

MICHIGAN STATE
UNIVERSITY

Project Plan

SLA Management and Metric Reporting System

The Capstone Experience

Team Spectrum Health

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From Students...
...to Professionals

Project Overview

- Metrics ensure business objectives are met
- System for defining, approving, tracking, reporting, and displaying metrics
- Many different types of users use system
- Leadership reviews color-coded scorecards
- Needs to be flexible to accommodate changing business objectives and processes



Functional Specifications

- Manage Metrics
 - Add, remove, update
 - Metrics can have multiple measures
 - Metrics can belong to multiple scorecards
- Enter Monthly Data
 - Add, remove, update
 - Collect comments for yellow and red values
- Manage Scorecards
 - Add, remove, update, view
- Issues Log
- Control Permissions

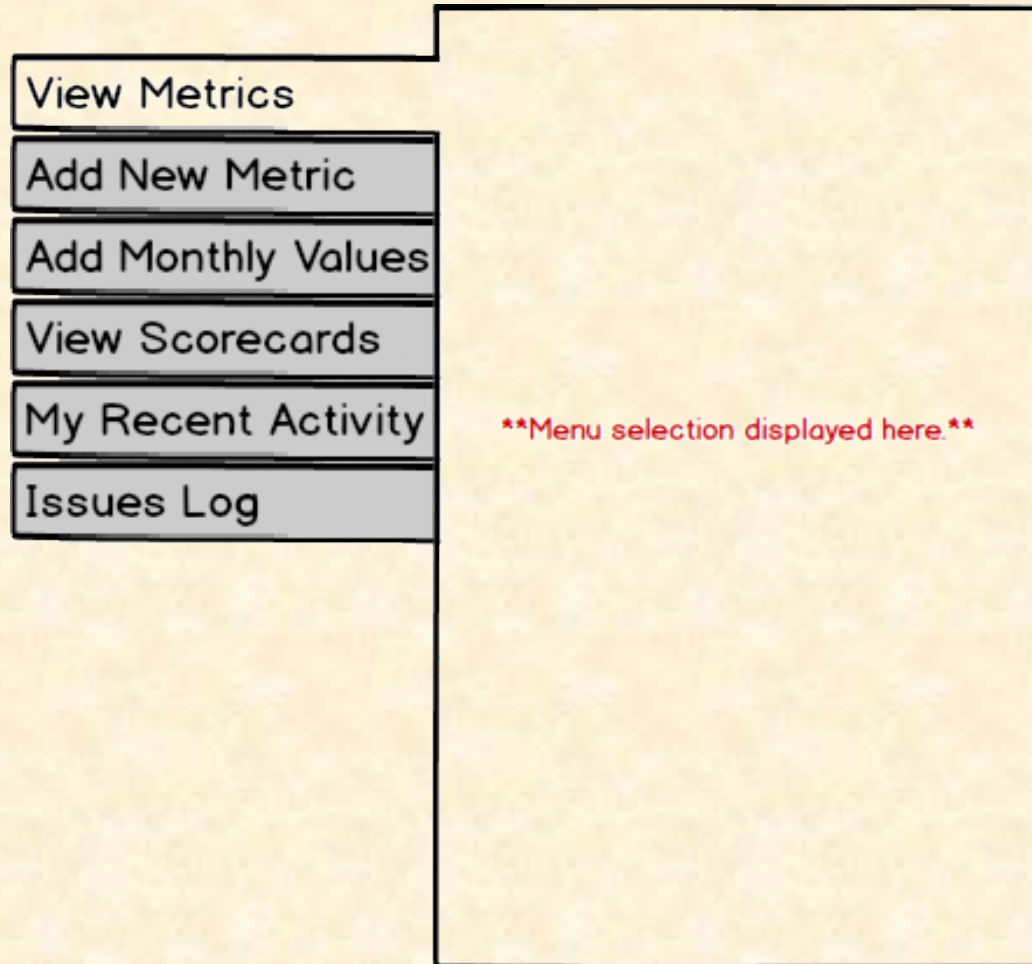


Design Specifications

- Navigation bar on every page
- Add, remove, update from one page for metric definitions, monthly values, scorecards
- Monthly value entry form detects value's color, collects comments if necessary
- Color-coded scorecard display with options to display comments and change scope
- Recent user activity page
- Sort and exclude options for issues log



Screen Mockup: Navigation Bar



Screen Mockup: View Metrics

Add New Metric

All Metrics

Metric ID	Service Component	Metric Name	Owner	Effective Date	Actions
M100	financial	Metric ABC	Owner A	01-01-2013	Update Delete
M104	financial	Metric ADF	Owner B	09-20-2012	Update Delete
M002	operational	Metric XYZ	Owner A	06-23-2014	Update Delete
M844	project	Metric FFA	Owner A	04-21-2013	Update Delete
M333	relationship	Metric AAW	Owner C	05-27-2013	Update Delete

[New Metric](#)

Add Metric

☐ active
☐ inactive
☐ draft
☐ manual
☐ auto
☐ obsolete

Metric ID:
 Metric Name:
 Measure ID:
 Measure Name:
 Objective:

Calculation:
 Assumptions:
 Data Source:
 Data Owner:
 Effective Date:
 Last Modified by:
 Last Modified Date:
 Original Approver:
 Original Approval Date:
 Revision Approver:
 Revision Approval Date:
 Attachments: [Browse](#)

Service Component: ☐ financial ☐ operational ☐ project ☐ relationship
 Service Domain:
 Target Type: ☐ number ☐ range ☐ percent ☐ tier ☐ tier 1 ☐ tier 2 ☐ tier 3 ☐ tier 4
 Time Start:
 Time End:
 Time Period: ☐ weekly ☐ monthly

☐ BSC
☐ PM
☐ SMDG
☐ SMD3

[New Measure](#)

Submit

Blank form with the same form fields above is appended to the bottom of the page

Upon clicking update, the metric definition is updated in the database

All Metrics













Metric ID	Service Component	Metric Name	Owner	Effective Date	Actions
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M002	operational	Metric XYZ	Owner A	06-23-2014	Update Delete
M844	project	Metric FFA	Owner A	04-21-2013	Update Delete
M333	relationship	Metric AAW	Owner C	05-27-2013	Update Delete

[New Metric](#)

Add Metric



Screen Mockup: Add Monthly Values

Metric ID	M.100	Metric ID	M.844
Metric Name	Metric ABC	Metric Name	Metric FFA
Measure ID	F123	Measure ID	P009
Measure DEF {	 90.0<=x<99.9	Measure YYX {	 85.7<=x<100.0
	 85.5<=x<90.0		 75.3<=x<85.7
	 0.0<=x<85.5		 0.0<=x<75.3
Month	April	Measure ID	P010
Year	2013	Measure XXY {	 97.0<=x<100.0
Monthly Values	<div> <div>Measure DEF</div> <div></div> </div> <p>**Form field lights up green because monthly value is within target range.**</p>		 89.1<=x<97.0
			 0.0<=x<89.1
Comments	<input type="checkbox"/>	Month	April
<p>**[If 'Comments' box is checked, form for comments displays here.**</p>		Year	2013
		Monthly Values	
		Measure YYX	 90.3
		Measure XXY	 85.0 **Form field lights up red because monthly value is not within target range.**
		Comments	<div>XXY was not met because of this reason.</div>
		Remediation	<div>Fix the problem.</div>
		Planned Activities	<div>Assign three workers to fix the problem.</div>



Screen Mockup: Add Scorecard

All Scorecards

Scorecard	Action		
BIC	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
PH	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
SHDS	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
SHIS	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
ZZZ	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

New Scorecard

Scorecard Name

Scorecard Owner

Number of Metrics

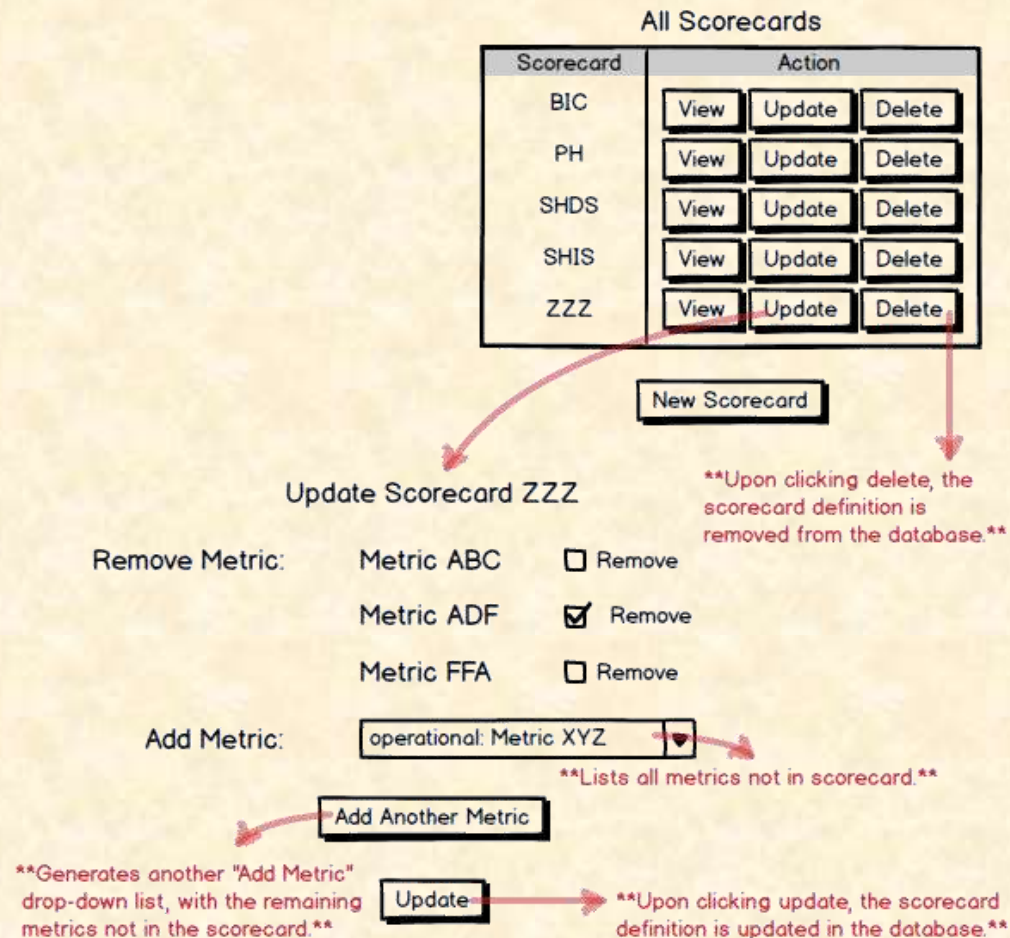
****This number is used to generate an appropriate amount of drop-down lists of metrics.****

****A metric can only be selected in one drop-down list.****

****Upon clicking submit, the scorecard definition is added to the database.****



Screen Mockup: Update Scorecard



Screen Mockup: View Scorecard

All Scorecards

Scorecard	Action		
BIC	View	Update	Delete
PH	View	Update	Delete
SHDS	View	Update	Delete
SHIS	View	Update	Delete
ZZZ	View	Update	Delete

ZZZ Scorecard

Change scope: Jan 2013 to Jun 2013 [Go](#)

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%	95.1%
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%	65%
		P010	Measure XXY	>97.0% but < 100.0%	88.8%	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.

☐ Select All
☐ Comments
☐ Comments



Screen Mockup: My Recent Activity

My Recent Activity

My metric definition updates:

****All of the user's metric definition updates are listed here with links to update the metrics.****

My metric data updates:

****All of the user's metric data updates are listed here with links to update and delete the entries; these update and delete links disappear after the 10th of the month.****

My scorecard definition updates:

****All of the user's scorecard definition updates are listed here with links to update the scorecards.****

My issues log updates:

****All of the user's issue log updates are listed here with links to update and delete the entries.****



Screen Mockup: Issues Log

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 ▼

Issues Log Table:

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	<input type="button" value="Update"/> <input type="button" value="Delete"/>
M.844	Metric FFA	April 2013 values are incomplete.	Complete values.	Contact 2	medium	WIP	07-08-2013	07-01-2013	N/A	<input type="button" value="Update"/> <input type="button" value="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	<input type="button" value="Update"/> <input type="button" value="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	<input type="button" value="Update"/> <input type="button" value="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	<input type="button" value="Update"/> <input type="button" value="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	<input type="button" value="Update"/> <input type="button" value="Delete"/>

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

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

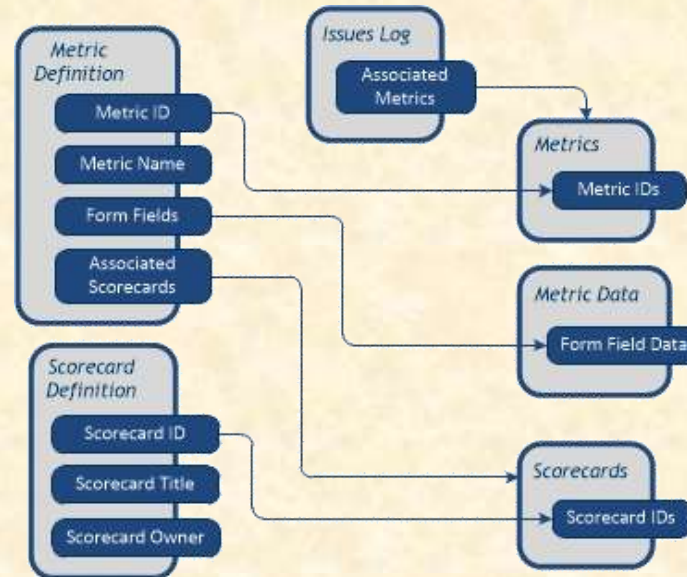
Annotations:

- **The user can hide unwanted results.** (points to filter section)
- **The user can sort by any column.** (points to sort dropdown)
- **Upon clicking delete, the issue is removed from the issues log and database.** (points to delete button)



Technical Specifications

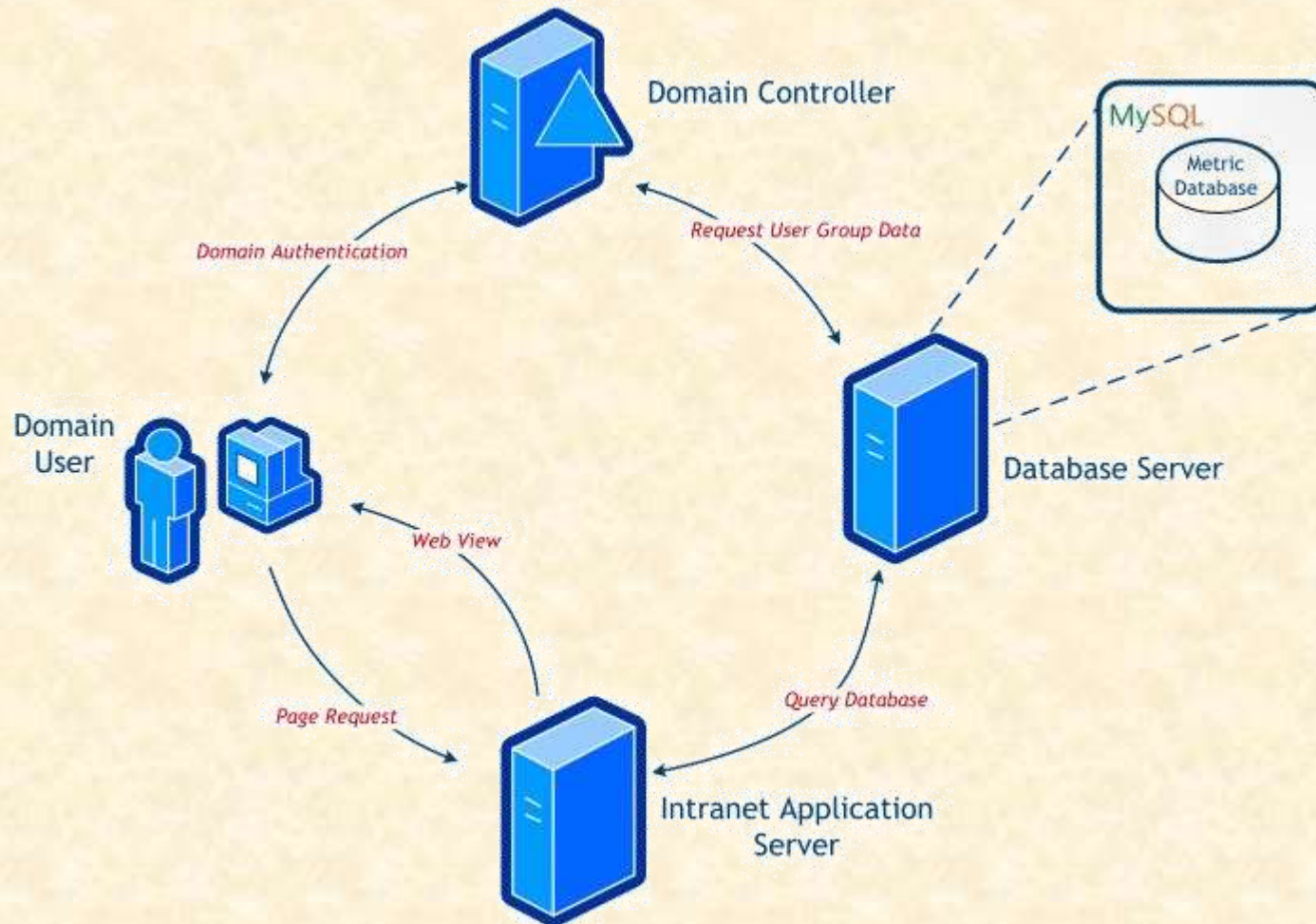
- Back-end database and a browser-based user interface
- Database design:



- View of website depends on Active Directory group
- Server specifications: Server runs on Windows Server 2008 R2, runs MySQL Server 5.5.29



System Architecture



System Components

- Hardware Platforms
 - Servers based on x86-64 processor architecture
- Software Platforms / Technologies
 - Windows Server 2008 R2
 - MySQL server
 - PHP
 - HTML5 with CSS3
 - jquery



Testing

- Validate metric and score card data is stored and retrieved properly
- Work with client to extensively test for workflow and flexibility issues
- Create multiple user and group accounts in Active Directory to verify proper permissions are granted for each view of the website



Risks

- Risk 1
 - Active Directory for permissions control
 - Mitigation - Researching methods for accessing user information
- Risk 2
 - Flexibility of the system
 - Mitigation – Working with client to determine the extent of the flexibility and rigorous testing
- Risk 3
 - Little experience with PHP/MySQL
 - Mitigation – Familiarizing ourselves with the technologies

