

UNIVERSITY OF COLORADO BOULDER

CSCI 5448: PROJECT PART 2

FITNESS MANAGER

Chaitanya Soma, Jordan Peters, Ramnarayan Krishnamurthy

10/13/2016

Table of Contents

TEAM.....	2
TITLE.....	2
PROJECT SUMMARY.....	2
PROJECT REQUIREMENT	2
Business Requirement.....	2
User Requirement.....	3
Functional Requirement	4
Non-Functional Requirement	4
USE CASES	5
Use Case Diagram	5
Use Case Documents	6
ACTIVITY DIAGRAM.....	41
DATA STORAGE	44
UI MOCKUP	44
SEQUENCE DIAGRAMS.....	50
CLASS DIAGRAMS.....	53

TEAM

Chaitanya Soma

Jordan Peters

Ramnarayan Krishnamurthy

TITLE

Fitness Manager

PROJECT SUMMARY

A personal fitness manager that allows users to create profile, track fitness goals, interact with trainers and provide feedback.

PROJECT REQUIREMENT

Business Requirement

ID	Requirement	Topic Area	User	Priority
BR-001	User profiles are deleted after 2 years of inactivity	Administration	All	Low
BR-002	All User information is stored in a database	Administration	All	Low

User Requirement

ID	Requirement	Topic Area	User	Priority
UR-001	As a Client, I need to be able to create a profile so that I can start tracking my fitness.	Profile	Client	High
UR-002	As a Trainer, I need to be able create a trainer profile so I can let clients find me.	Profile	Trainer	High
UR-003	As an Admin, I need to be able to create an admin profile so that I can monitor and manage user and trainer accounts.	Profile	Admin	High
UR-004	As a User, I need to be able to login to the system so that I can access all of its features	Login	All	High
UR-005	As a User, I need to be able to reset password through security question so that I can re-login in case I forget my password	Login	All	Medium
UR-006	As a User, I need to be able to reset password through my email so that I can re-login in case I forget my password	Login	All	Medium
UR-007	As a User, I need to be able to update my profile so that I can keep my information up to date	Profile	User	Medium
UR-008	As a User, I need to be able to delete my profile so that I can leave the system	Profile	Client, Trainer	Low
UR-009	As an Admin, I need to be able to approve trainer profiles so I can verify the trainer credentials	Profile	Admin	Low
UR-010	As a Client, I need to add my daily fitness information so I can track my fitness progress	Health Tracking	Client	High
UR-011	As a Client, I need to modify my daily fitness information so I can modify my fitness progress	Health Tracking	Client	High
UR-012	As a Client, I need to delete my daily fitness information so I can remove entries	Health Tracking	Client	High
UR-013	As a Client, I need to add my fitness goals so I can track my them against my progress	Health Tracking	Client	High
UR-014	As a Client, I need to modify my fitness goals so I can update my goals as necessary	Health Tracking	Client	High
UR-015	As a Client, I need to delete my fitness goals so I can remove entries	Health Tracking	Client	High
UR-016	As a Client, I need to be able to schedule an appointment so that I can meet with a trainer that matches my requirement	Scheduling	Client	Medium
UR-017	As a Client, I need to be able to cancel an appointment so others can use that slot	Scheduling	Client	Medium
UR-018	As a Client, I need to be able to rate and review trainers to help other clients make an informed decisions	Reviews	Client	Medium

Functional Requirement

ID	Requirement	Topic Area	User	Priority
FR-001	Verification email sent when a profile is created	Profile	All	Medium
FR-002	Systems provides reminder notification to users for appointments	Scheduling	All	Medium

Non-Functional Requirement

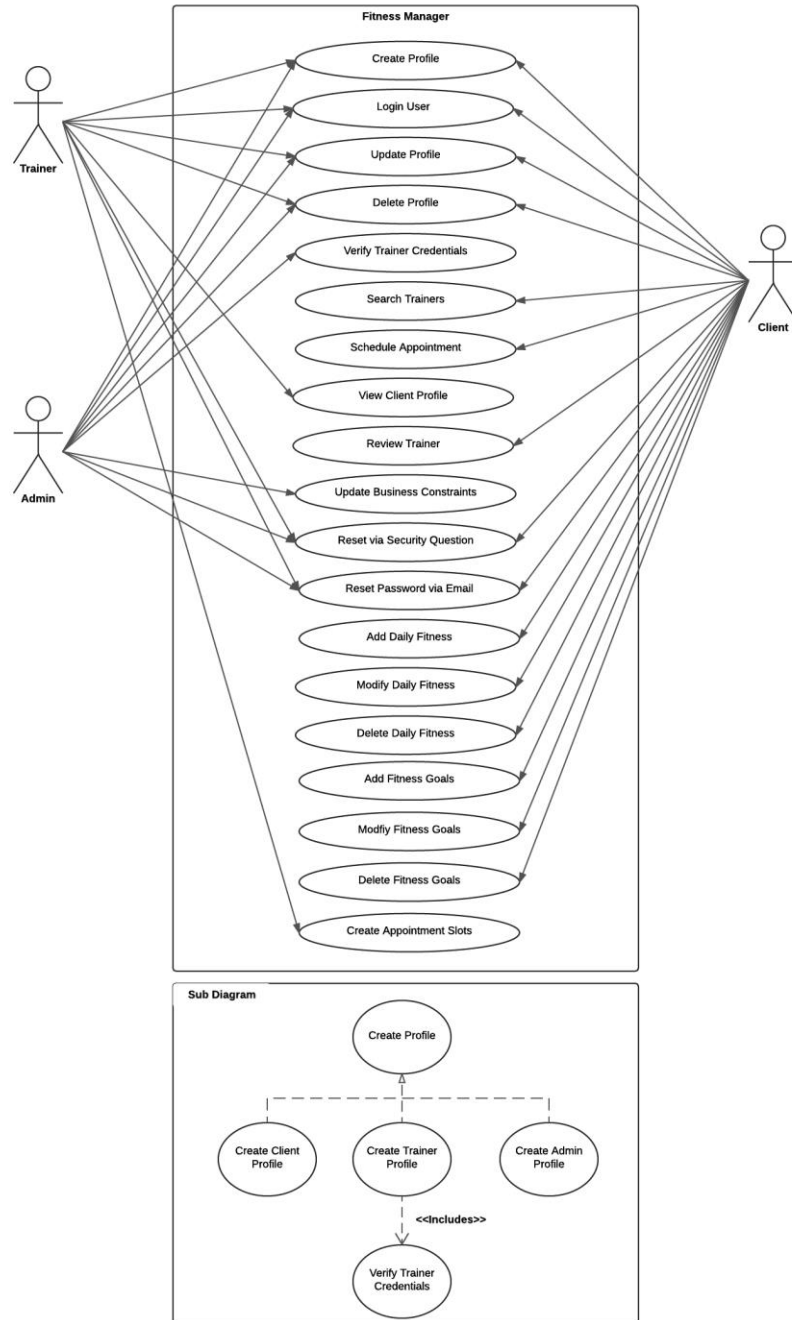
N/A

USE CASES

Use Case Diagram

USE CASE DIAGRAM

chaitanya | October 13, 2016



Use Case Documents

Use Case ID:	UC-01
Use Case Name:	Create Client Profile
Description:	Creates a client profile and stores client information in the system

Actor:	Client		
Pre-conditions:	Client clicks the "Create profile" button and selects "client" from the drop down menu.		
Post-conditions:	Client profile is successfully created and client can login with the username and password		
Frequency of Use:	Medium		
Flow of Events:		Actor Action	System Response
	1		Systems displays create profile page and fields to enter username and password
	2	Client enters username and password and clicks the submit button	Systems verifies the username and displays a page to enter client profile information
	3	Client enters	System verifies all required fields, creates a client account

		a) Name b) Email Address c) Location d) Gender e) Height f) Weight g) Age h) Password i) Security question And clicks the submit button	and sends a confirmation email to the client
	4	Client views the approval email	
Variations:			
Exceptions:	Step 2. If client's username is not unique go back to step 1 Step 3. If client enters invalid information go back to system step 2		
Developer Notes:			

Use Case ID:	UC-02
Use Case Name:	Create Trainer Profile
Description:	Creates a trainer profile and stores trainer information in the system

Actor:	Trainer		
Pre-conditions:	Trainer clicks the "Create profile" button and selects "Trainer" from the drop down menu.		
Post-conditions:	Trainer profile is successfully created and trainer can login with the username and password. If trainer is rejected then reason for rejection is notified through email.		
Frequency of Use:	Low - Medium		
Flow of Events:		Actor Action	System Response
	1		Systems displays "create_profile_form" with fields to enter username and password
	2	Trainer enters username and password and clicks okay	Systems verifies the username and displays a "trainer_profile_form" to enter trainer profile information
	3	Trainer enters a) Name b) Email Address c) Location	System verifies all required fields and sends a notification email to the admin

		d) Gender e) Expertise f) Summary g) Experience h) Security question And clicks the submit button	
	4		After admin approval, send approval email to the user
	5	Trainer views the approval email	
Variations:			
Exceptions:	2 : If username already exists go back to step 1 of system response 3 : If profile information is incomplete or incorrect go back to step 2 of system response 4 : If admin rejects the profile, send rejection email to the user		
Developer Notes:			

Use Case ID:	UC-03
Use Case Name:	Create Admin Profile
Description:	Creates an admin profile and stores admin information in the system

Actor:	Admin		
Pre-conditions:	Admin clicks the "Create profile" button and selects "admin" from the drop down menu.		
Post-conditions:	Admin profile is successfully created and admin can login with the username and password		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		Systems displays create profile page and fields to enter username, password and "admin code"
	2	Client enters username, password, admin code and click submit button	Systems verifies the admin code, username and displays a page to enter client profile information
	3	Admin enters a) Name b) Email Address	System verifies all required fields, creates an admin account and sends a confirmation email

		c) Security question And clicks the submit button	to the admin
	4	Admin views the confirmation email	
Variations:			
Exceptions:	2. If admin code and username are invalid go back to step 1 3. If required fields are invalid or incomplete go back to system step 2		
Developer Notes:			

Use Case ID:	UC-04
Use Case Name:	Login User
Description:	User logs into the system

Actor:	Client, Trainer and Admin		
Pre-conditions:	User is not already logged in User is on the login page User has an active account		
Post-conditions:	User is logged into the system and can access the home page		
Frequency of Use:	Very High		
Flow of Events:		Actor Action	System Response
	1		Systems displays “username” and “password” fields
	2	User enters username, password and clicks login	System verifies the username and password and redirects the user to the homepage
	3	User views home page	
Variations:	2. Reset password via security question, Reset via email		
Exceptions:			

Developer Notes:	
------------------	--

Use Case ID:	UC-05
Use Case Name:	Reset Password via Security Question
Description:	User resets the password

Actor:	Client, Trainer and Admin		
Pre-conditions:	User is not already logged in User is on the login page User has an active account User enters a valid username User clicks reset password		
Post-conditions:	User has a new password to log in to the system		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		System displays a page asking the user to "Reset via security question" or "Reset via email"
	2	User selects "Reset via security question"	System displays the security question

	3	User answers the security question and clicks submit	System verifies the answer to the security question and asks user to enter new password
	4	User enters the new password and clicks submit	System updates the user password and displays the login page
	5	User views the login page	
Variations:			
Exceptions:	3. If user enters incorrect answer go back to system step 2		
Developer Notes:			

Use Case ID:	UC-06
Use Case Name:	Reset Password via email
Description:	User resets the password

Actor:	Client, Trainer and Admin		
Pre-conditions:	User is not already logged in User is on the login page User has an active account User enters a valid username User clicks reset password		
Post-conditions:	User has a new password to log in to the system		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		System displays a page asking the user to "Reset via security question" or "Reset via email"
	2	User selects "Reset via security question"	System displays a page to enter username
	3	User enters the username and clicks submit	System extract the user's email address, sends an email with temporary password and

			displays a page to enter temporary password and new password
	4	User enters the temporary and new password and clicks submit	System verifies the information, updates the password and displays the login page
	5	User views the login page	
Variations:			
Exceptions:	4. If user enters incorrect temporary password go to system step 2		
Developer Notes:			

Use Case ID:	UC-07
Use Case Name:	Update Profile
Description:	User updates profile information

Actor:	Client, Trainer and Admin		
Pre-conditions:	User is already logged in User is on the home page User clicks update profile		
Post-conditions:	User profile information is updated		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		Systems fetches the user profile information, and displays editable fields to the user
	2	User updates the profile information and clicks submit	1. System verifies all required fields and updates the profile information 2. System displays the updated fields to the user
	3	User can view the updated	

		profile information	
Variations:			
Exceptions:	2. If user enters incorrect information in the update profile fields go back to system step 1		
Developer Notes:			

Use Case ID:	UC-08
Use Case Name:	Delete Profile
Description:	Delete user profile and all associated information

Actor:	Client, Trainer and Admin		
Pre-conditions:	User is already logged in User is on the home page		
Post-conditions:	User profile and all associated information is permanently deleted. Login page is displayed		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1	User clicks "Delete Profile"	1. System deletes the user profile and all associated information. 2. System displays the login page to the user
	2	User views the login page	
Variations:			
Exceptions:			
Developer Notes:			

Use Case ID:	UC-09
Use Case Name:	Review Trainer
Description:	A Client can rate and review a Trainer following a session

Actor:	Client, Trainer		
Pre-conditions:	Client is logged in Client is on the "Rate & Review" page of the specific trainer		
Post-conditions:	Trainer's Page displays the updated Rating/Review		
Frequency of Use:	Medium		
Flow of Events:		Actor Action	System Response
	1	Client clicks on Rate & Review that appears against the trainer's name	System displays a page with an option of: <ol style="list-style-type: none"> Rating out of 5 Writing a Review
	2.	Client enters the appropriate information and clicks submits	System <ol style="list-style-type: none"> Saves the rating and review Updates the existing rating of the trainer Displays the home page

	3	Client views the home page	
Variations:			
Exceptions:			
Developer Notes:	Rating is computed as a simple average of the existing rating and new rating provided		

Use Case ID:	UC-10
Use Case Name:	Search Trainer
Description:	A Client can search for a Trainer and sort by profile parameters

Actor:	Client		
Pre-conditions:	Client is logged in Client is on the "Search Trainers" page		
Post-conditions:	Client is provided with a list of the names of Trainers sorted by the parameter of choice		
Frequency of Use:	High		
Flow of Events:		Actor Action	System Response
	1		Displays the "Search Trainers" page with checkboxes for sortable parameters
	2	Client selects the sortable parameters and enters the corresponding value	System <ol style="list-style-type: none"> 1. queries for the given parameter 2. Sorts the results 3. Displays names
	3	Client views the sorted trainer names	

Variations:	
Exceptions:	
Developer Notes:	

Use Case ID:	UC-11
Use Case Name:	Add Daily Fitness
Description:	Allow the client to add fitness information like amount of calories consumed, step count etc.

Actor:	Client		
Pre-conditions:	Client is logged in Client is in the "View daily fitness information" page		
Post-conditions:	The system displays the updated daily fitness information to reflect the client's changes		
Frequency of Use:	High		
Flow of Events:		Actor Action	System Response
	1		System displays the daily fitness information with add, delete and update buttons
	2	Client clicks "Add" button	System display an empty form/fields to add fitness information
	3	Client enters fitness information based on the displayed fields and clicks	1. System Validates the information 2. The information is added

		the submit button	in database 3. Updated page is displayed
	4	Client Views the updated daily fitness information	
Variations:	3. If the fitness information is incorrect, go back to step 2 system response		
Exceptions:			
Developer Notes:			

Use Case ID:	UC-12
Use Case Name:	Modify Daily Fitness
Description:	Allow the client to modify daily fitness information like amount of calories consumed, step count etc.

Actor:	Client		
Pre-conditions:	Client is logged in Client is in the “View daily fitness information” page		
Post-conditions:	The system displays the updated daily fitness information to reflect the client's changes		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		System displays the daily fitness information with add, delete and update buttons
	2	client clicks “Modify” Button	System make the specific fitness info editable and displays the form to the user
	3	User updates the fields/fitness information	1. System Validates the information 2. The information is

		and clicks submit button	updated in database 3. Updated page is displayed
	4	Client Views the updated daily fitness information	
Variations:			
Exceptions:	3. If the fitness information is incorrect, go back to step 2 system response		
Developer Notes:			

Use Case ID:	UC-13
Use Case Name:	Delete Daily Fitness
Description:	Allow the client to delete daily fitness information like amount of calories consumed, step count etc.

Actor:	Client		
Pre-conditions:	Client is logged in Client is in the "View daily fitness information" page		
Post-conditions:	The system displays the updated daily fitness information to reflect the client's changes		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		System displays the daily fitness information with add, delete and update buttons
	2	If client clicks "Delete" button	1. The system deletes the corresponding field 2. The information is updated in database 3. Updated page is displayed

	3	Client views the updated daily fitness information	
Variations:			
Exceptions:			
Developer Notes:			

Use Case ID:	UC-14
Use Case Name:	Approve Profile
Description:	Admin validates trainer credentials and approves him to create a profile

Actor:	Admin		
Pre-conditions:	Trainer filled in profile information and is waiting for admin to verify his/her profile Admin is in the “approve profiles page”		
Post-conditions:	Trainer profile is successfully create in the system		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1		System displays the trainer profile information, approve and reject buttons
	2	Trainer clicks the approve button	The system marks the trainer profile as approved
Variations:			
Exceptions:	2. If the admin clicks denied, the trainer profile is set to denied		

Developer Notes:	
------------------	--

Use Case ID:	UC-15
Use Case Name:	Schedule Appointment
Description:	A Client can schedule an appointment with a trainer that the trainer has created.

Actor:	Client		
Pre-conditions:	Client is logged in Client is on the ""Trainer's Info" page Trainer has created an appointment		
Post-conditions:	Client has an appointment slot with the trainer booked		
Frequency of Use:	Medium		
Flow of Events:		Actor Action	System Response
	1		Displays the "Trainer's Info" page with all available appointments that trainer has set
	2	Client selects any of the open appointments	1) System adds user to that appointment 2) System notifies trainer
Variations:	Client selects an already booked appointment and is told they must select another option.		

Exceptions:	
Developer Notes:	

Use Case ID:	UC-16
Use Case Name:	Create Appointment Slots
Description:	A trainer can create appointments that clients can sign up for.

Actor:	Trainer		
Pre-conditions:	Trainer is logged in Trainer is on the ""Create Appointment"" page		
Post-conditions:	Client has an appointment slot with the trainer booked		
Frequency of Use:	High		
Flow of Events:		Actor Action	System Response
		Selects what times the appointments will happen, how long they will last and where they will happen.	1) Adds appointment slots to the database 2) Displays a confirmation
Variations:			
Exceptions:			
Developer Notes:			

Use Case ID:	UC-17
Use Case Name:	Add Fitness Goals
Description:	Add fitness goals to track progress

Actor:	Client		
Pre-conditions:	User is logged in User is on the home page		
Post-conditions:	User's fitness goals for the month are populated and display on the home page		
Frequency of Use:	Medium		
Flow of Events:		Actor Action	System Response
	1	User clicks "Add Fitness Goals"	System displays the "fitness goals" page
	2	User enters the fitness goals, field-wise	1) System updates goals and saves the entries to the database 2) System redirects the User to the home page and displays the fitness goals
Variations:			

Exceptions:	
Developer Notes:	

Use Case ID:	UC-18
Use Case Name:	Modify Fitness Goals
Description:	User can modify the fitness goals

Actor:	Client		
Pre-conditions:	User is logged in User is on the home page		
Post-conditions:	User's fitness goals are updated and displayed on the homepage		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1	User clicks on "Modify Fitness Goals"	System displays an editable version of the fitness goals form
	2	User enters the new goals	System updates the database with the new entries and redirects the user to the homepage
Variations:			
Exceptions:			

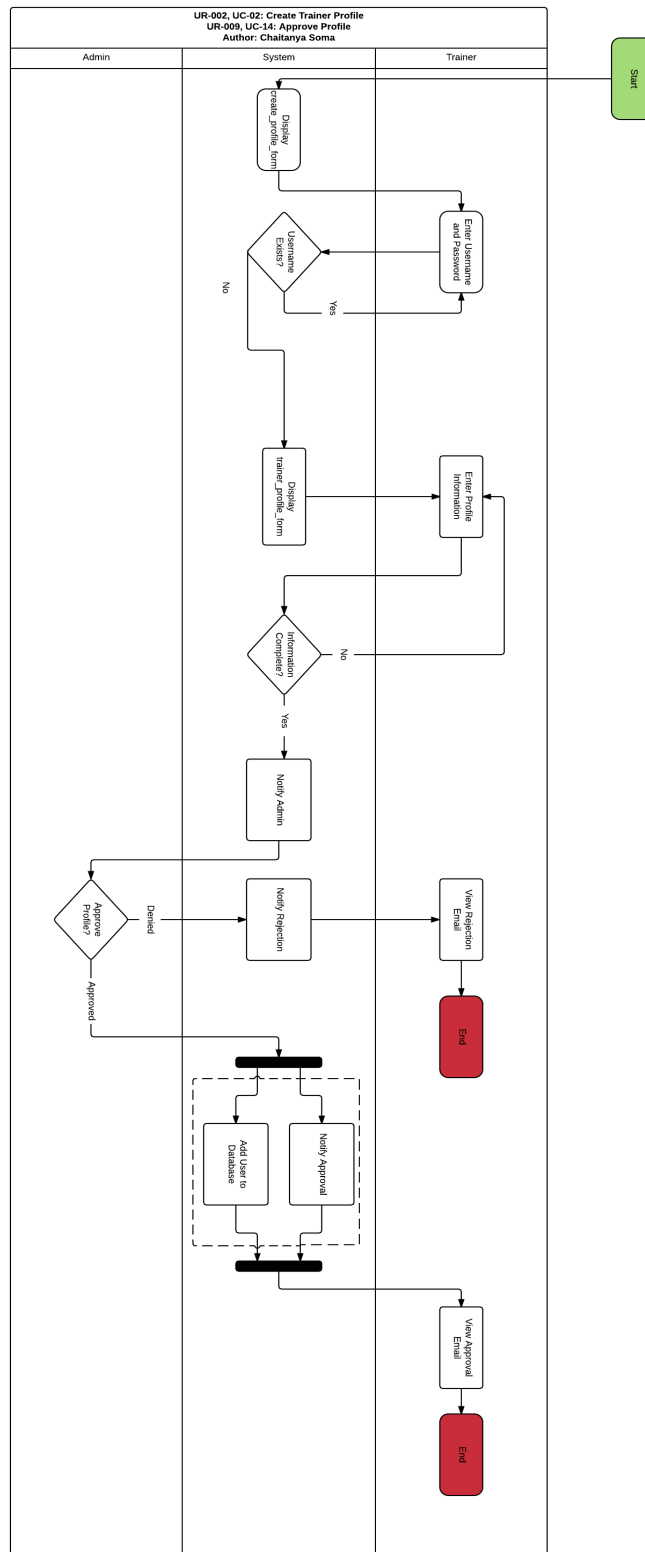
Developer Notes:	
------------------	--

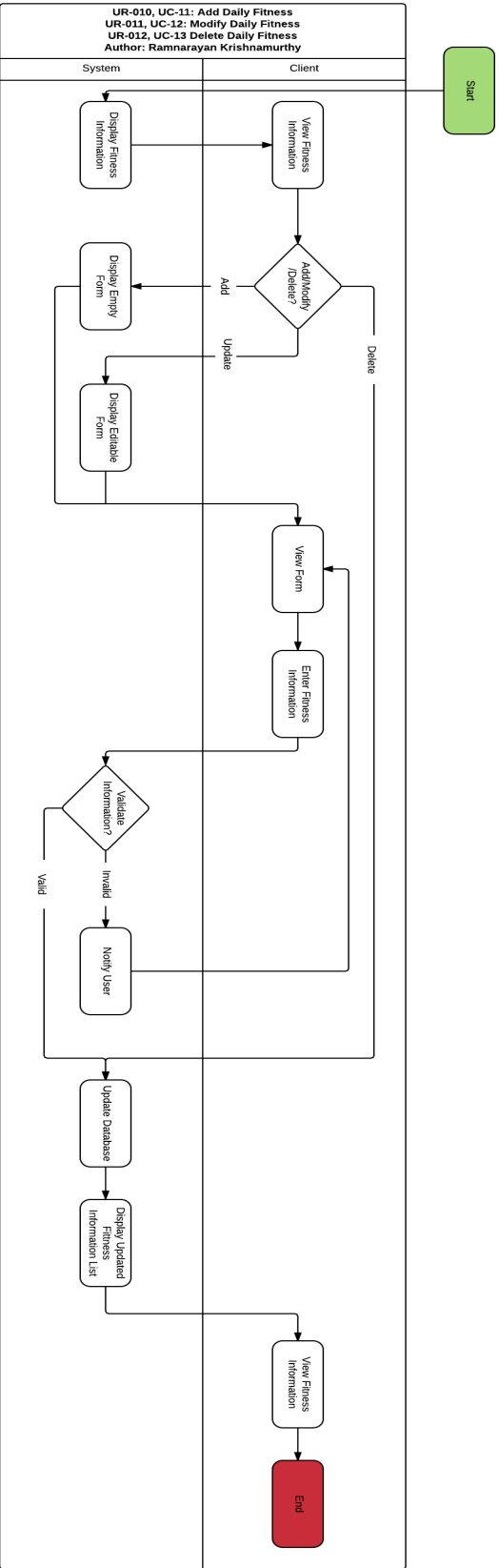
Use Case ID:	UC-19
Use Case Name:	Delete Fitness Goals
Description:	User can delete the set fitness goals

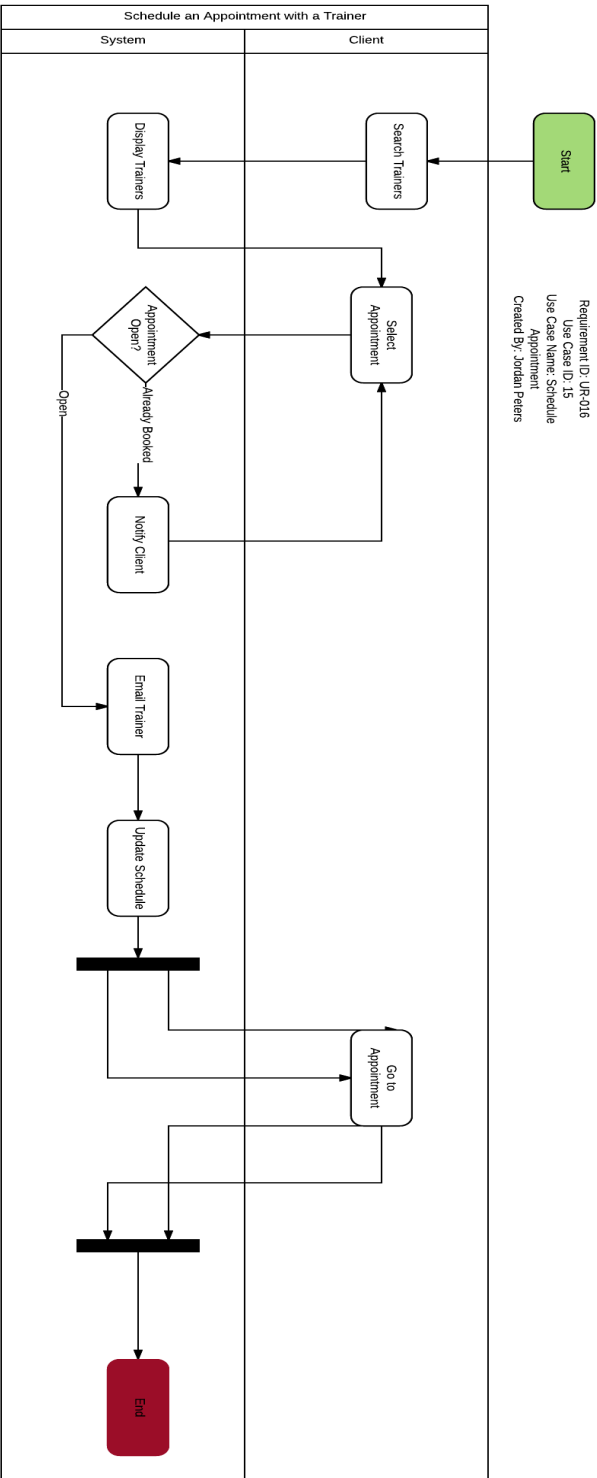
Actor:	Client		
Pre-conditions:	User is logged in User is on the home page		
Post-conditions:	The respective User's fitness goals are deleted		
Frequency of Use:	Low		
Flow of Events:		Actor Action	System Response
	1	User clicks on "Delete Fitness Goals"	Systems deletes the fitness goals and updates the database and redirects the User to the homepage
Variations:			
Exceptions:			
Developer Notes:			

ACTIVITY DIAGRAM

(A full blow up of the activity diagrams are provided in the raw_images folder in github)







DATA STORAGE

- We intend to use MongoDB, NoSQL database.
- All User Profiles and Information is stored in JSON format.

UI MOCKUP

Login Page

Login

Username

Password

OK

Reset Passowrd

Create Trainer Profile

Create Trainer Profile

Username	<input type="text"/>	Password	<input type="password"/>
Email	<input type="text"/>	Security Question	<input type="text" value="Options"/>
Location	<input type="text"/>	Answer	<input type="text"/>
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female		
Skills	<div><div></div><div></div><div></div></div>		
Summary	<div><div></div><div></div><div></div></div>		

Submit

Create Client Profile

Create Client Profile

Username

Email

Location

Height

Weight

Age

Gender

☒ Male

☐ Female

Password

Security Question

Options▼

Answer

Submit

Create Admin Profile

Create Admin Profile			
Username	<input type="text"/>	Password	<input type="password"/>
Email	<input type="text"/>	Security Question	<input type="text" value="Options"/>
Admin Code	<input type="text"/>	Answer	<input type="text"/>
<input type="button" value="Submit"/>			

Client Homepage

Welcome - Client Username	
<input type="button" value="Update Profile"/>	<input type="button" value="Delete profile"/>
<input type="button" value="Manage Daily Info"/>	<input type="button" value="Manage Fitness Goals"/>
<input type="button" value="Search Trainers"/>	<input type="button" value="Rate Trainers"/>

Getting Started

Fitness Manager

Create Account

Login

Trainer Homepage

Welcome - Trainer Username

Update Profile

Delete profile

View Schedule

Edit Schedule

Review Trainer

Review - Trainer Name

Home

Rating

★★★★★

Review

Save

View Fitness Info

Name - Today's Fitness Info

Home

Add

Update

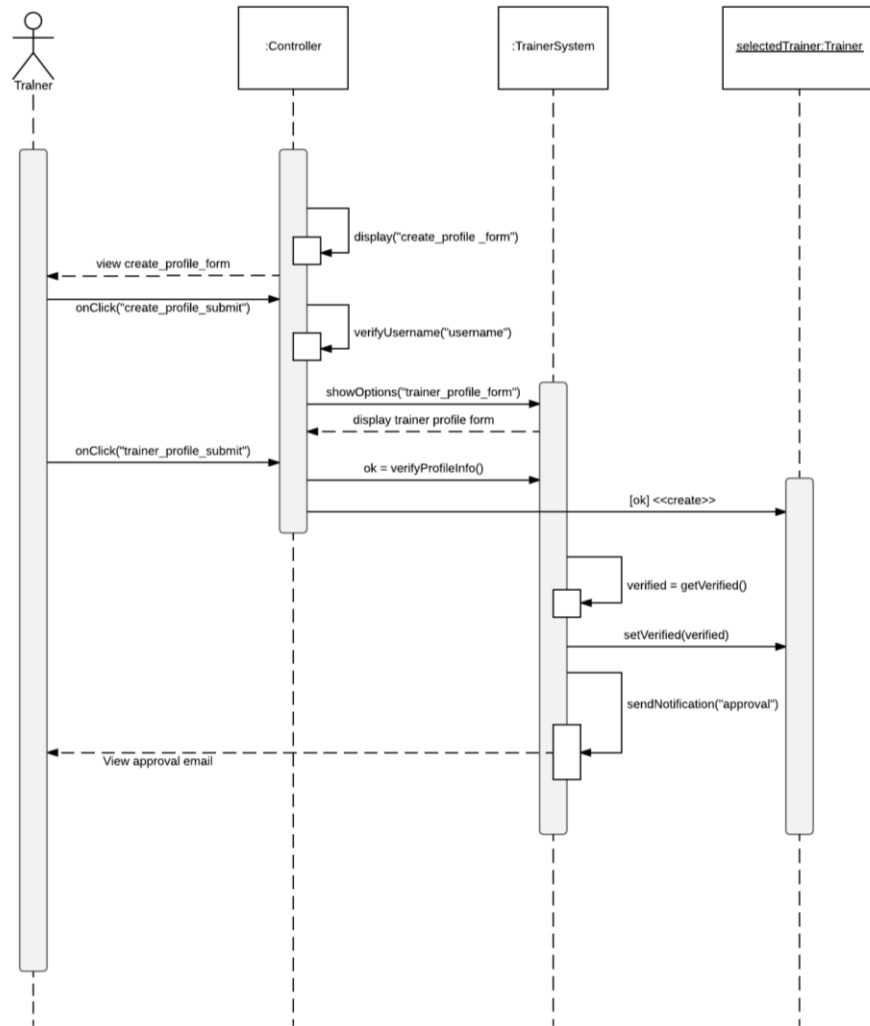
Delete

▼ Type	▼ Value	▼ Time
Steps	12000	10:00 PM
Lunch	800	12:00 PM
Dinner	950	7:00 PM

SEQUENCE DIAGRAMS

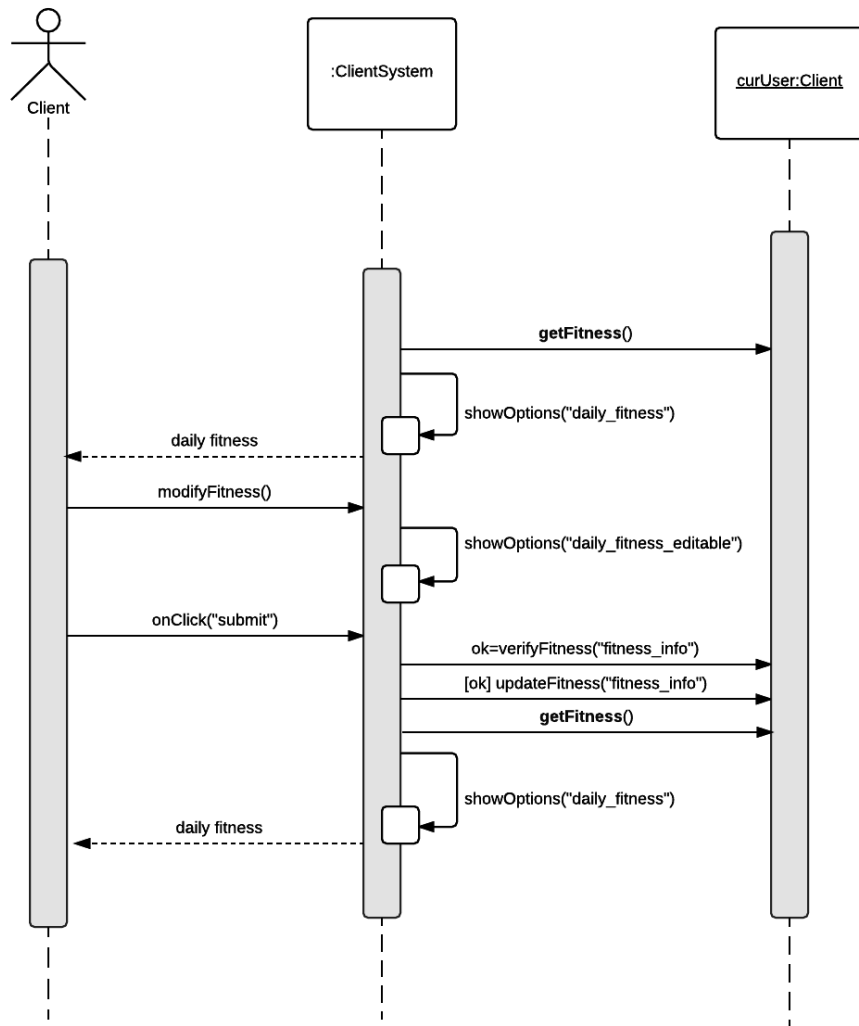
CREATE TRAINER PROFILE SEQUENCE DIAGRAM

Chaitanya Soma | October 13, 2016



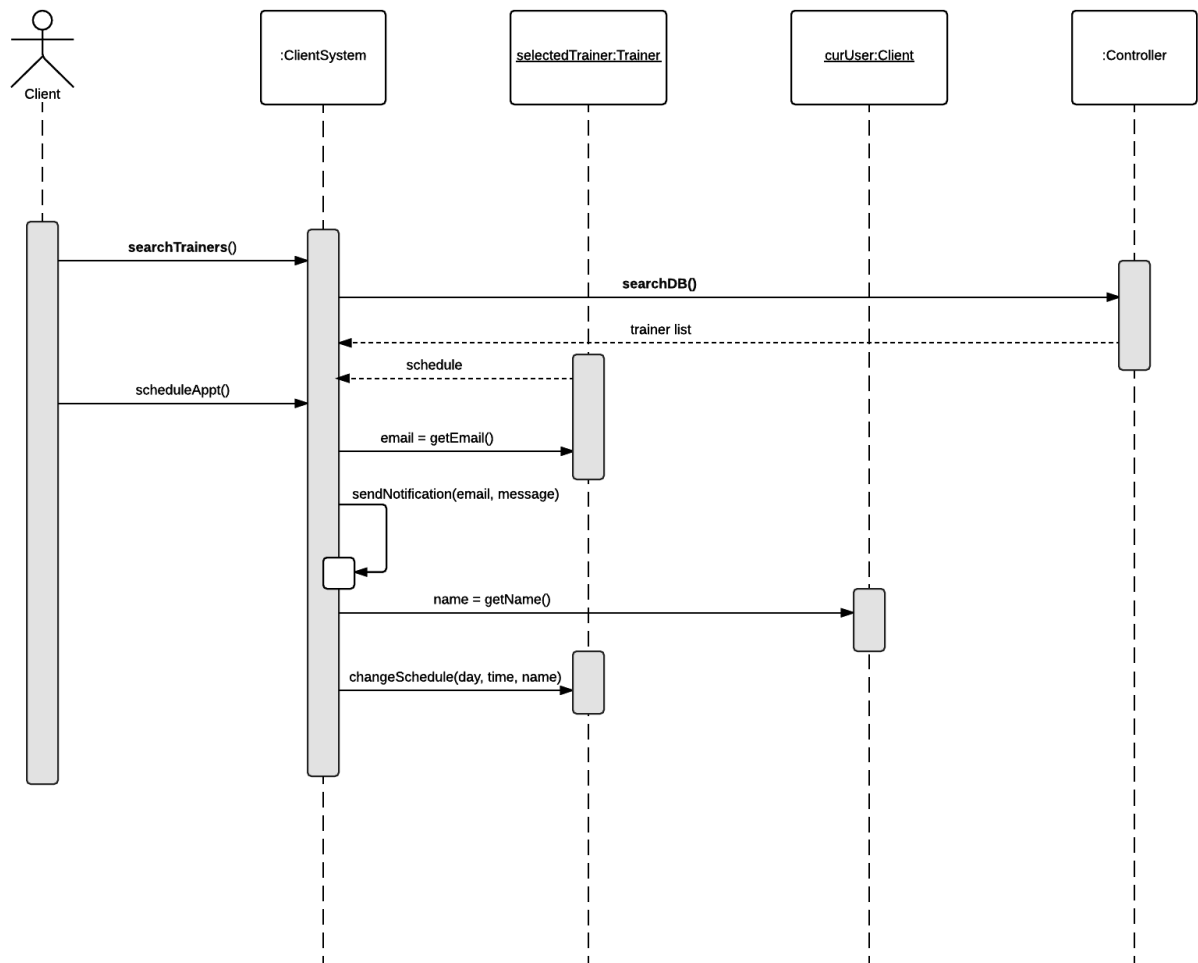
MODIFY DAILY FITNESS SEQUENCE DIAGRAM

Ramnarayan K | October 13, 2016



SCHEDULE AN APPOINTMENT WITH A TRAINER

Author: Jordan Peters



CLASS DIAGRAMS

FITNESS MANAGER - CLASS DIAGRAM

chaitanya | October 13, 2016

