Project **R**ecording **I**nformation **S**ystem **M**anagement

Preliminary Design by Quantum Technologies

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Welcome

- Our Client:
  - **Dr. Meg Fryling**
    - **Asst. Professor of Computer Science**
- Guests
  - **Dr. Timoth Lederman**
  - **Dr. Darren Lim**

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Agenda

- **Introduction**
- Project Progression
- Product Overview
- User Case Narratives
- UML Use Case Diagram
- Deployment Diagram
- Website Map
- Activity Diagram
- Data Flow Diagrams
- Requirements Inventory
- Data Dictionary
- Testing Plan
- Development Environment & Production Environment
- Prototypes
- What's Next

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Introduction

- Shannon Pfohl: Team Leader

- Paul Cherrier: Webmaster

- Ryan Egan: Information Specialist

- Jordan Holoboski: Database Administrator

- Kathleen O'Hara: System Admin/Developer

- Julian Thomas: Development Director

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Project Progression

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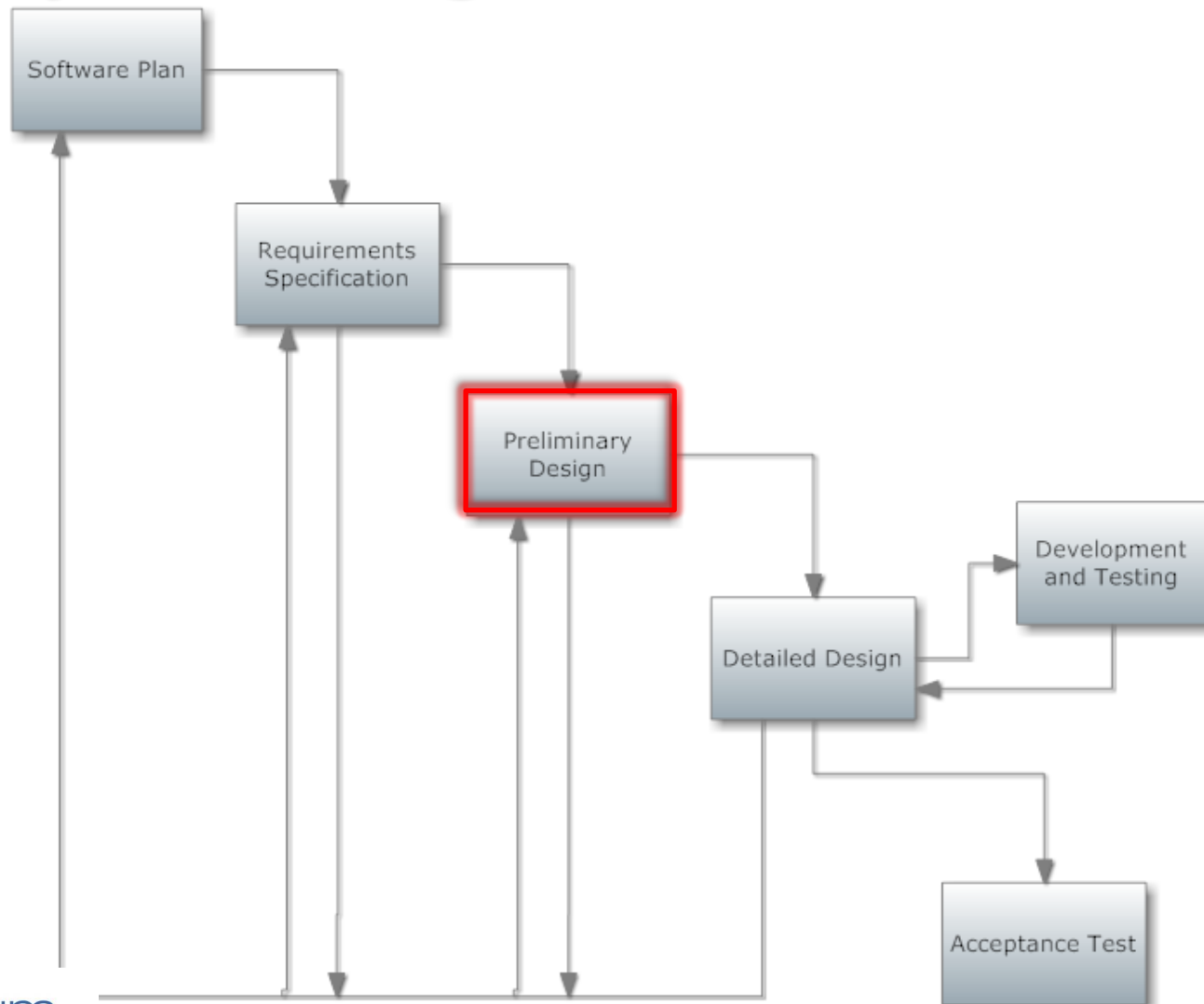
Product Overview

- PRISM keep track of hours and evaluations submitted by all employees
- Allows for extra communication through email for users
- Allows Team Leaders capabilities to give Team Leader Evaluations and to keep track of Attendance
- Gives information of Average Hours completed by other teams

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User Case Narratives

- Describes the privileges of each user
- Shows how each user will interact with PRISM

User Case Narratives: Employee

- Log in/out
- Log hours
- Makes evaluations on team members
- Sees the average hours recorded by other teams

User Case Narratives: Team Leader

- Log in/out
- Log hours
- Makes evaluations on team members
- Makes Team Leader evaluations on team members
- See average hours recorded by other teams
- Send out reminder emails for deadlines
- Records Attendance

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User Case Narratives: Supervisor

- Log in/out
- Log hours
- Makes evaluations on team members
- Sees the average hours recorded by other teams
- Send out reminder emails for deadlines
- Sees evaluations of supervised employees
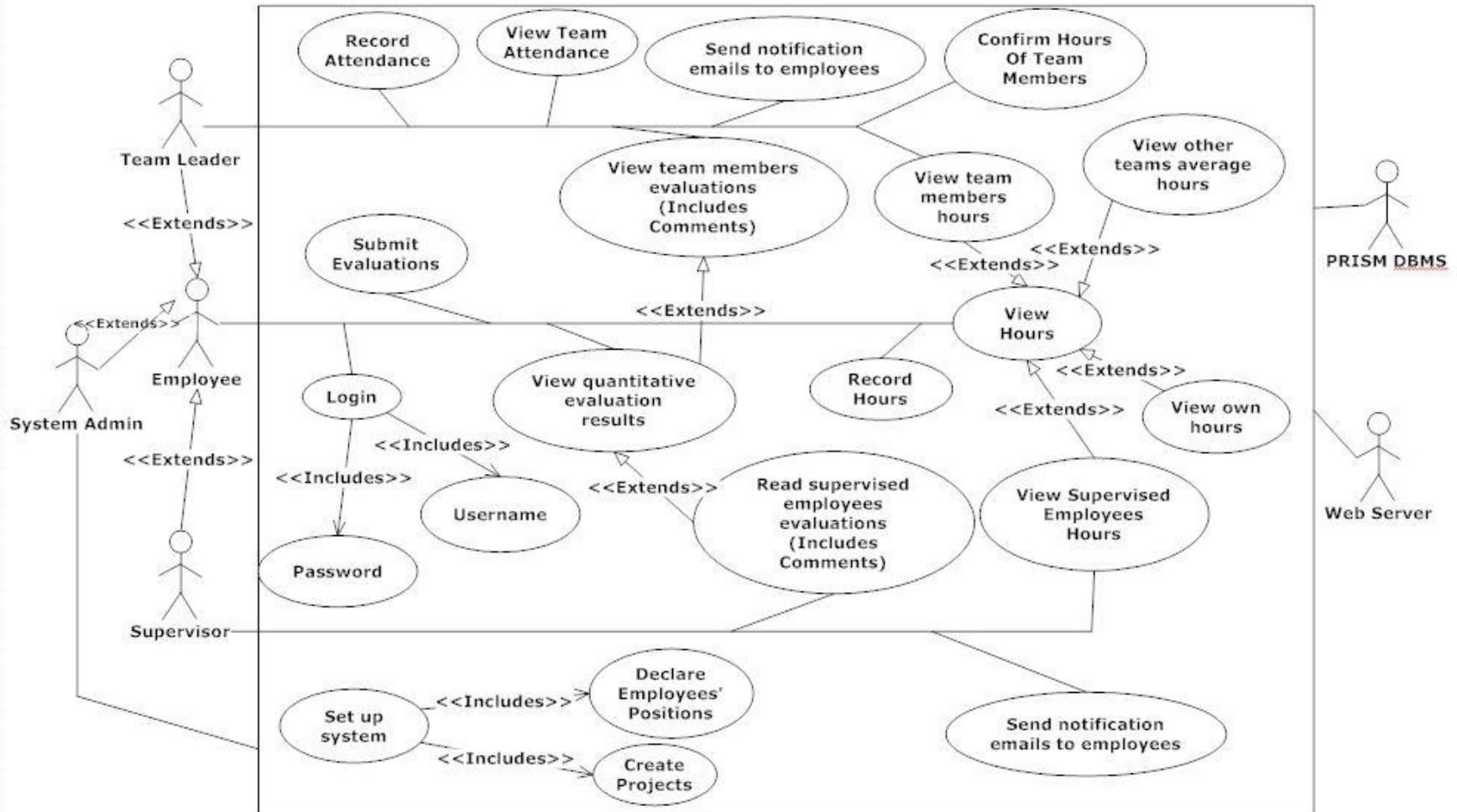
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User Case Narratives: System Administrator

- Log in/out
- Log Hours
- Makes evaluations on team members
- Makes Team Leader evaluations on team members
- Sees the average hours recorded by other teams
- Send out reminder emails for deadlines
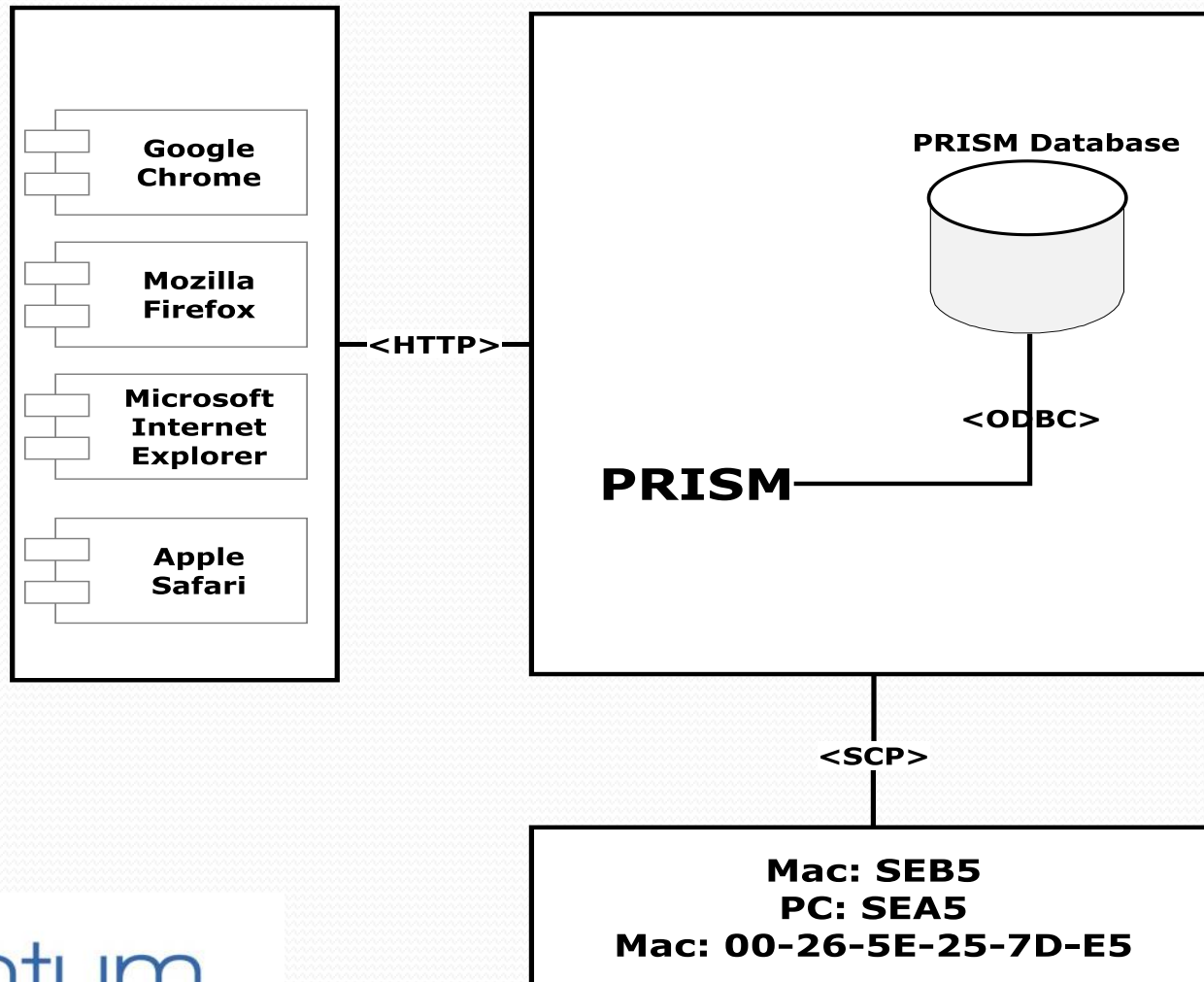- Has access to all information within PRISM

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UML Use Case Diagram

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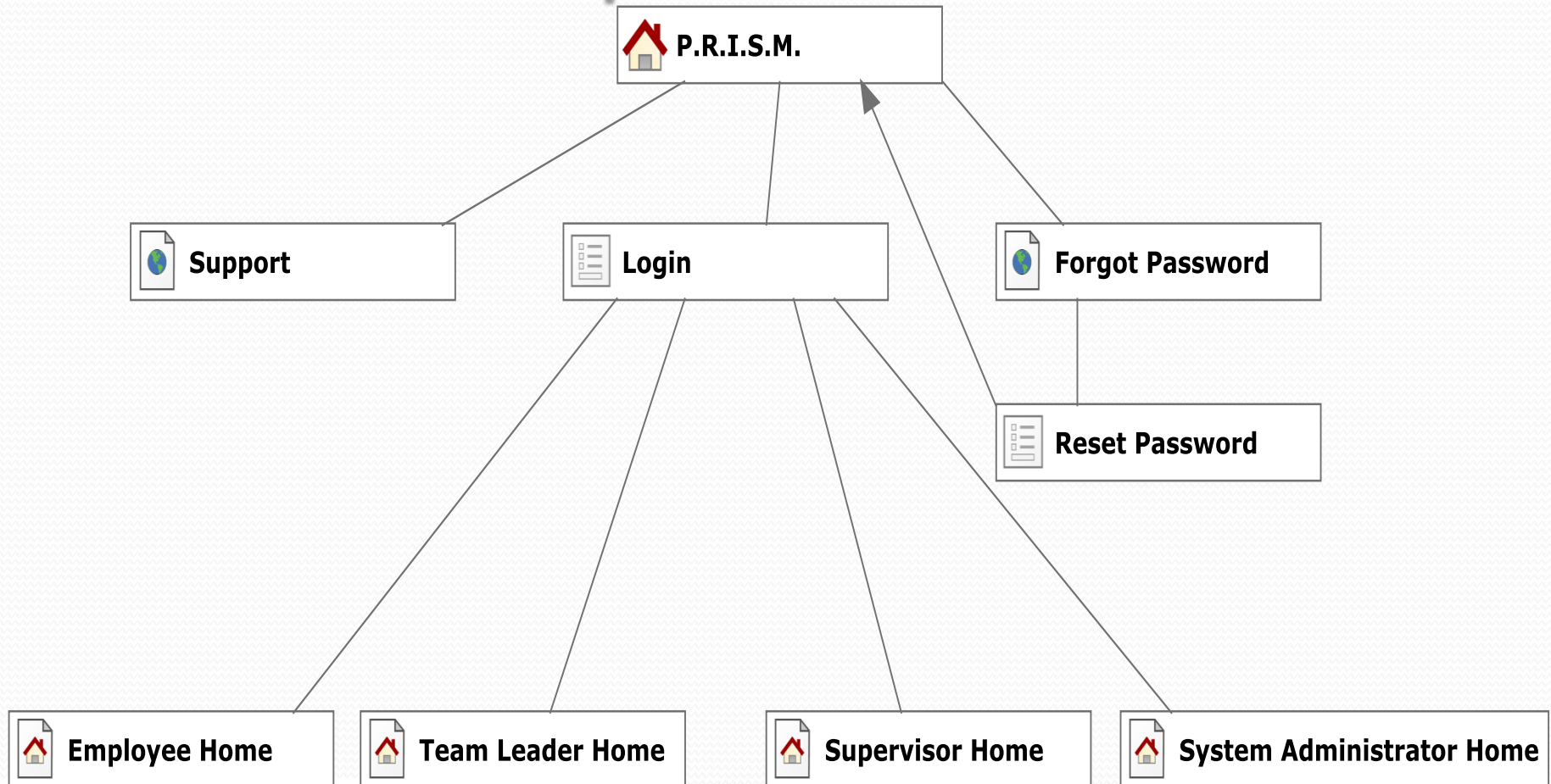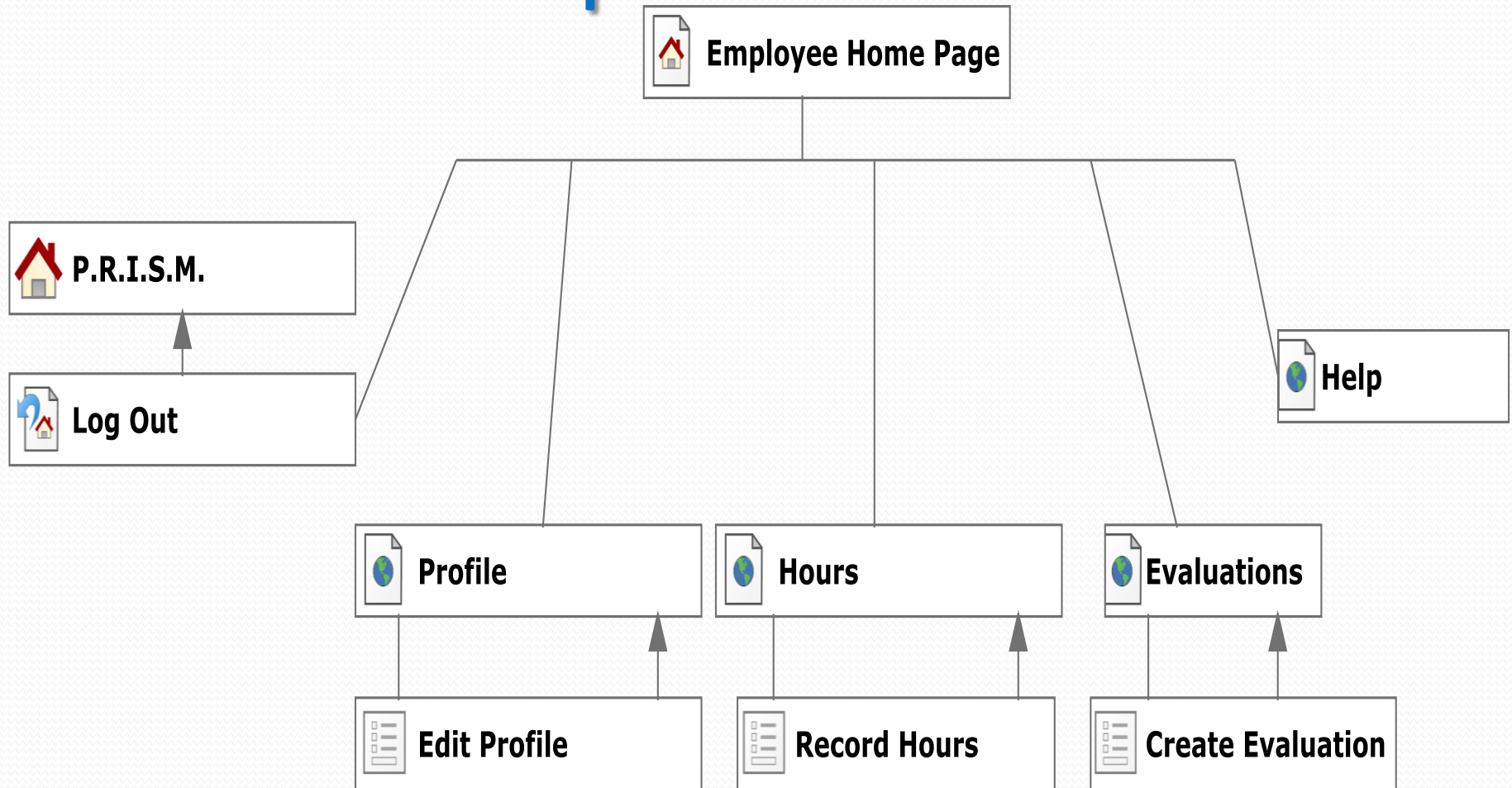
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Deployment Diagram

oraserv.cs.siena.edu

PRISM Database

Google
Chrome

Mozilla
Firefox

<HTTP>

Microsoft
Internet
Explorer

<ODBC>

Apple
Safari

PRISM

<SCP>

Mac: SEB5
PC: SEA5
Mac: 00-26-5E-25-7D-E5

Development Environment

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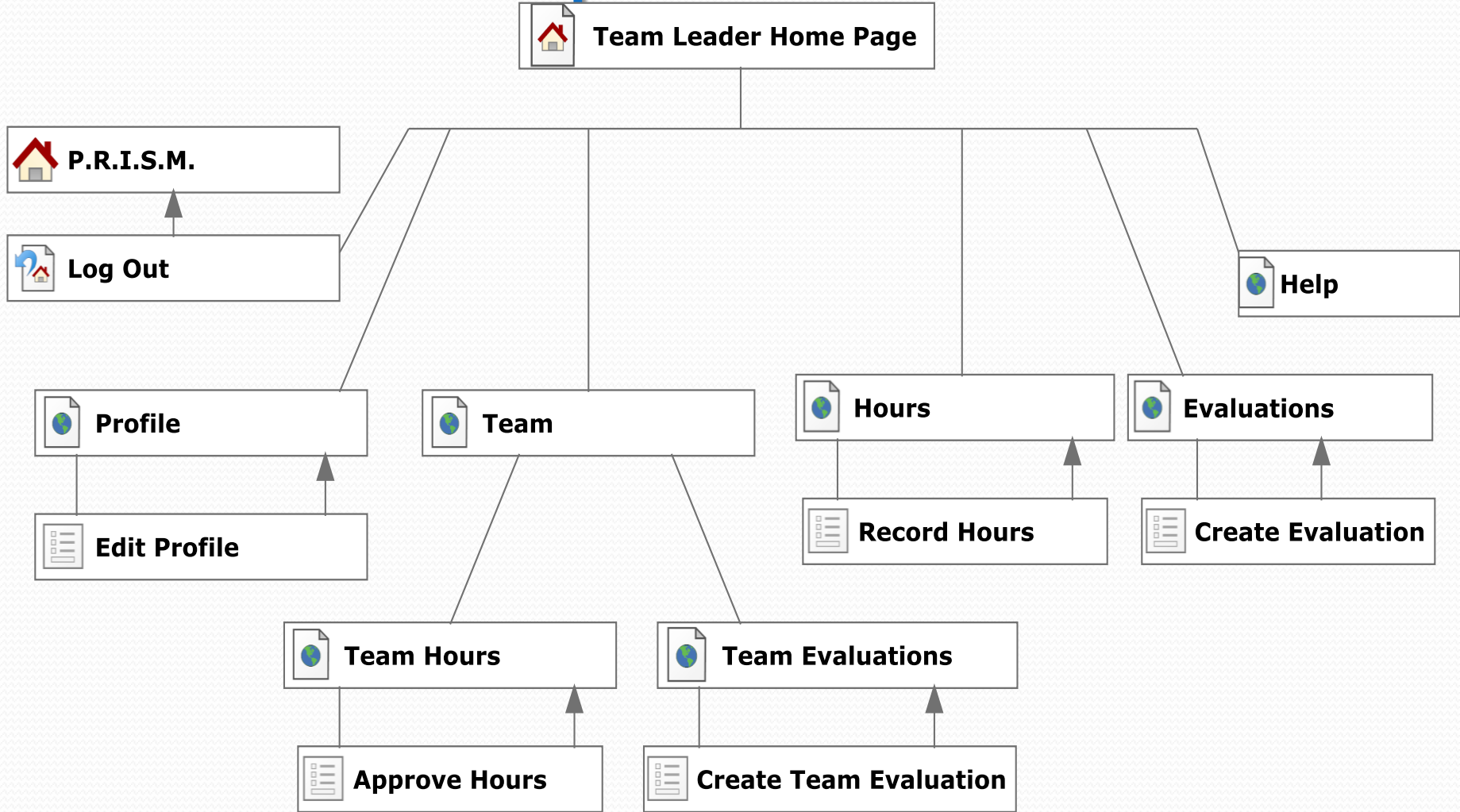- Prototypes
- What's Next

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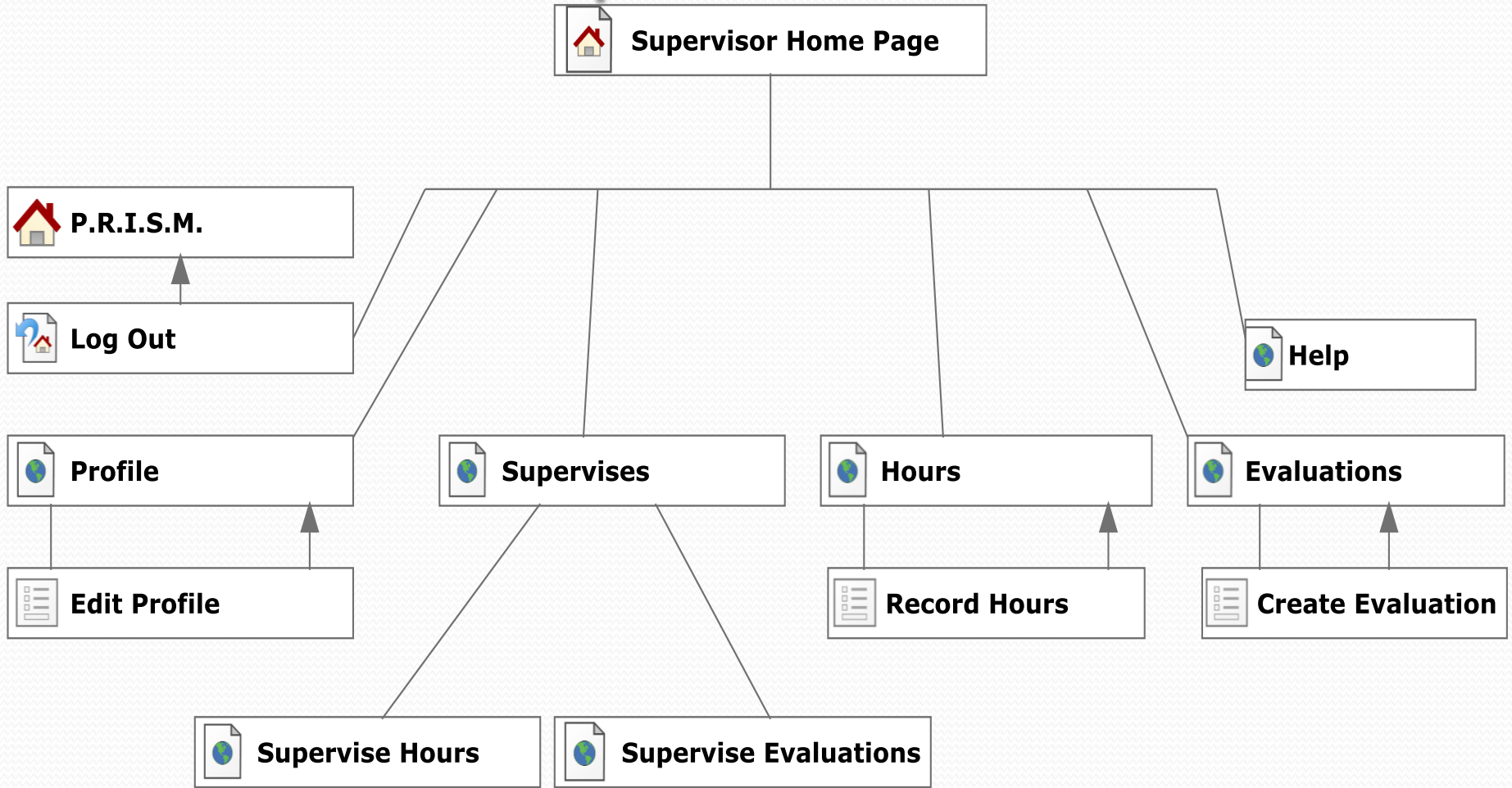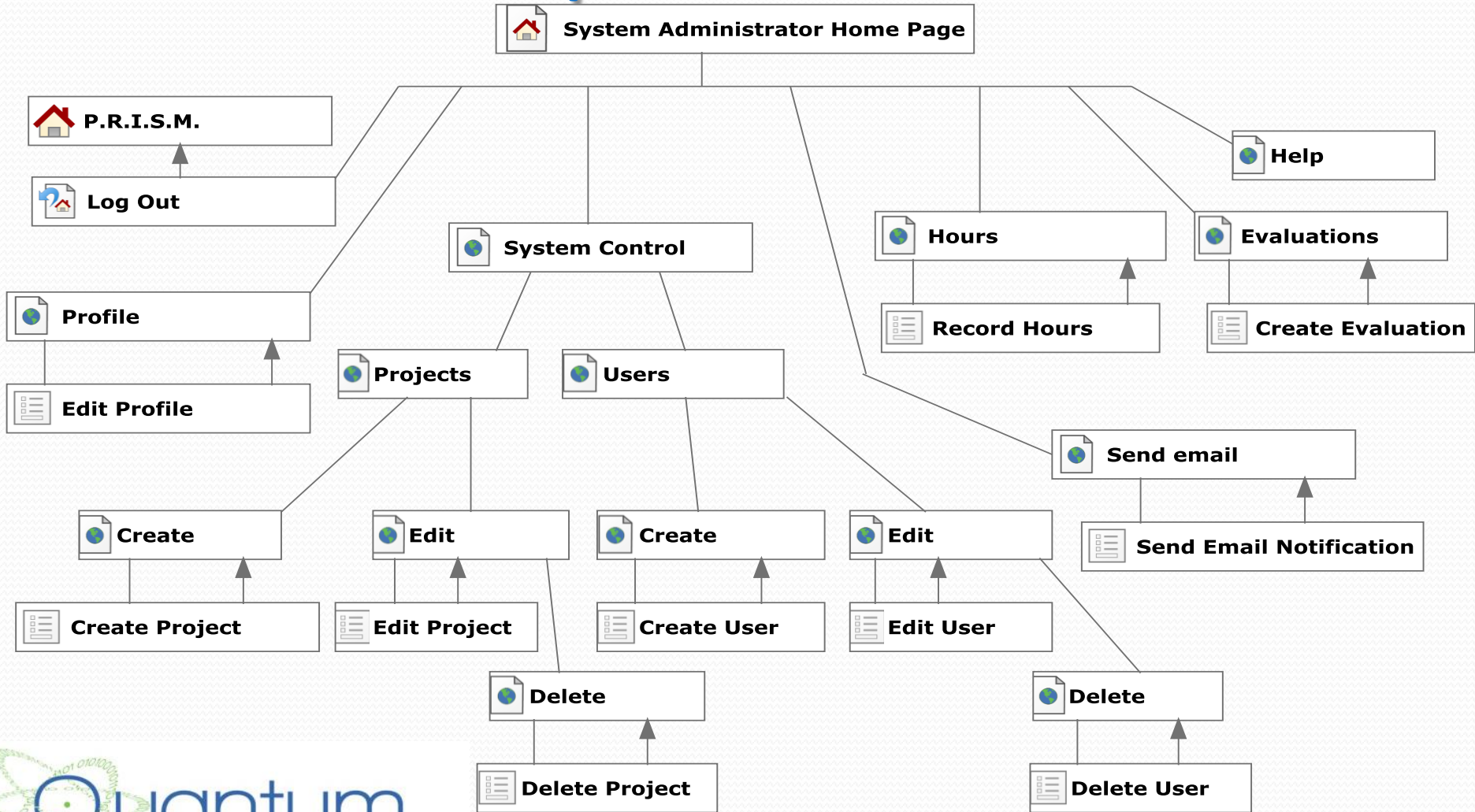
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Website Maps

Website Maps

Employee Home Page

P.R.I.S.M.

Log Out

Help

Profile

Hours

Evaluations

Edit Profile

Record Hours

Create Evaluation

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Website Maps

Team Leader Home Page

P.R.I.S.M.

Log Out

Help

Profile

Team

Hours

Evaluations

Edit Profile

Record Hours

Create Evaluation

Team Hours

Team Evaluations

Approve Hours

Create Team Evaluation

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Website Maps

Supervisor Home Page

P.R.I.S.M.

Log Out

Help

Profile

Supervises

Hours

Evaluations

Edit Profile

Record Hours

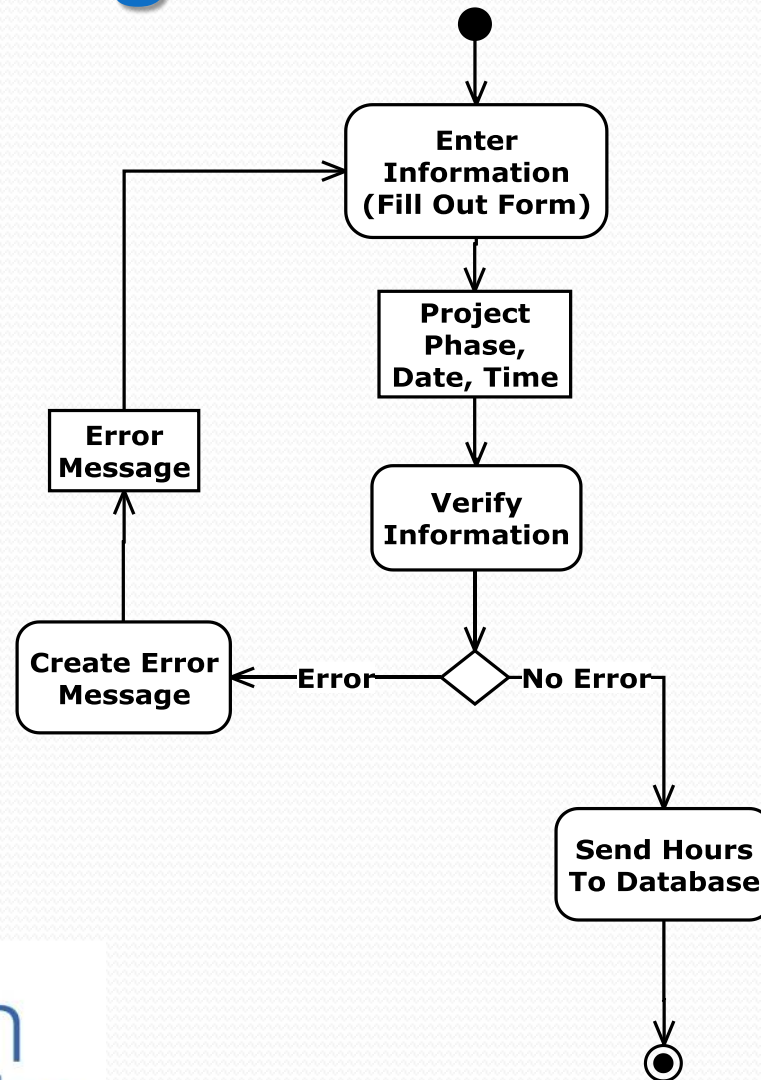Create Evaluation

Supervise Hours
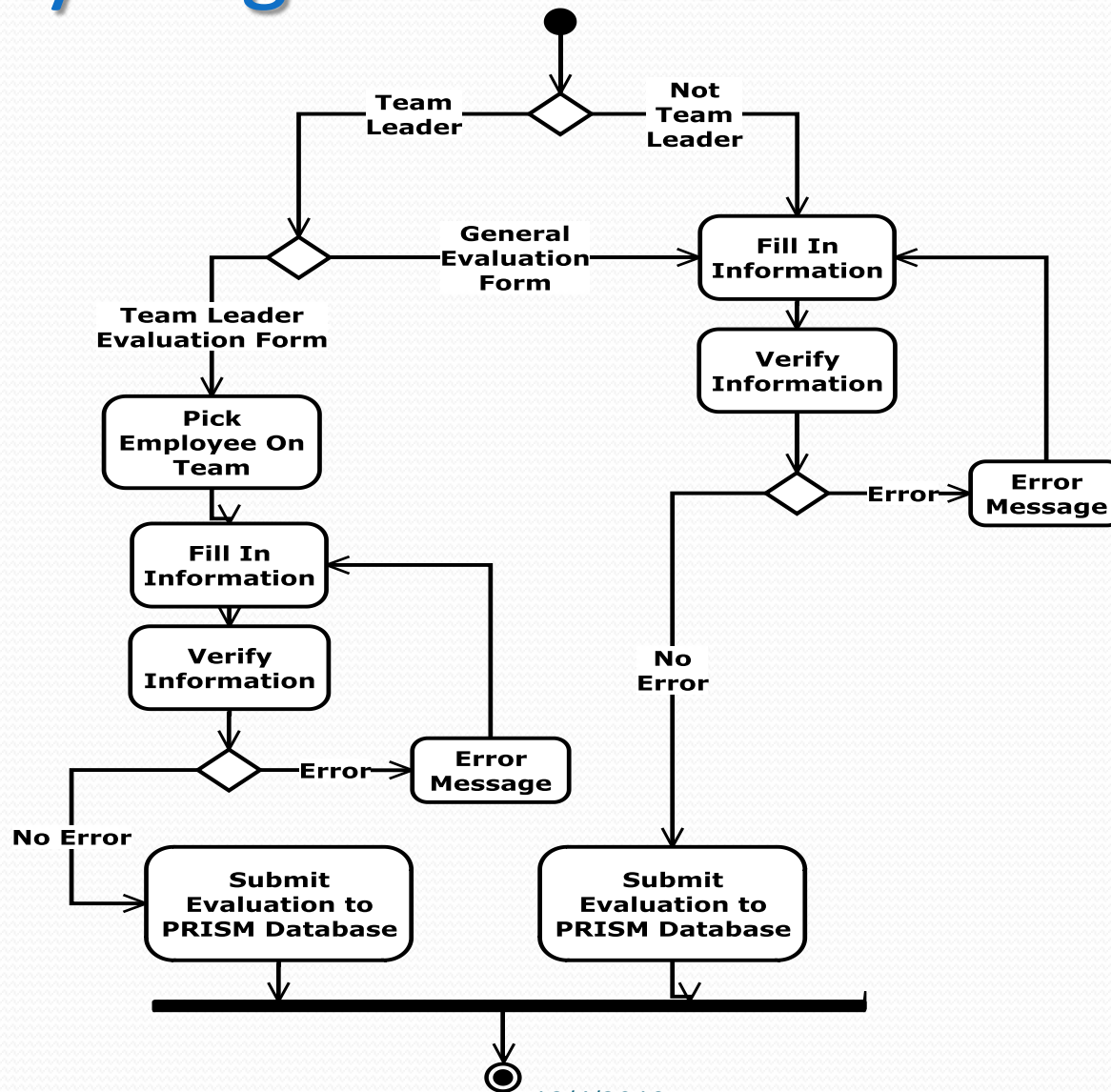
Supervise Evaluations

Website Maps

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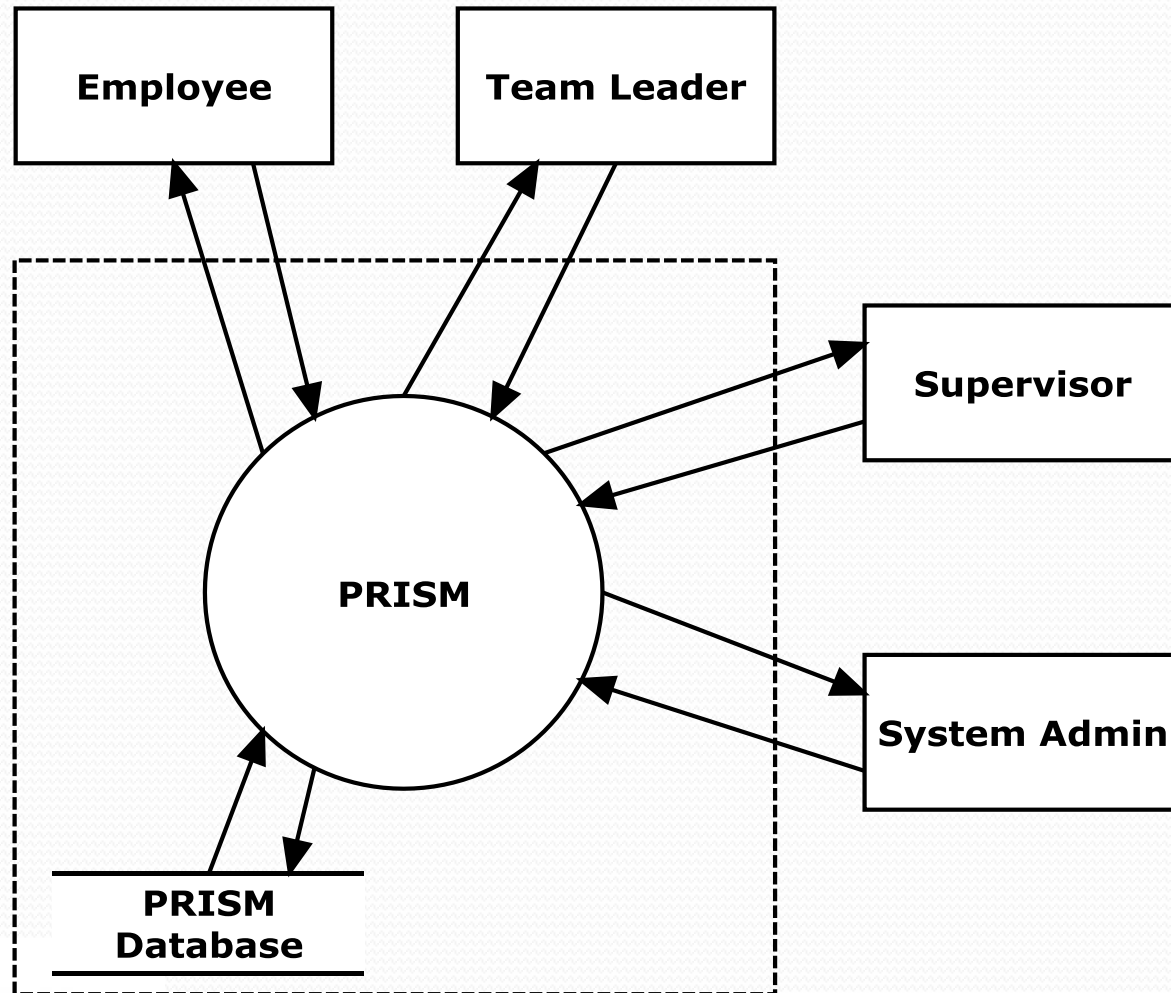- What's Next

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Activity Diagrams – Record Hours

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Activity Diagrams – Create Evaluations
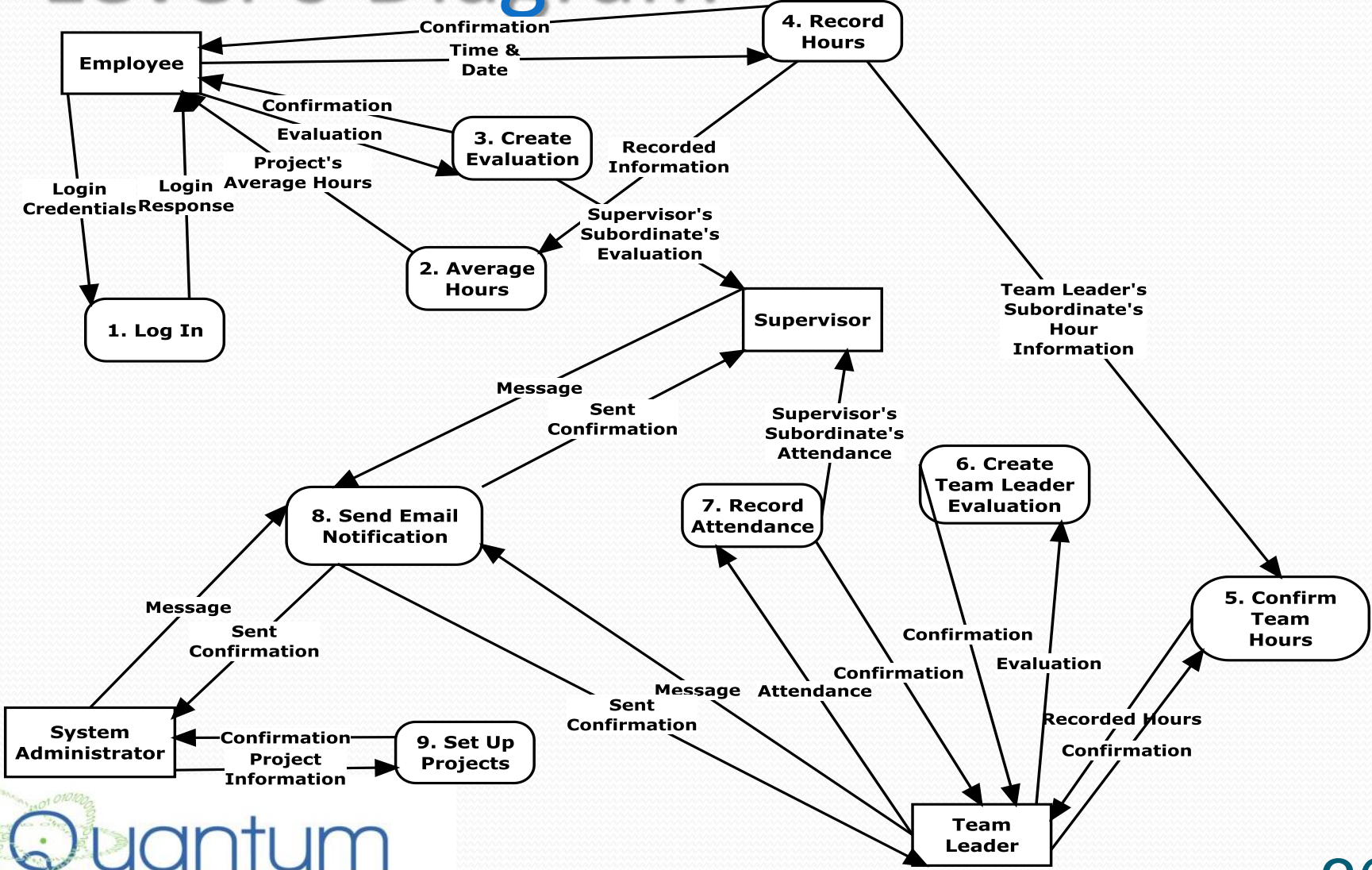

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Context Diagram

Level 0 Diagram

Level 1: Record Hours

Level 2: Generate Confirmation

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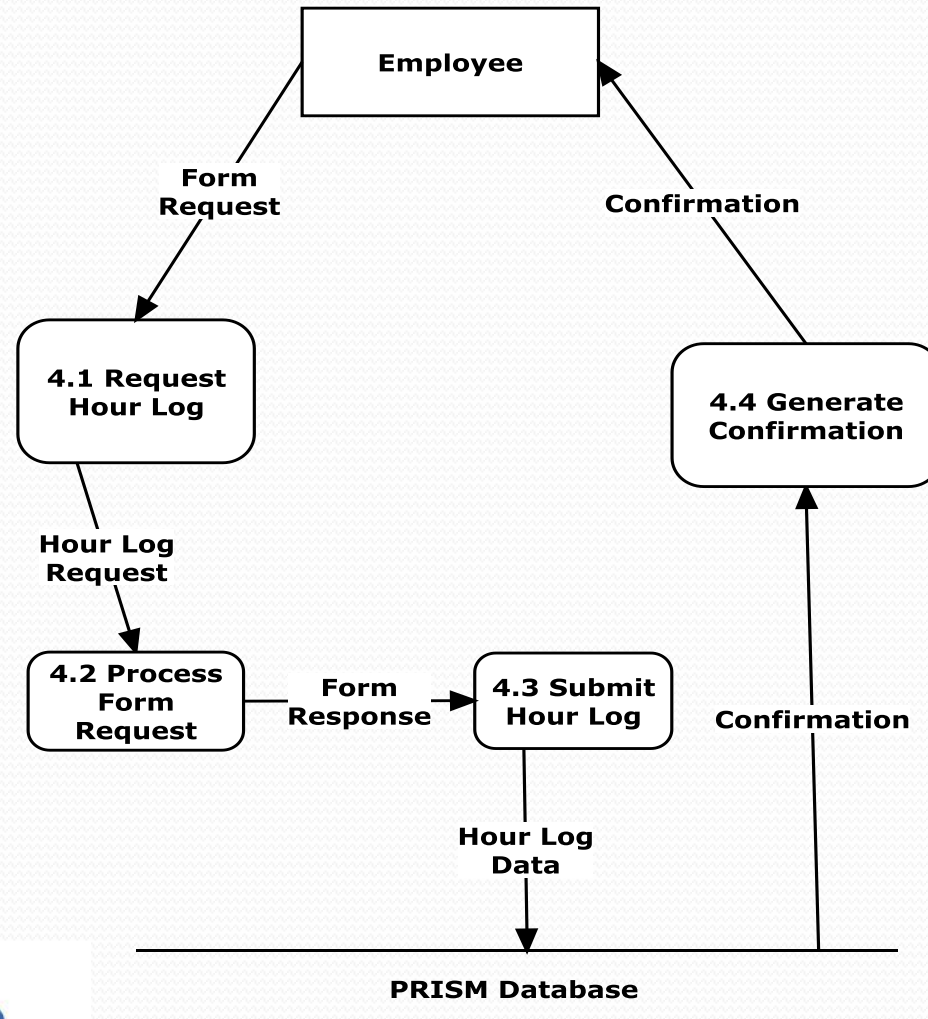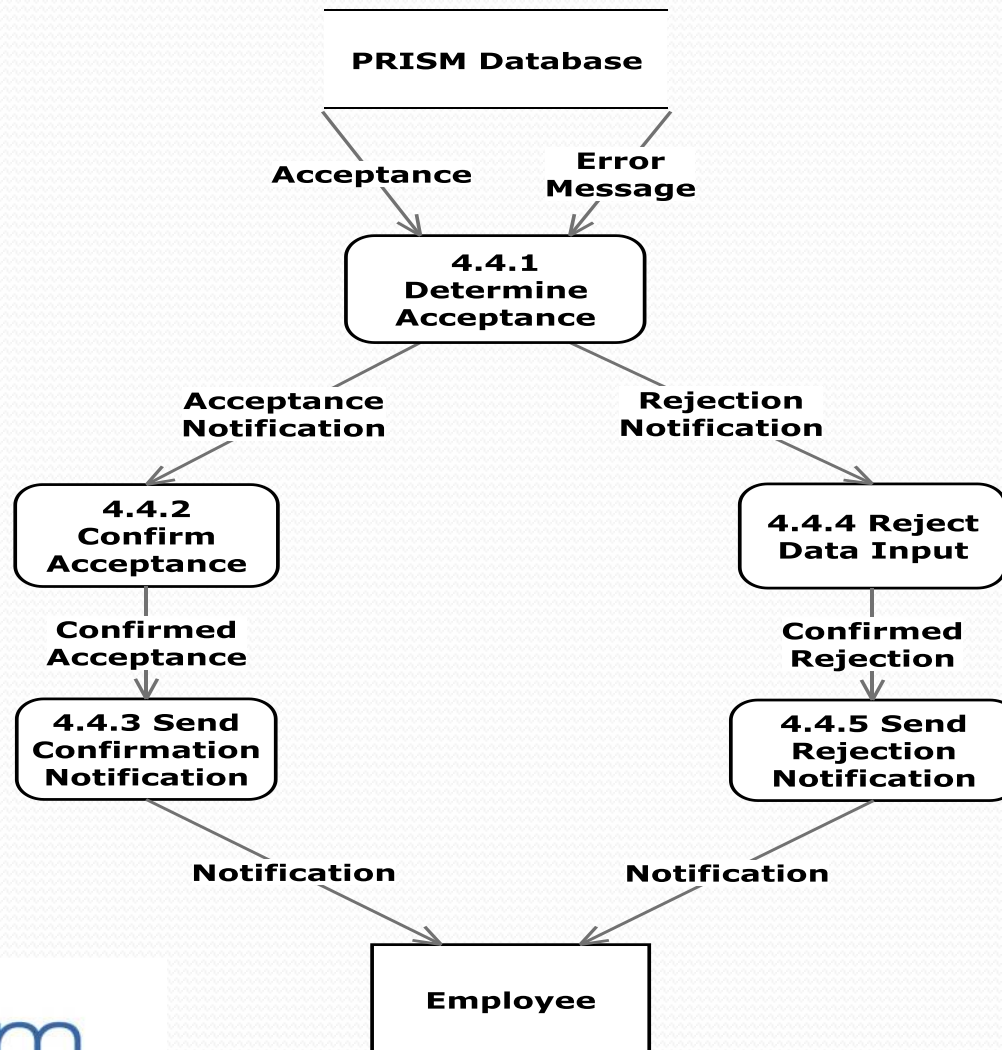- Prototypes
- What's Next

Requirements: Employee

- Login / logout
- Record hours
- View own hours
- View team's average hours
- Submit evaluations on team members
- View own average score of evaluations

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Requirements: Team Leader

- Login / logout
- Record hours
- View own hours
- Edit a team member's hours
- Confirm hours
- Record attendance
- Submit evaluations on team members
- View evaluations made by team members
- View own average score of evaluations
- Submit detailed evaluations for each team member
- Send automated emails to team members

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Requirements: Supervisor

- Login / logout
- Record hours
- View own hours
- View team's average hours
- Submit evaluations on team members
- View evaluations made on subordinates
- View attendance of subordinates
- Send automated emails to subordinates

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Requirements: System Admin

- Login / logout
- Add projects
- Assign projects
- Assign team leaders and supervisors
- View / edit all information
- Record hours
- Confirm hours
- Record attendance
- Submit evaluations of team members
- Submit detailed evaluations for each team member
- Send automated emails to all employees

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Data Dictionary

Data Name	Applicable To	Data Type	Data Size	Description	Acceptable Input	Good Example(s)	Bad Example(s)	Notes
firstName	Add users to system	Varchar	1-30 characters	First name of a user	ASCII char 32 (space), -, A-Z, a-z, ', `, ASCII char 128 to ASCII char 165	John	Joh2n$%	
lastName	Add users to system	Varchar	1-50 characters	Last name of a user	ASCII char 32 (space), -, A-Z, a-z, ', `, ASCII char 128 to ASCII char 165	Smith	Sm1t*	
userName	Add users to system, all screens user sees	Varchar	6-30 characters	Username of a user	A-Z, a-z, -, _, 0-9	js09smit	`js09$mit	Usernames MUST be unique
password	Add users to system, change password, login, manage users	Varchar	8-30 characters	Password of a user	ASCII char 33 to ASCII char 126	d#5%3dSM NHJ~>!	( ), paA2, Pass word, 1213134	Must include one capital letter and one number

Data Name	Applicable To	Data Type	Data Size	Description	Acceptable Input	Good Example(s)	Bad Example(s)	Notes
email	Add users to system, forgotten password retrieval, send e-mails	Varchar	6-50 characters	E-mail of a user	Must be in proper e-mail format (i.e. name@website.com)	js09smit@ QT.org	fjfe@, js09smit	e-mails MUST be unique
userHours	Record hours, view hours, confirm hours	Float	1-4 digits	Hours recorded by user	Proper number format (##.##)	4.75, 5, 10.00	94.322	Number must be less than 24 hours, and decimal places allowed will only be quarters (.00, .25, .5, .75)
...oursComments	Record hours, view hours, confirm hours	Varchar	0-256 characters	Description of what user did	ASCII char 32 to ASCII char 165	Team meeting #17, researched for req spec.	ℤ ʒ Ω ℧ ʒ ˥	
...totalUserHours	View hours, confirm hours	Float	1-8 digits	Total hours recorded by user	Proper number format (##.##)	72.25, 532	92.43	Decimal places allowed will only be quarters (.00, .25, .5, .75), will be added up automatically

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Testing Plan

- Determines whether or not an individual component of PRISM is functioning correctly

- Each unit test is made up of a set of test cases

- Test Cases have:

  - Input actions

  - Steps to be performed

  - The state before test

  - Expected results for the test case

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Testing Plan: Unit Tests

Pass/Fail Status		Unit Number	Unit Test Name	Date Last Tested	Comments or brief description	Integrated with these units
		1	Login		*Allows a User access into PRISM.*	
		2	Average Hours		*Allows all Users to see the average hours on projects. Will be able to see total hours on a project and total hours on a specific phase of the project.*	4,5
		3	Create Evaluation		*Allows all Users to create evaluations on their teammates.*	
		4	Record Hours		*Allows all Users to Record the hours they have worked on specific projects.*	2,5
		5	Confirm Team Hours		*Allows Team Leaders to view the hours of their team members and to confirm or reject the hours the team member has submitted. Once confirmed the team member will not be able to edit the data any further.*	2,4
		6	Create TL Evaluation		Allows Team Leaders to create more detailed evaluations on their team members.	
		7	Record Attendance		Allows Team Leaders to Record Attendance for their team members in class and at meetings.	
		8	Send Email		Allows Supervisors, Team Leaders, and System Administrators to send emails to employees, teams, or team leaders.	
		9	Set Up Project		Allows the System Administrator to create and edit projects within PRISM	

71.43% of Test Cases Passed (99.44% passes the Ivory Snow Test)

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Testing Plan: Login

Pass/Fail Status	Test Number	Test Cases Description	Action to perform test (input)	Steps to be Executed	State Before Test	Expected result	Observed result	Comments	Tested By	Test Date
P	1.001	No Username, No Password	None	Press Enter	Blank Login Screen	Error Message, Redisplay Form				
P	1.002	Good Username, No Password	Login with just Username, no Password	Enter Username, Press Enter	Blank Login Screen	Error Message, Redisplay Form				
P	1.003	Bad Username, No Password	Login with incorrect Username, correct Password	Enter Incorrect Username, Press Enter	Blank Login Screen	Error Message, Redisplay Form				
P	1.004	No Username, Password	Login with no username and correct password	Enter Correct Password, Press Enter	Blank Login Screen	Error Message, Redisplay Form				
P	1.005	No Username, Bad Password	Login with no Username, incorrect Password	Enter Incorrect Password, Press Enter	Blank Login Screen	Error Message, Redisplay Form				

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Test Plan-Record Hours Continued

| Pass/Fail Status | Test Cases | | Action to perform test (input) | Steps to be Executed | State Before Test | Expected result | Observed result | Comments | Tested By | Test Date |
	Test Number	Description								
P	4.011	Date, Clock in Partial Data, Clock out Full Data	Date, Partial Clock in Data, Full Clock out Data	Enter Date, Clock in Hour, Clock out Hour, Enter Clock out Time, Enter Clock out AM/PM, Press Submit	Blank Hour Log Form	Error Message				
P	4.012	Date, Clock in Full Data, Clock out Full Data	Date, Full Clock in Data, Full Clock out Data	Enter Date, Clock in Hour, Clock in Time, Clock in AM/PM, Clock out Hour, Enter Clock out Time, Enter Clock out AM/PM, Press Submit	Blank Hour Log Form	Confirmation Message				
P	= Unit Summary		100% passing		12 passed			Date of last test =		1/0/00
	12	tests			0 failed					

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Development Environment & Production Environment

Computer #1 – Mac

- iMac
- Model Identifier: 12,1
- Mac OS X Lion 10.7.5 (11G3b)
- 21.4 inch (1920 x 1080 display)
- AMD Radeon HD 6750M 512 MB graphics
- Intel Core i5 (2.5GHz)
- 4 GB Memory
- 500 GB SATA Disk

Computer #2 – PC

- OptiPlex 760
- Windows Vista Enterprise
- Dual Dell Screens
  - Dell 2208WFP (1680 x 1050 display)
  - Dell 1908FP (1280 x 1024 display)
- Intel Core Duo CPU (2.93 GHz)
- 4 GB Memory
- 300 GB SATA Disk

Server
- Hostname: oraserv.cs.siena.edu
- CentOS 5.2 (final)
- Kernel: 2.6.18-92.el5
- Intel Xeon 2.66 GHz CPU
- 8 GB of Memory
- Java SE Runtime Environment (build 1.6.0 10-rc-b28)
- GCC Version 4.1.2 20071124 (Red Hat 4.1.2-42)
- Python 2.4.3

Operating Environment

Quantum Technologies will be using a web based application located on Siena College's oraserv database server. PRISM will consist of an Oracle database with an Apache Web server.

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| Home | Record Hours | Evaluations | Average Hours | Documents | System Controls |

PRISM

Record Hours

Kathleen O'Hara
Team Name: Quantum Technologies
Project Name: Project PRISM
Project Phase: Requirements Specification

Date : mm/dd/yyyy
Start Time : 00 : 00 AM
End Time : 00 : 00 AM

Insert comment(s) here.

Submit

Date	Start Time	End Time	Duration	Comments
11/05/2013	9:00AM	10:00AM	1.0	Team Meeting
11/04/2013	9:00PM	10:00PM	1.0	Team Meeting
11/04/2013	4:15PM	7:30PM	3.25	Level-2 Diagram

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Prototype: View Hours(See Attached)

Home	Record Hours	Evaluations	Average Hours	Documents	System Controls

PRISM

View Hours

Kathleen O'Hara
Team Name: Quantum Technologies
Project Name: Project PRISM
Project Phase: Requirements Specification

Date	Start Time	End Time	Duration	Comments
11/05/2013	9:00AM	10:00AM	1.0	Team Meeting
11/04/2013	9:00PM	10:00PM	1.0	Team Meeting
11/04/2013	4:15PM	7:30PM	3.25	Level-2 Diagram

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Home	Record Hours	Evaluations	Average Hours	Documents	System Controls

PRISM

System Administrator's Dashboard

System Controls

Projects	Employees	Teams
Create Project	Create Employee	Create Team
Manage Project PRISM ▾ [Manage Project]	Manage Employee Kathleen O'Hara ▾ [Manage Employee]	Manage Team Quantum Technologies ▾ [Manage Team]

Active Projects

Project Name	Team Leader	Total Hours
PRISM	Shannon Pfohl	220
Project 2	John Doe	213
Project 3	Jane Doe	190
Project 4	Jim Doe	204

Average Hours

Team	Average
Quantum Technologies	259
Team 2	234

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Prototype: System Admin-System Controls

(See Attached)

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What's Next

Software Plan → Requirements Specification → Preliminary Design → Detailed Design → Development and Testing → Acceptance Test

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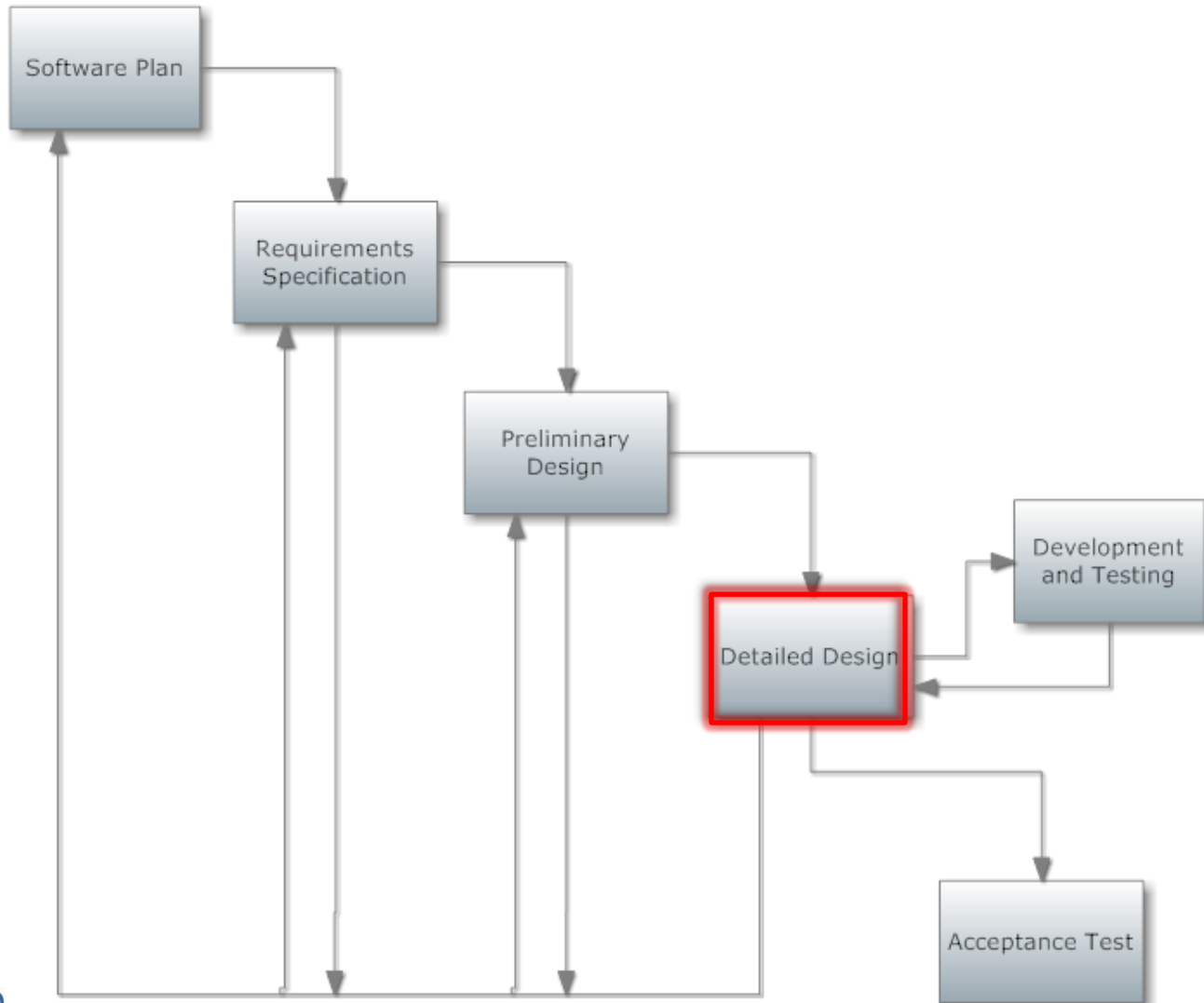
Timeline

Quantum Technologies Project Timeline

Number	Task	Start	End	Duration	% Complete	9/9	9/16	9/23	9/30	10/7	10/14	10/21	10/28	11/4	11/11	11/18	11/25	12/2
1	Establish Team	9/9/2013	9/9/2013															
2	Software plan	9/9/2013	9/17/2013	7	100.0													
3	Software plan due date	9/18/2013	9/18/2013															
4	Software plan presentation	9/18/2013	9/18/2013															
5	Requirement Specifications	9/18/2013	10/29/2013	29	100.0													
6	Required Documents due date	10/30/2013	10/30/2013		100.0													
7	Requirement presentation	10/30/2013	10/30/2013															
8	Preliminary Design	10/30/2013	12/3/2013	23	100.0													
9	Preliminary Design due date	12/4/2013	12/4/2013		100.0													
10	Preliminary design presentation	12/4/2013	12/4/2013		100.0													
11	Team Meeting	Monday	Monday															
12	Client Meeting	Thursday	Thursday															
13	Team Meeting	Friday	Friday															

Legend	Symbol
Milestone	◆
Document	▬
Team Meeting	▮
Client Meeting	☐
Deadline	▼
Completed Document	▬

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Thank You!

Questions or Comments?

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