CoSpace
Use Case Definitions

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1.   Overview

This document describes the functional requirements of the system using use case models, and is an attachment to *Software Requirements Specification*.

1.1   Overview of the Actors

Actor	Description
Unregistered User	Unregistered user is a type of user that haven't been registered to the system before, and have limited capability.
Member	Member is a type of user that have registered before, and can enroll clubs and sub-clubs via answering the questionnaire.
Moderator	Moderator is a member that moderates a sub-club. They are selected from members and they can create events, remove inappropriate posts, and ban members of the sub-clubs they moderate.
Administrator	Administrator is a member with exclusive privileges. They are not selected from members but they are also members of the system. They create clubs and sub-clubs either by themselves or by multiple requests by the members. They can also remove posts and ban moderators/members.

1.2 Use Case Diagram
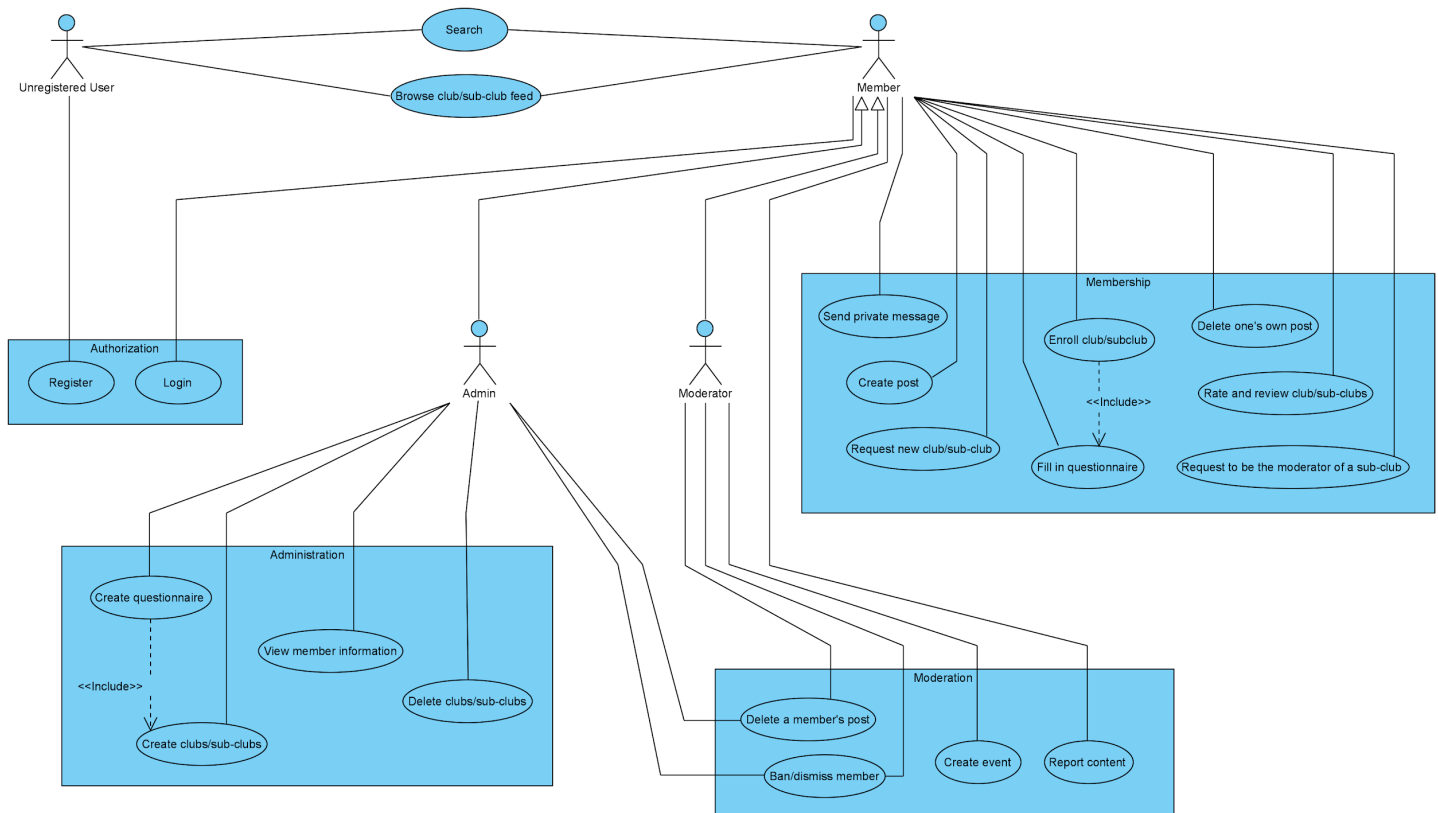
2. Tabular Descriptions

Following subsections define and articulate functional requirements of the system using use case models. The use cases are expressed as tabular descriptions. For some use cases, activity diagrams are provided in the next section to better visualize the flow of actions of the actors and the system.

The prioritization of the requirements is made using MoSCoW model[1]. Below are list of terms and their meanings:
- *Must have:* Requirements with this priority are essential for the product, and must be implemented.
- *Should have:* Requirements with this priority are not essential for the product to work. However, they are nearly as important as the must haves and are therefore expected to be implemented.
- *Could have:* Requirements with this priority are a nice addition to the product, and may be implemented, if time and budget allow this.
- *Won't have:* Requirements with this priority will not be implemented in this version of the product, but may be nice to implement in future versions.

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[1] MoSCoW Prioritisation, https://www.coleyconsulting.co.uk/moscow.htm

Use Case: Register

Use Case Number:	1		
Use Case Code:	UC1		
Use Case Name:	Register		
Depicter:	Çağatay Yiğit	Last Modificatory:	M. Şamil Ateşoğlu
Description Date:	23.03.2021	Last Modification Date:	28.03.2021

Actor(s):	Unregistered User
Short Definition:	Registration operation
Pre-condition:	The actor meets the system for the first time.
Post-condition:	The actor becomes a member of the system.
Priority:	Must have
Frequency of Occurrence:	Only once
Main Path:	1. The actor specifies a valid email, a valid password, a universally unique username, and a date of birth. 2. The system shall register this user as a member. 3. The system shall display a confirmation message. 4. The system shall present a questionnaire consisting of at most 20 selected questions (there isn't any specific constraint as to how these will be selected) regarding a variety of clubs and sub-clubs from all available questions, for the newly registered user to answer. 5. The actor shall fill out the questionnaire.
Alternative Path:	A1.1. If the system finds the username, email, or the password, an error message is displayed. A1.2. The actor can type a new username, a valid e-mail or password; or choose to cancel the operation. A3.1. The actor can skip the questionnaire to do it later.
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Login

Use Case Number:	2		
Use Case Code:	UC2		
Use Case Name:	Login		
Depicter:	Çağatay Yiğit	Last Modificatory:	Çağatay Yiğit
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Member
Short Definition:	The actor enter the system for further functionality
Pre-condition:	The actor must be successfully registered in the system before.
Post-condition:	The actor can use the system with privileges that unregistered users do not have.
Priority:	Must have
Frequency of Occurrence:	Occasionally
Main Path:	1. The system shall display a login screen. 2. The actor shall type email & password. 3. The system shall authenticate the user.
Alternative Path:	A1.1. If the actor forgot their password, they can click the forgot password button. The system sends an email to the specified email address. A3.1. System shall prompt a failure message
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Search

Use Case Number:	3
Use Case Code:	UC3
Use Case Name:	Search
Depicter:	Çağatay Yiğit
Description Date:	23.03.2021

Use Case Number:	3		
Use Case Code:	UC3		
Use Case Name:	Search		
Depicter:	Çağatay Yiğit	Last Modificatory:	M. Şamil Ateşoğlu
Description Date:	23.03.2021	Last Modification Date:	28.03.2021

Actor(s):	Member, Unregistered User
Short Definition:	Search users / clubs / sub-clubs / posts on entire system
Pre-condition:	A reliable internet connection
Post-condition:	The actors can view the results
Priority:	Must have
Frequency of Occurrence:	Frequently
Main Path:	1. The actors type a related keyword (user/club/sub-club/post name) they are searching for. 2. The system shall list the possible results. 3. The actors can interact with the desired result by clicking on it.
Alternative Path:	A2.1. The system cannot find any possible results and show a message about the condition. A3.1. If the result is a post, and the actor is an unregistered user or a member who does not belong to the club/sub-club of which it is posted, cannot react to the post.
Containing Use-Case(s)	
Special Requirements:	1. The system shall provide the results within an acceptable time frame as described in the requirement **SQR-P1** of SRS.
Assumptions:	
Note:	

Use Case: Browse Club/Sub-club Feed

Use Case Number:	4		
Use Case Code:	UC4		
Use Case Name:	Browse club/sub-club feed		
Depicter:	Çağatay Yiğit	Last Modificatory:	M. Şamil Ateşoğlu
Description Date:	23.03.2021	Last Modification Date:	28.03.2021

Actor(s):	Member, Unregistered User
Short Definition:	Browsing club/sub-club feed with different options
Pre-condition:	A reliable internet connection
Post-condition:	The actors can view the feed with their desired option
Priority:	Must have
Frequency of Occurrence:	Very frequently
Main Path:	1. The actor enters to the club/sub-club which they want to see its content. 2. The system shall list the posts with specific order the actor wants.
Alternative Path:	A2.1. The actor can select the option "order by post date" B2.1. The actor can select the option "order by popularity"
Containing Use-Case(s)	
Special Requirements:	1. The system shall provide the results within an acceptable time frame as described in the requirement **SQR-P3** of SRS.
Assumptions:	
Note:	

Use Case: Send Private Message

Use Case Number:	5		
Use Case Code:	UC5		
Use Case Name:	Send private message		
Depicter:	M. Şamil Ateşoğlu	Last Modificatory:	Çağatay Yiğit
Description Date:	21.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Member
Short Definition:	A member sends a private message to another member whom he/she shares the same club/sub-club.
Pre-condition:	The member should be logged in.
Post-condition:	The message is sent to the receiver.
Priority:	Must have
Frequency of Occurrence:	Very frequent
Main Path:	1. The member finds the member that they want to send a private message to. 2. The member writes their message and sends it. 3. System shall notify the receiver about the message. 4. The receiver shall be able to see the message and its time of sending.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	1. The system shall provide a support for real-time exchange of messages as required in **SQR-P2** of SRS.
Assumptions:	1. The receiver of the message must share at least 1 club/sub-club with the sender.
Note:	

Use Case: Create Post

Use Case Number:	6		
Use Case Code:	UC6		
Use Case Name:	Create post		
Depicter:	M. Şamil Ateşoğlu	Last Modificatory:	M. Şamil Ateşoğlu
Description Date:	20.03.2021	Last Modification Date:	28.03.2021

Actor(s):	Member
Short Definition:	Make a post on a club/sub-club
Pre-condition:	Members must be enrolled on the club/sub-club they intend to post
Post-condition:	A new post is created and added to the feed of the club/sub-club
Priority:	Must have
Frequency of Occurrence:	Very frequently
Main Path:	1. The member opens the club/sub-club they enrolled in. 2. The member clicks a button for creating a post. 3. The member writes the body and title of the post and sends it. 4. The system shall record this post and show it on club/sub-club feed.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	1. The system shall make the post available for public within 250ms upon sending.
Assumptions:	
Note:	

Use Case: Delete One's Own Post

Use Case Number:	7		
Use Case Code:	UC7		
Use Case Name:	Delete one's own post		
Depicter:	M. Şamil Atesoglu	Last Modificatory:	M. Şamil Ateşoğlu
Description Date:	21.03.2021	Last Modification Date:	28.03.2021

Actor(s):	Member
Short Definition:	The member deletes the post that they've made before.
Pre-condition:	The member must be logged in.
Post-condition:	The post is deleted from the club's/sub-clubs' feed.
Priority:	Should have
Frequency of Occurrence:	Once in a while
Main Path:	1. The member views their post. 2. The member clicks the delete button on the menu of the post. 3. A confirmation dialog is shown. 4. After confirmation, the post is deleted from the club's/sub-club's feed and also the member's own profile.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	1. The system shall delete the post within 250ms upon confirmation.
Assumptions:	1. The member have made at least one post to begin with.
Note:	

Use Case: Request New Club/Sub-club

Use Case Number:	8		
Use Case Code:	UC8		
Use Case Name:	Request new club/sub-club		
Depicter:	Selim Şeker	Last Modificatory:	Selim Şeker
Description Date:	20.03.2021	Last Modification Date:	20.03.2021

Actor(s):	Members
Short Definition:	Members offers new club and sub-clubs
Pre-condition:	For offering a new sub-club, members must already be enrolled in the club.
Post-condition:	A new request joins the requests bin.
Priority:	Must have
Frequency of Occurrence:	Occasionally
Main Path:	1. Member clicks request club/sub-club button. 2. Member selects club or sub-club. 3. If sub-club, member specifies the upper club. 4. Member specifies the club/sub-club name. 5. Member enter some related keywords. 6. Member submits its request.
Alternative Path:	A1.1. Member searches clubs or sub-clubs, if cannot found appears a button for requesting a club/sub-club for search pattern
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Fill In Questionnaire

Use Case Number:	9		
Use Case Code:	UC9		
Use Case Name:	Fill in questionnaire		
Depicter:	Selim Şeker	Last Modificatory:	Selim Şeker
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Member
Short Definition:	Members fill in the questionnaire for enrolling the club or taking recommendations.
Pre-condition:	Member should send an enroll request to corresponding sub-class
Post-condition:	If member pass the questionnaire, s/he successfully enrolls the sub-club
Priority:	Must Have
Frequency of Occurrence:	Frequently
Main Path:	1. Members clicks the questionnaire button from his/her notifications. 2. Members reads the terms and clicks the approve button. 3. Members gives answers to the multiple choice questions. 4. Members submits his/her answers to the system by clicking the submit button. 5. Members checks his/her score and decision of the system for about their entrance.
Alternative Path:	A5.1. Members checks his/her score and club recommendations of the system.
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	Questions in questionnaire are multiple choice
Note:	

Use Case: Enroll Club/Sub-club

Use Case Number:	10		
Use Case Code:	UC10		
Use Case Name:	Enroll club/sub-club		
Depicter:	Selim Şeker	Last Modificatory:	Selim Şeker
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Members
Short Definition:	Members enroll to a new club/sub-club
Pre-condition:	Members be logged in
Post-condition:	Members enrolls corresponding club/sub-club
Priority:	Must have
Frequency of Occurrence:	Frequently
Main Path:	1. Member enters the club/sub-club page and clicks the enroll button. 2. Member fills in the club/sub-club's questionnaire. 3. Member passes the questionnaire,reads and approves the club/sub-club terms. 4. Member successfully enroll to the club/sub-club.
Alternative Path:	A3.1. Member couldn't pass the questionnaire. A3.2. System blocks the enrollment of the member.
Containing Use-Case(s)	Includes UC9
Special Requirements:	
Assumptions:	
Note:	

Use Case: Rate and Review Clubs/Sub-clubs

Use Case Number:	11		
Use Case Code:	UC11		
Use Case Name:	Rate and review clubs/sub-clubs		
Depicter:	M. Şamil Ateşoğlu	Last Modificatory:	
Description Date:	21.03.2021	Last Modification Date:	

Actor(s):	Member
Short Definition:	Members share their "meta" views about the clubs/sub-clubs
Pre-condition:	1. The member must be signed in. 2. The member must be enrolled in that club/sub-club.
Post-condition:	The member's views about the club/sub-club is shown to other users in the club/sub-club's meta page.
Priority:	Must have
Frequency of Occurrence:	Frequently
Main Path:	1. The member opens the club/sub-club's meta page. 2. The member writes down their opinions of the club/sub-club. 3. The member optionally selects their level of satisfaction with the club/sub-club. 4. The member posts their review to the meta panel. 5. The system shall show it in the "meta" feed and update the overall satisfaction rate of the club/sub-club.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	1. The system shall make the review available for public within 250ms upon sending.
Assumptions:	
Note:	

Use Case: Request to be the Moderator of a Sub-club

Use Case Number:	12		
Use Case Code:	UC12		
Use Case Name:	Request to be the moderator of a sub-club		
Depicter:		Last Modificatory:	
Description Date:		Last Modification Date:	

Actor(s):	Member
Short Definition:	Member sends a request for being the moderator of a specific sub-club.
Pre-condition:	Member must be enrolled that sub-club
Post-condition:	Member's request transmits to the admin by system.
Priority:	Must have
Frequency of Occurrence:	Occasionally
Main Path:	1. Members enters the sub-club page. 2. Members clicks the moderation button. 3. Members fills in the form.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Create Questionnaire

Use Case Number:	13		
Use Case Code:	UC13		
Use Case Name:	Create questionnaire		
Depicter:	Mert Can Demir	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	

Actor(s):	Admin
Short Definition:	Admin should create questionnaires for the clubs and sub-clubs to give access to members.
Pre-condition:	
Post-condition:	
Priority:	Must Have
Frequency of Occurrence:	Occasionally
Main Path:	1. Admin starts to create a club or a sub-club. 2. Admin gets a pop-up to fill the required questionnaire questions. 3. Admin completes to fill the required questionnaire questions.
Alternative Path:	
Containing Use-Case(s)	Includes UC14
Special Requirements:	
Assumptions:	
Note:	

Use Case: Create Clubs/Sub-clubs

Use Case Number:	14		
Use Case Code:	UC14		
Use Case Name:	Create clubs/sub-clubs		
Depicter:	Mert Can Demir	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	

Actor(s):	Admin
Short Definition:	Admin opens club or sub-club.
Pre-condition:	
Post-condition:	
Priority:	Must Have
Frequency of Occurrence:	Occasionally
Main Path:	1. Admin logs in to the administration panel. 2. Admin starts to create a club/sub-club 3. Admin fills the required information about the related club/sub-club. 4. Admin confirms the creation of the club/sub-club .
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: View Member Information

Use Case Number:	15		
Use Case Code:	UC15		
Use Case Name:	View member information		
Depicter:	Mert Can Demir	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	

Actor(s):	Admin
Short Definition:	Admin can view the members' information.
Pre-condition:	
Post-condition:	
Priority:	Must Have
Frequency of Occurrence:	Occasionally
Main Path:	1. Admin logs in to the administration panel. 2. The system shall provide a way for admin to search for a member.. 3. Admin searches a member with the user's username. 4. Admin see the member's following information: User name, birth date, which clubs/sub-clubs is a member of, registration date, last login date and list of IPs that member use.
Alternative Path:	A2.1. Admin opens up a member's profile page. A2.2. The system shall list the member's following information: User name, birth date, which clubs/sub-clubs is a member of, registration date, last login date and list of IPs that member use, as an additional information.
Containing Use-Case(s)	
Special Requirements:	1. The system shall respond to the search request for a member in 3 seconds.
Assumptions:	
Note:	

Use Case: Delete Clubs/Sub-clubs

Use Case Number:	16		
Use Case Code:	UC16		
Use Case Name:	Delete clubs/sub-clubs		
Depicter:	Mert Can Demir	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	

Actor(s):	Admin
Short Definition:	Admin can delete clubs/sub-clubs, providing a rationale.
Pre-condition:	
Post-condition:	The club/sub-club is deleted from the system.
Priority:	Must Have
Frequency of Occurrence:	Once in a while
Main Path:	1. Admin logs in to the administration panel. 2. The system shall provide a way for admin to search for a club/sub-club. 3. Admin searches a club/sub-club with the club/sub-club's name. 4. Admin chooses to delete the selected club/sub-club. 5. Admin provides a rationale to delete the selected club/sub-club. 6. Admin confirms the deletion of the club/sub-club. 7. The system shall delete the club/sub-club which is requested to be deleted by the admin. 8. The system shall prompt a message to notify the admin of a successful deletion.
Alternative Path:	A1.1. Admin opens up a club/sub-club's page. A1.2. Admin decides to delete the club/sub-club. A1.3. Use case continues at step 5.
Containing Use-Case(s)	
Special Requirements:	1. The system shall delete to the club/sub-club within 5 minutes.
Assumptions:	
Note:	

Use Case: Delete a Member's Post

Use Case Number:	17		
Use Case Code:	UC17		
Use Case Name:	Delete a member's post		
Depicter:	Yusuf Keten	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Admin, Moderator
Short Definition:	Admin or moderator can delete a post
Pre-condition:	The post should contain forbidden things
Post-condition:	The post will not exist after the condition
Priority:	Must have
Frequency of Occurrence:	Once in a while, depending on the number of active users on the system
Main Path:	1. Actors login the system. 2. Actors enter the report system. 3. Actors access the reported post. 4. Actors delete the post.
Alternative Path:	A2.1. Actors can delete any inappropriate post that includes forbidden content.
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Ban/Dismiss Member

Use Case Number:	18		
Use Case Code:	UC18		
Use Case Name:	Ban/dismiss member		
Depicter:	Yusuf Keten	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Admin, Moderator
Short Definition:	Some members may be blocked to access the system
Pre-condition:	The member writes forbidden things
Post-condition:	The member can't access to the system
Priority:	Must have
Frequency of Occurrence:	Once in a while, depending on the number of active users on the system
Main Path:	1. Actors visit the profile of any member 2. Actors click the ban button. 3. Actor choose the time of ban.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Create Event

Use Case Number:	19		
Use Case Code:	UC19		
Use Case Name:	Create event		
Depicter:	Yusuf Keten	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Moderator
Short Definition:	Moderator can create an event for members
Pre-condition:	
Post-condition:	An event will be created and will be visible for club members.
Priority:	Must have
Frequency of Occurrence:	Usually
Main Path:	1. Actor goes to event creation page via a button in the club page. 2. Actor fill the necessary information parts in the page. 3. An announcement mail about the event goes to members of the club.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

Use Case: Report Content

| Use Case Number:	20		
Use Case Code:	UC20		
Use Case Name:	Report content		
Depicter:	Yusuf Keten	Last Modificatory:	
Description Date:	23.03.2021	Last Modification Date:	23.03.2021

Actor(s):	Member
Short Definition:	Members can report the inappropriate posts
Pre-condition:	A member writes inappropriate posts
Post-condition:	Member reports the post, and admin or moderator see the post.
Priority:	Must have
Frequency of Occurrence:	Occasionally
Main Path:	1. Actor selects any post which includes inappropriate content. 2. Actor clicks the report button below the message. 3. Actor fills the report form and send the report message.
Alternative Path:	
Containing Use-Case(s)	
Special Requirements:	
Assumptions:	
Note:	

3.   Activity Diagrams

Below are the activity diagrams of specific use cases.

Activity Diagram: Create Post (UC6)
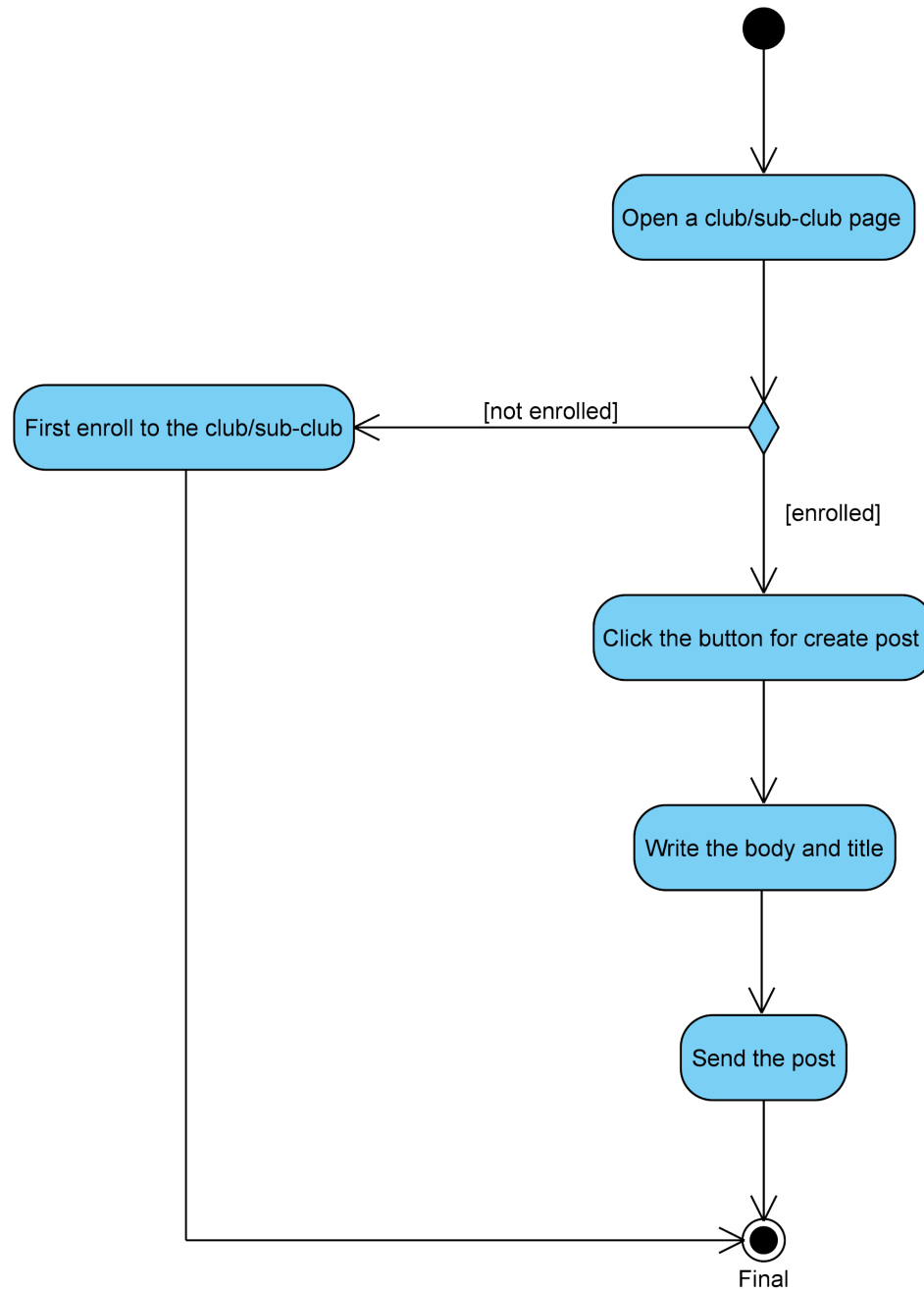
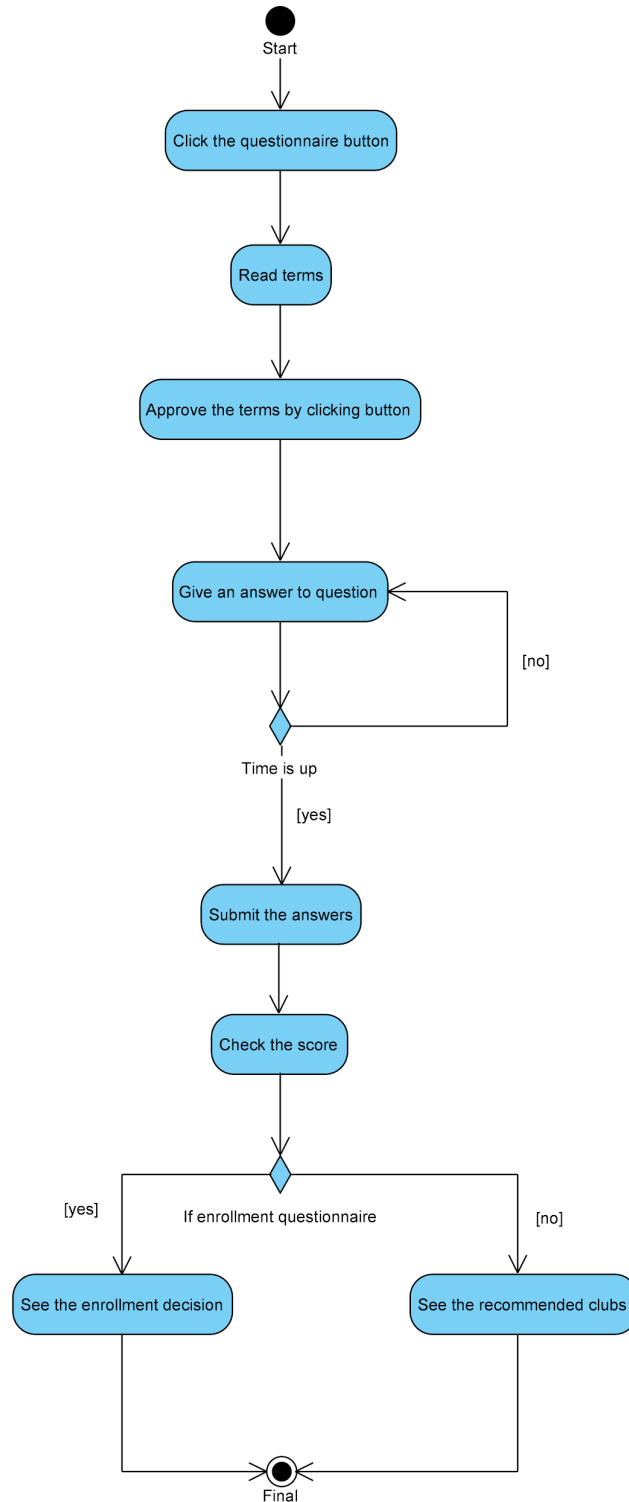**Activity Diagram: Enroll Club/Sub-club (UC10)**
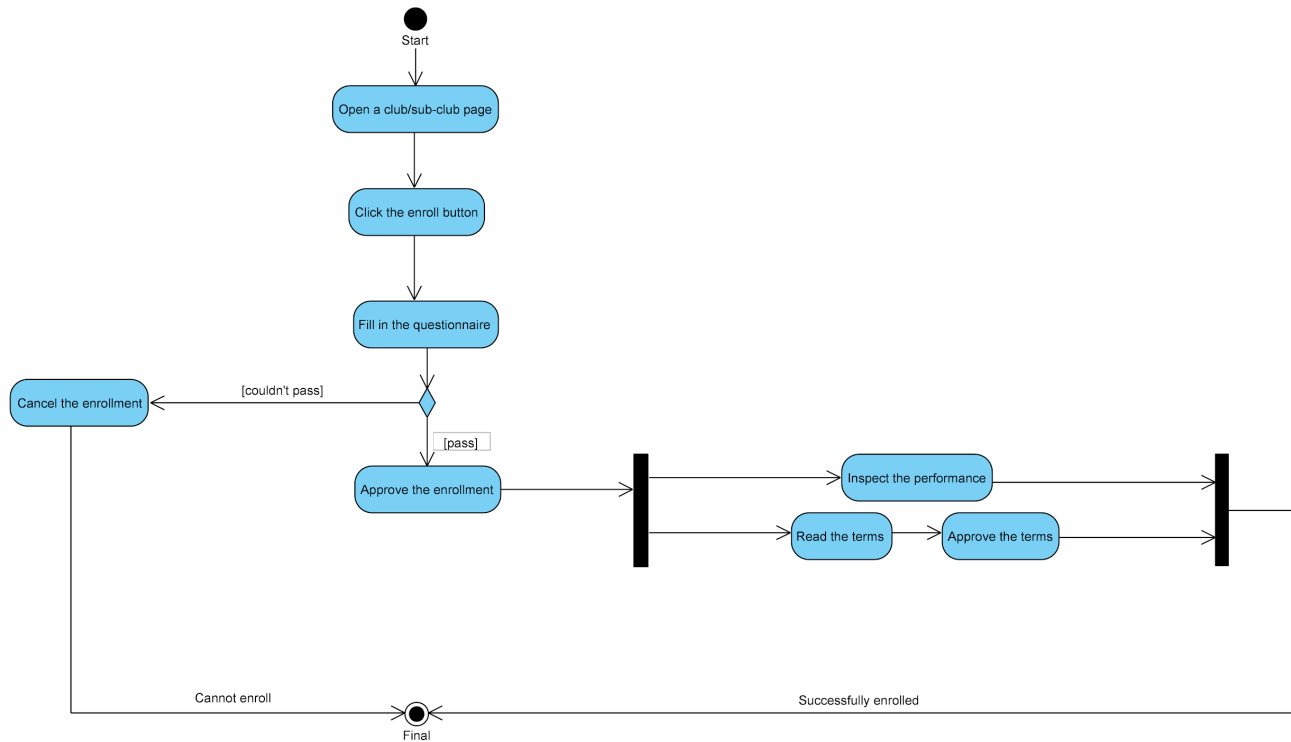
Activity Diagram: Fill In Questionnaire (UC9)

4.   Conceptual Entity Relationship Diagram

Below is a conceptual entity relationship diagram that captures some of the business objects and their relationships. Crow's foot notation[2] has been used to model the relationships.

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[2] Crow's foot notation