

**MICHIGAN STATE**  

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**UNIVERSITY**

# Project Plan

## Personalized Intranet Portal

### The Capstone Experience

Team Dow

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Spring 2013



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

# Project Overview

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- Dow wants to completely recreate their Intranet Portal from scratch for internal use among Dow employees
- This new Intranet Portal must be built with SharePoint 2013
- Needs to have a similar layout to old Dow Intranet to ensure a smooth transition



# Functional Specifications

- Our job is to create this personalized Intranet Portal with several of the following features:
  - Must include a content management system where non-technical Dow employees can add content to the site, such as new stories, without ever having to deal with code
  - User created content must also go through a publishing phase, meaning someone has to okay it before it becomes live on the site
  - Users must be authenticated as Dow employees before entering the Intranet Portal
  - Authentication must also be in place for whether user's have read/write access to content across the site
  - Must include user profiles with a customizable dashboard
- Within this Intranet Portal there must also be a set of custom tools/features built into the solution that exist in the old Dow Intranet including:
  - Ad rotator that rotates among advertisements
  - New reader that displays Dow news can tab to different types of news articles
  - Personalized section that displays user specific information
  - Survey tool that displays the results of a survey and allows a user to partake in the survey once and only once
  - Box of metrics from manually entered Dow information



# Design Specifications

- Needs to have information taxonomy defined on Dow's business structure and functions
  - The business structure is based around the 13 businesses of Dow
  - The functions provide services across the Dow infrastructure
    - These include Human Resources, Purchasing, etc.
- An important aspect of the design that was made apparent is that the overall look and feel of the website must be very easy to understand and grasp for a first time user
- Through usability study, must validate that minimal training is needed a use the Intranet Portal and its features
- Ways to achieve this usability were specified as follows:
  - All navigation around the site must be standardized and easily understood
    - Global navigation bar on the top of the page for all sites
    - Current navigation bar on the left once you enter a Dow business sub-site
  - Follow a similar layout to the old Dow Intranet to increase usability among current employees who are used to the old layout
  - All pages must have a similar Dow header and footer with a logo, disclaimer information and other standard content




# Screen Mockup: <Home Page>

Dow Intranet Home Page

http://dowserver

Site Actions  Page username ▾


Dow Intranet Home

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Stock Ticker

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**Dow Today**

Corporate
Around Dow
People

- Corporate Dow News Article #1
- Corporate Dow News Article #2
- Corporate Dow News Article #3
- Corporate Dow News Article #4



Dow Advertisement Title

- My News
- My Links
- My HR Connection

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Box with a couple of static links

**Dow Metrics**

**Reliability @ Dow**

Customer Impact Reliability Metrics	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%

More Metrics    Learn More

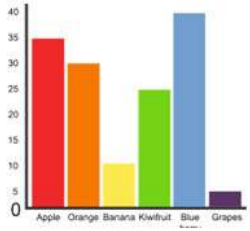
**My EH&S**

2 People hurt this year

	December 2012	2012 YTD	2012 Target
Personal Safety Rate	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	0.00	0.20	0.15

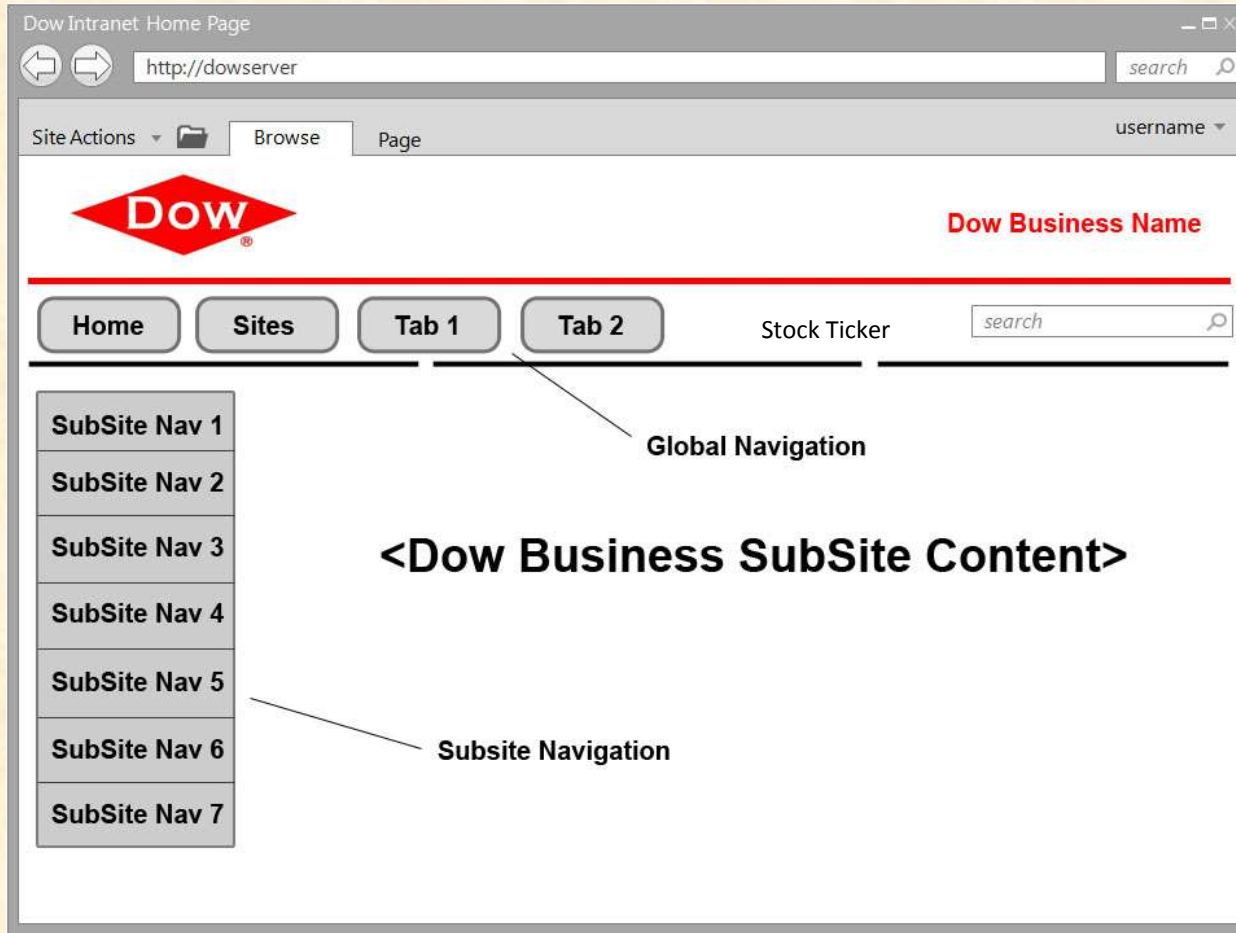
**Dow Survey**

What is your favorite fruit?





# Screen Mockup: <Sub-site Page>

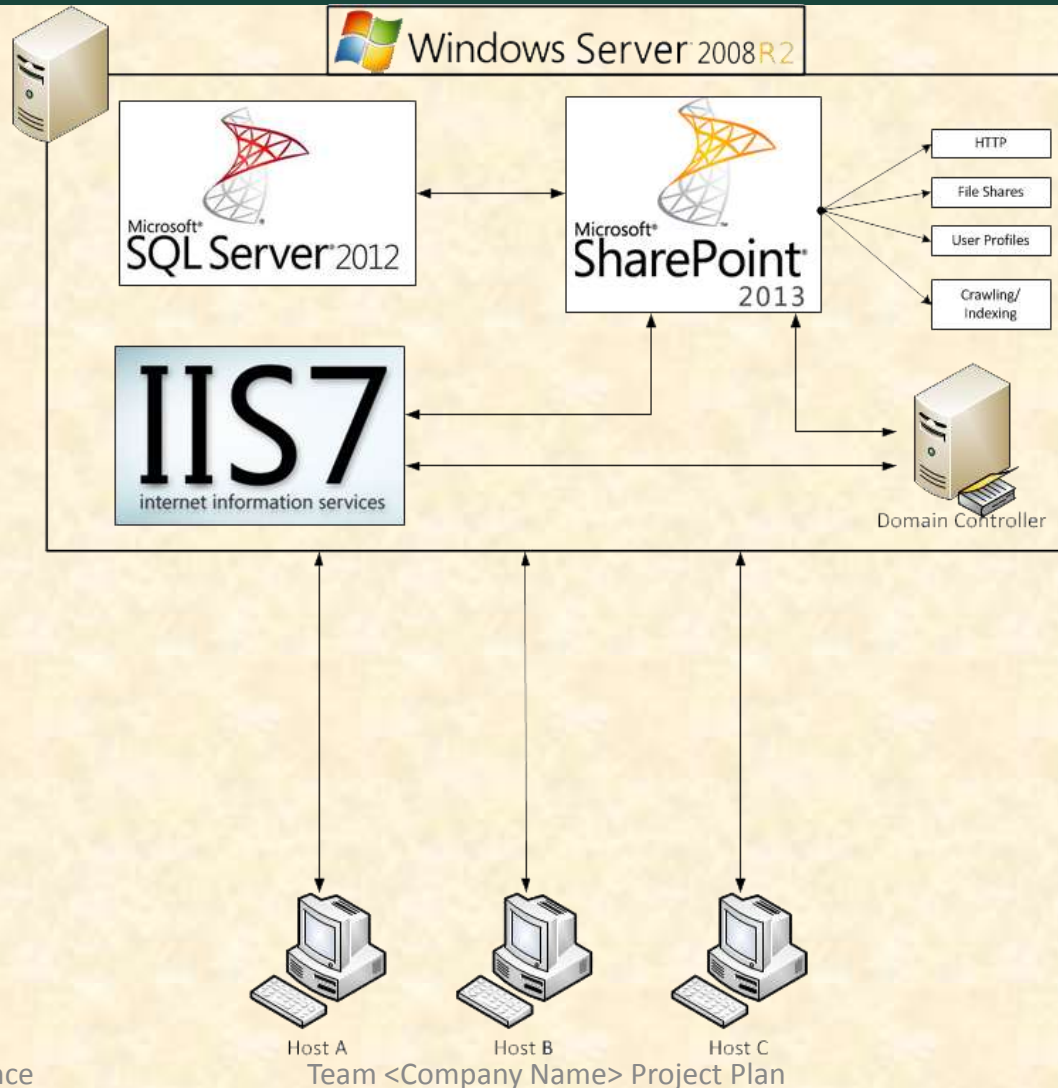


# Technical Specifications

- Server needs to have a Windows Server 2008 R2 SP1 installed for the OS
- The Intranet Portal must run on SharePoint 2013 Enterprise
  - SharePoint 2013 requires an instance of SQL Server 2008 or later to run
- Custom SharePoint design templates and SharePoint web parts can be created/edited with either SharePoint Designer 2013 or Visual Studio 2012
  - HTML and CSS code is needed for display templates to be edited
  - Stay away from HTML 5 and CSS 3 for now due to incompatibility with Dow's use of Internet Explorer 8.0 in their systems
- Web browsers are needed for most of the editing within SharePoint
  - Firefox and Internet Explorer 8.0 should be tested with to ensure cross-browser compatibility



# System Architecture





# System Components

- Hardware Platforms
  - Windows Server 2008 R2 SP1 64 bit
    - Intel Xeon X3460 2.80 GHz
    - 8 GB Ram
- Software Platforms / Technologies
  - SharePoint 2013 Enterprise
  - SQL Server 2012
  - Visual Studio 2012
  - SharePoint Designer 2013



# Testing

- As we develop our custom web parts (such as the ad rotator, survey tool, etc) we have to perform component tests to ensure that the functionality is on par with the specification.
- This includes:
  - Ensure that all of the custom web parts are reusable across the site
  - Add and delete content in specific components to see if it updates the results
  - Need to test that it pulls tagged content from across the site
- Come up with use cases for the Intranet. Outline basic user interactions with the system and perform usability tests on those actions.
  - Present these use cases to Martin and see if he feels that they are satisfactory in terms of user usability.



# Risks

- **Risk 1:** SharePoint has a high learning curve
  - Researching intensely on available online tutorials
- **Risk 2:** Intranet portal must be usable to ensure that Dow does not have to go through a costly training progress with its employees
  - Perform usability testing to ensure that the Intranet is user friendly
  - Talk and demo progress on the project regularly to Martin
- **Risk 3:** Must develop custom web components, this requires writing .NET code and converting into a format that SharePoint can read
  - Get designs out early for inspection, and research available online information
  - Whenever possible, use built-in SharePoint functionality
- **Risk 4:** Security, only authenticated users can be allowed to view/create certain content
  - Must learn to deal with SharePoint's built in authentication process
  - This involves learning to authenticate against a Domain Controller

