System and Software Architecture Description (SSAD)

Lose4Good.org Database Driven Socially Connected Website

USC-CSSE

Team 08

Version History

Date	Author	Version	Changes made	Rationale
1/14/13	AS,AA	1.0	• Original for CSCI577a: Tailored from ICSM OCD Template	• Initial Document for Valuation Phase
10/16/13	AA	1.1	• Updated the Use Case	• Enhancement
10/16/13	AA	1.2	• Updated the Context diagram	• Final document for Valuation Phase
10/16/13	AS, AA	1.3	• Updated the Context diagram and use case diagram	• Update the changes suggested in ARB session.
12/02/13	Ali, Manas ,Arul, Ankit	2.0	• Updated the Context diagram and use case diagrams and descriptions • Added Class diagram, Deployment Diagram, ER diagram and two sequence diagrams	• Draft document for Foundation Phase
12/02/13	Ali, Manas ,Arul,	2.2	• Updated the Context diagram and • Update Class diagram,	• Final document for Foundation Phase
2/11/14	Ali	3.0	• Updated Test case description and digrams	• RDCP
2/18/14	Ali	3.1	• Updated Test case description and digrams based on Feedback from ARB	• RDCP
04/02/14	Ali	3.2	• Update Deployment and HW component diagram as well as class and ER diagrams based on the Feedback from TA	• Based on TA feedback and in preparation for IOC
04/15/14	Shreyas	3.3	• Revision for TRR	• Final draft for TRR
04/30/14	Ali	3.4	• Revision for AsBuildPackage	• For AsBuildPackage

Table of Contents

Table of Figures

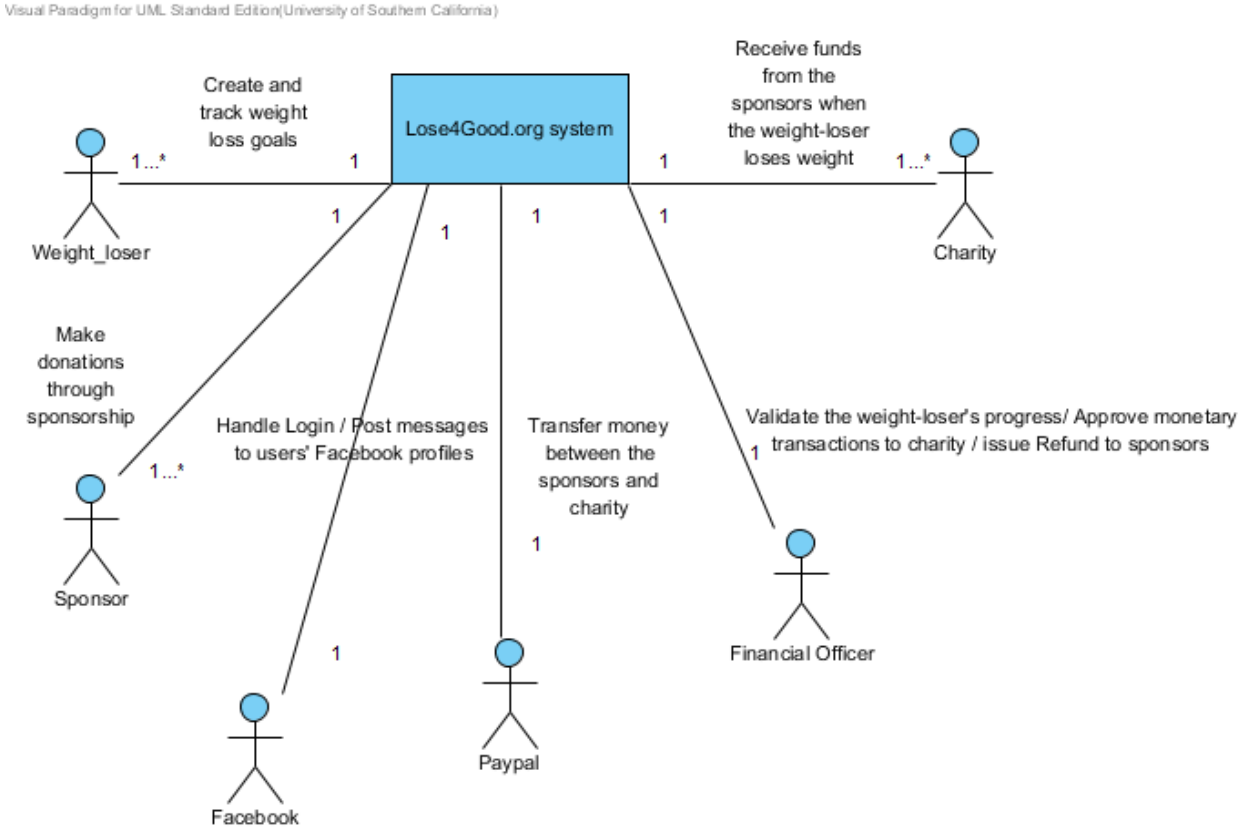
Introduction

The document's purpose is to highlight the design considerations for the website obtained as a result of the object-oriented analysis and design process. The SSAD will be closely followed by the developers while building the system. It also provides as a medium for the easy and clear understanding of the structure of the proposed website.

Status of the SSAD

SSAD is currently at the Transition phase. This document has been auto-generated from Visual Paradigm. This version, , contains the system context diagram, the use cases diagram and descriptions, the class diagram, the entity relational diagram, two Sequence diagrams, the Deployment diagram, as well as Hardware and Software Component Diagrams. The document has been modified to changes that have been introduced into the system since 3.2 and 3.3. Also the feedback from TA has been considered in this version

System Context Diagram



Details

1

Facebook

PayPal

Lose4Good.org system

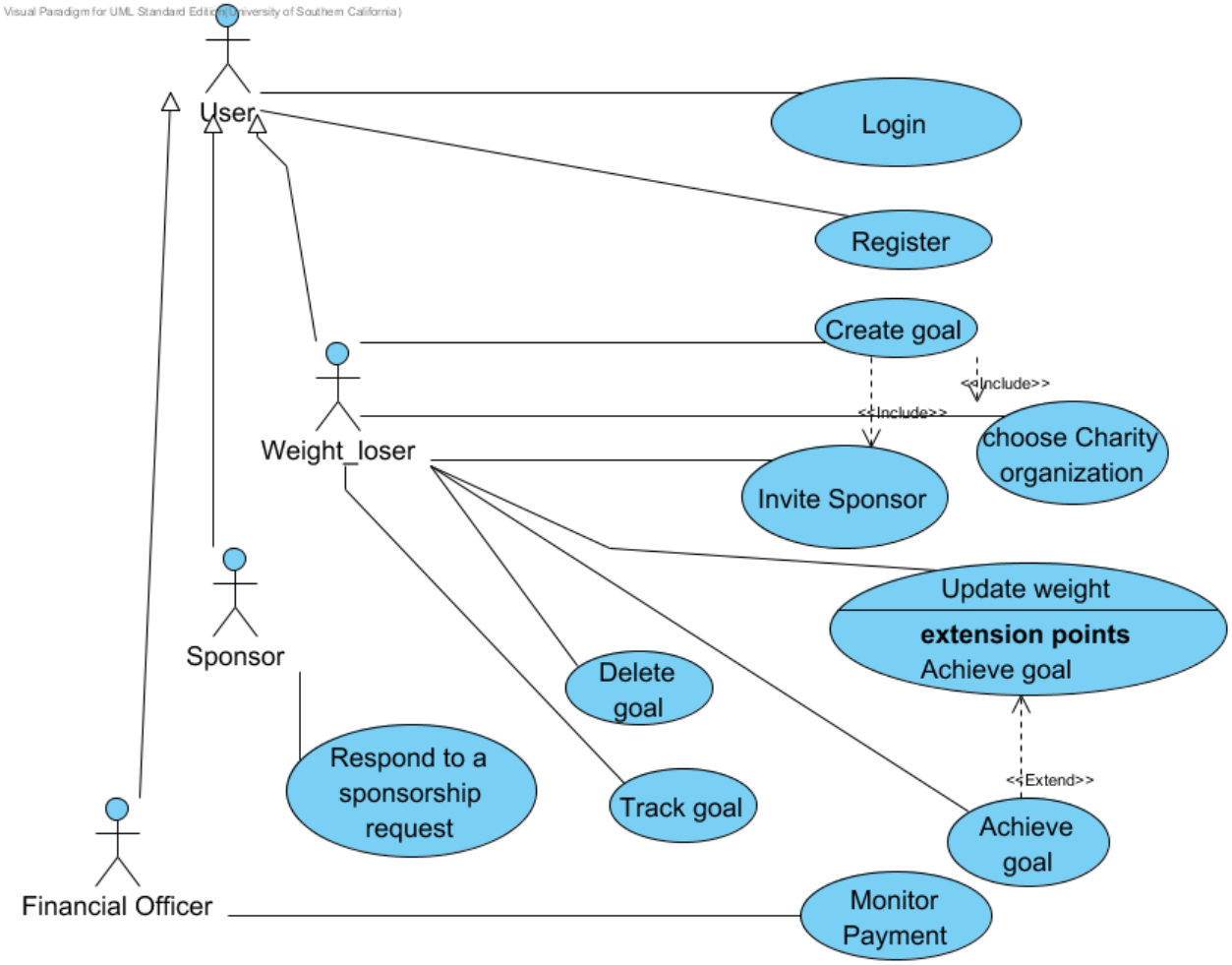
Charity

Financial Officer

Sponsor

Weight_loser

Use Case Diagram



Details

Financial Officer

User

Sponsor

Weight_loser

Delete goal

Details

Name	Value
Complexity	Medium
Use Case Status	Initial
Preconditions	Create goal

Use Case Descriptions

Main Flow			
Super Use Case			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 10:11:36 PM		
Brief Description	This use case allows the user to delete his/her goal if it was not sponsored yet.		
Preconditions	The weight loser is logged in and the goal has already created		
Post-conditions	The goal is deleted from the system. unless the use case wasn't completed or the goal has already been sponsored		
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser clicks on delete goal on the goal track page	
	2		The system checks that the goal has no sponsor and shows a confirmation

			message
	3	The weight loser clicks "Confirm"	
	4		The system deletes the goal.
	5		The system shows a message to the user

Exception Flow			
Author	Ali		
Date	Nov 14, 2013 7:51:11 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser clicks on delete goal on the goal track page	
	2		The system finds that the goal has been sponsored
	3		The system shows a message that the goal can't be deleted.

Track goal

Details

Name	Value
Use Case Status	Initial
Preconditions	Create goal

Use Case Descriptions

Main Flow	
Super Use Case	
Author	Arul Samuel, Ali Alotaibi

Date	Oct 16, 2013 11:11:29 PM
Brief Description	This use case allows weight loser to see his/her progress and the goal information
Preconditions	The user is logged into the system and the weight loser has created a goal.
Post-conditions	
Flow of Events	

	Actor Input	System Response
1	The weight loser clicks on "Track goal"	
2		The system retrieves the goal details
3		The system shows the details of the goal progress and using graphs and charts

Monitor Payment

Details

Name	Value
Complexity	High
Use Case Status	Initial

Use Case Descriptions

Main flow	
Super Use Case	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 6:19:21 PM
Brief Description	The financial officer is the person responsible to process the pending transactions in the system. There are two kinds of transactions, one that holds money to be donated to charity and the second holds the money to be refunded to sponsors because the goal was not achieved.
Preconditions	The user is logged into the system as financial officer and there is at least one goal that has pending transactions and it is the end of the month. PayPal is up and running (to do the refund)
Post-conditions	The pending transactions are approved and the associated money is either donated to charity or sent back to sponsors. That is if the

	financial officer approved the pending transactions and the use case has been completed successfully

Flow of Events

	Actor Input	System Response
1	The financial officer clicks on reports page	
2		The system checks the achieved and failed goals as well as the updated goal in the last month.
3		The system generates a report of all the pending transactions.
4	The financial officer clicks on a goal	
5		the system shows the transactions of that goal.
6	The financial officer approves the transaction for the money to be send to charity	
7		The systems update the transaction status to be "completed" and show a message that the money has to be sent manually to the associated charity
8		The system sends the transaction details via email to the charity organization.
9	The financial officer approves the transactions for sponsors refund.	
10		The systems update the transaction status to be "completed" show a message that the money has to be sent manually to the associated sponsors
11		The System sends transactions details via email to the sponsors.
12	Financial officer repeats steps 4 to 11 for the rest of the goals	

Exception Flow			
Author	Ali Alotaibi		
Date	Nov 23, 2013 8:00:16 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	After the client approves the refund transactions of a given goal (step 9 of main flow)	
	2		The systems tries to refund the associated sponsors through PayPal.
	3		The system gets an error message from PayPal.
	4		The system shows a message to the sponsor that the refund can't be done.

Alternative Flow			
Author	Ali Alotaibi		
Date	Nov 27, 2013 12:45:41 AM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	After a financial officer clicks on a goal (step 4 of the main flow), financial officer chooses to mark a transaction as "Invalid Transaction"	
	2		The system changes the status of the transaction to be "invalid" and remove the transaction form the pending list.
	3		The system sends a notification to the user.

Achieve goal

Details

Name	Value
Use Case Status	Initial

Use Case Descriptions

Main Flow			
Super Use Case			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 6:51:43 PM		
Brief Description	If the weight loser achieves his/her goal, the system will show a congratulatory message and post them on facebook and tell sponsors and charity through email.		
Preconditions	The weight loser is logged into the system and User has an active goal.Alsothe update goal has been completed.		
Post-conditions	Emails are sent out to the associated sponsors and charities and congratulatory message is posted on weight loser's profile. That is unless the goal was not achieved or the user chooses not to share.		
Flow of Events		**Actor Input**	**System Response**
	1	On the update weight page, The weight loser enters a new weight	
	2		The system finds that the user's current weight is equal to the target weight.
	3		The system displays a congratulatory message to the user
	4		The systems asks if the user wants to share the congratulatory message on Facebook.
	5	The weight loser clicks "Share"	
	6		The system accesses user information through

			Facebook
	7		The system posts the congratulatory message to the user's Faceook profile
	8		The system sends out emails to the associated sponsors and charities.

Exception Flow			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 7:04:02 PM		
Brief Description			
Preconditions	The user has already granted access the system to access Facebook profile		
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	After the goal is achieved and the weight loser clicked on "Share congratulatory message on Facebook"	
	2		The system Can't access user information through Facebook
	3		The system shows an error message to the user

Create goal

Details

Name	Value
Complexity	Medium
Use Case Status	Initial
Preconditions	Login

Use Case Descriptions

Main Flow

Super Use Case	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 3:19:38 PM
Brief Description	The weight loser can create a new weight-lose goal and choose a sponsor to support his goal and a charity to send the donated money to
Preconditions	The weight loser is logged in and has no active goal
Post-conditions	The goal has been created and at least one sponsor has been invited and a specific charity has been added to the goal. That is if the goal creation was not canceled or failed

Flow of Events

	Actor Input	System Response
1	The weight loser clicks on create goal link on the homepage.	
2		The system redirects the user to the create goal page.
3	The weight loser enters current weight, the amount of pounds he/she wants to lose(Maximum 25 lb and min:1 lb) and the duration(Default duration to achieve the goal is 1 hour) to achieve that goal.	
4	The weight loser clicks "Proceed"	
5		The system invokes the Add Charity use case.
6	The weight loser adds Charity successfully	
7	The weight loser clicks "Start new Goal"	
8		The system invokes the Invite Sponsor use case.
9	The weight loser adds at least one sponsor successfully.	
10	The weight loser clicks invite	
11		The system creates the Goal and show a confirmation message

Exception Flow 1			
Author	ArulSamuel, Ali Alotaibi		
Date	Oct 16, 2013 3:29:19 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser enters more than 25 lb. or an any invalid information	
	2		The system shows an error message to the user.

Exception Flow 2			
Author	Ali		
Date	Nov 14, 2013 7:08:26 PM		
Brief Description	The goal can't be created without		
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser doesn't complete add charity or add sponsor use case successfully	
	2		The system shows an error message and stop the goal creation process

Exeption Flow 3	
Super Use Case	
Author	Ali
Date	Feb 18, 2014 3:39:43 PM
Brief Description	
Preconditions	
Post-conditions	

Flow of Events		Actor Input	System Response
	1	The user enters a goal that is more than 25 lb or less than 1 lb	
	2		The system shows an error message and asks the user to enter a goal between 1-25 lb

Respond to a sponsorship request

Details

Name	Value
Complexity	Medium
Use Case Status	Initial
Preconditions	Invite Sponsor

Use Case Descriptions

Main Flow			
Super Use Case			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 7:39:41 PM		
Brief Description	After the weight loser sends an invitation to potential sponsors, a sponsor can respond to the invitation and donate money.		
Preconditions	The associated goal is still valid and the user and the link is still valid. Also, PayPal is up and running		
Post-conditions	Money is pledged to the lose4good account and the goal details is update. That is if the user pledges the money successfully and the use case is completed successfully.		
Flow of Events		**Actor Input**	**System Response**
	1	The sponsor clicks on the link associated with the invitation email from Lose4Good.	
	2		The system validates the link and open the pledge money

			page
	3	The sponsor enters the amount of money to be donated for each pound the user lose(total amount should be at least $1)	
	4	The sponsor enters the required personal information.	
	5	The Sponsor clicks "Donate"	
	6		The system validates the the details and redirects the sponsor to PayPal
	7	The sponsor completes the payment through the PayPal.	
	8		The system stores the transaction details returned by PayPal
	9		The system asks the sponsor what to do with the remaining money if the goal was not achieved
	10	The sponsor chooses refund me the remaining money	
	11		The system shows thank you message to the sponsor and sends the transaction details to the sponsor's email
	12		The system asks the sponsor if he/she wants to register in lose4good as a weight lose.
	13	Click "Register"	
	14		The system invokes "Register" use case

Exception Flow			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 7:59:45 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**

	1	After the user enters the amount of money and his/her information on Pledge Money page, and Clicks "Proceed" (Step 5 of Main Flow)	
	2		The system validates the the details and redirects the sponsor to PayPal
	3		The system receives from PayPal that the payment was not successful
	4		The system show error message and ask the sponsor to try again.

Alternative Flow			
Author	Ali Alotaibi		
Date	Nov 14, 2013 8:18:24 PM		
Brief Description	The sponsor will be asked whether to be refunded the money remaining money if the goal was not achieved or donate it anyway. In the main flow the choice was to get a refund		
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The sponsor chooses to donate the remaining money to charity if the goal was not achieved	
	2		The system update the goal with this choice

Exception Flow 2			
Super Use Case			
Author	Ali		
Date	Feb 18, 2014 3:35:03 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**

	1	The total amount of money the sponsor chooses to donate is less than $1	
	2		The system show an error message and asks the user to edit the amount of money to be donated for each pound so the total can be $1 or more

Invite Sponsor

Details

Name	Value
Complexity	Medium
Use Case Status	Base
Preconditions	choose Charity organization

Use Case Descriptions

Main Flow			
Super Use Case			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 3:44:56 PM		
Brief Description	This use case allows user to invite people to support his/her goal by donating money to lose4good account.		
Preconditions	The user is logged in and has started the goal creation use case and added a charity organization		
Post-conditions	The invitations are sent to the specified sponsors unless the invitation process was not successful.		
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser clicks on invite sponsor	
	2		The system Re-directs the user to the Invite sponsor page.

	3	The weight loser enters the sponsor name and email id.	
	4		The system adds the sponsor to the temporarily selected sponsors list.
	5	The weight loser edits the default message to be sent in the email.	
	6	The weight loser clicks "Conform"	
	7		The system generates the invitation links and send the emails
	8		The system shows a confirmation message

Exception Flow 1			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 3:49:46 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	On Invite sponsor page, the weight loser enters an invalid email id.	
	2		The system displays an error message and ask for a valid email id.

Alternative Flow	
Author	Ali Alotaibi
Date	Nov 26, 2013 8:21:48 PM
Brief Description	Weight loser may choose to post the invitation on his/her Facebook profile instead of sending emails to sponsor
Preconditions	
Post-conditions	The invitation is posted on the weight loser's Facebook profile unless the system couldn't access Facebook or the use case wasn't completed successfully

Flow of Events		Actor Input	System Response
	1	The weight loser clicks on invite sponsor	
	2		The system Re-directs the user to the Invite sponsor page.
	3	The weight loser chooses to send the invitation through Facebook.	
	4		The system opens share invitation page.
	5	The weight loser edits the default message and clicks send.	
	6		The system accesses user information through Facebook
	7		The system post the invitation on the weight loser's Facebook.

Exception Flow 1			
Author	aalotaib		
Date	Nov 26, 2013 8:35:23 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	On the invite sponsor page, the weight loser chooses to send the invitation through Facebook.	
	2		The system opens share invitation page.
	3	The weight loser edits the default message and click send.	
	4		The system Can't access user information through Facebook

	5		The system displays an error message

choose Charity organization

Details

Name	Value
Complexity	Low
Use Case Status	Base

Use Case Descriptions

Main Flow			
Super Use Case			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 3:38:39 PM		
Brief Description	This use case allow weight loser to choose the charity organization he/she wants to support. The system will provide a list of charity organizations to choose from		
Preconditions	The user is logged in the system and has started the create goal use case		
Post-conditions	The charity organization has been added to the new goal		
Flow of Events		**Actor Input**	**System Response**
	1	The weight loser clicks on add charity organization	
	2		The system shows a list of the available charity
	3	The weight loser chooses a charity organization and clicks "Submit"	
	4		The system adds the chosen charity to the goal

Alternative Flow1	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 3:42:13 PM

Brief Description	
Preconditions	The user doesn't find the charity organization of his/her choice.
Post-conditions	The suggested charity added to the suggested charity list unless the use case wasn't completed.

Flow of Events

	Actor Input	System Response
1	The weight loser clicks on Suggest charity organization button	
2		The system how suggest charity page
3	The weight loser enters charity information	
4		The system validates the input and add the charity to the suggested charity list

Update weight

Extension Points

Achieve goal

Details

Name	Value
Complexity	Medium
Use Case Status	Initial
Preconditions	Create goal

Use Case Descriptions

Main Flow	
Super Use Case	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 9:56:43 PM
Brief Description	This use case allows user to enter update his/her weight into the goal. Benchmark is the lowest weight the user has reached so if the user

	gains weight no money will be send to charity until he/she reaches the benchmark again.
Preconditions	The user is logged into the system and there is an active goal
Post-conditions	The goal is updated with the new weight and the benchmark is updated. That is unless the update weight failed

Flow of Events

	Actor Input	System Response
1	The weight user clicks on update weight link.	
2		The system opens update weight page
3	The weight user enters a new weight.	
4		The system checks that the new weight is less than the benchmark
5		The system updates the benchmark to be equal to the new weight and update the remaining money.
6		The system updates the goal with the new weight

Exception Flow1

Super Use Case	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 9:56:51 PM
Brief Description	
Preconditions	
Post-conditions	

Flow of Events

	Actor Input	System Response
1	On the update weight page, the weight loser enters an invalid weight	
2		The system shows an error message.

Exception Flow2

Author	Ali

Date	Nov 14, 2013 8:06:09 PM
Brief Description	
Preconditions	
Post-conditions	
Flow of Events	

	Actor Input	System Response
1	On the update weight page, the user enters a new weight	
2		The system checks finds that the new weight is greater or equal to the benchmark weight.
3		The system doesn't update the goal's benchmark.
4		The system updates the goal with the new weight

Login

Details

Name	Value
Complexity	Medium
Use Case Status	Initial

Use Case Descriptions

main flow - Standard	
Super Use Case	
Author	Arul Samuel, Ali Alotaibi, Manas Jog
Date	Oct 16, 2013 2:23:00 PM
Brief Description	This use case allows user to log in the system by using username and password or login through Facebook
Preconditions	
Post-conditions	User is authenticated to use the system and redirected to the home page. That is unless the credentials were not correct or the use case was not completed successfully.
Flow of Events	

	Actor Input	System Response

	1	The user enters email id and password and clicks on login	
	2		The system checks if email and password fit required pattern
	3		the system checks if login attempts did not exceed 15 in 5 minutes.
	4		The system checks if the supplied credentials exist in the system
	5		The system redirects the user to homepage.

Exception Flow 1			
Author	Arul Samuel Ali Alotaibi		
Date	Oct 16, 2013 2:30:01 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The users enters email and password that violates the required pattern.	
	2		The system checks if email and password fit required pattern.
	3		The system displays error message that shows the user the pattern that was violated.

Exception Flow 2	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 2:41:25 PM
Brief Description	
Preconditions	
Post-conditions	

Flow of events		Actor Input	System Response
	1	The user enters incorrect email id or/and password.	
	2		The system checks if supplied credentials exist in the system
	3		The system displays "incorrect email or password" message.

Exception Flow 3	
Author	manas, Ali Alotaibi
Date	Nov 16, 2013 9:11:35 PM
Brief Description	
Preconditions	The user has tried to login 14th time in the last 5 minutes
Post-conditions	

Flow of Events		Actor Input	System Response
	1	The user tries to login for 15th time in 5 minutes.	
	2		The system checks if login attempts did not exceed 15 times in 5 minutes.
	3		The system locks out the current session and disable login button.

Alternative Flow 1	
Super Use Case	
Author	Manas Jog, Ali Alotiabi
Date	Nov 16, 2013 9:16:07 PM
Brief Description	The user can reset his/her password by entering the email used to register in the system
Preconditions	Email address used is registered.
Post-conditions	User's password is changed unless the password reset process was not successful.

Flow of Events		Actor Input	System Response

	1	The user clicks on forgot password.	
	2		The system redirects the user to Forgot password page.
	3	The user enters email address and clicks submit.	
	4		The system checks if email exists.
	5		The system generates a URL containing a random token string and send it as email. Also store it in the system with 24 hour expiry time.
	6	The user clicks on the random URL in the sent email.	
	7		The system checks if URL exists in system and is valid.
	8		The system redirects the user to New Password page.
	9	The user enters a new password twice.	
	10		The system heck if password matches and conforms to policies.
	11		The system udates the user account with the new password.
	12		The system redirects the user to login page.

Exception Flow 1			
Author	Manas Jog		
Date	Nov 16, 2013 9:30:07 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	On Forgot password page, the user enters email address	
	2		The system checks if email

			exists.
	3		The system displays "Email does not exist" message.

Exception Flow 2			
Author	Manas Jog		
Date	Nov 16, 2013 9:31:47 PM		
Brief Description			
Preconditions	URL used for password reset expired.		
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The user clicks on the random URL in the sent email(step 6 of alternative flow 1)	
	2		the system checks if URL exists in the system and is valid.
	3		The system displays an error message "URL expired" and redirect user to Forgot Password page.

Alternative Flow 3			
Super Use Case			
Author	Ali Alotaibi		
Date	Nov 14, 2013 8:35:44 PM		
Brief Description	user can login to the system using Facebook		
Preconditions			
Post-conditions	User is authenticated to use the system and redirected to the home page. That is unless this use case flow was not completed successfully.		
Flow of Events		**Actor Input**	**System Response**
	1	The user clicks on "Login Via Facebook"	
	2		The system attempts to get user information through Facebook

	3		The system checks if response contains user information
	4		The system checks if user is already registered in the system
	5		The system redirects the user to the home page

Exception Flow 1			
Author	Manas Jog, Ali Alotaibi		
Date	Nov 16, 2013 9:49:09 PM		
Brief Description	If this is the first time the user uses login via Facebook, The system will add the user information into the system and the user will be a register user.		
Preconditions			
Post-conditions	User is added into the system as a new user and is authenticated to use the system and redirected to homepage.		
Flow of Events		**Actor Input**	**System Response**
	1	The user clicks on Login via Facebook	
	2		The system attempts to get information by Facebook
	3		The system checks if response contains user information
	4		The systems finds that the user is not registered in the system
	5		The system adds the user into the system
	6		The system redirects the user to home page

Exception Flow 2	
Author	Manas, Ali Alotaibi
Date	Nov 16, 2013 9:53:19 PM
Brief Description	The user did not grant access permissions to our website and hence invalid response was returned or connection with facebook could not be established.

Preconditions	
Post-conditions	or the use case was not completed successfully.
Flow of Events	

	Actor Input	System Response
1	The user clicks on "Login Via Facebook"	
2		The system attempts to get user information from Facebook
3		The system checks if response contains user information.
4		The system displays an error message that no information was retrieved from Facebook.

Register

Details

Name	Value
Complexity	Low
Use Case Status	Initial

Use Case Descriptions

Main Flow	
Super Use Case	
Author	Arul Samuel, Ali Alotaibi
Date	Oct 16, 2013 3:05:19 PM
Brief Description	This use case allow a new member to create an account in Lose4Good website
Preconditions	none
Post-conditions	User account has been created and user information is stored in the database unless the account creation was not successfully
Flow of Events	

	Actor Input	System Response
1	The user clicks register on	

		the login page.	
	2		The system Redirects the user to the Account Creation page.
	3	The user enters his/her personal information and click on the register button.	
	4		The system validates the entered information and checks for redundancy
	5		The system sends an activation link to the user's email and show a conformation message .

Exception Flow 1			
Author	Arul Samuel, Ali Alotaibi		
Date	Oct 16, 2013 3:13:45 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	The user Tries to register while already having an account	
	2		The system Show an error Message

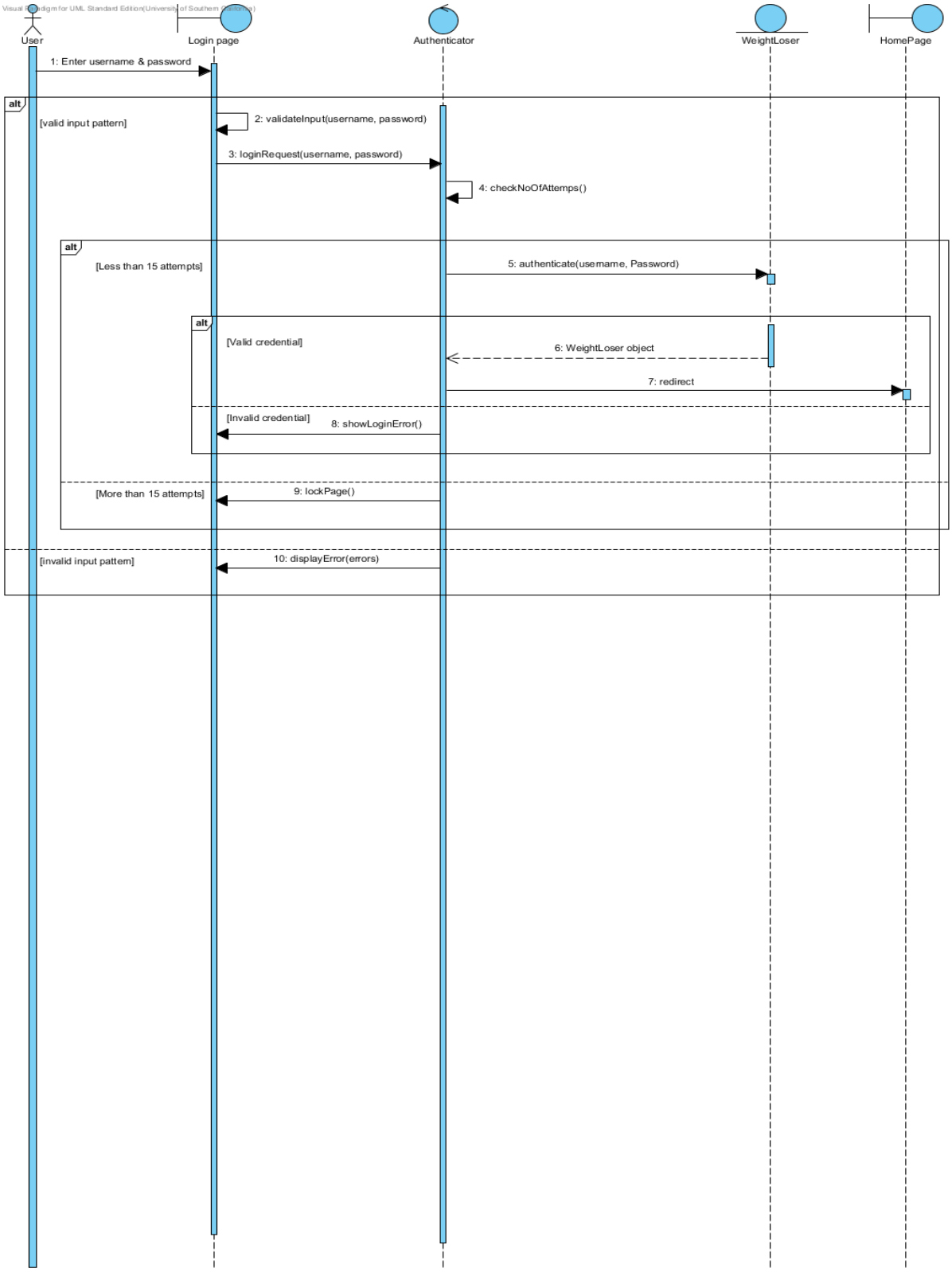
Exception Flow 2			
Author	Ali		
Date	Nov 14, 2013 7:02:06 PM		
Brief Description			
Preconditions			
Post-conditions			
Flow of Events		**Actor Input**	**System Response**
	1	User enters invalid Information	

	2		The system shows an error Message and mark the invalid information

Use Cases Grid

ID	Name	Primary Actors	Supporting Actors
UC06	Update weight	Weight_loser	
UC11	Monitor Payment	Financial Officer	
UC04	choose Charity organization	Weight_loser	
UC05	Invite Sponsor	Weight_loser	
UC01	Login	User	
UC09	Respond to a sponsorship request	Sponsor	
UC02	Register	User	
UC10	Achieve goal	Weight_loser	
UC03	Create goal	Weight_loser	
UC07	Delete goal	Weight_loser	
UC08	Track goal	Weight_loser	

Direct Login



Details


User


Login page


Authenticator


WeightLoser


HomePage


Operand15


Operand16


Operand14


CombinedFragment9


Operand13

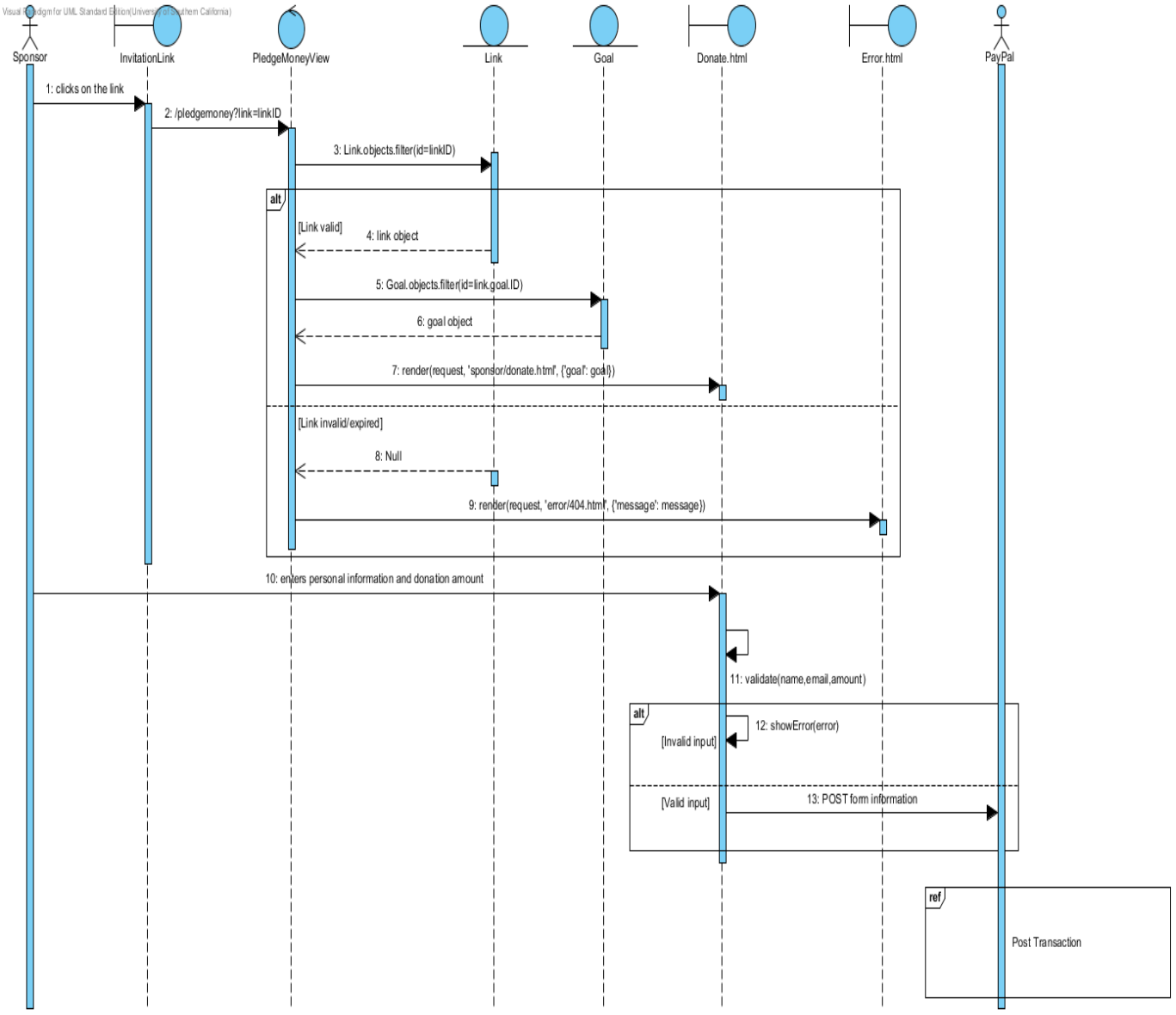

invalid input


valid input


CombinedFragment8


CombinedFragment7

Sponsorship Invitation Response



Details


Sponsor


InvitationLink


PledgeMoneyView


Link


Goal


Donate.html


Error.html


PayPal


N/A


Operand


Operand2

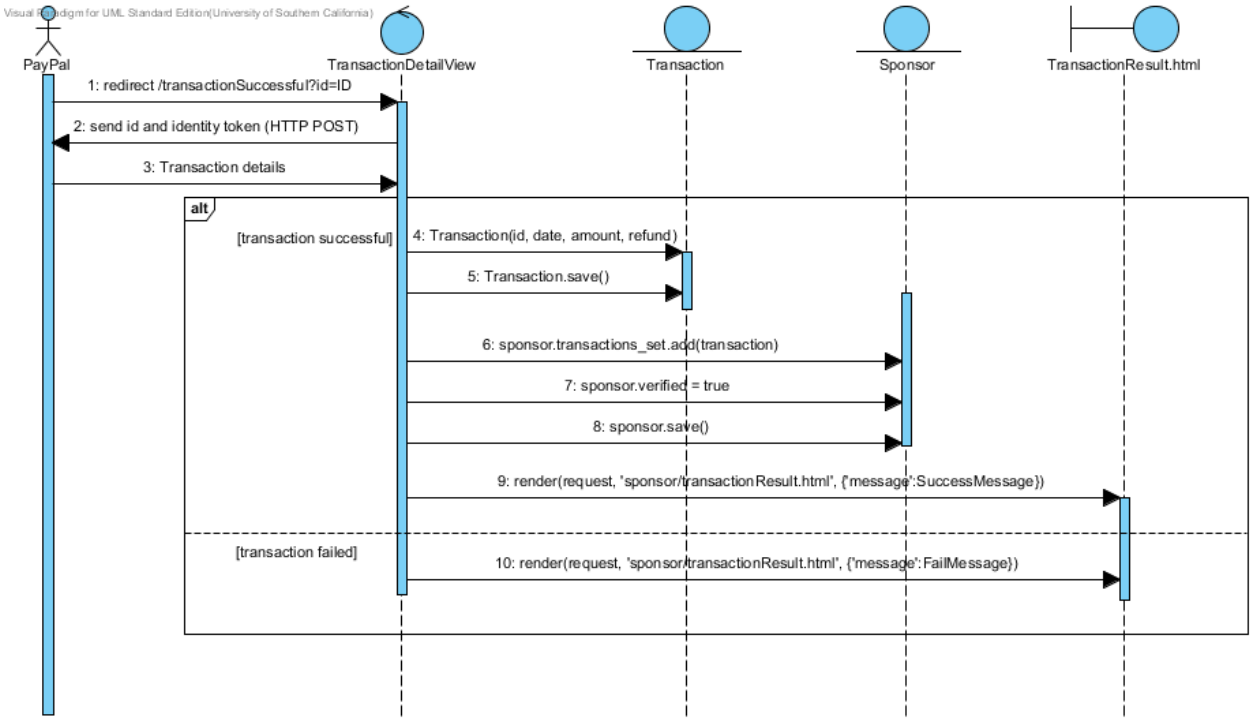

Operand3


Operand4


CombinedFragment2


CombinedFragment

Post Transaction



Details

PayPal

TransactionDetailView

Transaction

Sponsor

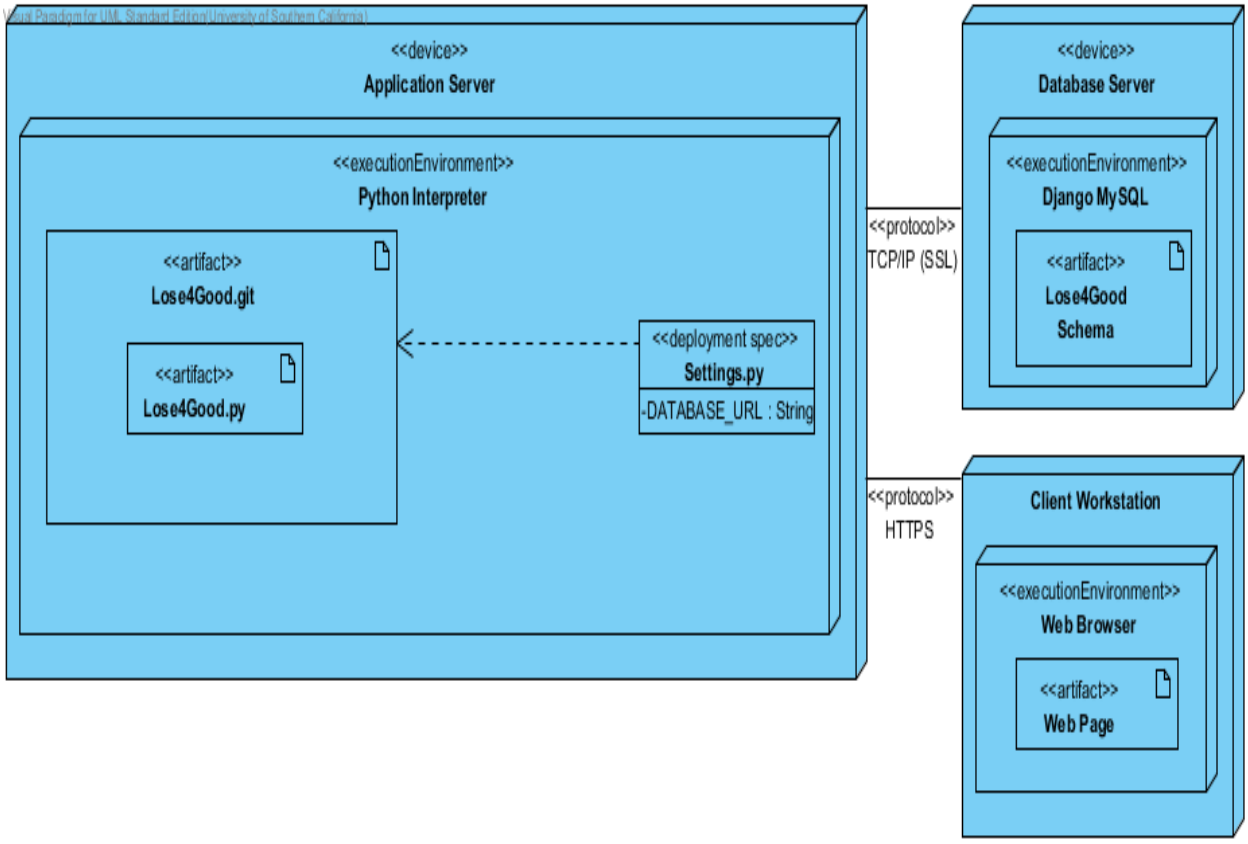
TransactionResult.html

Operand5

Operand6

CombinedFragment3

Deployment Diagram



Details


Application Server


Database Server


Python Interpreter


Django MySQL


Lose4Good.git


Lose4Good Schema


Settings.py

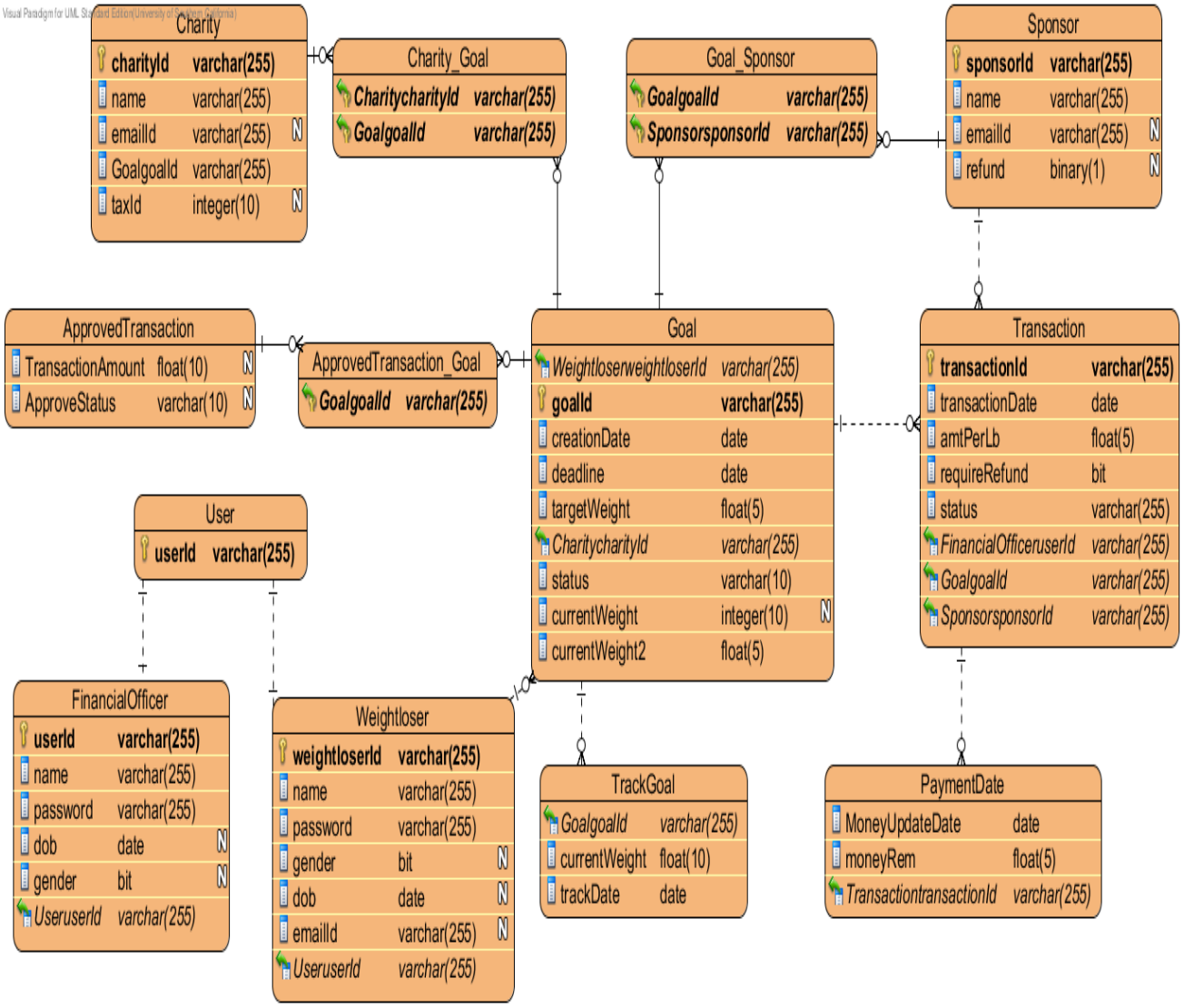

Lose4Good.py


Client Workstation


Web Browser


Web Page

Entity Relationship Diagram



Details

Charity

Sponsor

Charity_Goal

Goal_Sponsor

ApprovedTransaction

Goal

Transaction

ApprovedTransaction_Goal

User

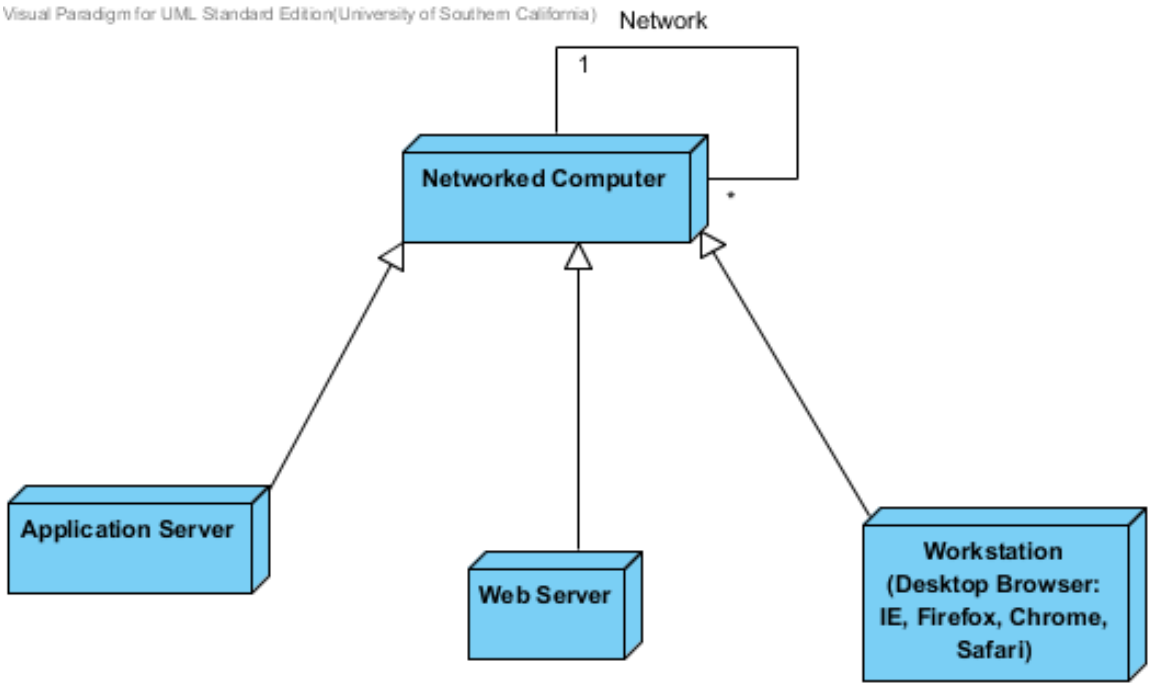
FinancialOfficer

Weightloser

TrackGoal

PaymentDate

Hardware Component Class Diagram



Details

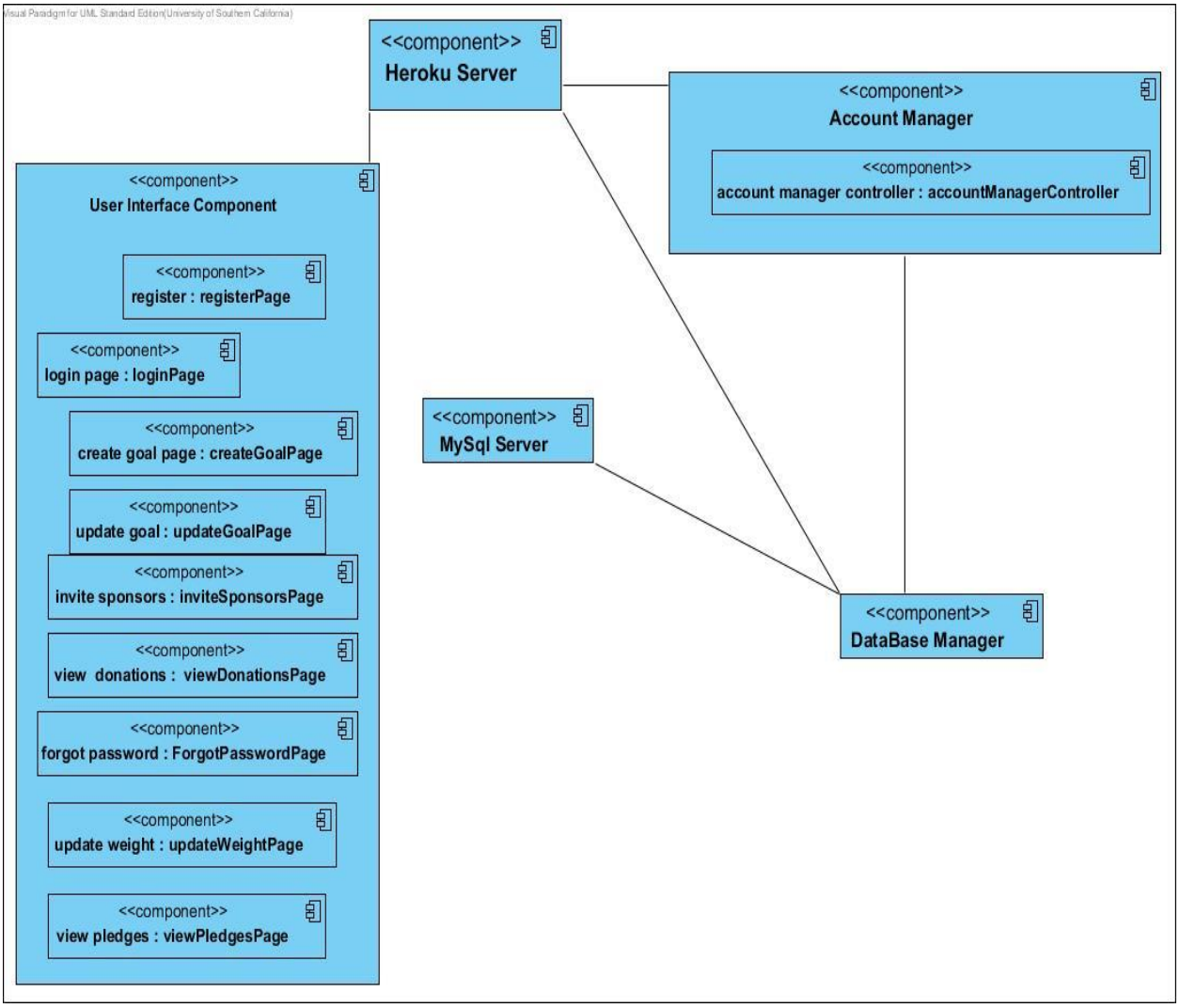
Networked Computer

Application Server

Workstation (Desktop Browser: IE, Firefox, Chrome, Safari)

Web Server

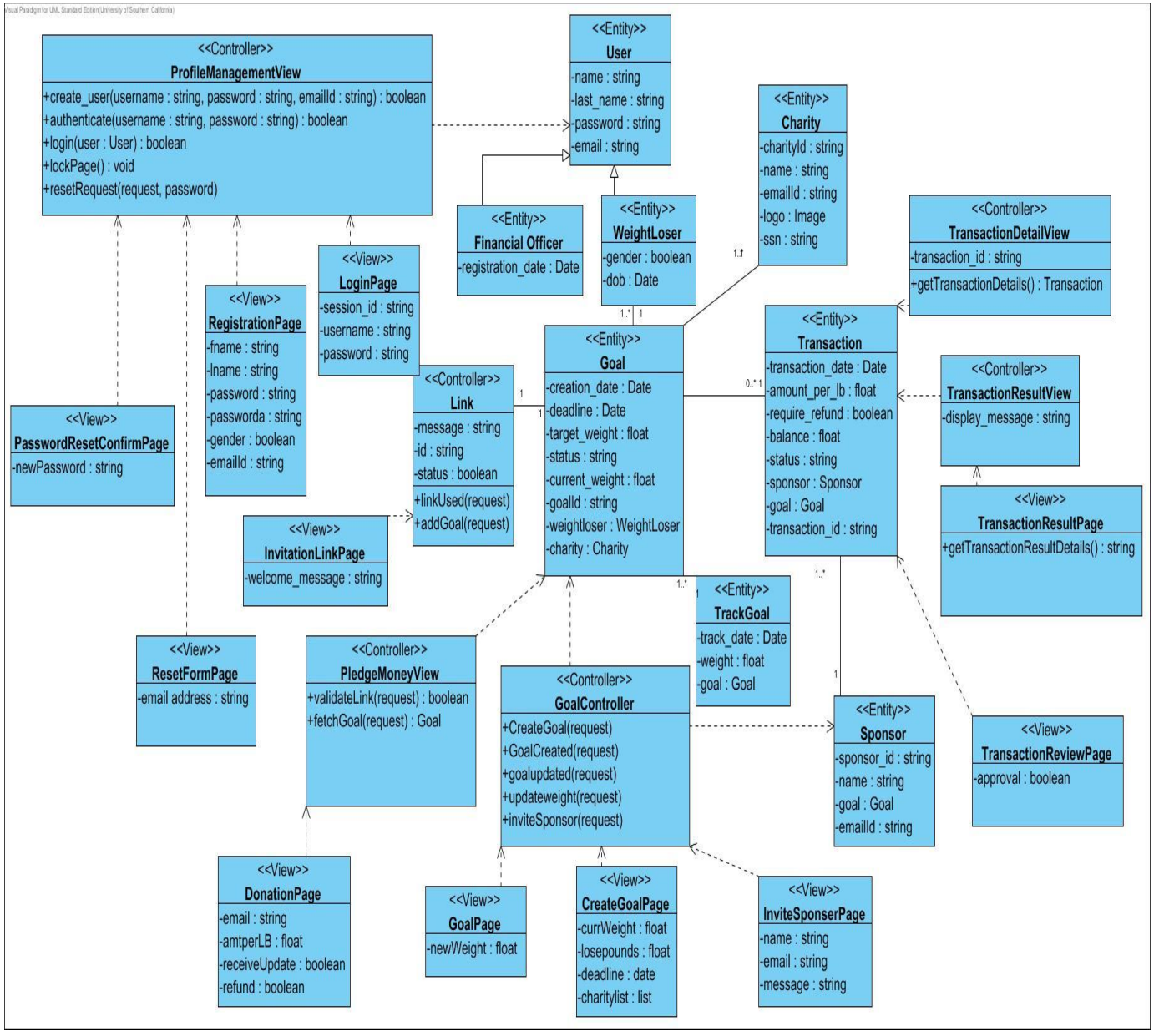
Software Component Class Diagram



Details

- **Heroku Server**
- **Account Manager**
- **account manager controller : accountManagerController**
- **User Interface Component**
- **register : registerPage**
- **login page : loginPage**
- **create goal page : createGoalPage**
- **MySql Server**
- **update goal : updateGoalPage**
- **invite sponsors : inviteSponsorsPage**
- **view donations : viewDonationsPage**
- **forgot password : ForgotPasswordPage**
- **DataBase Manager**
- **update weight : updateWeightPage**
- **view pledges : viewPledgesPage**

Lose4GoodClassDiagram



Details

User

ProfileManagementView

Charity

WeightLoser

TransactionDetailView

Financial Officer

LoginPage

RegistrationPage

Transaction

Goal

TransactionResultView

Link

PasswordResetConfirmPage

TransactionResultPage

InvitationLinkPage

TrackGoal

ResetFormPage

PledgeMoneyView

- **GoalController**
- **Sponsor**
- **TransactionReviewPage**
- **DonationPage**
- **CreateGoalPage**
- **InviteSponserPage**
  - **GoalPage**

Chosen NDI

NDI/NCS Products	Purposes
PayPal	API used for making secure transactions
Facebook Login API,	Incorporated in the system for login mechanism.

Connectors

In this project, we use Python/MySQL Connector to enable the Python web application to retrieve and query data from the database.

Architectural Styles and Frameworks

Name	Description	Benefit, Cost,
Model-View-Template (MVT)	Model-View-Template is a framework used in Python Framework Django, it is very similar to the popular framework Model-View Controller (MVC) as it separate the system into 3 different layer making it less coupling. • **Model** The Model takes care of and handle the stored data, In python it is represented by a python class that contains methods and variables to handle a particular type of data, for example in our system, user's goal. • **View** The view is similar to the MVC's Controller, In Python it is renamed as View because this tier or component's main goal, usually, is to determine what kind of data to be viewed or presented • **Template** Is similar to the MVC'S View. Template is responsible of how the data passed from View is going to be represented, HTML files in our case	**Benefit** The main advantage of MTV, as the MVC, is the separation of concerns. Making our system less coupling and flexible as well as easy to modify. This is very important for any web application in general but as our client plan to expand the system in the future into different systems, like Stop4Good, Study4good, etc. flexibility and reusability is very important. **Cost:** No particular cost from using MTV especially as Django provides a lot of features that makes developing web application easier.