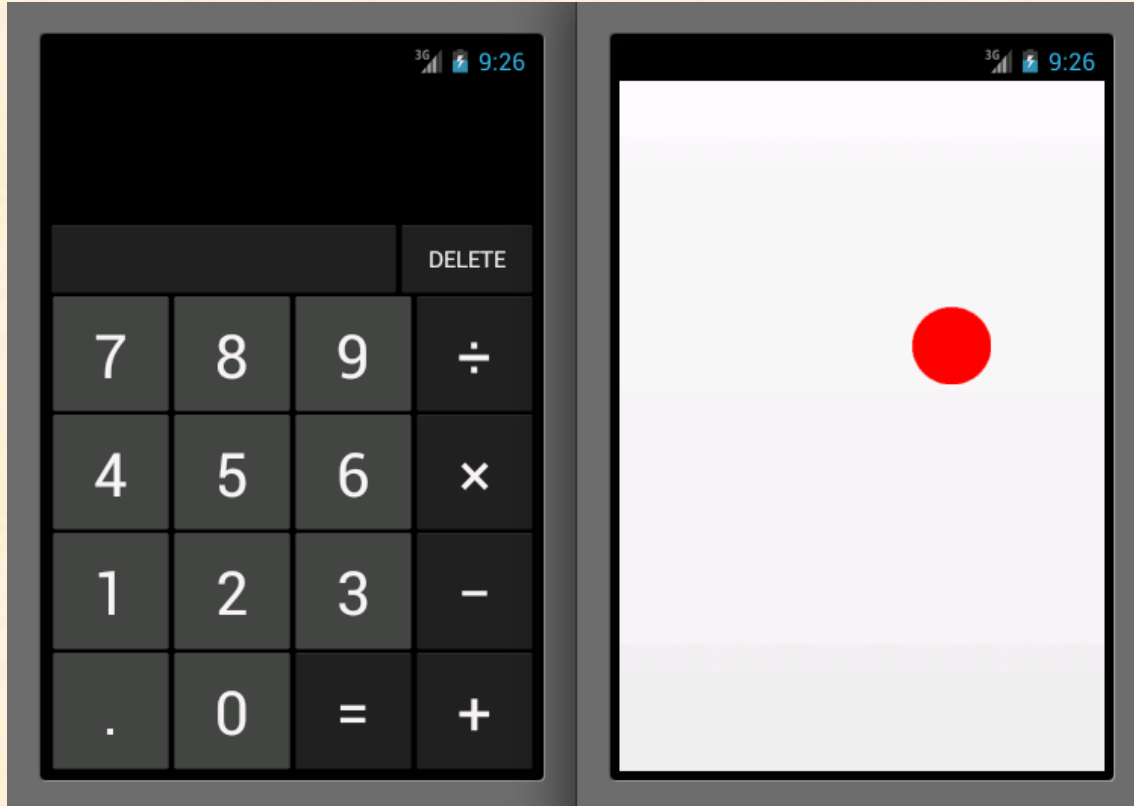




Team EA Alpha Presentation

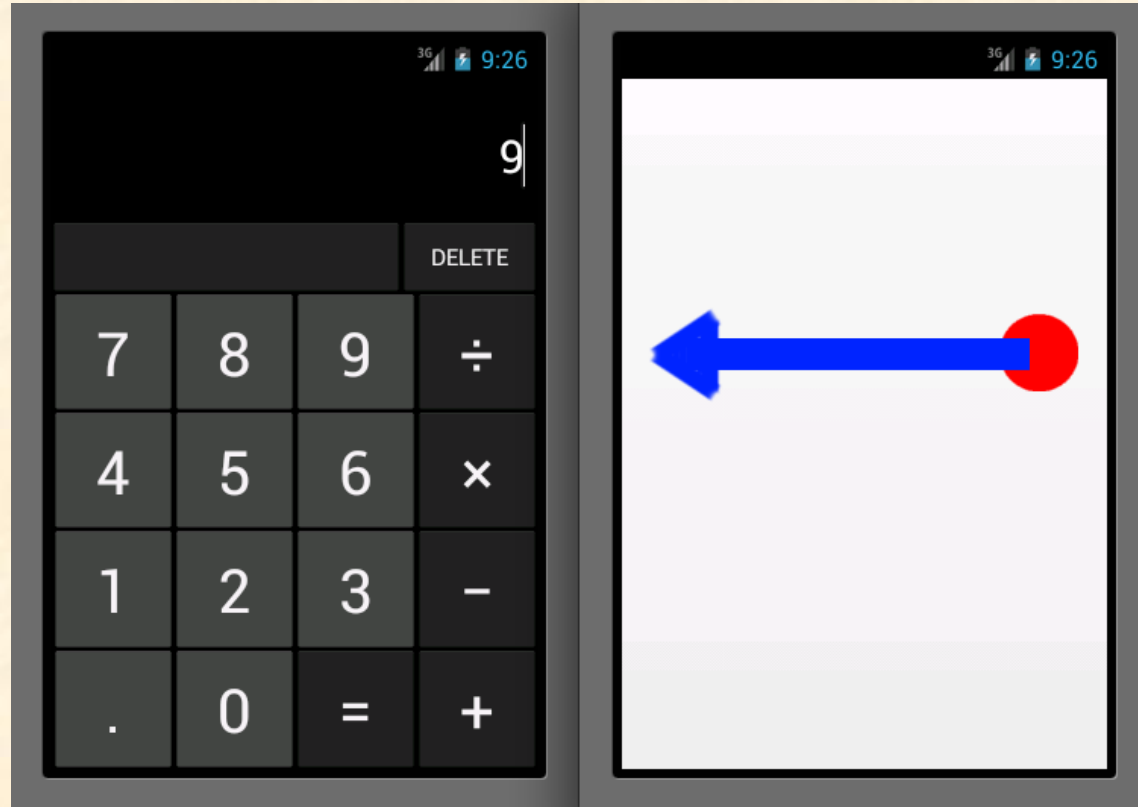
Team EA Alpha Presentation

Game Controller: Press 9



Team EA Alpha Presentation

Game Controller: Start Swiping

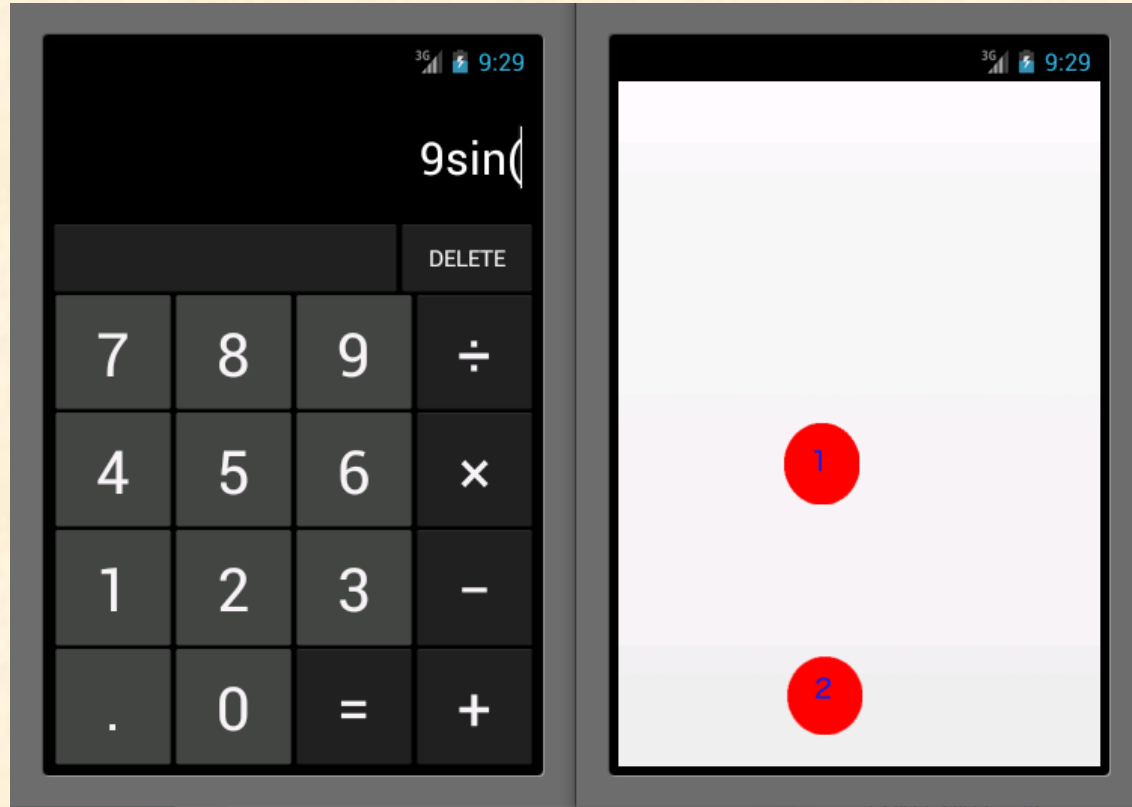


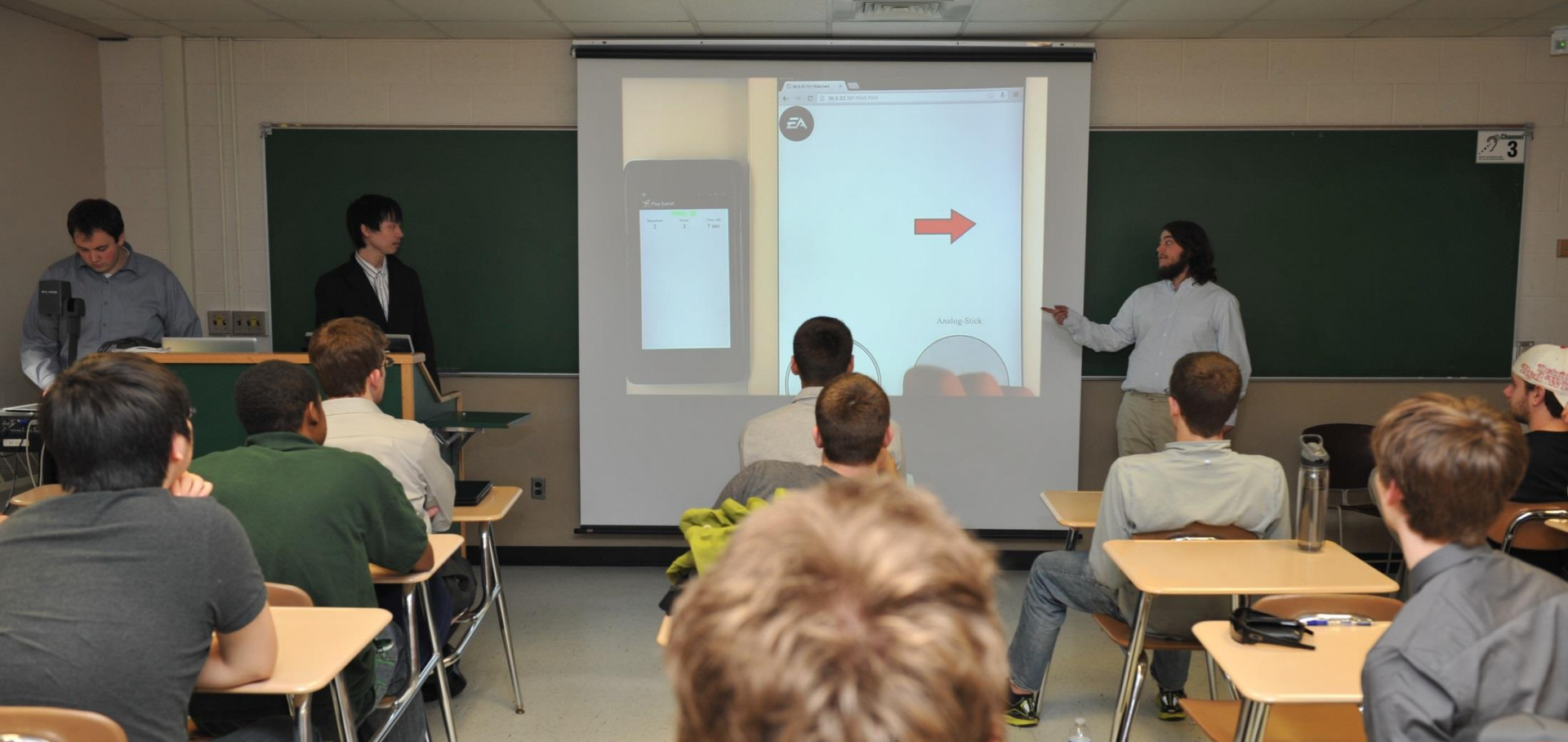


Team EA Alpha Presentation

Team EA Alpha Presentation

Game Controller: Press Angle

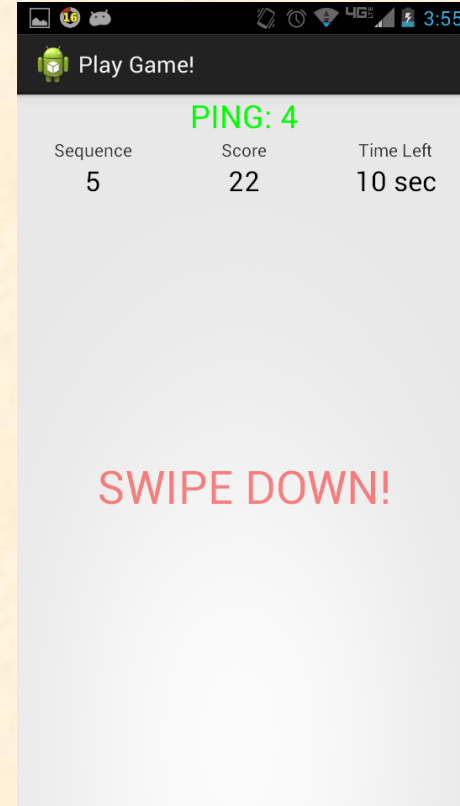
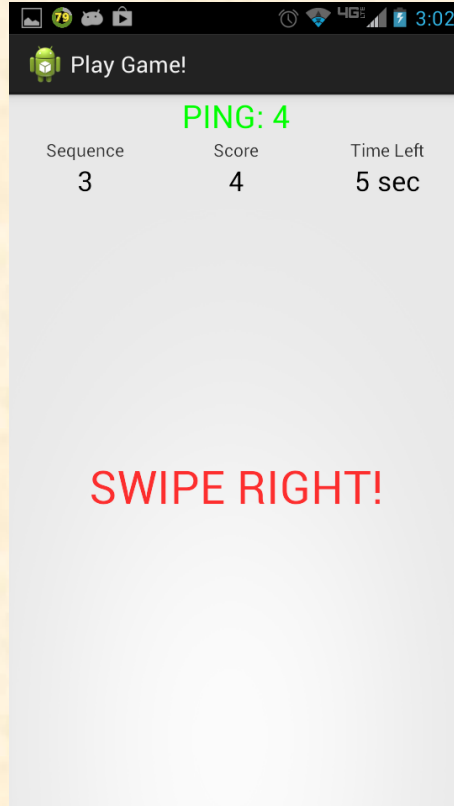




Team EA
Beta Presentation

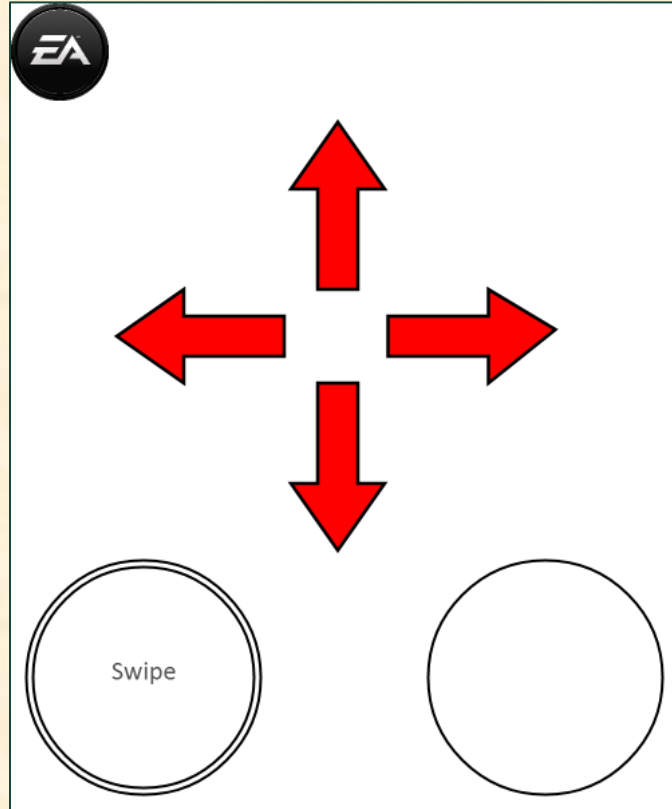
Team EA Beta Presentation

Game Being Played



Team EA Beta Presentation

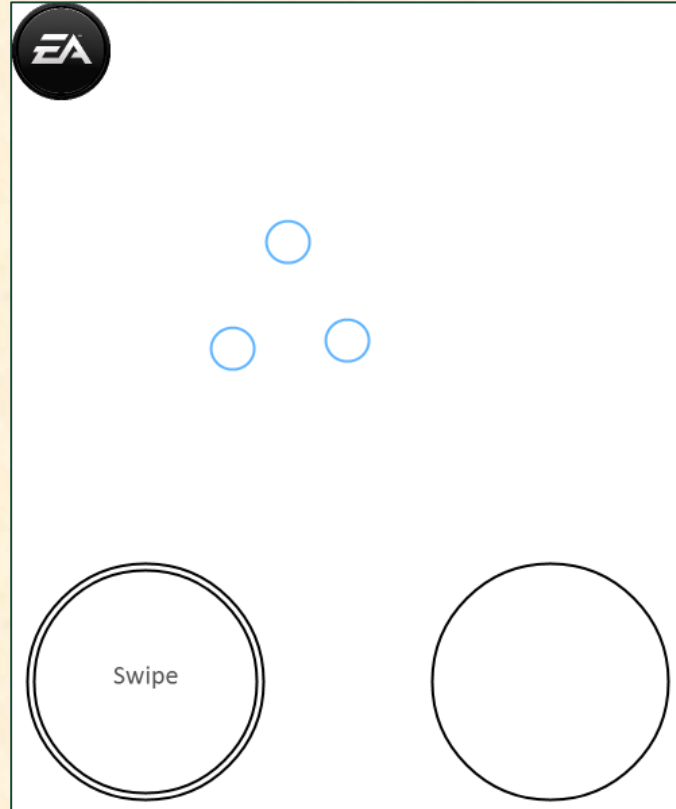
Swipes on the Controller





Team EA Beta Presentation

Multi-Touch on the Conroller





Team EA
Design Day

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Team GM

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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



GENERAL MOTORS

VEHICLES ▶

INNOVATION ▶

COMPANY ▶

ALL GM SITES

SEARCH



BUICK

THE LATEST FROM GM:

1 2 3 4 5

XTS Drivers Decide How Gauge Cluster Appears

DETROIT - Cadillac's new XTS lets drivers decide the design and theme for the luxury sedan's gauge cluster, an industry-exclusive feature that allows the choice of four layouts from simplistic and minimal to ultra-inform... [Read More](#)

Team GM Project Overview

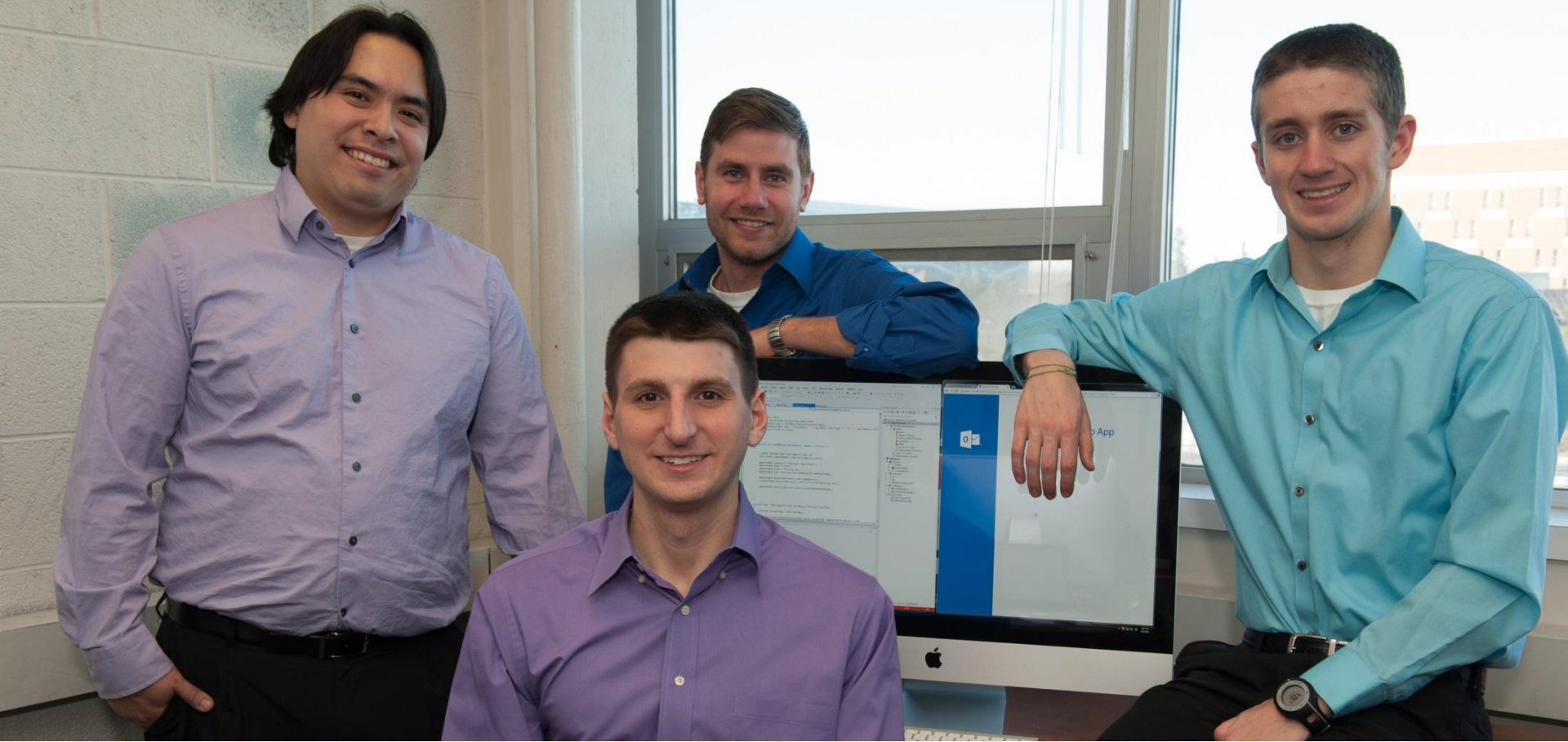
My Conference Room

- Functionalities
 - Enable Impromptu Meetings
 - In Empty Conference Rooms
 - Find or Check Status
 - Book
 - Using Mobile Devices
- Features
 - Based on GM Microsoft Exchange Server
 - Includes all Conference Rooms
 - Cataloged for Searching and Scheduling
 - Accessible Via Exchange APIs
 - Displays All Relevant Room Information
 - Name, Location and Capacity
 - Amenities (Whiteboards, Projector, Etc.)
 - Schedule
 - Supports Room QR Codes
- Technologies
 - CSS, HTML5
 - JavaScript, AJAX
 - Microsoft Exchange 2013
 - Microsoft Outlook 2013 APIs (EWS, etc.)
 - Application Tier (.NET Recommended)



Detroit, Michigan






Team GM

Daniel Bachelis, Matt Tarnowsky, Tom Smale, Jeff Girbach

Team GM Project Plan Presentation

Screen Mockup

 GENERAL MOTORS

ROOM 200/17B21
AVAILABLE: 1 hour






15 min. ▼


SEARCH
NEARBY

BOOK NOW

Capacity: 12 people

Amenities:

- Projector 
- SmartBoard 
- GMOL Wifi 
- Guest Wifi 
- Audio Conferencing 

 GENERAL MOTORS

ROOM 200/17B21
AVAILABLE: 8 min.






15 min. ▼


SEARCH
NEARBY

BOOK NOW

Capacity: 12 people

Amenities:

- Projector 
- SmartBoard 
- GMOL Wifi 
- Guest Wifi 
- Audio Conferencing 

 GENERAL MOTORS

ROOM 200/17B21
BOOKED






15min. ▼

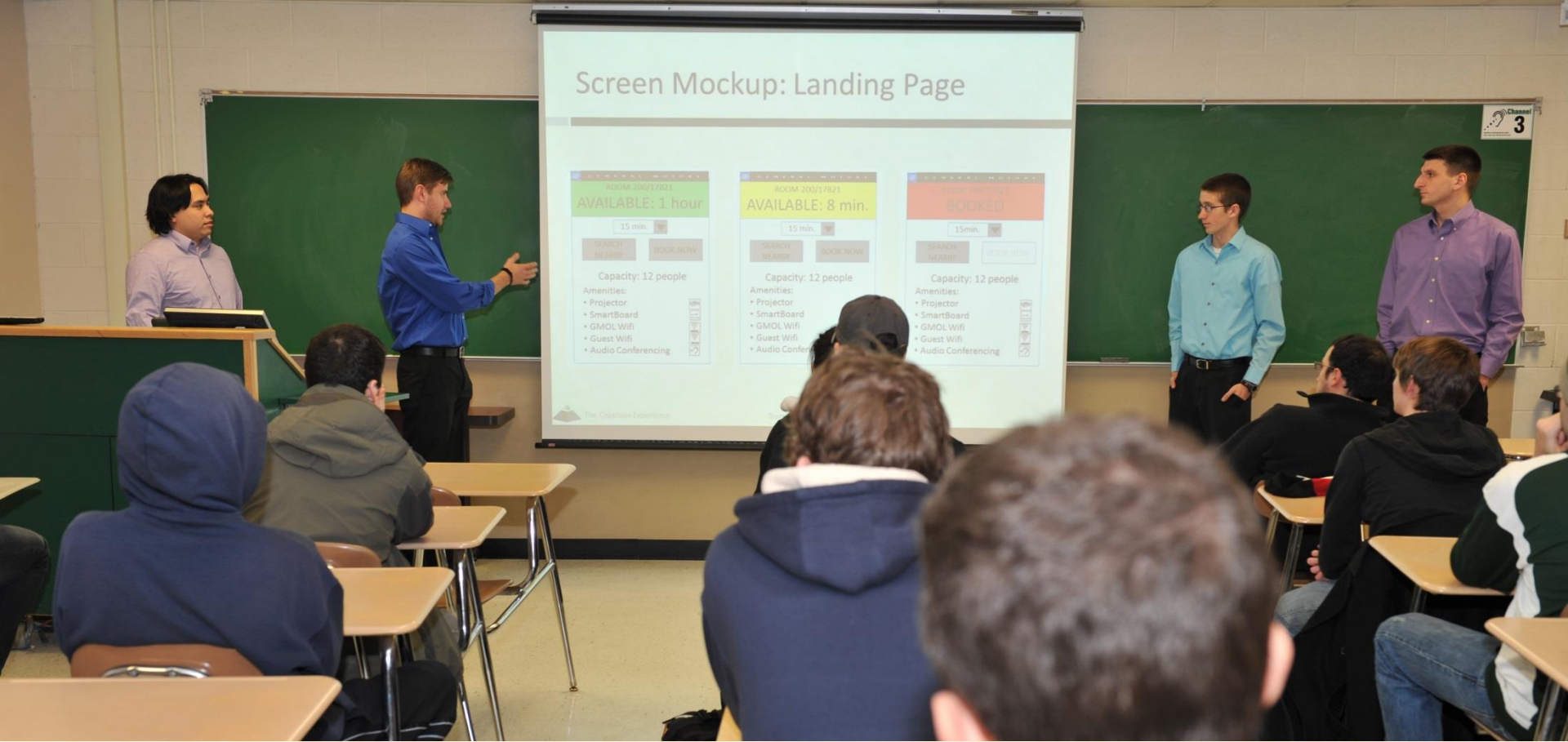
SEARCH
NEARBY

BOOK NOW

Capacity: 12 people

Amenities:

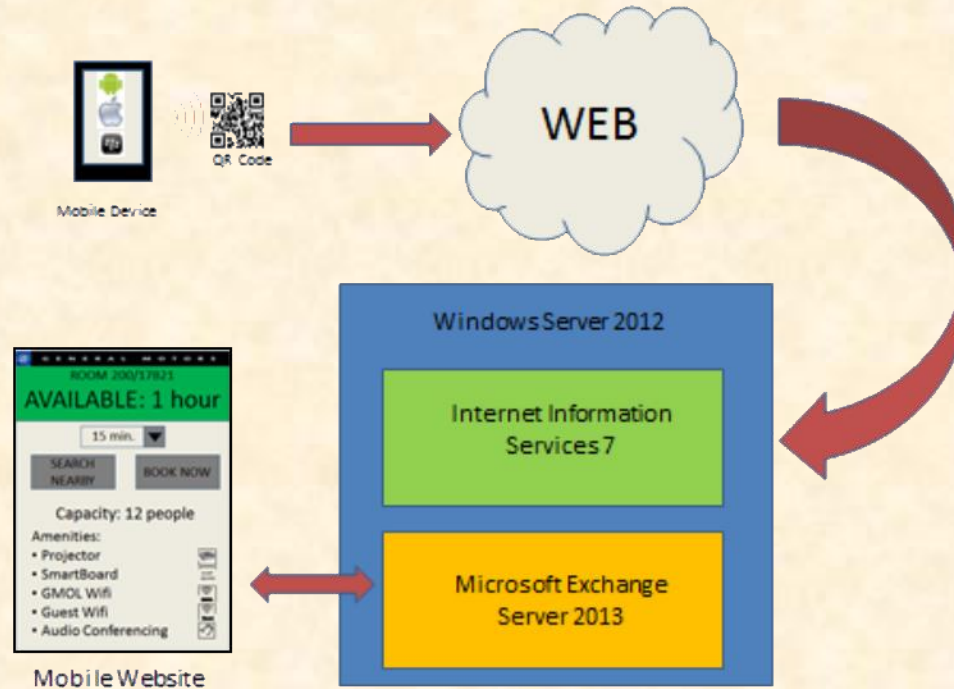
- Projector 
- SmartBoard 
- GMOL Wifi 
- Guest Wifi 
- Audio Conferencing 

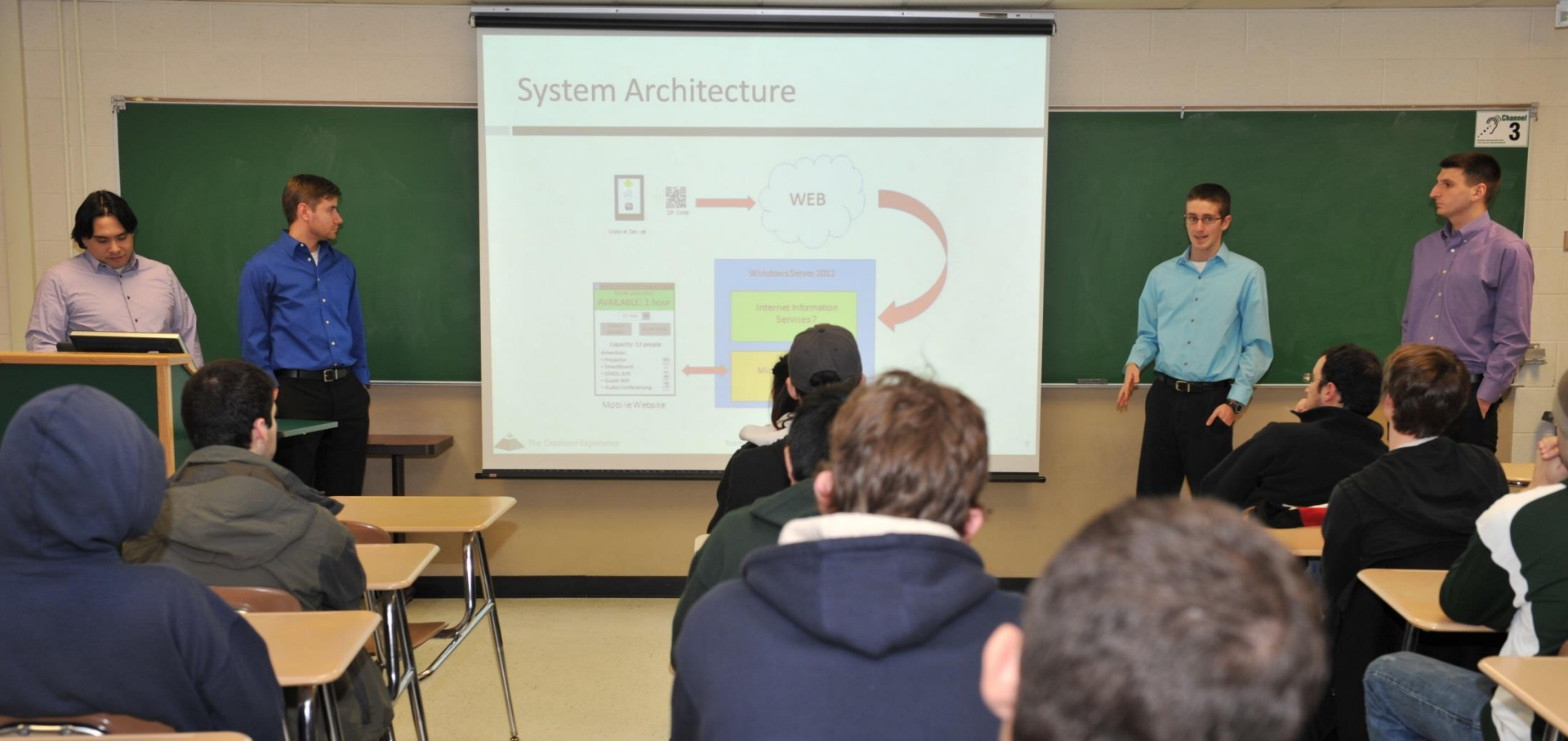


Team GM Project Plan Presentation

Team GM Project Plan Presentation

Architecture Diagram





Team GM Project Plan Presentation

Team GM Project Plan Presentation




Screen Mockup

GM





GENERAL MOTORS

Rooms near:
200/17B21





200/18B20 - 2 hours Cap: 15







200/17B22 - 60 min. Cap: 8



200/17B20 - 25 min. Cap: 12



200/16B20 Cap: 12



30 min.

Go Back

GM

GENERAL MOTORS

ROOM 200/17B22
AVAILABLE: 1 hour

15 min.






GO BACK

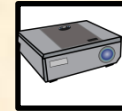
BOOK NOW

Capacity: 12 people

Amenities:

- Projector
- SmartBoard
- GMOL Wifi
- Guest Wifi
- Audio Conferencing



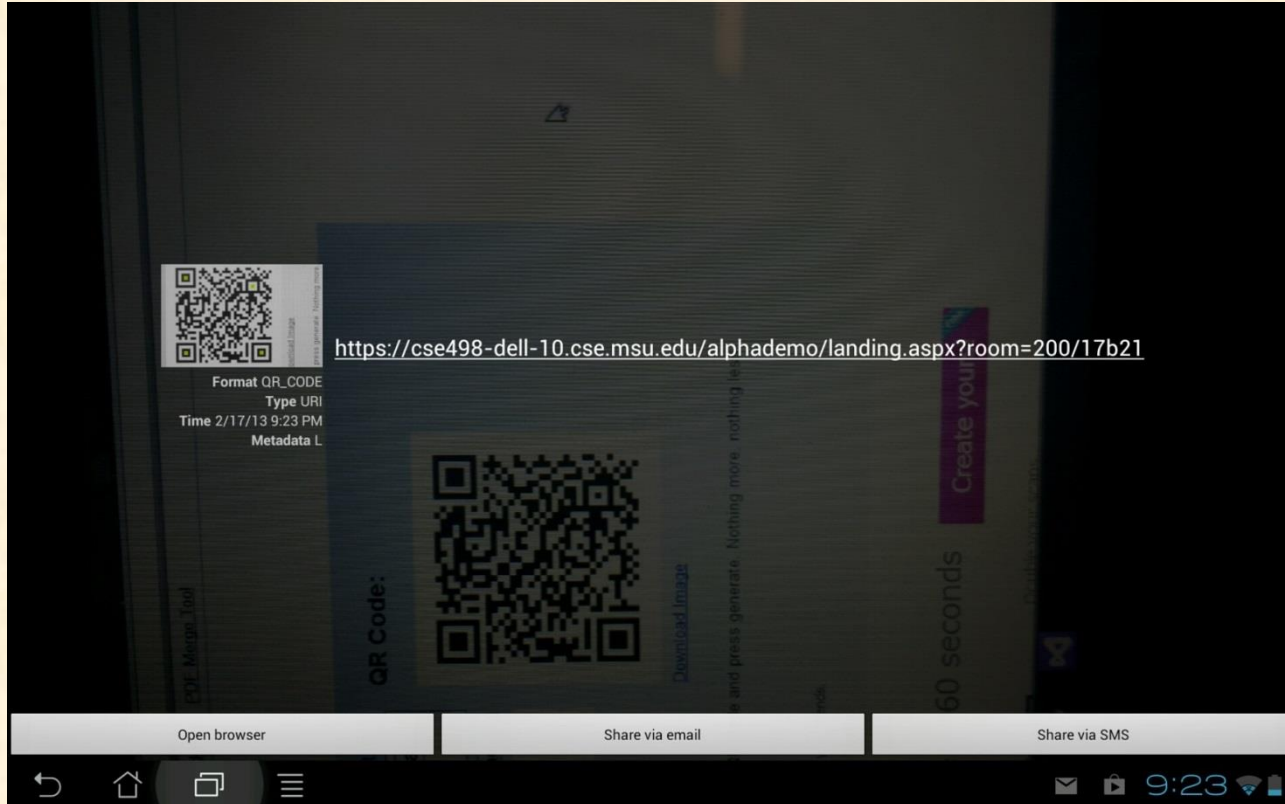




Team GM Alpha Presentation

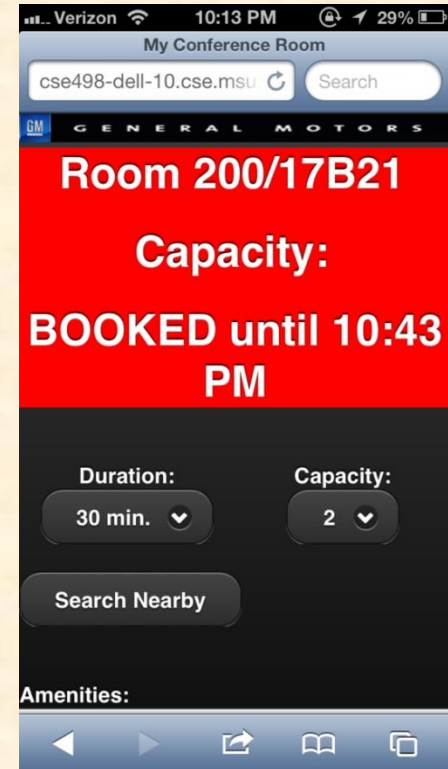
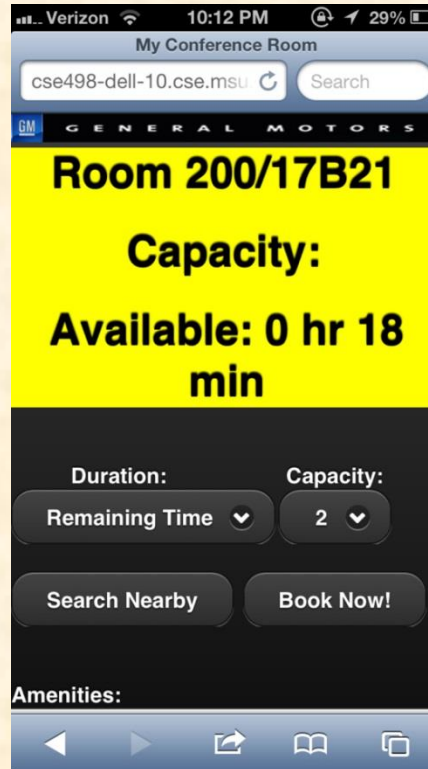
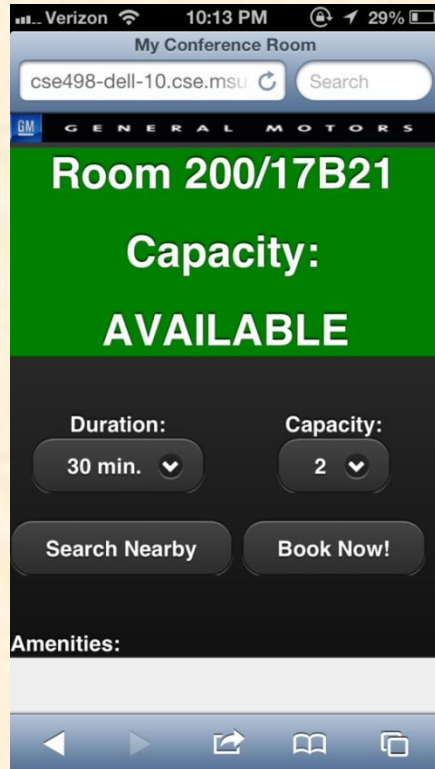
Team GM Alpha Presentation

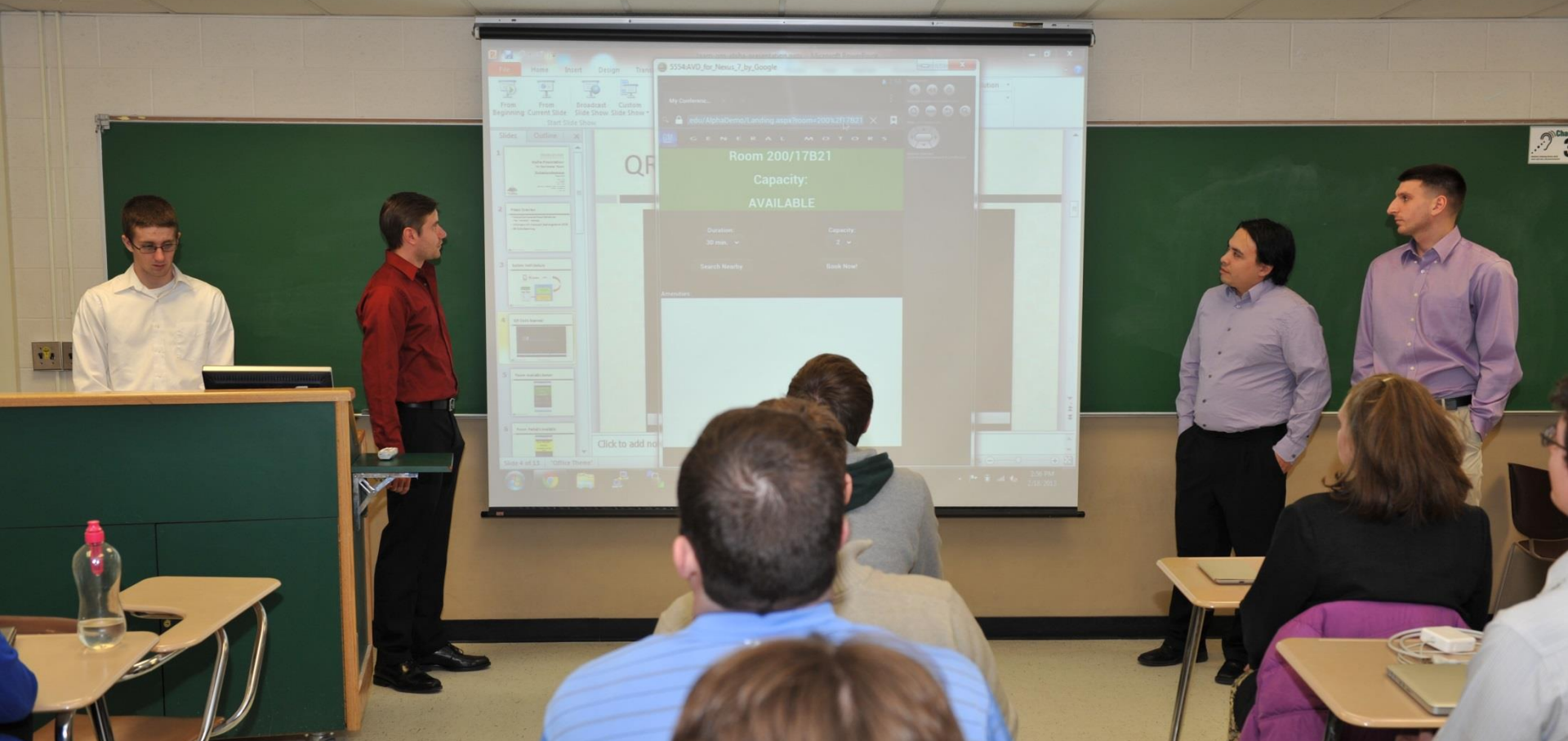
QR Code Scanned



Team GM Alpha Presentation

Room Availability





Team GM Alpha Presentation

Alpha Presentation

Changing Duration and Capacity

Verizon 10:13 PM 29%

AVAILABLE

Duration: Ca

30 min. ▼

Search Nearby Bo

Previous Next Done

✓ 30 min.

1 hr.

1.5 hr.

2 hr.

Verizon 10:13 PM 29%

AVAILABLE

n: Capacity:

▼ 2 ▼

Search Nearby Book Now!

Previous Next Done

✓ 2

5

10

20

30

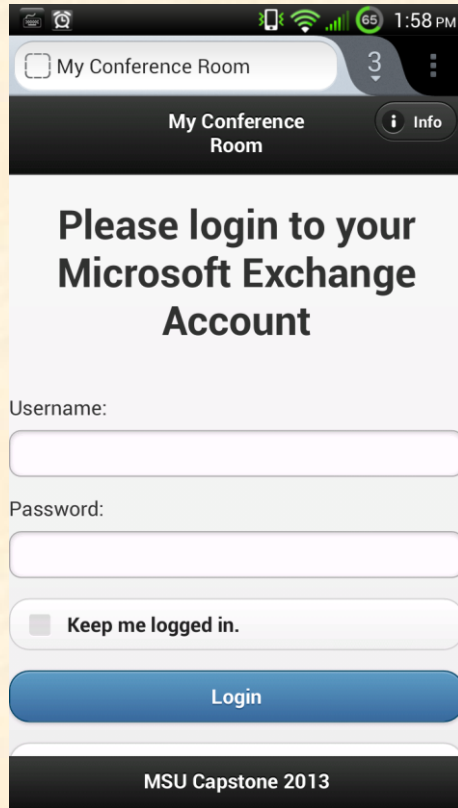




Team GM Beta Presentation

Team GM Beta Presentation

Login



My Conference Room 3

My Conference Room Info

**Please login to your
Microsoft Exchange
Account**

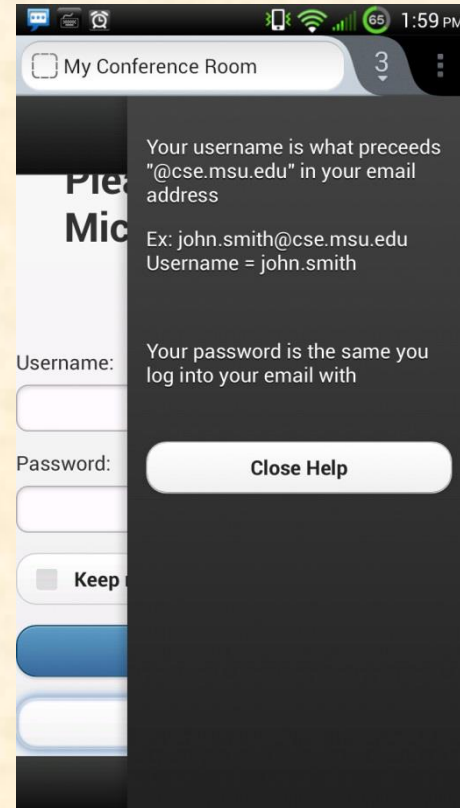
Username:

Password:

☐ Keep me logged in.

Login

MSU Capstone 2013



My Conference Room 3

Pre Mic

Your username is what precedes
"@cse.msu.edu" in your email
address
Ex: john.smith@cse.msu.edu
Username = john.smith

Username: Your password is the same you
log into your email with

Password:

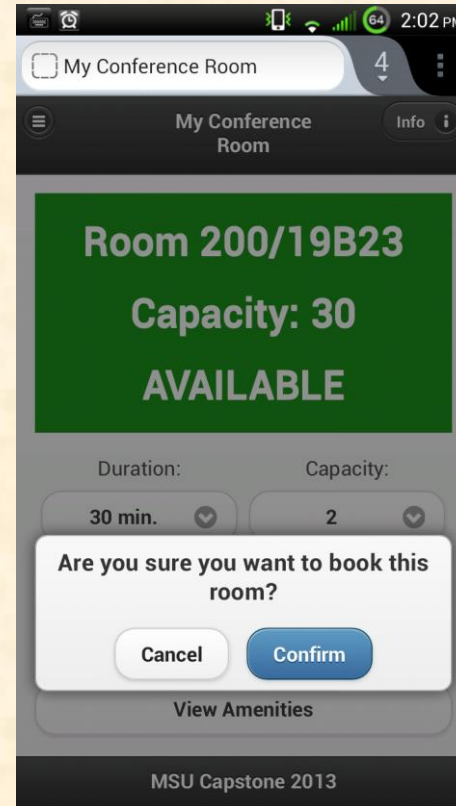
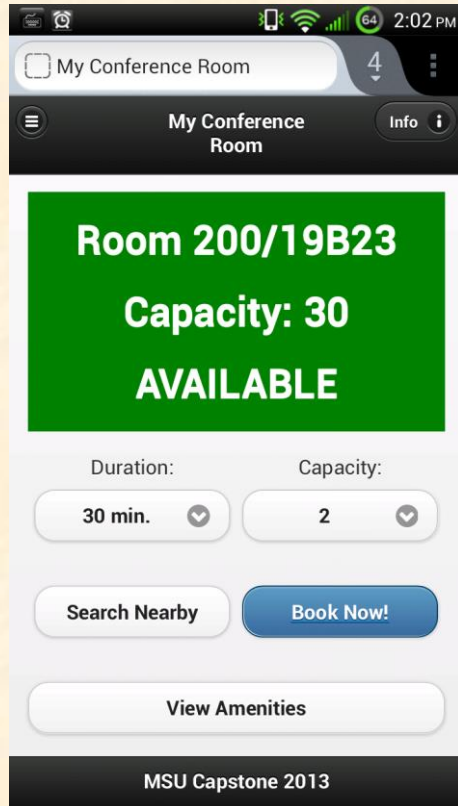
☐ Keep me logged in.

Close Help



Team GM Beta Presentation

Booking a Room

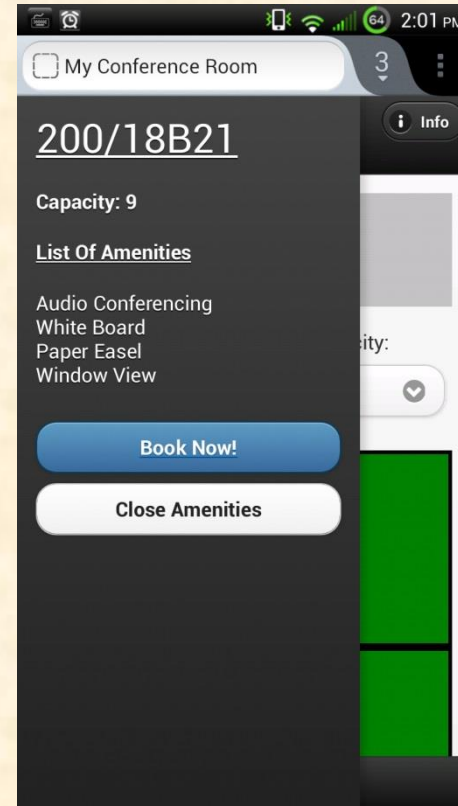
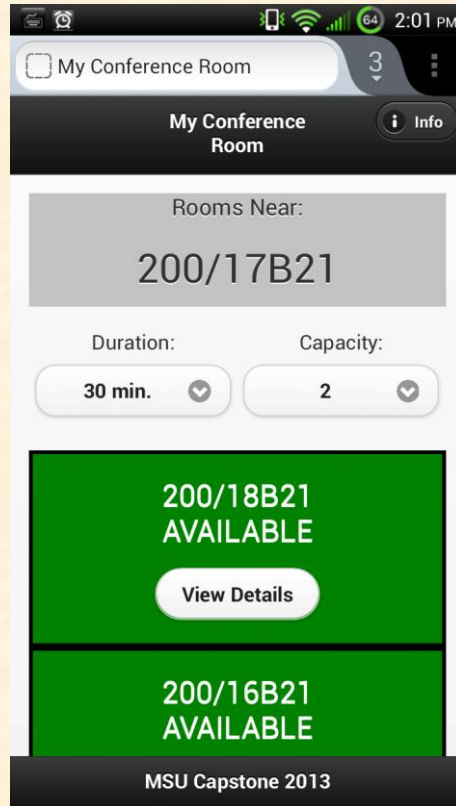




Team GM Beta Presentation

Team GM Beta Presentation

Booking Nearby Rooms





Team GM
Design Day

MICHIGAN STATE
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The Capstone Experience

Team Meijer

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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mPerks

Find a Store

Clearance



free shipping*
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search



My Store



My Account



0

Cart

Grocery | Health & Beauty | Clothing & Jewelry | Baby | Furniture & Home | Garden & Patio | Toys | Electronics | Sports | **Christmas**

25
days of

Christmas

shop all deals >

24

days
left

top ways to save



ordertostore



free shipping



ordertostore

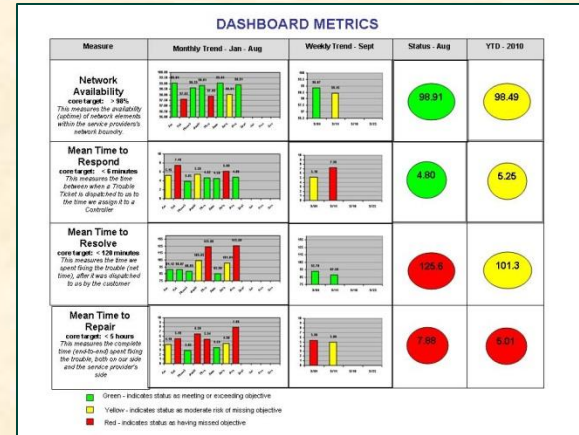


weekly ads

Team Meijer Project Overview

IT Metrics Repository

- Functionalities
 - Dashboard
 - Visualizes IT Metrics
 - Over Time
 - Possibly with Goals
- Features
 - Create, Enter and Edit
 - Metrics
 - Time Dimensions
 - Goals
 - Create Metric as Function of Other Metrics
 - Enter or Calculate Historical Values
 - Automatically Propagate Unchanged Values
 - Support Various Graphing Capabilities
- Technologies
 - CSS, HTML5
 - JavaScript, jQuery, jQuery UI
 - Microsoft .NET, ASP.NET, C#
 - Microsoft Communication Foundation (WCF)
 - Microsoft Internet Information Services (IIS)
 - SQL Server



meijer

Grand Rapids, Michigan




Team Meijer

David Culham, Anthony Cromartie, Bob Shahidehpour

Team Meijer Project Plan Presentation

Screen Mockup



Select Create

SELECT METRIC

Metric 1

Select Metric: Stores - Pharmacies

Select Attribute: # of pharmacies

From

Year: 2008 Period: 1

To

Year: 2008 Period: 12

Metric 2

Select Metric: Stores - Pharmacies

Select Attribute: # of stores

From

Year: 2008 Period: 1

To

Year: 2008 Period: 12

Add Metric Generate Report

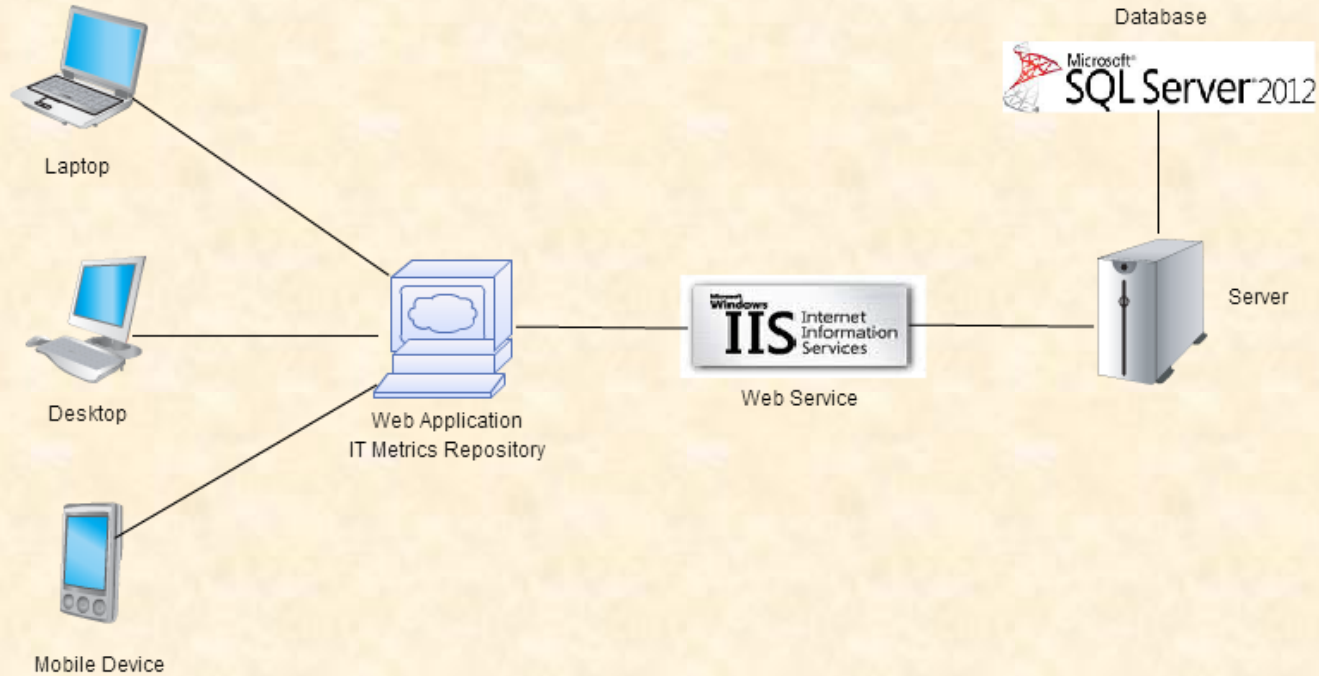


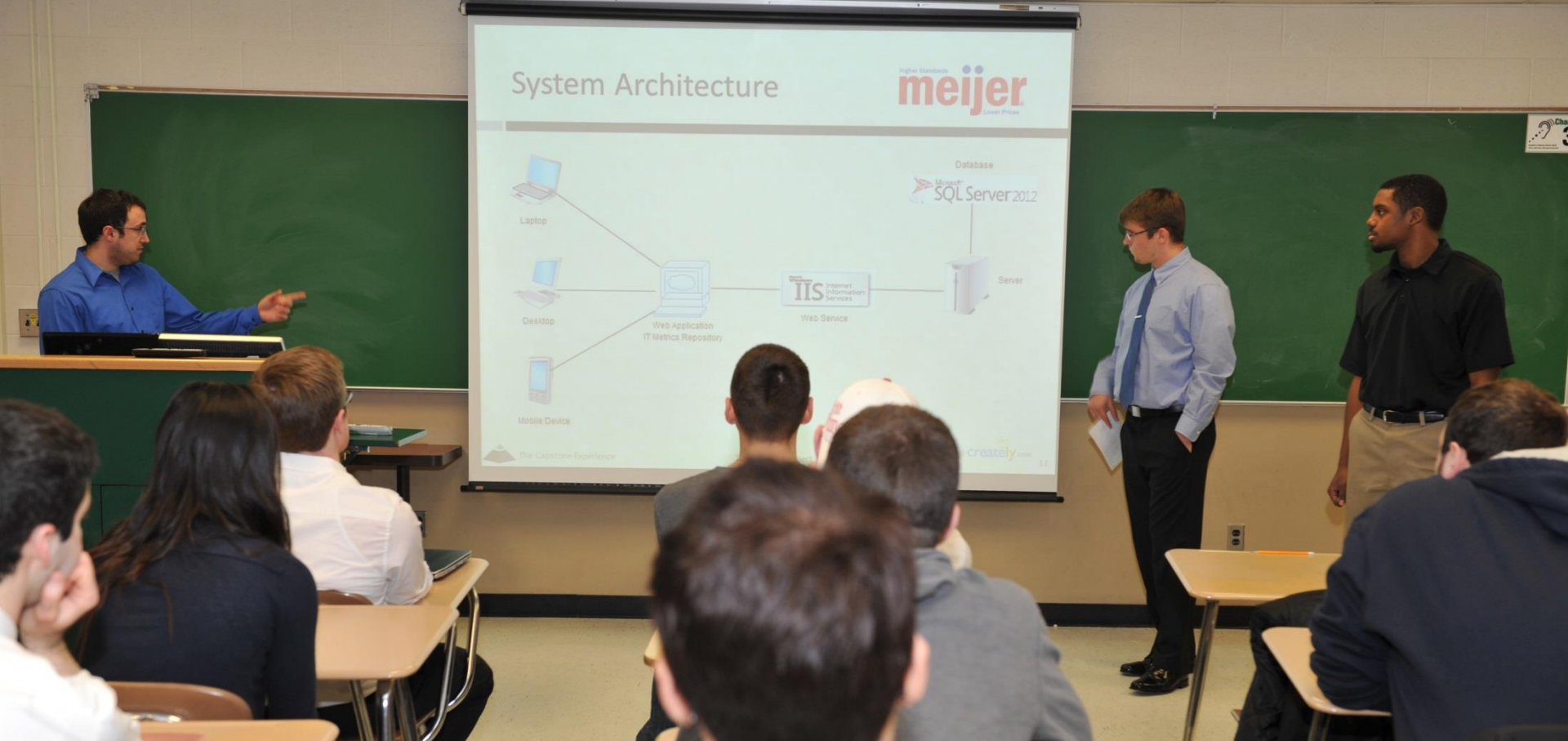


Team Meijer Project Plan Presentation

Team Meijer Project Plan Presentation

Architecture Diagram

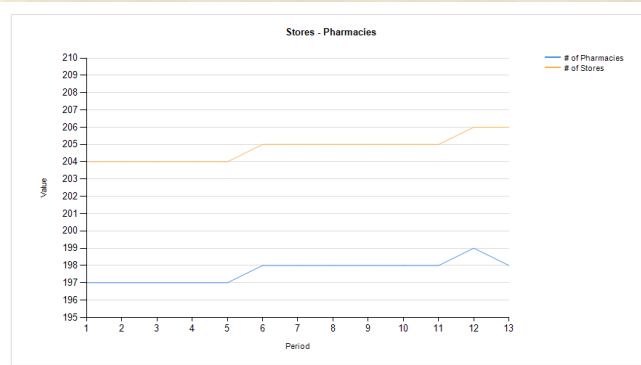




Team Meijer Project Plan Presentation

Team Meijer Project Plan Presentation

Screen Mockup



Year	Period	Attribute	Value
2012	1	# of Stores	204
2012	2	# of Stores	204
2012	3	# of Stores	204
2012	4	# of Stores	204
2012	5	# of Stores	204
2012	6	# of Stores	205
2012	7	# of Stores	205
2012	8	# of Stores	205
2012	9	# of Stores	205
2012	10	# of Stores	205
2012	11	# of Stores	205
2012	12	# of Stores	206
2012	13	# of Stores	206

Year	Period	Attribute	Value
2012	1	# of Pharmacies	197
2012	2	# of Pharmacies	197
2012	3	# of Pharmacies	197
2012	4	# of Pharmacies	197
2012	5	# of Pharmacies	197
2012	6	# of Pharmacies	198
2012	7	# of Pharmacies	198
2012	8	# of Pharmacies	198
2012	9	# of Pharmacies	198
2012	10	# of Pharmacies	198
2012	11	# of Pharmacies	198
2012	12	# of Pharmacies	199
2012	13	# of Pharmacies	198






Team Meijer Alpha Presentation

Team Meijer Alpha Presentation

Creating a Metric



Report Create Update Remove

Create Metric Create Goal

CREATE METRIC

Metric

Metric Name:
Description:
Owner:
Data Type:


Data

Value:
Start Year:
End Year:

Period:
Period:


Create Metric

The Capstone Experience



Team Meijer Alpha Presentation

Viewing a Metric



Report | Create | Update | Remove

Report

VIEW REPORT

Select Metric

Metric:

Start Year: Period:

End Year: Period:

Selected Metrics

Metric Name	Start Year	Start Period	End Year	End Period
Budget	2008	1	2012	13
Expenses	2008	1	2012	13
Income	2008	1	2012	13

Add Metric

Generate Report





Team Meijer
Alpha Presentation

What's left to do?



- Reporting
 - For multiple metrics
 - Formatting
- Certain interactions between application and database
 - Update
 - Metrics from calculations
 - Goals
 - Remove
- User / login
- Metrics from Excel
- Compatibility

Team Meijer Alpha Presentation

Team Meijer Alpha Presentation

Sample Report






Team Meijer Beta Presentation

Team Meijer Beta Presentation

Dashboard



[Report](#) [Create](#) [Update](#) [Remove](#) [Users](#) [Dashboard](#)

Logged in as: admin [Logout](#)

Metric Dashboard

Select Report

Select Report:

Start Year: Start Period:

End Year: End Period:

[View Report](#)

Metric Snapshot

[\[Change Period\]](#)

Metric Name	Value	Status
Budget	2500.00	
Net Income	14937.69	
Operating Margin	0.1183161838789816924926647791	

Metric Name	Value	Status
Income	16942.23	
Expenses	2004.54	

Update Dashboard

Metric:


Column:

[Add Metric](#)



Team Meijer Beta Presentation

Create Report



Report | Create | Update | Remove | Users | Dashboard

Logged in as: admin [Logout](#)

Report

CREATE REPORT

Add Metric

Metric:

Add Metric

Create Report

Report Name:

Metric Name	Include Goal	
Budget	N/A	<input type="button" value="remove"/>
Expenses	<input checked="" type="checkbox"/>	<input type="button" value="remove"/>
Income	<input checked="" type="checkbox"/>	<input type="button" value="remove"/>
Net Income	N/A	<input type="button" value="remove"/>

Create Report

View Report

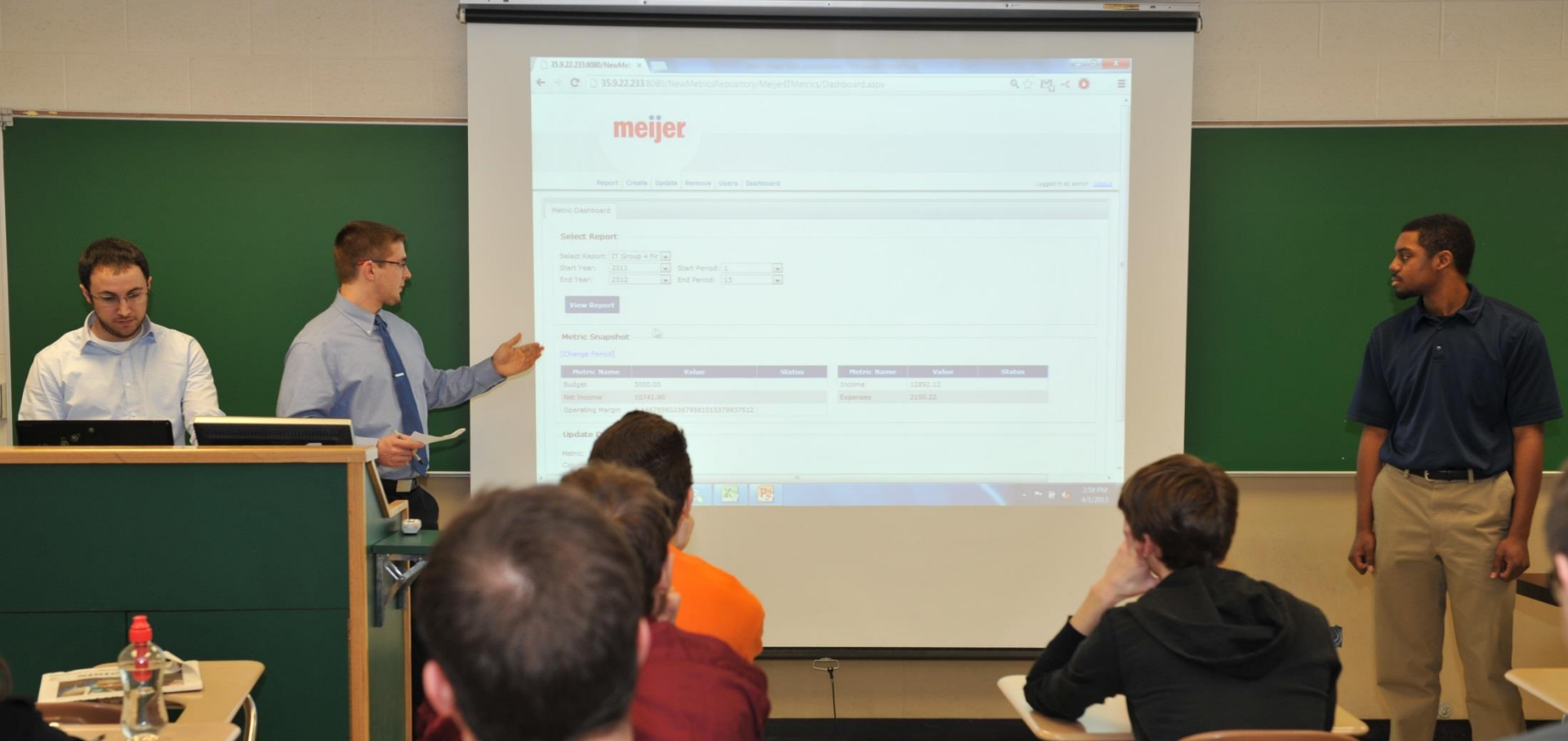
Select Report:

Start Year: Start Period:

End Year: End Period:

View Report





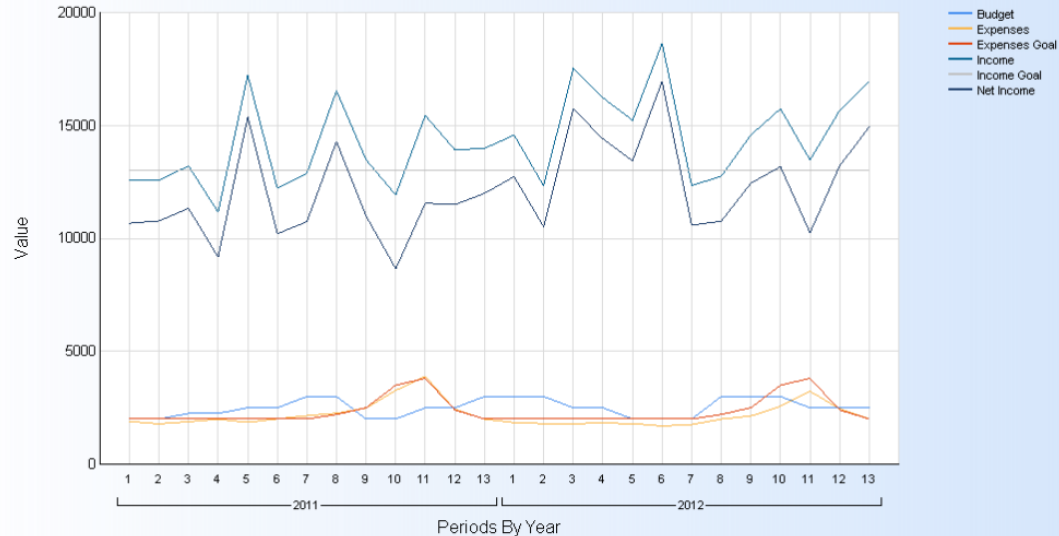
Team Meijer Beta Presentation

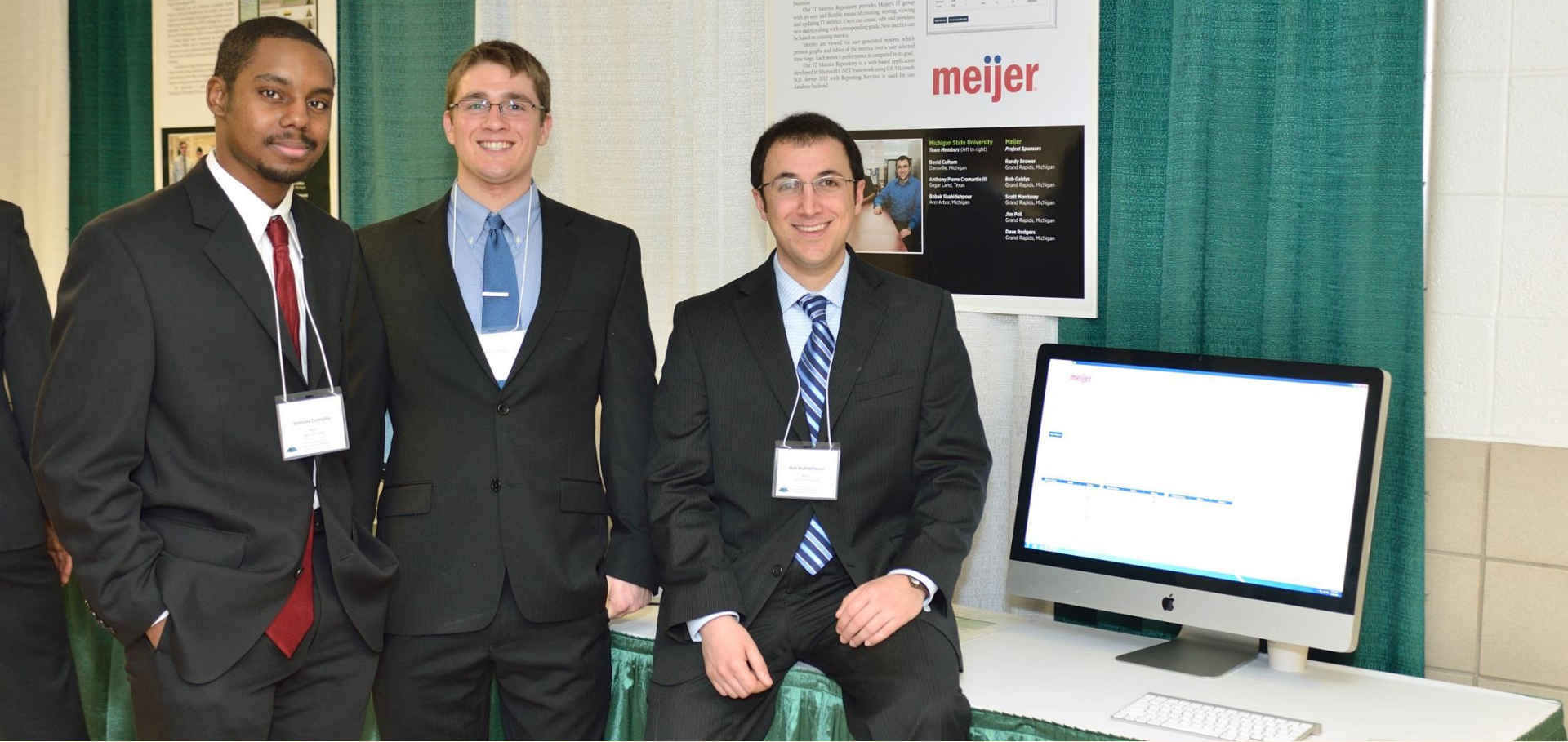
Team Meijer Beta Presentation

Report View

meijer

IT Group 4 Finance Report





Team Meijer
Design Day

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Team Mozilla

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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for you

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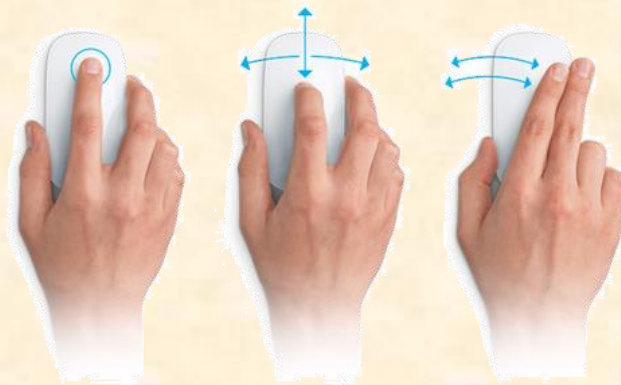
Get the mobile browser



Team Mozilla Project Overview

Multi-Touch Gestures for Firefox

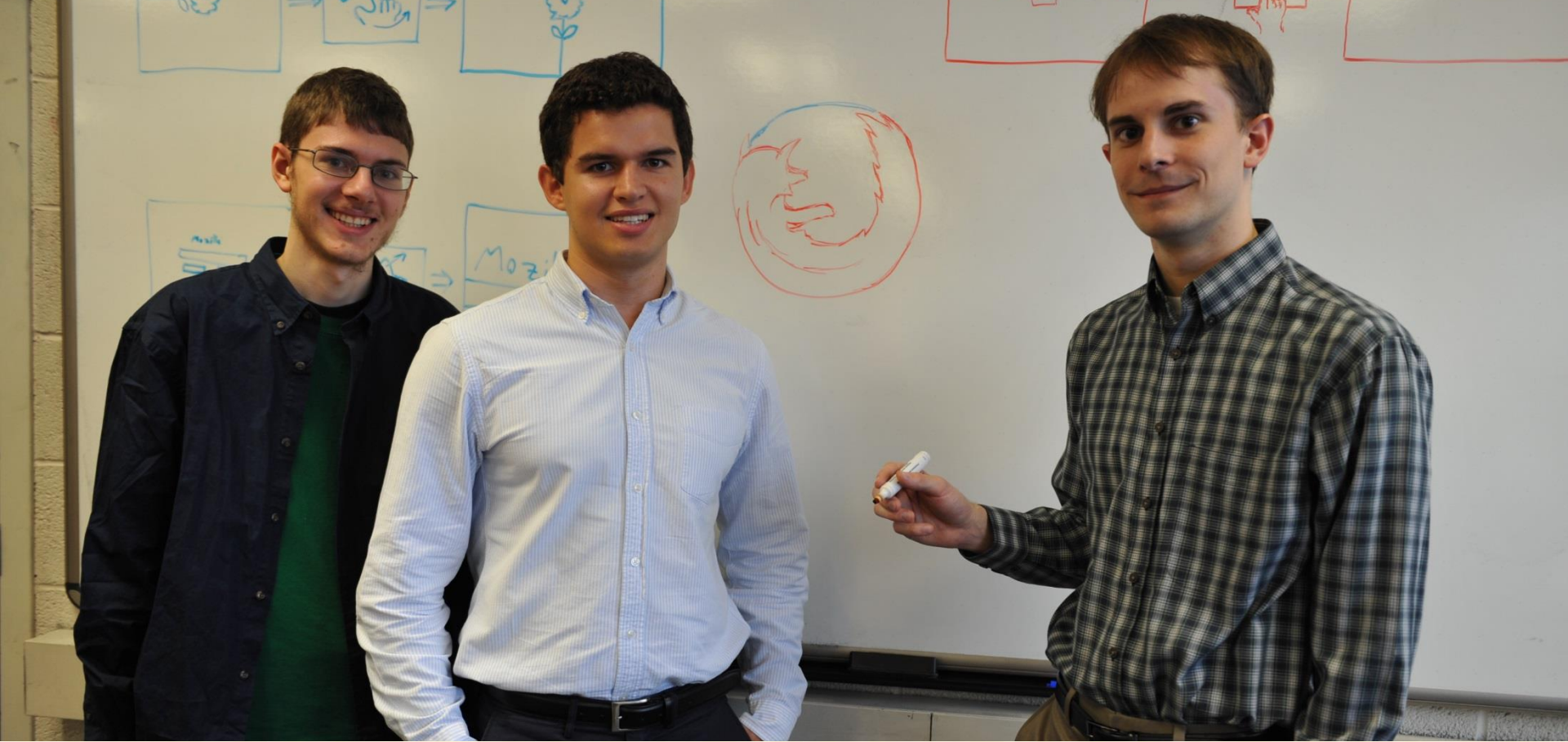
- Functionalities
 - Multi-Touch Gestures for Mac OSX Firefox
 - Implement New Gestures
 - Improve Existing Gestures
- Features
 - Rotating Images
 - Tab Switching
 - Tap to Zoom
 - Pinch to Zoom
 - History Listing
- Technologies
 - CSS
 - Objective-C
 - C++
 - JavaScript



mozilla
Firefox

Mountain View, California



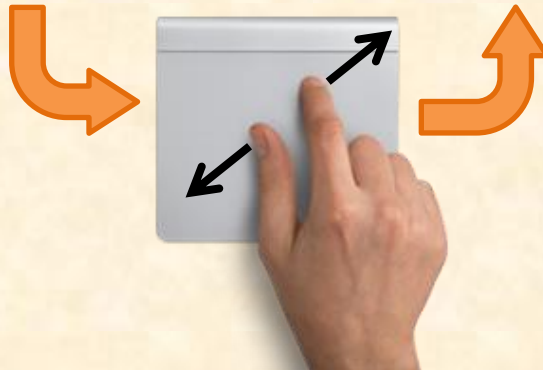
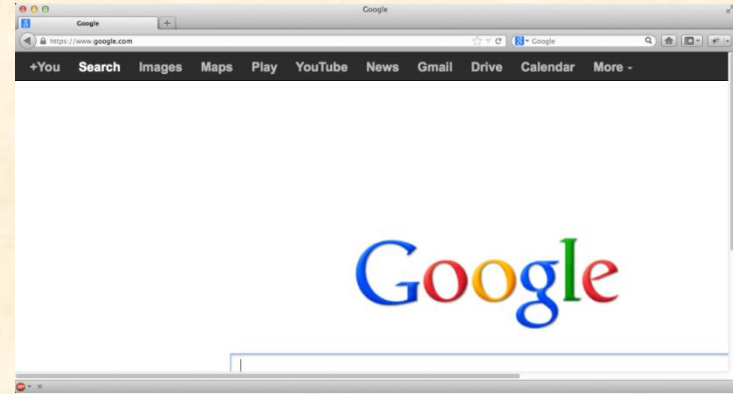
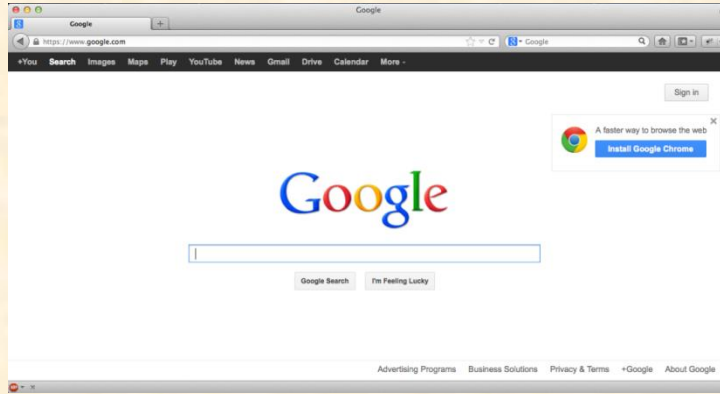


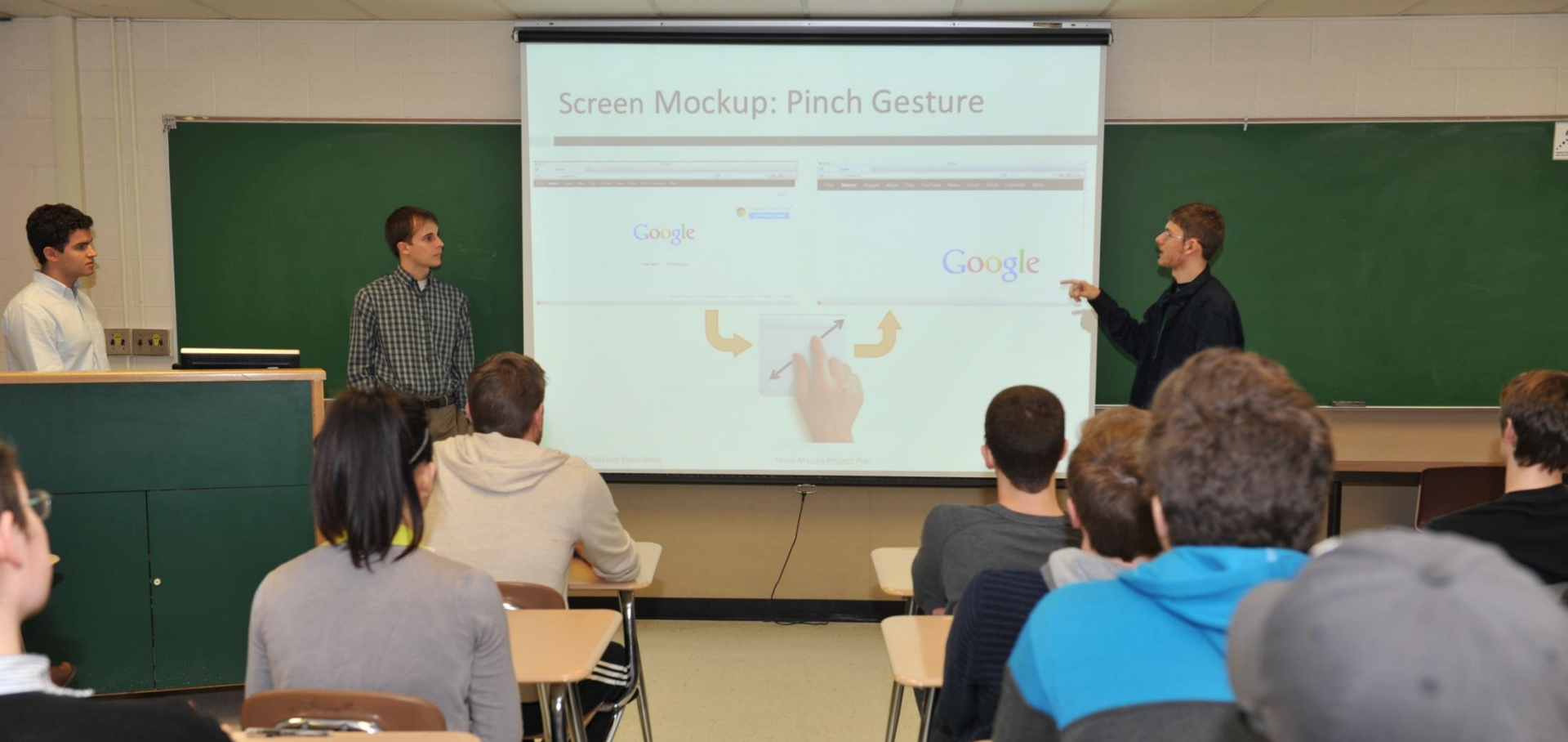
Team Mozilla

Ray Heldt, Bill de Araujo, Brandon Waterloo

Team Mozilla Project Plan Presentation

Screen Mockup

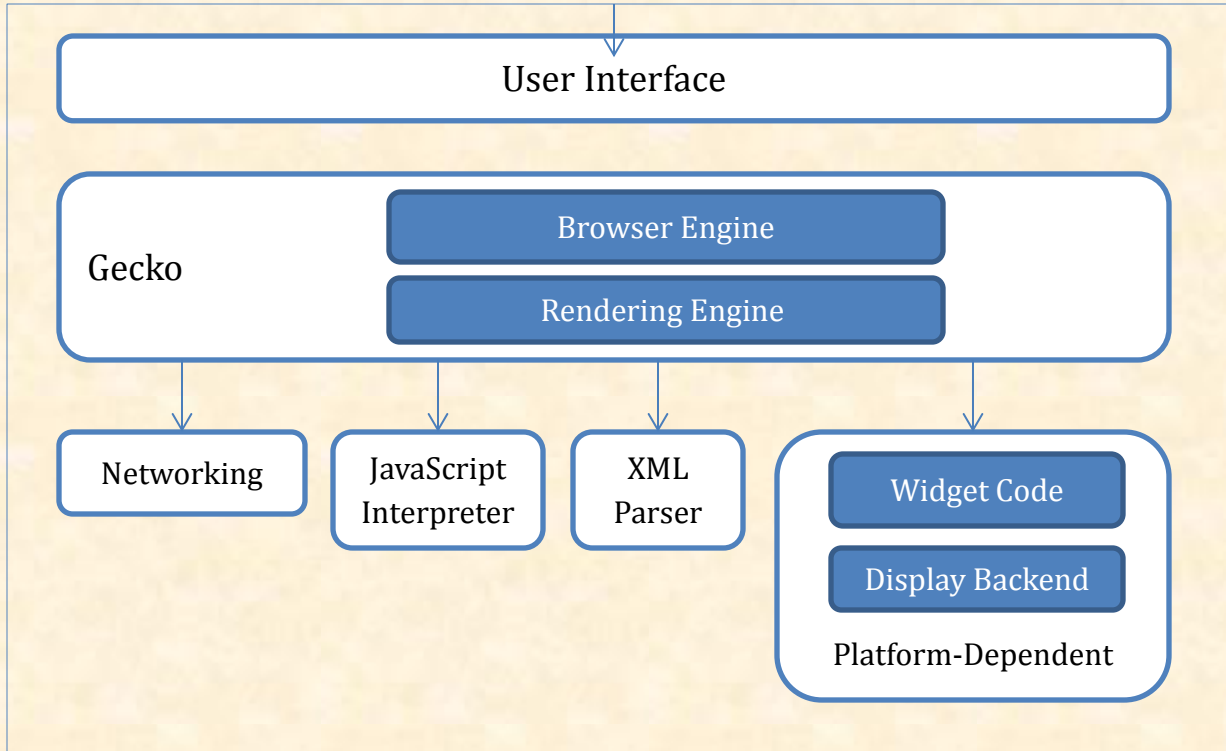




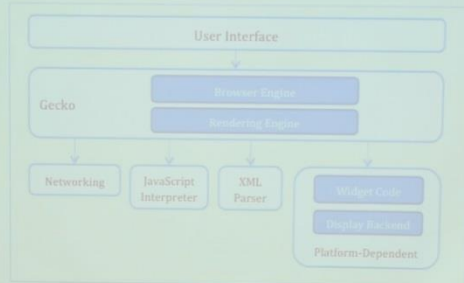
Team Mozilla Project Plan Presentation

Team Mozilla Project Plan Presentation

Architecture Diagram



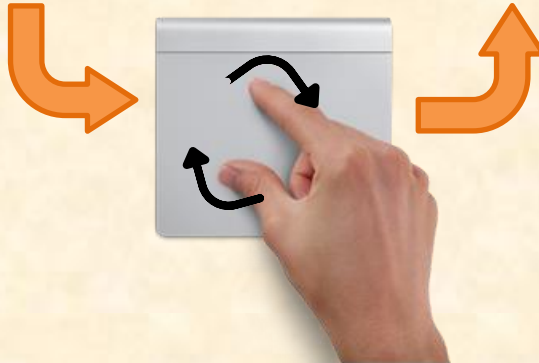
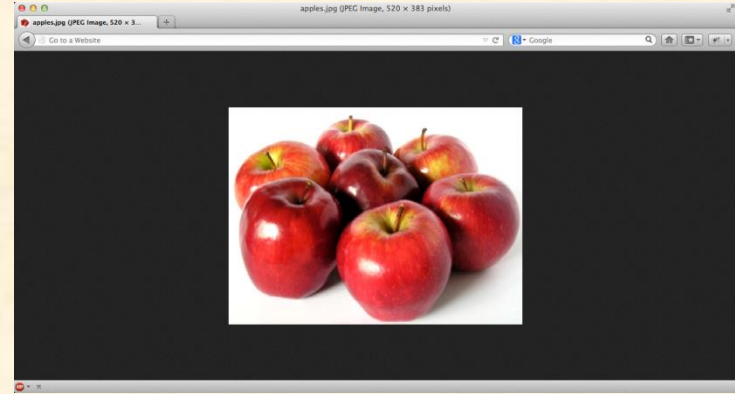
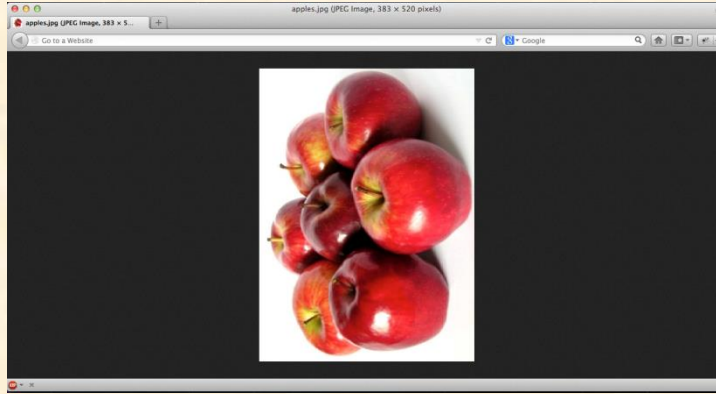
System Architecture



Team Mozilla
Project Plan Presentation

Team Mozilla Project Plan Presentation

Screen Mockup

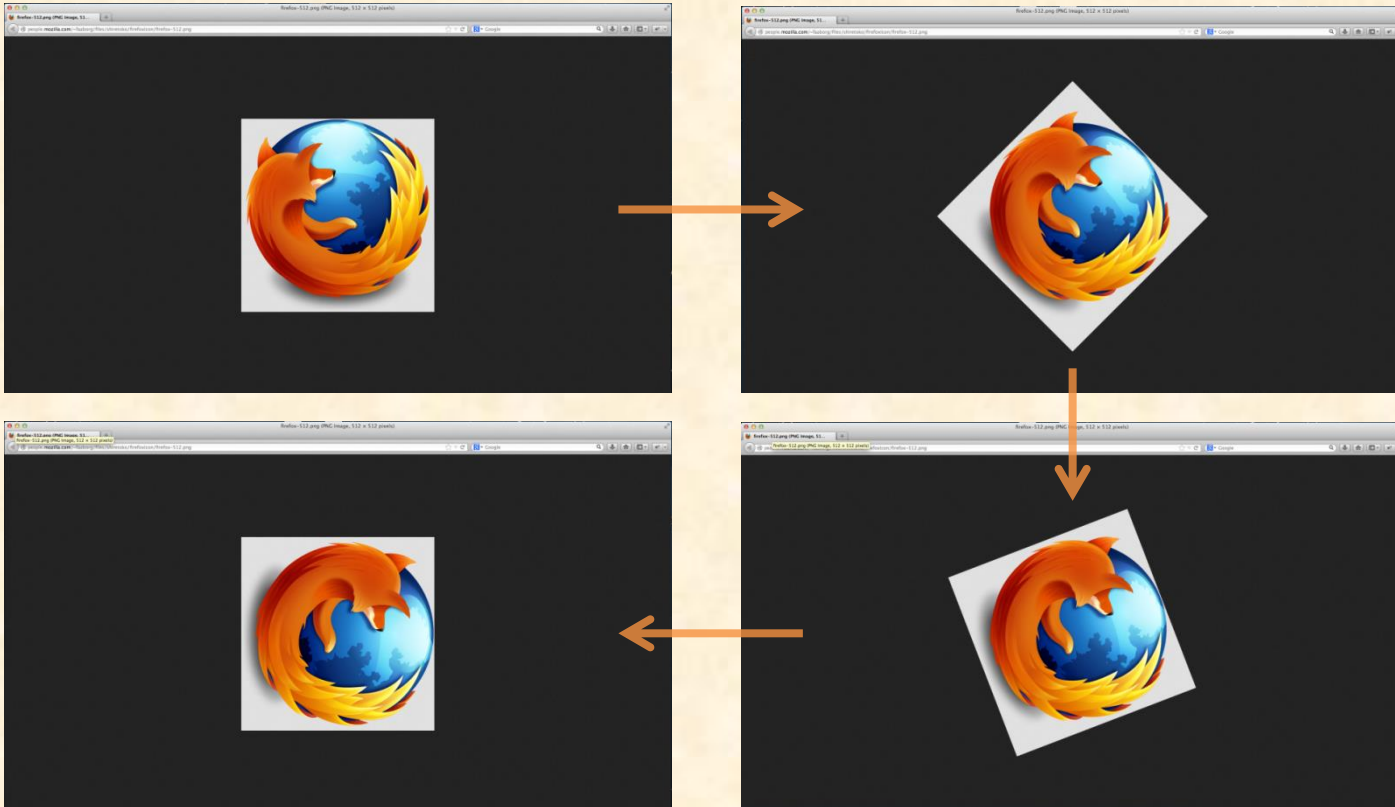




Team Mozilla Alpha Presentation

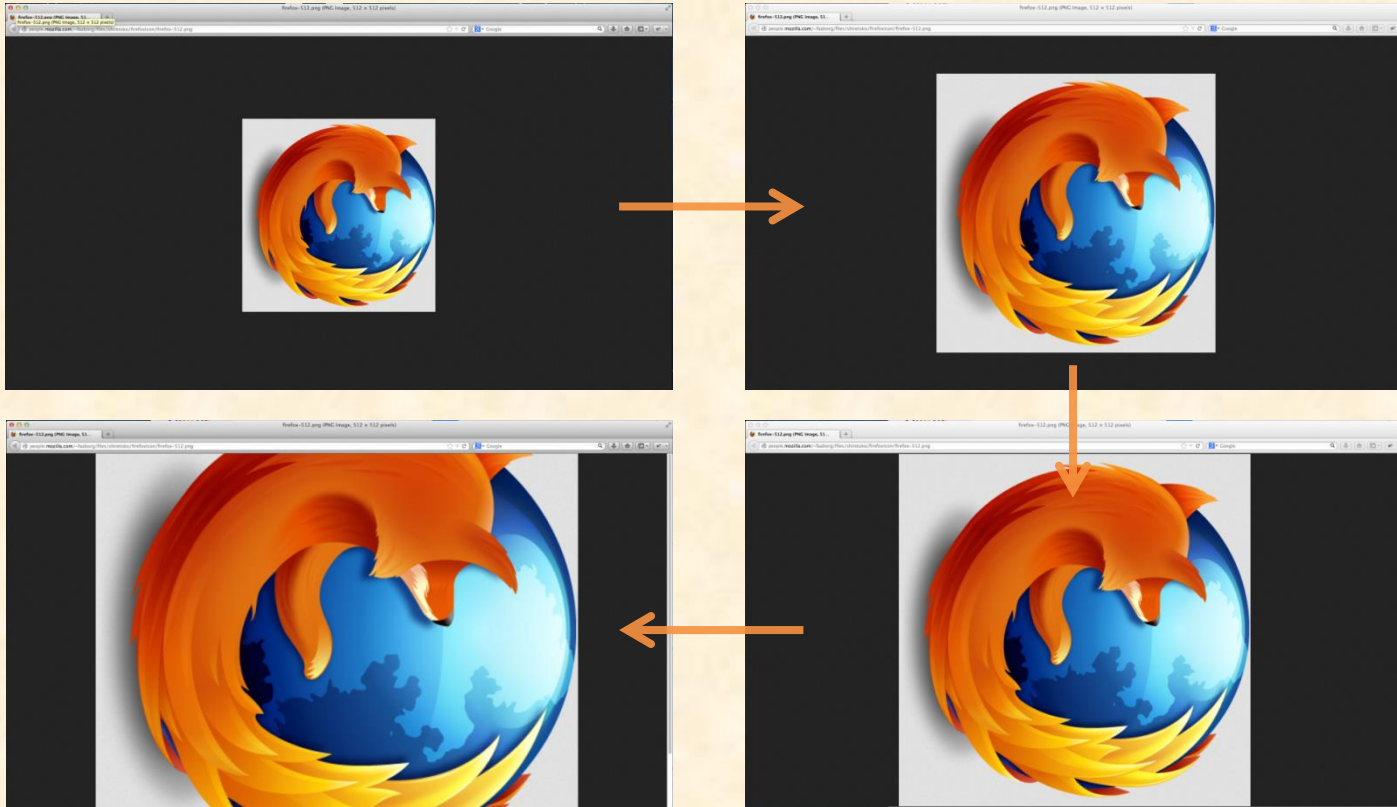
Team Mozilla Alpha Presentation

Rotate Image



Team Mozilla Alpha Presentation

Zoom Image

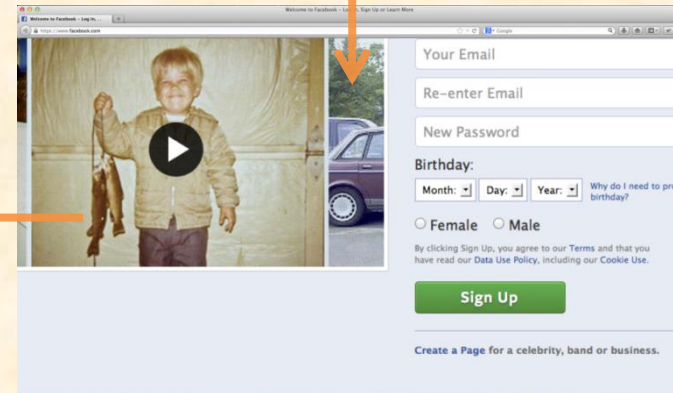
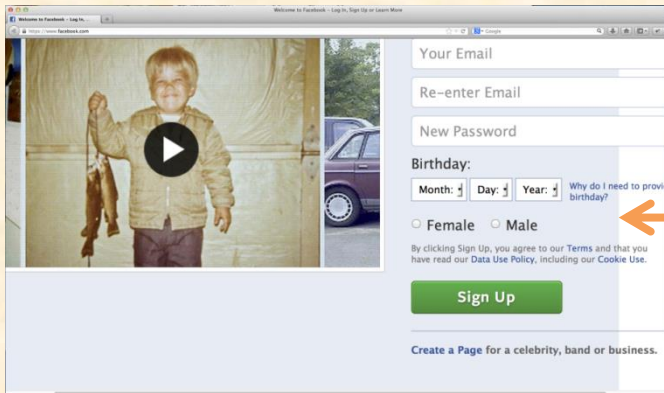
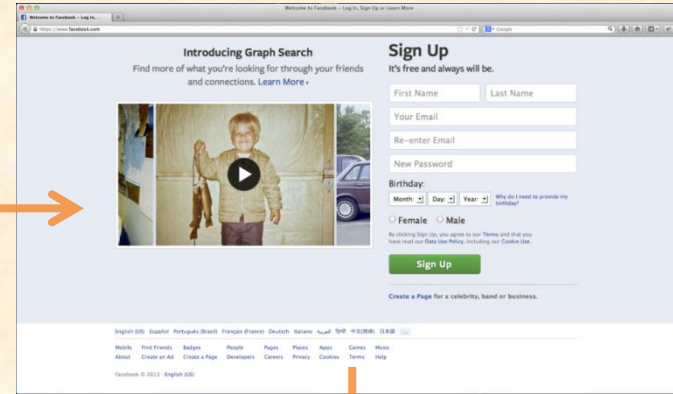
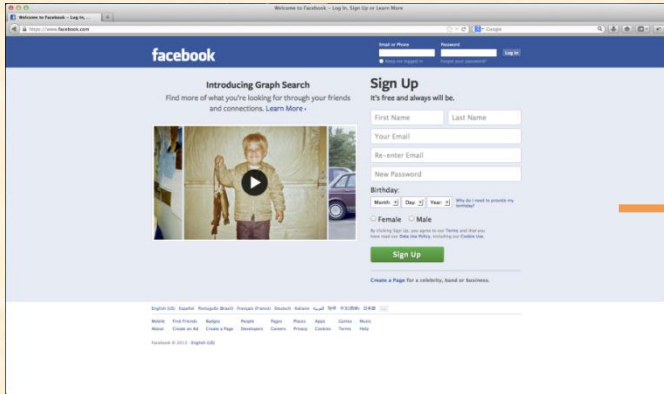


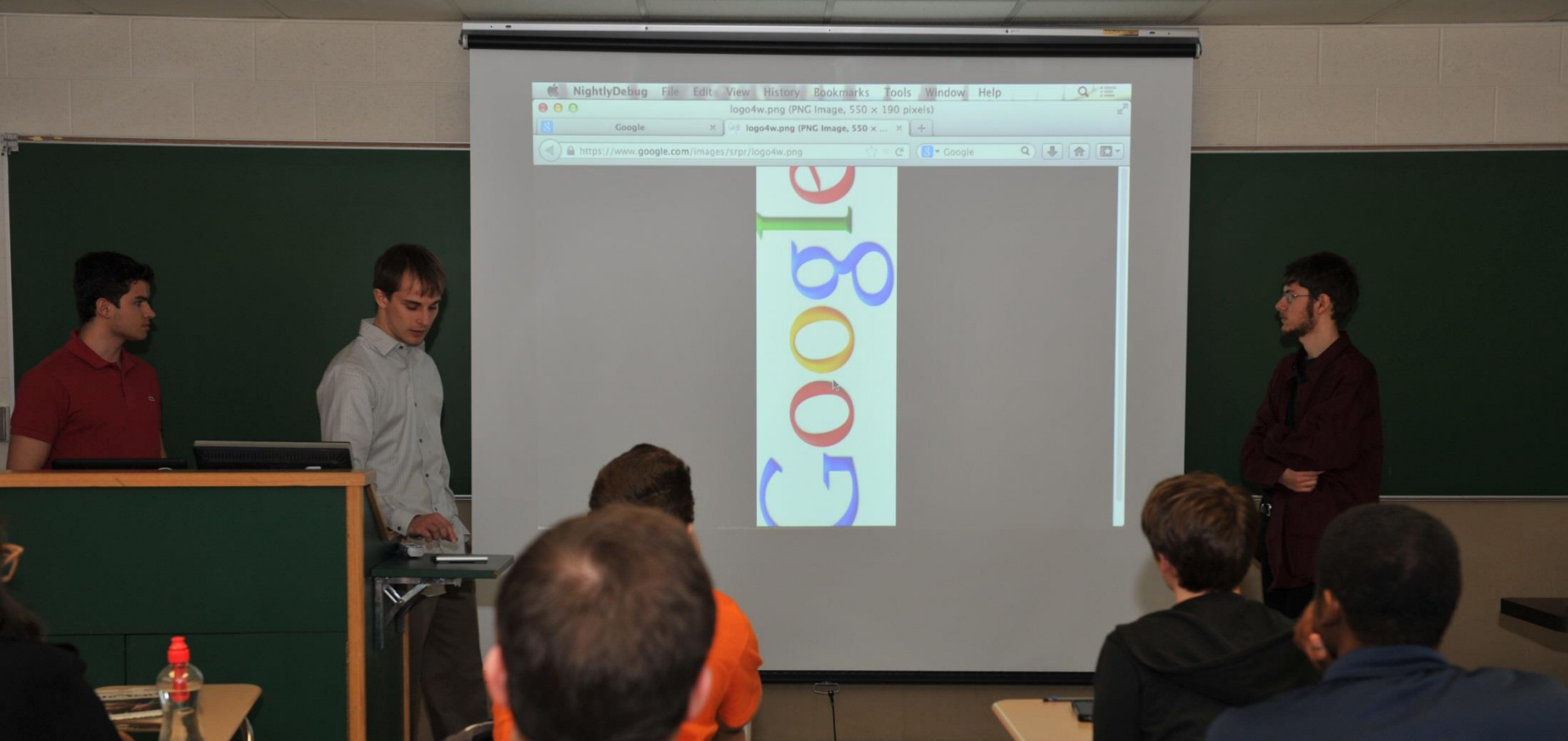


Team Mozilla Alpha Presentation

Team Mozilla Alpha Presentation

Zoom Webpage

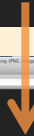
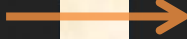
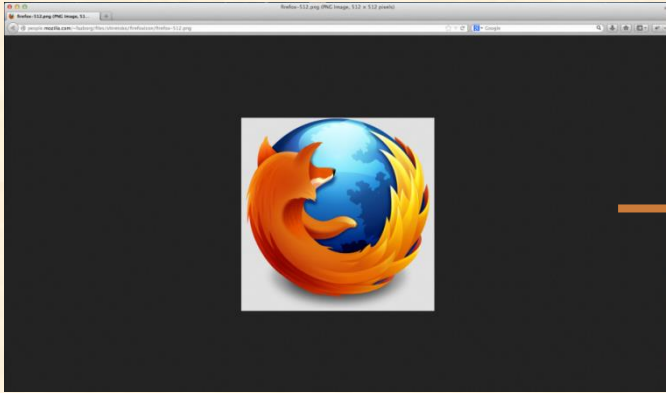




Team Mozilla Beta Presentation

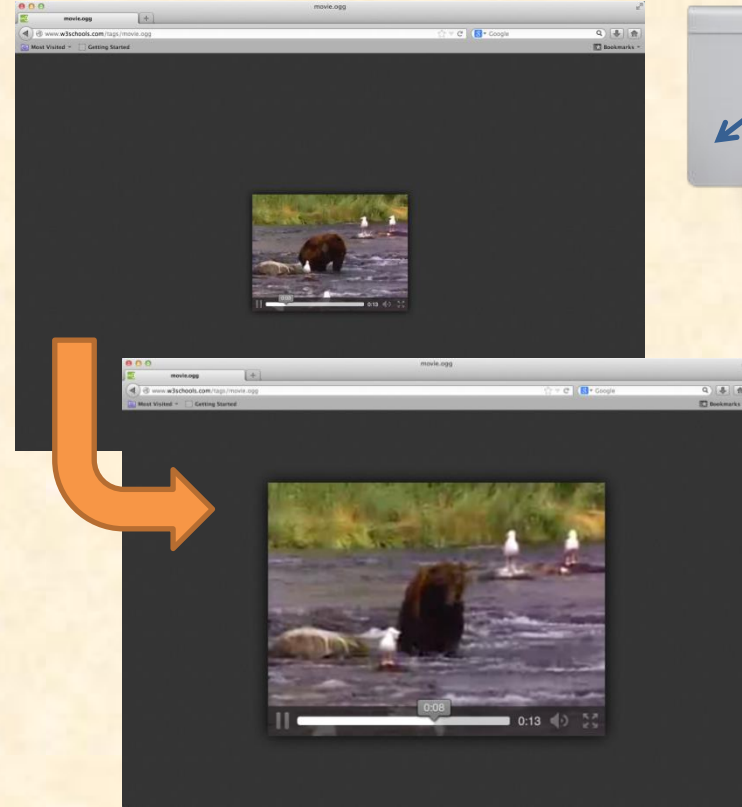
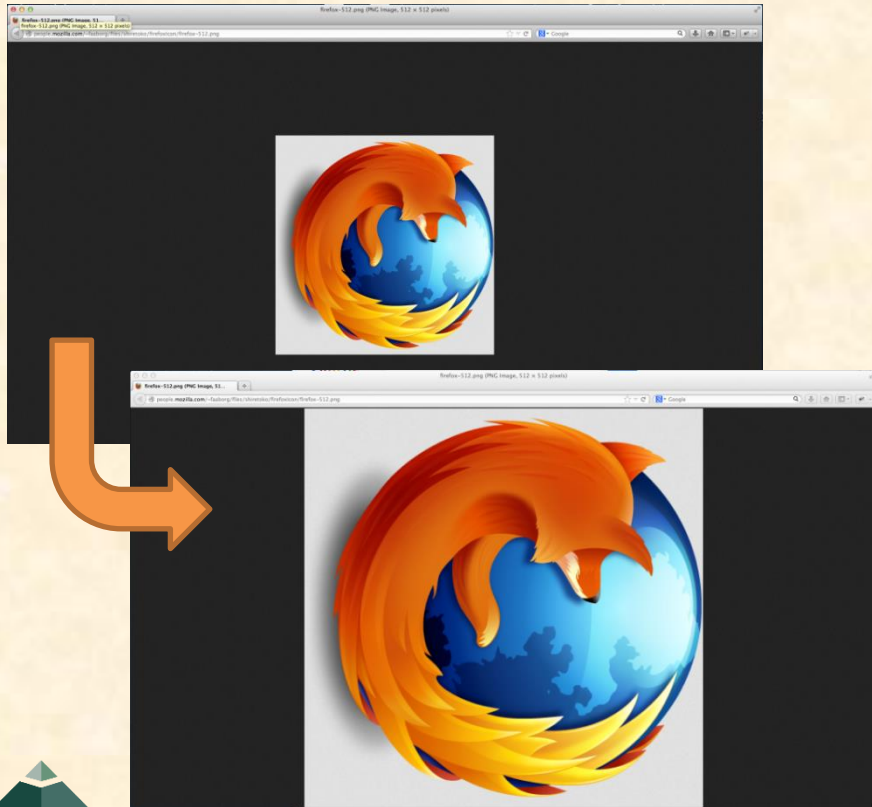
Team Mozilla Beta Presentation

Rotate Image



Team Mozilla Beta Presentation

Zoom Image and Video

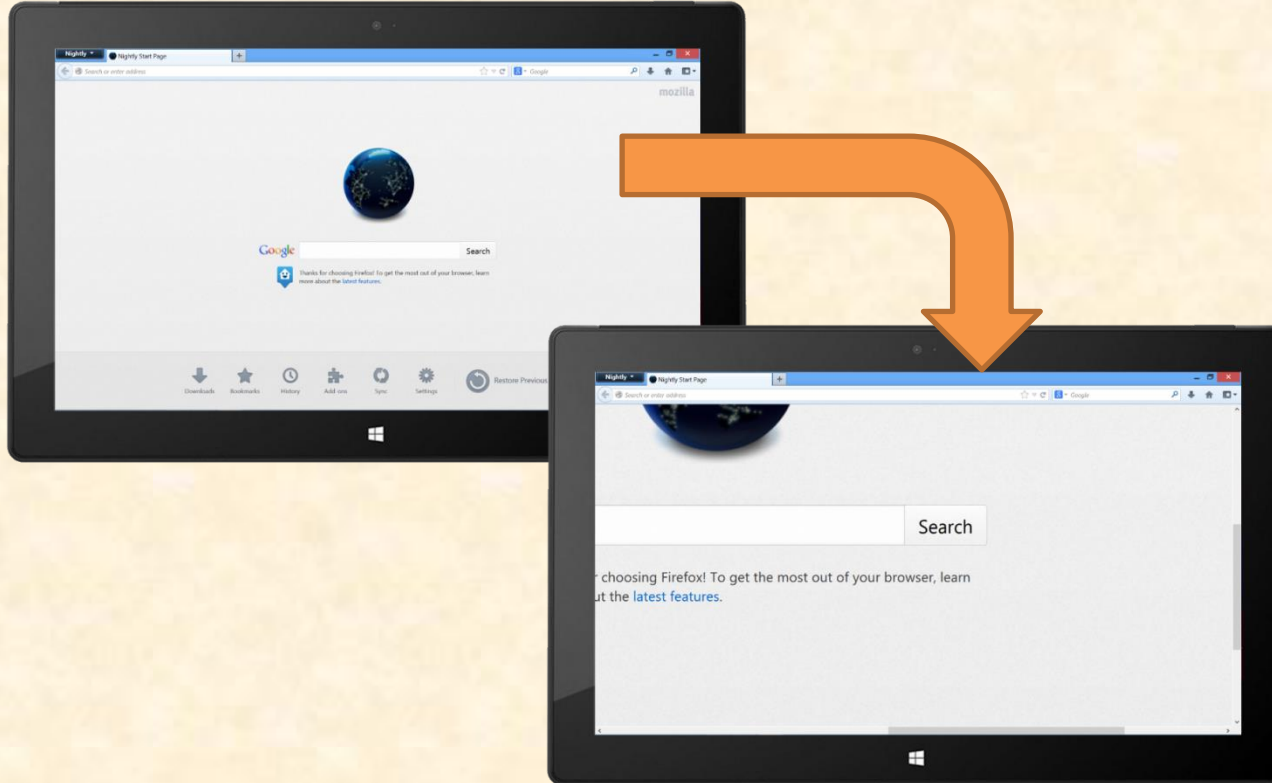




Team Mozilla Beta Presentation

Team Mozilla Beta Presentation

Zoom on Microsoft Surface





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The Capstone Experience

Team MSUFCU

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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What's New @ MSUFCU

[MSUFCU and ECECU Announce Proposed Merger](#)

Upcoming Events

[MSUFCU Day at MSU Women's
Basketball Game!](#)

MSUFCU Routing Number: 272479663

MSUFCU SWIFT Code: MSUCUS44

MSUFCU Alert

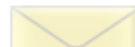
Due to scheduled maintenance, all remote services will be temporarily unavailable on 12/30/12 from 12:00 a.m. EST to 5:00 a.m. EST. We apologize for any inconvenience.

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Base Account #

Password

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Team MSUFCU Project Overview

Mobile Information App for Staff

- Functionalities
 - Provides Information About MSUFCU...
 - Events
 - News
 - Announcements
 - To MSUFCU Employees
 - On iPhone, iPad and Android
- Features
 - User Experience (UX)
 - Easy-to-Use
 - Useable by Wide Variety of Users
 - Includes a Calendaring Tool
 - Sign Up
 - Send Text Message Reminders
 - Data Housed on Internal Servers
 - Utilizes SSL Encryption
- Technologies
 - Apple iPhone and iPad (iOS)
 - Google Android
 - Objective-C, Xcode
 - C#
 - Java
 - HTML, PHP, JavaScript
 - Microsoft SQL Server



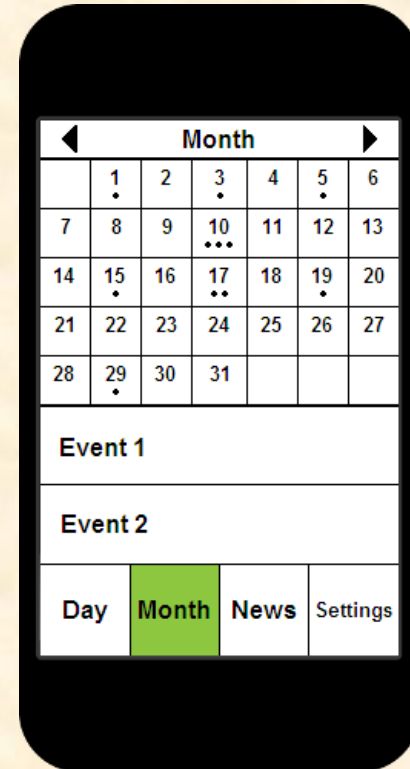
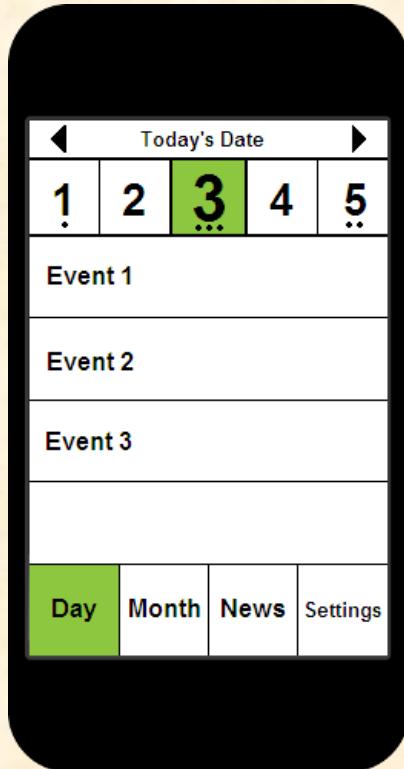


Team MSUFCU

Mike Shih, Clay Reimann, Angel Hemmes, Hassan Alhulaymi

Team MSUFCU Project Plan Presentation

Screen Mockups

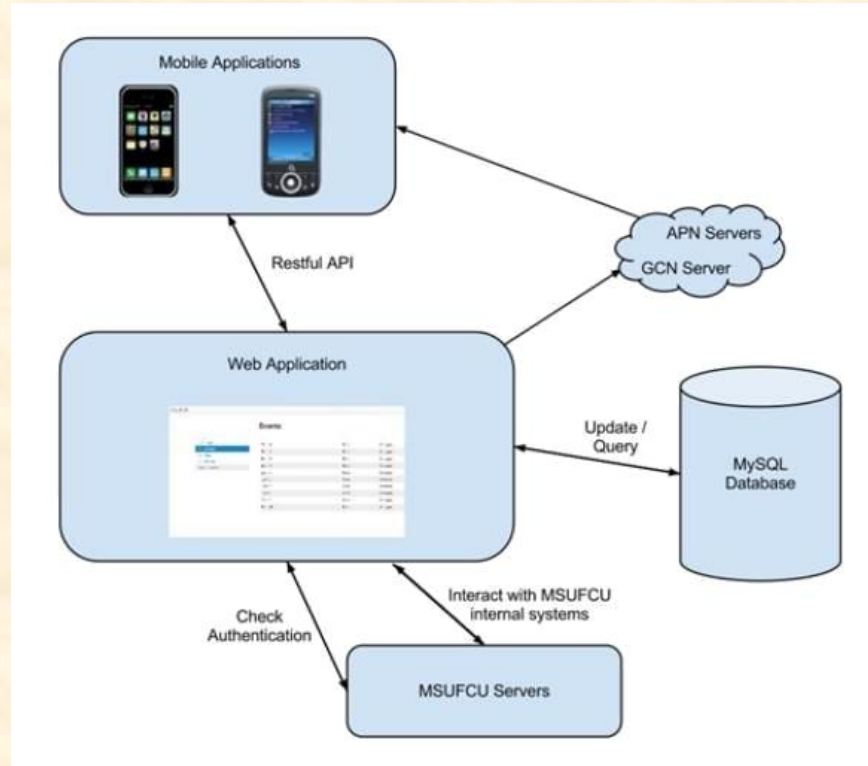




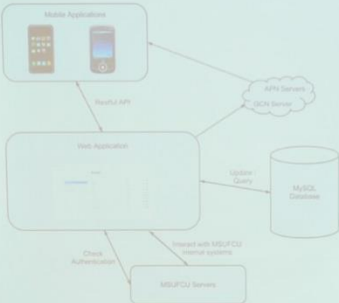
Team MSUFCU Project Plan Presentation

Team MSUFCU Project Plan Presentation

Architecture Diagram



System Architecture



```
graph TD; subgraph MA [Mobile Applications]; M1[Android App]; M2[iOS App]; end; subgraph WA [Web Application]; W1[Web Application]; end; subgraph AS [Apps Servers]; AS1[Apps Servers]; AS2[OAuth Service]; end; subgraph DB [(MySQL Database)]; end; subgraph MS [MS/UCB Servers]; MS1[MS/UCB Servers]; end; MA -- "RESTful API" --> WA; WA --> AS1; WA -- "Update/Query" --> DB; WA -- "Check Authentication" --> MS; MS -- "Interact with MS/UCB internal system" --> WA;
```

- Push Notify Servers
 - Pushes data from web app to mobile apps
- On First Login
 - Web App Generates Key
 - Stored in device and database
- Allows system admin to activate account

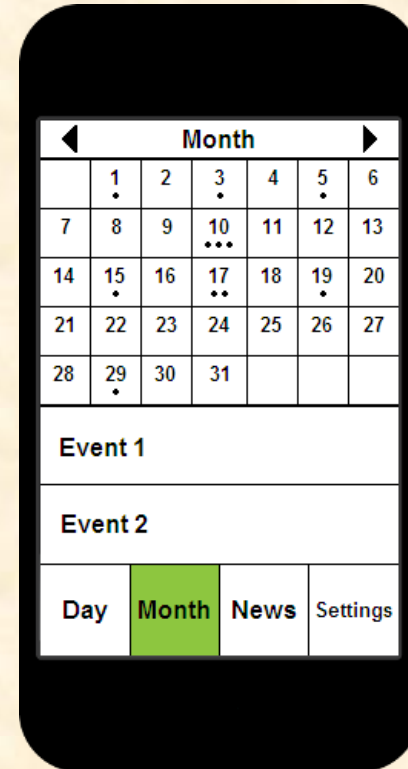
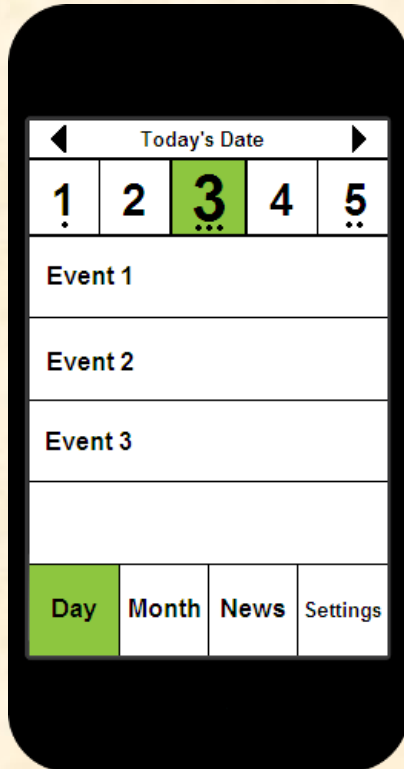
The Capital Experience | Tegen MS/UCB Project

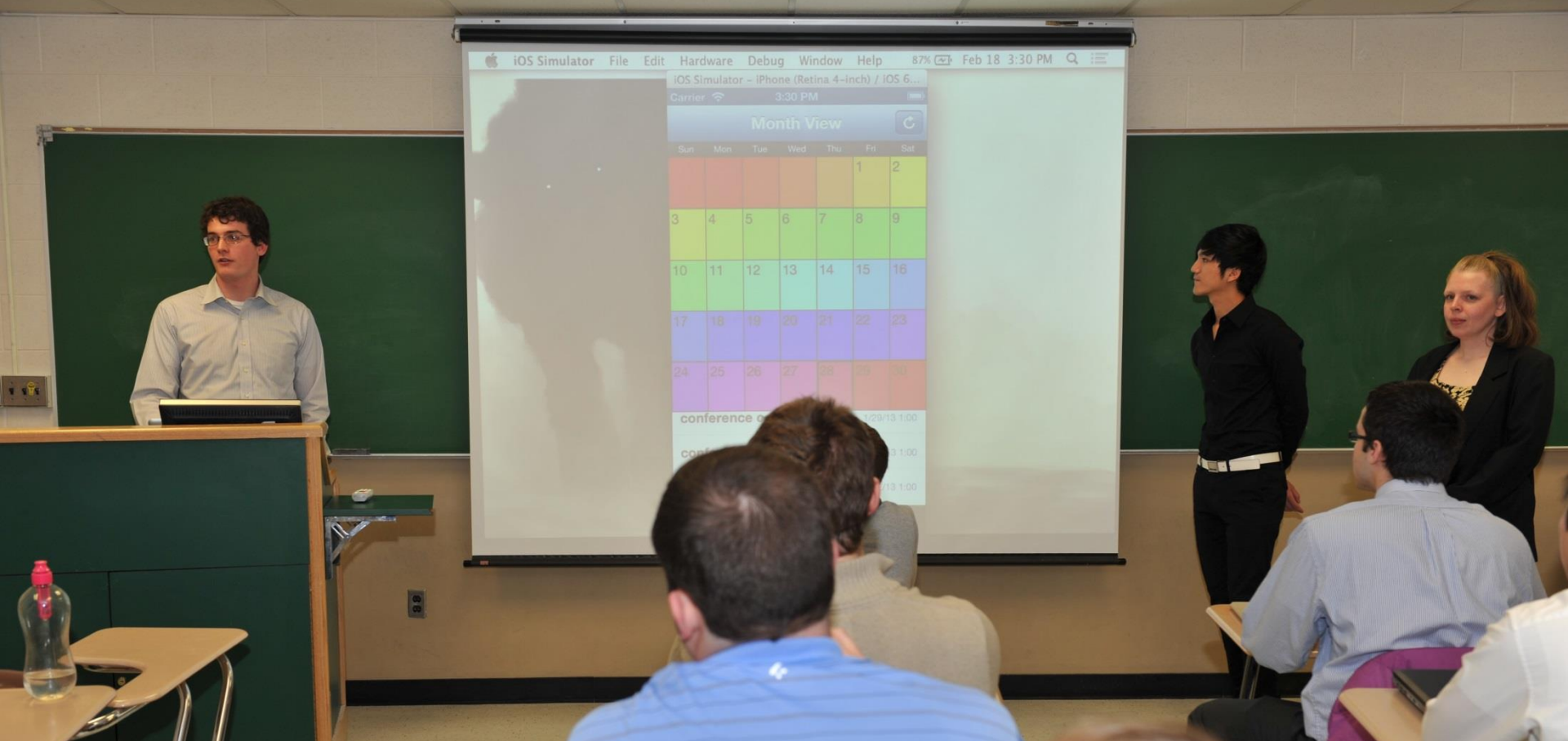
- Push Notify Servers
 - Pushes data from web app to mobile apps
- On First Login
 - Web App Generates Key
 - Stored in device and database
- Allows system admin to deactivate accounts

Team MSUFCU Project Plan Presentation

Team MSUFCU Project Plan Presentation

Screen Mockups

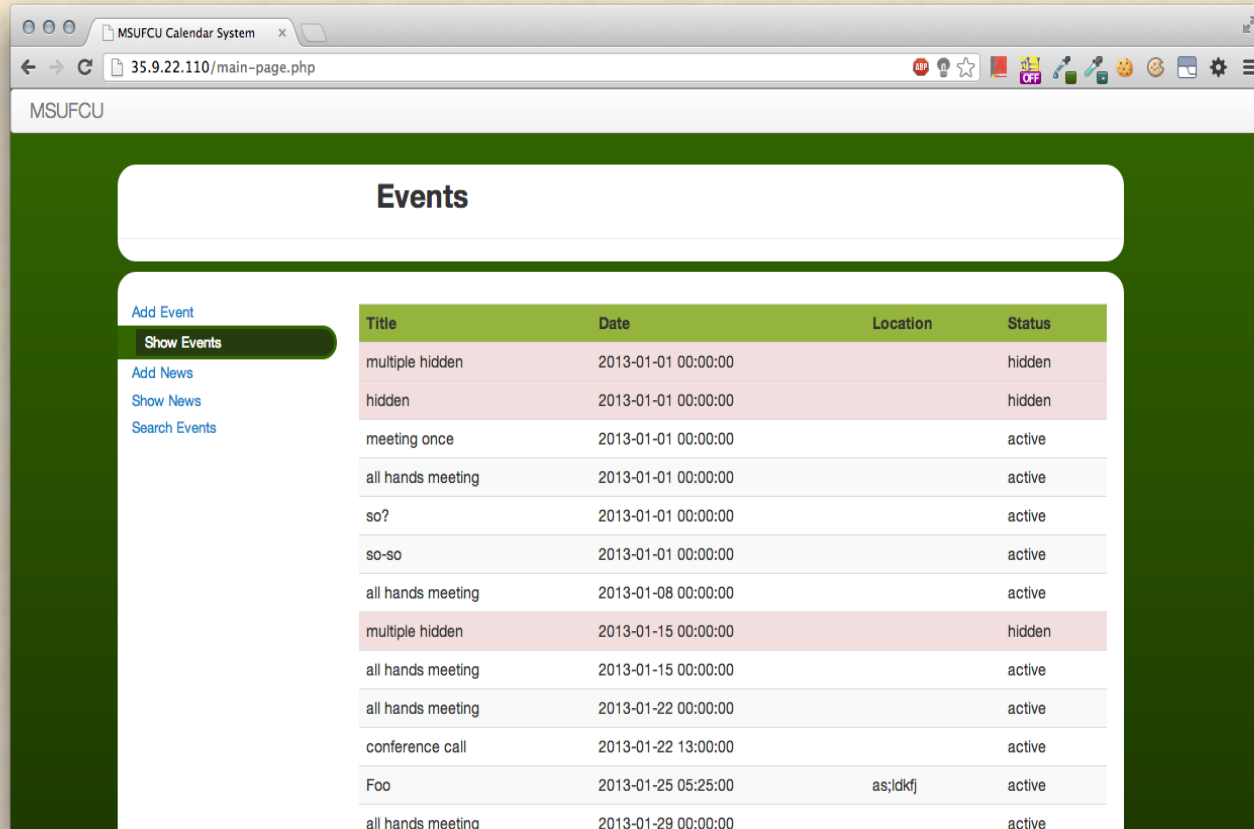




Team MSUFCU Alpha Presentation

Team MSUFCU Alpha Presentation

Website Landing Page



MSUFCU

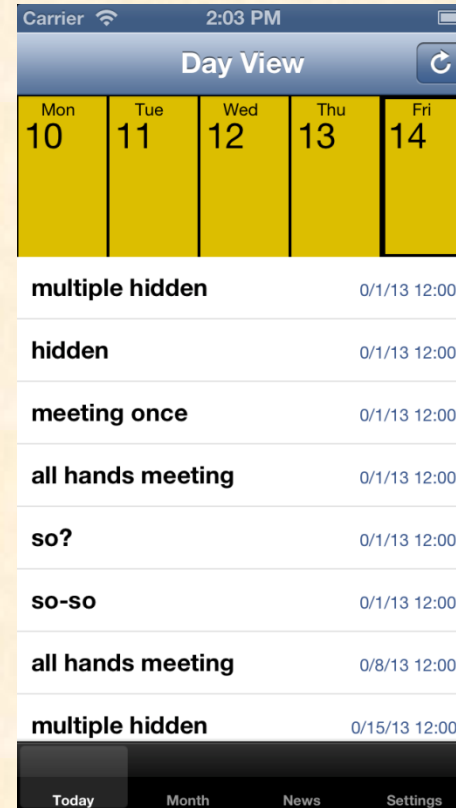
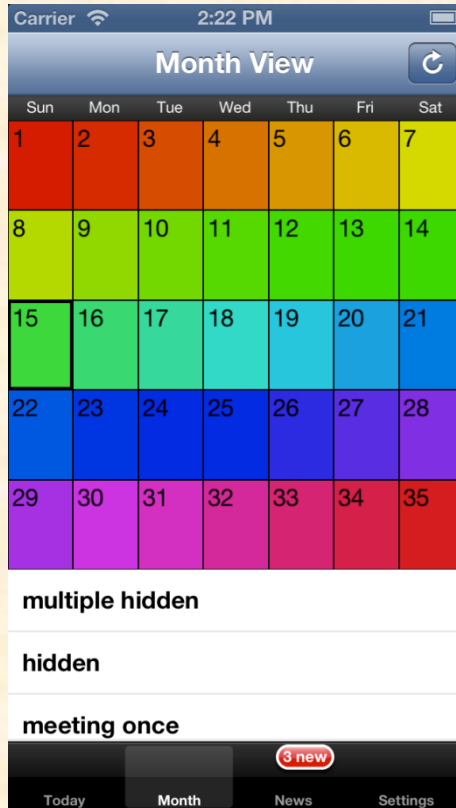
Events

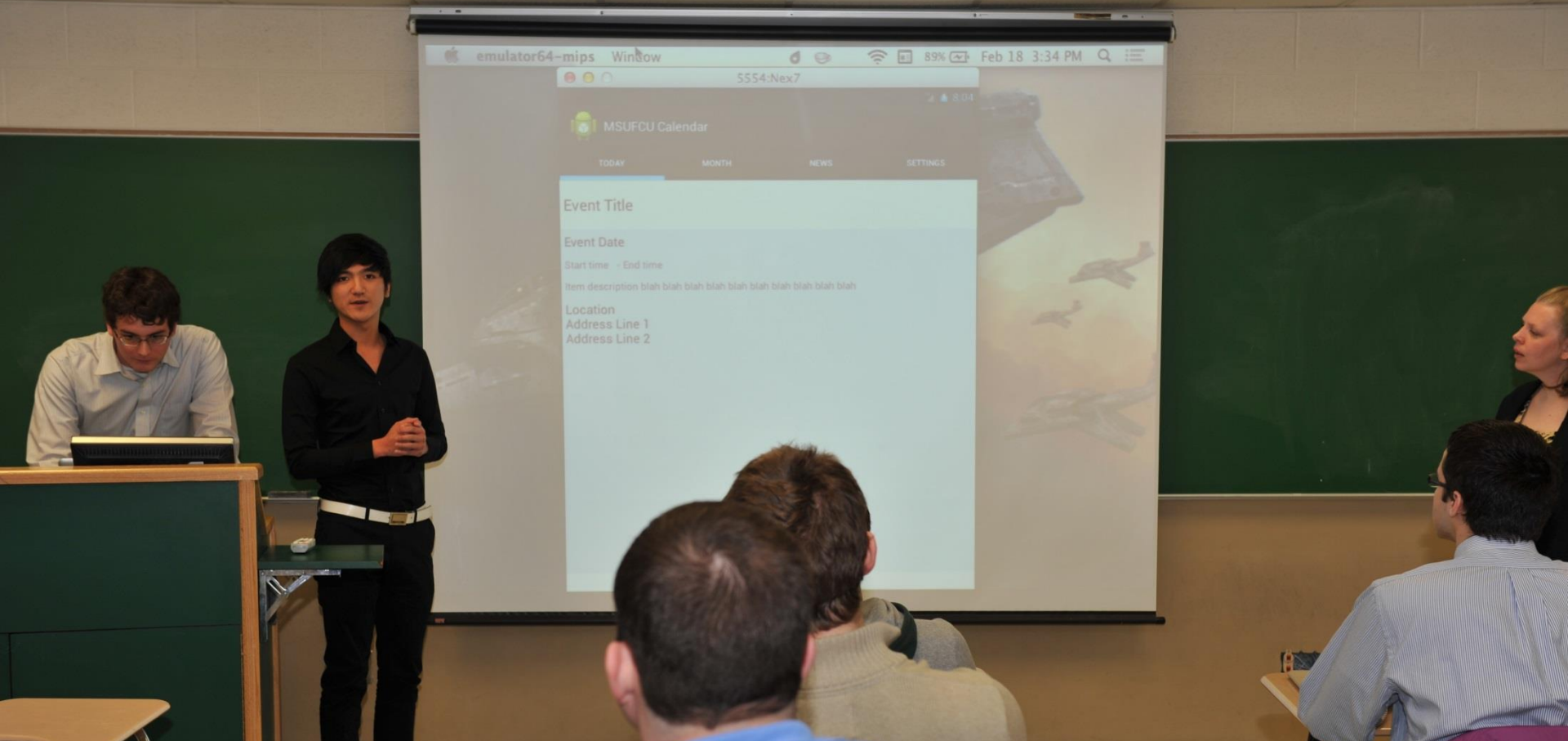
[Add Event](#)
Show Events
[Add News](#)
[Show News](#)
[Search Events](#)

Title	Date	Location	Status
multiple hidden	2013-01-01 00:00:00		hidden
hidden	2013-01-01 00:00:00		hidden
meeting once	2013-01-01 00:00:00		active
all hands meeting	2013-01-01 00:00:00		active
so?	2013-01-01 00:00:00		active
so-so	2013-01-01 00:00:00		active
all hands meeting	2013-01-08 00:00:00		active
multiple hidden	2013-01-15 00:00:00		hidden
all hands meeting	2013-01-15 00:00:00		active
all hands meeting	2013-01-22 00:00:00		active
conference call	2013-01-22 13:00:00		active
Foo	2013-01-25 05:25:00	as;ldkfj	active
all hands meeting	2013-01-29 00:00:00		active

Team MSUFCU Alpha Presentation

iPhone Views

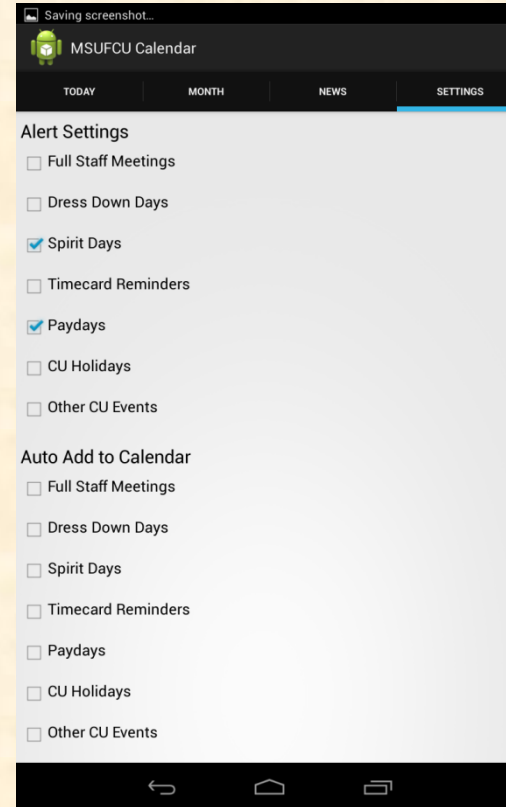
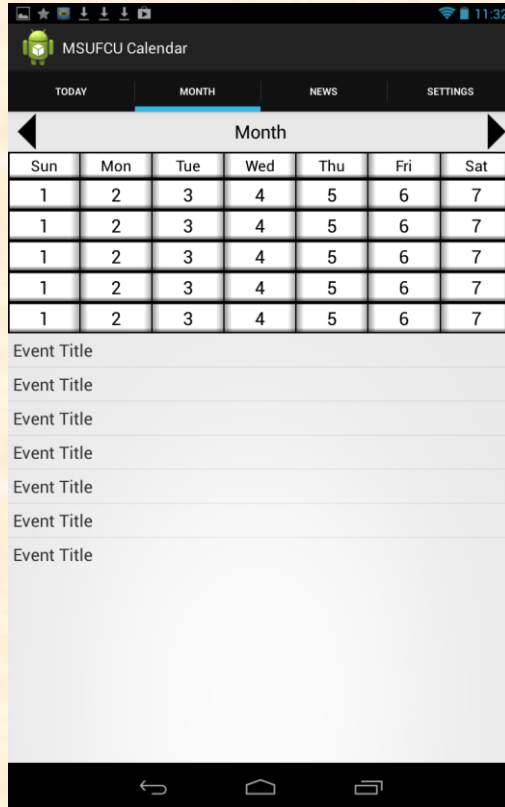




Team MSUFCU Alpha Presentation

Team MSUFCU Alpha Presentation

Android Views

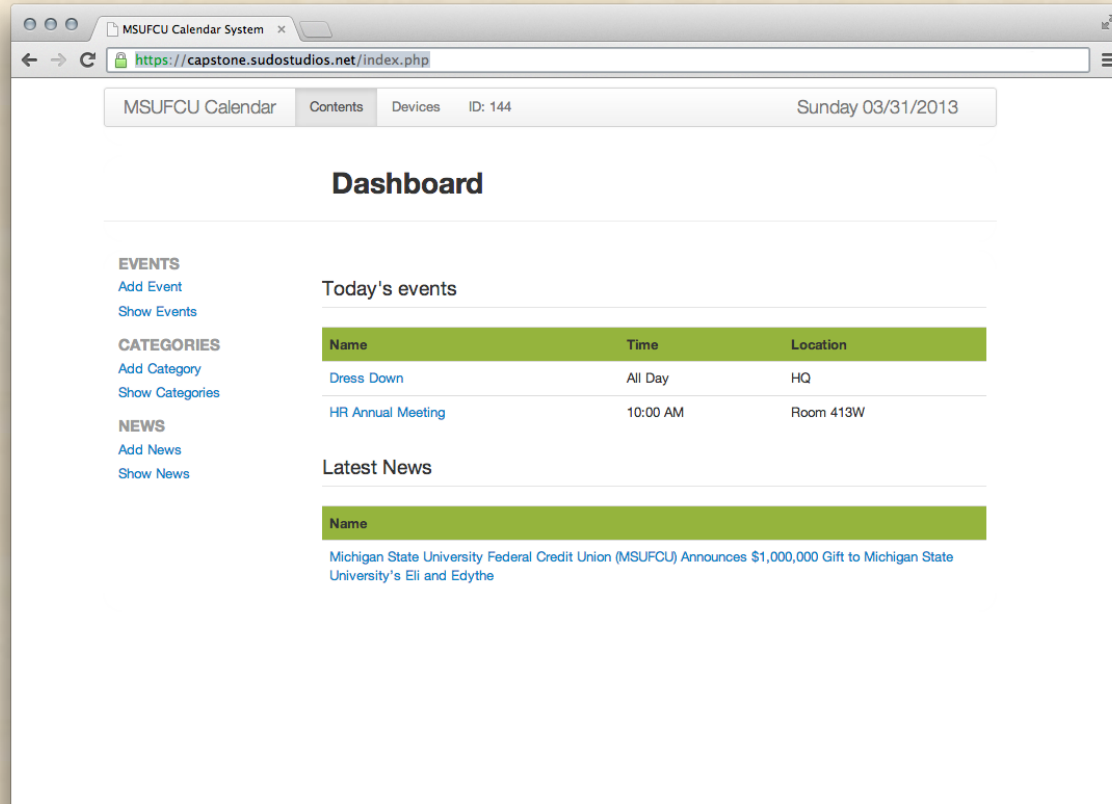




Team MSUFCU Beta Presentation

Team MSUFCU Beta Presentation

Dashboard Screen



The screenshot shows a web browser window with the title "MSUFCU Calendar System". The address bar displays "https://capstone.sudostudios.net/index.php". The page has a header with "MSUFCU Calendar", "Contents", "Devices", "ID: 144", and "Sunday 03/31/2013". The main content area is titled "Dashboard". On the left, there are three sections: "EVENTS" with links "Add Event" and "Show Events"; "CATEGORIES" with links "Add Category" and "Show Categories"; and "NEWS" with links "Add News" and "Show News". The main content area features "Today's events" with a table listing two events: "Dress Down" (All Day, HQ) and "HR Annual Meeting" (10:00 AM, Room 413W). Below this is a "Latest News" section with a single news item: "Michigan State University Federal Credit Union (MSUFCU) Announces \$1,000,000 Gift to Michigan State University's Eli and Edythe".

MSUFCU Calendar System

Contents Devices ID: 144 Sunday 03/31/2013

Dashboard

EVENTS
[Add Event](#)
[Show Events](#)

CATEGORIES
[Add Category](#)
[Show Categories](#)

NEWS
[Add News](#)
[Show News](#)

Today's events

Name	Time	Location
Dress Down	All Day	HQ
HR Annual Meeting	10:00 AM	Room 413W

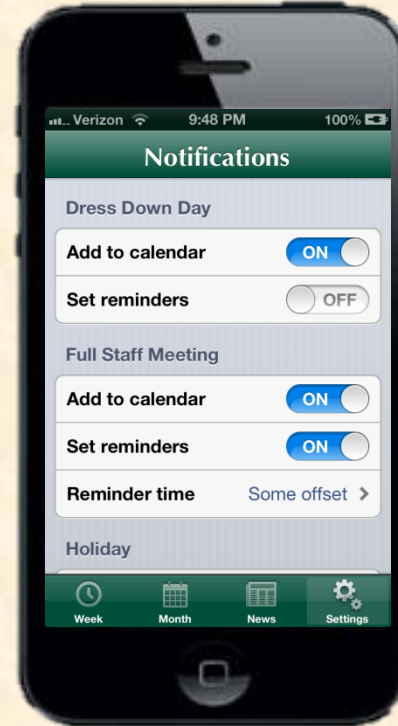
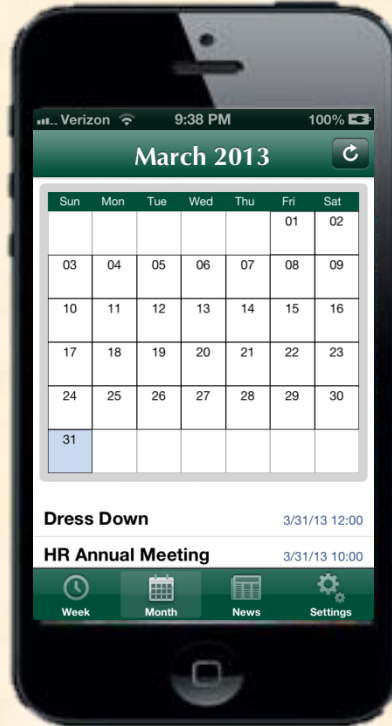
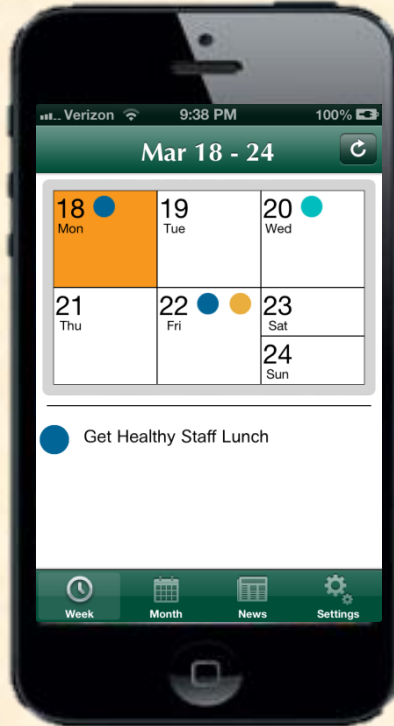
Latest News

[Michigan State University Federal Credit Union \(MSUFCU\) Announces \\$1,000,000 Gift to Michigan State University's Eli and Edythe](#)



Team MSUFCU Beta Presentation

iPhone App

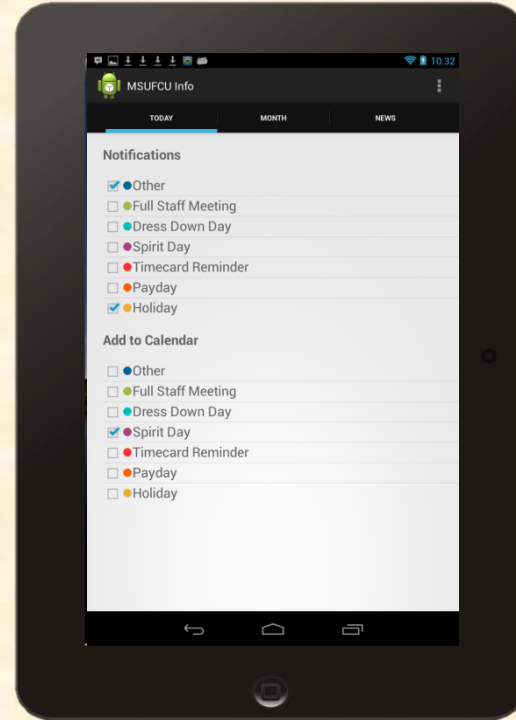
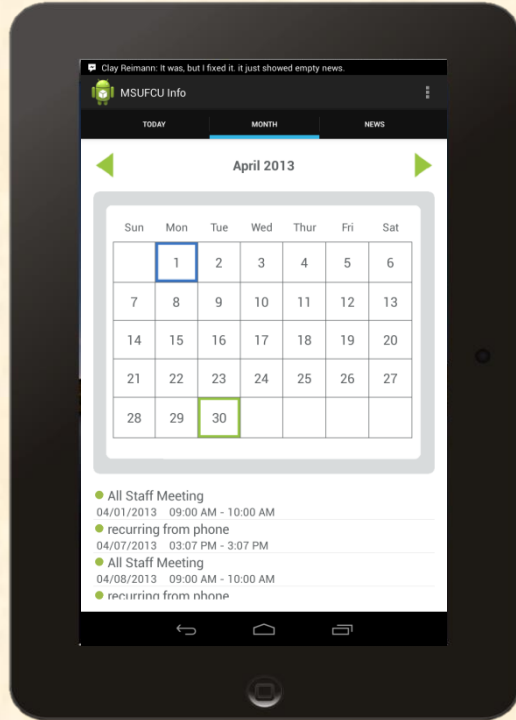


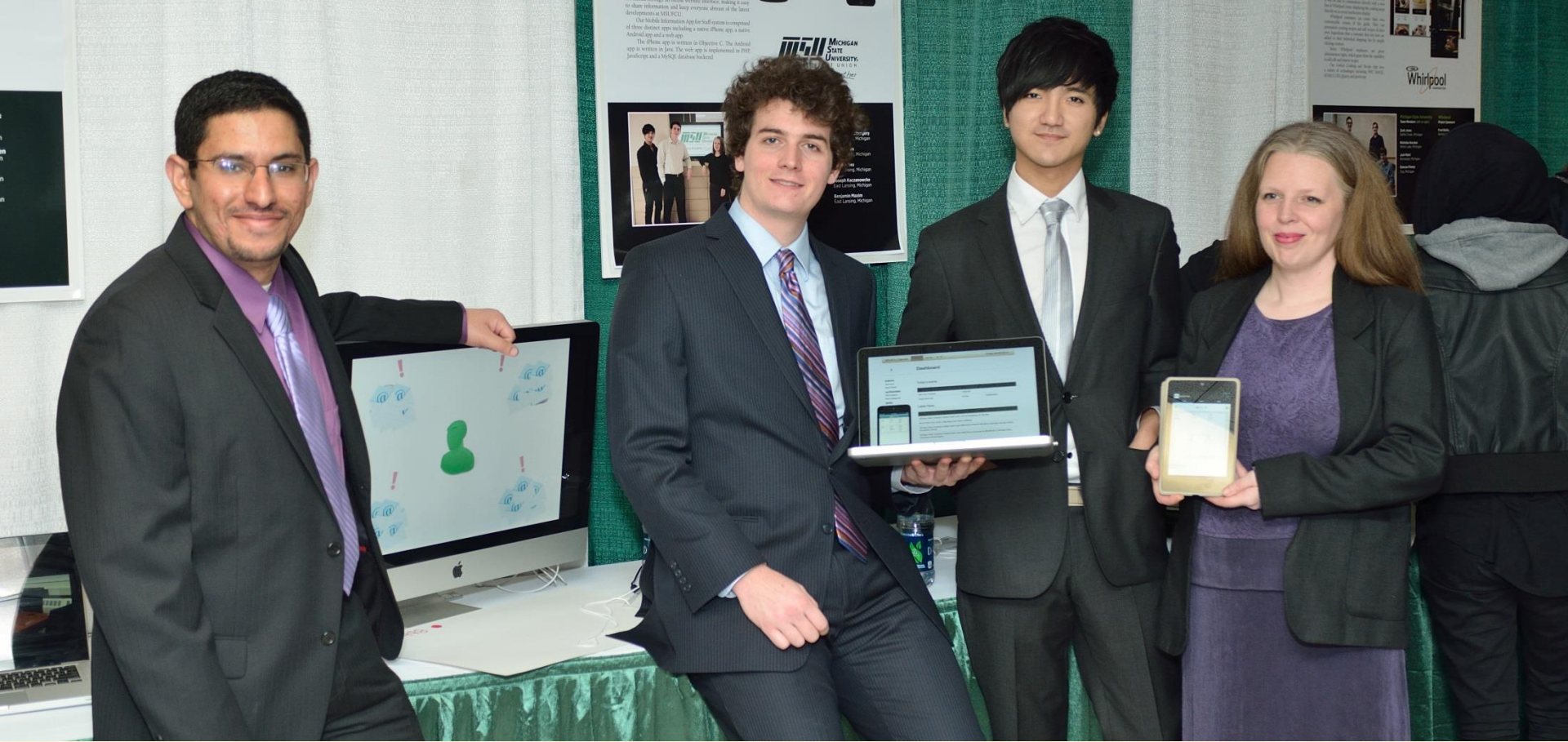


Team MSUFCU Beta Presentation

Team MSUFCU Beta Presentation

Adroid App





Team MSUFCU
Design Day

The Capstone Experience

Team Spectrum Health

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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MEDIAFOR
VENDORSFOR JOB
SEEKERSRESEARCH &
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Password:

> Forgot User Name

> Forgot Password

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Enroll Now

> Learn More

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Select Type of Location ▼

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Giving Back











GIVING

Medical Specialties

Team Spectrum Health Project Overview

SLA Management and Metric Reporting System

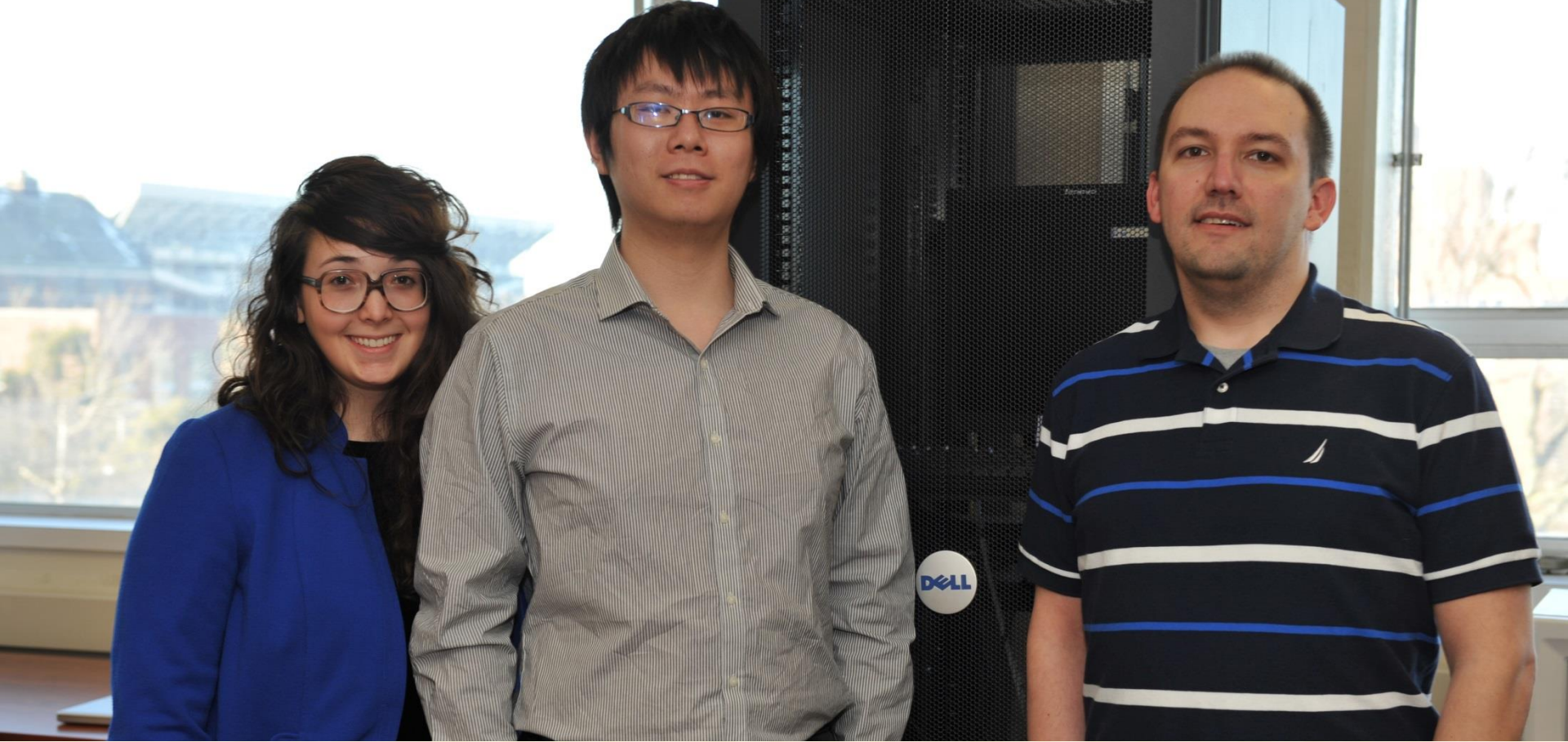
- Functionalities
 - Information Services Metrics Dashboard
 - Shows Progress on Internal Projects
 - Via Monthly Scorecards
 - Assists in Evaluation and Decision Making
- Features
 - Create, Edit and Delete Metrics
 - Track Metrics with Approvals
 - Visualize Monthly Scorecards
 - Manage Metrics Issues Log
 - Control and Link All Information Related to a Metric
 - Perform Calculations Based on Metrics
 - Format Data Based on a Set of Parameters
- Technologies
 - Database Technologies
 - Dynamic Web Programming
 - Web Services
 - Data Aggregating and Warehousing

Project	Current Milestone	Issues	Spend To Date	Target
Aphrodite	 Project Plan	7	1.1	Q1 2080
Apollo	 Development	2	12.8	Q2 2080
Ares	 Data Migration	2	19.1	Q1 2080
Artemis	 Launch	0	3.4	Q2 2080
Athena	 Development	0	0.2	Q3 2080
Demeter	 Testing	11	38.2	Q1 2081
Dionysos	 Testing	13	19.7	Q4 2080
Hades	 Security Testing	10	3.2	Q1 2080
Hephaestus	 Testing	6	0.9	Q3 2080
Hera	 Development	0	0.2	Q4 2080

SPECTRUM HEALTH

Grand Rapids, Michigan





Team Spectrum Health
Lisa Ossian, Shen Qin, Ian Salatka

Team Spectrum Health Project Plan Presentation

Screen Mockup

All Scorecards

Scorecard	Action
BIC	<button>View</button> <button>Update</button> <button>Delete</button>
PH	<button>View</button> <button>Update</button> <button>Delete</button>
SHDS	<button>View</button> <button>Update</button> <button>Delete</button>
SHIS	<button>View</button> <button>Update</button> <button>Delete</button>
ZZZ	<button>View</button> <button>Update</button> <button>Delete</button>

ZZZ Scorecard

Change scope: Jan 2013 to Jun 2013

Financial

Metric Name	Metric ID	Measure ID	Measure	Target	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013
Metric ABC	M.100	F123	Measure DEF	>90.0% but < 99.9%	89.9%	90.4%	40.5%	95.5%	60.4%	95.4%
Metric ADF	M.102	F199	Measure AAA	>0.0% but <= 4.0%	3.9%	20.5%	2.5%	0.4%	5.5%	6.6%
		F200	Measure BBB	>95.0%	93.5%	85.0%	68.3%	95.1%	96.8%	99.4%

Metric ABC, Measure AAA

Comments: AAA was not met because of this reason.

Remediation: Fix this problem.

Planned Activities: Assign three workers to fix the problem.

Project

Metric Name	Metric ID	Measure ID	Measure	Target	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013
Metric FFA	M.844	P009	Measure YYX	>85.7% but < 100.0%	79.3%	80.9%	95.0%	90.3%	97.7%	66%
		P010	Measure XXY	>97.0% but < 100.0%	68.6%	91.7%	70.0%	85.0%	99.5%	95.4%

Metric FFA, Measure YYX

Comments: YYX was not met because of this reason.

Remediation: Fix this problem.

Planned Activities: Assign three workers to fix the problem.

Metric FFA, Measure XXY

Comments: XXY was not met because of this reason.

Remediation: Fix this problem.

Planned Activities: Assign three workers to fix the problem.

Annotations:

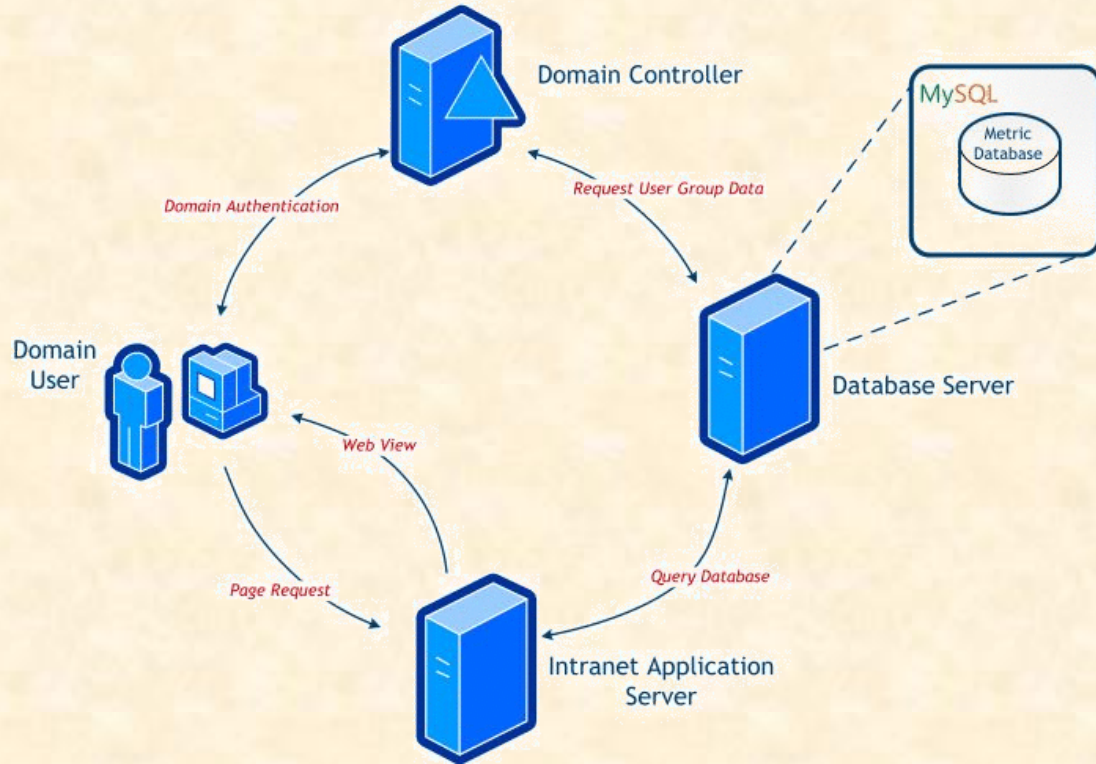
- **User can view data from other months.** (points to date range)
- **Like metrics are grouped together** (points to Metric ABC and ADF)
- **If this checkbox is checked, comments for the measure are displayed below these comments here.** (points to Select All checkbox)
- **Comments are displayed for this measure because it did not meet its target value** (points to Metric ABC, Measure AAA)



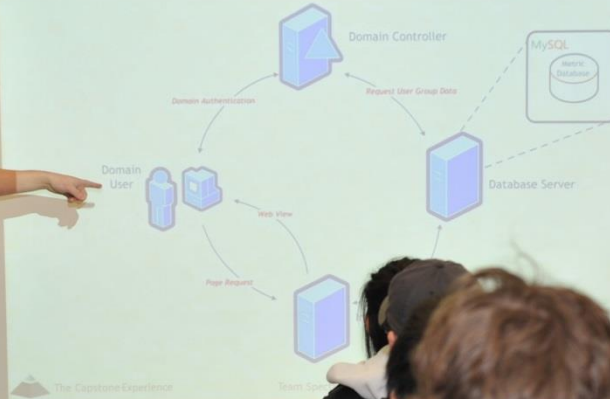
Team Spectrum Health Project Plan Presentation

Team Spectrum Health Project Plan Presentation

Architecture Diagram



System Architecture



Team Spectrum Health
Project Plan Presentation

Team Spectrum Health Project Plan Presentation

Screen Mockup

Issues Log

Sort by: Priority - High to Low

Only show:

Priority

☐ high

☐ medium

☐ low

Status

☐ complete

☐ hold

☐ WIP

☐ not started

Due Date

to

Metric ID

M.002

Metric Name

Metric ABC

Contact Name

Contact 1

Metric ID	Metric Name	Issue	Actions	Contact	Priority	Status	Due Date	Date Started	Date Completed	Actions
M.333	Metric AAW	June 2013 values are incorrect.	Review values.	Contact 1	high	not started	07-10-2013	N/A	N/A	Update Delete
M.844	Metric FFA	April 2013 values are incomplete.	Complete values.	Contact 2	medium	WIP	07-08-2013	07-01-2013	N/A	Update Delete
M.002	Metric XYZ	Calculation in metric description is incorrect.	Fix calculation description.	Contact 1	medium	hold	07-13-2013	07-07-2013	N/A	Update Delete
M.844	Metric FFA	New measure needs to be added to metric.	Update Metric FFA.	Contact 3	medium	complete	07-04-2013	07-04-2013	07-04-2013	Update Delete
M.100	Metric ABC	Metric needs to be added to the new YYY	Get it to display on the scorecard.	Contact 4	low	not started	07-09-2013	N/A	N/A	Update Delete
M.002	Metric XYZ	Target values have changed.	Update the metric with the new target values.	Contact 5	low	WIP	07-08-2013	07-05-2013	N/A	Update Delete

[New Issue](#)

New Issue

Metric ID

Metric Name

Issue

Actions

Contact

Priority

☐ high

☐ medium

☐ low

Status

☐ complete

☐ hold

☐ WIP

☐ not started

Due Date

Date Started

Date Completed

[Submit](#)

Update Issue

Metric ID

Metric Name

Issue

Actions

Contact

Priority

☒ high

☐ medium

☐ low

Status

☐ complete

☐ hold

☐ WIP

☒ not started

Due Date

Date Started

Date Completed

[Submit](#)

****The user can hide unwanted results****

****The user can sort by any column****

****Upon clicking delete, the issue is removed from the issues log and database.****



Team Spectrum Health Alpha Presentation

Team Spectrum Health Alpha Presentation

Add New Measure

[Home](#)

Measure

[Add New Measure](#)

[View/Edit Existing Metrics](#)

[Add New Scorecard](#)

[View/Edit Existing Scorecards](#)

[Add/Edit Users](#)

[Add Measure Data](#)

[View/Edit Existing Measure Data](#)

[Add New Issue](#)

[View/Edit Existing Issues](#)

Status: ☒ active ☐ inactive ☐ draft

Metric Type: ☒ manual ☐ auto ☐ Oblicore

Metric ID:

Metric Theme:

Metric Name:

Objective:

Service Component: ☒ Financial ☐ Operational ☐ Project ☐ Relationship

Service Domain:

Target Type: ☒ Number ☐ Percent | ☒ Range ☐ Tier.

Green Target Values

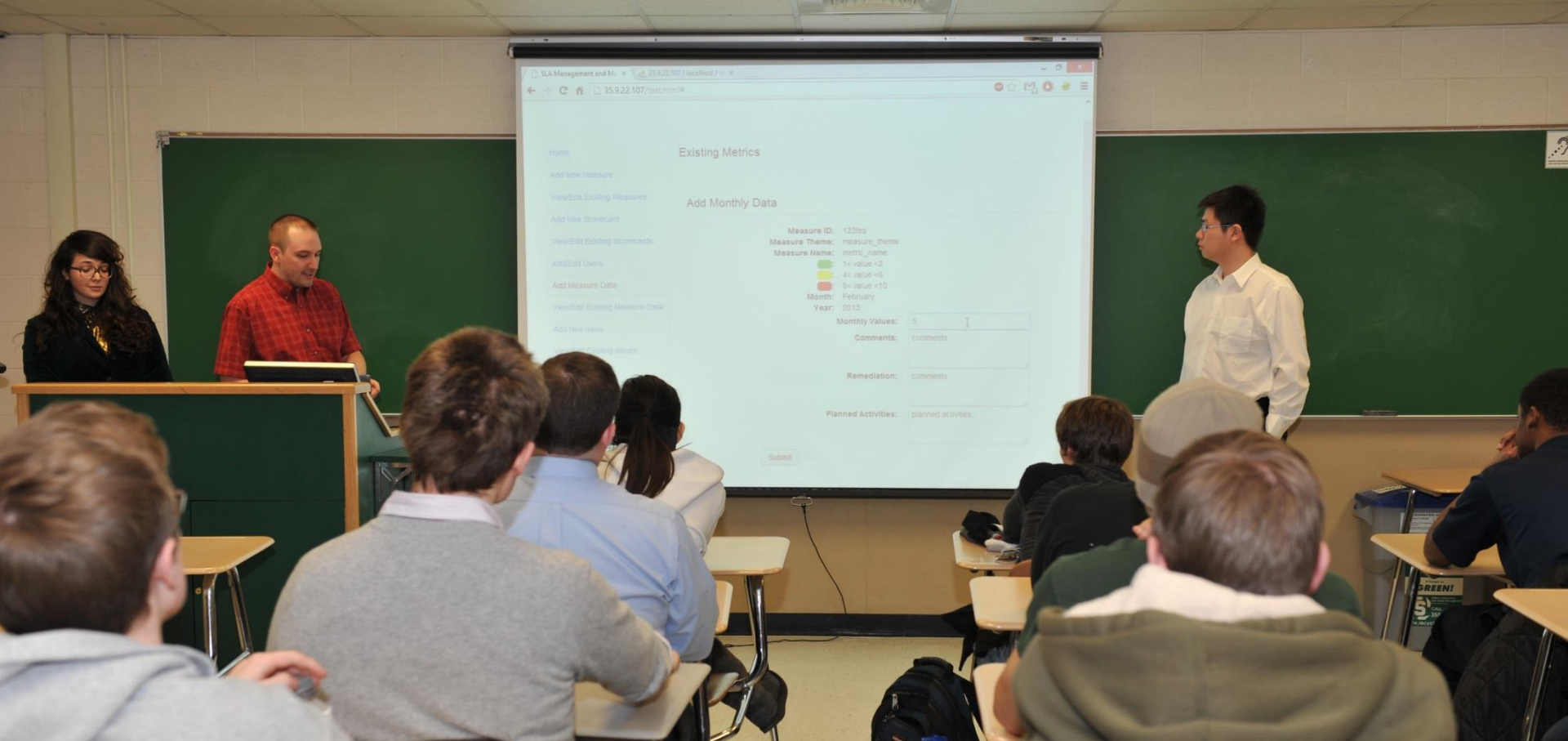
Team Spectrum Health Alpha Presentation

View/Edit Existing Measures

[Home](#)
[Add New Measure](#)
[View/Edit Existing Metrics](#)
[Add New Scorecard](#)
[View/Edit Existing Scorecards](#)
[Add/Edit Users](#)
[Add Measure Data](#)
[View/Edit Existing Measure Data](#)
[Add New Issue](#)
[View/Edit Existing Issues](#)

Existing Metrics

Measure ID	Metric	Measure		
F.003	Reduce Operational Costs	ETS Budget as a Percentage of Total IS Budget	Edit	Delete
F.005	Reduce Operational Costs	ETS Operating Expense YTD Actual Versus Plan	Edit	Delete
O.028	Deliver quality services to customer requirements	Percentage and Count of Service Interruptions or Performance degradations Mapped to Change Requests	Edit	Delete
P.011	Strengthen the Business Partnership	Clarity Quality Metrics Compliance	Edit	Delete
P.013	Strengthen the Business Partnership	Percentage of Projects with a Business Case Approval	Edit	Delete
R.003	Deliver quality services to customer requirements	Percentage of SLA Metrics which Achieved Service Level Targets	Edit	Delete
R.004	Improve customer satisfaction	Satisfaction with IS Service Experience	Edit	Delete



Team Spectrum Health Alpha Presentation

Team Spectrum Health Alpha Presentation

Add New Issue

[Home](#)
[Add New Measure](#)
[View/Edit Existing Metrics](#)
[Add New Scorecard](#)
[View/Edit Existing Scorecards](#)
[Add/Edit Users](#)
[Add Measure Data](#)
[View/Edit Existing Measure Data](#)
[Add New Issue](#)
[View/Edit Existing Issues](#)

Issue

Metric ID:

Metric ID

Metric Name:

Metric Name

Contact Name:

Contact Name

Issue:

Issue
...

Actions:

Actions
...

Priority:

☒ high ☐ medium ☐ low

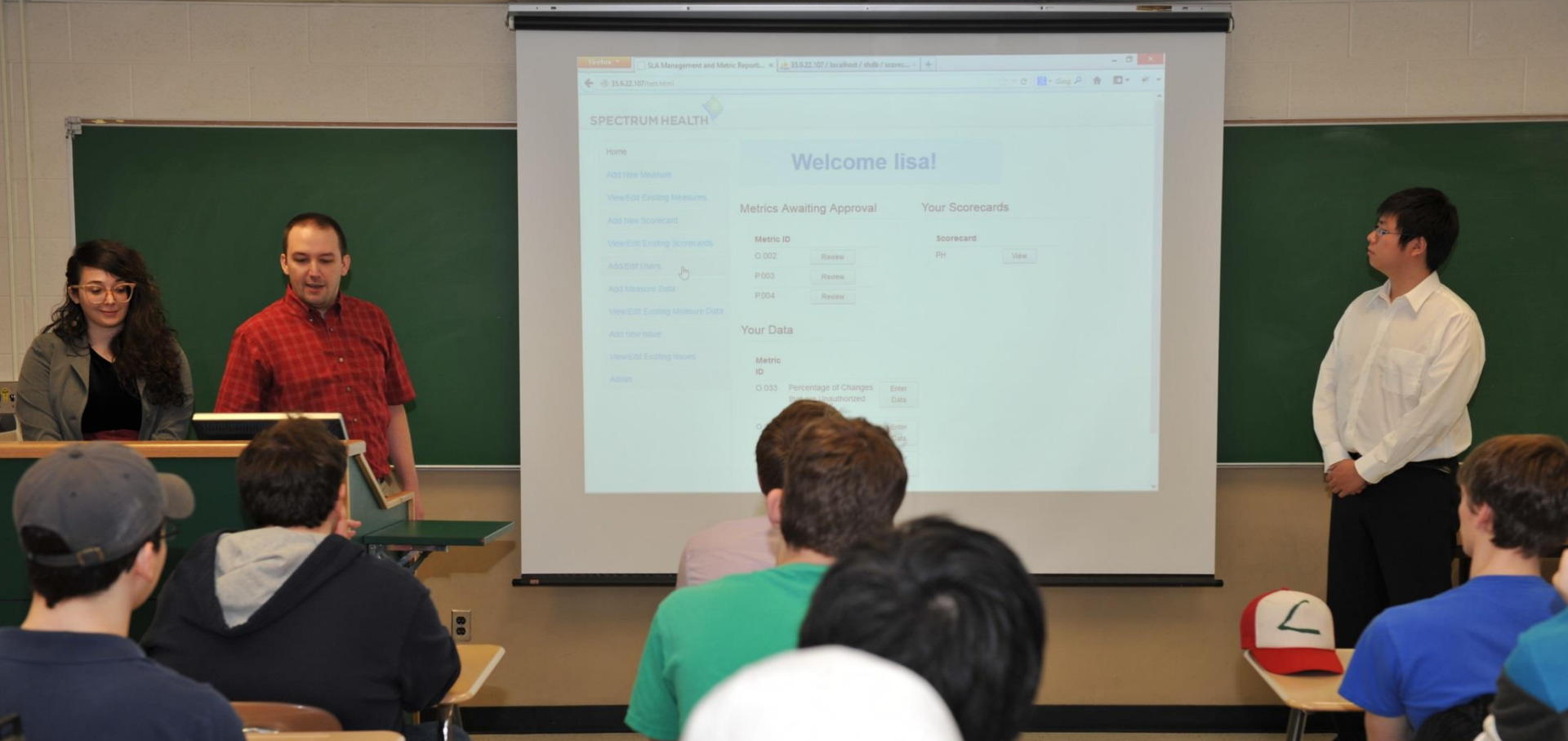
Status:

☒ complete ☐ hold ☐ WIP ☐ not started

Due Date:

Due Date






Team Spectrum Health Beta Presentation

Team Spectrum Health Beta Presentation

Home Page

SPECTRUM HEALTH

[Home](#)
[Add New Measure](#)
[View/Edit Existing Measures](#)
[Add New Scorecard](#)
[View/Edit Existing Scorecards](#)
[Add/Edit Users](#)
[Add Measure Data](#)
[View/Edit Existing Measure Data](#)
[Add New Issue](#)
[View/Edit Existing Issues](#)

Welcome lisa!

Metrics Awaiting Approval

Metric ID	
O.002	Review
P.003	Review
P.004	Review


Your Data

Metric ID	
O.033	Enter Data
O.034	Enter Data



Team Spectrum Health Beta Presentation

Add New Scorecard

SPECTRUM HEALTH

[Home](#)
[Add New Measure](#)
[View/Edit Existing Measures](#)
[Add New Scorecard](#)
[View/Edit Existing Scorecards](#)
[Add/Edit Users](#)
[Add Measure Data](#)
[View/Edit Existing Measure Data](#)
[Add New Issue](#)
[View/Edit Existing Issues](#)

Scorecard

Scorecard Title:

Associated User(s):

Measures:

✕ O.028(Percentage and Count of Service Interruptions or Performance degradations Mapped to Change Requests)

O.031(Undocumented Changes)

O.033(Percentage of Changes that are Unauthorized Changes)

O.034(Average Mean Time to Service Restoration)

P.011(Clarify Quality Metrics Compliance)

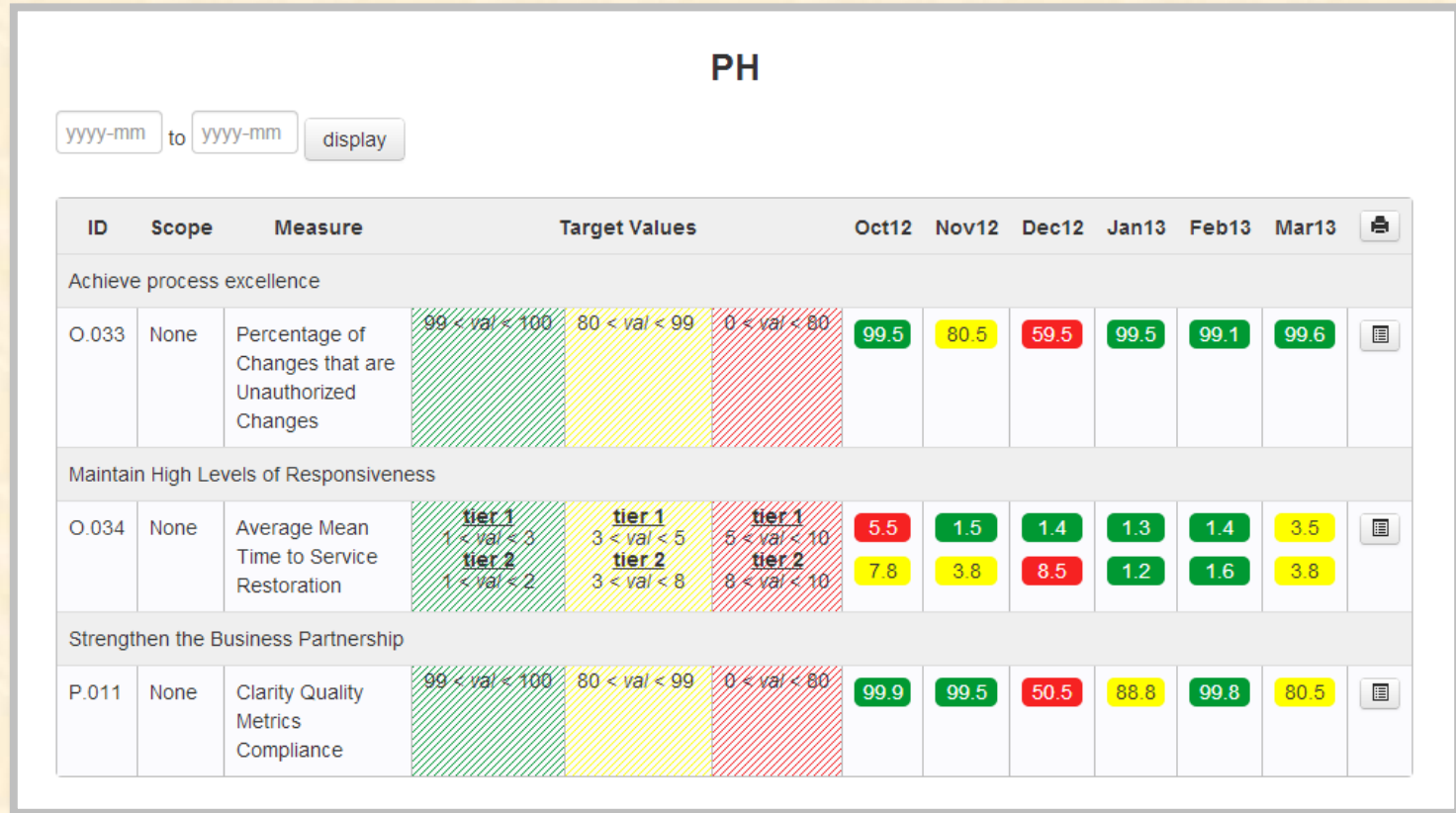
P.013(Percentage of Projects with a Business Case Approval)



Team Spectrum Health Beta Presentation

Team Spectrum Health Beta Presentation

View Scorecard





Team Spectrum Health
Design Day

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Team TechSmith

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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...to Professionals*



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Snagit®



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Educators are flipping teaching models



Team TechSmith Project Overview

American Sign Language Learning App

- Functionalities
 - Learn and Teach American Sign Language
 - Using Microsoft Surface Tablet App
 - Learner
 - Watches YouTube Videos
 - Records Themselves Signing
 - Teacher
 - Watches Learner's Video
 - Responds with a Critique
- Features
 - Create Lesson Plans
 - From YouTube Videos
 - By Teacher and Automatically
 - YouTube Video Tagging (Beginner, Intermediate, Advanced)
 - Teacher Critiquing
 - Quick Ratings
 - Choosing Frames From Learner Video
 - Create New Video with Voice Narration
 - Text and Drawing Annotation
 - Interaction Both Remote and In-Person
- Technologies
 - Window 8, WinRT
 - YouTube API
 - Windows Azure or Ruby on Rails
 - Urban Airship
 - RESTful Web Services





Team TechSmith

Malcolm Doering, Michelle Truong, Adam Crane

Team TechSmith Project Plan Presentation

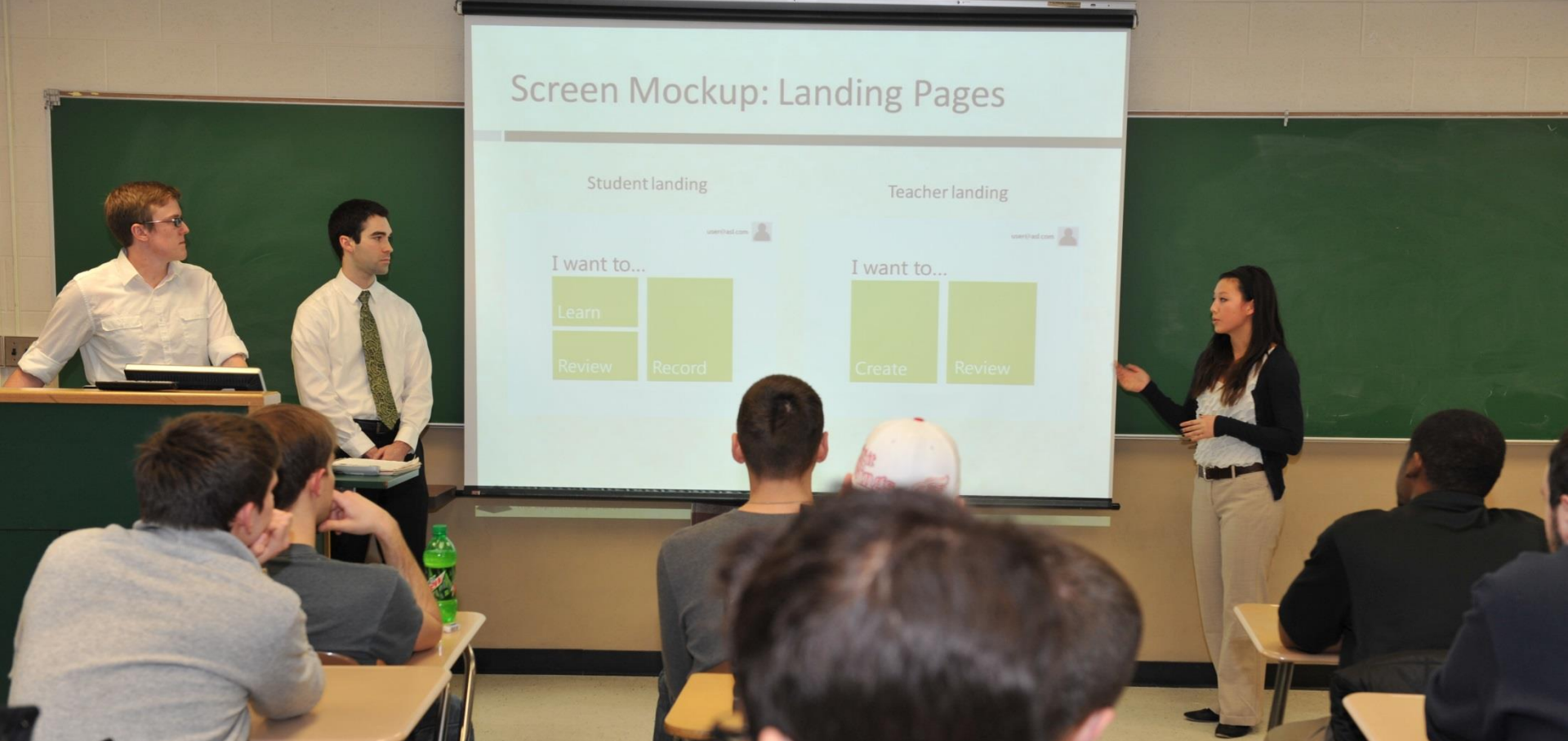
Screen Mockup

Student landing



Teacher landing

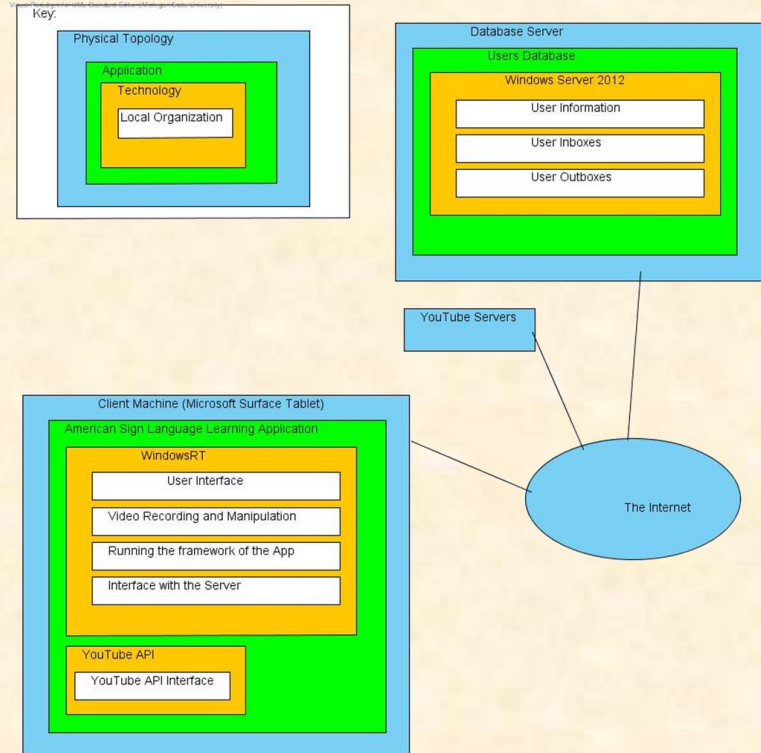




Team TechSmith Project Plan Presentation

Team TechSmith Project Plan Presentation

Architecture Diagram



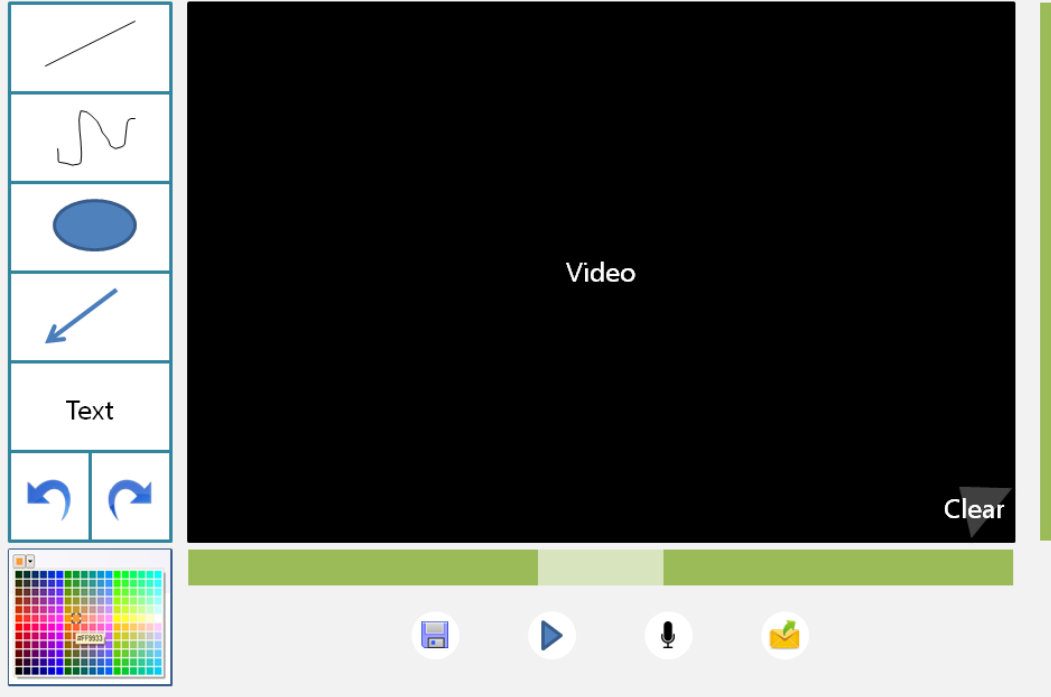


Team TechSmith Project Plan Presentation

Team TechSmith Project Plan Presentation

Screen Mockup

⬅️ Video Name

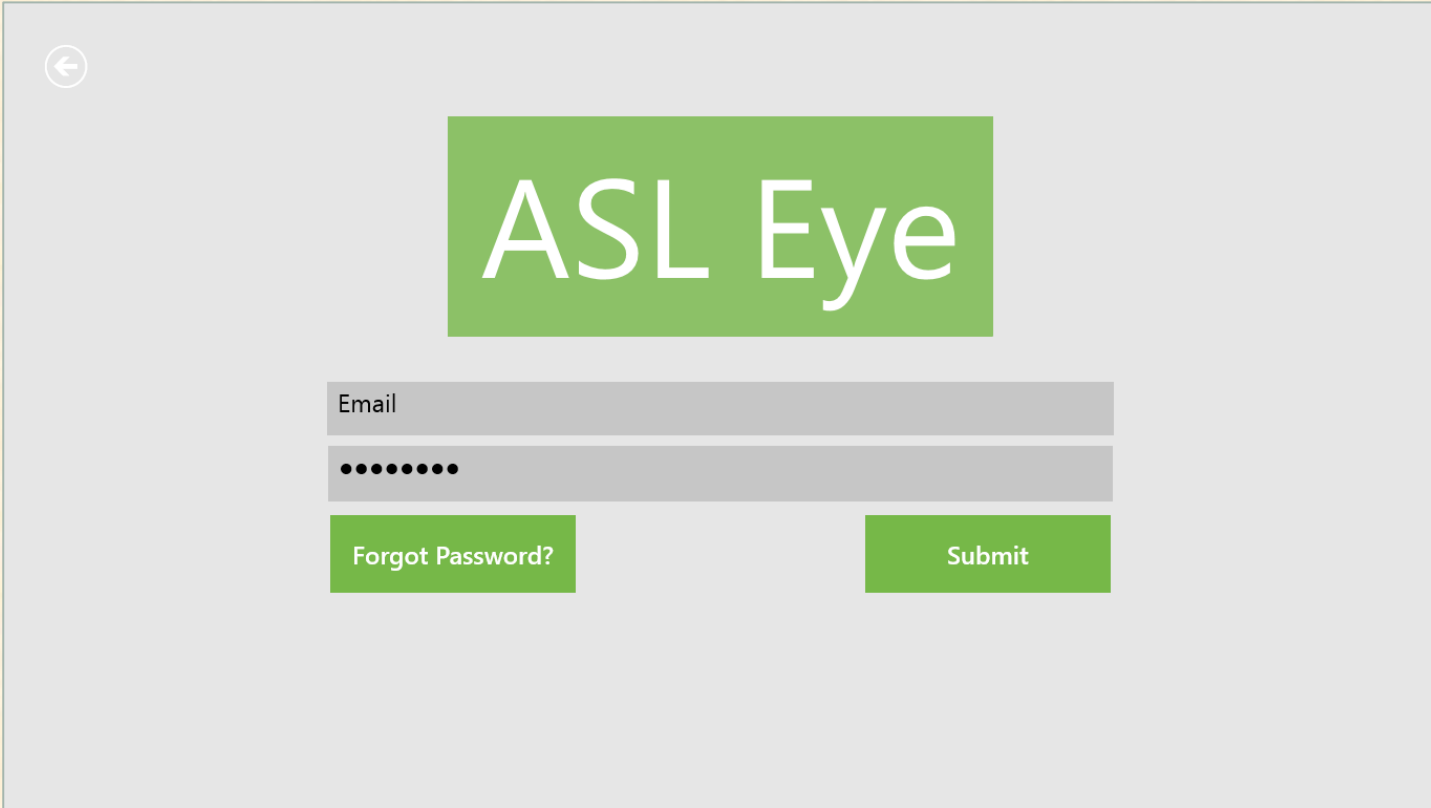




Team TechSmith
Alpha Presentation

Team TechSmith Alpha Presentation

Login



A login form for 'ASL Eye' displayed within a light gray rectangular frame. In the top-left corner of the frame is a small circular icon containing a left-pointing arrow. The 'ASL Eye' logo is centered at the top, with 'ASL' in white sans-serif font and 'Eye' in a white script font, both on a green rectangular background. Below the logo are two horizontal input fields: the first is labeled 'Email' in a small gray font, and the second contains seven black dots representing a password. At the bottom of the form are two green buttons: 'Forgot Password?' on the left and 'Submit' on the right, both in white text.

←

ASL Eye

Email

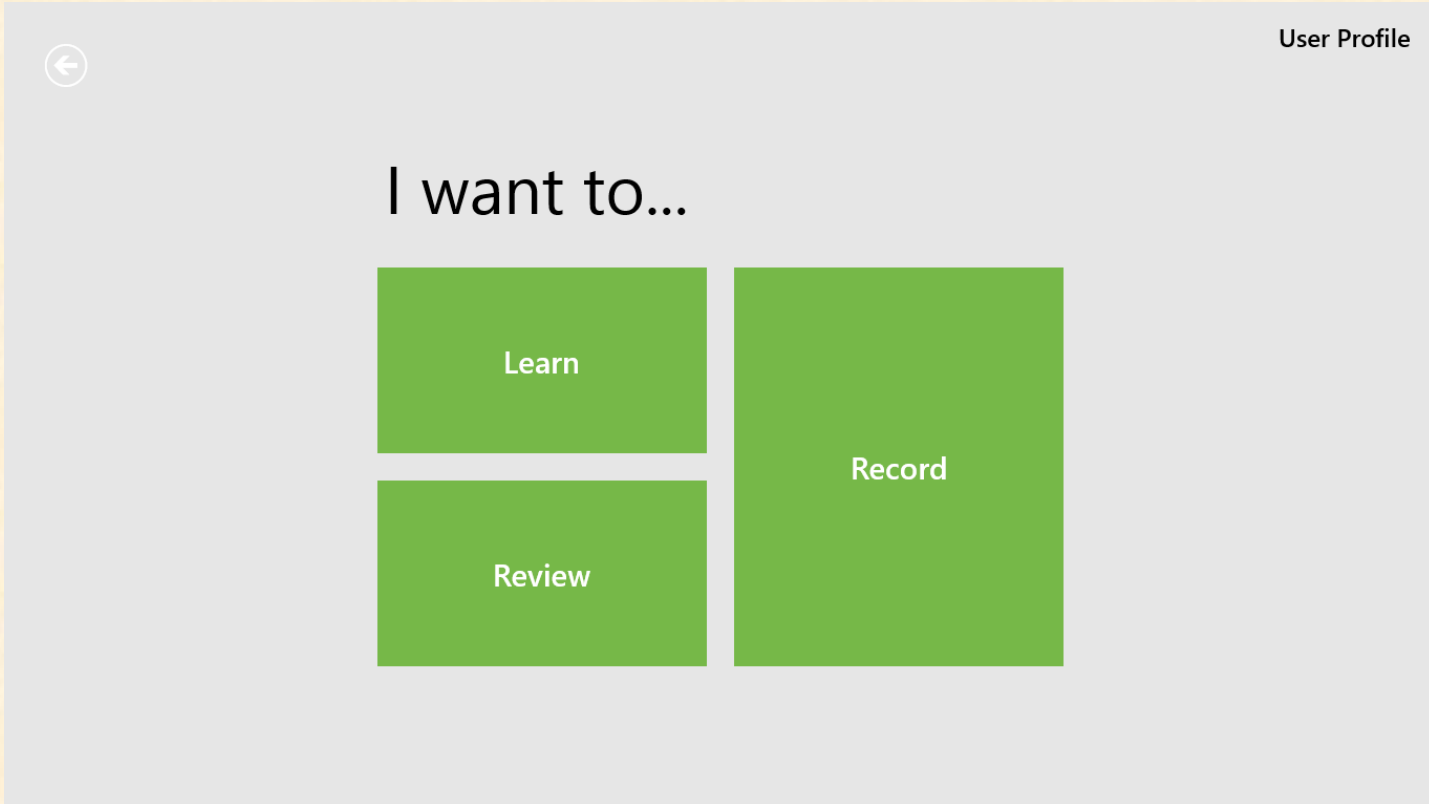
•••••••

Forgot Password? Submit



Team TechSmith Alpha Presentation

Student Landing





Team TechSmith Alpha Presentation

Team TechSmith Alpha Presentation

Record



Record

The Capstone Experience





Team TechSmith
Beta Presentation

Team TechSmith Beta Presentation

Lesson Plans

←

Lesson Plans Recommended

Search Search

Asl colors

ASL Colors (Video #3)

ASL Colors

How to Sign Colors in ASL

colors SONG - learn your ASL colors

ASL Nouns

ASL: Nouns and Verbs

ASl verbs lesson

ASL Vocabulary 3 (Verbs)

ASL VERBS #1

Ba

Le



Team TechSmith Beta Presentation

Create Lesson Plans

← Create a Lesson Plan...



milk in ASL (nouns)
funny reaction of
baby



ASL Final Verbs



Cookie (/ signing "



ASL: Nouns and
Verbs



Nouns and Verbs



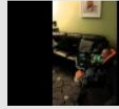
asl 5 reac



ASL have: NOUNS,
VERBS, ADVERBS &
ADJECTIVES?



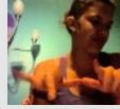
NCHS ASL 1 Noun-
Verb Pairs &
Possessions



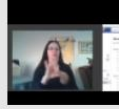
Clever b2



How to sign " cat "
in asl



Verbs (ASL)



Learn Sig
Language

ASL Nouns

Search



Play

Pause

Enter Lesson Plan Name:

ASL Nouns

Name the Lesson:

Nouns 1

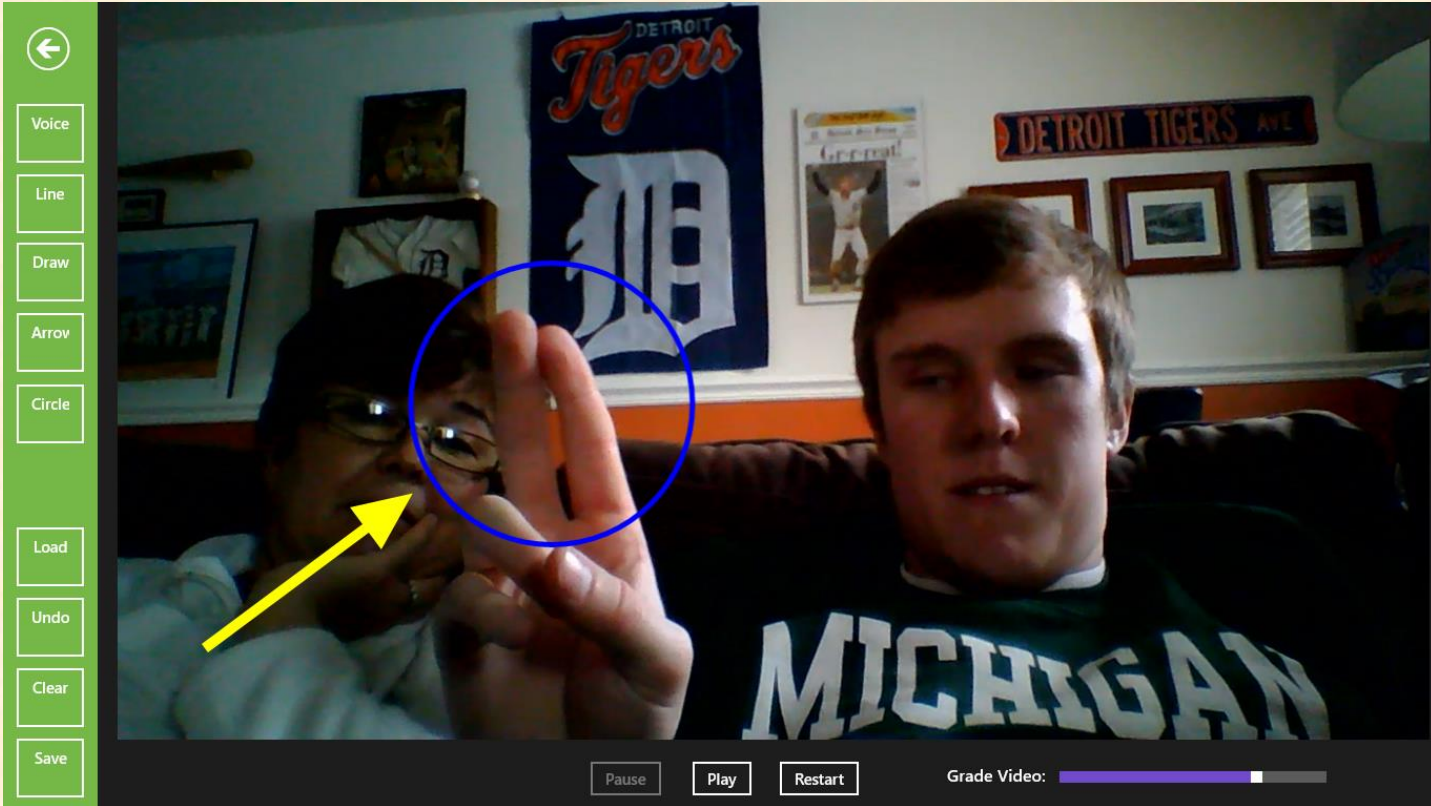
Add

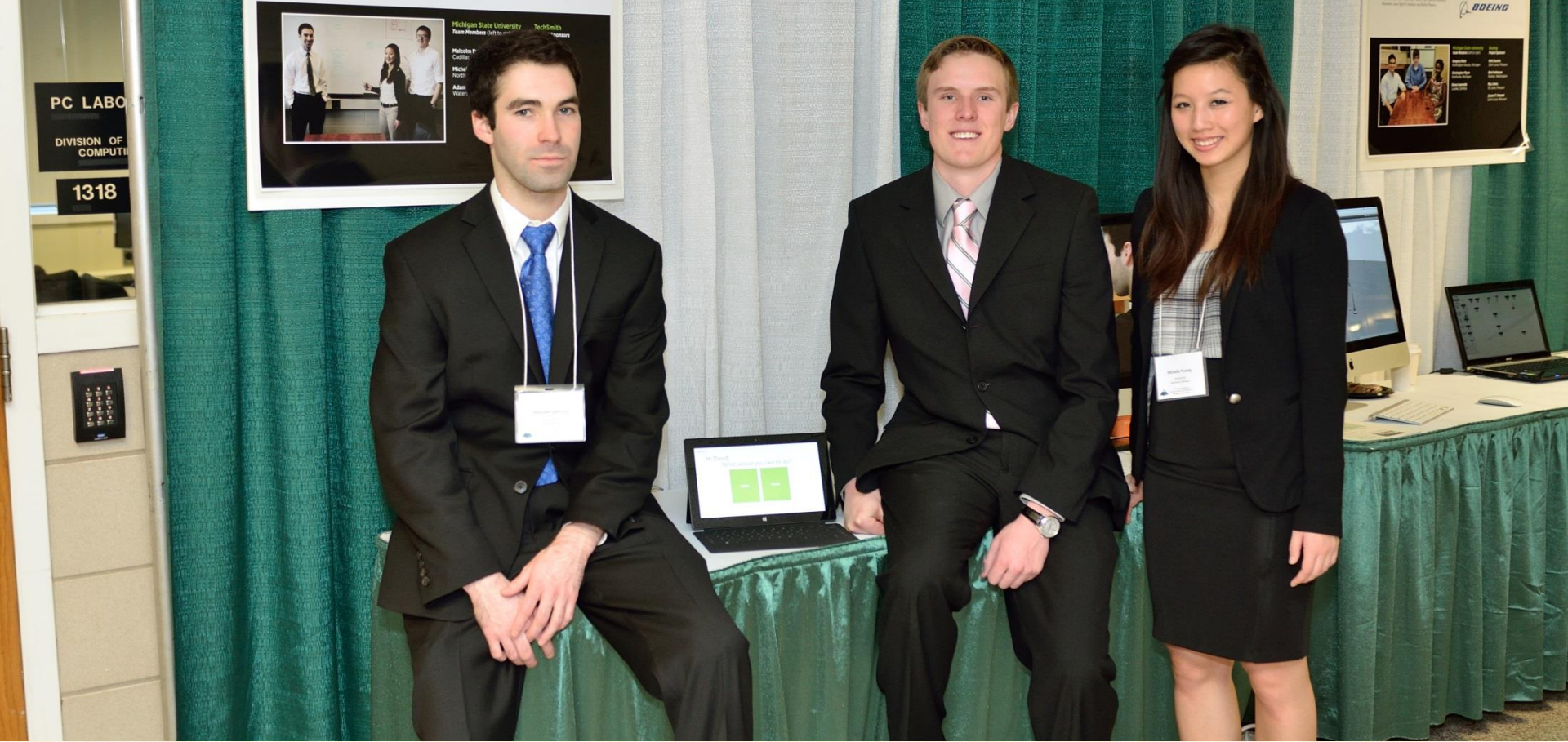


Team TechSmith
Beta Presentation

Team TechSmith Beta Presentation

Annotate Video





Team TechSmith
Design Day

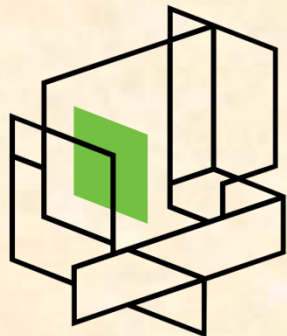
The Capstone Experience

Team Urban Science

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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



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URBAN SCIENCE

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Manage Leads

Optimize Marketing

We are Urban Science

We are automotive retail performance experts - thought leaders and doers - who increase market share and improve profitability for clients in more than 60 countries. There's no better partner on the road to success.

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Client Showcase

We partner with performance-focused clients, and this

News

Post-Hurricane Car Sales Expected

Careers

How far can you go at Urban

Team Urban Science Project Overview

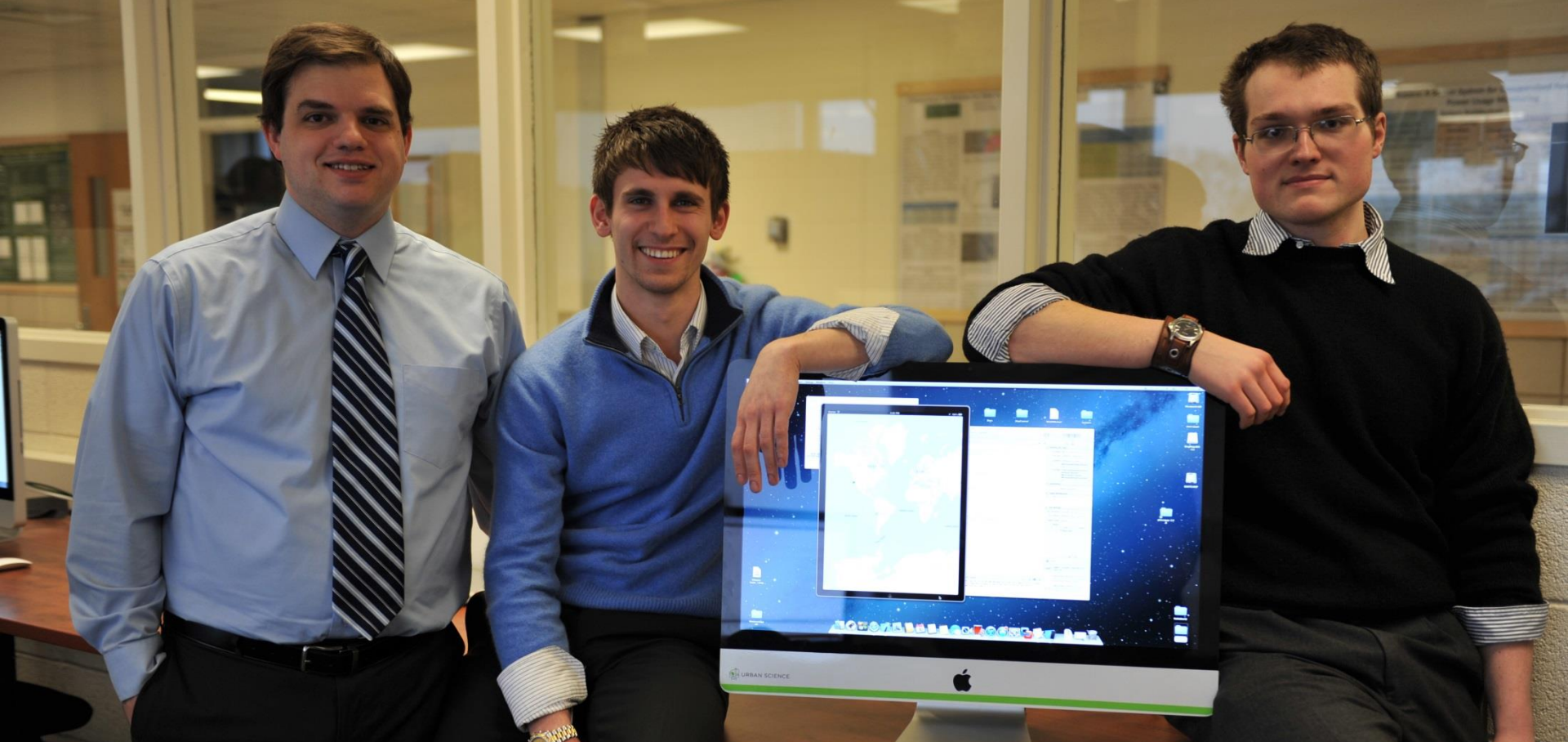
Dealership Consultant Mobile App

- Functionalities
 - Support Urban Science Consultants
 - Meetings with Automobile Dealers
 - Provide and Collect Information
 - Before Meeting
 - During Meeting
 - After Meeting
 - On iPad
- Features
 - Useable During Meeting
 - Provide and Collect
 - Specific Action Plan
 - Dealer's Reaction
 - Meeting Atmosphere
 - Specific Process to be Utilized
 - Dealer Agreements
 - All Information Stored in SQL Database
- Technologies
 - CSS, HTML5
 - PhoneGap
 - Microsoft Bing Maps
 - Web Services
 - SQL Server
 - [Mobile Geography Management](#), Fall 2012



URBAN SCIENCE

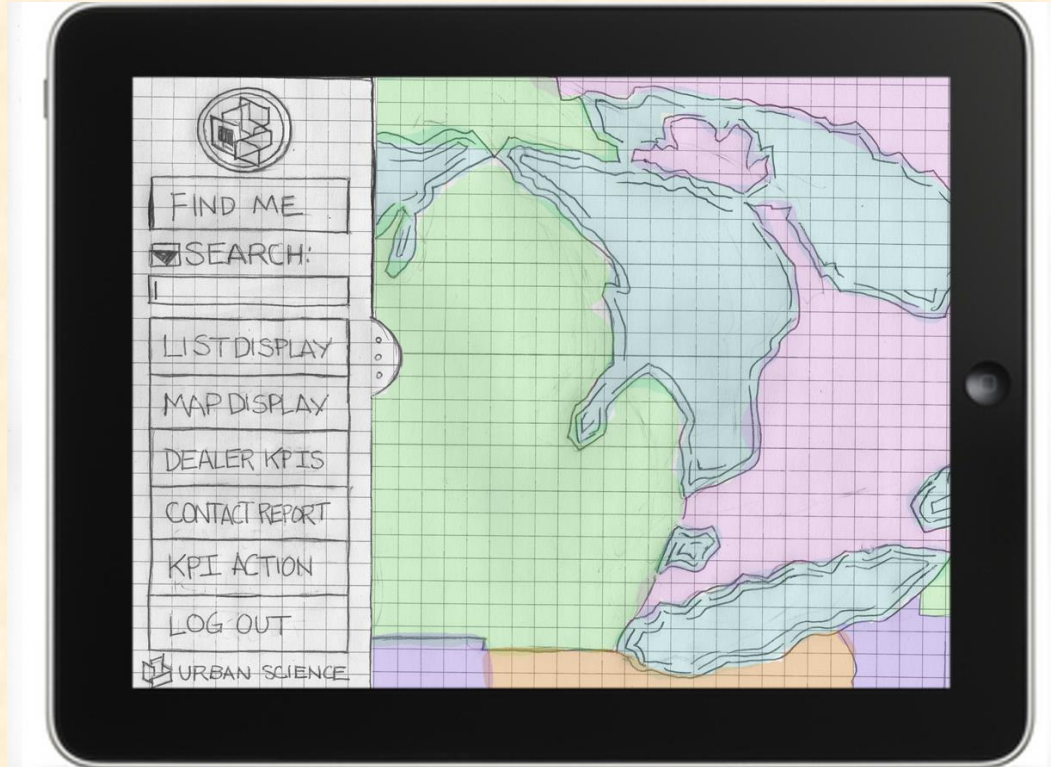
Detroit, Michigan



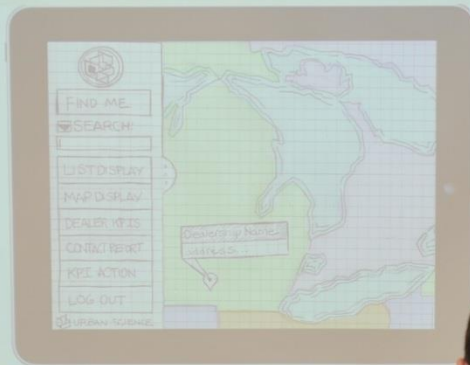
Team Urban Science
Joe Greer, Yev Khessin, Austin Hendry

Team Urban Science Project Plan Presentation

Screen Mockup



Map Page with Search Results



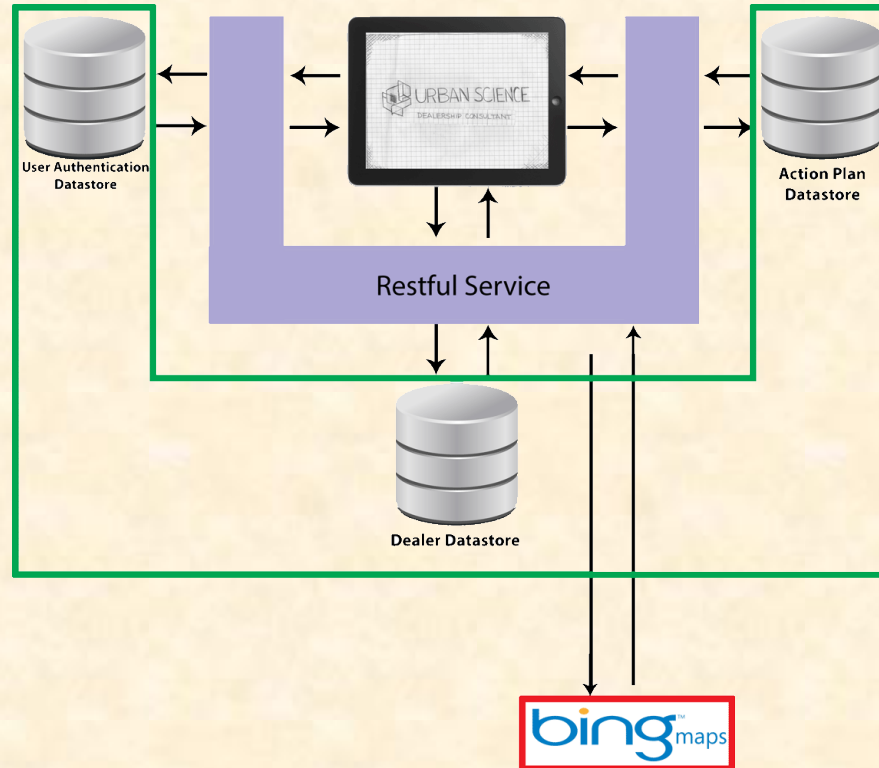
The Capstone Experience

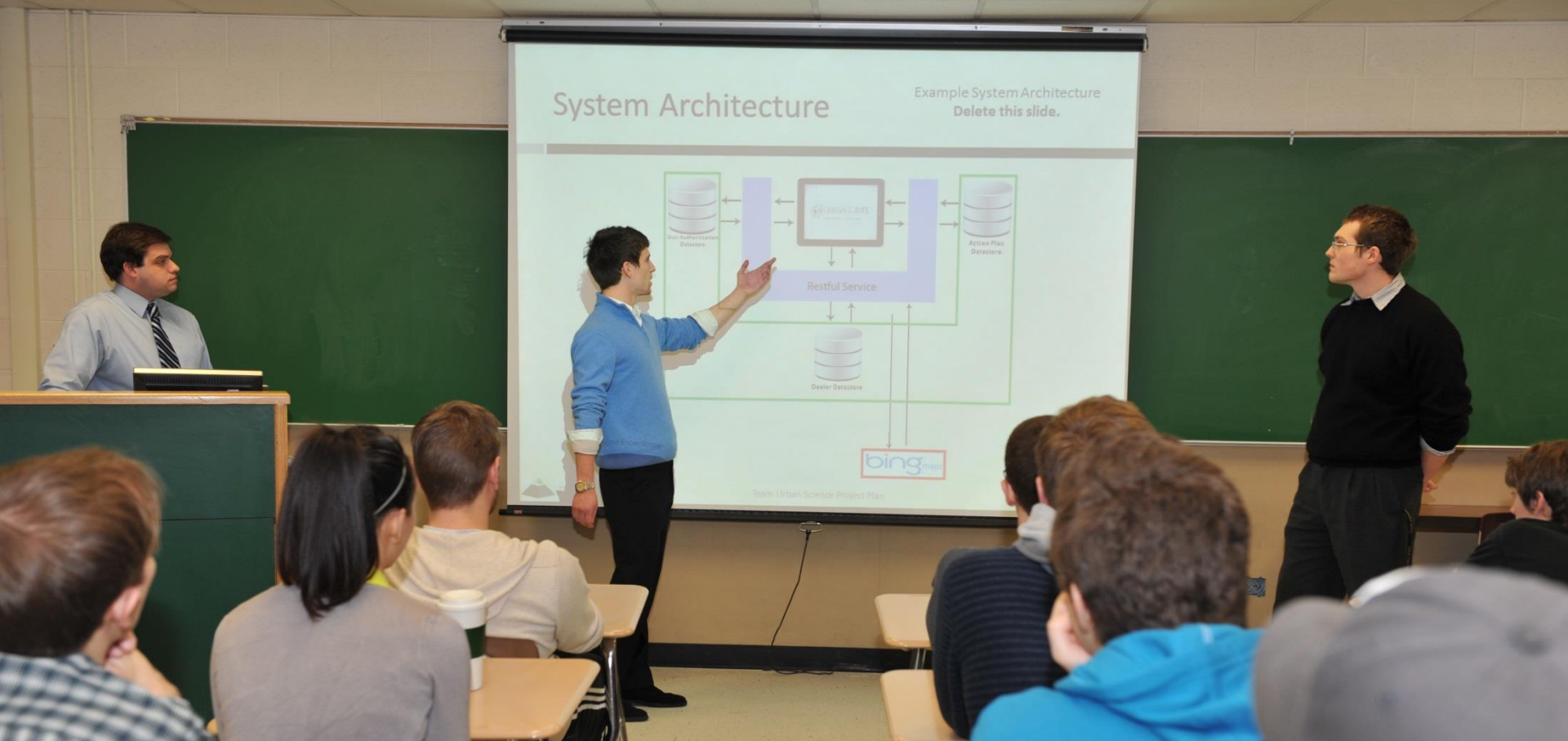
Team Urban Science Project Plan

Team Urban Science
Project Plan Presentation

Team Urban Science Project Plan Presentation

Architecture Diagram





Team Urban Science Project Plan Presentation

Team Urban Science Project Plan Presentation

Screen Mockup

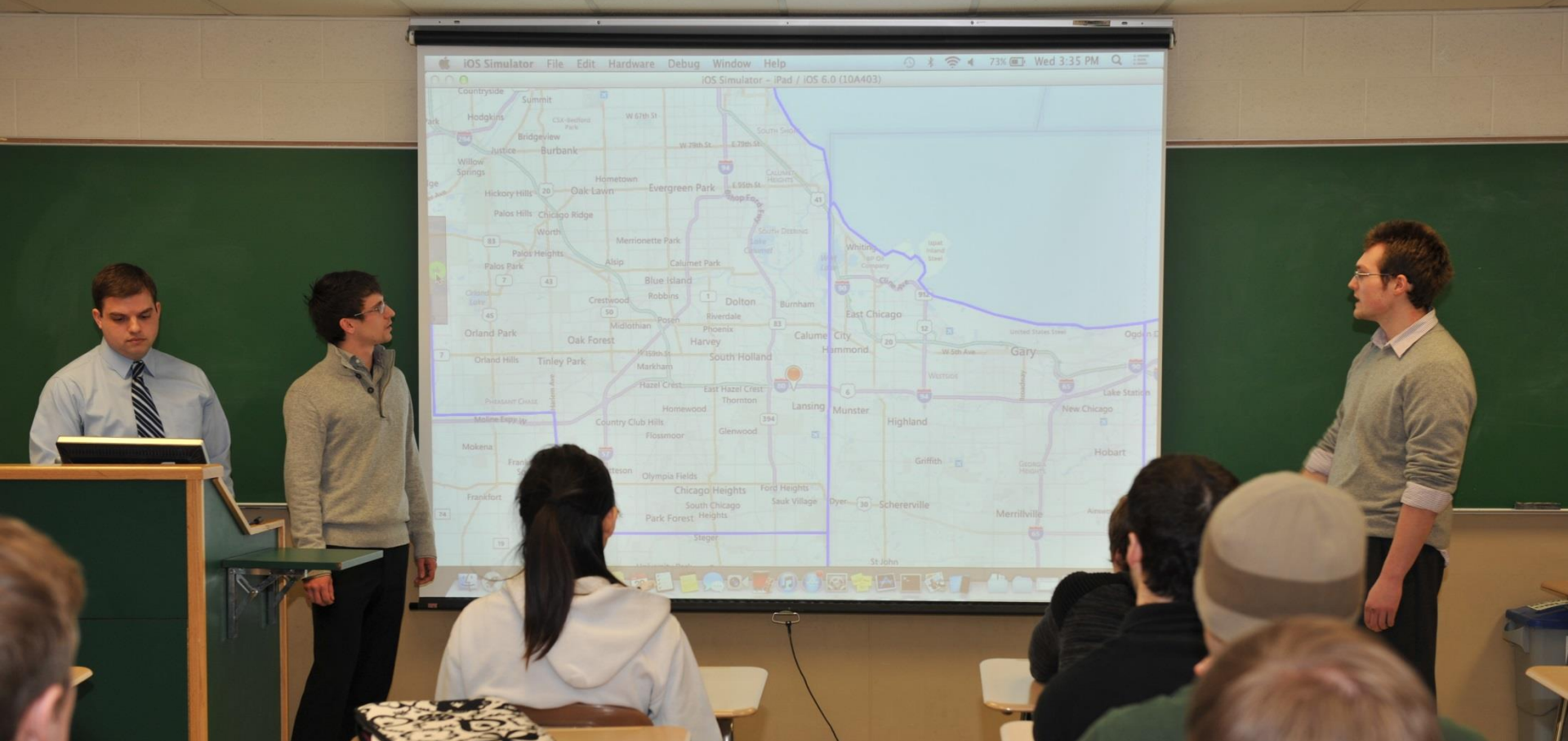
CONTACT REPORT
dealership name, address, phone #

SUBMIT EDIT ALL

COMPLETED: SCORE: RANK:

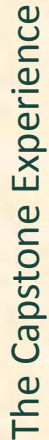
<input type="checkbox"/>	KPI 1	.27	124th
<input type="checkbox"/>	KPI 2	.84	79th
<input type="checkbox"/>	KPI 3	.36	18th
<input type="checkbox"/>	KPI 4	.98	2nd





Team Urban Science Alpha Presentation

Search Results



Team Urban Science Alpha Presentation

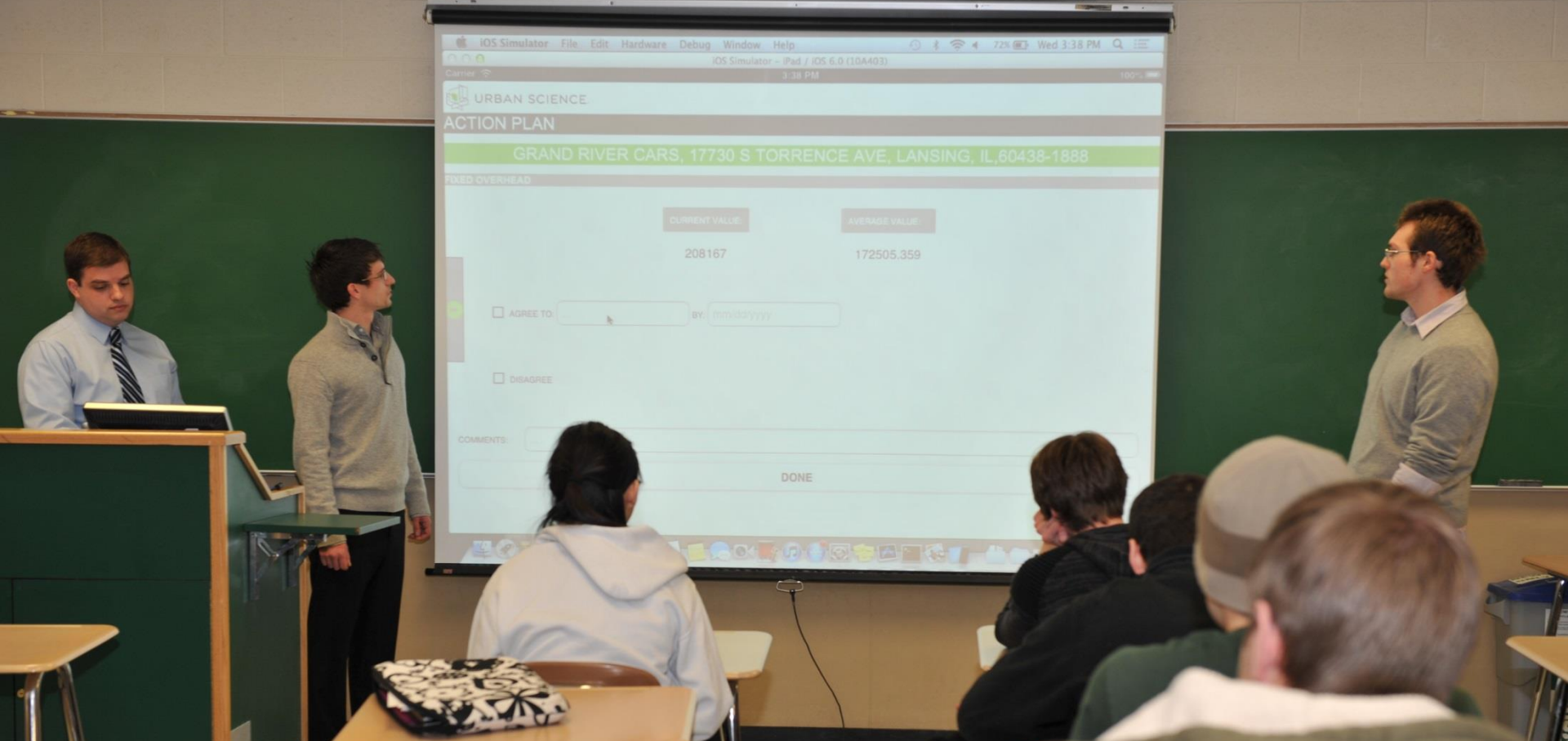
Dealer KPI

Carrier 8:21 PM 100%

URBAN SCIENCE

DEALER KEY PERFORMANCE INDICATORS
GRAND RIVER CARS, 17730 S TORRENCE AVE, LANSING, IL, 60438-1888

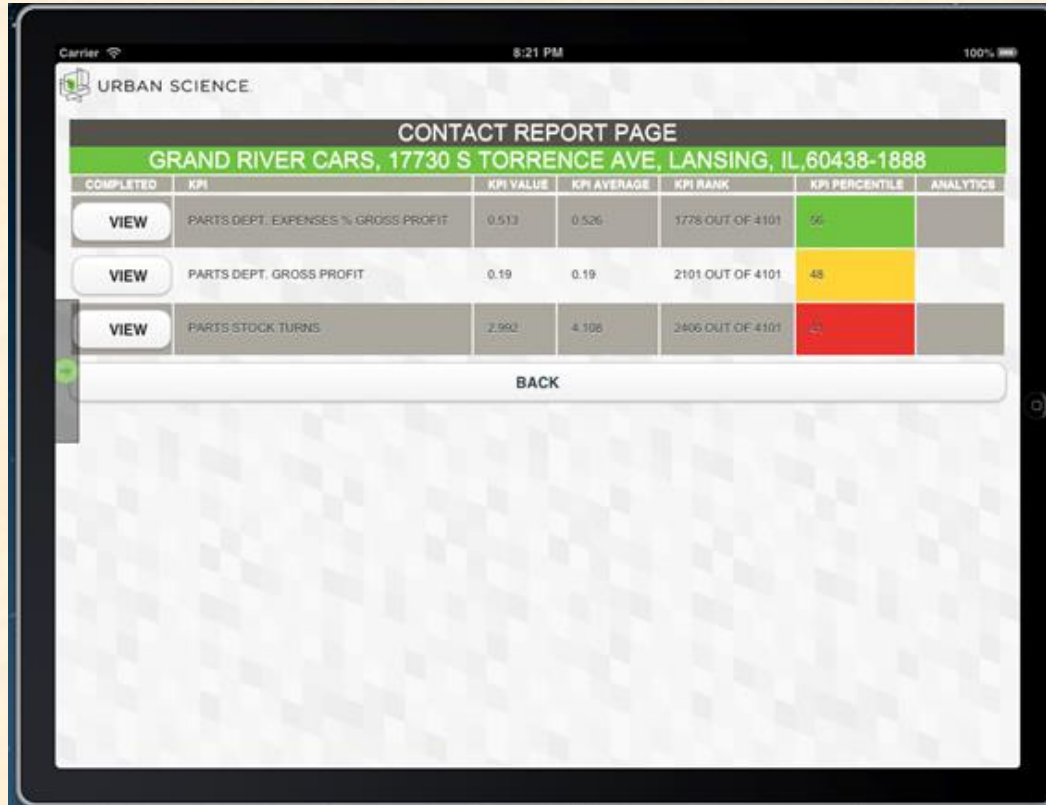
ADD	KPI	KPI VALUE	KPI AVERAGE	KPI RANK	KPI PERCENTILE	ANALYTICS
ADD	FIXED OVERHEAD	208167	172505.359375	1211 OUT OF 4101	70	
ADD	HOURS PER RETAIL/CP REPAIR ORDER	0.85233558416367	1.2762811183929	3057 OUT OF 4101	25	
ADD	LABOR GROSS PROFIT	0.40487971563339	0.41534689068794	2894 OUT OF 4101	25	
ADD	NEW AND USED SALES	8196.0263671875	8954.1123046875	1468 OUT OF 4101	64	
ADD	NEW VEH. DEPT. EXPENSES % GROSS PROFIT	1.6804327964783	0.99704575538635	259 OUT OF 4101	93	
ADD	NEW VEHICLE GROSS PROFIT	20461.80078125	51484.10546875	2943 OUT OF 4101	25	
ADD	PARTS DEPT. EXPENSES % GROSS PROFIT	0.51276893751526	0.52639073133469	1778 OUT OF 4101	66	
ADD	PARTS DEPT. GROSS PROFIT	0.19040223956108	0.19001707434654	2101 OUT OF 4101	48	
ADD	PARTS STOCK TURNS	2.9915738105774	4.107804775238	2406 OUT OF 4101	45	
ADD	RETAIL UNITS SOLD PER SALESPERSON	5.91428565979	7.3590359552002	1867 OUT OF 4101	54	
ADD	RETURN ON USED CAR STOCK	0.3539742231369	0.37244606018066	1812 OUT OF 4101	55	
ADD	SERVICE DEPT. EXPENSES % GROSS PROFIT	0.49563065171242	0.52558416128159	2277 OUT OF 4101	30	
ADD	TOTAL DEALERSHIP CURRENT RATIO	0.94183373451233	0.82998955249786	804 OUT OF 4101	80	
ADD	TOTAL DEALERSHIP GROSS PROFIT	0.11916663497686	0.074007146080487	94 OUT OF 4101	97	
ADD	TOTAL DEALERSHIP OVERHEAD ABSORPTION	0.3210024535656	0.36222922801971	2651 OUT OF 4101	24	
ADD	TOTAL DEALERSHIP RETURN ON ASSETS	0.049446646124125	0.028781078755856	1114 OUT OF 4101	72	
ADD	TOTAL DEALERSHIP RETURN ON SALES	0.005483906250447	0.012548808939755	2948 OUT OF 4101	23	



Team Urban Science Alpha Presentation

Team Urban Science Alpha Presentation

Contact Report



Carrier 8:21 PM 100%

URBAN SCIENCE

CONTACT REPORT PAGE
GRAND RIVER CARS, 17730 S TORRENCE AVE, LANSING, IL, 60438-1888

COMPLETED	KPI	KPI VALUE	KPI AVERAGE	KPI RANK	KPI PERCENTILE	ANALYTICS
VIEW	PARTS DEPT. EXPENSES % GROSS PROFIT	0.513	0.526	1778 OUT OF 4101	56	
VIEW	PARTS DEPT. GROSS PROFIT	0.19	0.19	2101 OUT OF 4101	48	
VIEW	PARTS STOCK TURNS	2.992	4.106	2406 OUT OF 4101	25	

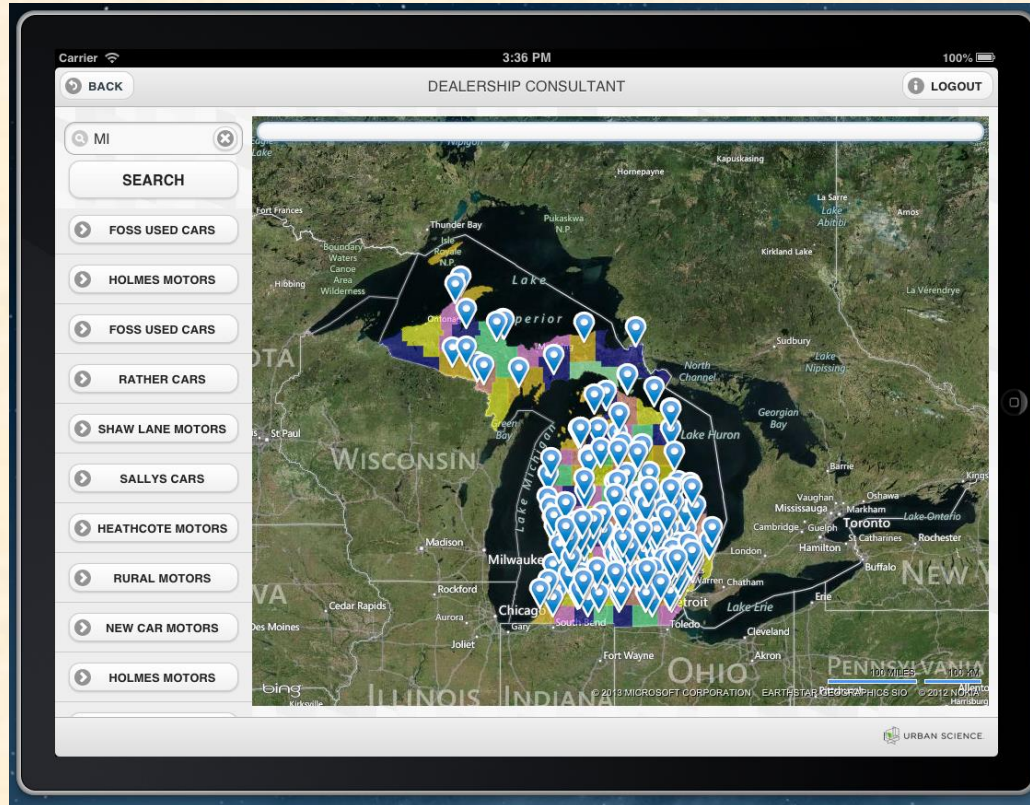
[BACK](#)



Team Urban Science
Beta Presentation

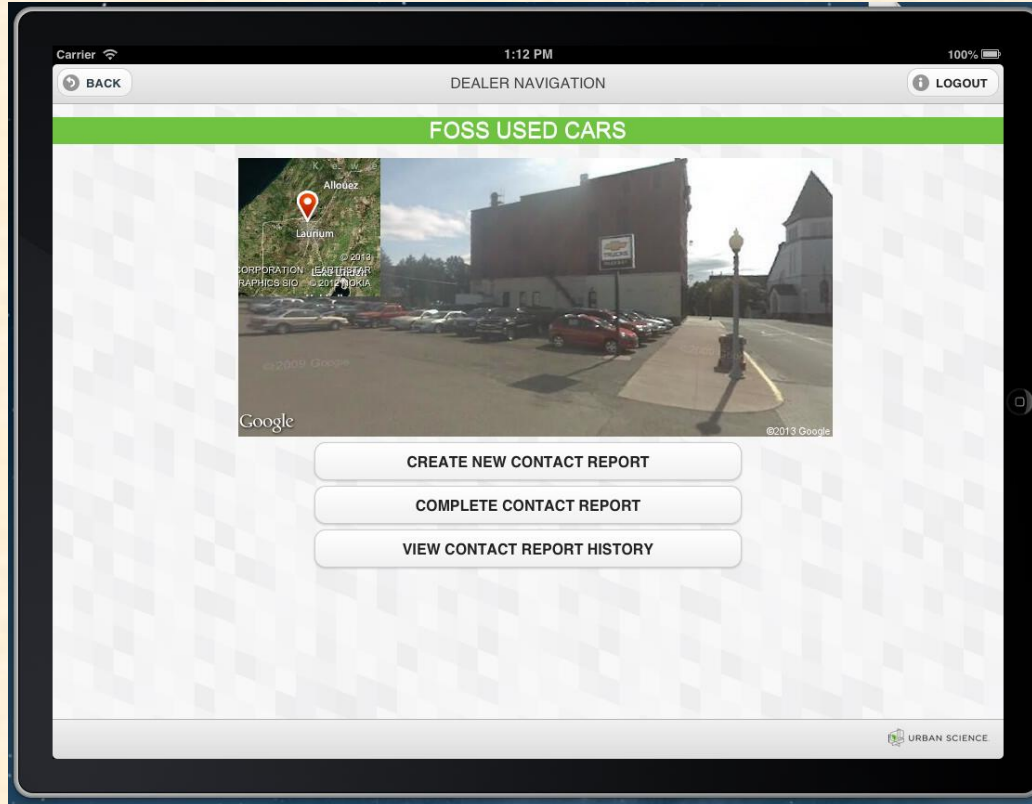
Team Urban Science Beta Presentation

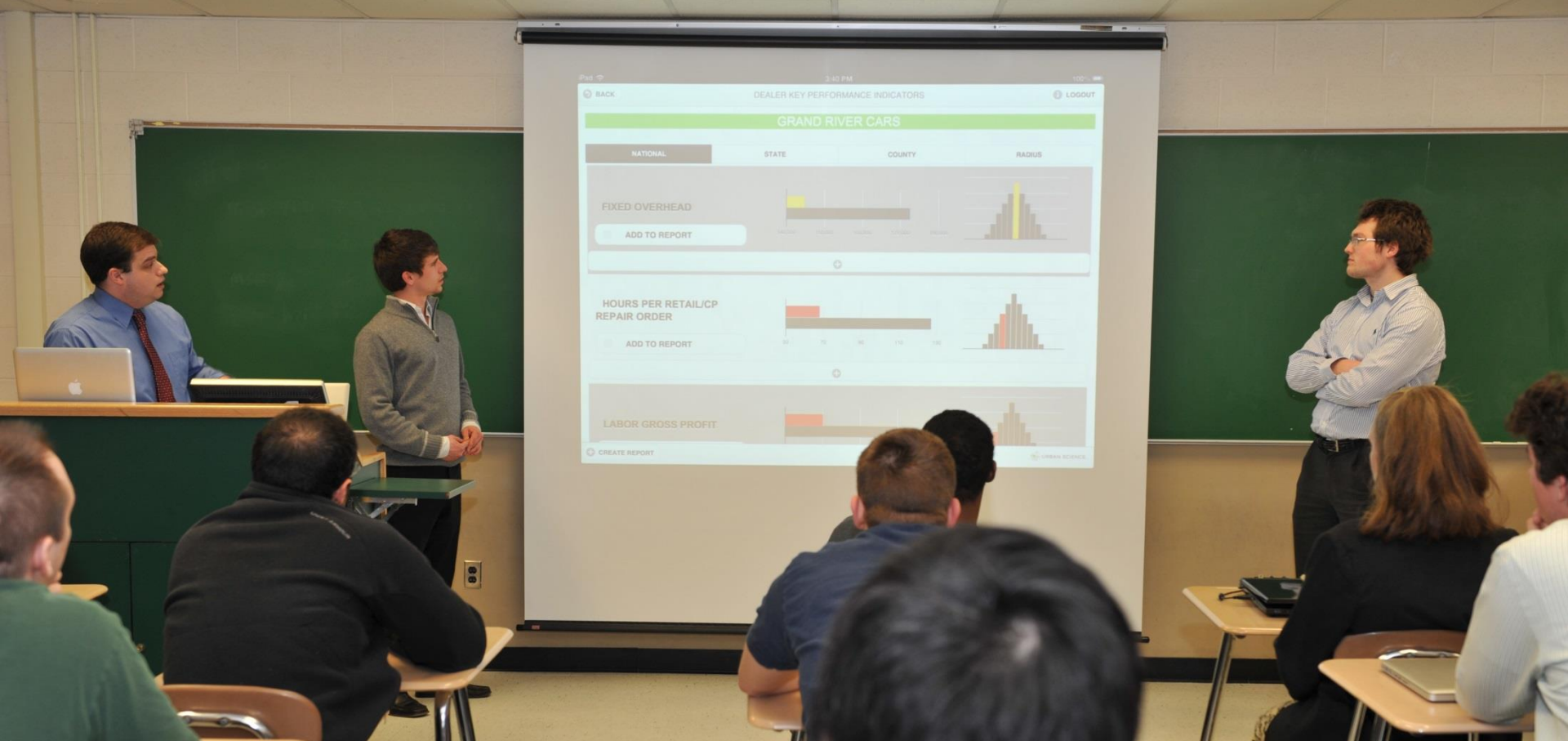
Search/Map Page



Team Urban Science Beta Presentation

Dealer Navigation Page

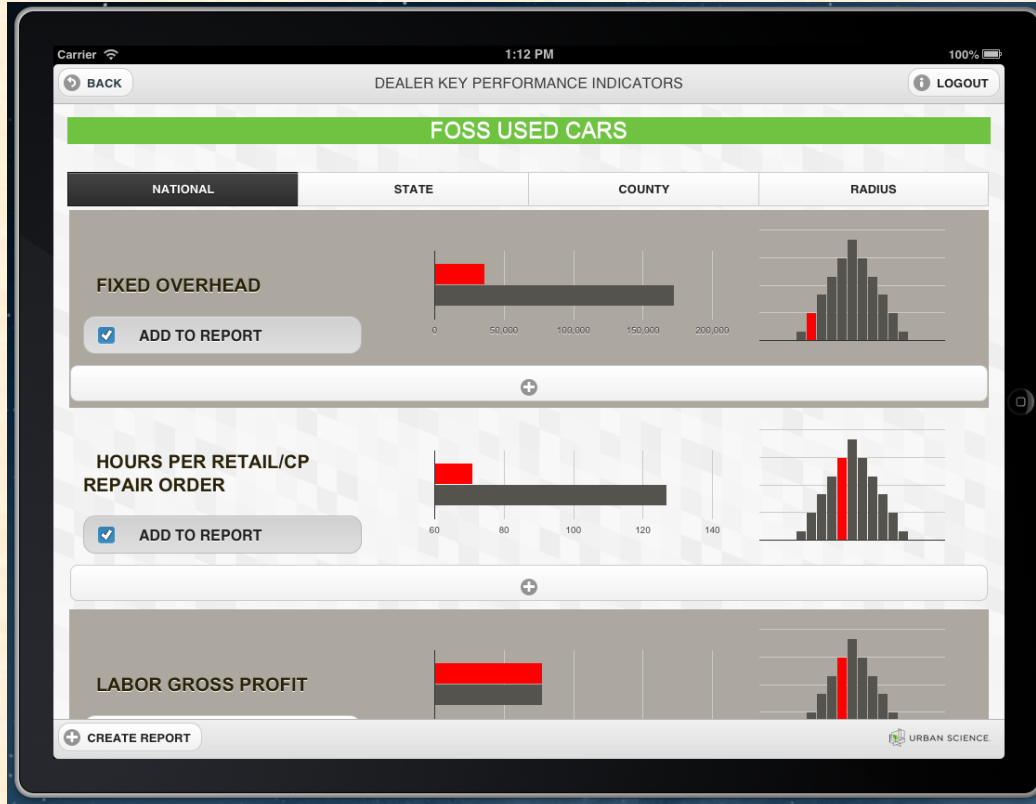




Team Urban Science
Beta Presentation

Team Urban Science Beta Presentation

Dealer KPI Page





Team Urban Science
Design Day

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Team Whirlpool

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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Team Whirlpool Project Overview

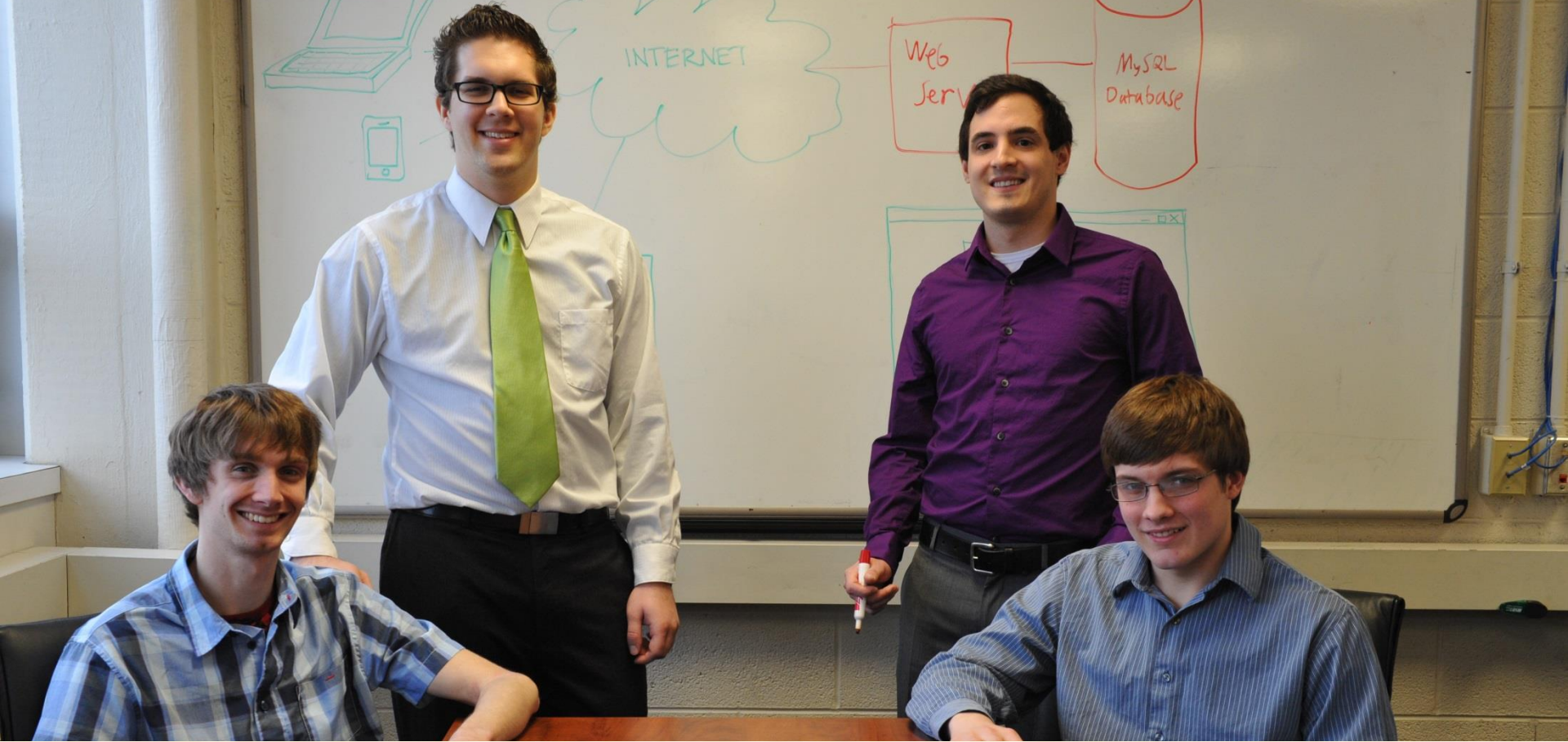
Guided Cooking and Recipe App

- Functionalities
 - Cooking and Recipe Guide
 - For Web and Mobile Devices
 - Replicates UX (User Experience) of Oven LCD
- Features
 - Cloud-Based SQL Database
 - Import Recipes
 - From Select Websites
 - Map to Whirlpool Database Schema
 - Administrative Interface
 - Edit Database
 - Import Recipes
- Technologies
 - Java
 - JavaScript
 - SQLite and MySQL
 - HTML5, CSS3
 - PHP or Ruby
 - RESTful Web Services



Benton Harbor, Michigan







Team Whirlpool

Zach Jones, Nick Kecskes, Josh Marti, Duncan Finney

Team Whirlpool Project Plan Presentation

Screen Mockup

 [Home](#) [Add Recipe](#) [Shopping List](#) [Admin Portal](#)



Category ▾

Meal ▾

Season ▾

Items ▾

Something ▾

Recepie 1	Recepie 1	Recepie 1	Recepie 1
Recepie 1	Recepie 1	Recepie 1	Recepie 1
Recepie 1	Recepie 1	Recepie 1	Recepie 1
Recepie 1	Recepie 1	Recepie 1	Recepie 1
Recepie 1	Recepie 1	Recepie 1	Recepie 1

Iframe

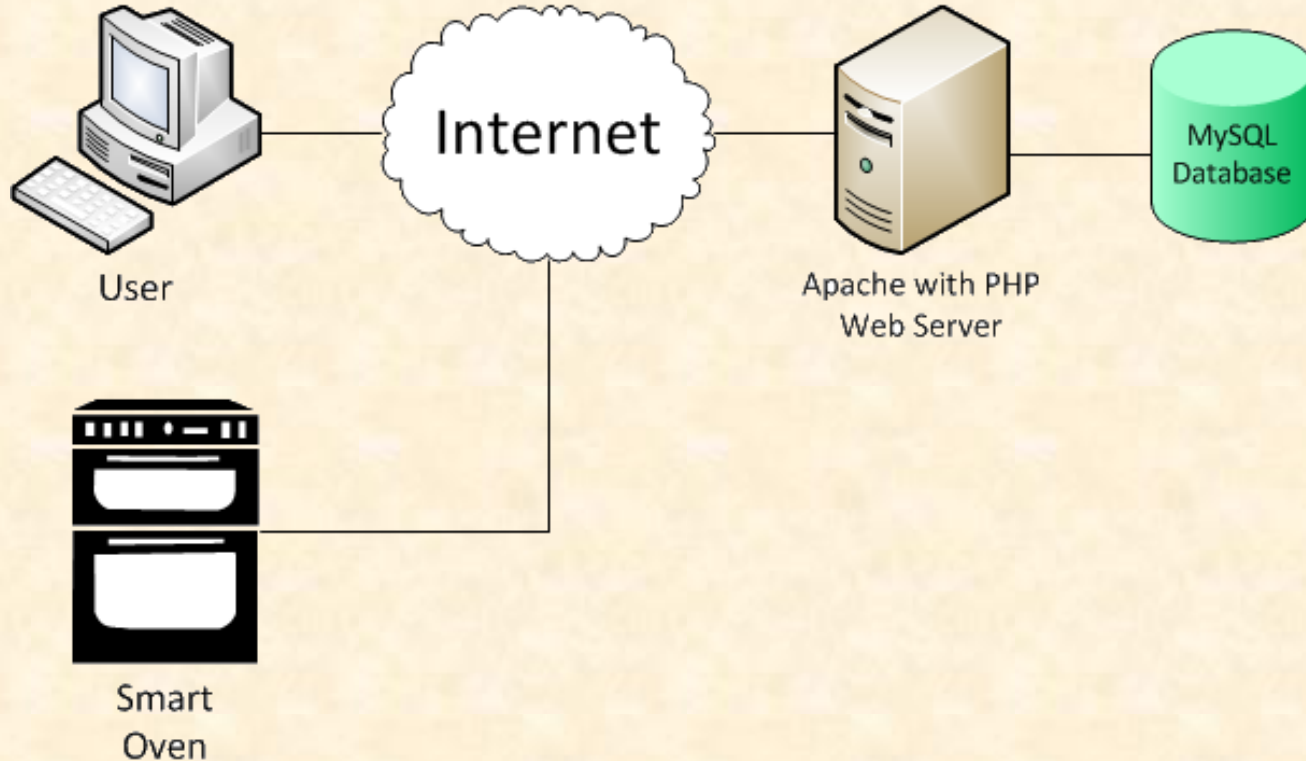
© Whirlpool Corp. 2013



Team Whirlpool Project Plan Presentation

Team Whirlpool Project Plan Presentation

Architecture Diagram

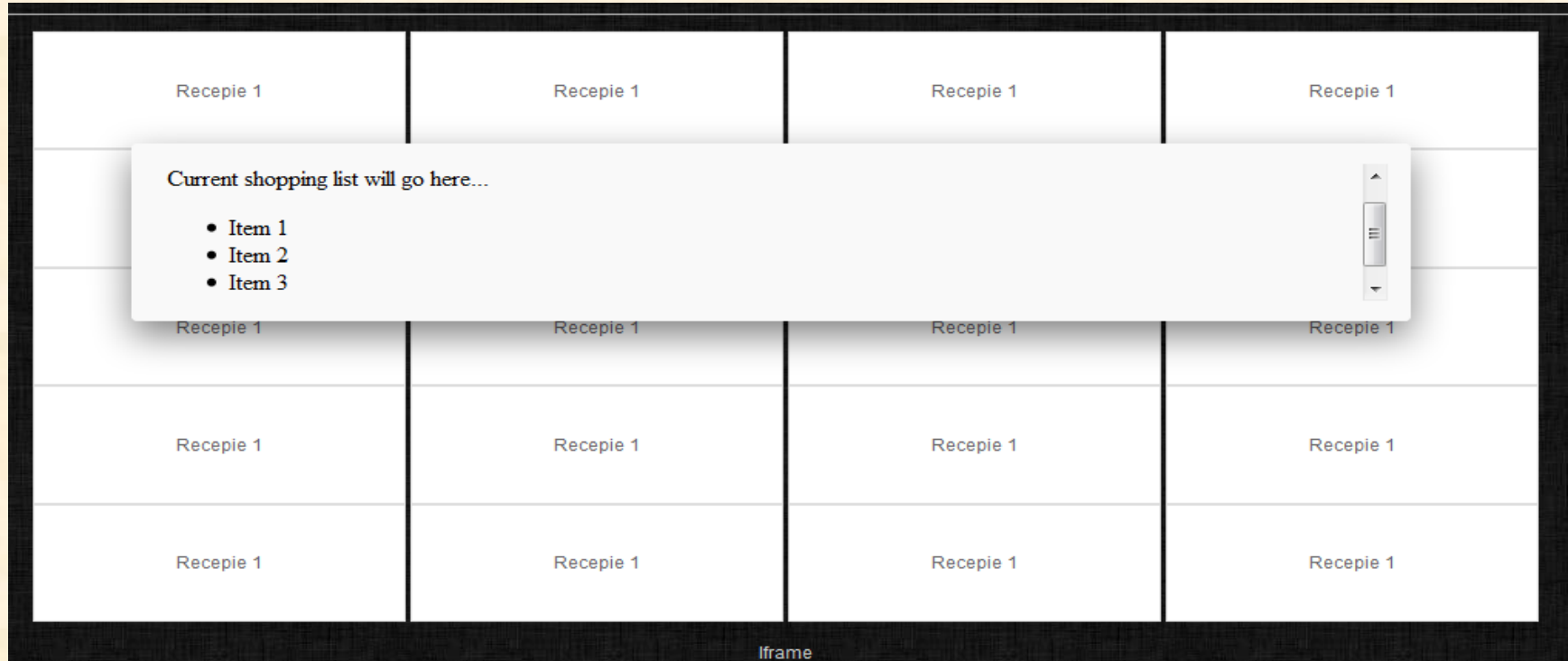




Team Whirlpool Project Plan Presentation

Team Whirlpool Project Plan Presentation

Screen Mockup

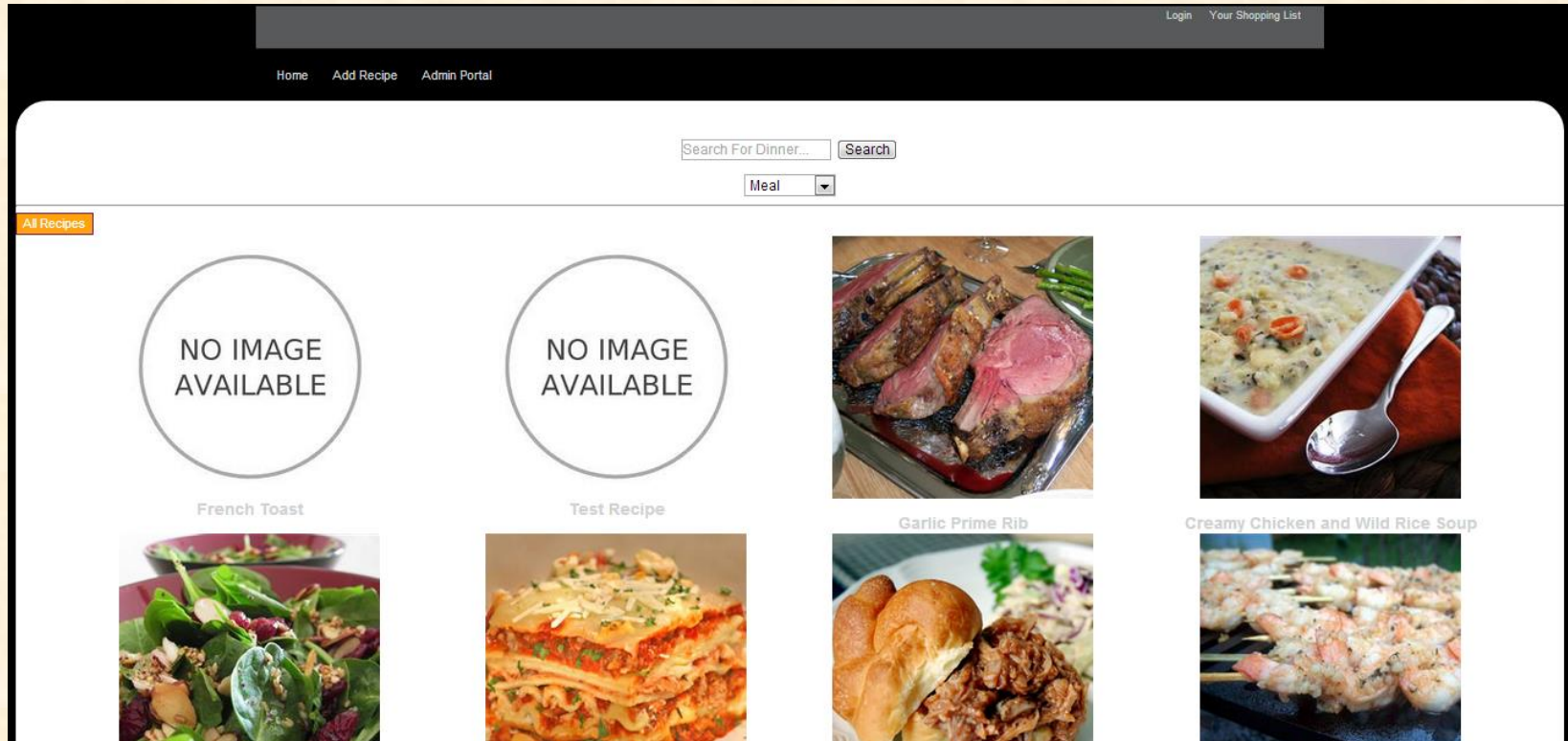




Team Whirlpool Alpha Presentation

Team Whirlpool Alpha Presentation

Landing Page



Team Whirlpool Alpha Presentation

Add Recipe Page

[Login](#) [Your Shopping List](#)

[Home](#) [Add Recipe](#) [Admin Portal](#) [Admin Portal](#)

PICTURE

No file chosen

NAME & DESCRIPTION

Recipe Name
Recipe Description

INGREDIENT LIST

Ingredient
Ingredient
Ingredient
Ingredient
Ingredient
Ingredient
Ingredient





Team Whirlpool Alpha Presentation

Team Whirlpool Alpha Presentation


Admin Portal Edit

[Login](#) [Your Shopping List](#)

[Home](#) [Add Recipe](#) [Admin Portal](#)

Search below to edit or remove recipes

Creamy Chicken and Wild Rice Soup



Creamy Chicken and Wild Rice Soup

Recipe Name

Ingredients

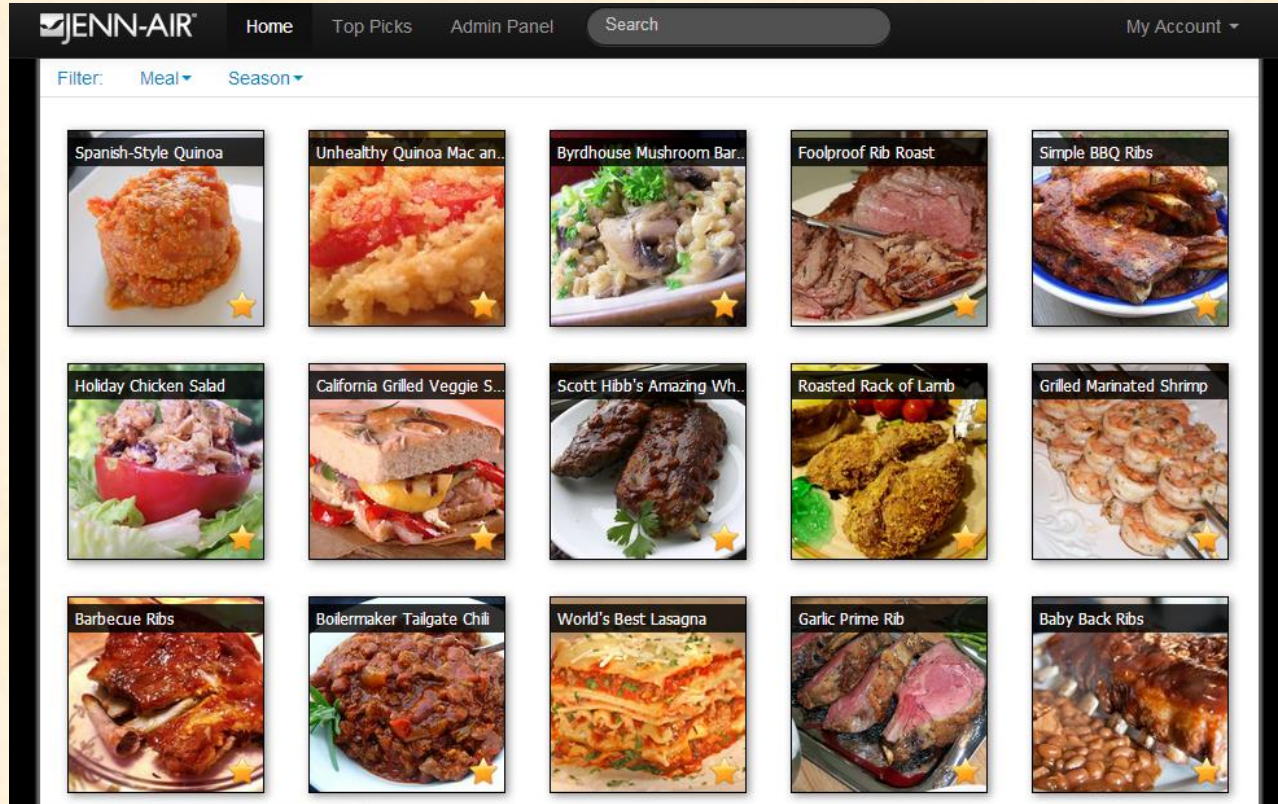




Team Whirlpool Beta Presentation


Team Whirlpool Beta Presentation

Home Page




Team Whirlpool Beta Presentation



Recipe Preview

 [Home](#) [Top Picks](#) [Admin Panel](#) [My Account](#) ▾



[ADMIN]

Spanish-Style Quinoa



 Like  Be the first of your friends to like this.


Ingredients

- 2 tablespoons vegetable oil 
- 1 cup uncooked quinoa 



25
Likes

24
Dislikes

5
Favorites

 Tweet

0

 Pin it  Submit

Meal

Dinner

Lunch

Season

Summer


Comments




Team Whirlpool Beta Presentation

Team Whirlpool Beta Presentation

Top Picks

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Chocolate Cavity Mak...



29

Likes

24

Dislikes

Ingredients

- 1 (18.25 ounce) package dark chocolate cake mix
- 1 (3.9 ounce) package instant chocolate pudding mix
- 1 (16 ounce) container sour cream
- 3 eggs
- 1/3 cup vegetable oil
- 1/2 cup coffee flavored liqueur
- 2 cups semisweet chocolate chips

Meal


Dinner

Season

Summer

Winter

Perfect Turkey



Ingredients

- 1 (18 pound) whole turkey, neck and giblets removed
- 2 cups kosher salt
- 1/2 cup butter, melted
- 2 large onions, peeled and chopped
- 4 carrots, peeled and chopped



Team Whirlpool
Design Day

The Capstone Experience

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University
Spring 2013



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



Capstone Lab
View of Spartan Stadium



Capstone Lab
View of Spartan Stadium sans Smokestack



Capstone Lab
Winter View of Spartan Stadium

MICHIGAN STATE
UNIVERSITY

The Capstone Experience

Design Day Award Winners

April 26, 2013



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



All-Hands
Design Day, April 26, 2013



Auto-Owners Exhibition Award

Team GM, Spring 2013

My Conference Room

Tom Smale, Matt Tarnowsky, Jeff Girbach, Daniel Bachelis

Presented by Sue Snodgrass, Erin McLaughlin, Bob Buchanan and Scott Lake of Auto-Owners Insurance



Chrysler Praxis Award

Team Mozilla, Spring 2013

Multi-Touch Gestures for Firefox

Bill de Araujo, Ray Helot, Brandon Waterloo

Presented by Karen Wrobel of Chrysler



TechSmith Screencast Award

Team Whirlpool, Spring 2013

Guided Cooking and Recipe App

Zach Jones, Nick Kecskes, Duncan Finney, Josh Marti

Presented by Dean Craven of TechSmith



Urban Science Sigma Award

Team TechSmith, Spring 2013

American Sign Language Learning App

Malcolm Doering, Cadillac, Michelle Truong, Adam Crane

Presented by Greg Davidson of Urban Science

The Capstone Experience

Design Day Award Winners

December 7, 2012



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...to Professionals*



All-Hands
Design Day, December 7, 2012



Auto-Owners Exhibition Award

Team Mozilla, Fall 2012

[Reader Mode for Desktop Firefox](#)

Kevin Woodward, Michael Anderson, Matt Vorce, Chelsea Carr
Presented by Bob Buchanan and Scott Lake of [Auto-Owners Insurance](#)



Chrysler Praxis Award

Team Boeing, Fall 2012

Design, Fly and Compete Sim Suite V2.0

Jake Newsted, Kevin Lining, Dan Sosnowski, Max Ellison

Presented by Karen Wrobel of Chrysler



TechSmith Screencast Award

Team Ford, Fall 2012

[MyKey Report Card](#)

Alex Conklin, Kevin Klemmer, Andrew Crouch, Brandon D'Orazio

Presented by Dean Craven of [TechSmith](#)



Urban Science Sigma Award

Team Spectrum Health, Fall 2012

Medication Shortages Dashboard

Ramata Koumare, Aaron Cosentino, Grayson Wright, Eric Dostie
Presented by Greg Davidson and Matt Bejin of Urban Science

The Capstone Experience

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



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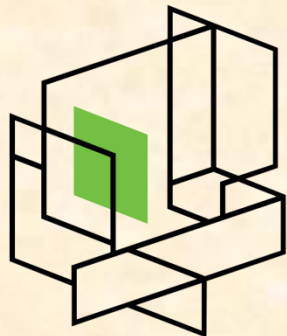
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