

System and Software Architecture Description (SSAD)

Women at Work Website Redesign

Team 14

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Version History

Date	Author	Version	Changes made	Rationale
10/12/14	Dinesh Yeduguru	1.0	<ul style="list-style-type: none">• Original template for SSAD	<ul style="list-style-type: none">• Initial draft version 1.0 of SSAD• To fulfill exit condition of Draft FC package
	Srikanth Madhava		<ul style="list-style-type: none">• Various diagrams for system context, use case, behavior have been inserted• Have written description for each section	

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A.1.....Introduction

A.1.1 Purpose of the SSAD

The purpose of this document is to show the results of the object oriented analysis and design of the system being developed. The SSAD is used by the developer as reference to the system architecture. The website and the solution being developed should be faithful to the architecture specified in the SSAD. Furthermore, the SSAD is used by the maintainer and clients to help understand the structure of the system once the proposed website is delivered.

A.1.2 Status of the SSAD

This version is the initial version of the document submitted for the foundation phase.

A.2. System Analysis

A.2.1 System Analysis Overview

The system being developed for Women at Work has the following purposes:

- 1) Automated online registration form for the user.
- 2) Automated online feedback form for the user to fill at his/her convenience.
- 3) Onsite check-in system for the users
- 4) Website redesign for easy access to the data
- 5) Blogging and social media integration for wider outreach
- 6) Secure document sharing portal for the board members
- 7) Report generation module to collect user statistics

.2.1.1 System Context

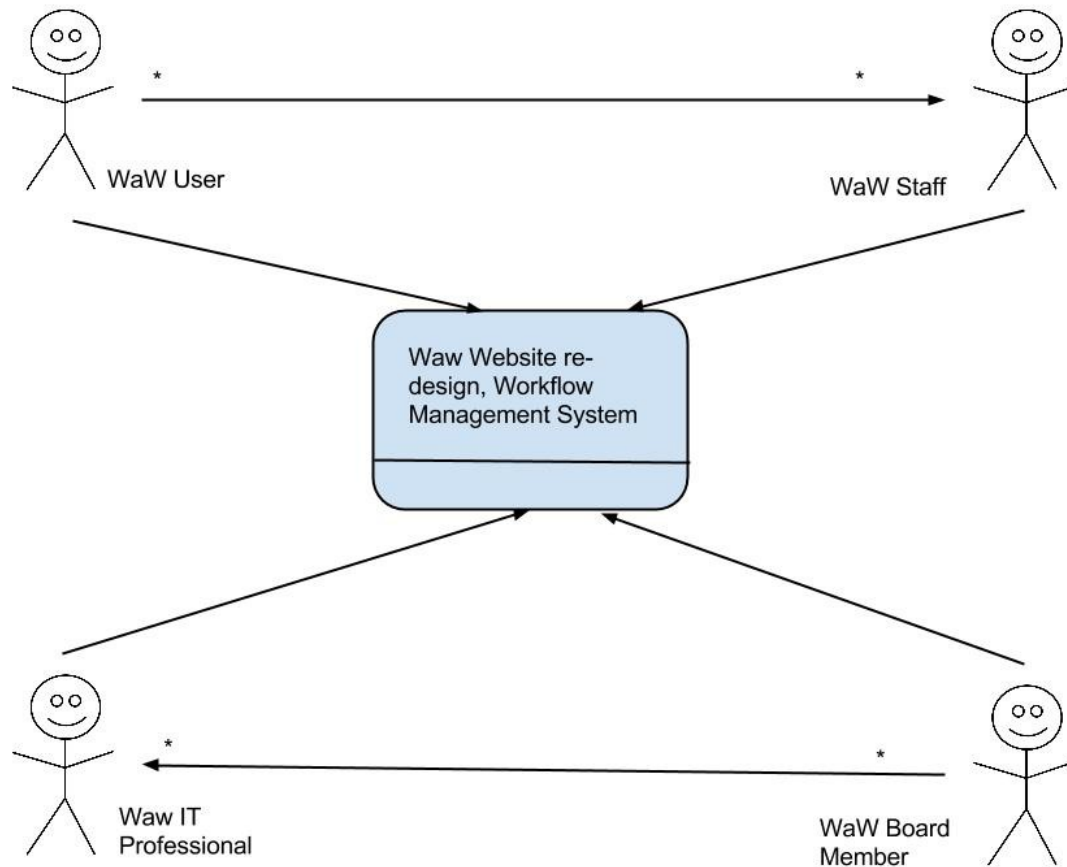


Figure 1: System Context Diagram

Table 1: Actors Summary

Actor	Description	Responsibilities
WaW Staff	WaW staff includes front desk staff	<ul style="list-style-type: none">• Help users with registration• Help users with check-in• Help users with getting appointment with councilors• Point of contact for the users who arrive at the location
WaW User	WaW users are the clients who signup for the programs	<ul style="list-style-type: none">• User shall register in order to attend the programs• User shall check-in before attending a program• User shall submit feedback about the progress
WaW Board Member	These include the directors, presidents and secretaries of the organization	<ul style="list-style-type: none">• Raise funds for the organization• Manage the organization• Board members shall use the portal for document management• Board members shall publish blogs in the website
WaW IT professional	This include the system administrators and database administrators at WaW	<ul style="list-style-type: none">• Maintain the IT infrastructure• Troubleshoot issues• Generate Reports• Add articles to the website through wordpress blogging engine

.2.1.2 Artifacts & Information

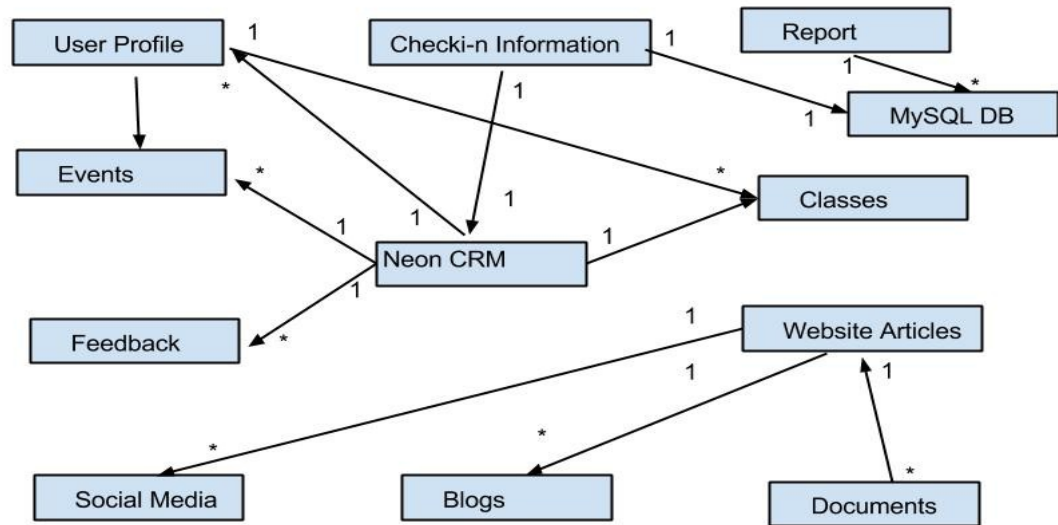


Figure 2: Artifacts and Information Diagram

Table 2: Artifacts and Information Summary

Artifact	Purpose
User Profile	Information about the user is stored here
Check-In	The user check-in information
Events	Events hosted at WaW
Classes	Classes conducted at WaW
Feedback	Feedback submitted by the user
Social Media	Updates to social media posted by WaW personnel
Blogs	Blogs posted by WaW personnel
Documents	Documents uploaded for sharing by the Board of directors

Website Articles	Articles added to the website
MySQL DB	DB used to store data about check-in
Reports	Reports generated from the check-in information

.2.1.3 Behavior

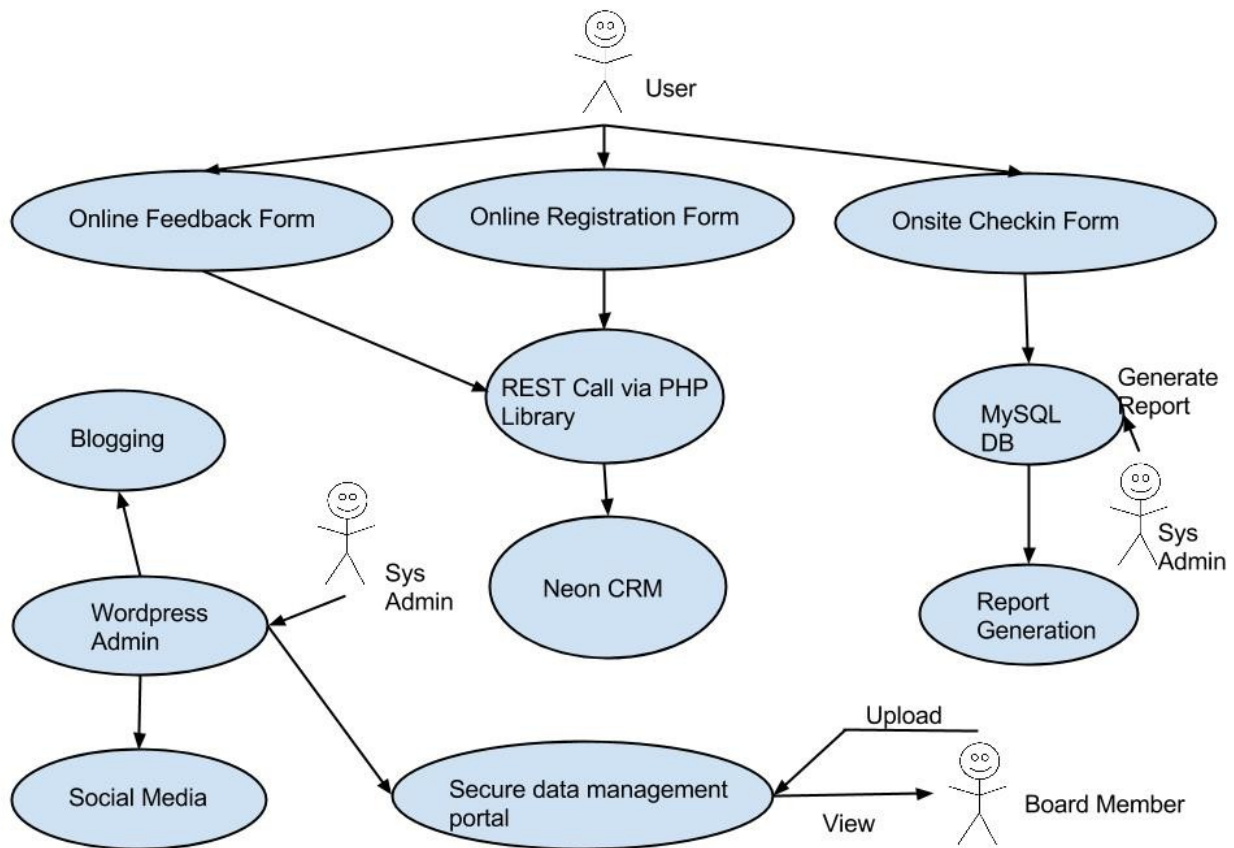


Figure 3: Process Diagram

A.2.1.3.1 Registration Capability

A.2.1.3.1.1 Online Registration Process

Table 3: Online Registration Process Description

Identifier	UC-1: Online User Registration
Purpose	For the user to register with WaW. This replaces the paper registration form.
Requirements	CR-1: Automated User Registration
Development Risks	None
Pre-conditions	<ol style="list-style-type: none"> 1. Neon CRM is in a working condition 2. User should have access to a computer with browser capability and connected to Internet
Post-conditions	If user enters valid data, the data is stored into Neon CRM. Otherwise, an error is displayed to the user

Table 4: Typical Course of Action

Seq#	Actor's Action	System's Response
1	[user] clicks Register Online button	Redirects user to registration page
2	[user] enters registration details and submits	System makes an REST Call with Registration details to NEON CRM.
3	[NeonCRM] validates data	
4		[valid] Inserts registration data into the NEON CRM.

Table 5: Alternate Course of Action

Seq#	Actor's Action	System's Response
1-3		Refer to the typical course of action
4		[invalid] Displays an error message to the user with the corresponding error code.

A.2.1.3.2 Feedback Capability

A.2.1.3.2.1 Online Feedback Process

Table 6: Online Feedback Process Description

Identifier	UC-2: Online User Feedback
Purpose	For the user to give feedback to WaW. This replaces the telephonic feedback process.
Requirements	CR-2: Automated User Feedback
Development Risks	None
Pre-conditions	<ol style="list-style-type: none"> 1. User should be registered 2. User should receive a notification to submit feedback 3. User should be willing to give feedback
Post-conditions	If user enters valid data, the data is stored into Neon CRM. Otherwise, an error is displayed to the user

Table 7: Typical course of action

Seq#	Actor's Action	System's Response
1	[Neon CRM] sends mail to the user notifying to submit the feedback	
2	[user] Clicks the submit feedback button	redirects to the feedback form
3	[user] enters the feedback and submits	System makes an REST Call with Feedback details to NEON CRM.
4	[NeonCRM] Validates the feedback data	
5		[valid] Inserts feedback data into the NEON CRM.

Table 8: Alternate course of action

Seq#	Actor's Action	System's Response
1-4		Refer to the typical course of action
5		[invalid] Displays an error message to the user with the corresponding error code.

A.2.1.3.3 Onsite User Check in

A.2.1.3.3.1 Onsite User check in process

Table 9: On-line check-in process description

Identifier	UC-3: Onsite User Checkin
Purpose	For the user to check in at WaW location so as to keep track all the users visited.
Requirements	CR-3: Automated User Checkin
Development Risks	None
Pre-conditions	<ol style="list-style-type: none"> 1. User should be registered 2. User should arrive at the location 3. Should be able to access a machine connected to the intranet
Post-conditions	If user enters valid data, the data is stored into MySQL DB. Otherwise, an error is displayed to the user

Table 10: Typical course of action

Seq#	Actor's Action	System's Response
1	[user] user selects all the options that apply to him	

2	[user] Clicks the submit button	System makes an REST Call with user details to NEON CRM
3	[NeonCRM] Verifies if user is registered	
4		[valid] Inserts checkin data into the MySQL DB.

Table 11: Alternate course of action

Seq#	Actor's Action	System's Response
1-3		Refer to the typical course of action
5		[invalid] Displays an error message to the user with the corresponding error code.

A.2.1.3.4 Secure Document Management

A.2.1.3.4.1 Secure Document Management upload process

Table 12: Secure document management upload process description

Identifier	UC-4: Secure Document Management
Purpose	For the board members to provide secure document management portal to share the confidential documents.
Requirements	CR-4: Secure Data Management Portal
Development Risks	None
Pre-conditions	<ol style="list-style-type: none"> 1. Board members should be registered 2. Board members should have access to a computer with browser capability and connected to Internet
Post-conditions	The uploaded documents can be accessed from a secure third party data portal

Table 13: Typical course of action

Seq#	Actor's Action	System's Response
1	[user] Board members will login as Board from WaW website	
2	[user] Clicks the upload link to upload the document	System redirects the user to upload page
3	[user] Uploads the document	
4		[valid] The document is stored in the secure data management portal.

Table 14: Alternate course of action

Seq#	Actor's Action	System's Response
1-3		Refer to the typical course of action
5		[invalid] Displays an error message to the user with the corresponding error code.

A.2.1.3.4.2 Secure Document Management view process

Table 15: Secure document management view process

Identifier	UC-5: Secure Document Management
Purpose	For the board members to provide secure document management portal to view the confidential documents.
Requirements	CR-5: Secure Data Management Portal
Development Risks	None
Pre-conditions	<ol style="list-style-type: none"> 1. Board members should be registered 2. Board members should have access to a computer with browser capability and connected to Internet
Post-conditions	The uploaded documents can be accessed from a secure third party data portal

Table 16: Typical course of action

Seq#	Actor's Action	System's Response
1	[user] Board members will login as Board from WaW website	
2	[user] Clicks on document which needs to be viewed	
3		[valid] System redirects the user to the document

Table 17: Alternate course of action

Seq#	Actor's Action	System's Response
1-2		Refer to the typical course of action
3		[invalid] Displays an error message to the user with the corresponding error code.

A.2.1.3.5 Report Generation

A.2.1.3.5.1 Report Generation process

Table 18: Report generation process

Identifier	UC-6: Report Generation
Purpose	To collect various statistics by generating reports to make better business decisions.
Requirements	CR-6: Report generation
Development Risks	None
Pre-conditions	NONE
Post-conditions	NONE

Table 19: Typical course of action

Seq#	Actor's Action	System's Response
1	[System admin] logs into Admin interface	
2	[System admin] runs the procedure.	MySQL runs various queries to generate reports and dumps it into Excel