

# CSCI-4448/5448

## Object-Oriented Analysis and Design

### Group 30

### Part 2 Report

Team members:  
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**Team:** Chihwei Lin, Chou Yi, Yuchih Cho

**Title:** FindSportMates

**Project Summary:**

Students and faculties in CU can register in this platform where they can find a group of people to play with for a certain sport. Users can create a sport group. (e.g. Tuesday 3-5pm Volleyball) This event will be posted on the calander and others can join the group together.

**Project requirement:**

## • Business Requirements

ID	Description	Topic Area	User	Prioty
BR-01	All register/login usersids must be their colorado email address.	Authentication	All	Critical

## • User Requirements

ID	Description	User	Prioty
UR-01	As a person of CU, I want to login to FindSportMate and have access to the system.	People of CU	Critical
UR-02	As a person of CU, I want to create a sport event showing what kind of sport I want to play and the time and location. After I create the event, I want to be notified that it is created succesfully.	People of CU	High
UR-03	As a person of CU, I want to edit and cancel it if my schedule has changed after I create a sport event. After I change the information of the event, I want all participants to be notified of the updated event.	People of CU	Medium
UR-04	As a person of CU, I want to see the dashboard of existing events so that I can know the information of the events. The information should includes time, location, number of participants, the contact of the creator.	People of CU	High
UR-05	As a person of CU, I want to join and drop someone's events. After I join the events, I want to be notified when the event is approaching.	People of CU	High
UR-06	As a person of CU, I want to search the event by names or time.	People of CU	Medium
UR-07	As a person of CU, I want to leave the message at the event I joined where other participants can see it.	People of CU	Low
UR-08	As a rec-center officer, I want to browse all the existing events.	Rec-center Officer	High
UR-09	As a rec-center officer, I want to cancel the event to ensure there are all proper events listed on the websie.	Rec-center Officer	High
UR-10	As a rec-center officer, I want to search a user by his/her name or email address and I should be able to see their profile.	Rec-center Officer	Medium
UR-11	As a rec-center officer, I want to search events by names or time so that I can know what's going on in rec-center.	Rec-center Officer	Medium

UR-12	As a rec-center officer, I want to make an announcement and advertisement about events or courses hold in Recreation Center.	Rec-center Officer	Low
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• Functional Requirements

ID	Description	Prioty
FR-01	When users login, authorize the user account by colorado email address.	Criticle
FR-02	When creating an event, show it on the calander and populate "host by" field with user's name, and send a confirming email.	High
FR-03	When host canceling an event, remove it from the calander and send a notification email to the participants of the event.	Medium
FR-04	When publishing an anouncemnt, display it on the board.	Medium
FR-05	When users join in the event, add them to the event user list.	High
FR-06	When time of the event is approaching, send a reminding email to users.	Medium

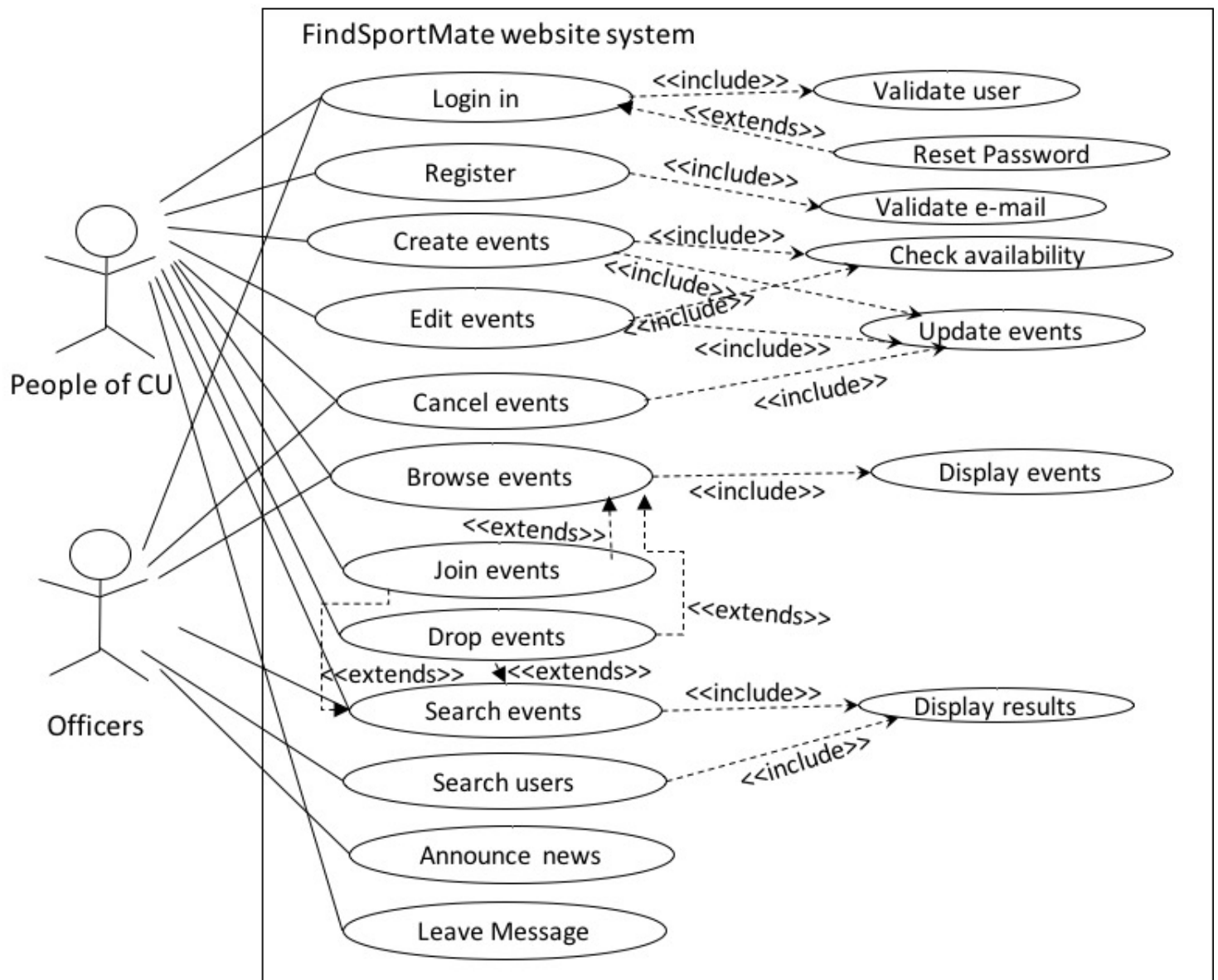
• Non-Functional Requirements

ID	Description	Prioty
NFR-01	Performance: responce time for searching events/users	Medium
NFR-02	Security: The profile of users should be protected and prevented from data leakage.	High
NFR-03	Implementation: Users could use the platform through different systems (e.g Mac OS, Windows, Linux...)	High
NFR-04	Usability: The web could be displayed well on the mobile device.	Medium
NFR-05	Reliability: The system should handle multi-processing.	Low

**Use cases:**

**Actors:** People Of CU, Rec center officers

**Use Case Overview/ Sub-diagrams::**



#### Use Case Documents:

<b>User Case ID:</b>	UC-01
<b>Use Case Name:</b>	Log in
<b>Description:</b>	People of CU, Officers can login to access the system with valid account.

Actors:	People of CU, Officers		
Pre-conditions:	All users' identities have been authenticated via CU email.		
Post-conditions:	On success:	Users have access to FindSportMates.	
	On failure:	Users have no access to FindSportMates.	
Frequency of Use:	High. Every time when users want to access to the system.		
Flow of Events:		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Have access to FindSportMates	
Variations	1. Wrong username or password		
Exceptions:			
Developer Notes:			

<b>User Case ID:</b>	<b>UC-02</b>
<b>Use Case Name:</b>	Register
<b>Description:</b>	People of CU can register for an account using their CU email.

<b>Actors:</b>	People of CU		
<b>Pre-conditions:</b>	Users need a colorado email address.		
<b>Post-conditions:</b>	Users create an account for FindSportMates		
<b>Frequency of Use:</b>	Frequently		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Click on "Register"	
	2	Fill out the profile and click on "Submit"	Add an account to database.
<b>Variations</b>			

<b>Exceptions:</b>	Submit without complete information Invalid email address
<b>Developer Notes:</b>	

<b>User Case ID:</b>	<b>UC-03</b>
<b>Use Case Name:</b>	Create Events
<b>Description:</b>	People of CU can create sport events by filling out the form (sport kind, time, range of number of people, location, message)

<b>Actors:</b>	People of CU		
<b>Pre-conditions:</b>	Users have access to FindSportMates		
<b>Post-conditions:</b>	The events are created.		
<b>Frequency of Use:</b>	Frequently		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Click on "Create"	
	3	Fill out the given form and click on "Submit"	Check whether the time and location are available. Create the event item and display it in the homepage.
<b>Variations</b>	3. The time or and location are not available		
<b>Exceptions:</b>	Submit uncompleted form		
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-04</b>
<b>Use Case Name:</b>	Cancel Events
<b>Description:</b>	People of CU and Officers can cancel events. While people of CU can only cancel their own events, Officers can cancel all the events.

<b>Actors:</b>	People of CU and Officers
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<b>Pre-conditions:</b>	<ul style="list-style-type: none"> <li>• Users have access to FindSportMates</li> <li>• People of CU have created their own events.</li> <li>• There are events created by someone so that Officers can manage them.</li> </ul>		
<b>Post-conditions:</b>	The events are deleted.		
<b>Frequency of Use:</b>	Medium. When users want to delete the events after creating ones.		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Click on “Manage my Events”	Display all the events created by the user.
	3	Click on “Cancel”, at least one event	Cancel the event item and remove it from the homepage.
<b>Variations</b>	1. User doesn't create any event.		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-05</b>
<b>Use Case Name:</b>	Browse Events
<b>Description:</b>	People of CU and Officers can browse the events.

<b>Actors:</b>	People of CU and Officers		
<b>Pre-conditions:</b>	Users have access to FindSportMates		
<b>Post-conditions:</b>	Users can view what sport events are available		
<b>Frequency of Use:</b>	High.		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Browse the events	
	3	Click on title of an event	Show the information about the event

<b>Variations</b>	
<b>Exceptions:</b>	
<b>Developer Notes:</b>	

<b>User Case ID:</b>	<b>UC-06</b>
<b>Use Case Name:</b>	Search Events
<b>Description:</b>	People of CU and Officers can find events with its type and time.

<b>Actors:</b>	People of CU and Officers		
<b>Pre-conditions:</b>	<ul style="list-style-type: none"> <li>• Users have access to FindSportMates</li> <li>• Sport events are created.</li> </ul>		
<b>Post-conditions:</b>	Users find the certain sport events during a range of time		
<b>Frequency of Use:</b>	Medium.		
<b>Flow of Events:</b>		<b>Actor Action</b>	<b>System Response</b>
	1	Log in to FindSportMates	Check validation
	2	Select a specific sport or all	
	3	Select a range of time	
	4	Click on "Search"	List of events displayed based on the requirement.
<b>Variations</b>	4. No Result meets the requirement.		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-07</b>
<b>Use Case Name:</b>	Search Users
<b>Description:</b>	Officers can find one's profile with one's name or email.

<b>Actors:</b>	Officers
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<b>Pre-conditions:</b>	• Officers have access to FindSportMates • The accounts are in the database.		
<b>Post-conditions:</b>	Officers find one's profile with one's name or email.		
<b>Frequency of Use:</b>	Medium.		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Select whether to search by name or by email	
	3	Type the information(name/email)	
	4	Click on "Search"	Display the result based on the requirement.
<b>Variations</b>	4. No Result meets the requirement.		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-08</b>
<b>Use Case Name:</b>	Edit Events
<b>Description:</b>	People of CU and Officers can manage the events by editing them. While people of CU can only edit their own events, Officers can edit all the events.

<b>Actors:</b>	People of CU and Officers		
<b>Pre-conditions:</b>	<ul style="list-style-type: none"> <li>• Users have access to FindSportMates</li> <li>• People of CU have created their own events.</li> <li>• There are events created by someone so that Officers can manage them.</li> </ul>		
<b>Post-conditions:</b>	The events are changed.		
<b>Frequency of Use:</b>	Medium. When users want to modify the events after creating ones.		
<b>Flow of Events:</b>		Actor Action	System Response

<b>(edit)</b>	1	Log in to FindSportMates	Check validation
	2	Click on “Manage my Events”	Display all the events created by the user.
	3	Click on “Edit”, at least one event	
	4	Edit information of the event	Update the event item and display it in the homepage.
<b>Variations</b>	1. User doesn't create any event.		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-09</b>
<b>Use Case Name:</b>	Join Events
<b>Description:</b>	When browsing events, people of CU can join the events which is available.

<b>Actors:</b>	People of CU		
<b>Pre-conditions:</b>	Users have access to FindSportMates The event has been created		
<b>Post-conditions:</b>	The number of participants increases Add users into the participant list		
<b>Frequency of Use:</b>	High.		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Browse the events	
	3	Click on title of an event	Show the information about the event
	4	Join the event	Add the user to the player list
<b>Variations</b>	4. The event is not available to join.		

<b>Exceptions:</b>	
<b>Developer Notes:</b>	

<b>User Case ID:</b>	<b>UC-10</b>
<b>Use Case Name:</b>	Drop Events
<b>Description:</b>	When People of CU are involved in an event, they could decide to drop the event or not

<b>Actors:</b>	People of CU		
<b>Pre-conditions:</b>	Users have access to FindSportMates People of CU should join the event before drop it		
<b>Post-conditions:</b>	The number of participants decreases Remove users from the participant list		
<b>Frequency of Use:</b>	High.		
<b>Flow of Events:</b>		<b>Actor Action</b>	<b>System Response</b>
	1	Log in to FindSportMates	Check validation
	2	Click "Manage My Event"	Show the events that users joined
	3	Click on title of an event	Show the information about the event
	4	Drop the event	Remove the user from the player list
<b>Variations</b>	User is not involved in the event		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

<b>User Case ID:</b>	<b>UC-11</b>
<b>Use Case Name:</b>	Announce News
<b>Description:</b>	Officers could publish some policy or post

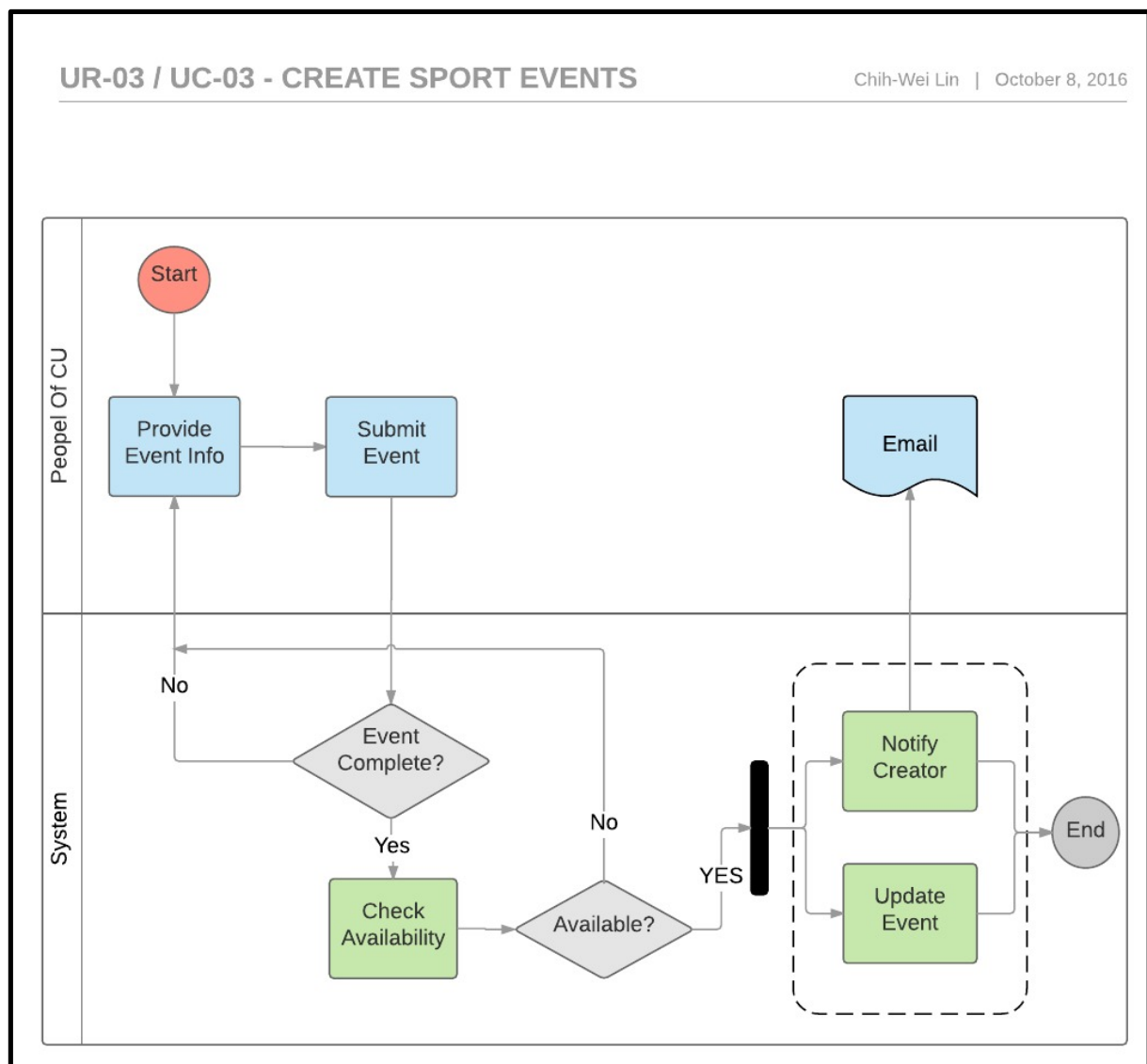
<b>Actors:</b>	Officers		
<b>Pre-conditions:</b>	Officers have access to FindSportMates		
<b>Post-conditions:</b>	People of CU and officers could see the psot		
<b>Frequency of Use:</b>	Medium. Everytime the officers have some policy to announce		
<b>Flow of Events:</b>		Actor Action	System Response
	1	Log in to FindSportMates	Check validation
	2	Click on “Announce News”	Enter the edit interface that the officers could type
	3	Edit the post	
	4	Click on “Publish”	Display the post which could be seen from all of the users
<b>Variations</b>	Click “publish” without typting anything		
<b>Exceptions:</b>			
<b>Developer Notes:</b>			

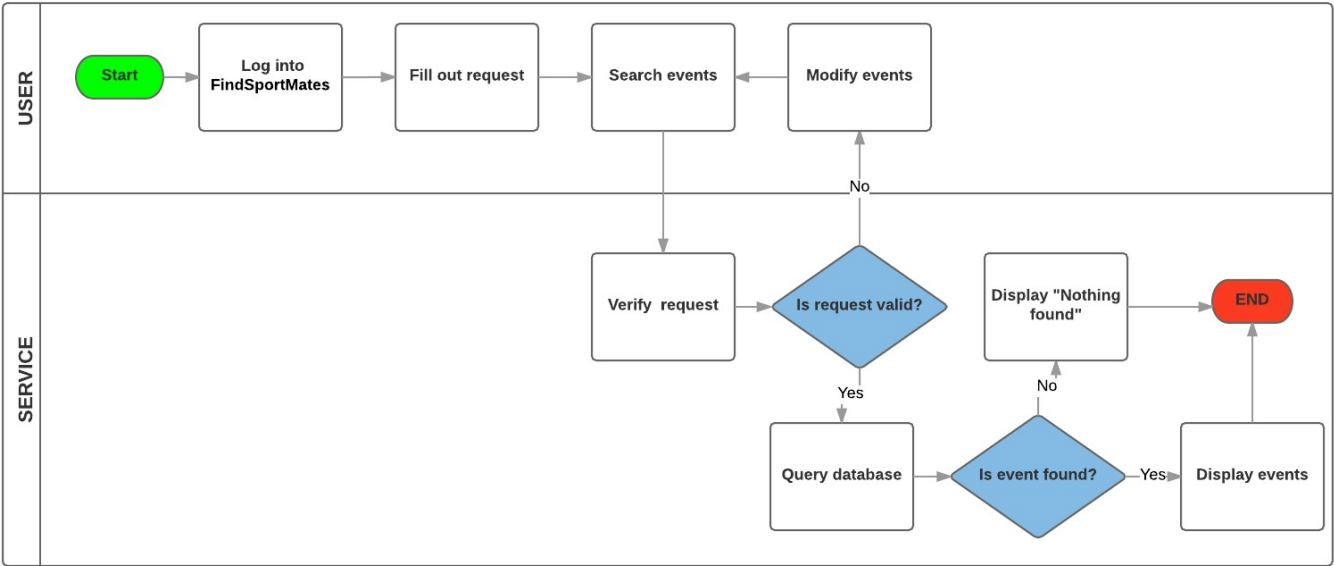
<b>User Case ID:</b>	<b>UC-12</b>
<b>Use Case Name:</b>	Leave Messages
<b>Description:</b>	People of CU can leave messages and talk to each other under an event

<b>Actors:</b>	People of CU		
<b>Pre-conditions:</b>	<ul style="list-style-type: none"> <li>Users have access to FindSportMates</li> <li>People of CU have created their own events</li> <li>Users need to Browse Events</li> </ul>		
<b>Post-conditions:</b>	New messages are posted		
<b>Frequency of Use:</b>	Medium		
<b>Flow of Events: (edit)</b>		Actor Action	System Response
	1	Log in to	Check validation

		FindSportMates	
	2	Browse Events	Show all the events
	3	Click on “Leave a message”	Enter the edit interface that the officers could type
	4	type the message	Update the messages and display it under the event
<b>Variations</b>	1. User doesn't create any event.		
<b>Exceptions:</b>			
<b>Developer Notes:</b>	No later than 50 words		

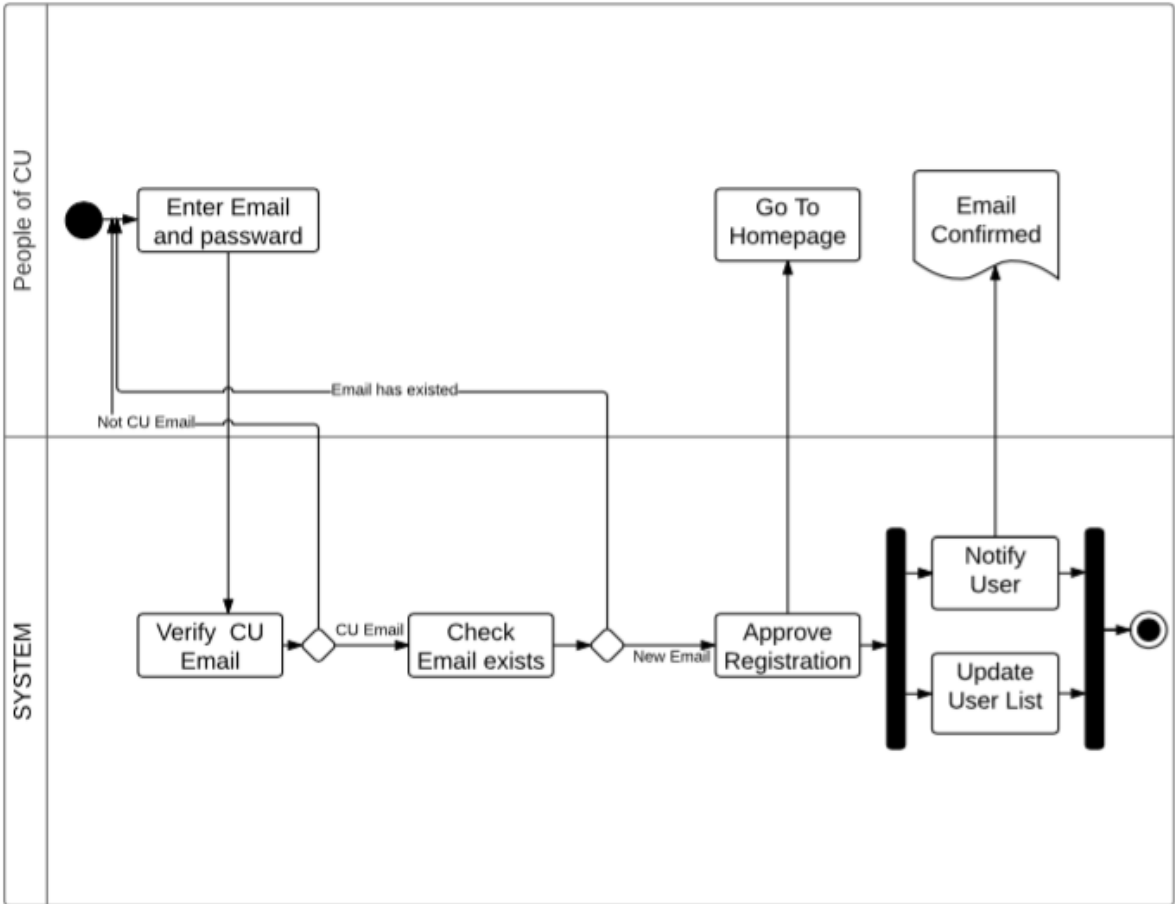
### Activity Diagram





Activity Diagram - Register

Business Requirement ID #: BR-01  
Use Case ID #: UC-02  
Use Case Name : Register  
Author : Yu-Chih Cho

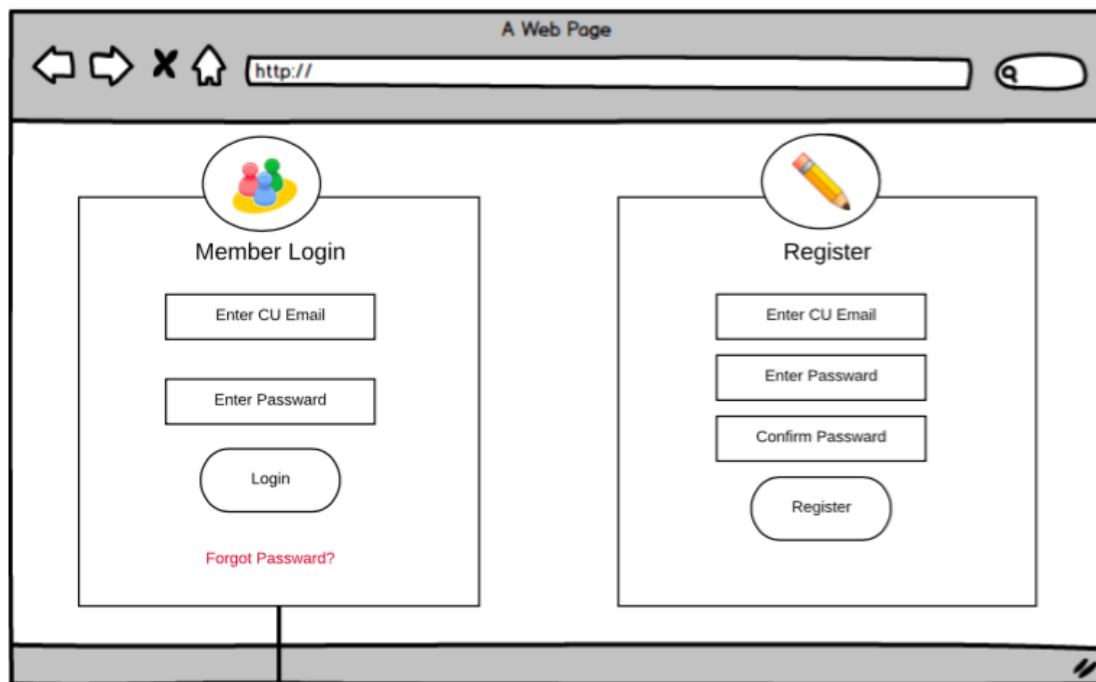


## UI Mockups

FindSportMates system will be displayed through website and the data will be stored in database.

Welcome page (Sign up/ Login in) -> Personal Page (Create /Cancel/ Join/ Drop Event)


Welcome Page



A Web Page


Navigation icons: back, forward, home, search

URL: http://



### Member Login

[Forgot Password?](#)



### Register

After Log in



A Web Page

Navigation icons: back, forward, home, search

URL: http://



Home

#### October 2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
26	27	28	29	30	Oct 1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Today : Oct, 11, 2016

It would show some events that will happen in the following month

(If user click “Search Event”, they would enter the following page)

A Web Page

⬅️ ➡️ ✕ 🏠

http://

🔍

Home

Search Event

Create Event

Sport

▼

Volleyball

Basketball

Soccer

● OR

○ AND

Time

▼

October 2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Search



(If user click "Create Event" and "Manage My Event", they would enter the following page)

A Web Page

http://

Home

Search Event

Create Event

Manage My Event

Form

Submit

This screenshot shows a web browser window titled "A Web Page". The address bar contains "http://". The page features a navigation bar with a "Home" button (represented by a house icon) and three buttons: "Search Event", "Create Event" (which is highlighted in blue), and "Manage My Event". Below the navigation bar, there is a large, light gray rectangular area labeled "Form" in the center. To the right of this form area is a "Submit" button. The browser's status bar at the bottom is empty.

A Web Page

http://

Home

Search Event

Create Event

Manage My Event

Volleyball

Edit

Cancel

Basketba;;

Edit

Cancel

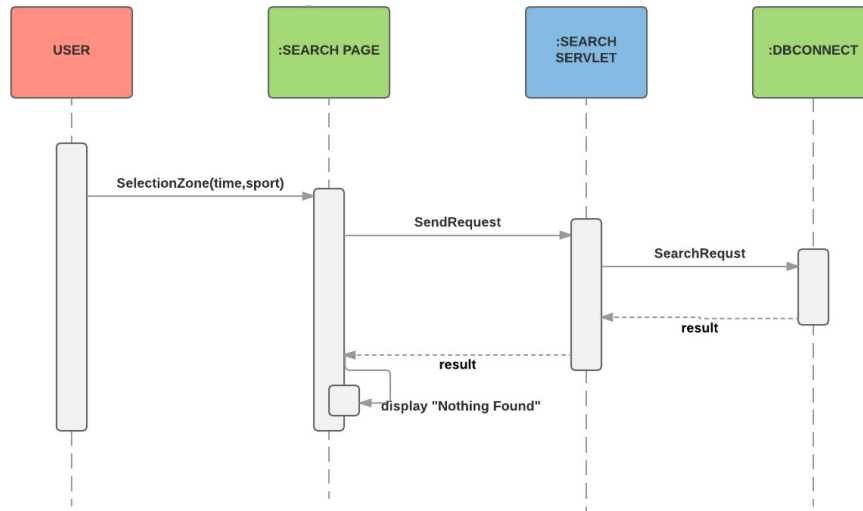
This screenshot shows the same web browser window titled "A Web Page" with the address bar containing "http://". The navigation bar is identical, but the "Manage My Event" button is now highlighted in blue. The main content area displays two event entries. The first entry consists of a box labeled "Volleyball" followed by "Edit" and "Cancel" buttons. The second entry consists of a box labeled "Basketba;;" followed by "Edit" and "Cancel" buttons. The browser's status bar at the bottom is empty.

## User Interactions

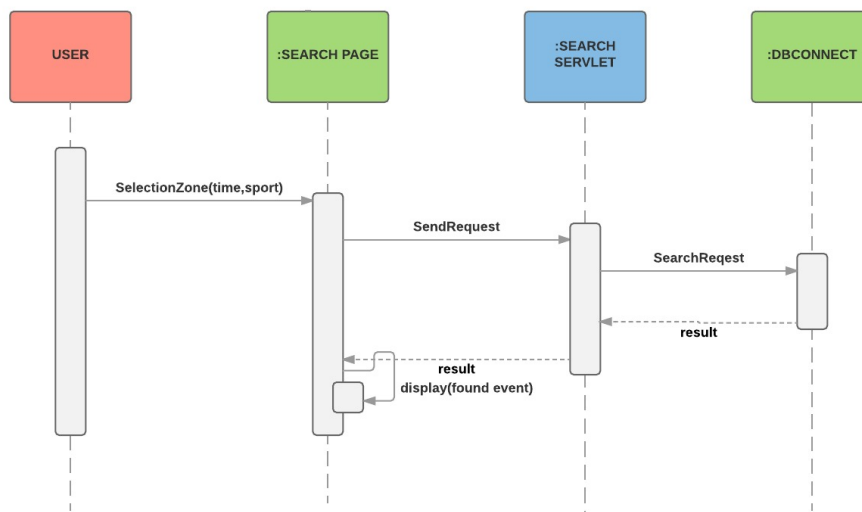
### UR-06&UR-10/ UC-06 SEARCH EVENTS SEQUENCE DIAGRAM

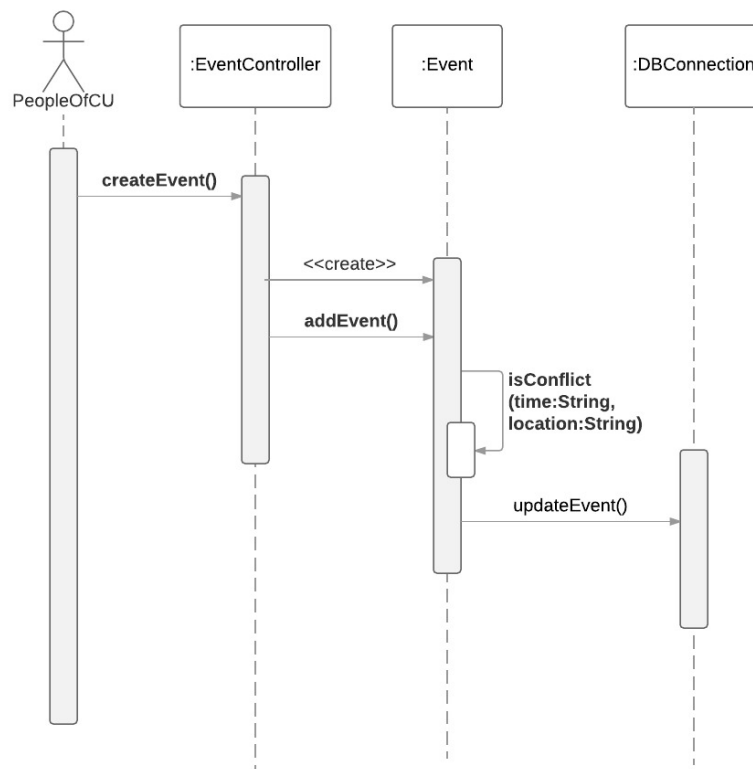
Yi Chou | October 11, 2016

Case1: no result



Case2: found result





## Sequence Diagram - Register

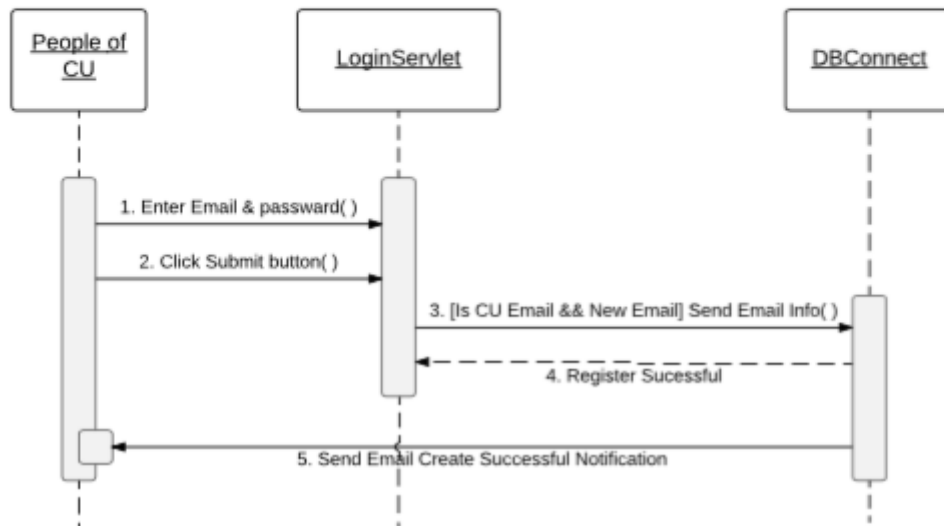
Business Requirement ID #: BR-01

Use Case ID #: UC-02

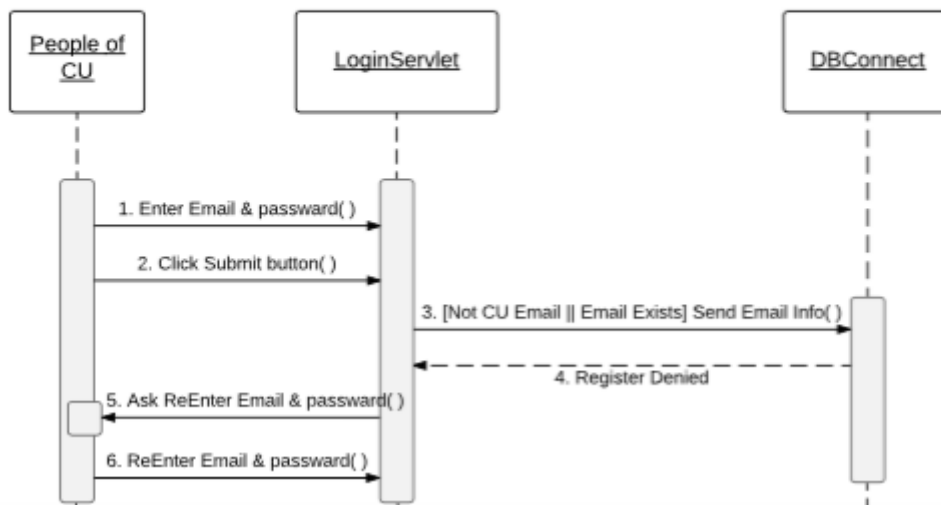
Use Case Name : Register

Author : Yu-Chih Cho

### Register successful



### Register unsuccessful



**Class Diagram:**

