

09/10: Team Status Reports

The Capstone Experience

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

Team Amazon

Status Report

(1 of 4)

Twitter Trending Effects on Amazon Sellers

- Project Description
 - Consume Twitter stream with Amazon Kinesis
 - Score tweets using sentiment analysis techniques
 - Store tweets with scores using Amazon Redshift
 - Provide mobile-friendly web app to display results
- Project Plan Document
 - Started
 - 75% written
 - Design specs are most lacking
 - Client reviewing rough draft



Team Amazon

Status Report

(2 of 4)

Twitter Trending Effects on Amazon Sellers

- Server Systems / Software
 - Amazon Kinesis being set up
 - Amazon Redshift being set up
 - Amazon Elastic Compute Cloud (EC2) being set up
- Development Systems / Software
 - JDK 1.7 installed
 - Eclipse IDE installed
 - Ruby on Rails web front-end installed
 - Chart.js data visualization plugin downloaded

Team Amazon

Status Report

(3 of 4)

Twitter Trending Effects on Amazon Sellers

- Client Contact
 - 2 conference calls
 - Weekly conference call: Tuesdays at 9:00am
- Team Meetings
 - 7 team meetings
 - Weekly team meeting: Wednesdays at 5:30pm
- Team Organization
 - Caitlin: team lead and client contact
 - Caitlin and Erin: data visualization and web integration
 - Justin: Twitter integration
 - Michael: sentiment analysis
 - Paul: Amazon web services integration



Team Amazon

Status Report

(4 of 4)

Twitter Trending Effects on Amazon Sellers

Risks

- Amazon Web Services (AWS)
 - No experience with the related APIs
 - Use Kinesis Client Library and Kinesis Connector Library
- Natural Language Processing (NLP)
 - No experience with techniques such as sentiment analysis or machine learning
 - Scholarly articles and open source libraries available
- Twitter “Firehose” API
 - Need approval from Twitter to use
 - Can use other Twitter APIs until approval has been received
- Visualizing Data
 - Difficult to know what is useful to Amazon sellers
 - Plans to present prototypes to Amazon sellers early



Team Auto-Owners

Status Report

(1 of 4)

Navigation Assistant and Accident History App

- Project Description
 - A mobile app to learn regular driving routes by tracking frequently visited locations and times of travel
 - Give drivers suggestions for safer routes based on historical accident data and real time road conditions
 - Report a summary of driver habits in a web app for personal reference and to provide administrators with user summaries
 - Alert drivers of accelerating and braking habits as well as speeding warnings
- Project Plan Document
 - Draft has been started, but not yet completed
 - Sections have been distributed amongst team members for completion



Team Auto-Owners

Status Report

(2 of 4)

Navigation Assistant and Accident History App

- Server Systems / Software
 - We have the operating systems and development environments set up and operational
 - Our server is setup with SQL Server 2012 and we have successfully connected to our database from a client computer
- Development Systems / Software
 - We've downloaded Xcode for our iOS development
 - Utilizing Visual Studio, which is downloaded and running for our web application
 - We are using Trello for project management and Git for source control



Team Auto-Owners

Status Report

(3 of 4)

Navigation Assistant and Accident History App

- Client Contact
 - We had a face-to-face client meeting on Sept. 2nd and had one conference call on Sept. 9th
 - Weekly conference calls are set up for Tuesday's from 2:30PM to 3:00PM
- Team Meetings
 - Team meetings are typically anytime after 5:00PM
 - We plan to meet at least 4 times a week as a group and communicate daily via text and email
- Team Organization
 - Currently working on overall specifications as a team, and have yet to distribute specific roles amongst individuals



Team Auto-Owners

Status Report

(4 of 4)

Navigation Assistant and Accident History App Risks

- Gathering and utilizing data from Michigan's data portal
 - Assigned a member to connect to the portal and extract data
- Unfamiliar connecting iOS to a SQL server
 - Assigned a member of the team to focus on basic implementation of web app and SQL data
- Need to gain experience using the Google map API's
 - Assign a member to implement basic functionality
- The app needs to learn routes with minimal user input
 - Research and extensive field testing



Team Bosch

Status Report

(1 of 4)

Mobile Application for XCP Measurement and Calibration

- Java Library

- Integrate with Android
- Communicate with ECU through CAN bus and XCP protocol
- Implement sending and receiving of XCP through CAN bus
- Use their VAMP library to connect to bluetooth dongle
- Interpret data from bluetooth - parse requested information

- Project Plan Document

- Template created
- Twenty percent complete
- Basic outline of document complete and ready for input



Team Bosch

Status Report

(2 of 4)

Mobile Application for XCP Measurement and Calibration

- Server Systems / Software
 - Ubuntu 14.04 installed on server
 - Gitlab for source code management
 - All members have user accounts
- Development Systems / Software
 - Gitlab for housing our repository
 - Android Studio installed on capstone machines
 - Still waiting for client to provide necessary VAMP libraries
 - Test driven development



Team Bosch

Status Report

(3 of 4)

Mobile Application for XCP Measurement and Calibration

- Client Contact

- Met Bosch team in person last week
- Weekly conference call scheduled

- Team Meetings

- Scheduled for every Monday, Wednesday, Friday
- Met 4-5 times thus far

- Team Organization

- Gitlab for source code
- Project roles already defined



Team Bosch

Status Report

(4 of 4)

Mobile Application for XCP Measurement and Calibration Risks

- Risk 1: Failure to understand hardware pipeline
 - Team fails to grasp concepts of XCP, CAN bus, ECU
 - Already have XCP reference book and will experiment with equipment
- Risk 2: Android Development
 - No prior experience developing for Android
 - Dedicate one team member to prioritize learning Android
- Risk 3: Time constraints
 - Scheduling conflicts and limited time to complete project
 - Work regularly as a group and clarify schedules in the beginning



Team Ford

Status Report

(1 of 4)

Vehicle Audit Analytics Web App

- Project Description
 - Web App for Ford Designers
 - Allow user to document and compare vehicles at auto shows
 - Allow notes, pictures, and audio to be stored on server
 - Caching will allow use of app while offline or online
- Project Plan Document
 - Project Plan Document has been started
 - Schedule working session for document
 - Divided up slides among team members
 - 3% Completed



Team Ford

Status Report

(2 of 4)

Vehicle Audit Analytics Web App

- Server Systems / Software
 - Windows Server 2008 with SQL Server 2012
 - Java backend for server with RESTful APIs
 - Selenium, JUnit
- Development Systems / Software
 - All of web app developed in Netbeans
 - SVN source control
 - Targeting Google Chrome web browser
 - Bootstrap, Stanford Javascript Crypto Library, etc...



Team Ford

Status Report

(3 of 4)

Vehicle Audit Analytics Web App

- Client Contact
 - Have had three meetings with client so far
 - Weekly conference call every Friday at 1pm
- Team Meetings
 - Team has met three times so far
 - Weekly meetings every Sunday at 3pm
- Team Organization
 - Tyler and Jake main points of contact
 - Front end dev: Tyler, Jake, Aaron; Back end dev: Peng, Zach



Team Ford

Status Report

(4 of 4)

Vehicle Audit Analytics Web App

Risks

- Mobile web browser cache limit
 - The users might be taking pictures using the app and could fill up cache limit quickly
 - Allow the user to attach files from local storage to the web app entries
- HTML5 multimedia mobile support
 - Video and audio recording support within web browser
 - Can take images outside of browser and attach later
- WebSphere Application Administration
 - No experience deploying or managing
 - Research into how to use it



Team GM

Status Report

(1 of 4)

Productivity Toolbar (aka Fast App Launcher)

- Project Description
 - Fast app launcher for GM's internal application
 - Web and desktop applications
 - GM account integration
 - Download and search store of GM apps
- Project Plan Document
 - Skeleton
 - Rough mock-ups
 - ~20% done



Team GM

Status Report

(2 of 4)

Productivity Toolbar (aka Fast App Launcher)

- Server Systems / Software
 - Windows Server 2008 R2
 - Database software TBD
- Development Systems / Software
 - Visual Studios 2013 on both computers
 - Windows 7
 - Internet Explorer 10



Team GM

Status Report

(3 of 4)

Productivity Toolbar (aka Fast App Launcher)

- Client Contact
 - Regular email contact
 - Made first conference call
- Team Meetings
 - Monday and Tuesday meeting times
 - Informal weekend meeting times
- Team Organization
 - Primary team roles assigned
 - Structuring organization for two-pronged approach (web/desktop)



Team GM

Status Report

(4 of 4)

Productivity Toolbar (aka Fast App Launcher)

Risks

- Web launcher capabilities
 - Description: Launching desktop applications from the web launcher
 - Mitigation: Possibly limit certain applications in web launcher
- Multiple devices
 - Description: Applications not installed on all devices that may be accessed by user
 - Mitigation: Behind the scenes app installation
- Store search capabilities
 - Description: Find efficient algorithm for store search
 - Mitigation: Test various algorithms and rate based on performance
- Application access
 - Description: No access to General Motor's applications during development
 - Mitigation: Develop mock applications for development



Team Meijer

Status Report

(1 of 4)

Mobile Location-Based Product Promotion

- Project Description
 - Make customers aware of sale items
 - Based on customer's position in store
 - Use mPerks history to tailor customer's experience
 - Provide analytics on user interaction
- Project Plan Document
 - Skeleton created
 - Fleshing out details
 - Rough draft to client by Sept. 12
 - 30% Complete



Team Meijer

Status Report

(2 of 4)

Mobile Location-Based Product Promotion

- Server Systems / Software
 - Client is setting up Windows Azure Mobile Services
 - Remote GitHub repository initialized, accounts added
 - Researching Azure / Xamarin integration
- Development Systems / Software
 - Software packages installed on lab machines
 - Xamarin, Xcode, Flurry, Crittercism Installed
 - Tested running all packages together



Team Meijer

Status Report

(3 of 4)

Mobile Location-Based Product Promotion

- Client Contact
 - Two conference calls
 - Setup regular meeting schedule: Fridays at 2
- Team Meetings
 - Regular meetings scheduled for Sundays at noon
 - Have met 4 times
- Team Organization
 - Regular contact through Facebook and Email
 - Google Drive used for sharing documents



Team Meijer

Status Report

(4 of 4)

Mobile Location-Based Product Promotion Risks

- iBeacon
 - Don't know its limitations / never used before
 - Mitigation: Estimote SDK / Tutorials
- Windows Azure Mobile Services
 - Remote server. Unfamiliar with service.
 - Mitigation: Xamarin integration guide.
- Xamarin
 - Integrating 3rd party software with Xamarin
 - Mitigation: Find components in Xamarin package repository
- Testing Environment
 - Effective simulation of store environment
 - Mitigation: Clever use of iBeacons / Mock Data



Team MSUFCU

Status Report

(1 of 4)

Refer A Friend Website and Mobile App

- Project Description
 - Website that allows current members to refer new members
 - Adapt layout for mobile browsers
 - Give incentive to both members after account creation
 - Integrate with Facebook and Twitter
- Project Plan Document
 - Basic Layout Complete
 - Simple First Draft
 - Most major sections partially filled out
 - 40% complete



Team MSUFCU

Status Report

(2 of 4)

Refer A Friend Website and Mobile App

- Server Systems / Software
 - Installed CentOS on server
 - LAMP set up on server
 - All up and running
- Development Systems / Software
 - VMFusion installed on both computers
 - CentOS installed
 - LAMP set up



Team MSUFCU

Status Report

(3 of 4)

Refer A Friend Website and Mobile App

- Client Contact
 - Met once to get basic information
 - Setup biweekly in-person meetings, with conference calls in between if necessary
- Team Meetings
 - Have met 2-3 times every week
 - Plan on continuing this trend
- Team Organization
 - Set up Facebook group and group Trello
 - One person chosen as client contact



Team MSUFCU

Status Report

(4 of 4)

Refer A Friend Website and Mobile App Risks

- MSUFCU system integration
 - Authenticate users with MSUFCU system
 - Get specific information from client
- Social Media sharing
 - Using Facebook/Twitter integration
 - Explore and study for corresponding information
- Web Development
 - Don't have much web development experience
 - Build small stuff quickly and test along the way



Team Quicken Loans

Status Report

(1 of 4)

Enterprise Architecture Visualizer

- Project Description
 - Web application framework to visualise Enterprise Architecture
 - Show visual dependencies for all existing applications
 - Ability to show future states for applications
- Project Plan Document
 - Skeleton made, mockups/designs created
 - Titles, contents and schedules have been written up
 - 10% complete



Team Quicken Loans

Status Report

(2 of 4)

Enterprise Architecture Visualizer

- Server Systems / Software
 - Microsoft SQL Server 2008 – Yet to install
 - Microsoft IIS – Yet to install
- Development Systems / Software
 - Windows 7 – Up and running
 - Visual Studio 12 – Up and running



Team Quicken Loans

Status Report

(3 of 4)

Enterprise Architecture Visualizer

- Client Contact
 - Conference Call Done
 - On-Site Visit Scheduled
- Team Meetings
 - Have met multiple times (Almost daily)
 - Schedule subsequent meetings on the day of
- Team Organization
 - Have assigned roles within the team



Team Quicken Loans

Status Report

(4 of 4)

Enterprise Architecture Visualizer

Risks

- Risk 1
 - Simplistic way to visualize a vast number of dependencies and applications
 - Research existing Enterprise Architecture visualizers (ITinvolve for example)
- Risk 2
 - How many breakdown levels does the client want. More breakdowns = More complexity. Complexity of creating a master map showing all dependencies
 - Solve this by meeting with the Enterprise Architects and nailing down their needs.
- Risk 3
 - Unsure how to use and set up SQL Server and IIS.
 - The team plans on utilizing online resources and help tutorials.



Team Spectrum Health

Status Report

(1 of 4)

Employee Discount Mobile App

- Project Description
 - Create Mobile Web App for Spectrum Health Employees
 - Web App will display current discounts available
 - Provide on the go updates for new discounts
 - Will be available on all phones and tablets
- Project Plan Document
 - Started it
 - Finished draft of project overview
 - Waiting on client for design specifications/ schedule
 - Rough layout of document done



Team Spectrum Health

Status Report

(2 of 4)

Employee Discount Mobile App

- Server Systems / Software
 - Installed Microsoft Internet Information Services (IIS) 7.0
 - JSON REST services
- Development Systems / Software
 - Virtual Machines up and running
 - Visual Studio 2013 professional will be our primary IDE for development.
 - NetBeans for front end development



Team Spectrum Health

Status Report

(3 of 4)

Employee Discount Mobile App

- Client Contact
 - Talked via conference call with our client; Brett Faulkner
 - A weekly conference call will be scheduled once a project manager is assigned to our team.
 - Program Manager has not been decided for this project yet.
- Team Meetings
 - Weekly meetings set for Tuesdays and Thursdays
 - The team has met several times already, still more to come.
- Team Organization
 - Back end development: Ruchira, Josh (testing), Marco (Sys Admin)
 - Front end development: Emily (client contact), Aries



Team Spectrum Health

Status Report

(4 of 4)

Employee Discount Mobile App

Risks

- Lack of Project Manager from Spectrum Health
 - Our group currently has no project manager overseeing this assignment on Spectrum Health's side.
 - Low risk as of now since we have another contact who has been useful
- How to use Windows IIS web servers
 - Our client told us we will be using IIS which none of us have used before
 - High priority, should learn how to use fairly quickly since our client figured we already knew what it was
- How to use JSON REST services
 - Need to interact with the back end discounts system through JSON REST services
 - Medium Priority, should be easy to learn and figure out



Team TechSmith

Status Report

(1 of 4)

Groupwork for Google Chrome

- Project Description
 - Facilitate groupwork and collaboration via a Google Chrome app
 - Create groups and maintain projects within the groups with individuals assigned to different tasks and roles
 - Support different types and sizes of projects from as small as debate projects to bigger stepwise projects, etc.
 - Produce several views such as My Groups, My Projects, etc.
- Project Plan Document
 - Team has mapped out must-have features and optional features
 - Team is waiting on the client to figure out feature priorities



Team TechSmith

Status Report

(2 of 4)

Groupwork for Google Chrome

- Server Systems / Software
 - Team project is heavily driven by Google Drive APIs
 - The application is supposed to be serverless
 - No server system is set up as of now
- Development Systems / Software
 - Downloaded Google Chrome SDK
 - Quick visual mock-up for the client
 - No development is done so far



Team TechSmith

Status Report

(3 of 4)

Groupwork for Google Chrome

- Client Contact
 - Team had one conference call and one on-site meeting so far in order to figure out what the client's needs are
 - Weekly conference call is on Thursday afternoon and on-site meetings can be scheduled during a conference call if needed
- Team Meetings
 - Weekly team meeting is happening every Friday to discuss the progress
 - Brief team meetings after every class
- Team Organization
 - Two team members are in charge of keeping up with the client
 - All members are expected to be developers



Team TechSmith

Status Report

(4 of 4)

Groupwork for Google Chrome Risks

- Risk 1
 - No team member has Google Chrome app development experience
 - Familiarize oneself with the development environment by thoroughly studying Google Chrome and Drive APIs
- Risk 2
 - Team only has basic understanding of HTML and CSS or any web development
 - Read up on HTML and CSS in order to educate ourselves



Team Urban Science

Status Report

(1 of 4)

HR Matters

- Project Description
 - Enable Assessment of Behavioral Competencies
 - Of Automobile Dealership Employees
 - By Dealership Managers
- Project Plan Document
 - Mock up of the basic flow of the program
 - Idea of the architecture we are going to use



Team Urban Science

Status Report

(2 of 4)

HR Matters

- Server Systems / Software
 - Windows 2012 SQL Server
 - TFS
 - Provided by client
 - SQL Server Management 2012
 - Waiting for client to give access
- Development Systems / Software
 - Visual Studios 2012 Ultimate
 - Tested website on local host
 - ASP .NET MVC 4
 - CSS, Javascript, HTML



Team Urban Science

Status Report

(3 of 4)

HR Matters

- Client Contact
 - Met in person Friday 9/5
 - Weekly conference calls Thursdays 4pm
- Team Meetings
 - Thursdays with Malcolm 2:30-3:00
 - Thursdays as a group 3:00-4:00
 - Sunday nights as a group
- Team Organization
 - Brandon – client contact



Team Urban Science

Status Report

(4 of 4)

HR Matters

Risks

- What kind of application?
 - Web hosted or actual application
 - Figure out with client
- Getting all the required information from the client
 - Staying in contact with the client
 - Weekly conference calls
- Interpretation of the client's needs
 - Getting the goals of the program
 - Weekly conference calls



Team Whirlpool

Status Report

(1 of 4)

Windows 8 App for Smart Appliances

- Create an app
 - To remotely control Whirlpool Smart Appliances
 - Support desktop, tablet, and mobile platforms
 - Modeled off of existing Android and IOS applications
 - To report detailed metrics and analytics to Whirlpool
 - And provide a convenient interface for Windows end users
- Project Plan Document
 - Not started
 - Identified effort
 - Created Skeleton
 - Scheduled meetings to plan the project



Team Whirlpool

Status Report

(2 of 4)

Windows 8 App for Smart Appliances

- Server Systems / Software
 - Lab Windows Server 2012: Installed
 - Internet and basic functionality works
 - Github for version control, waiting for client to setup repository
- Development Systems / Software
 - Windows 8.1: Installed on lab and personal computers
 - Visual Studio 2013: Installed on lab and personal computers
 - Microsoft Office: Installed on lab computers



Team Whirlpool

Status Report

(3 of 4)

Windows 8 App for Smart Appliances

- Client Contact
 - Met with Clients and held our first teleconference
 - Set up a recurring meeting with the client
- Team Meetings
 - The team has met several times
 - Planned a weekly status meeting and weekly dev meeting
- Team Organization
 - In the process of setting up shared accounts (git, gmail, etc.)
 - In the process of defining team roles as project evolves



Team Whirlpool

Status Report

(4 of 4)

Windows 8 App for Smart Appliances

Risks

- Risk 1
 - Securing API documentation from Whirlpool for existing application
 - We intend to obtain source code for the existing android app
- Risk 2
 - Voice Command Technology implementation
 - Assigned Chris for research
- Risk 3
 - Cross platform UI design
 - Universal Applications in Windows provides mitigation factors (research needed)
- Risk 4
 - Team has conflicting scheduling
 - Intend to hold at least two weekly meetings with team member overlap



What's ahead?

(1 of 2)

- All-Hands Meetings
 - ~~M, 09/08: Risks and Prototypes~~
 - ~~W, 09/10: Team Status Report Presentations~~
 - M, 09/15: Team Project Plan Presentations
 - W, 09/17: Team Project Plan Presentations
 - M, 09/22: Team Project Plan Presentations
 - W, 09/24: Team Project Plan Presentations
 - M, 09/29: Resume Writing and Interviewing
 - W, 10/01: Career Gallery

What's ahead?

(2 of 2)

- Project Plan Presentations
 - PowerPoint Template
 - Download Now
 - Read the Read Me Slide (Over and Over and Over...)
 - Submission
 - Both Project Plan Document and PowerPoint Slide Deck
 - Due 4:00 a.m., Monday, September 15
 - See Submission Instructions in Template
 - Presenting
 - 3 Teams Per Meeting Over 4 Meetings
 - Schedule Posted Sunday Evening
 - Strict 15 Minute Time Limit
 - Use Team Member Laptop
 - ❖ Bring Power Cord
 - ❖ Test In Meeting Room (in Advance)
 - Rehearse
 - 5% of Final Grade
 - Business Casual Dress
 - Formal Team Photos
 - Immediately Following Meeting
 - In Capstone Lab
 - Schedule Conflicts
 - Only for Interview Trips
 - Notify Dr. D. Well In Advance

