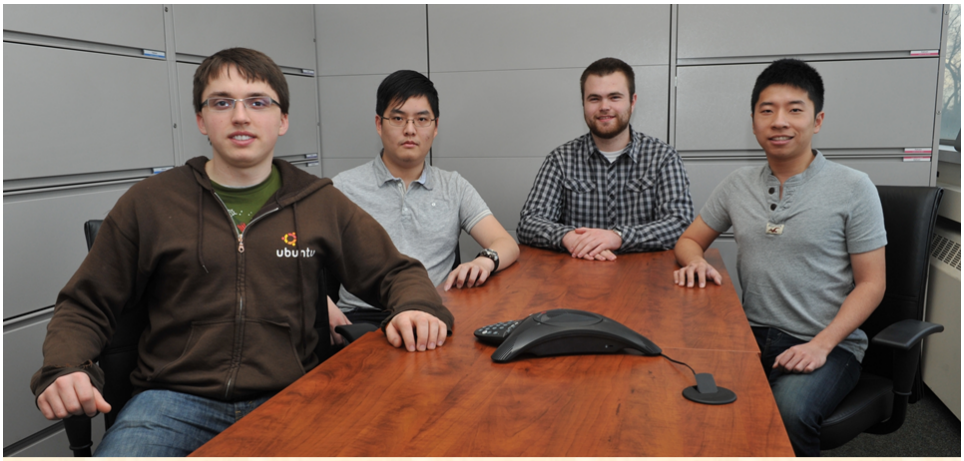

Team Urban Science

Infographic Generator

Louis Bodnar
Peter Chen
Lok Cheung
Kevin Shreve

January 22, 2012

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01/09: Capstone Overview
01/11: Project Plan
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01/25: Schedule and Team Work
01/30: Team Project Plan Presentations
02/01: Team Project Plan Presentations
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02/13: Resume Writing and Interviewing
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03/05: (Spring Break, No Meeting)
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04/26: Team Design Day Setup
04/27: Team Design Day
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2 Project Summary

- Functionalities
  - Visualize Data and Information
    - Graphically
    - Compactly
    - Creatively
  - Based on Key Performance Indicators (KPIs)
- Features
  - Dynamic User Selections
    - Key Performance Indicators
    - Timeframes
  - Display Engaging Graphics
    - Scalable
    - Varied
  - Support Drill Down into KPIs
- Technologies
  - Microsoft C#/.NET, ASP.NET
  - JavaScript

  - CSS, HTML5
  - SQL Server

3 Major Milestones

3.1 Status Report Presentations

Due: January 23, 2012

3.1.1 Assignment

Each team gives a five minute status report on a variety of things including client contact, client meeting schedules, team meeting schedules, team organization, server systems and software, development systems and software, a brief description of the project, the status of their project plan, and the initial identification of risks.

A PowerPoint template is provided on the Downloads page.

As with all of these milestones, this date indicates the due date. So, in this case the due date is the Monday of the third week, which means that the teams have to complete this work in first three weeks.

3.1.2 Deliverable

- Project Description
  - infographic generator
  - HTML5 webapp
  - generates infographics based on information from a database
  - Description Point 4
- Project Plan Document
  - Status Point 1
  - Status Point 2
  - Status Point 3
  - Status Point 4
- Server Systems / Software
  - Description &/or Status Point 1

  - Description &/or Status Point 2
  - Description &/or Status Point 3
- Development Systems / Software
  - Description &/or Status Point 1
  - Description &/or Status Point 2
  - Description &/or Status Point 3
- Client Contact
  - Had a conference call with our customer
  - Set up weekly conference call times to talk about progress
- Team Meetings
  - Set up meetings on Tuesday and Thrusday
  - Status Point 2
- Team Organization
  - Description Point 1
  - Description Point 2
- Risks
- Risk 1
  - Description
  - Mitigation
- Risk 2
  - Description
  - Mitigation
- Risk 3
  - Description
  - Mitigation
- Risk 4
  - Description
  - Mitigation

3.2 Project Plan Presentations

Due: January 30, 2012

Each team gives a formal presentation about their project including the functional specifications, design specifications, technical specifications, risks, and proposed project schedule.

A PowerPoint template is provided on the Downloads page.

Each team also submits a completed first draft of their project plan.

While these presentations are made over the course of two weeks (four meetings), all teams must submit their materials and be be ready to present on this date. The per team schedule of presentations for the two weeks is posted on our All-Hands Meetings page the evening prior to this date. Dress for the presentations is business casual.

Given the short time frame, the project plans are considered a living document, which teams are allowed to update during the semester.

For examples of project plan presentations, visit course web sites from previous semesters by following links from the Archives page. Note that requirements may change from semester to semester.

3.3 Alpha Presentations

Due: February 20, 2012

Each team gives a formal presentation demonstrating an alpha version of their system. The purpose of the alpha presentation is to demontrate that the team is capable of completing their project, to specifications and on time. While the software is not expected to be feature complete, all high priority risks should be mitigated.

A PowerPoint template is provided on the Downloads page.

While these presentations are made over the course of two weeks (four meetings), all teams must submit their materials and be be ready to present on this date. The per team schedule of presentations for the two weeks is posted on our All-Hands Meetings page the evening prior to this date.

Corporate clients are invited to attend alpha presentations. If a corporate client is interested in attending, we can work together to schedule it.

For examples of alpha demonstration presentations, visit course web sites from previous semesters by following links from the Archives page. Note that requirements may change from semester to semester.

3.4 Beta Presentations

Due: April 2, 2012

Each team gives a formal presentation demonstrating a beta version of their system. The purpose of the beta presentation is to demonstrate that the software portion of the project is complete. While the system may not be totally bug free, the software is expected to be feature complete.

A PowerPoint template is provided on the Downloads page.

While these presentations are made over the course of two weeks (four meetings), all teams must submit their materials and be be ready to present on this date. The per team schedule of presentations for the two weeks is posted on our All-Hands Meetings page the evening prior to this date.

Corporate clients are invited to attend alpha presentations. If a corporate client is interested in attending, we can work together to schedule it.

For examples of beta demonstration presentations, visit course web sites from previous semesters by following links from the Archives page. Note that requirements may change from semester to semester.

3.5 Project Videos

Due: April 23, 2012

As part of the course deliverables, each team creates a demonstration video of their project. All of the videos are due on this date, the Monday of the last week of class. We watch the videos during the meetings of the last week and the exam time.

For examples of project videos, visit course web sites from previous semesters by following links from the Archives page. Note that requirements may change from semester to semester.

3.6 All Deliverables

Due: April 25, 2012

All project deliverables are due on this date.

Each team must submit all deliverables including all source code (checked out of any repository), the project plan, the user manual, the administrator manual, all-hands meeting PowerPoint presentations, the Camtasia project folder, and the project video.

Teams must submit their deliverables at the all-hands meeting on this date using the team USB stick.

3.7 Design Day Setup

Due: April 26, 2012

Setup for Design Day (see below) takes place at the MSU Union on the afternoon of the day before Design Day. All teams and every team member must participate in setup from 2:30pm until the setup is complete.

3.8 Design Day

Due: April 27, 2012

At the end of each semester, the College of Engineering sponsors Design Day, at which student teams from throughout the college showcase their capstone course design projects in the MSU Union.

All teams and every team member must participate in Design Day from 7:00am until the end of the Design Day Awards Ceremony, approximately 2:30pm.

4 Project Plan

4.1 Functional Specifications

- native app feel

- easier way to convey information to customer
- visually appealing
- easy to use on a portable device
- adjusts for different screen real estate

4.2 Design Specifications

- main menu will contain catigories of infographics
- each catigory will contain multiple infographics
- Lazy suzan style catigory selector on main page
- 

- example users include ford manager or someone at dealership
- will have catigory select menu, infographic select menu, infographic display
- we will have a backend to generate the infographic

4.3 Technical Specifications

- Connect to a Microsoft SQL database
- Use KPI information from the database to generate infographics
- Will be used as a webapp
- Needs to work well with iPad (safari)
- Will be run on IIS server
- Written in HTML5 and Javascript
-

4.4 Introduction

4.4.1 Purpose

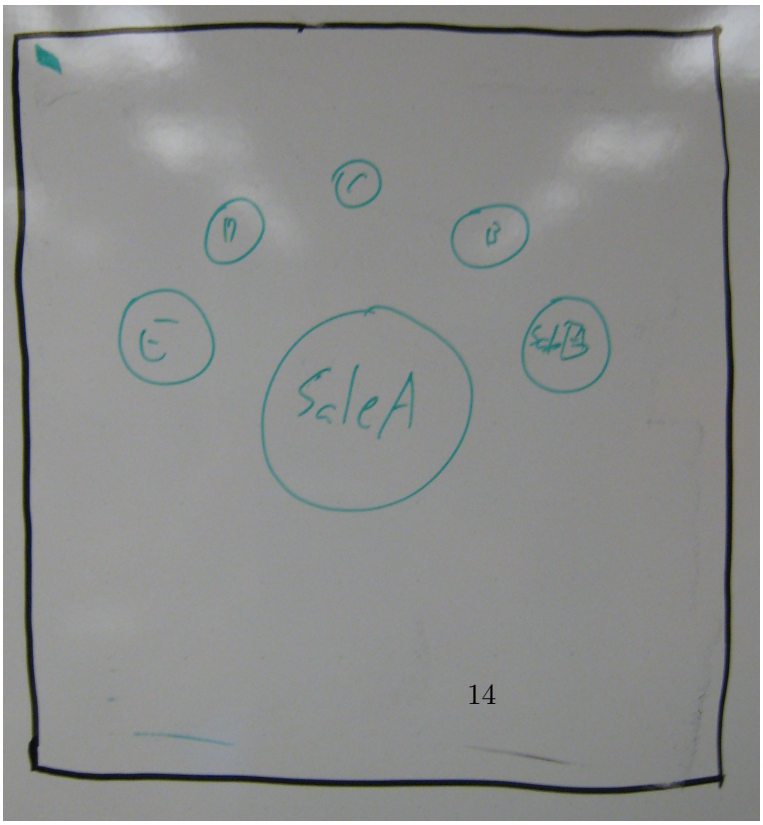
4.4.2 Scope

4.4.3 Definitions, acronyms, and abbreviations

Retail Sales The term Retail Sales refers to new vehicles that are registered to individuals or companies that register a small number of vehicles annually.
Used Vehicle Sales Used vehicle sales refer to the used vehicles that are sold to individuals
Dealer Retention Retention refers to the percentage of vehicles registered in your primary market area (PMA) who have visited your dealership for Customer Pay (CP) vehicle service in the last 12 months.
Visits per Customer Visits per Customer shows the percentage of your customers who returned for CP vehicle service at least two or more times in the last 12 months, ending on the current month.
Lapor Ops per RO The average number of Labor Operations peformed within each RO
Active Customers An Active Customer is one who returned to your dealership for CP vehicle service at least once in the past 12 months.
Inactive Customers An Inactive Customer is a person who resides in your PMA that owns a vehicle sold either by your dealership or another non-PMA (Your Brand) dealer but DID NOT return for CP vehicle service in the past 12 months.
Single Visit Customers A Single Visit Customer is an Active Customer who has only returned for CP vehicle service one time in the past 12 months.
Recent Sales Customers A Recent Customer is one who purchased a vehicle from your dealership and DID NOT return for CP vehicle service in the past 12 months.

Service Labor Opportunity Labor Opportunity is the potential revenue that your dealership may possibly generate from the cost of labor by getting your Inactive Customers to come in at least one time for CP vehicle service
Service Parts Opportunity Parts Opportunity is the potential revenue that your dealership may possibly generate from the cost of parts by getting your Inactive Customers to come in at least one time for CP vehicle service
RO Count RO Count shows the number of Repair Orders (RO) your dealership has accumulated in the last 12 months, ending on the current month.
Average $ per RO Average $ per RO shows your Average CP dollar value spent on each of your ROs for a rolling 12 months, ending on the current month
Prospect Count Prospects are potential sales customers provided by your manufacturer and Urban Science
Dealer Effectiveness Dealer Effectiveness is defined as a dealer's nationwide sales compared to the Expected at the Benchmark in that dealer's PMA. The formula: Dealer Effectiveness = ((Dealer National Sales) / (Expected @ Benchmark in the PMA)) X 100.
Brand Effectiveness Brand Effectiveness is defined as brand sales made by any dealer in the PMA compared to the Expected at the Benchmark. The formula: Brand Effectiveness = ((Brand Sales in the PMA) / (Expected @ Benchmark in the PMA)) X 100.
Lost Profit Lost Profit = the Lost Sales in the MyPMA times the national average Gross Profit per Vehicle plus the Lost Sales times the Lifetime Service Value.
Lost Sales Within a Census Tract, the Lost Sales = Sales Below Expected at the Benchmark + Insell. At the MyPMA level: Lost Sales = Gross Lost Sales + Insell.
Pump-In Sales Pump-In is the distribution of sales into the PMA by any brand dealer.
Pump-In Sales Anytown Automotive
Pump-In Sales Allan Automart
Pump-In Sales Jefferson Automotive
Pump-In Sales Nestor Auto Center
Pump-In Sales Diamond Automotive
Pump-In Sales Anthony Motors
Competitive Segment Sales The number of retail sales for each competitive make by vehicle segment (e.g. - Small Car, Car, Truck, etc.)
Competitive Segment Sales Anytown Automotive
Competitive Segment Sales Jeff Williams Toyota
Competitive Segment Sales Uptown Honda
Competitive Segment Sales Fred Rodgers Mazda
Competitive Segment Sales Garrett Ford
Competitive Segment Sales Peter Lake Ford
New Brand Leads The number of new leads received from a brand-owned

internet site (e.g. - VW.com)
New 3PL Leads The number of new leads received from a 3rd party internet site (e.g. - kbb.com)
New 3PL Leads Kelly Blue Book
New 3PL Leads Edmunds
New 3PL Leads Dealix
New 3PL Leads Automotive.com
New 3PL Leads Jumpstart
Unique Customers The number of unique customers who have submitted leads
Average Response Time The average number of minutes from the time a dealership receives a lead to the time the customer is contacted
Close Rate The percentage of customers who have bought a vehicle from online leads
Lost Sales from Leads The number of customer who submitted a lead to your dealership but purchased from another same brand dealership
New Sales from Leads The number of new vehicles puchased that can be linked to an online lead
Used Sales from Leads The number of used vehicles purchased that can be linked to an online lead
Cost per Sale The amount of money spent by purchasing leads for each vehicle sold
Unopened Leads The number of leads that have not been contacted by a dealership
Response Method Phone The number of times a dealership has contacted new leads via a phone call
Response Method Email The number of times a dealership has contacted new leads via an email message



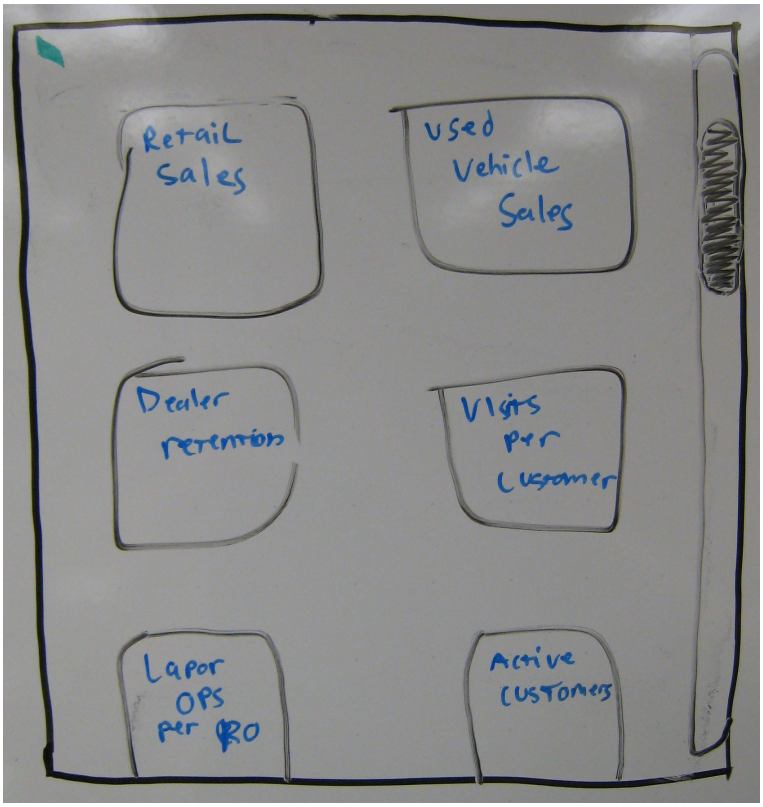
A ring switcher style infographic selector.

5.2 Webpage Images

The ability to place individual infographic on a webpage.

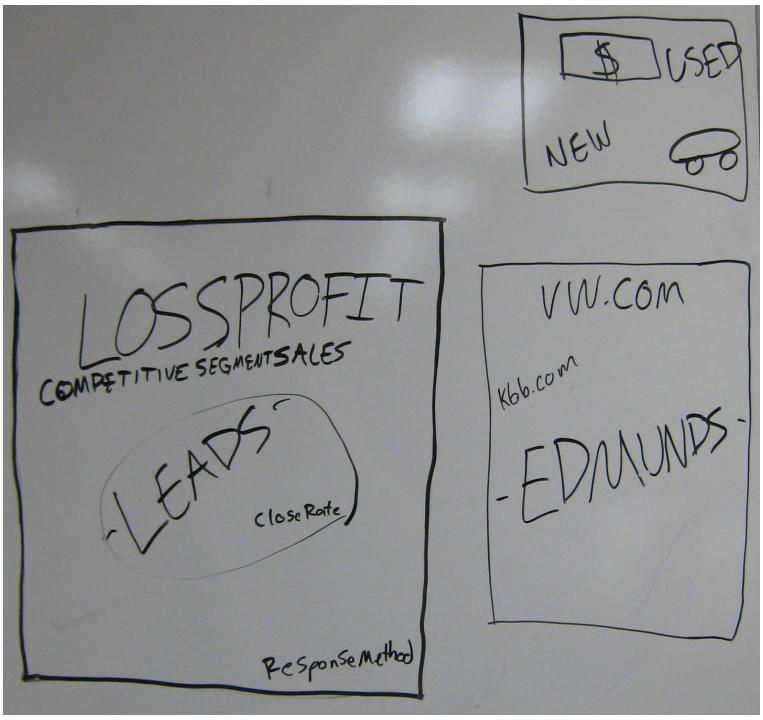
- Should the individual infographic be a static image file (.jpg / .png)
- Or animated? (example: HTML5 / Flash / .gif)

5.3 Showcase



Interface showing list of infographics. When a button is clicked, browser goes to page with infographic.

5.4 Tag Cloud



Infographic categories organized as tag clouds. When a tag is clicked, a new tag cloud appears showing relevant data. Several clouds may be clicked through.

6 Technologies and Tools

6.1 Vhersion Control

GIT

6.2 UML

gliffy.com

6.3 Web Server

Microsoft IIS

6.4 Database

Microsoft SQL Server

6.5 Web Languages

HTML5
Javascript

7 Customer Contact Notes

7.1 Jan 18th Call Notes

Who is going to use this
the user is the clients, which are corporate personel at oem (ford manager or someone at dealership)// **website or mobile app**
different views for infographic selector
will there be more kpi data?
there may be more. we need a semi-generic solution (infographic framwork / tools)
primary use case
standalone display
can we have lpad?
sure, why not
do we worry about logging in?
no, we won't need to worry about security issues
do we need input interface for database?
no
example kpi catagories
service, sales info, opportunity
insight on database structure?
we can set it up any way we want, they will make it work

8 meetings

8.1 jan 19th 2012

Attendance	
Kevin	P
Lok	A
Louis	P
Peter	P

Agenda

- go over powerpoint
- decide meeting time for sunday
- start uml diagram

Actions

- Emailed customer about software licence because we want to use github
- Sunday meeting at 7pm
- Kevin will be emailing Meridith about switching triage meeting time because of a conflict with Peter's new class
- Peter will be talking to his professor about switching to a different section of his class to resolve the conflict with the triage meetings
- Decided to use GIT for version control

8.2 jan 22nd 2012

Attendance	
Kevin	?
Lok	?
Louis	?
Peter	?

Agenda

- Practice presentation
- UML Diagrams

Actions

- .

9 TODO

- find class slides
- get link to high-res image of urban science logo
- ideas for infographics
- prototype infographics
- ask if project is open source
- git vs svn
- come up with catagories for the kpi data
- remote ip: 35.9.22.107

10 Resources

- Capstone Homepage
- Capstone Downloads Page
- Course Syllabus
- Hi-Res Logo