

Sports Club Automation System

Information System Design Project

CSE A1

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Chapter 1

Overview of the Project

1.1 Introduction

Football is one of the most popular games in Bangladesh. Every football playing nation organizes domestic competition every year. Bangladesh Football Federation organizes Bangladesh League, Federation Cup and other competitions every year. Every competition is played between football clubs which are mainly private organization having some business goals. Football clubs of our country are not

Well organized. Our aim is to develop a system so that management of a club becomes easier and the structure becomes more organized.

1.2 Organization overview

A typical football club has a board of directors. The board runs the financial and managerial tasks. It also hires technical directors, team manager, coaches. Manager and technical directors are responsible to form a team according to the rules and regulation of BAFUFE.

1.3 Project overview

Our target is to automate the information system of a football. A football club needs internal communication between its members. It also needs to schedule time to train player, board meeting. There is some portion of the club which aims to develop youth players. Another important part of a football club is fan club which represents the club, gives financial support. A club also needs to sell different products to generate money. We aim to automate all the above mentioned parts of a football club.

1.4 Aims of the project

- **All time communication:** All time easy communication system will be supplied by the system. Any important message or news can be delivered to the players or staffs or desired persons easily by the system.
- **Notifications:** Players and staffs will be notified any news in their personal accounts.
- **Schedule management:** Set and update schedule for matches, meetings and notify other members.
- **Sales & Productions:** Management for selling of player jersey and other production of clubs.

- **Fan Club:** An official fan club system will be supplied with personal account for official fans. Fans can interact with club officials for any necessity.

1.5 Motivation of the project

Though football club is an exciting prospect in both business and entertainment purpose, Bangladeshi football clubs are not so well organized. All data are stored manually in paper. Time scheduling is also done manually. Communication system between all members is obsolete. Notices are sent via hard copy. These are hindering development of the structure of a football club, which affects our overall football system in the long run. Improving the overall view of Football in Bangladesh is our main motivation behind this project.

1.6 Report overview

In the report we have mainly discussed the following topics on the

Software design:

1. Use case diagram
2. Data Flow Diagram (DFD)
3. Fishbone diagram
4. Class diagram
5. Collaboration diagram
6. Activity diagram
7. Sequence diagram
8. State Chart diagram
9. Database design
10. UI design
11. Requirement Analysis and Feasibility study
12. Cost Analysis
13. Project Phases and Activity

Chapter 2

Existing System Study and Scope Definition

2.1 Introduction

Sports Club Automation is an information system for any sports club in Bangladesh to manage and automate the whole system. This system can be a platform for administrator, all the stuffs, players and people related to the club.

To design and analyze a system, scope definition plays an important role. The scope definition phase can be divided into the following parts:

- Existing System Analysis
- Discovering Baseline Scopes
- Assessment of Project's Worthiness
- Probable Roadblocks of the System

2.2 Existing System Analysis

The whole club system can be partitioned into different subsystems under the Board of Management:

1. Communication
2. Resource and Services
3. Legal Services
4. Finance
5. Marketing
6. Social Interaction
7. Football
8. Medical Services



Fig: Sports Club System Structure

<i>Baseline Problems, opportunities or Directives</i>	<i>Urgency</i>	<i>Visibility</i>	<i>Benefits</i>	<i>Priority</i>	<i>Proposed solution</i>
Very clumsy database for players and stuffs	ASAP	High	Manage stuffs, players' information.	1	Providing more information in the system and create database system
Manual budget management	ASAP	High	Easily manage sponsor, funds, wage management	2	Build a management system to calculate budgets and other funding issues
No official support for fans	ASAP	Medium	Fans can interact with the club and more people will be interested	7	An automated fan club and support for the fans by creating a communication system
No specific interaction system for players and stuffs	ASAP	High	Anyone can connect with others of the club at any time depending on priority and rank	3	A communication facility in the system via mobile service
Lack of ticket management system (online and offline)	ASAP	High	Manage tickets for the matches. Buy and sell online and offline	2	Managing tickets with schedule of the matches and online selling system
No auto schedule management	ASAP	High	Schedule can be easily defined and maintained	4	Provide information of schedules of matches and other activities to website
No auto update of news of the club	When possible	Medium	Anyone can get news in right time	6	Update information from system automatically to website
No evaluation system for players or stuffs	ASAP	High	Members will be disciplined and responsible	5	Evaluation system using players and stuffs presence in time and other activities

2.3 Discovering Baseline Scopes

2.3.1 Scopes that will be covered

- **Communication:**

- **All time communication:** All time easy communication system will be supplied by the system. Any important message or news can be delivered to the players or staffs or desired persons easily by the system.
- **Notifications:** Players and staffs will be notified any news in their personal accounts.
- **Complain system:** Anyone can complain through the system to the person in charge of the club.

- **Resources & Services:**

- **Database & Documents:** Database for players, staffs and members of the club with all detailed information will be provided. Data insertion, deletion, update and other important facilities will be provided and can be accessed by the administrator of the system.
- **Schedule management:** Set and update schedule for matches, meetings and notify other members.
- **Personal account:** Every player, staff and member of the club will be provided with a personal account. They can communicate with others or with board members easily by the account. Getting notifications of different news and updates of schedules will be supplied through the account.

- **Marketing:**

- **Ticket Management:** Setting ticket prices for different matches and other activities like online selling.
- **Sales & Productions:** Management for selling of player jersey and other production of clubs.
- **Media:** Interaction with media through the system. This is also a part of communication subsystem.

- **Social Interaction:**

- **Fan Club:** An official fan club system will be supplied with personal account for official fans. Fans can interact with club officials for any necessity. There will be automatic quiz system for fans on different match days or any important days from preset questions. Prediction for match results and award automation system will be developed by the activities of the fans.
- **Website:** Auto update of website from resource(match results, schedule etc.) will automatically be updated to the website.

- **Football:**

- **Player Management:** Management for players' presence and discipline and other managements. Selection of players for matches. Categorize of players depending on age, form or other information.
- **Youth club:** Information about youth club players and easy update systems.
- **Player contract:** Player contract information, update, renew system and auto update to database of the main system.
- **Foreign Player:** International player information and others.

2.3.2 Scopes that won't be covered

- **Communication:**

- Institutional Relation: Institutional relations of the clubs are maintained by the board members or officers directly. The system has nothing to do with this.

- **Legal Services:** There are many legal issues related to an institution. Legal advisors are there for these services. The system cannot interact in this service.

- **Finance:**

- **Planning and Control:** Planning and controls for different financial issues are done by the officers in charge. This is obviously a manual system and system has nothing to do with this.

- **Medical Service:** Medical services need instant time interaction.

2.4 Assessment of Project's Worthiness

The baseline scopes of the system definitely ensure the project's worthiness. Some of the benefits of the system are stated below:

- Automation system for the club can make the management very easy
- Administrative tasks can be done with great efficiency
- Communication system will be improved that will save a lot of time
- Automation of fan club and other social activities can have a great impact on sports

Considering all the scopes and their urgency, possibility and benefits, the project is worthy of implementation.

2.5 Possible Roadblocks for the System

- Developing the communication system with the mobile operators may be a problem
- It will be tough to reach the fans at first

Possible Solutions:

- Negotiate with the mobile operators and convince them
- Eye catching advertisement

Chapter 3

Requirement Analysis

3.1 Introduction

Requirements analysis in systems engineering and software engineering, encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing software or system requirements. Requirements analysis is critical to the success of a systems or software project. For our Sports System Automation, requirement analysis is also important and this includes mainly the Fish-Bone Diagram.

3.2 Trend Analysis

Trend Analysis is the practice of collecting information and attempting to spot a pattern, or trend, in the information. In some fields of study, the term trend analysis has more formally defined meaning. Although trend analysis is often used to predict future events, it could be used to estimate uncertain events in the past, such as how many ancient kings probably ruled between two dates, based on data such as the average years which other known kings reigned. Under trend analysis Technology trend analysis and Business trend analysis are included.

3.2.1 Technology Trend Analysis

Technology trend analysis actually means the technology that may be used to implement the software. For our project, as it will be web based software so, PHP, JAVASCRIPT, SQL, .NET and other related can be used. It is discussed in Technical Feasibility in section 4.3

3.2.2 Business Trend Analysis

Business trend includes the cost benefit for the organization. The cost benefit analysis is discussed later in part Economic Feasibility under Feasibility Analysis in section 4.5

3.3 Requirement Analysis (Fish-Bone Diagram)

Requirement analysis includes the fishbone diagrams for the subsystems of the project.

3.3.1 Communication Subsystem:

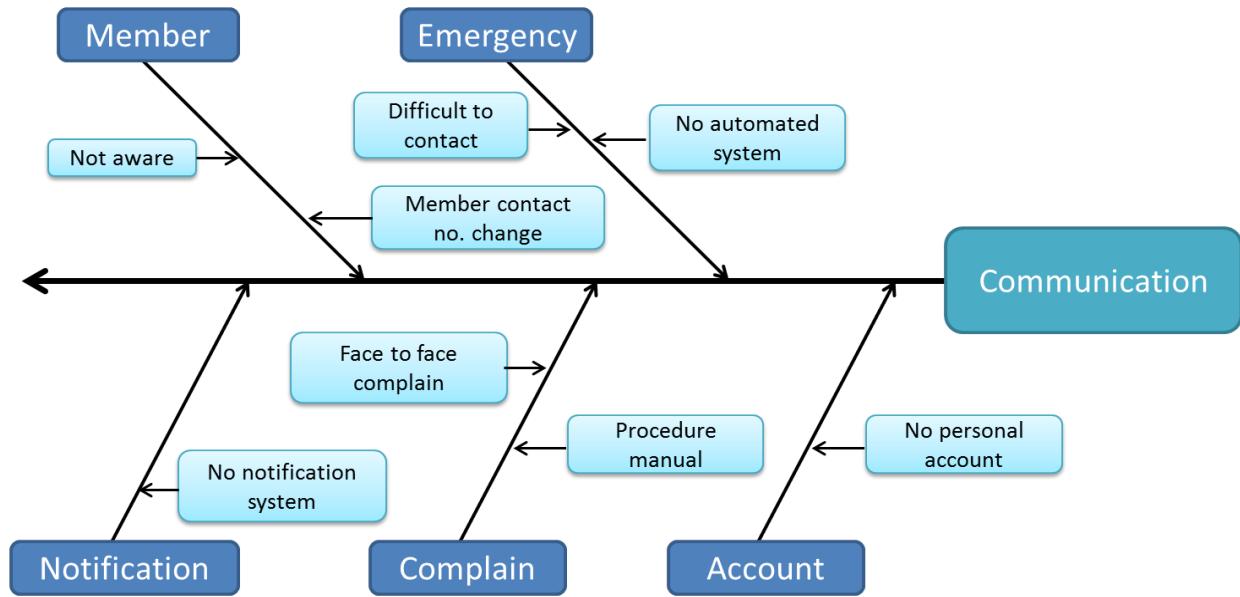


Fig: Fishbone Diagram for Communication Subsystem

3.3.2 Social Interaction Subsystem:

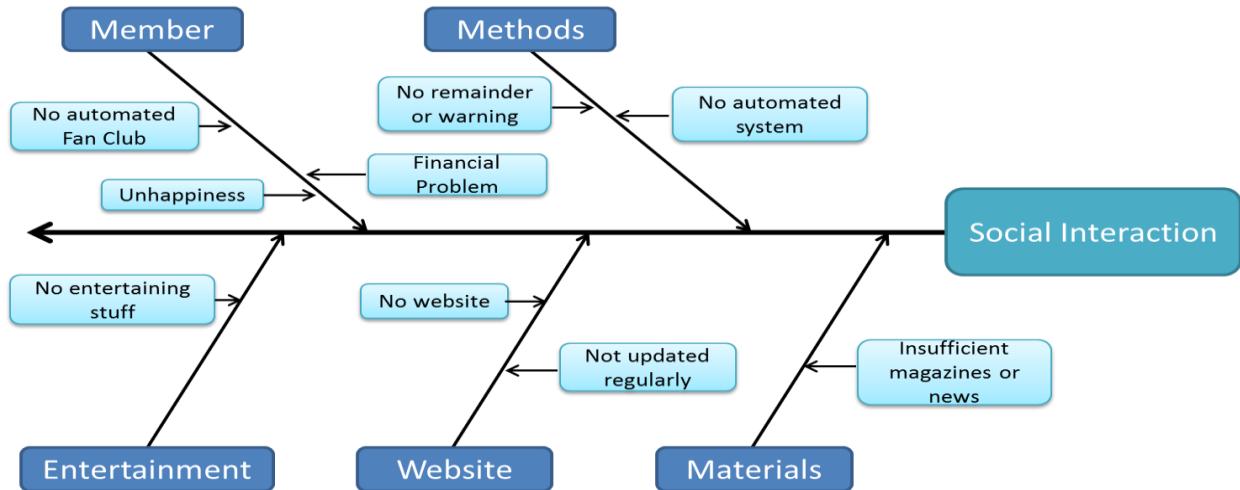


Fig: Fishbone Diagram for Social Interaction Subsystem

3.3.3 Registration Subsystem:

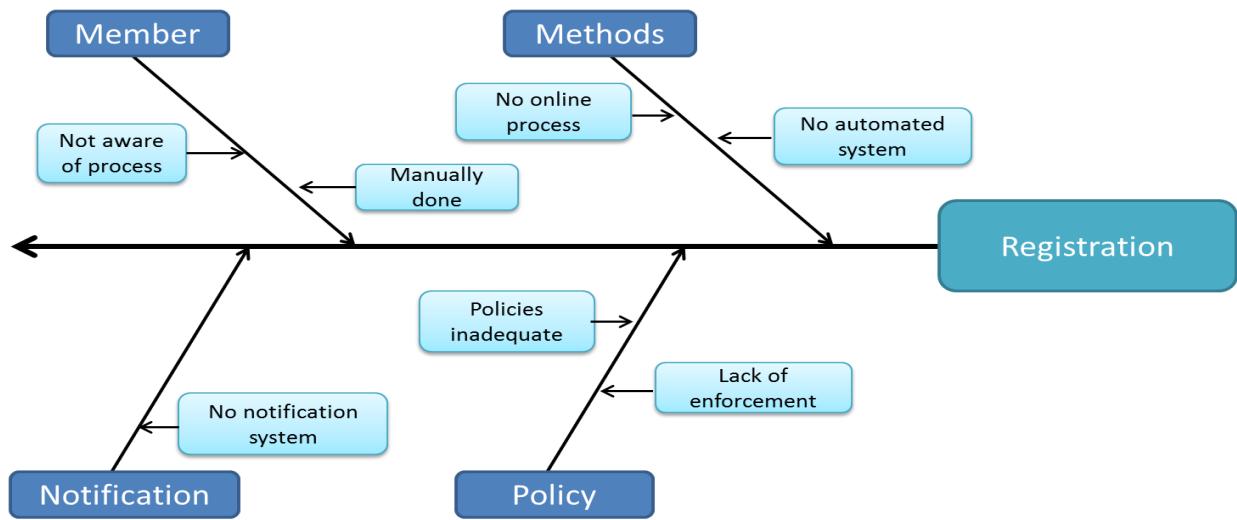


Fig: Fishbone Diagram for Registration Subsystem

3.3.4 Online Store Subsystem:

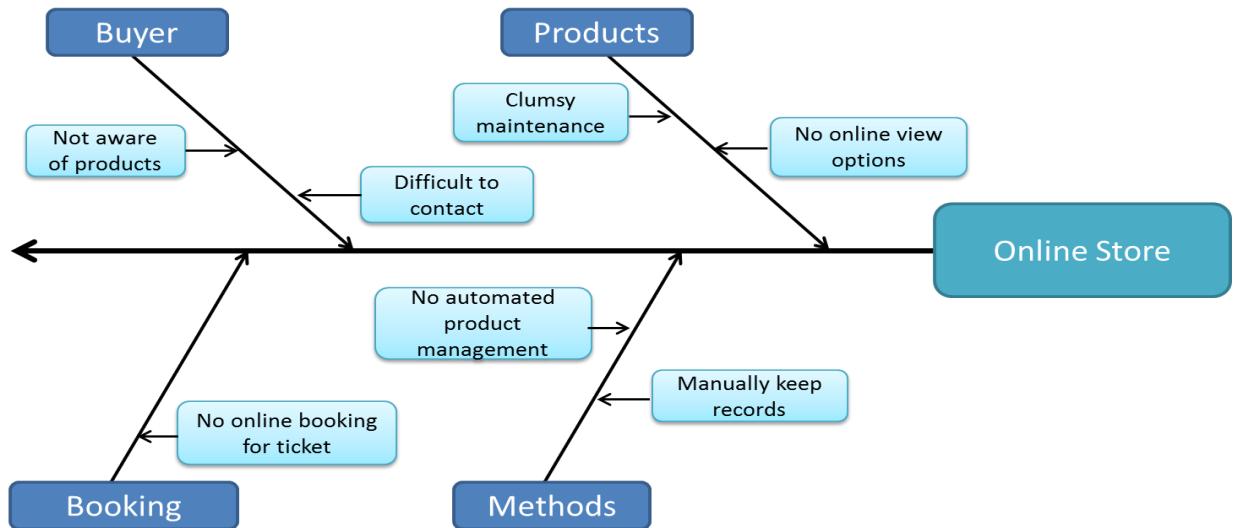


Fig: Fishbone Diagram for Online Store Subsystem

3.3.5 Team Management Subsystem:

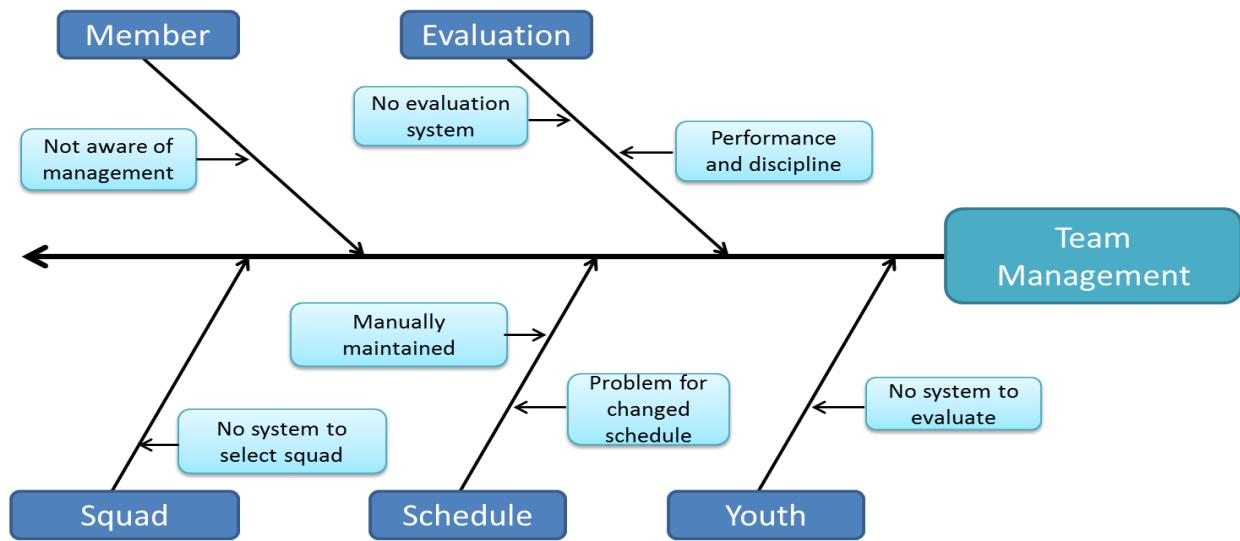


Fig: Fishbone Diagram for Team Management Subsystem

Chapter 4

Feasibility Analysis

4.1 Introduction

The feasibility study is an evaluation and analysis of the potential of a proposed project which is based on extensive investigation and research to support the process of decision making. Feasibility analysis of this project is done from following four perspectives:

- Operational Feasibility
- Technical Feasibility
- Cultural Feasibility
- Economic Feasibility

4.2 Operational feasibility

a) From Board and Manager's Perspective:

- Registration process will become easier by the system, but training is needed so that members can be accustomed to it.
- Coach and Manager should be trained for scheduling and continuous evaluation, notification and complaining system.

b) From Player and Staff's Perspective:

- Player and Staffs need to learn how to communication subsystem. Hence training program is needed initially.
- They need to be aware of checking continuous evaluation of their performance.

c) From Fans Perspective:

- Proper advertisement is needed to get fans introduced with the benefits they can get from this system.

4.3 Technical Feasibility:

- PHP for server side scripting
- MySQL for Database Management
- Java for software based implementation
- JavaScript for client side scripting
- HTML, CSS for web designing

4.4 Cultural Feasibility

- Management, Coach, Player and other members are not habituated with this system.
- Fans may not aware of the competitions and proper timing

4.5 Economic Feasibility

4.5.1 Expenses:

Expenses are of two types:

i) Preliminary expenses:

At the very beginning to implement the project

ii) Yearly expenses:

These expenses consist of yearly maintenance of the project

1) Preliminary expenses:

Software Development Cost.....	1,000,000 BDT
Hardware Cost.....	700,000 BDT
Advertisement.....	600,000 BDT
Web Server.....	100,000 BDT
Internet and Mobile.....	600,000 BDT
Total.....	3,000,000 BDT

Table: Preliminary Expenses

2) Yearly expenses:

Software Development Cost.....	150,000 BDT
Advertisement.....	250,000 BDT
Web Server	100,000 BDT
Internet and Mobile	400,000 BDT
Miscellaneous	100,000 BDT
Total.....	1,000,000 BDT

Table: Yearly Expenses

4.5.2 Income:

Incomes can be found in two ways:

i) Membership Charge:

Annual membership charge given by each member

ii) Advertisement:

Advertisement given in website

1) Membership Charge:

Year	Income(BDT)
1 st	$300*500= 150,000$
2 nd	$500*500= 250,000$
3 rd	$700*500= 350,000$
4 th	$1000*500= 500,000$

Table: Income from Membership charge

2) Advertisement:

Year	Income(BDT)
1st	$100*5000=500,000$
2nd	$200*5500= 1,100,000$
3rd	$350*6000= 2,100,000$
4th	$500*7000= 3,500,000$

Table: Income from Advertisement

4.5.3 Overall Predicted Benefit

Overall benefit for four years is predicted and given as follows:

	1 st Year	2 nd Year	3 rd Year	4 th Year
Expense	3 million	1 million	1 million	1 million
Revenue	0.75 million	1.35 million	2.45 million	4 million
Profit	-2.25 million	0.35 million	1.45 million	3million

Table: Profit from 4 years (Predicted)

Chapter 5

Proposed System Design

5.1 Introduction

Automation system for sports club is a very big project that needs to be designed with precise steps. System design phase includes different important. Main phases of system design are:

- Use Case Diagram
- Data Flow Diagram
- System Design
 - Class Diagram
 - Collaboration Diagram
- Process Design
 - Sequence Diagram
 - State Chart Diagram
 - Activity Diagram

5.2 Use Case Diagram

Use Case Diagrams are designed according to subsystems. There are five subsystems for our proposed project.

- Communication
- Registration
- Social Interaction
- Team Management
- Online Store

Actors:

Actors play an important role for the whole system. The actors for our system are:

- Management Board
- Manager
- Coach
- Stuff
- Player
- Fan
- Finance Manager
- Online Product Manager
- Warehouse Manager
- Buyer
- Admin
- Public

Actor Glossary:

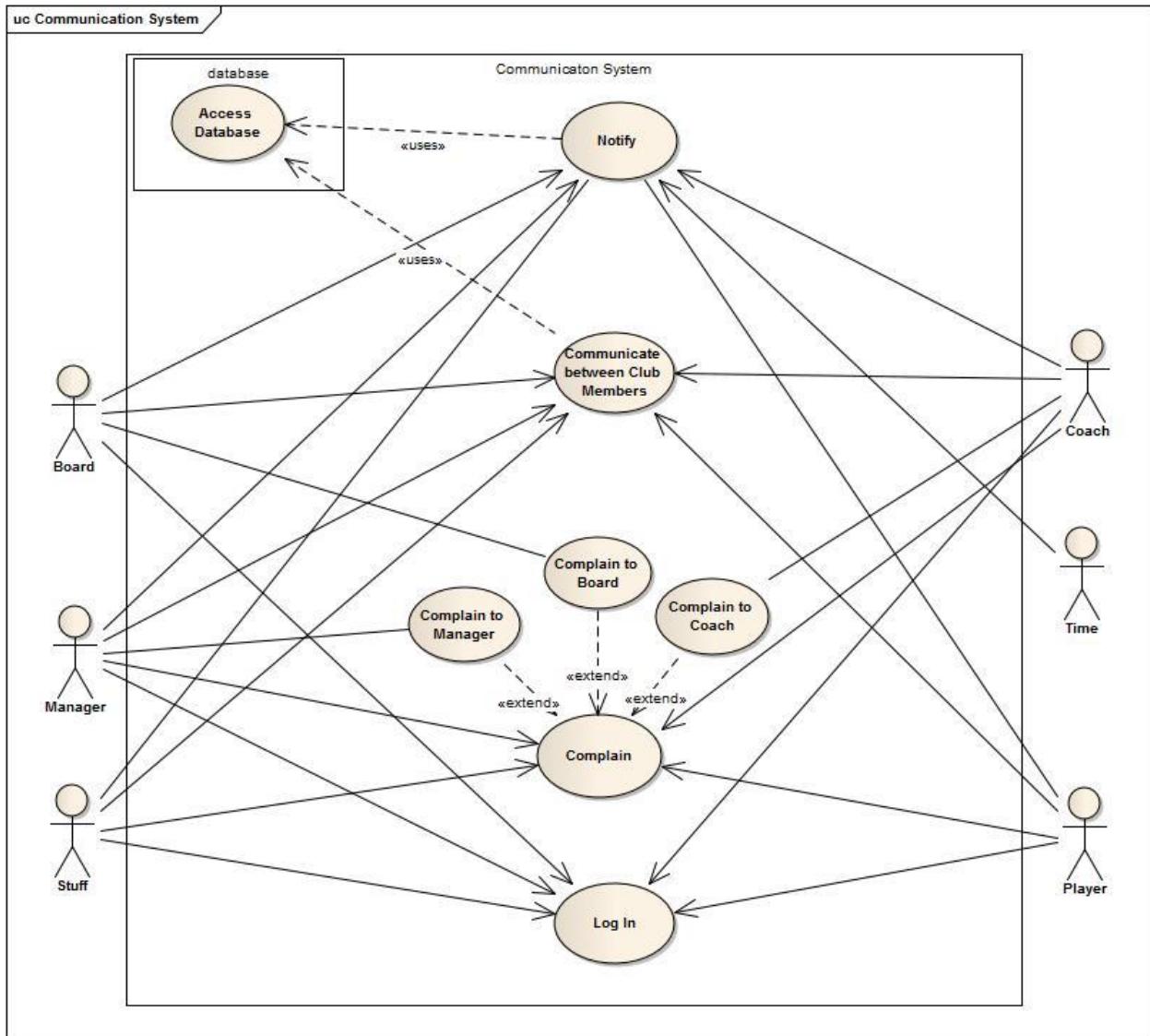
Actor and their key names used in the use-case narratives.

Actor	Short-key
Board	BRD
Manager	MGR
Coach	CH
Stuff	STF
Player	PLR
Fan	FN
Finance Manager	FMGR
Online Product Manager	PMGR
Warehouse Manager	WMGR
Buyer	BYR
Admin	ADMIN
Public	PUBLIC

1 Communication Subsystem

Use-Case ID	Name	Description	Participant Actors and Roles
1.1	Login	Log into member account	BRD, MGR, CH, PLR, STF can log into system via internet or mobile app
1.2	Club Communication	Communicate between club members, send messages	BRD, MGR, CH, PLR, STF can contact with one another
1.3	Notification	Notify members of different events and activities	BRD, MGR, CH, PLR, STF are notified different events
1.4	Complain	Complain to coach, manager or Board	MGR, CH, PLR, STF can complain to respective higher ranks

Use-Case Diagram of Communication Subsystem



1.1 Login

Use-Case name	Define route and price
Use-Case ID	1.1
Priority	High
Primary Business Actor	BRD, MGR, CH, PLR, STF
Primary System Actor	BRD, MGR, CH, PLR, STF
Description	Actors can log in to account in the system via internet or mobile app
Trigger	Anyone of BRD, MGR, CH, PLR, STF

Typical course of events

Actor Action	System Action
1. Attempt to log in to system from internet or mobile app	2. Verification and log in
	3. Show account to actor
4. Access personal account	

Documentation of the use-case (1.1) course of events

- **Conclusion:** concludes when logged into account
- **Post-condition:** show actor the respective personal account to access communication
- **Implementation issues:** GUI will be provided in the website to log in, a Mobile app will be provided to log in from mobile devices

1.2 Club Communication

Use-Case name	Define route and price
Use-Case ID	1.2
Priority	High
Primary Business Actor	BRD, MGR, CH, PLR, STF
Primary System Actor	BRD, MGR, CH, PLR, STF
Description	Actors can communicate with one another by mobile & mail service according to their domain of access
Trigger	Anyone of BRD, MGR, CH, PLR, STF

Typical course of events

Actor Action	System Action
1. Access personal account to view events, schedule, activities and send messages or mail	2. System uses database to get information of members upon request
	3. Messages or mail is sent to appropriate personnel
	4. Notifies sender
5. Sender receives confirmation	

Documentation of the use-case (1.2) course of events

- **Conclusion:** concludes when a message or mail is sent or logged out from account
- **Implementation issues:** GUI for personal account, information, sending message or mail will be provided.

1.3 Notification

Use-Case name	Define route and price
Use-Case ID	1.3
Priority	High
Primary Business Actor	BRD, MGR, CH, PLR, STF
Primary System Actor	TME, BRD, MGR, CH
Description	Actors are notified by the system via mobile and mail of messages, events and activities
Trigger	TME, BRD, MGR, CH

Typical course of events

Actor Action	System Action
	1. System sends notification to accounts
2. Receives notification through mobile or after logging into account	

Documentation of the use-case (1.3) course of events

- **Conclusion:** concludes when actor receives notification
- **Implementation issues:** Notification will be shown in GUI in the personal account

1.4 Complaint

Use-Case name	Define route and price
Use-Case ID	1.4
Priority	Medium
Primary Business Actor	BRD, MGR, CH
Primary System Actor	MGR, CH, PLR, STF
Description	PLR and STF can complain to CH, MGR; CH, MGR can complain to BRD
Trigger	MGR, CH, PLR, STF

Typical course of events

Actor Action	System Action
1. Write complain	
2. Submit complain to CH, MGR or BRD according to their access of permission	3. Sends the complain to requested actor
	4. Confirms complainer

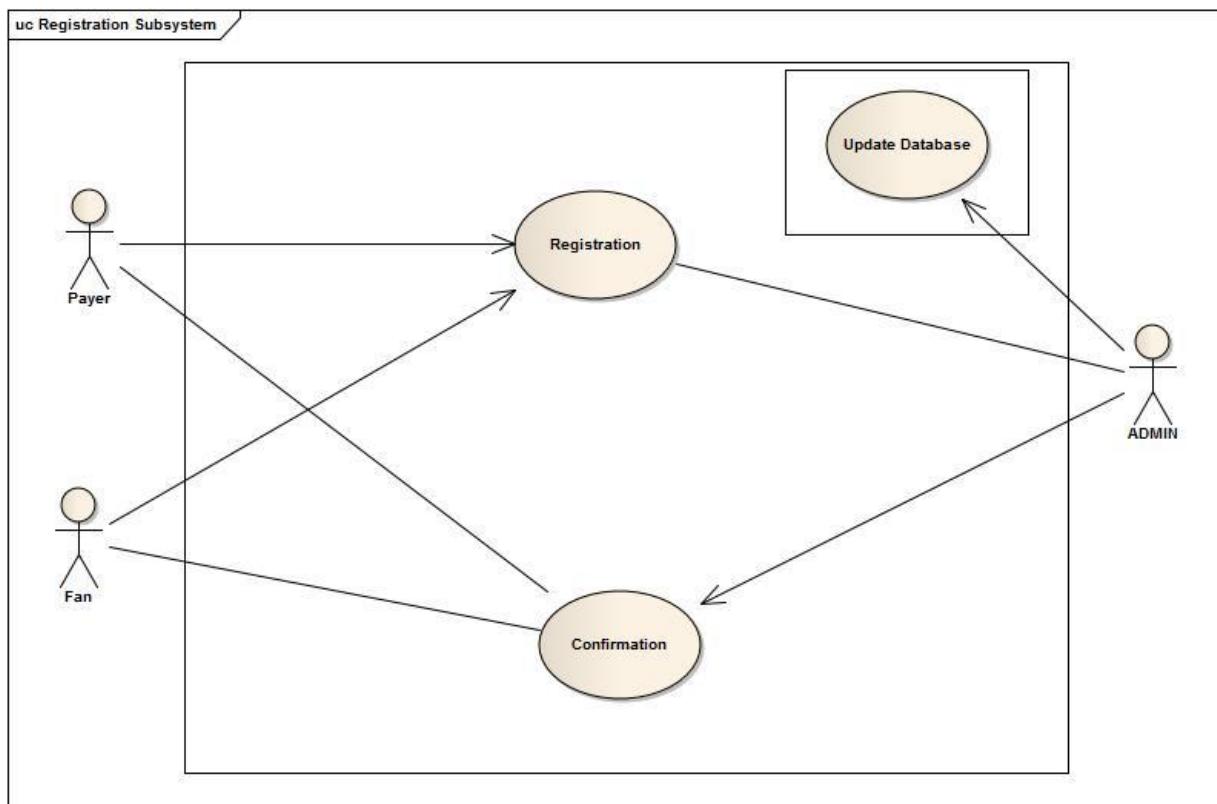
Documentation of the use-case (1.4) course of events

- **Conclusion:** concludes when a complaint is sent to appropriate personnel
- **Post-condition:** Authority takes suitable steps for the complaint
- **Implementation issues:** GUI to write and submit complaint will be provided

2 Registration Subsystem

Use-Case ID	Name	Description	Participant Actors and Roles
2.1	Registration	New registration by players or fans	PLR, FN registers
1.2	Confirmation	ADMIN confirms registration	ADMIN confirm or reject registration

Use-Case Diagram of Registration



2.1 Registration

Use-Case name	Define route and price
Use-Case ID	2.1
Priority	High
Primary Business Actor	ADMIN
Primary System Actor	PLR, FN
Description	PLR, FN register and request goes to ADMIN
Trigger	PLR, FN

Typical course of events

Actor Action	System Action
1. PLR, FN registers	2. Request is sent to ADMIN
3. ADMIN receives request	

Documentation of the use-case (2.1) course of events

- **Conclusion:** Concludes when ADMIN receives request
- **Post-condition:** Registration data is saved to system
- **Implementation issues:** GUI will be provided to Player or fan for registration

2.2 Confirmation

Use-Case name	Define route and price
Use-Case ID	2.2
Priority	High
Primary Business Actor	PLR, FN
Primary System Actor	ADMIN
Description	ADMIN confirms (accepts or rejects) registration
Trigger	ADMIN

Typical course of events

Actor Action	System Action
1. ADMIN confirms request	2. Confirmation data is saved to system
	3. Confirmation is sent to requester

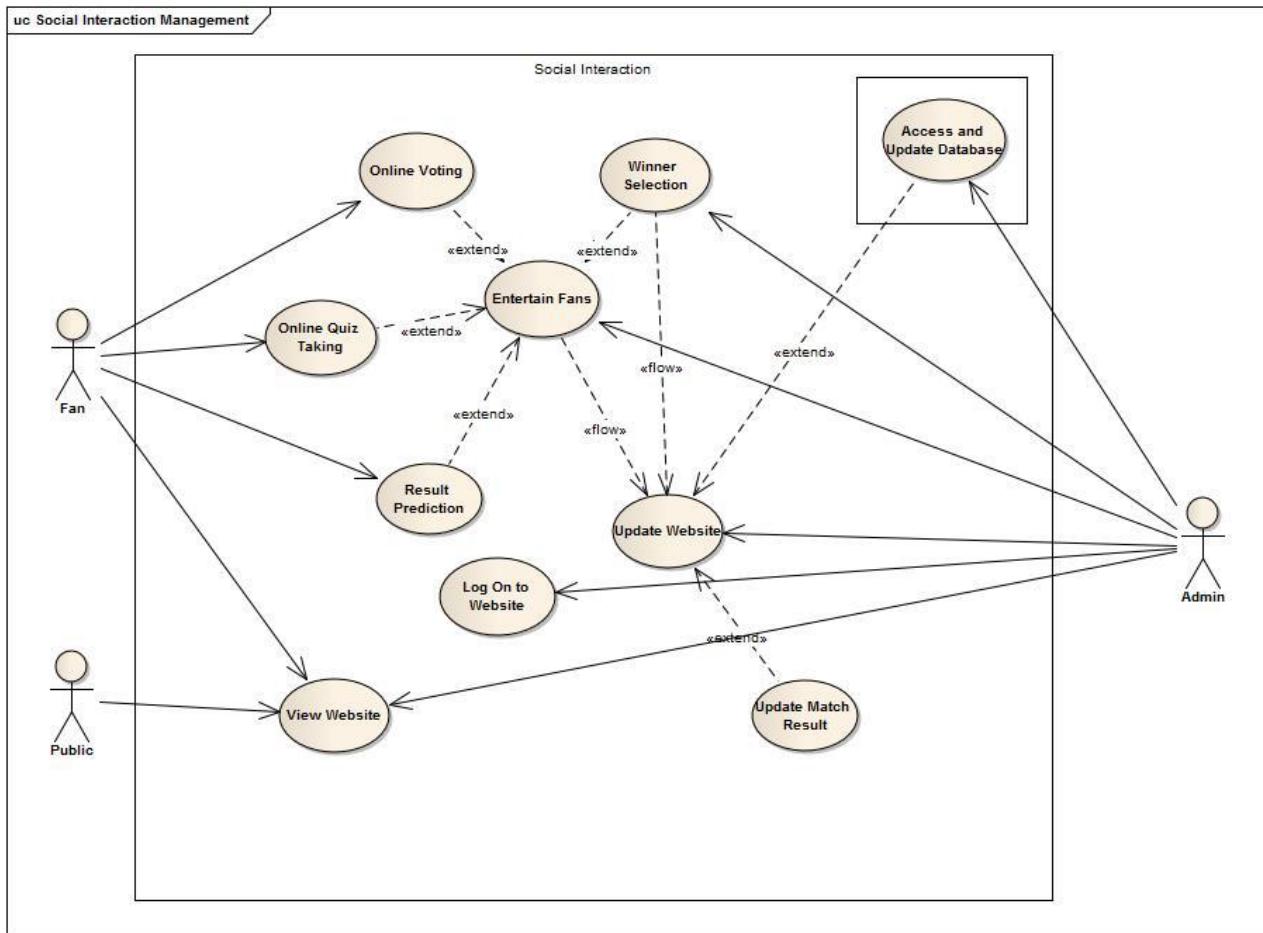
Documentation of the use-case (2.2) course of events

- **Conclusion:** concludes when confirmation is sent to requester
- **Post-condition:** registration phase ends

3. Social Interaction Subsystem

Use-Case ID	Name	Description	Participant Actors and Roles
3.1	Login	Log into member account	FAN can log into personal account via internet
3.2	Entertainment	Entertainment facilities for supporters	ADMIN may provide options for entertainment and FAN can use them
3.3	Update website	Update website after winner selection	ADMIN will update website

Use-Case Diagram of Social Interaction System



3.1 Login

Use-Case name	Define route and price
Use-Case ID	3.1
Priority	High
Primary Business Actor	FAN
Primary System Actor	ADMIN, FAN
Description	FAN can log into their personal account
Trigger	ADMIN, FAN

Typical course of events

Actor Action	System Action
1. Attempt to log in to system from internet	2. Verification and log in
	3. Show account to actor
4. Access entertainment section of website	

Documentation of the use-case (3.1) course of events

- **Conclusion:** concludes when logged into account
- **Post-condition:** show actor the options he may participate
- **Implementation issues:** GUI will be provided in the website to log in and for participation in different game or contest

3.2 Entertainment

Use-Case name	Define route and price
Use-Case ID	3.2
Priority	High
Primary Business Actor	FAN
Primary System Actor	ADMIN
Description	ADMIN will provide different options for entertainment, FAN can be entertained
Trigger	ADMIN

Typical course of events

Actor Action	System Action
1. Participate in quiz, voting etc	2. Update data for different contest
	3. Check time to stop game or contest
	4. Announce winner

Documentation of the use-case (3.2) course of events

- **Conclusion:** Concludes when winner of contest or game is announced
- **Post-condition:** Update database and website to publish winner
- **Implementation issues:** A section in website to publish winner's info

3.3 Update Website

Use-Case name	Define route and price
Use-Case ID	3.3
Priority	High
Primary Business Actor	PUBLIC
Primary System Actor	ADMIN
Description	ADMIN will update website
Trigger	ADMIN

Typical course of events

Actor Action	System Action
1. Update database after match-day, new fan member addition, winner of game selected	2. Updates website from database

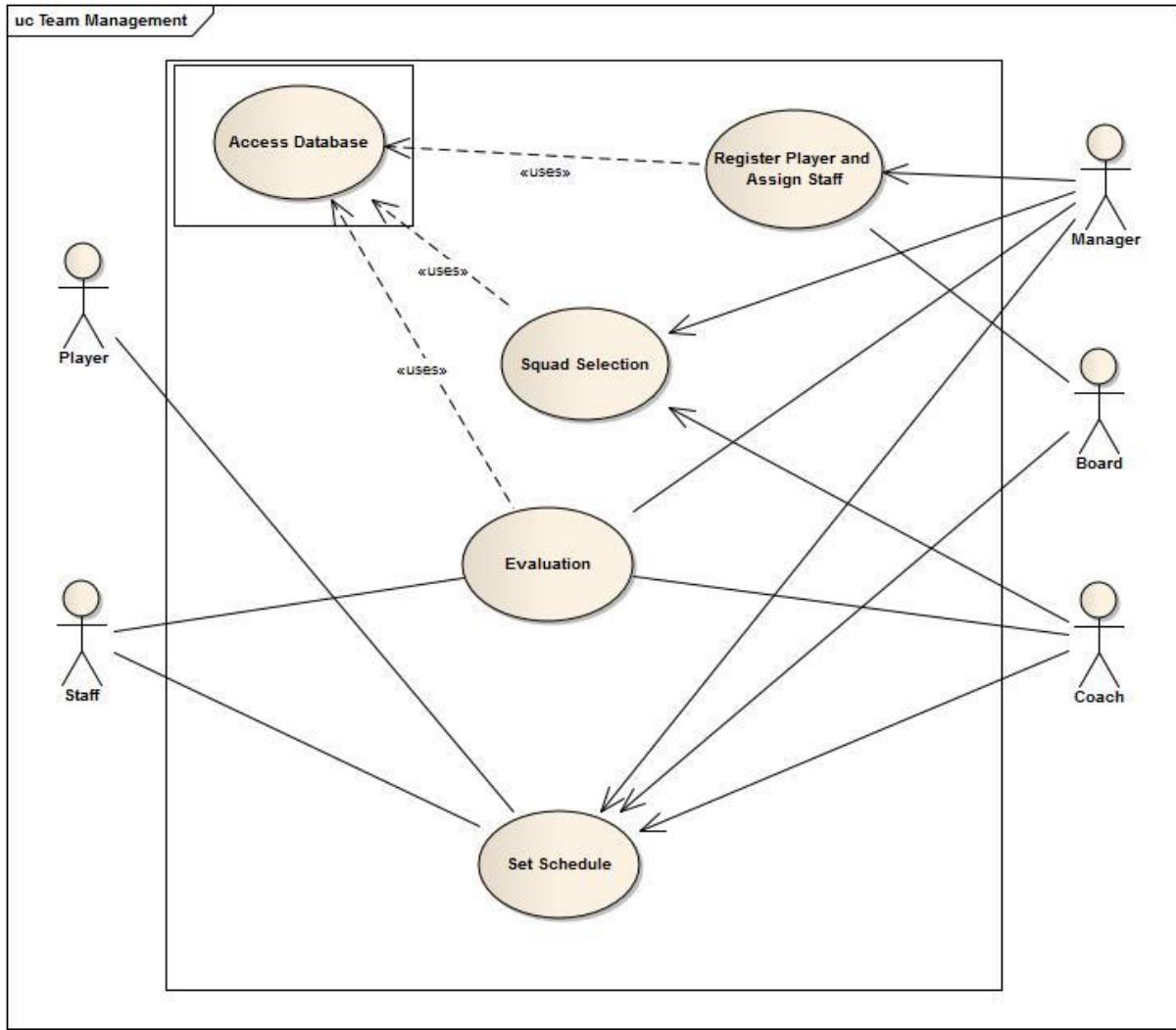
Documentation of the use-case (3.3) course of events

- **Conclusion:** concludes when admin updates website
- **Implementation issues:** GUI for admin to publish news in website

4. Team Management

Use-Case ID	Name	Description	Participant Actors and Roles
4.1	Registration	Register team members in the transfer window and assign task to staff	MGR to register PLR and assign task to STF
4.2	Squad selection	Selection of squad of 20 members before match-day	MGR,CH to select squad
4.3	Evaluation	Accessing data of players and staff	MGR,CH,STF can access data of PLR, STF
4.4	Schedule Management	Managing schedule for training and others	BRD, MGR,CH will determine schedule and PLR,STF will be informed

Use-Case Diagram of Team Management



4.1 Registration

Use-Case name	Define route and price
Use-Case ID	4.1
Priority	High
Primary Business Actor	PLR
Primary System Actor	MGR
Description	MGR would complete registration process of PLR and assign task to STF
Trigger	MGR

Typical course of events

Actor Action	System Action
1. Registration form of a player is submitted	2. Update database with the players info

Documentation of the use-case (4.1) course of events

- **Conclusion:** concludes when database is updated with players' info

4.2 Squad Selection

Use-Case name	Define route and price
Use-Case ID	4.2
Priority	High
Primary Business Actor	PLR
Primary System Actor	MGR, CH
Description	MGR,CH select squad for next match
Trigger	MGR, CH

Typical course of events

Actor Action	System Action
1. Access Database and select players for next match	2. Update database with selected squad

Documentation of the use-case (4.2) course of events

- **Conclusion:** concludes when database is updated with selected players
- **Implementation issues:** GUI for all players list and to select squad will be provided

4.3 Evaluation

Use-Case name	Define route and price
Use-Case ID	4.3
Priority	High
Primary Business Actor	STF, PLR, CH
Primary System Actor	MGR, CH, BRD
Description	Retrieving data from database about players condition, progress and updating weekly evaluation
Trigger	MGR, CH, BRD

Typical course of events

Actor Action	System Action
1. Requests to view data about particular youth player	2. System sends data about that player
3. Evaluate player according to performance and training	4. System sends evaluation to players account

Documentation of the use-case (4.3) course of events

- **Conclusion:** concludes when system sends information to players account
- **Implementation issues:** GUI will be provided for weekly evaluation

4.4 Schedule Management

Use-Case name	Define route and price
Use-Case ID	4.4
Priority	High
Primary Business Actor	CH, MGR, PLR, STF
Primary System Actor	PLR, STF
Description	MGR, CH manage schedule for PLR, STF
Trigger	BRD, PLR, MGR

Typical course of events

Actor Action	System Action
1. Update Schedule	2. System notifies the change in actor's account

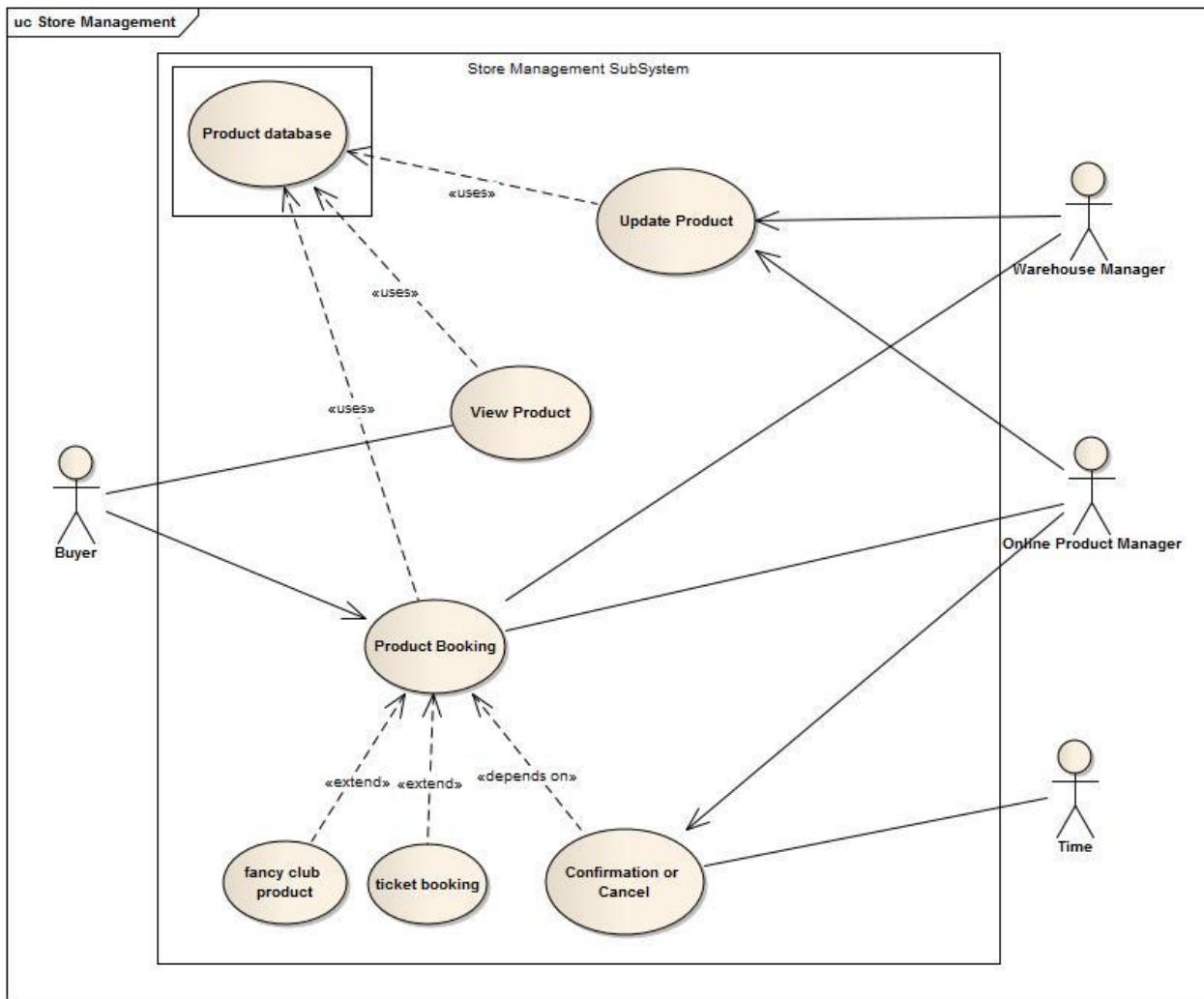
Documentation of the use-case (4.4) course of events

- **Conclusion:** concludes when system notifies changes in player account

5. Online Store Subsystem

Use-Case ID	Name	Description	Participant Actors and Roles
1.1	Update Product	Updating product information: price, quantity etc.	WMGR and PMGR updates product information
1.2	View Product	Shows available products in the online store	Buyers can view products in the store
1.3	Product Booking	Booking for products, includes fancy club products and tickets	Buyers can book products or tickets
1.4	Confirmation or cancelation	Confirmation or cancelation of booking	WMGR or PMGR confirms booking. After certain amount of time booking is cancelled.

Use-Case Diagram of Online Store Subsystem



5.1 Update Product

Use-Case name	Define route and price
Use-Case ID	5.1
Priority	High
Primary System Actor	WMGR, PMGR
Description	Actors can update information of products
Trigger	WMGR, PMGR

Typical course of events

Actor Action	System Action
1. Updates information of products	2. Stores information in product database

Documentation of the use-case (5.1) course of events

- **Conclusion:** concludes when product information is updated
- **Post-condition:** Shows updated information in the View Product
- **Implementation issues:** GUI will be provided to update information of products

5.2 View Product

Use-Case name	Define route and price
Use-Case ID	5.2
Priority	High
Primary Business Actor	BYR
Primary System Actor	BYR
Description	BYR can view available products and tickets from store
Trigger	BYR

Typical course of events

Actor Action	System Action
1. BYR requests to view product in the online store	2. Shows available products form product database

Documentation of the use-case (5.2) course of events

- **Conclusion:** concludes when a buyer books products or leaves the store
- **Post-condition:** If buyer books a product, then information is sent to Product Manager and Warehouse Manager
- **Implementation issues:** GUI of online store will be provided

5.3 Product Booking

Use-Case name	Define route and price
Use-Case ID	5.3
Priority	High
Primary Business Actor	BYR
Primary System Actor	BYR, PMGR, WMGR
Description	BYR can book products or tickets online
Trigger	TME, BRD, MGR, CH

Typical course of events

Actor Action	System Action
1. Views and books product or ticket	2. Sends information to PMGR, WMGR about booking
	3. Confirms buyer about the booking status.

Documentation of the use-case (5.3) course of events

- **Conclusion:** concludes when system confirms about booking
- **Post-condition:** send information to PMGR and WMGR

5.4 Confirmation

Use-Case name	Define route and price
Use-Case ID	5.4
Priority	High
Primary Business Actor	BYR
Primary System Actor	PMGR, TIME
Description	PMGR confirms about booking. After certain amount of time booking is cancelled and notified
Trigger	PMGR, TIME

Typical course of events

Actor Action	System Action
	1. Checks availability and confirms and notifies PMGR
2. PMGR accepts confirmation	3. Sends confirmation to buyer
4. Cancels booking if time is over(optional)	5. Notifies buyer that booking is cancelled(optional)

Documentation of the use-case (5.4) course of events

- **Conclusion:** concludes when booking product is bought or booking is cancelled
- **Post-condition:** Notify buyer about booking confirmation/cancelation

5.3 Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. Often they are a preliminary step used to create an overview of the system which can later be elaborated.^[2] DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel.

5.3.1 Communication Subsystem

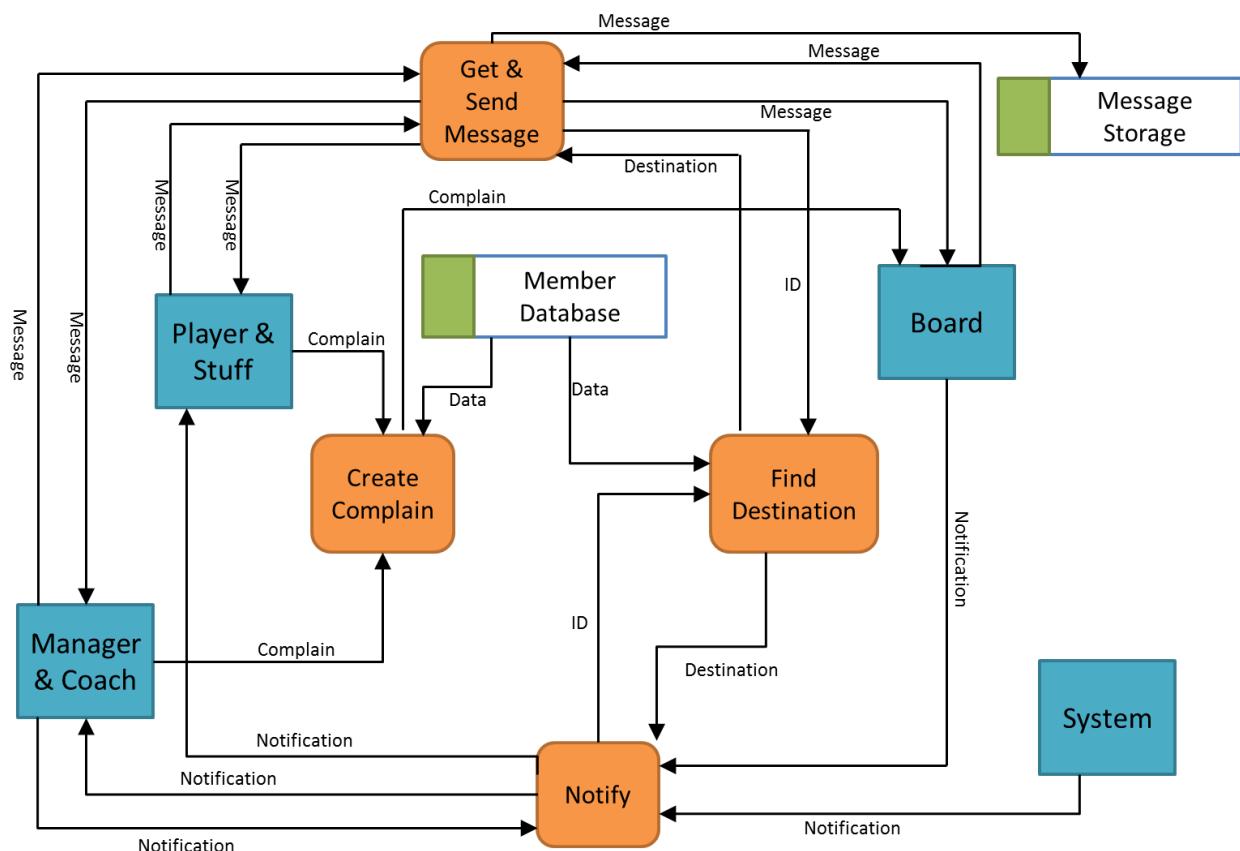


Fig: Data Flow Diagram for Communication Subsystem

5.3.2 Registration Subsystem

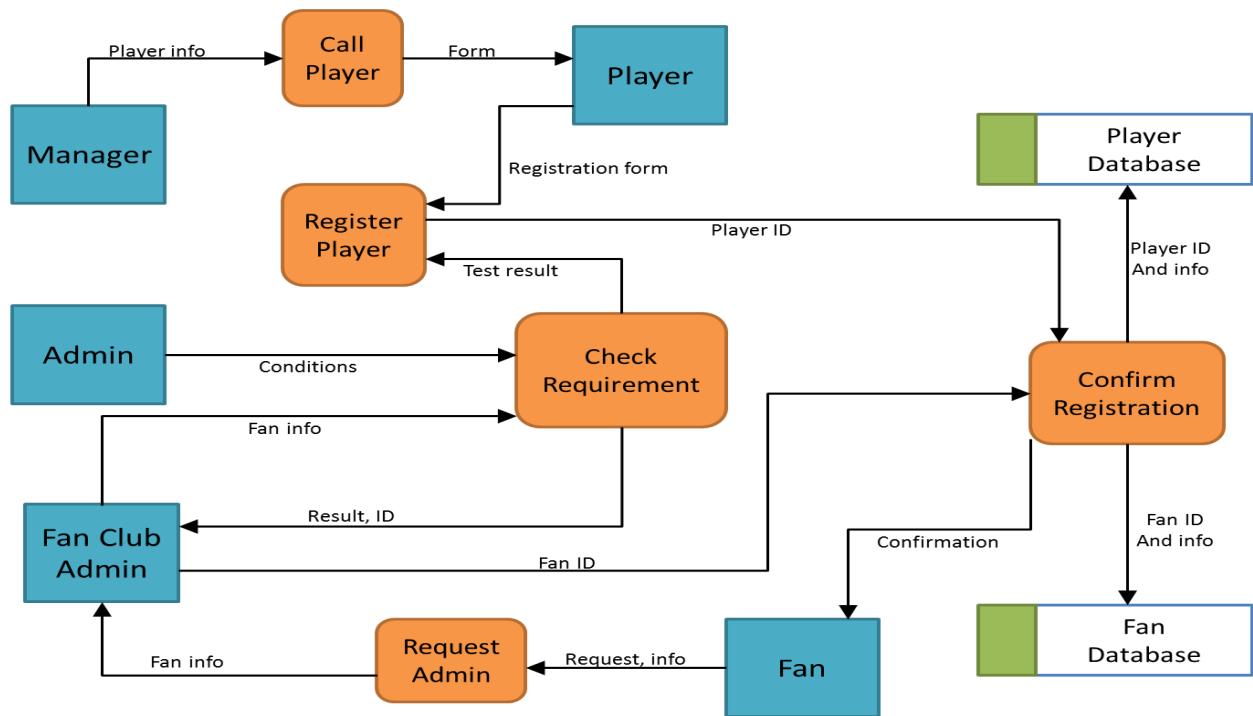


Fig: Data Flow Diagram for Registration Subsystem

5.3.3 Social Interaction Subsystem

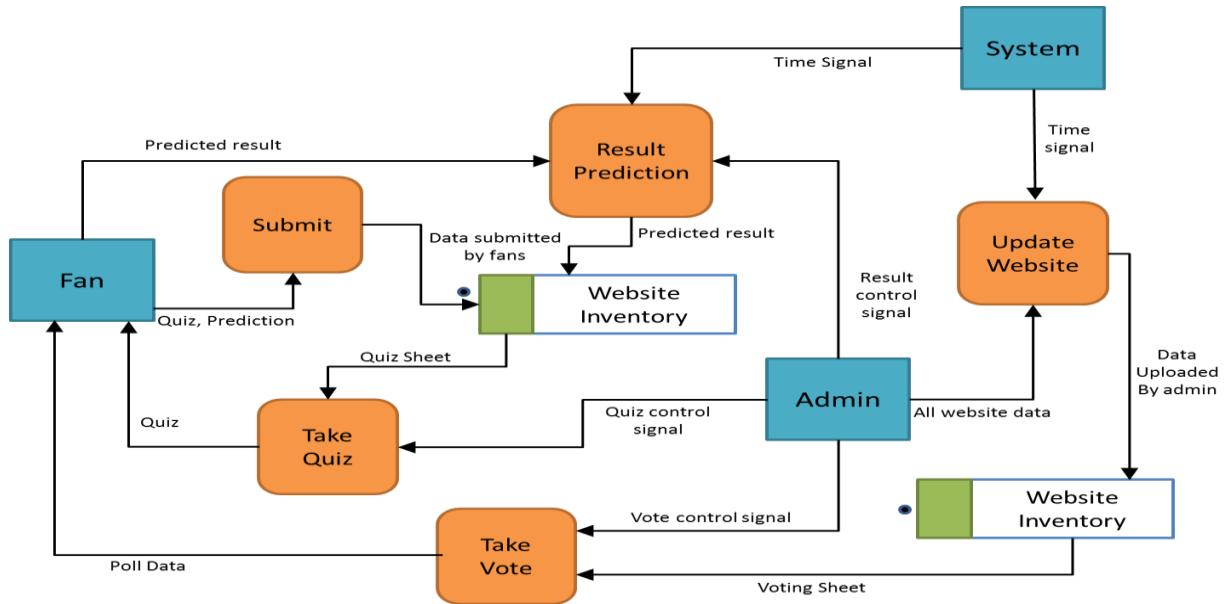


Fig: Fishbone Diagram for Registration Subsystem

5.3.4 Online Store Subsystem

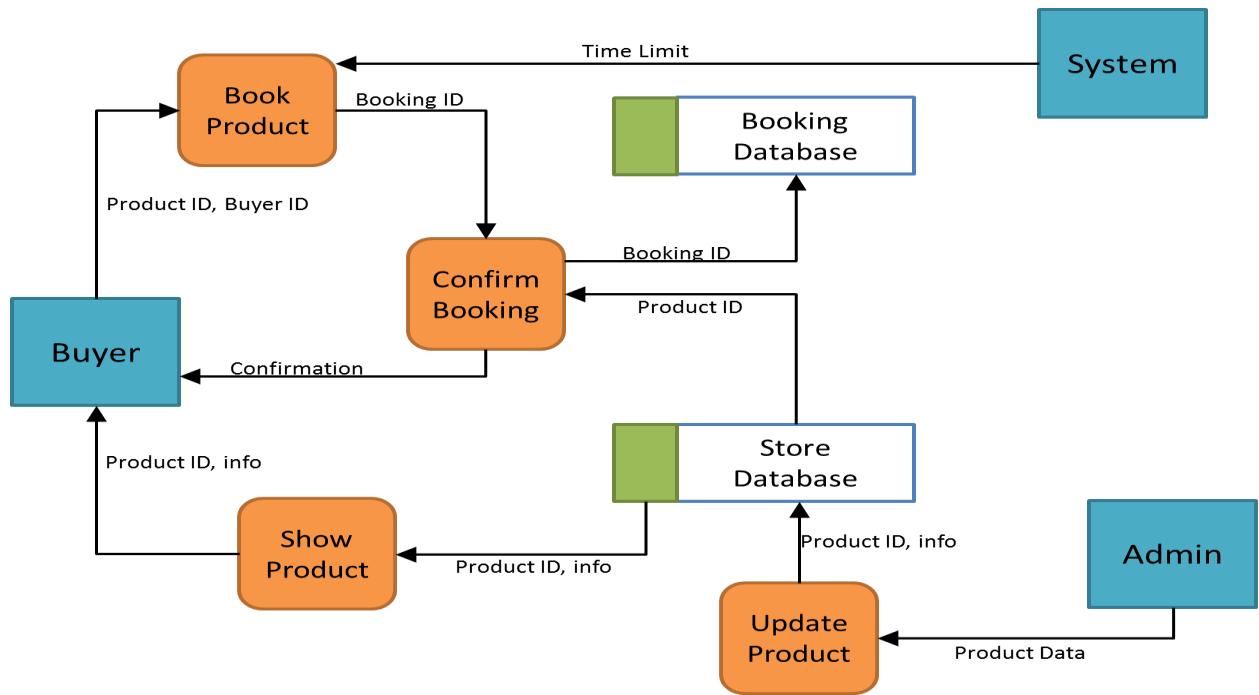


Fig: Data Flow Diagram for Online Store Subsystem

5.3.5 Team Management Subsystem

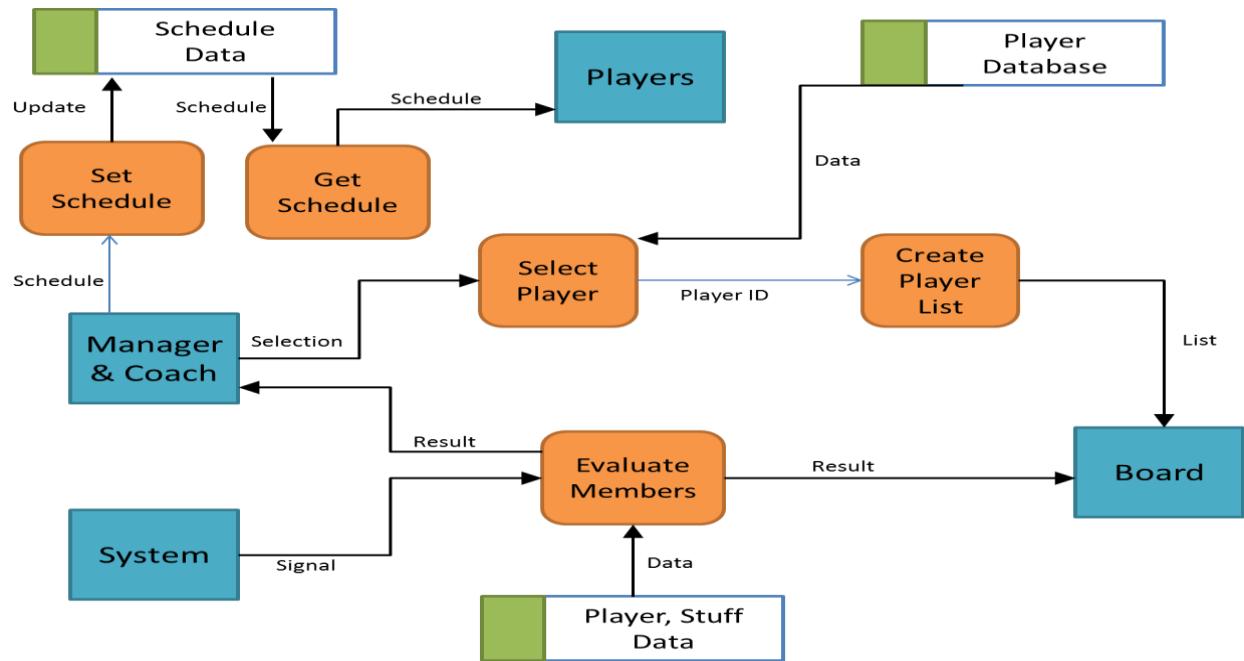


Fig: Data Flow Diagram for Online Store Subsystem

5.4 System Design

System Design includes two parts: Class Diagrams and Collaboration Diagram.

Collaboration Diagram:

Collaboration Diagram depicts the entire function calls and their serial of calling in a use case.

Class Diagram:

Class Diagram shows the functions and attributes that a class includes. It also shows the relationship between entity classes.

5.4.1 Communication Subsystem

5.4.1.1 Collaboration Diagram for Communication use-case:

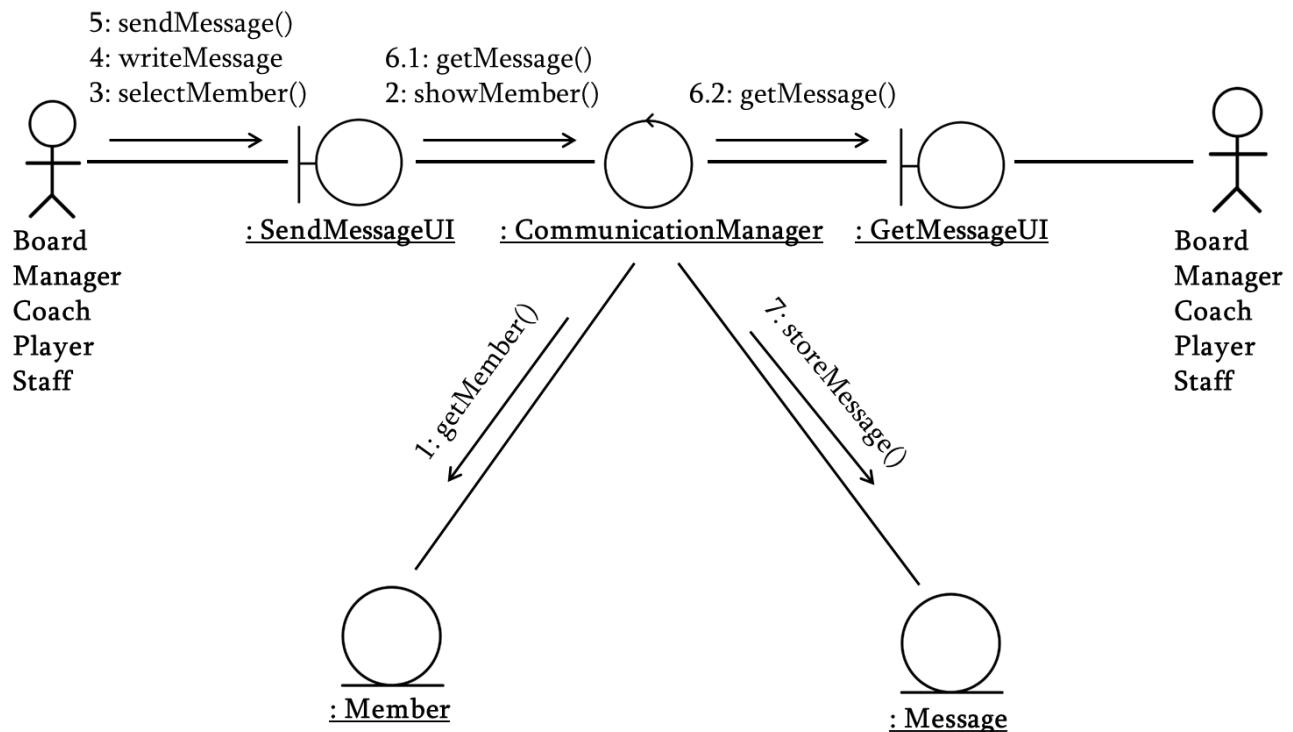


Fig: Collaboration Diagram for Communication Use Case

Class Diagram for Communication use-case:

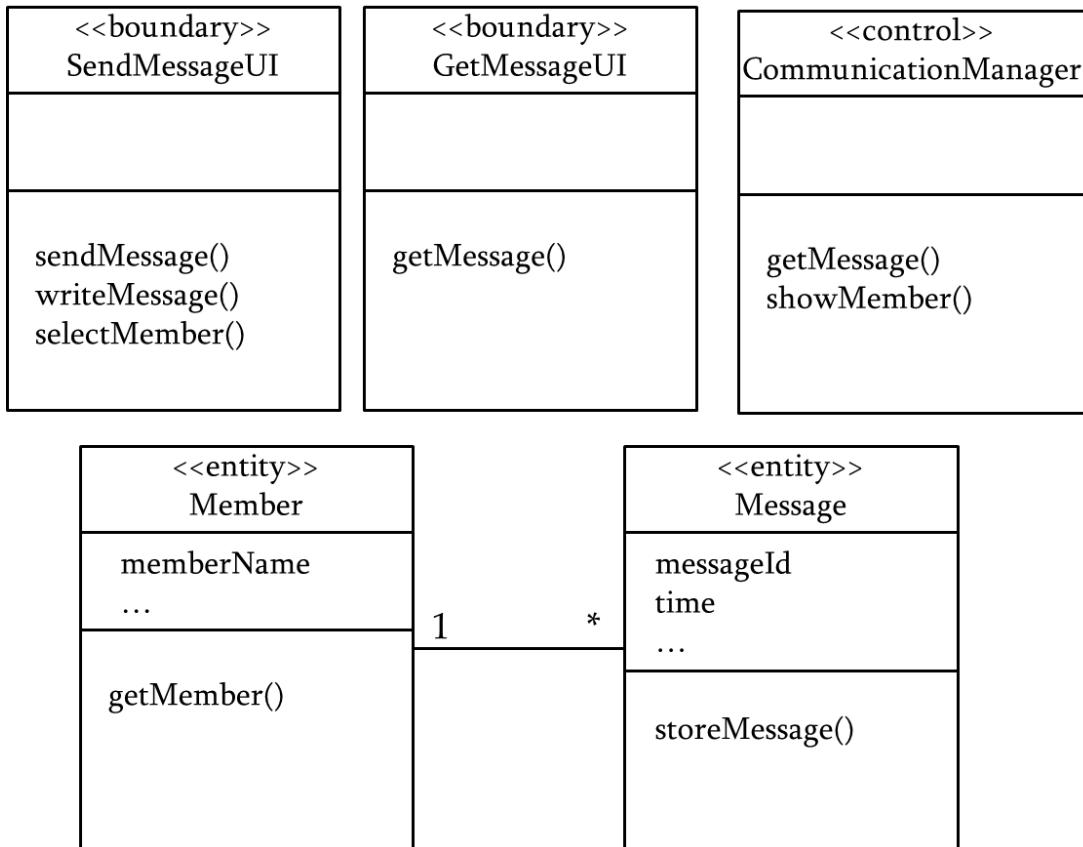


Fig: Class Diagram for Communication Use Case

5

5.4.1.2 Collaboration Diagram for Notification use-case:

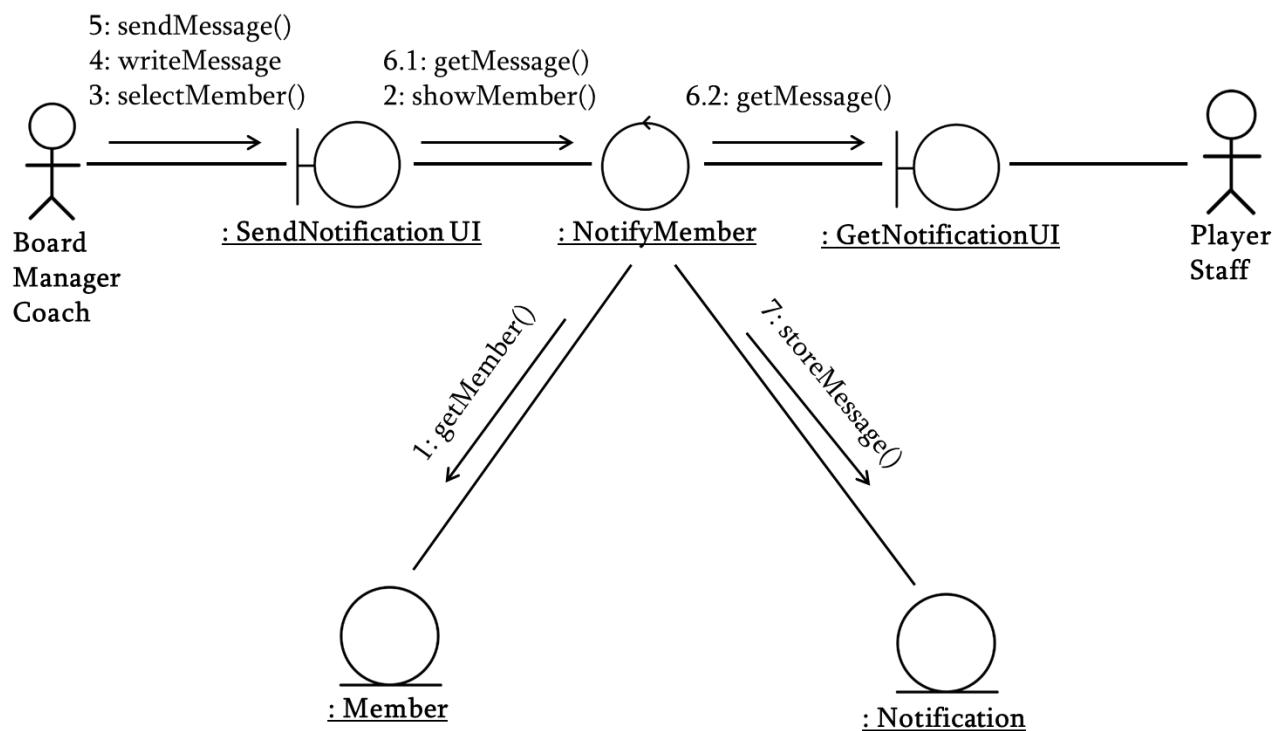


Fig: Collaboration Diagram for Notification Use-Case

Class Diagram for Notification use-case:

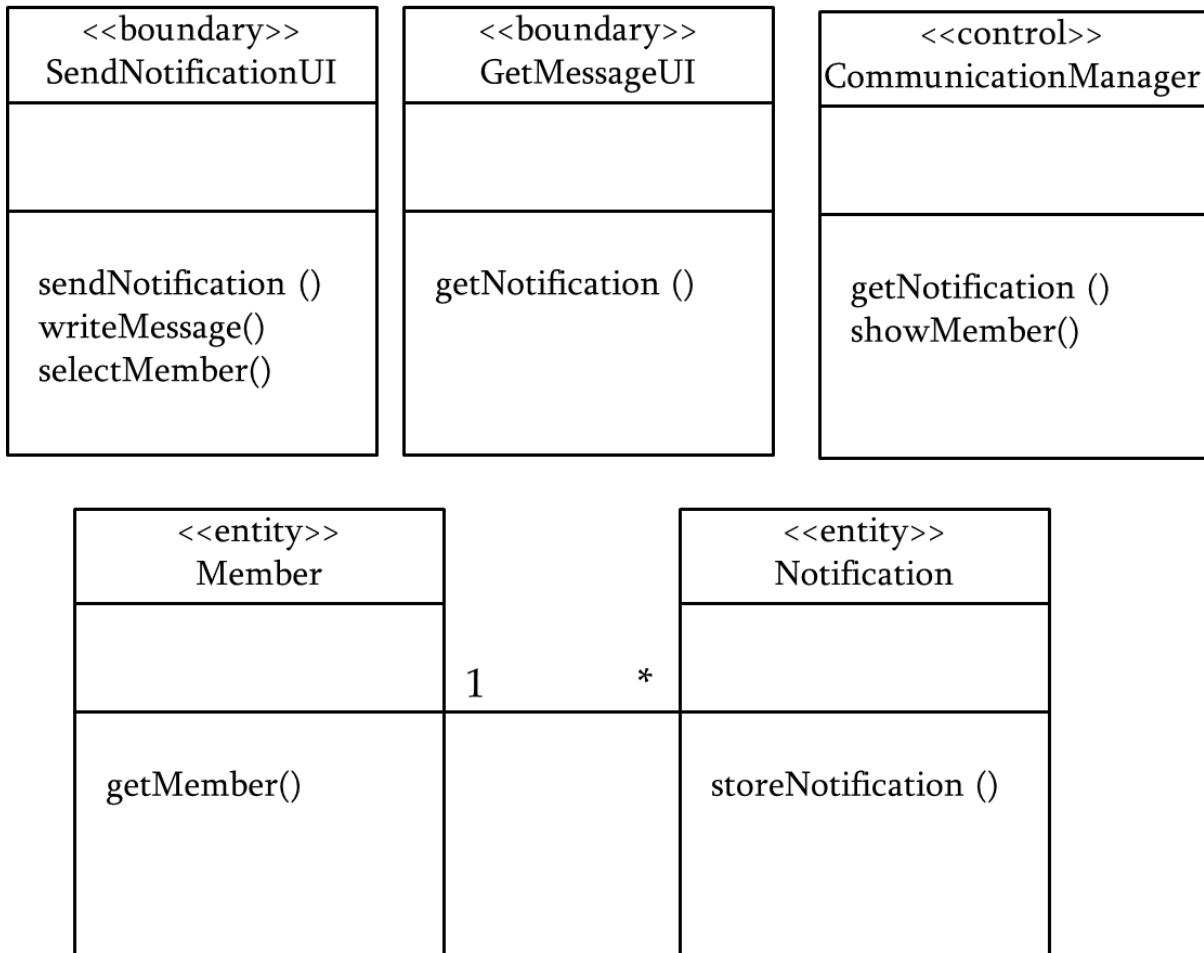


Fig: Class Diagram for Notification Use Case

5.4.1.3 Collaboration Diagram for Complain use-case:

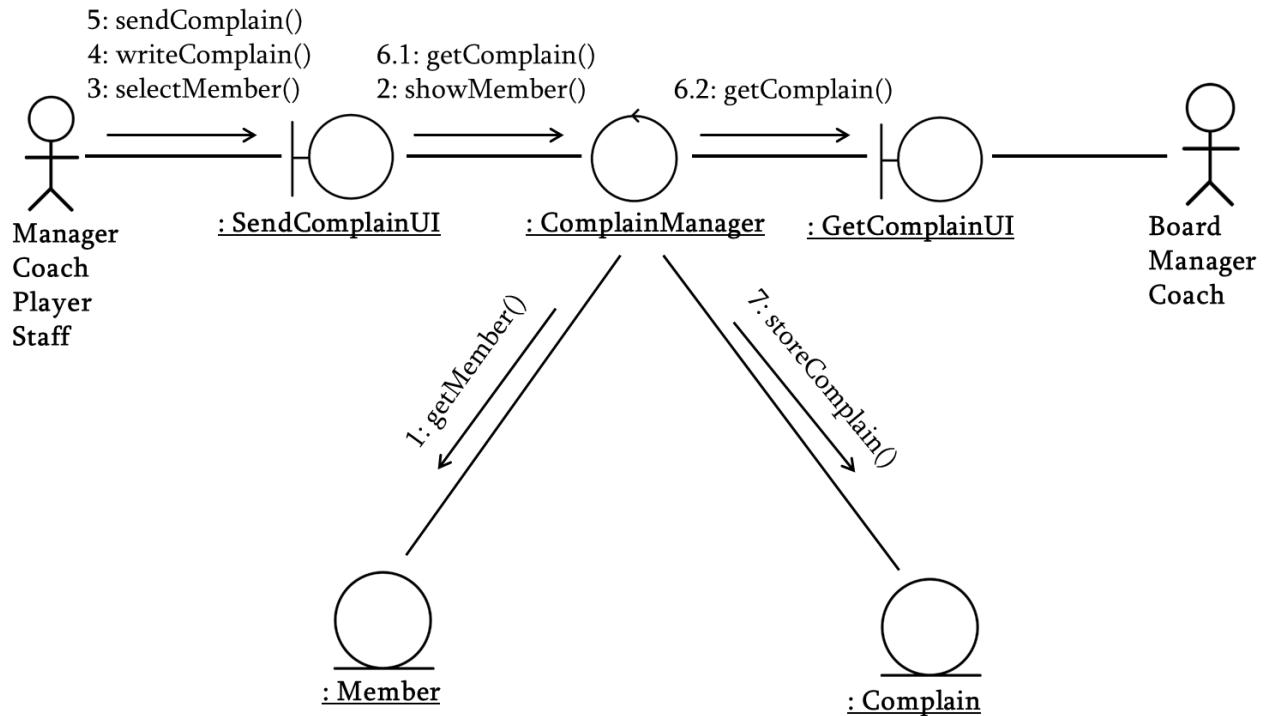


Fig: Collaboration Diagram for Complain Use Case

Class Diagram for Complain use-case:

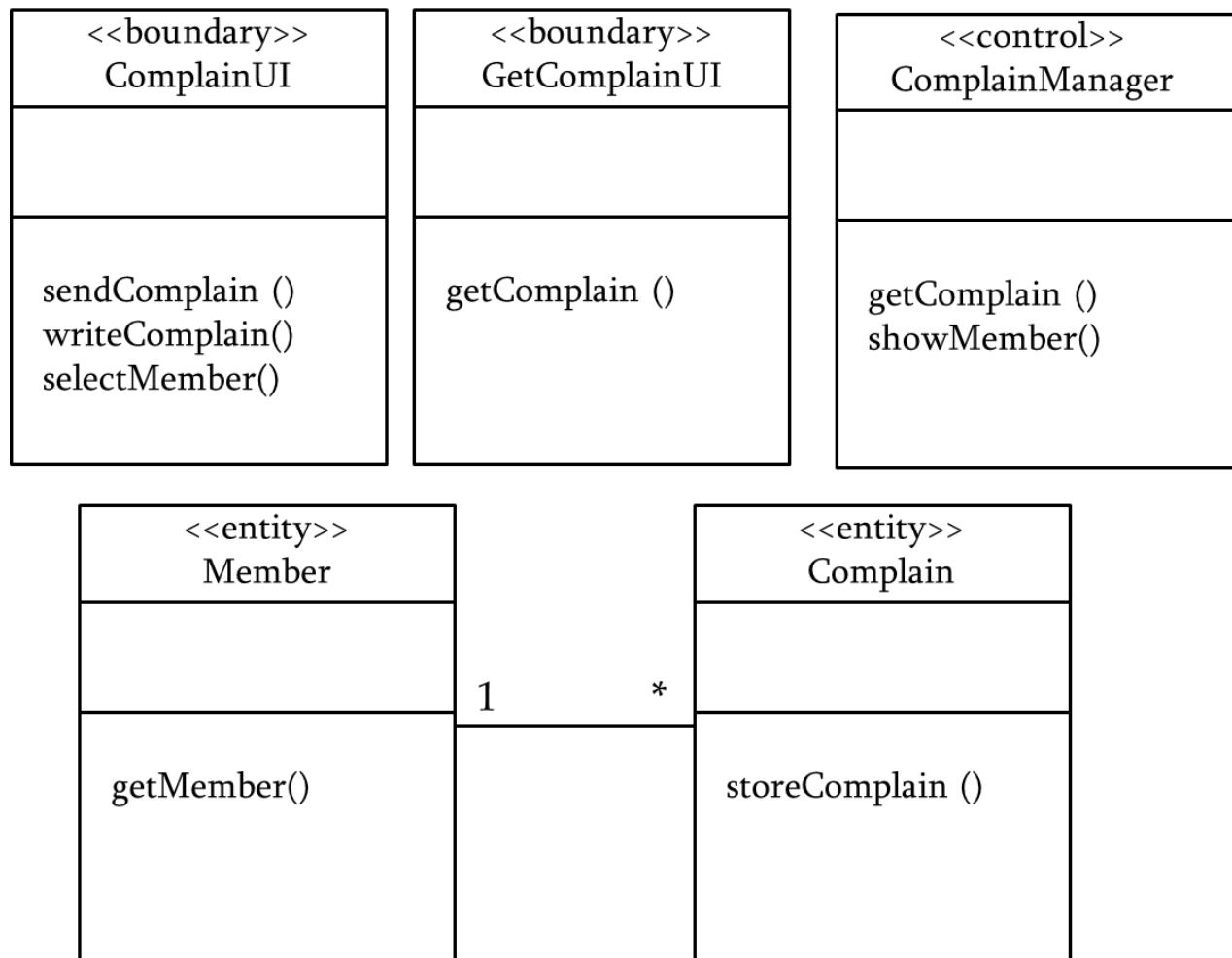


Fig: Class Diagram for Complain Use Case

5.4.1.4 Collaboration Diagram for Login use-case:

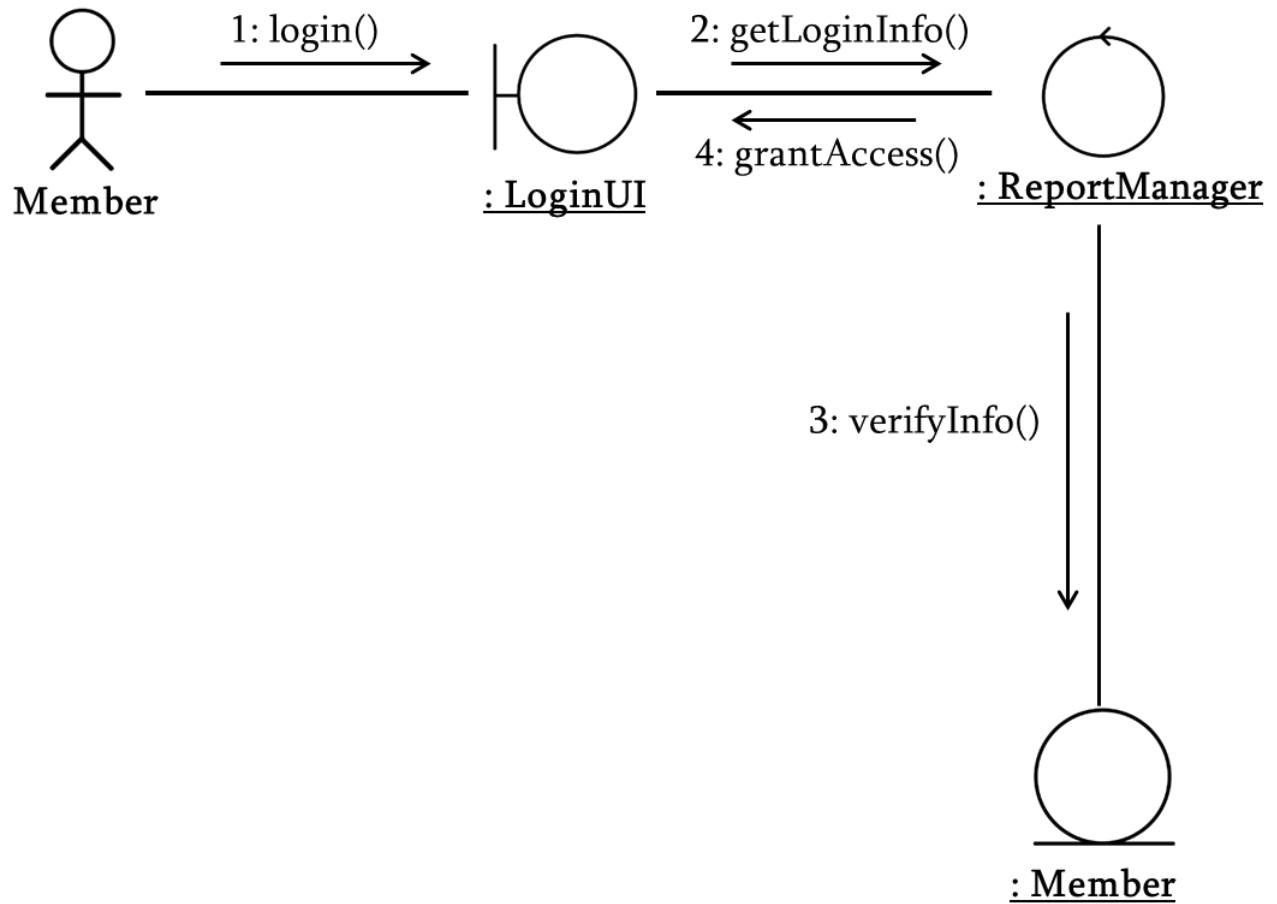


Fig: Collaboration Diagram for Login Use Case

Class Diagram for Login use-case:

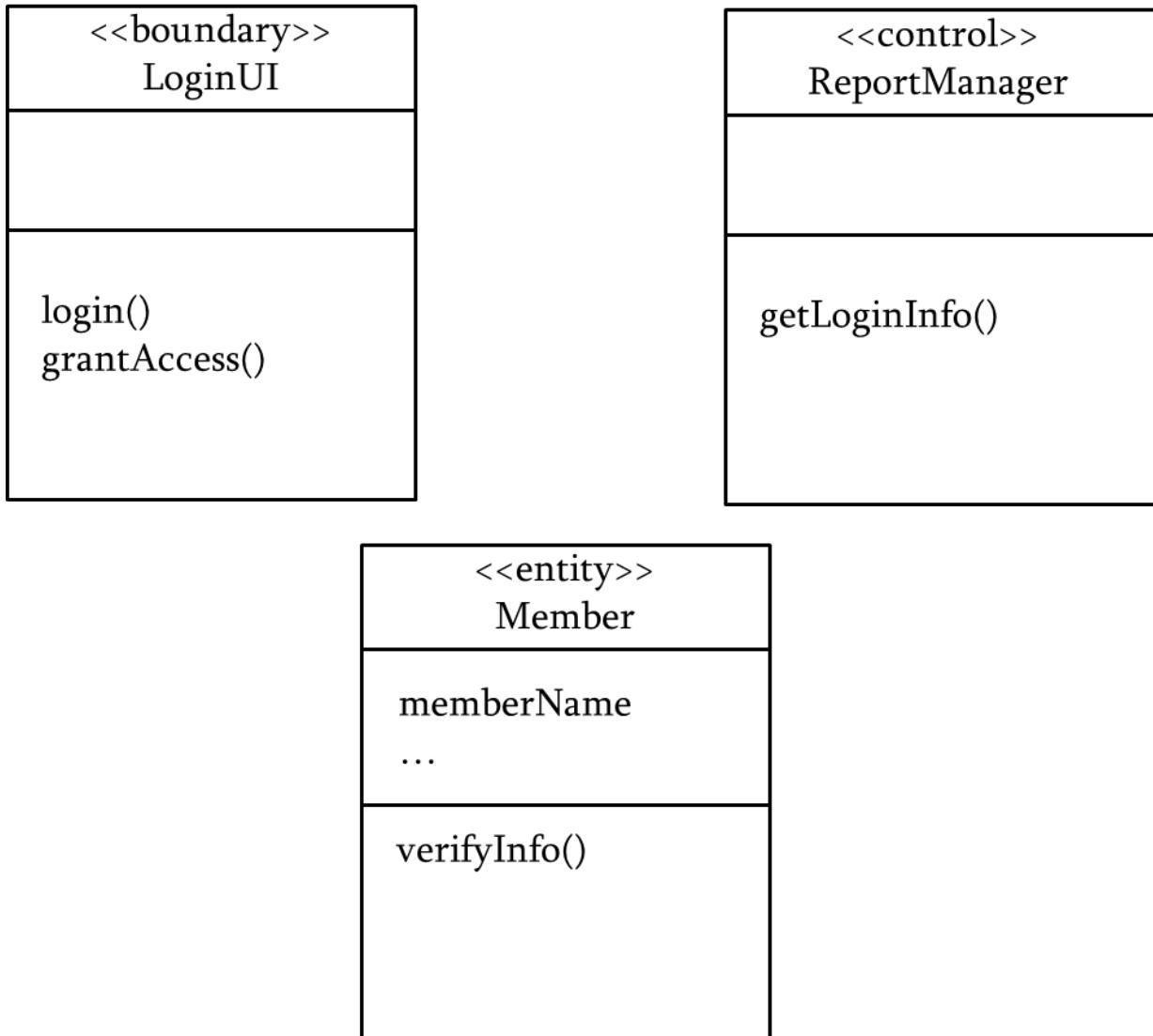


Fig: Class Diagram for Complain Use Case

5.4.2 Registration Subsystem

5.4.2.1 Collaboration Diagram for Registration use-case:

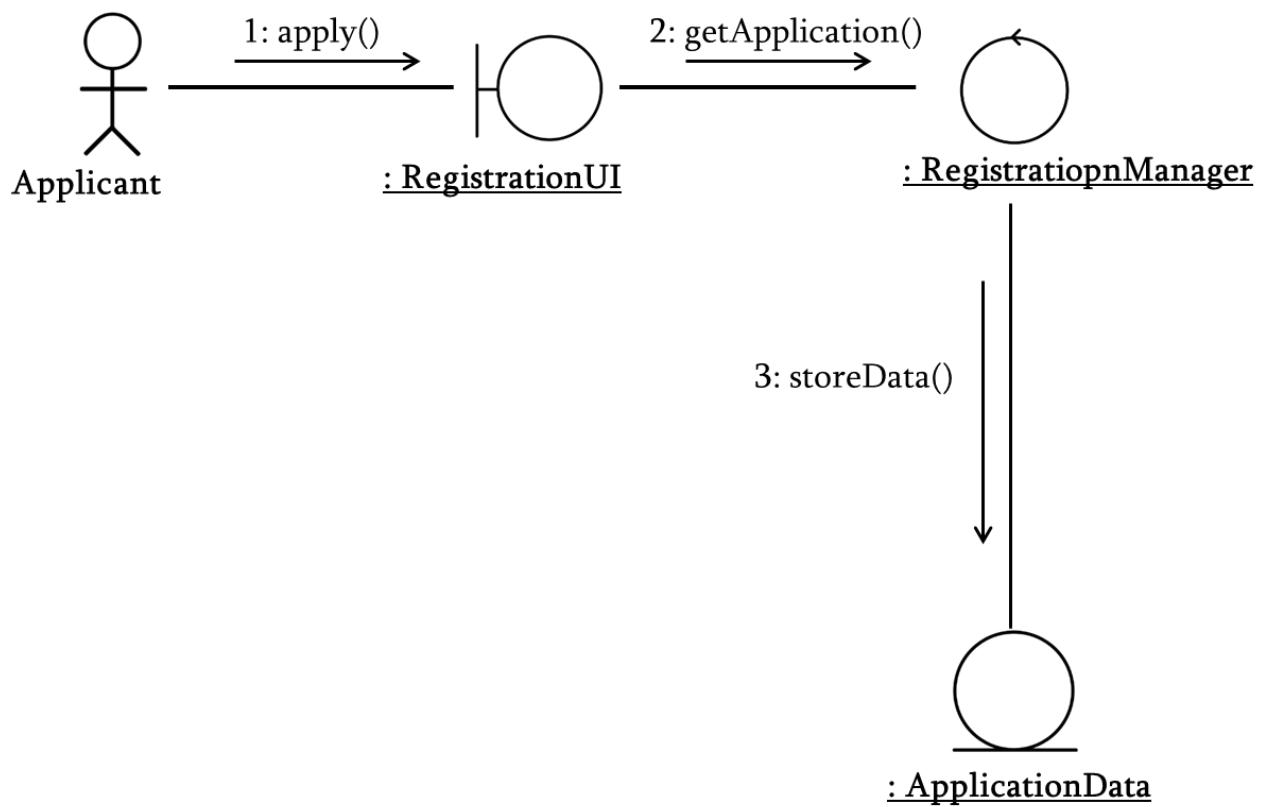


Fig: Collaboration Diagram for Registration Use Case

Class Diagram for Registration use-case:

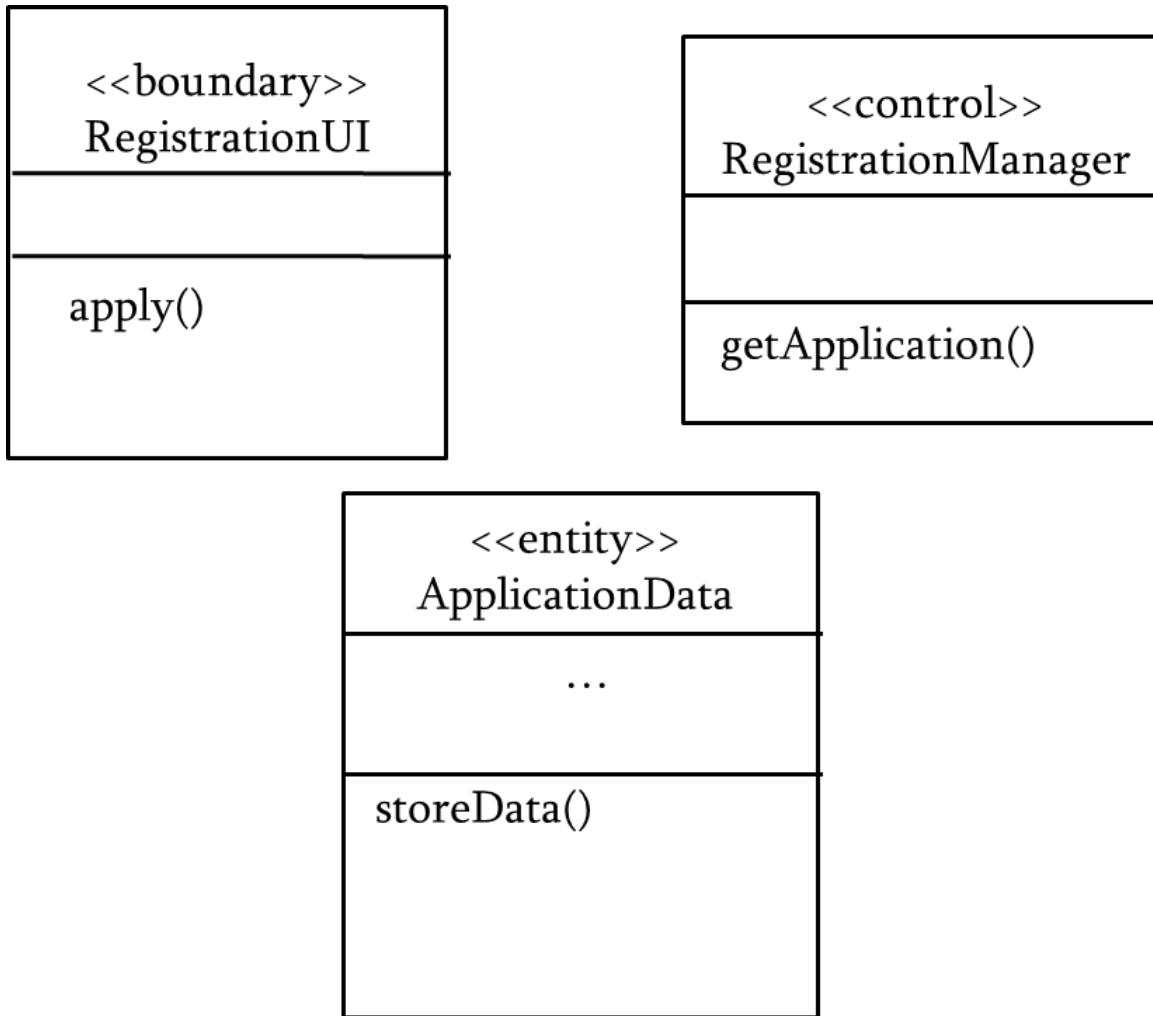


Fig: Class Diagram for Product Registration Use Case

5.4.2.2 Collaboration Diagram for Confirmation use-case:

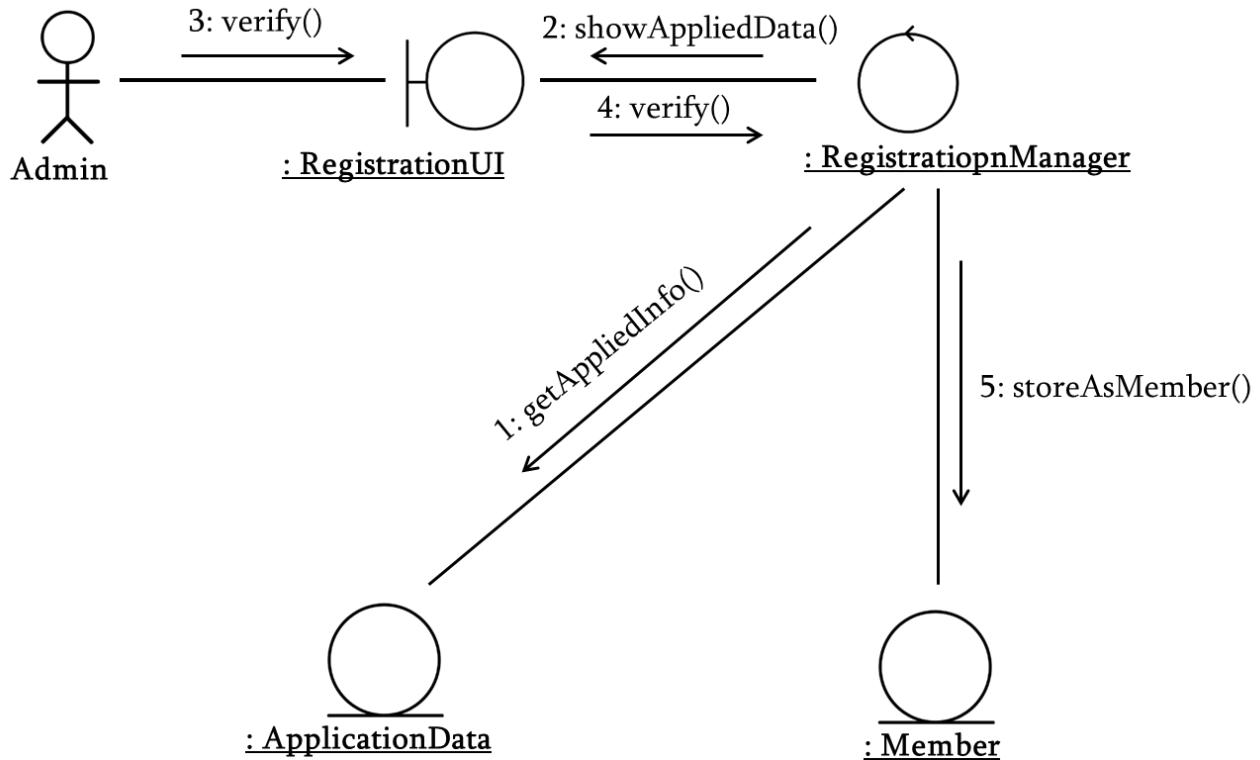


Fig: Collaboration Diagram for Confirmation Use Case

Class Diagram for Confirmation use-case:

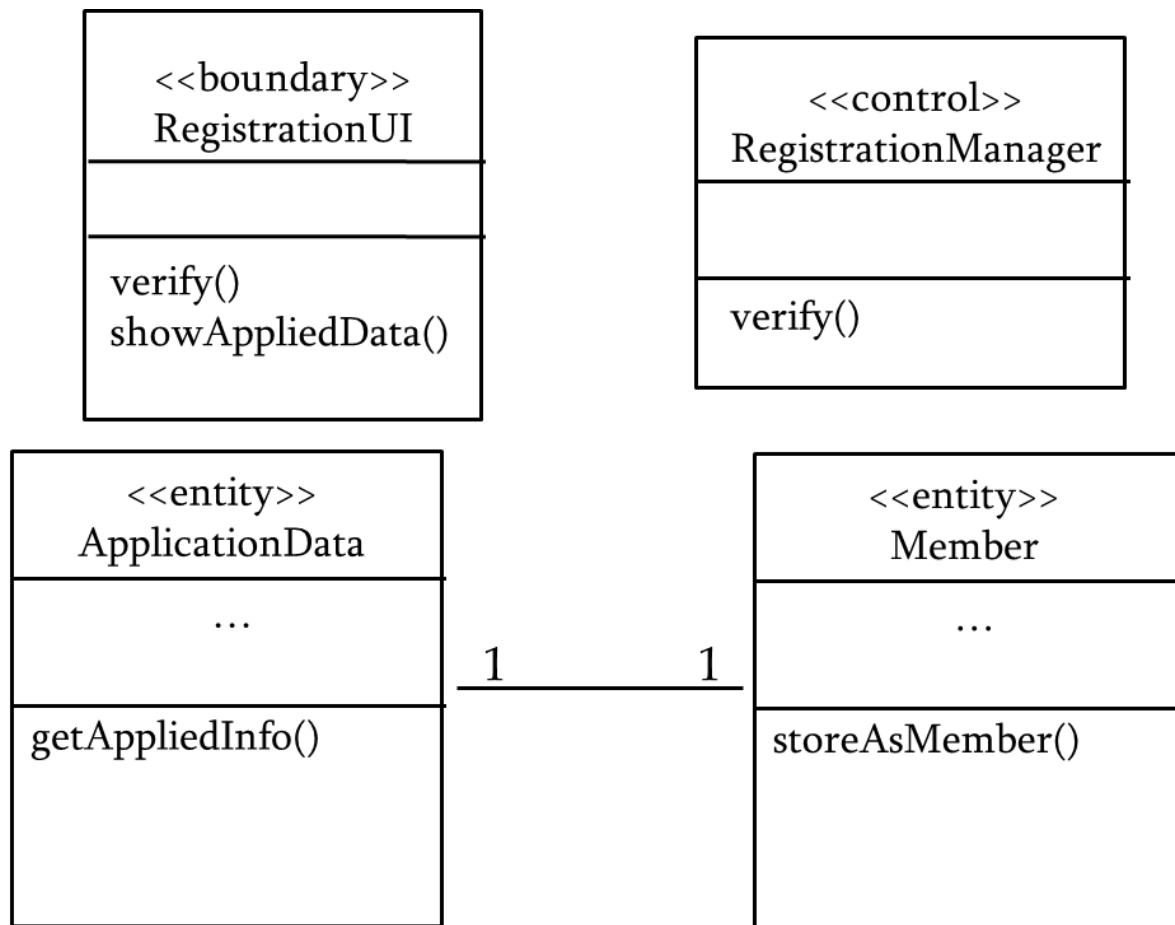


Fig: Class Diagram for Confirmation Use Case

5.4.3 Social Interaction Subsystem

5.4.3.1 Collaboration Diagram for Entertain use-case:

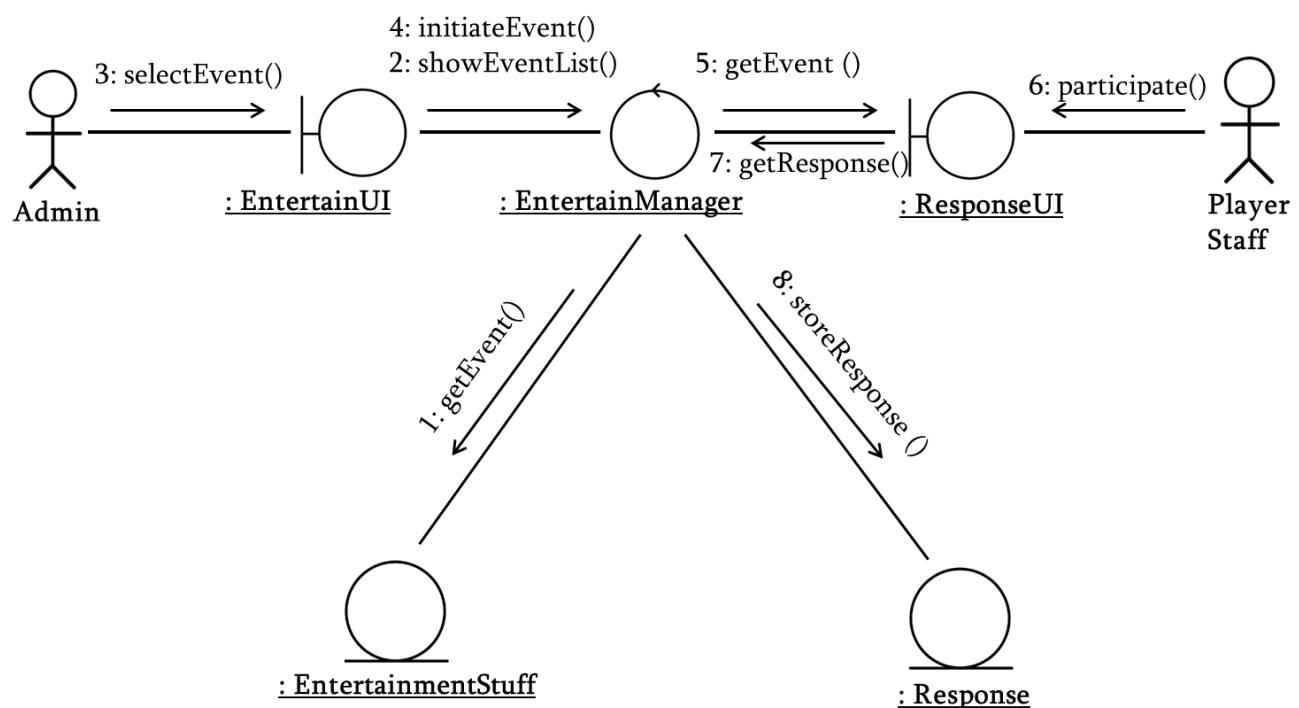


Fig: Collaboration Diagram for Entertain Use Case

Class Diagram for Entertain use-case:

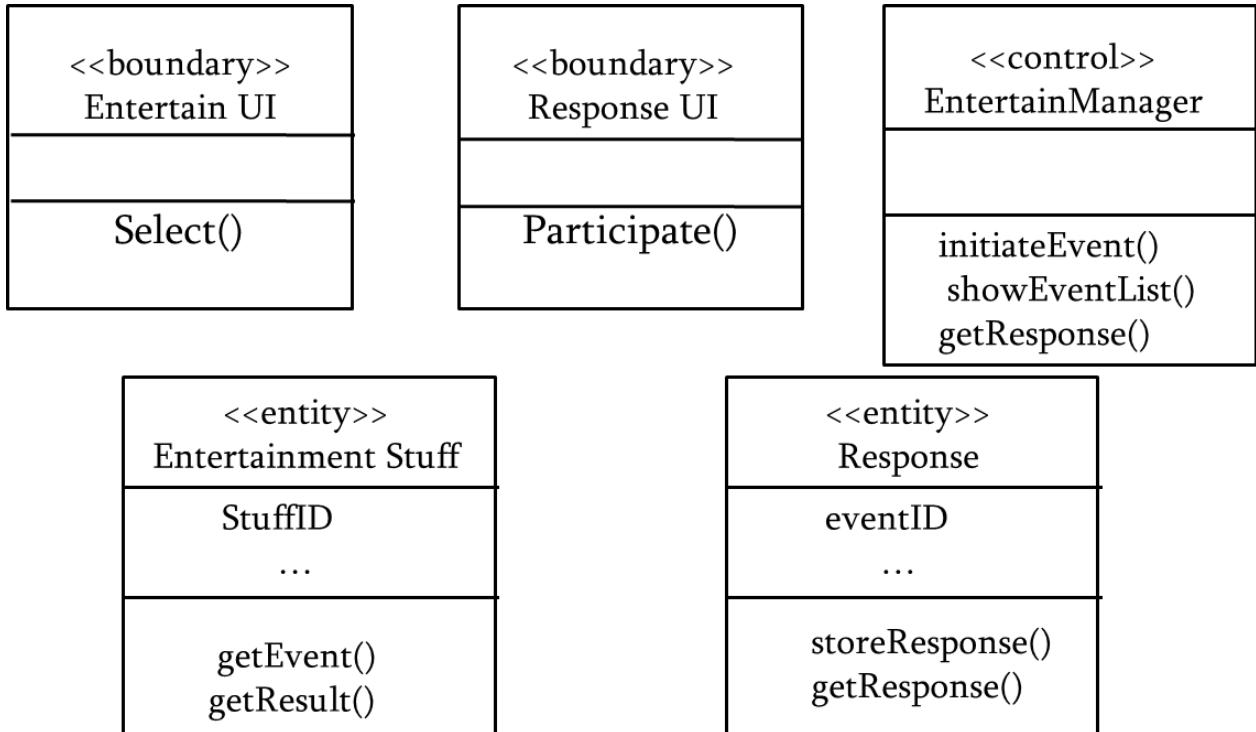


Fig: Class Diagram for Entertain Use Case

5.4.3.2 Collaboration Diagram for Result Publish use-case:

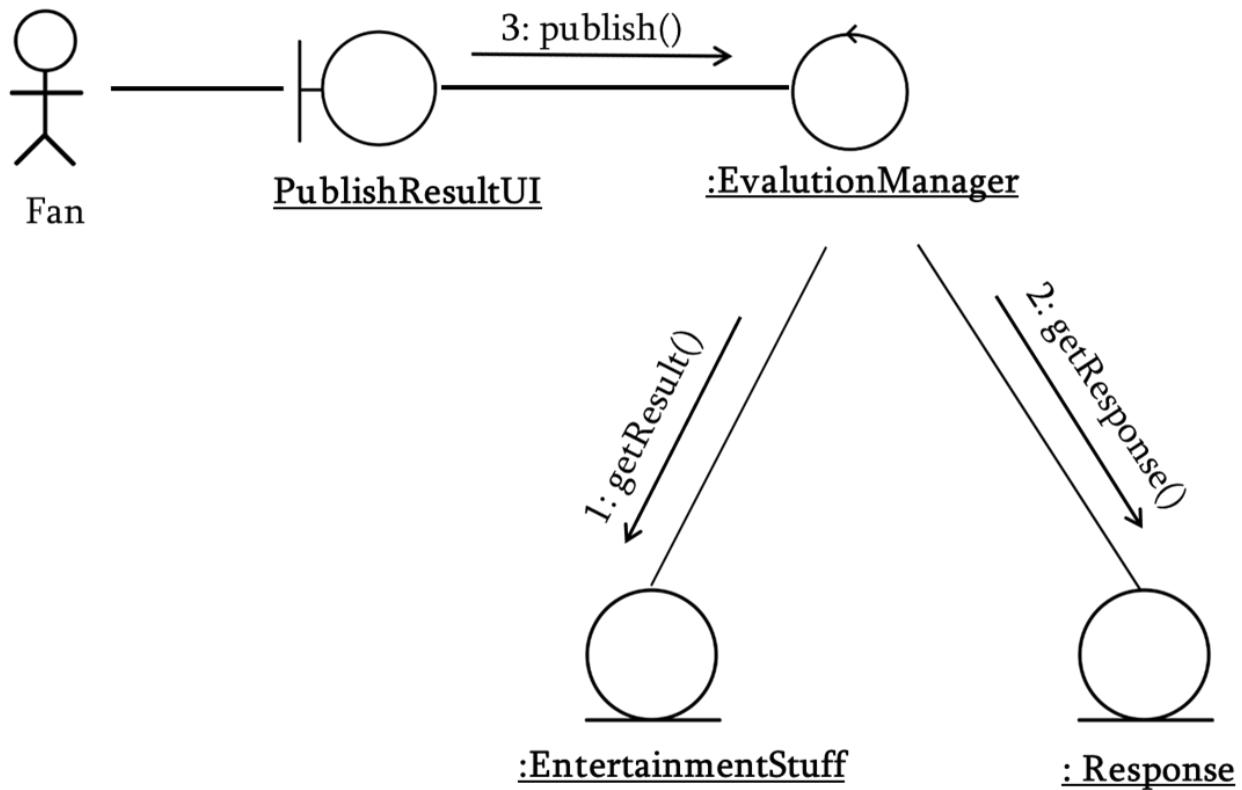


Fig: Collaboration Diagram for Result Publish Use Case

Class Diagram for Result Publish use-case:

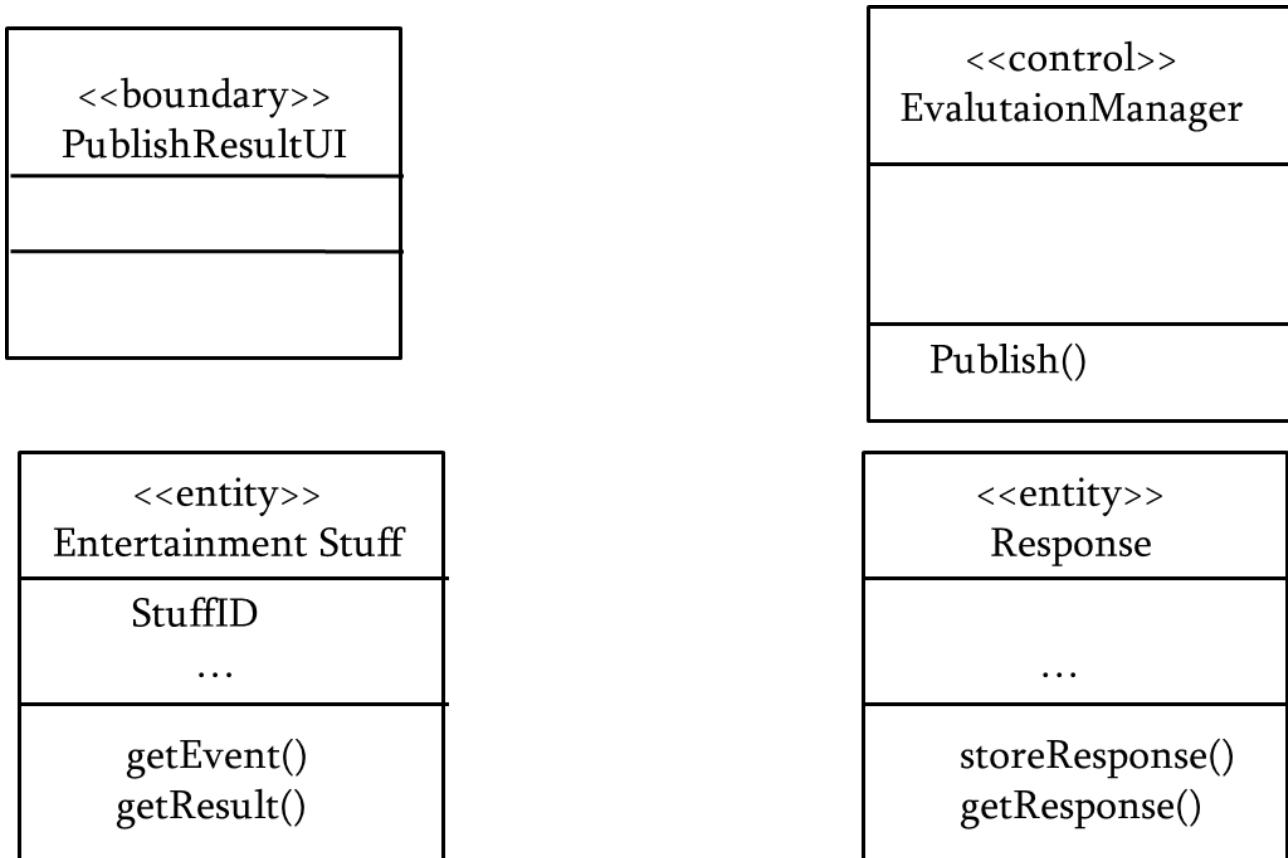


Fig: Class Diagram for Result Publish Use Case

5.4.3.3 Collaboration Diagram for Update use-case:

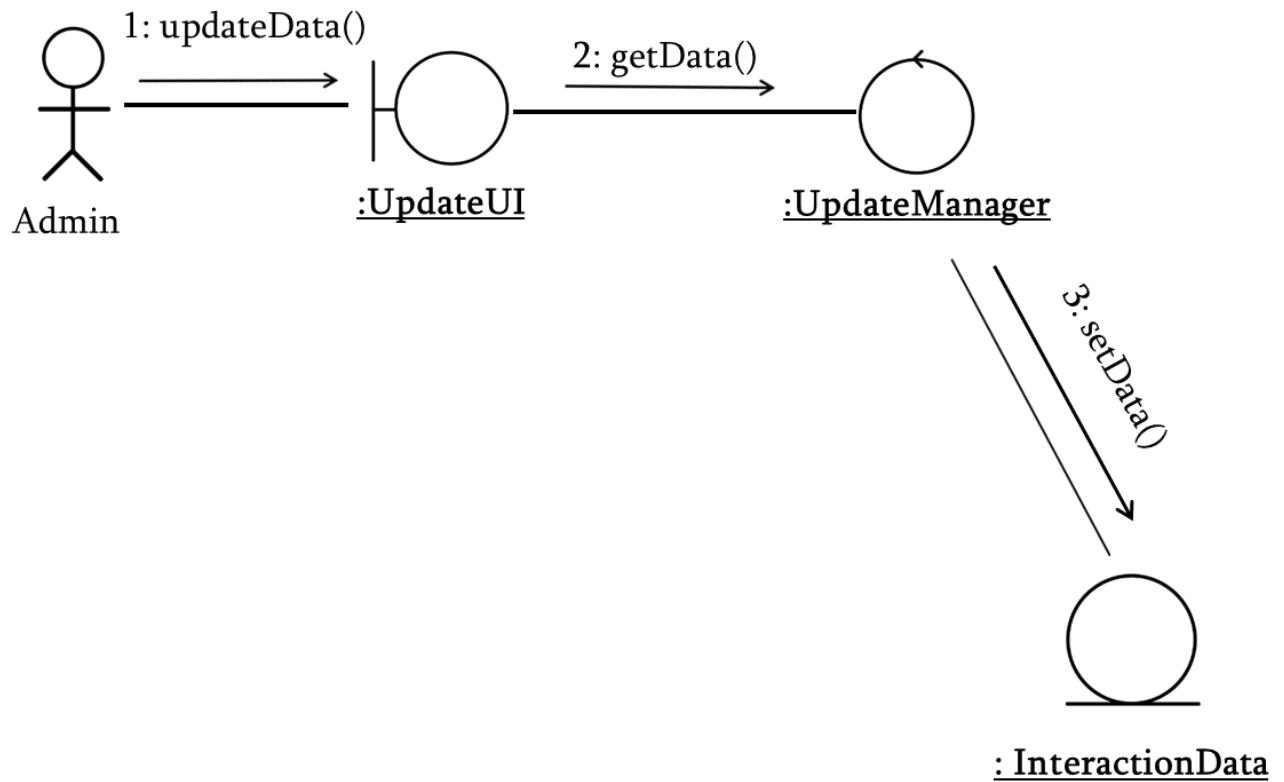


Fig: Collaboration Diagram for Update Use Case

Class Diagram for Update use-case:

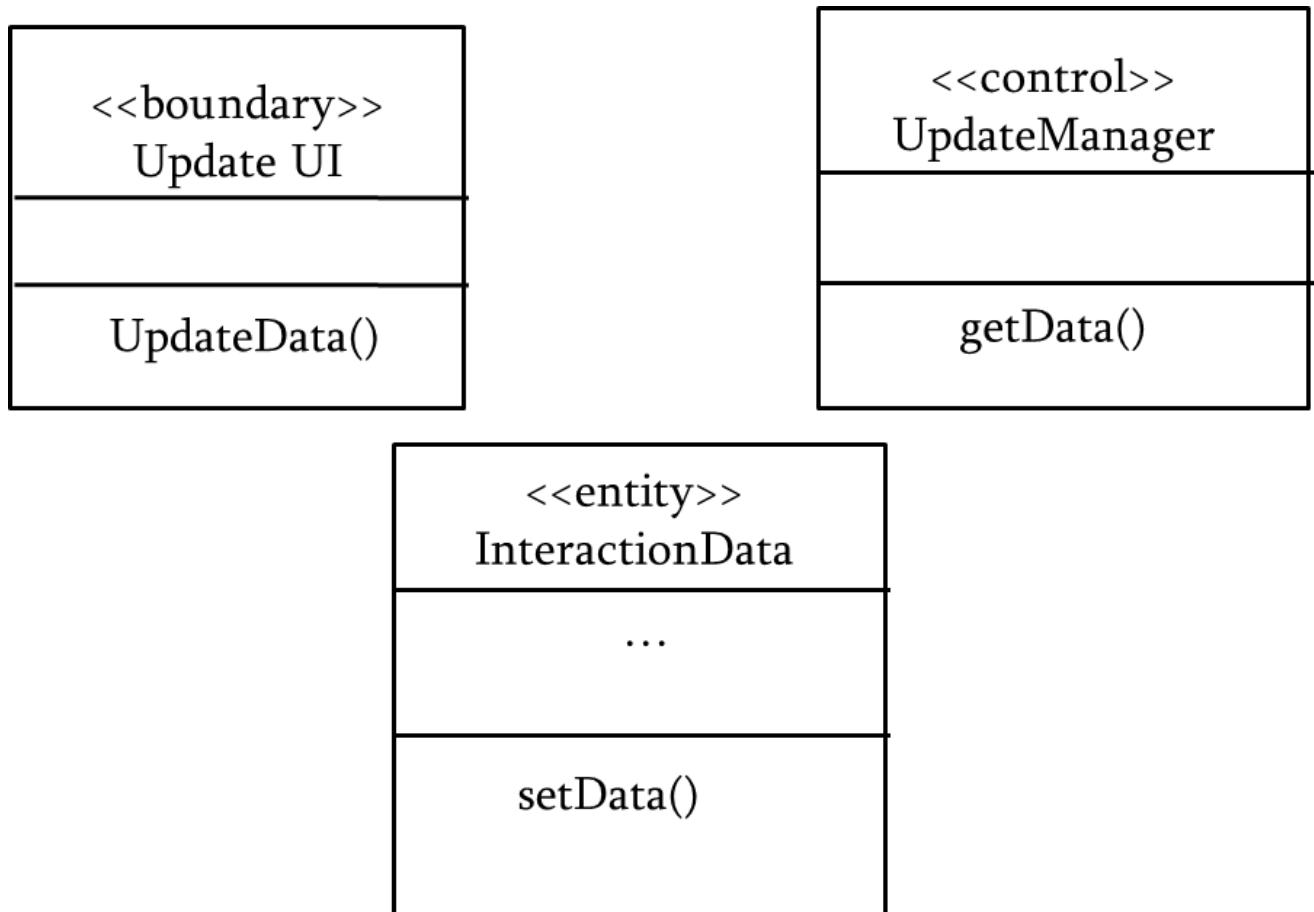


Fig: Class Diagram for Update Use Case

5.4.3.4 Collaboration Diagram for View Website use-case:

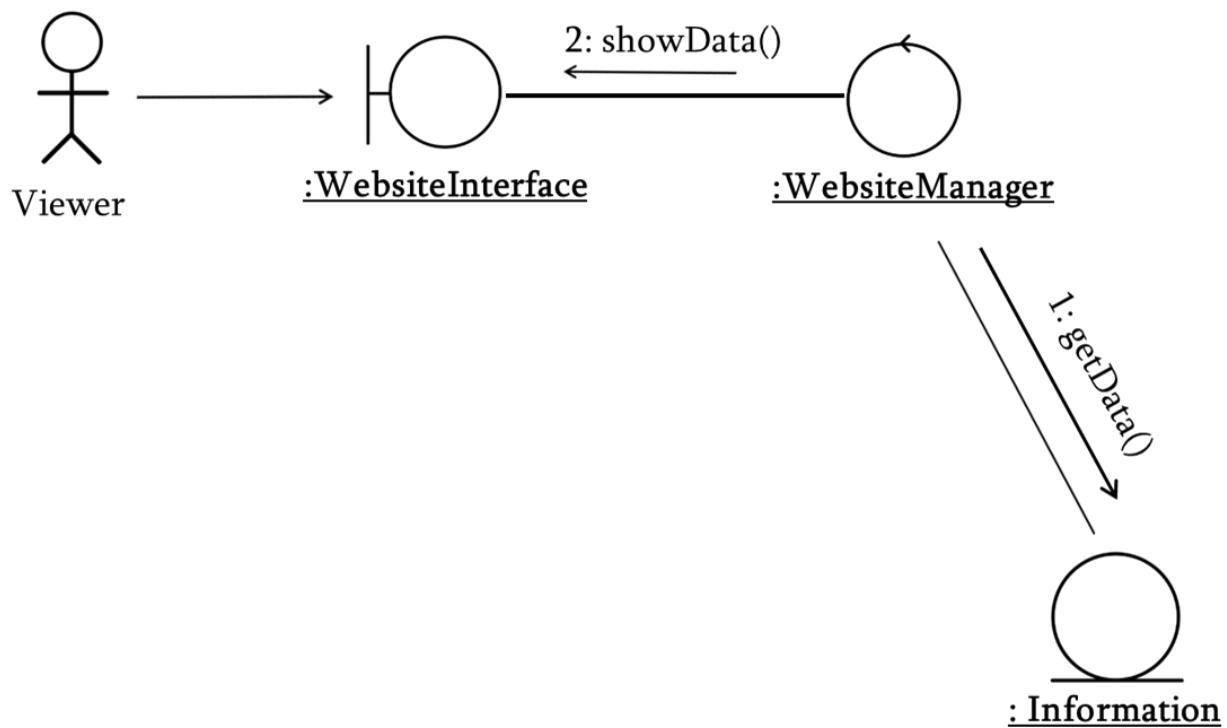


Fig: Collaboration Diagram for View Website Use Case

Class Diagram for View Website use-case:

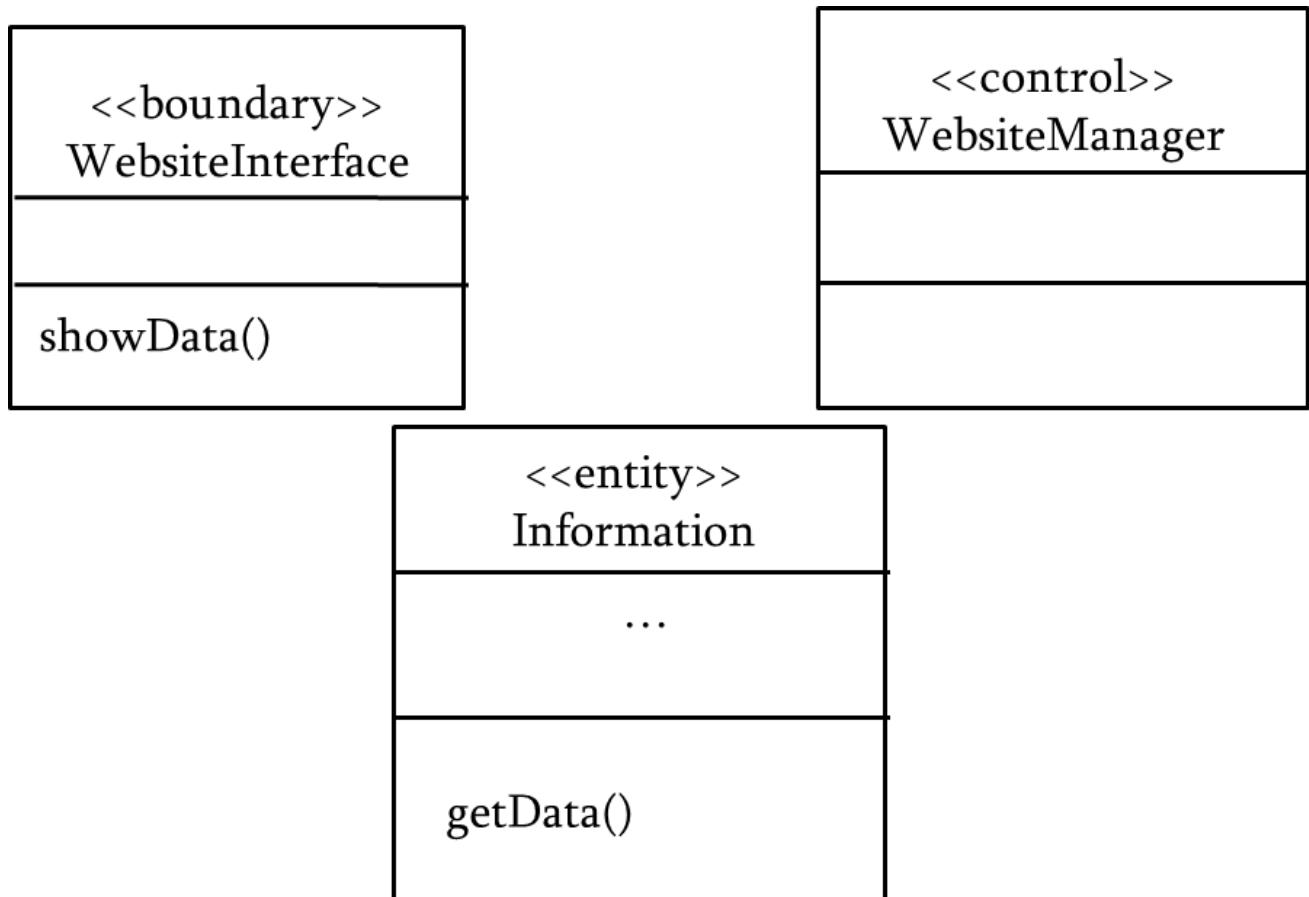


Fig: Class Diagram for View Website Use Case

5.4.4 Team Management Subsystem

5.4.4.1 Collaboration Diagram for Squad Selection use-case:

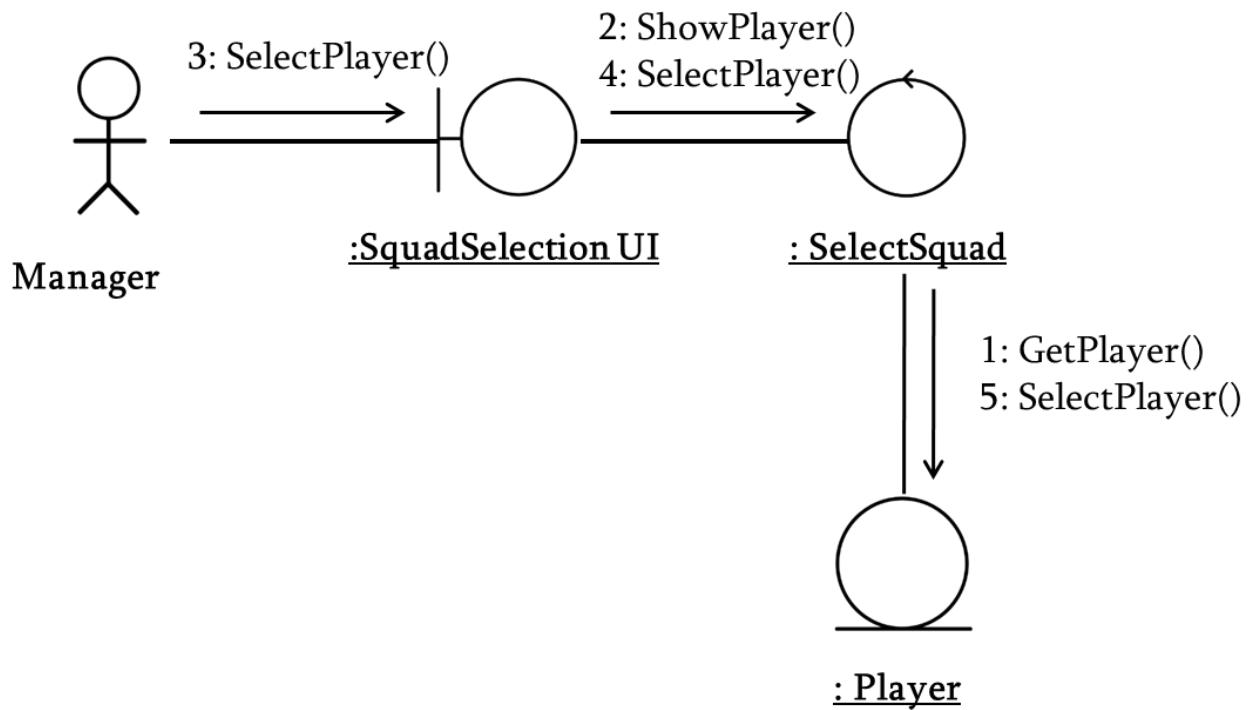


Fig: Collaboration Diagram for Squad Selection Use Case

Class Diagram for Squad Selection use-case:

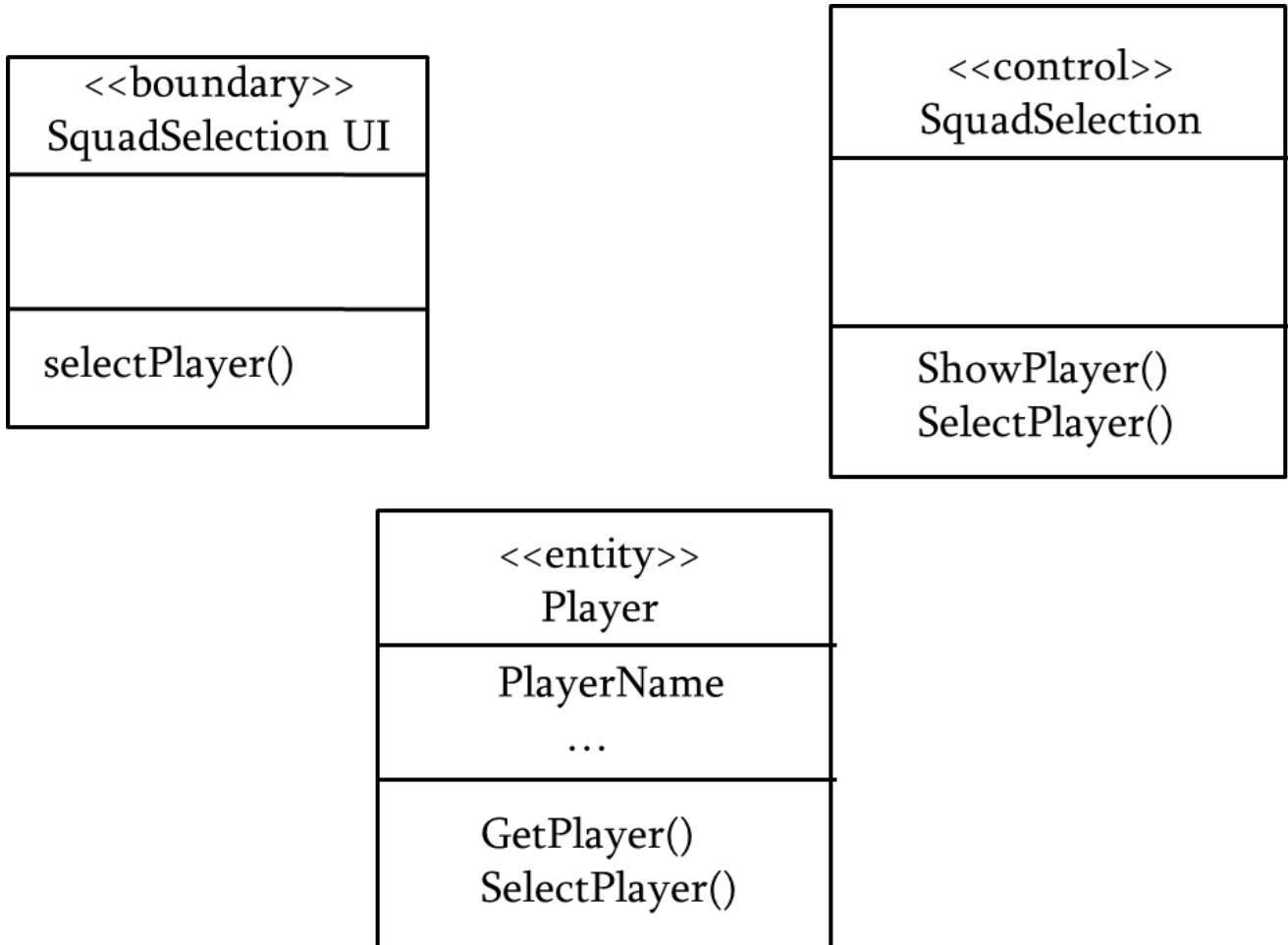


Fig: Class Diagram for Squad Selection Use Case

5.4.4.2 Collaboration Diagram for Schedule Management use-case:

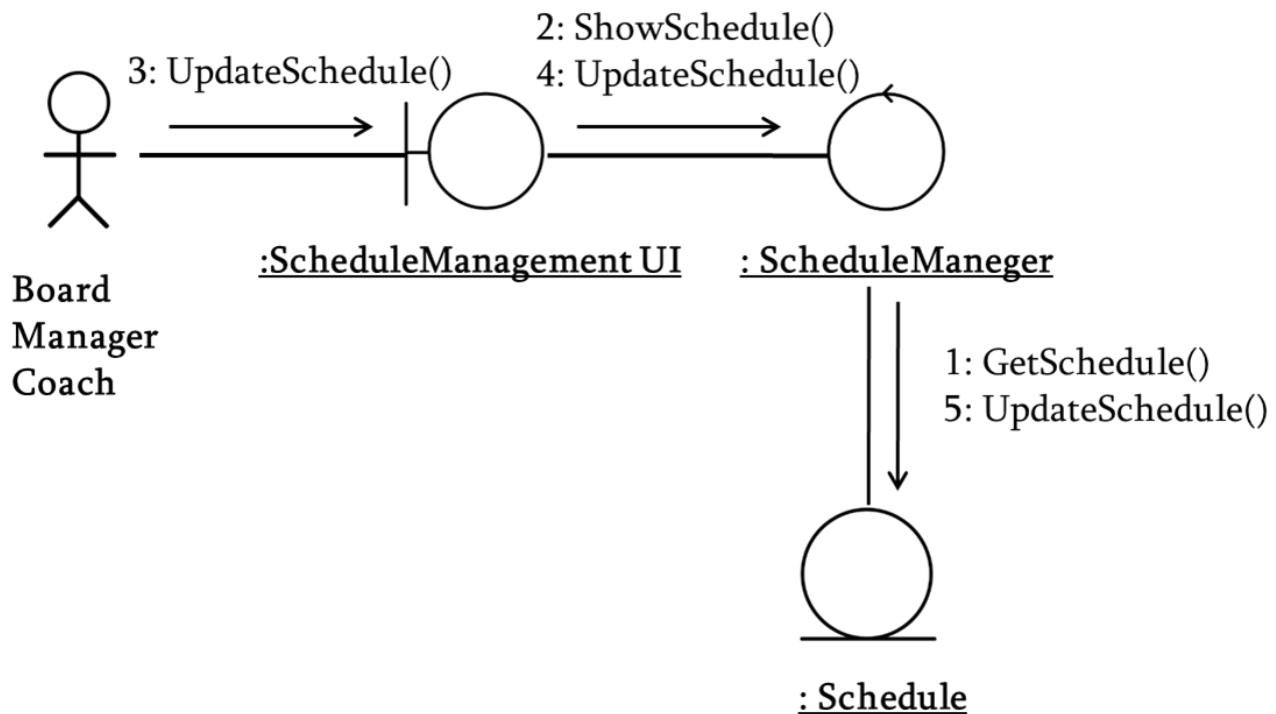


Fig: Collaboration Diagram for Schedule Management Use Case

Class Diagram for Schedule Management use-case:

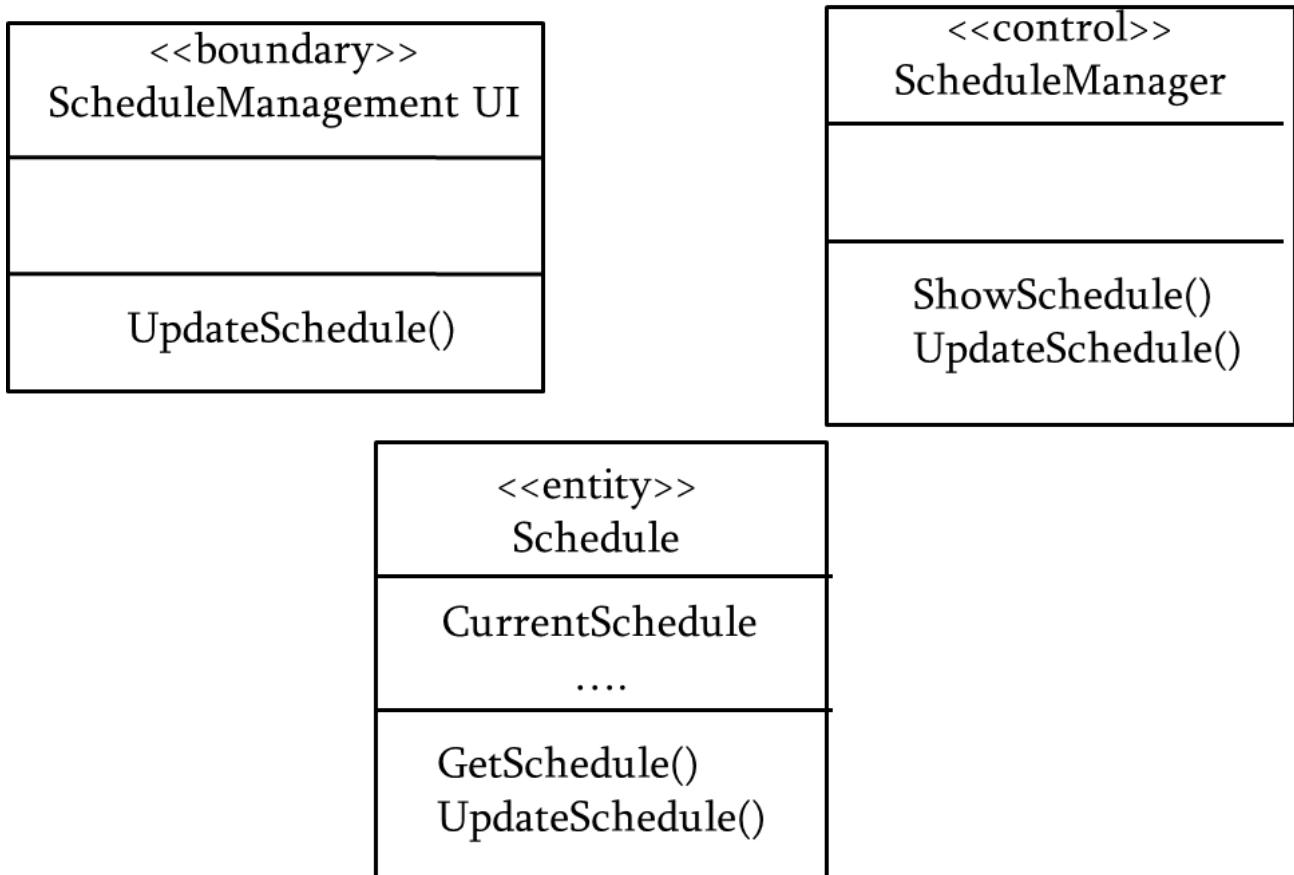


Fig: Class Diagram for Schedule Management Use Case

5.4.4.3 Collaboration Diagram for Evaluation use-case:

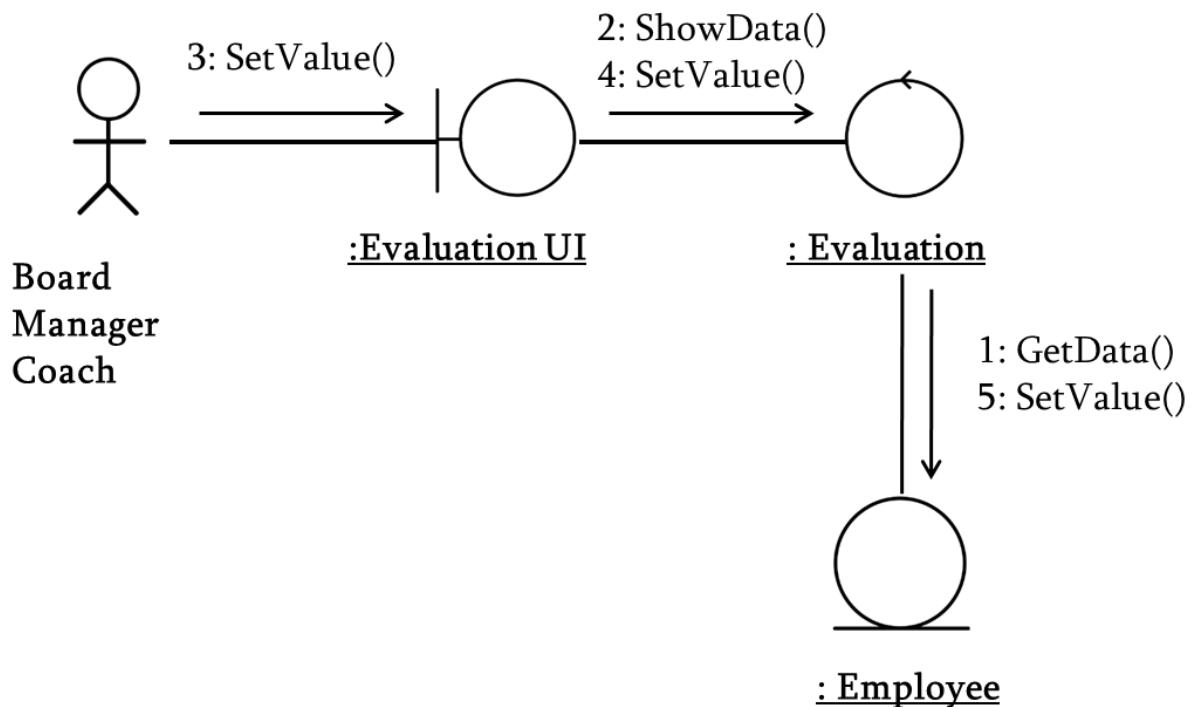


Fig: Collaboration Diagram for Evaluation Use Case

Class Diagram for Evaluation use-case:

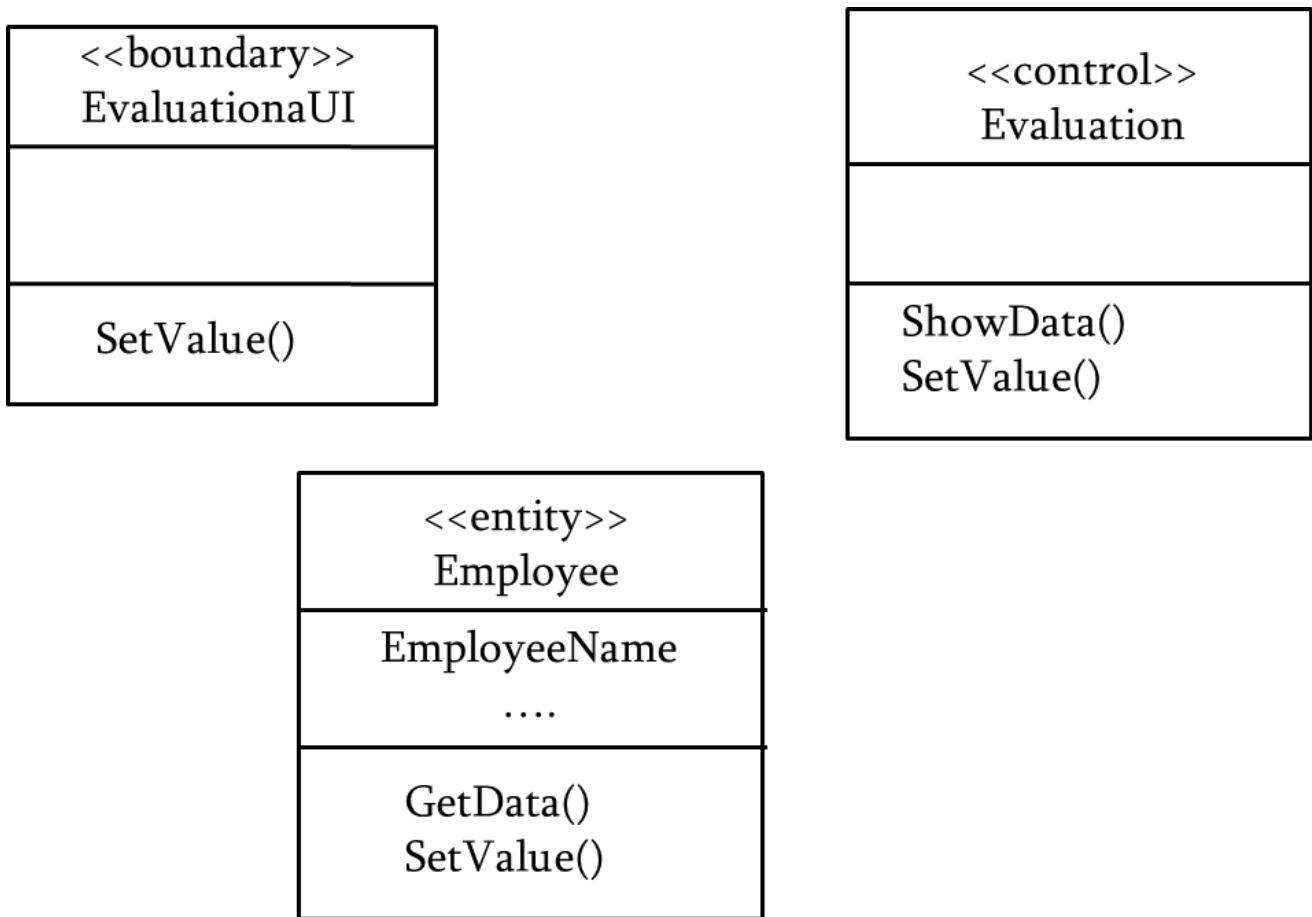


Fig: Class Diagram for Evaluation Use Case

5.4.5 Online Store Subsystem

5.4.5.1 Collaboration Diagram for View Product use-case:

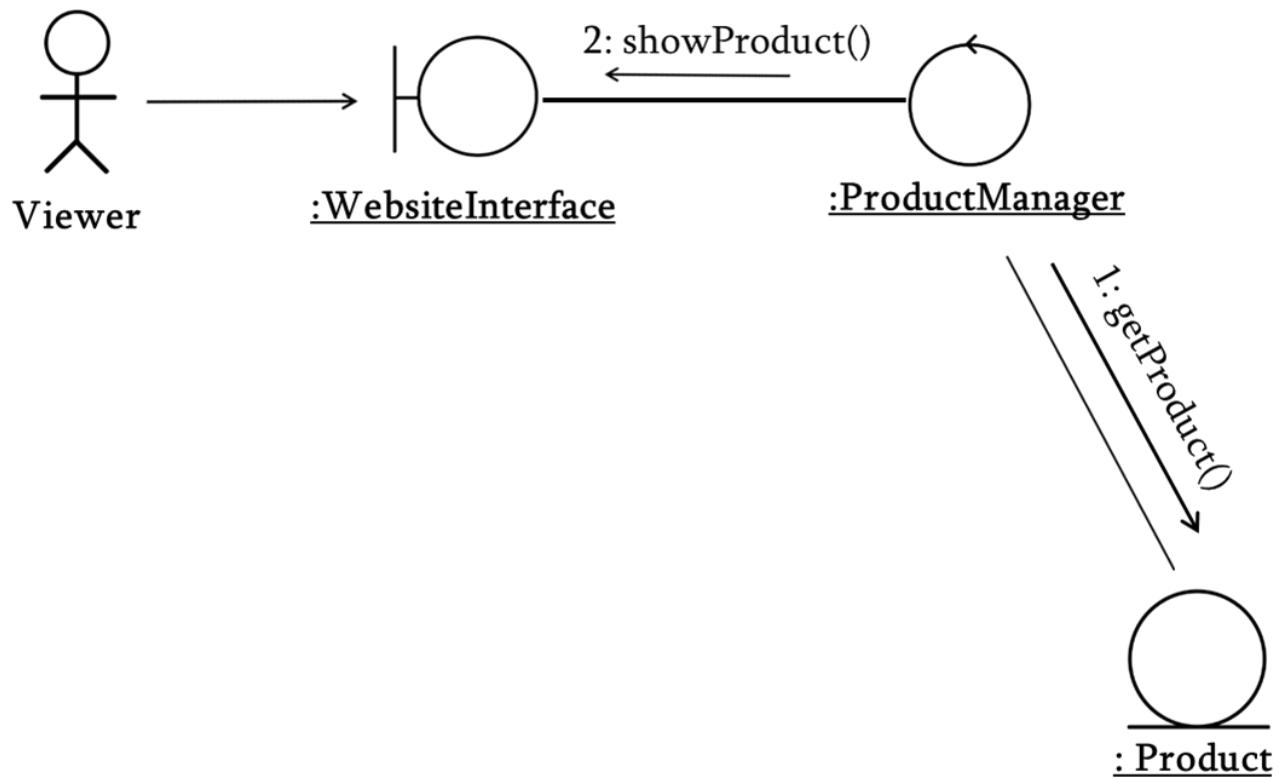


Fig: Collaboration Diagram for View Product Use Case

Class Diagram for View Product use-case:

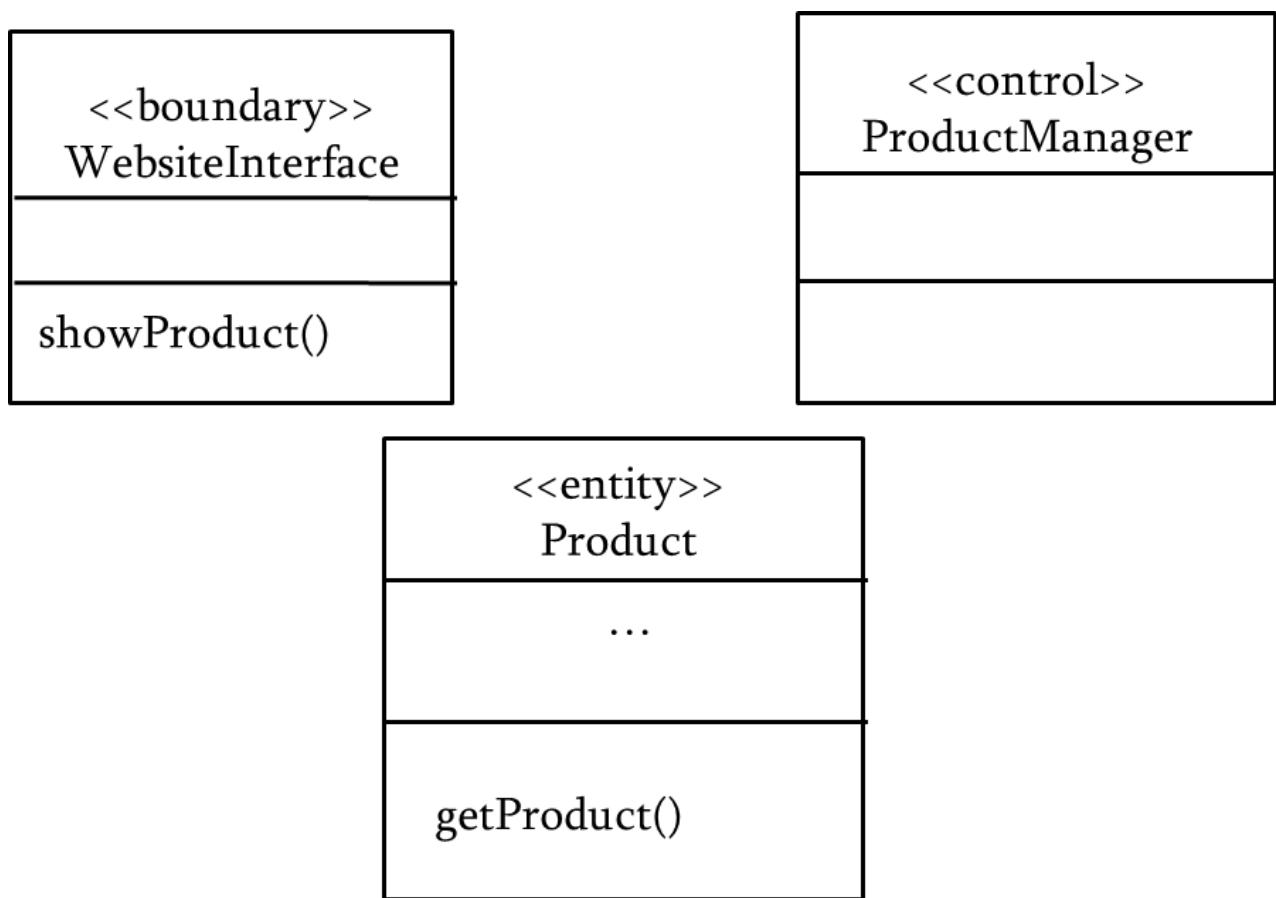


Fig: Class Diagram for View Product Use Case

5.4.5.2 Collaboration Diagram for Product Booking use-case:

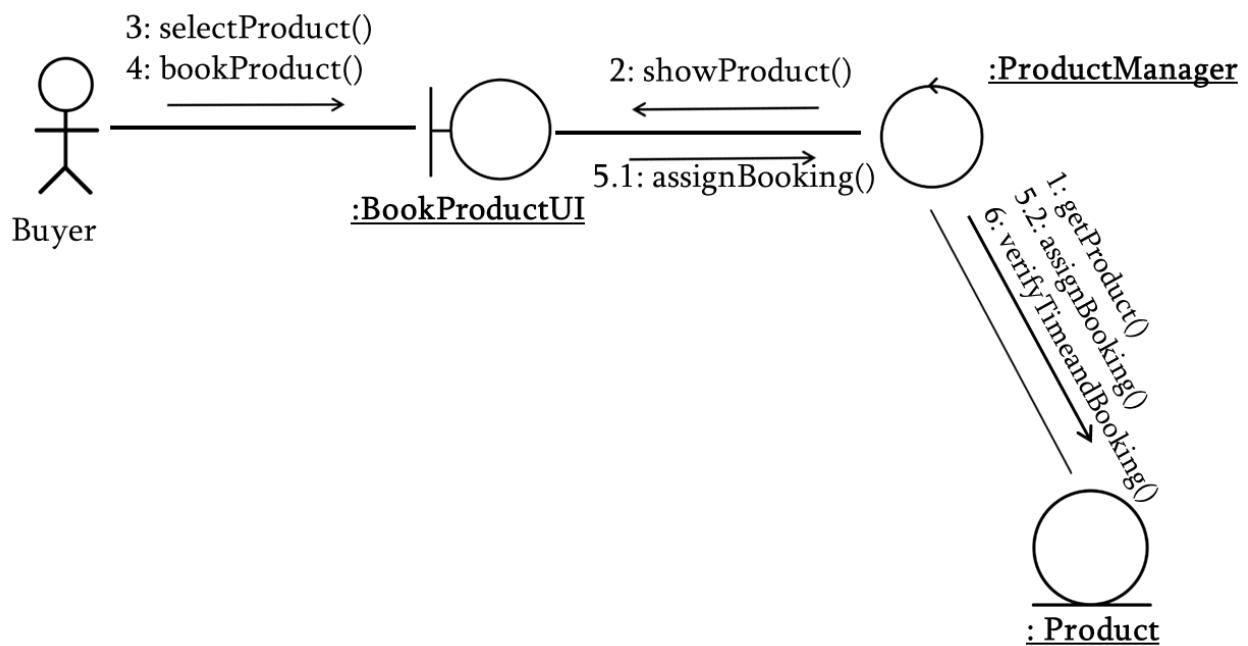


Fig: Collaboration Diagram for Product Booking Use Case

Class Diagram for Product Booking use-case:

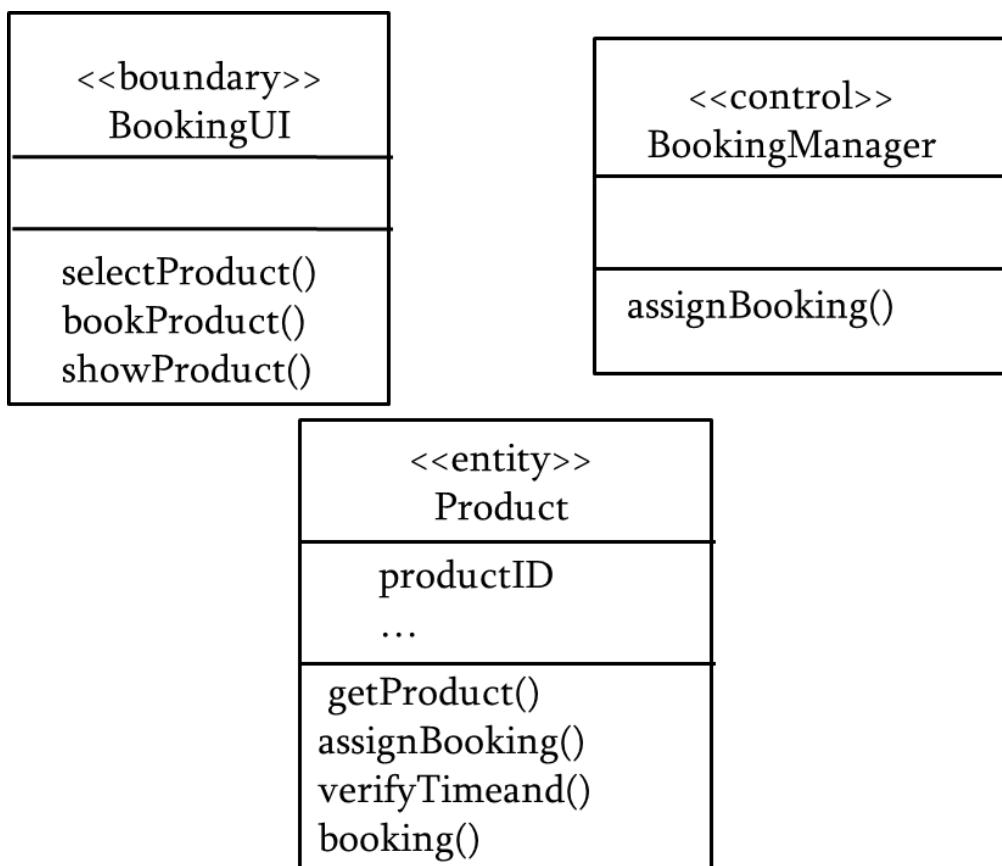


Fig: Class Diagram for Product Booking Use Case

5.4.5.3 Collaboration Diagram for Product Update use-case:

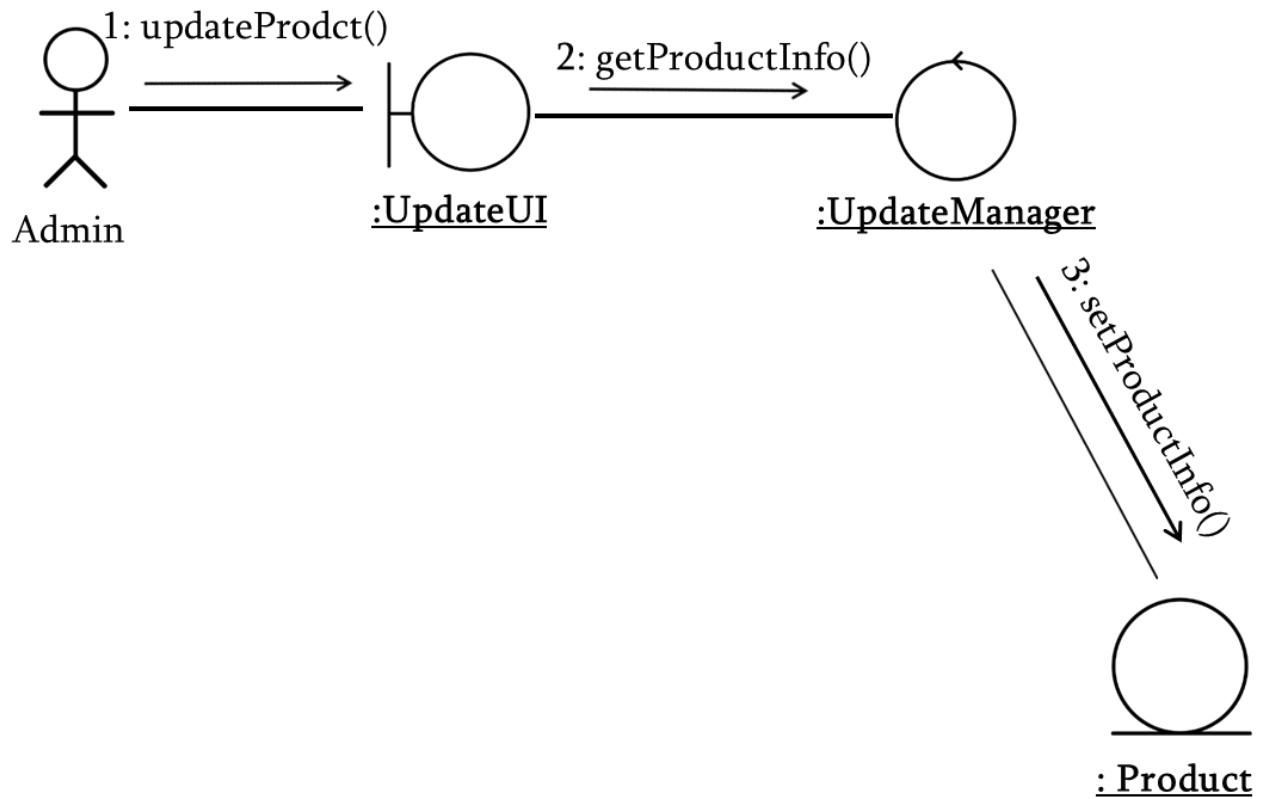


Fig: Collaboration Diagram for Product Update Use Case

Class Diagram for Product Update use-case:

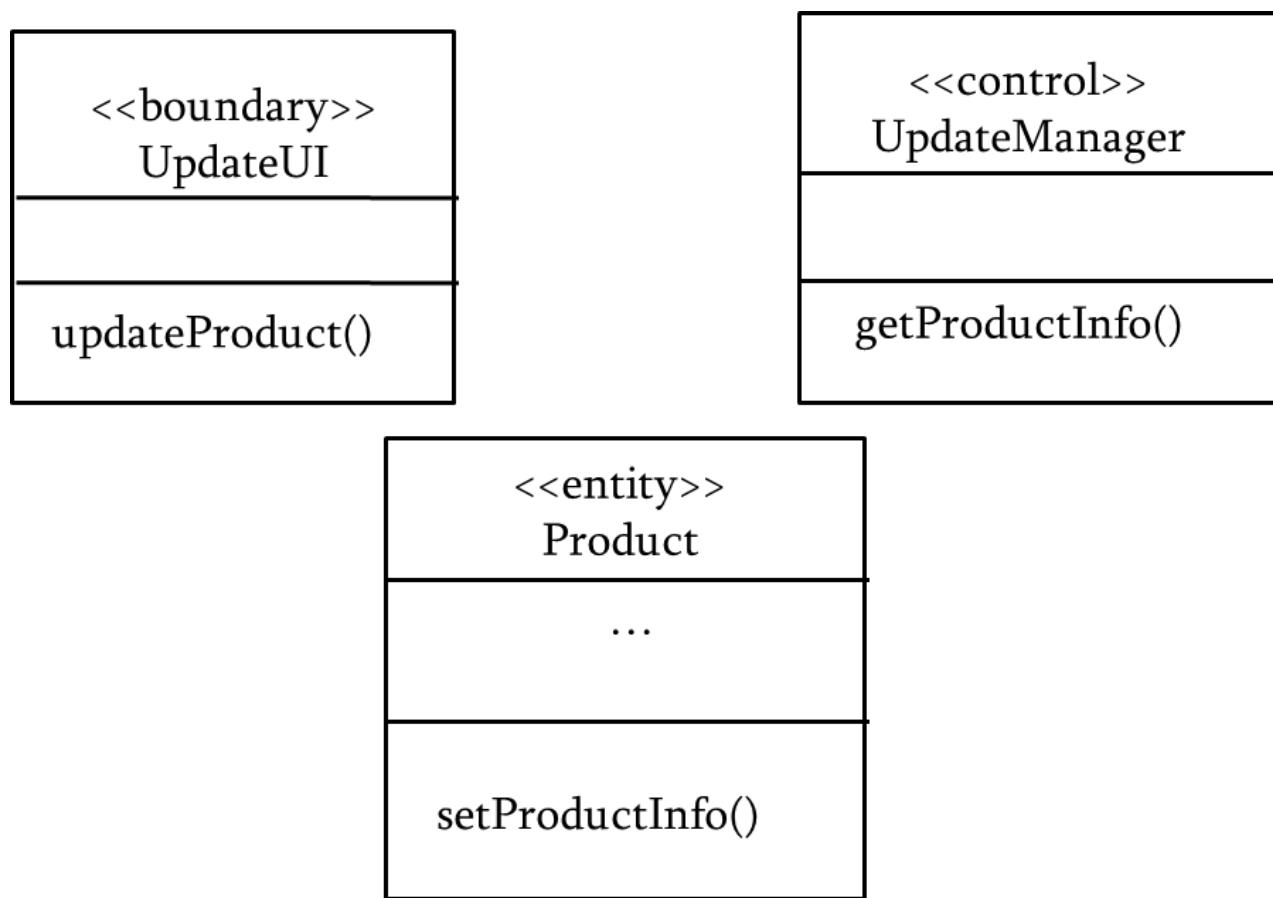


Fig: Class Diagram for Product Update Use Case

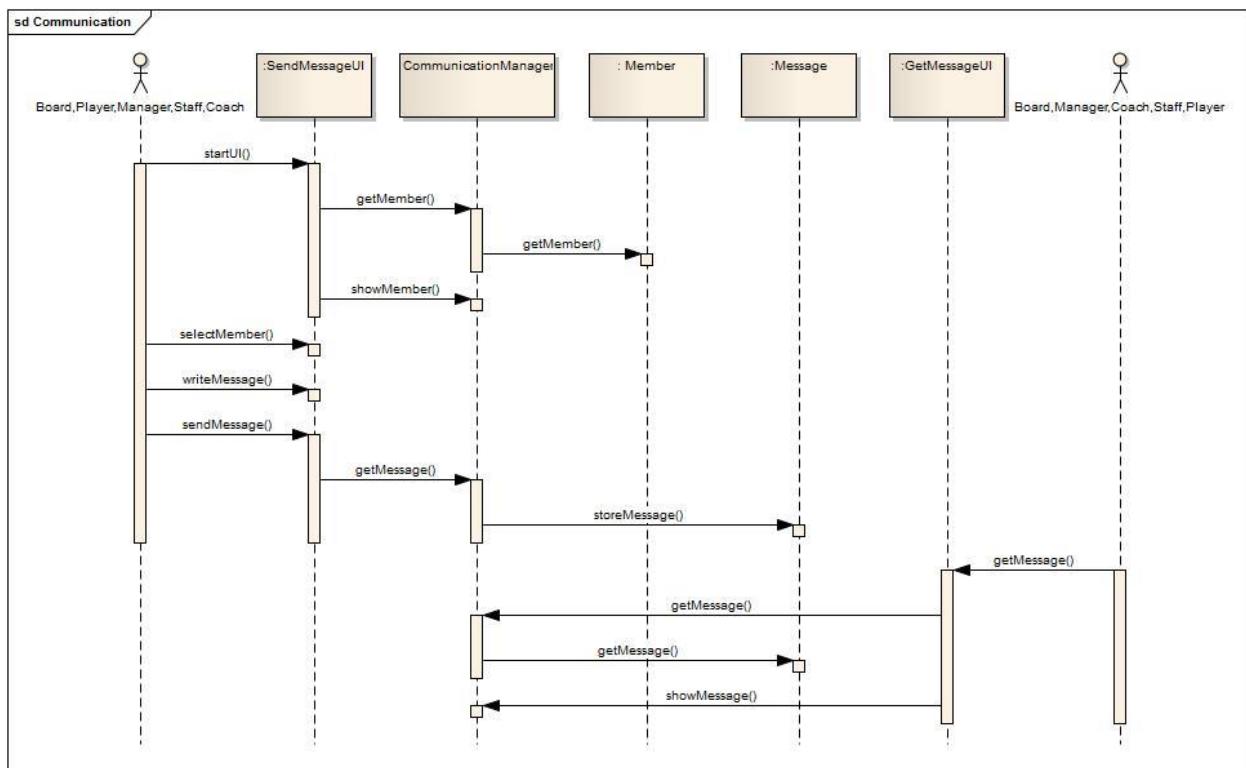
5.5 Process Design

5.5.1 Sequence Diagram

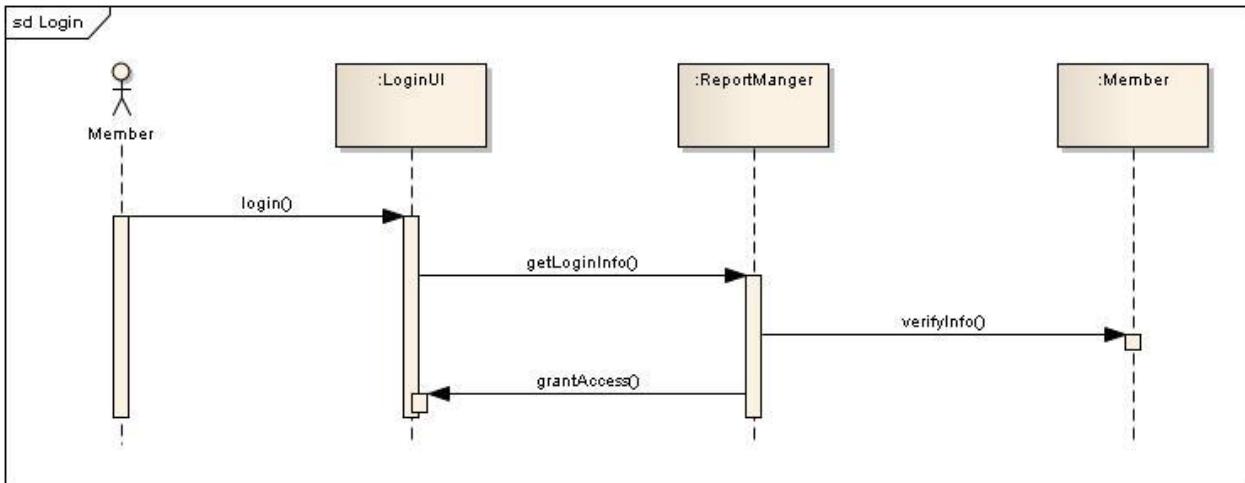
A sequence diagram is an interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are typically associated with use case realizations in the Logical View of the system under development. Sequence diagrams are sometimes called event diagrams, event scenarios

5.5.1.1 Communication Subsystem:

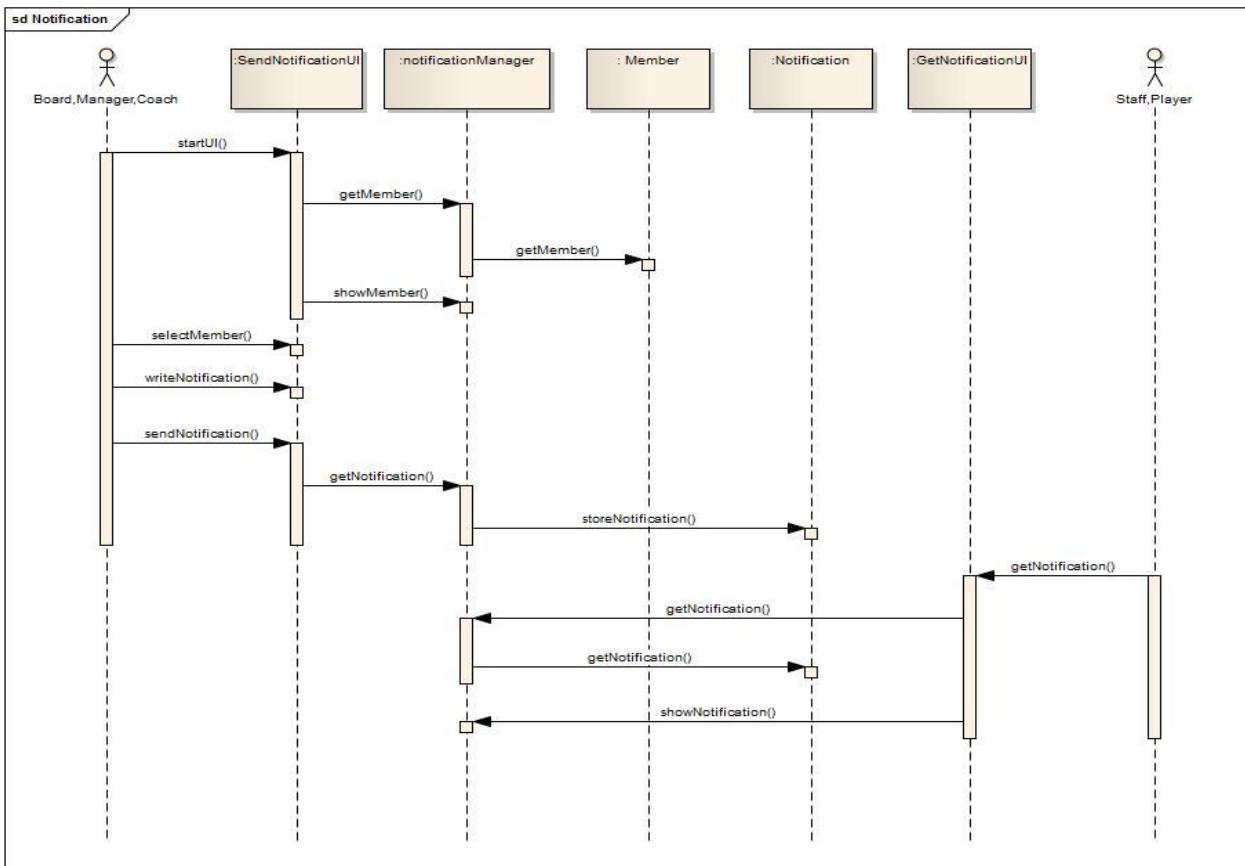
Use-Case: Communication



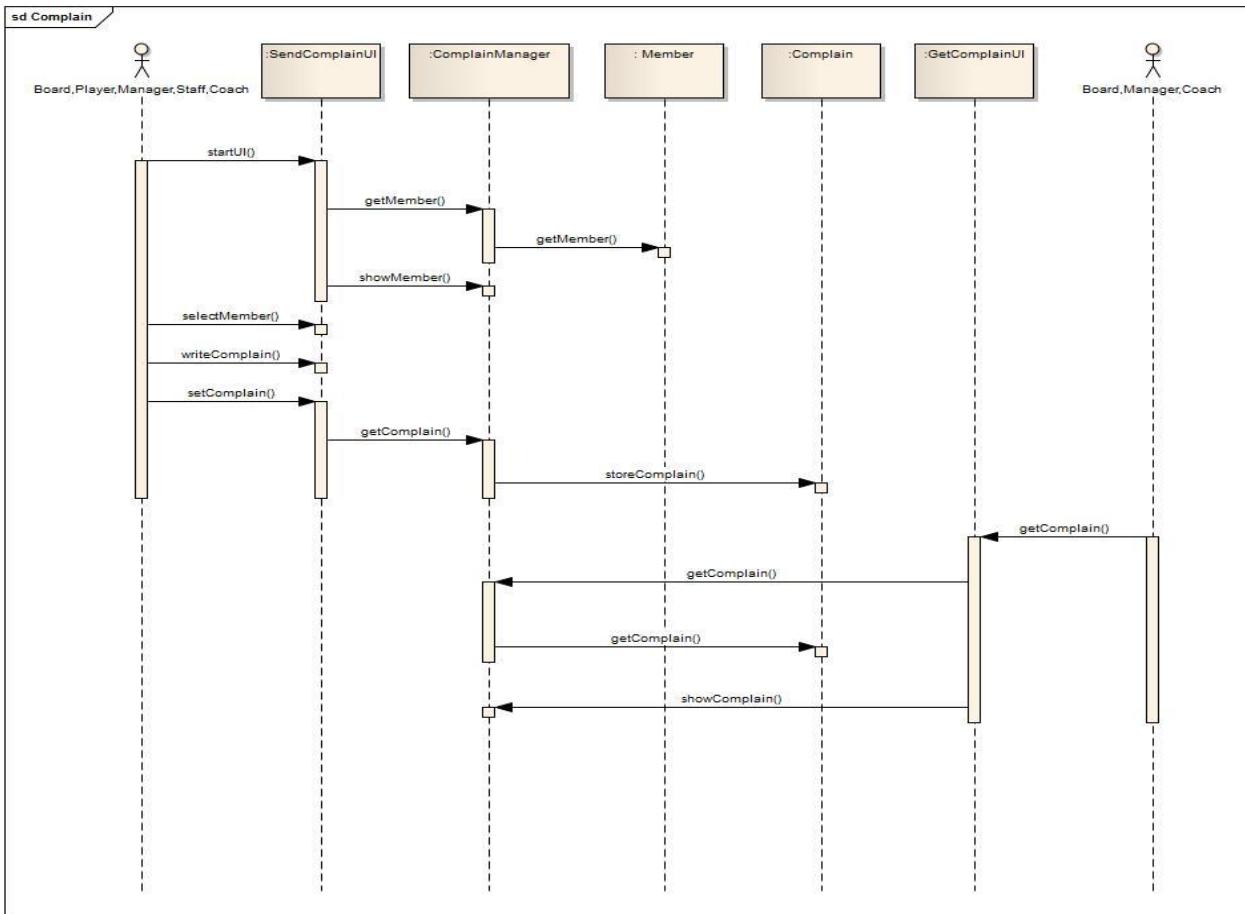
Use Case: Login



Use-Case: Notification

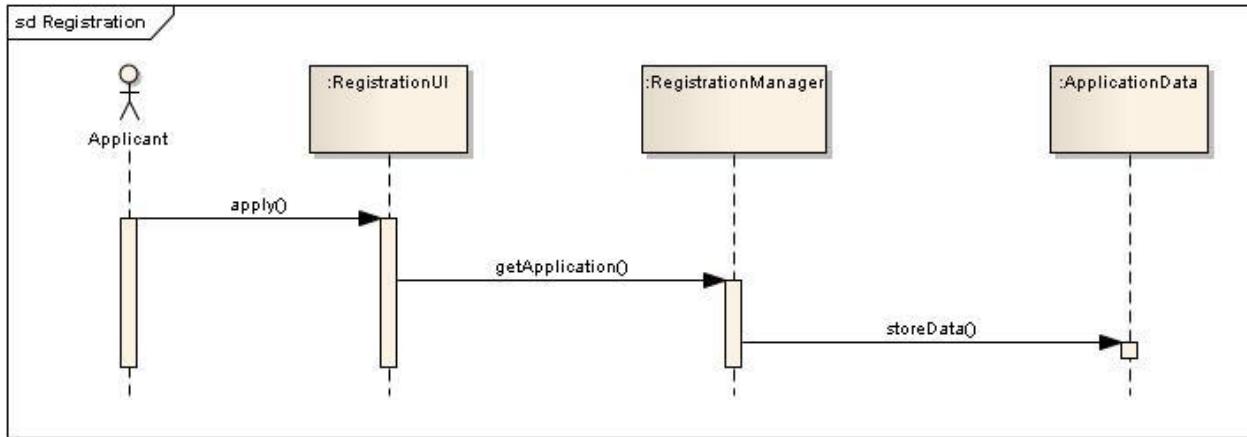


Use-Case: Complain

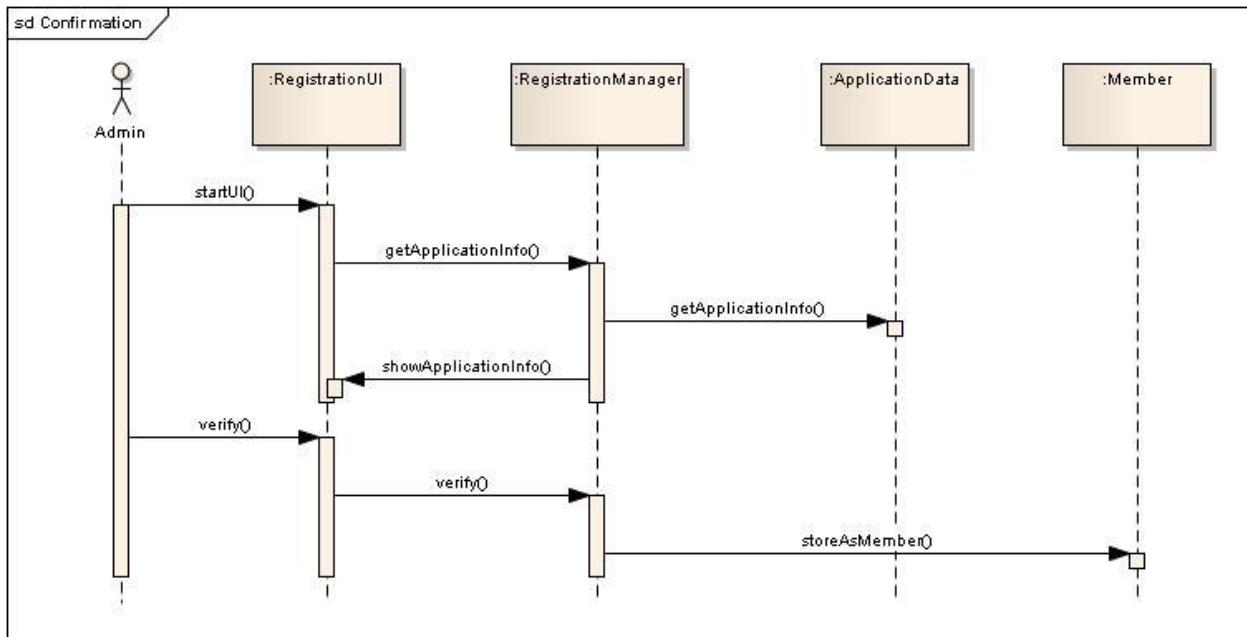


5.5.1.2 Registration Subsystem:

Use Case: Registration

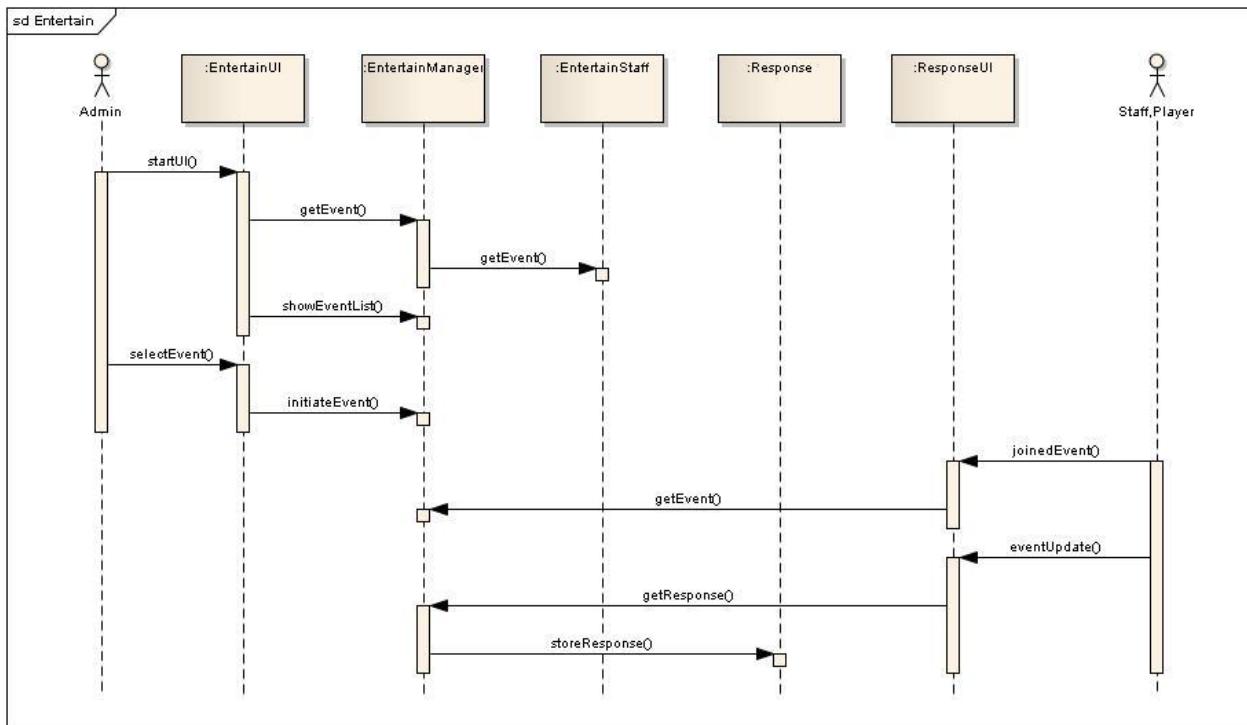


Use Case: Confirmation

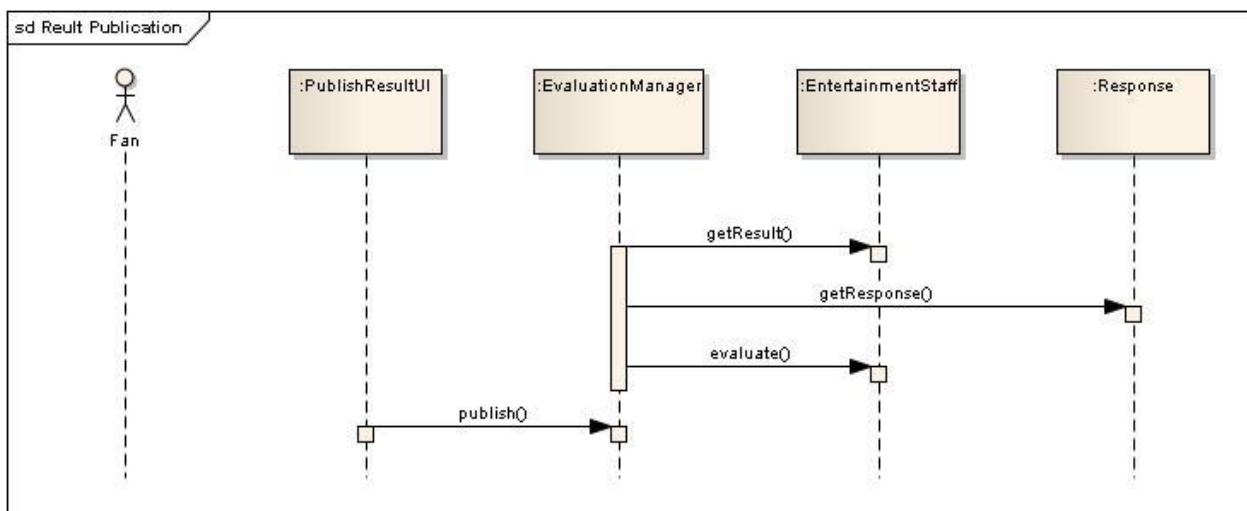


5.5.1.3 Social Interaction Subsystem:

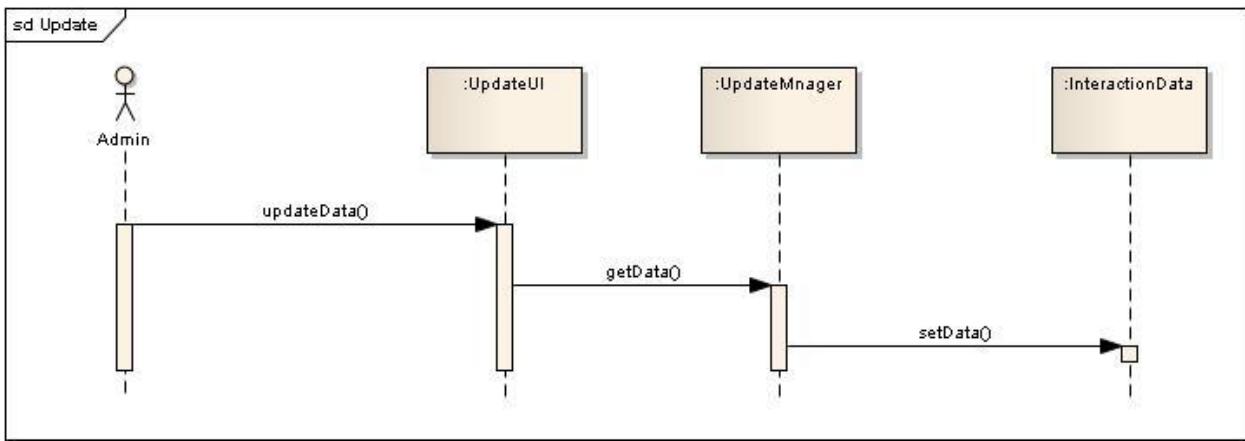
Use Case: Entertain



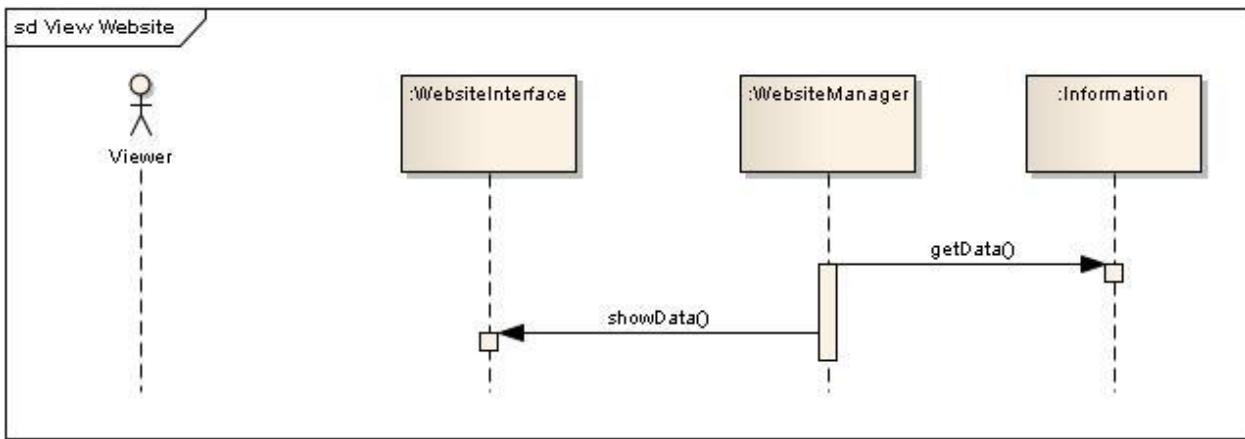
Use Case: Result Publish



Use Case: Update

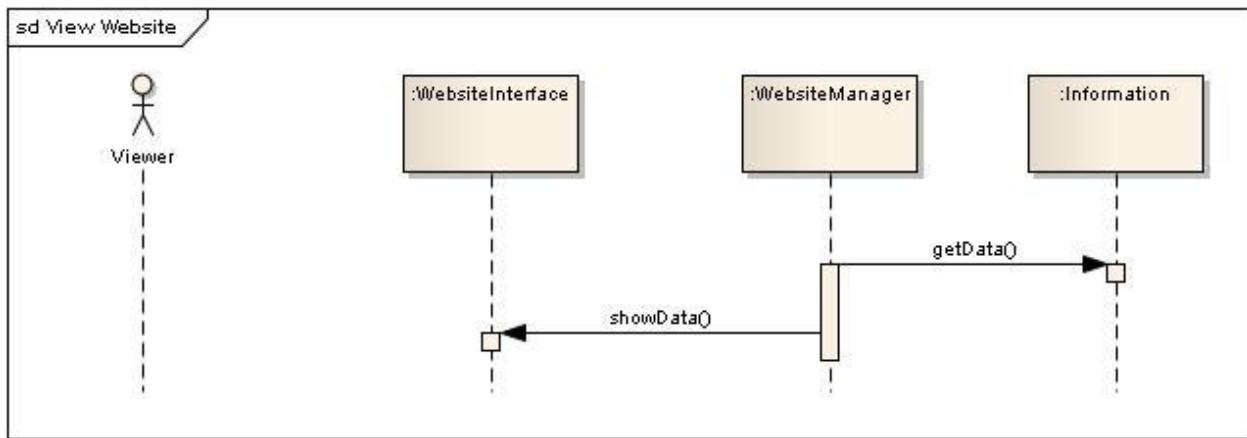


Use Case: View Website

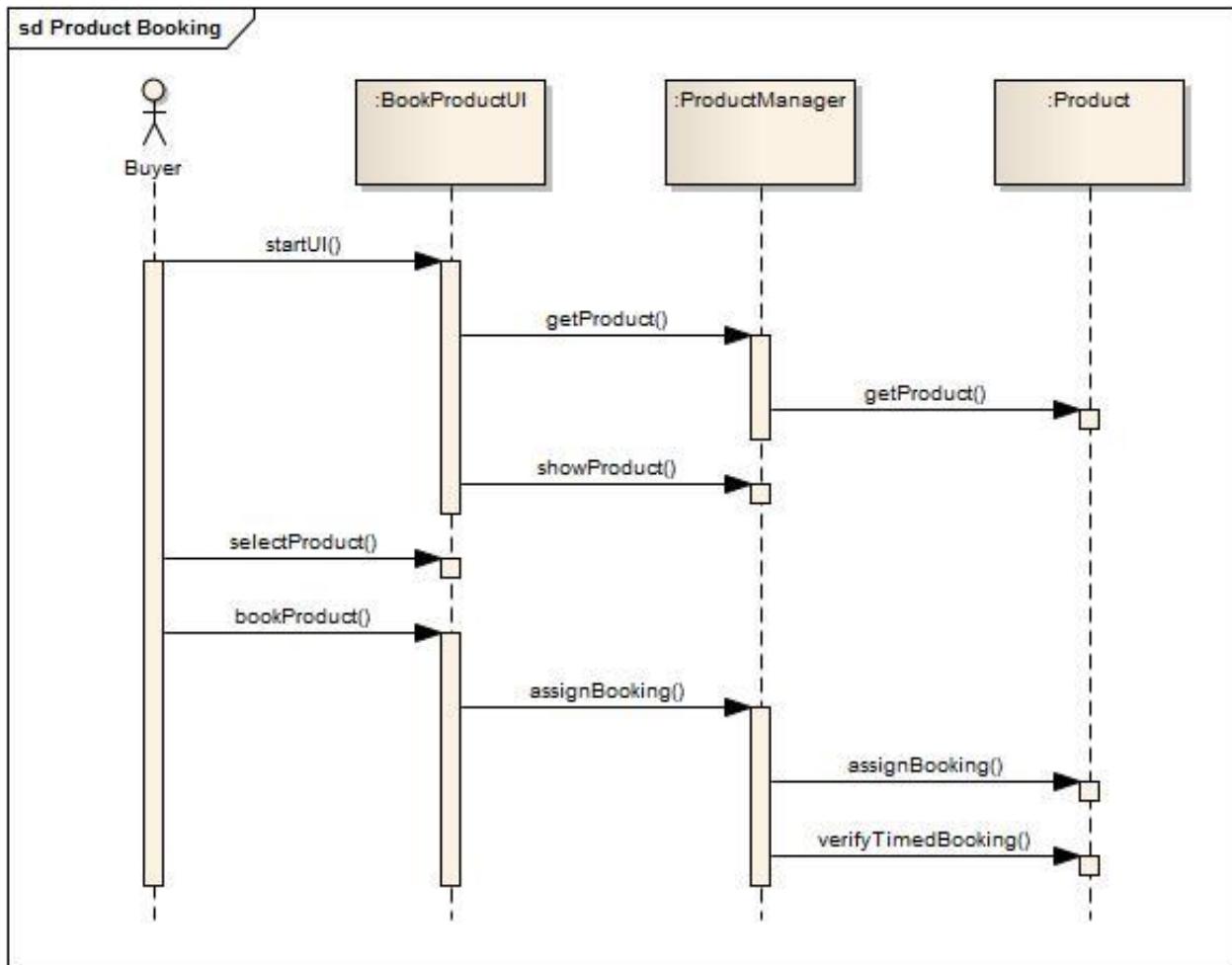


5.5.1.4 Online Store Subsystem:

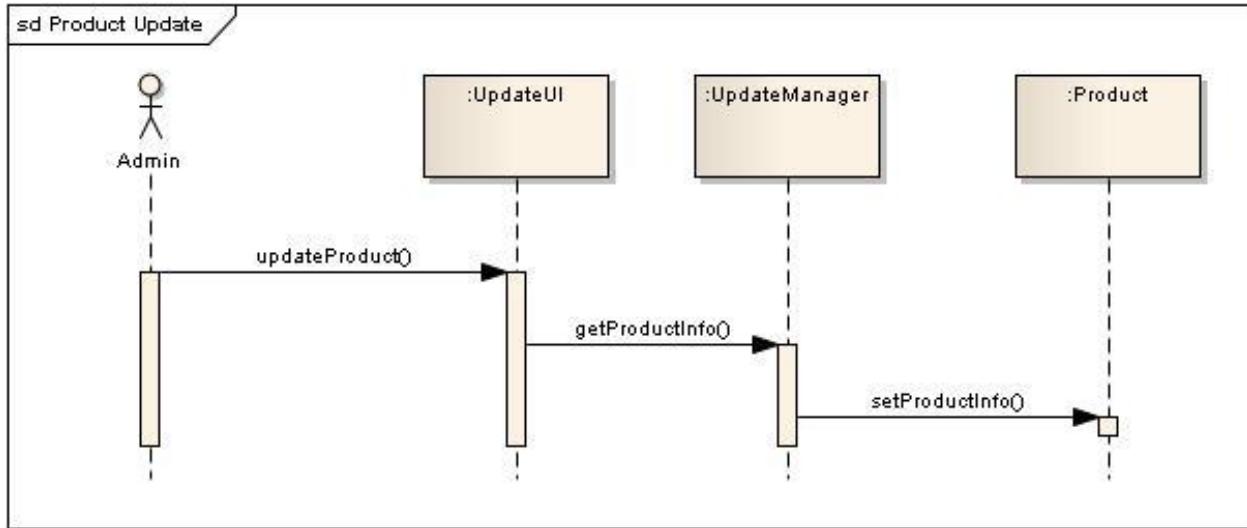
Use Case: View Product



Use Case: Product Booking

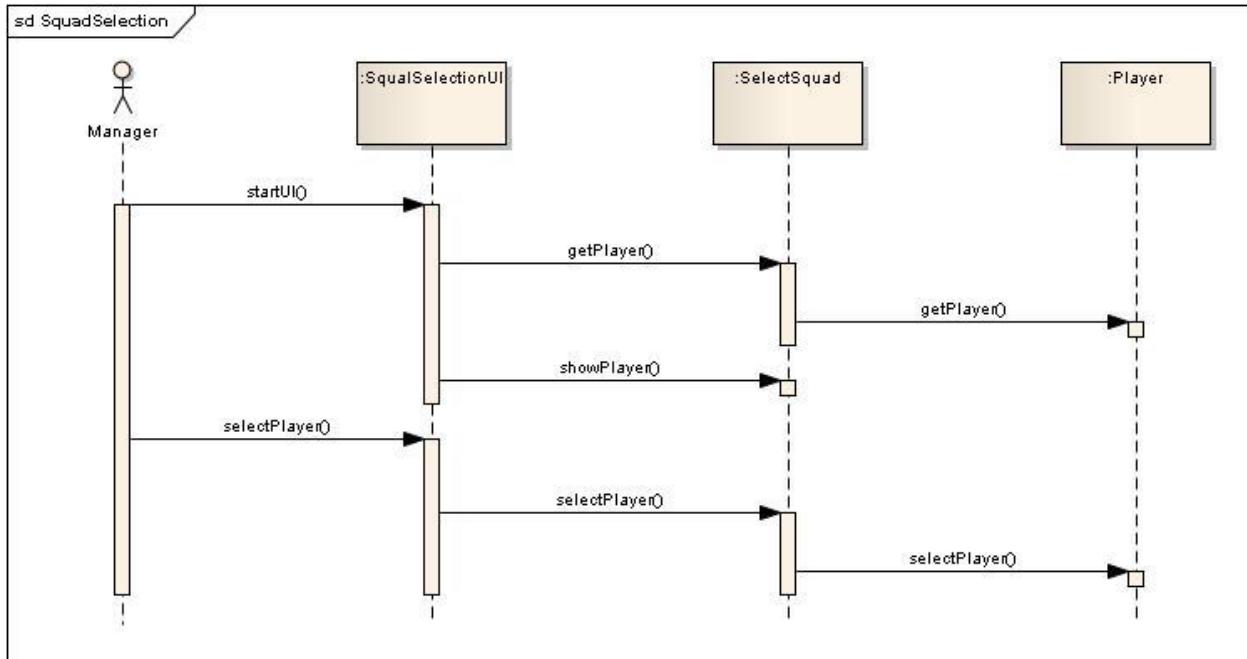


Use Case: Product Update

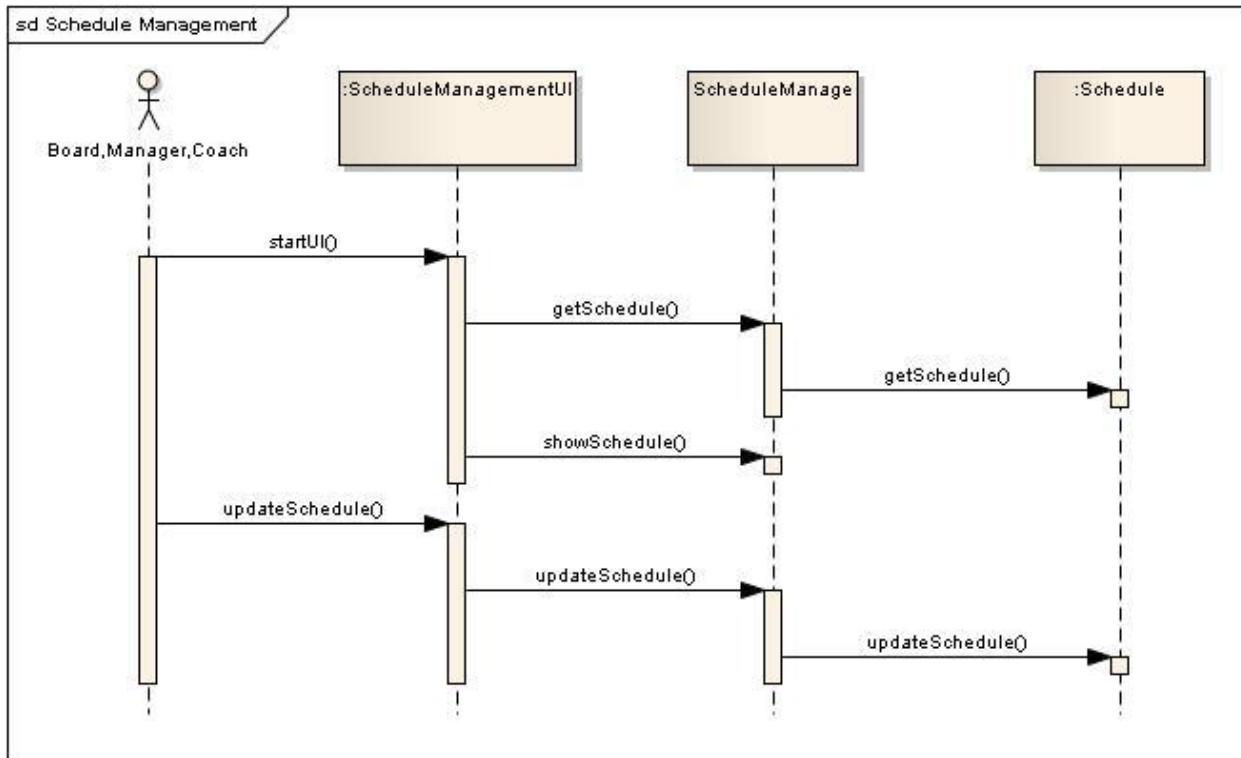


5.5.1.5 Team Management Subsystem:

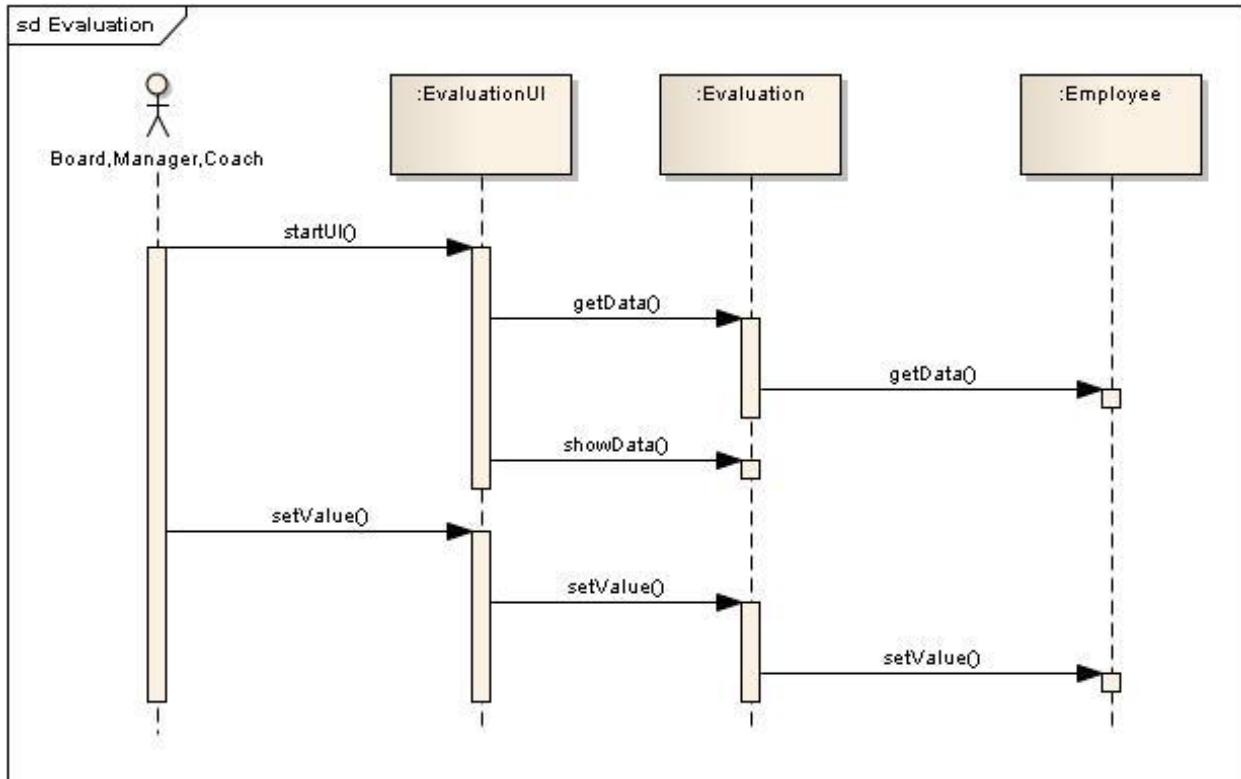
Use Case: Squad Selection



Use Case: Schedule Management



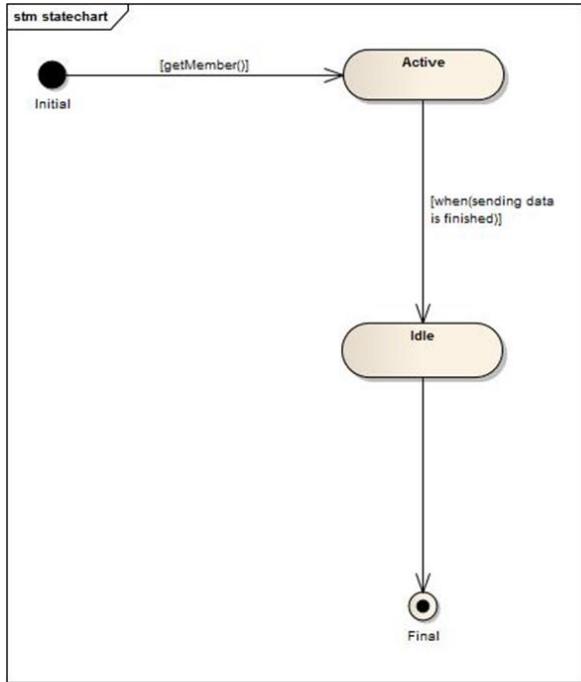
Use Case: Evaluation



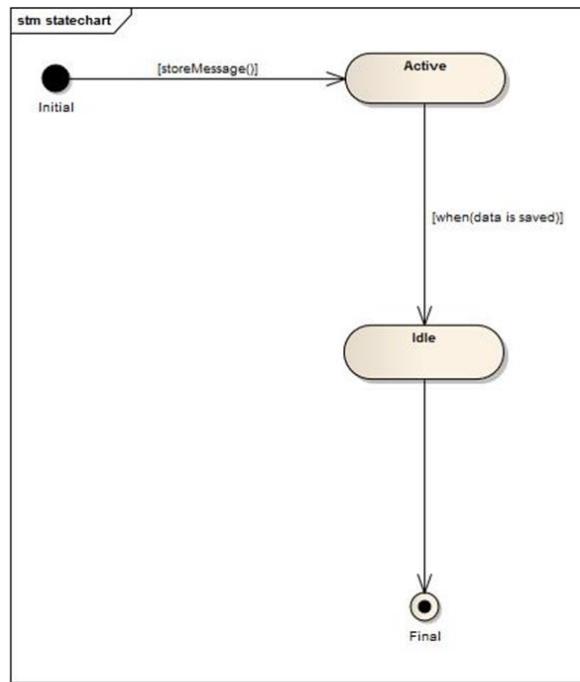
5.5.2 State Chart Diagram

5.5.2.1 Communication Subsystem:

Use-Case: Communication

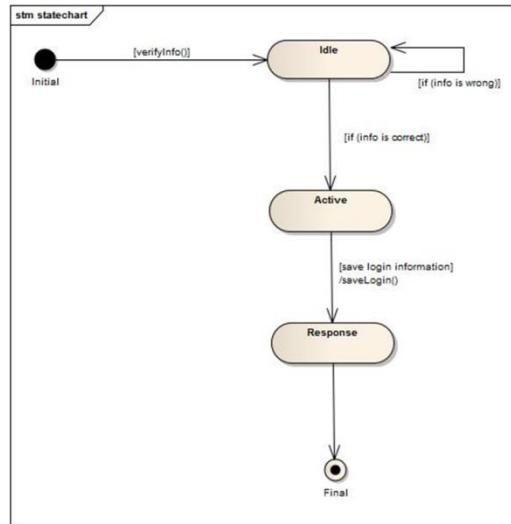


<<entity>>:Member



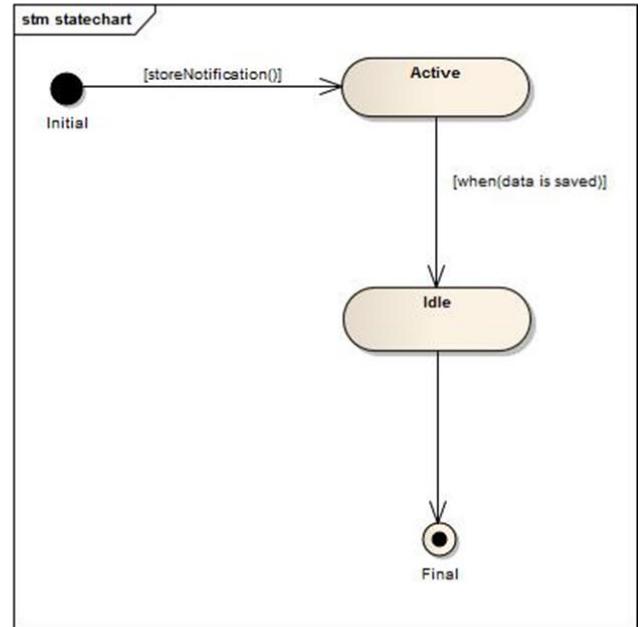
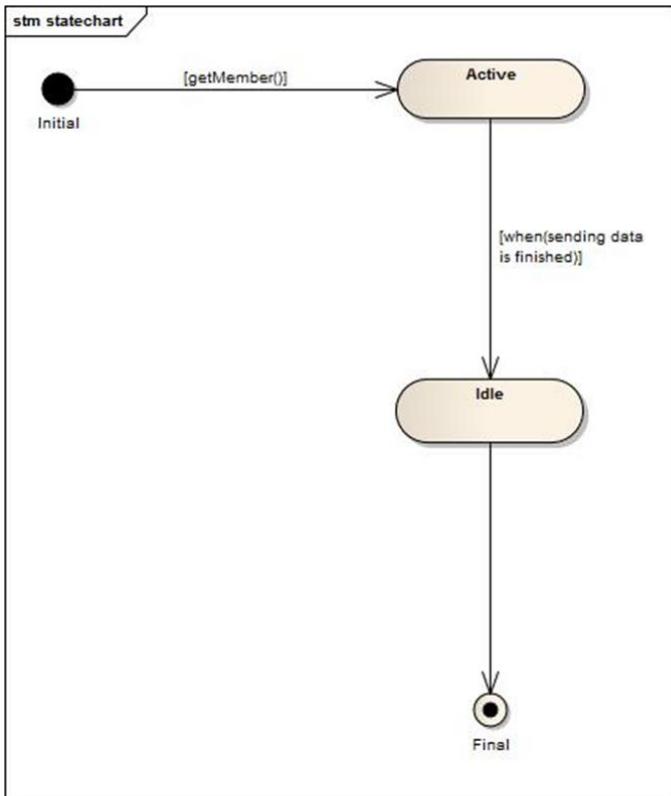
<<entity>>:Message

Use Case: Login



<<entity>>:Member

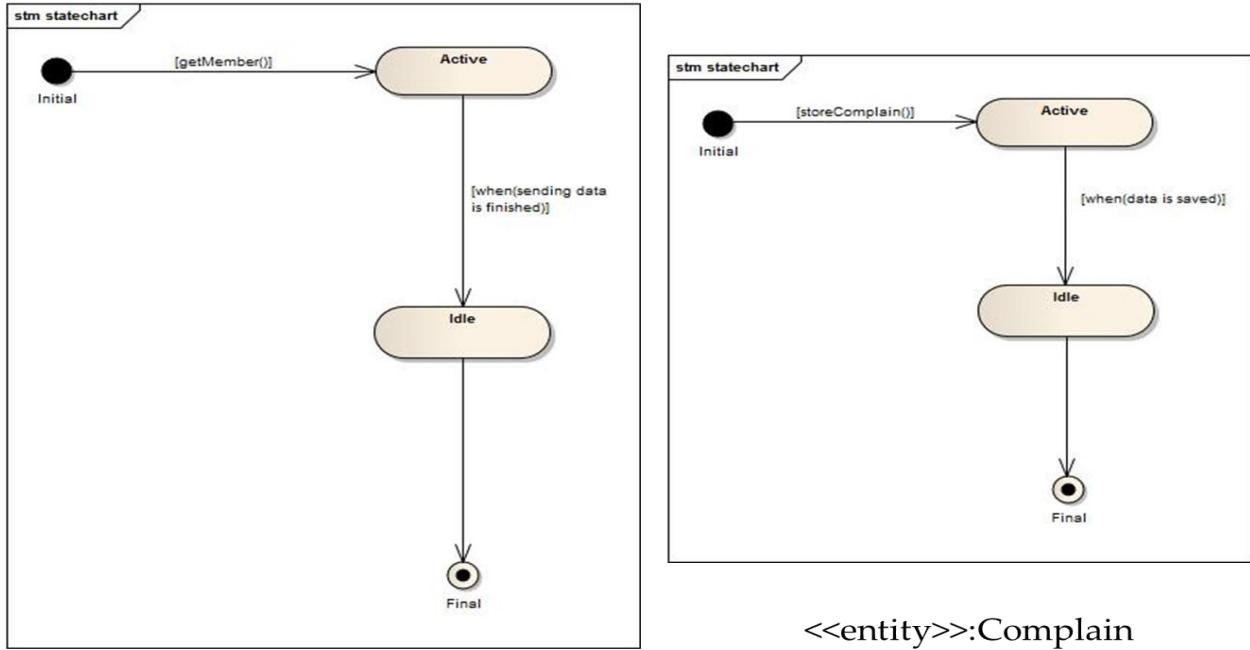
Use-Case: Notification



<<entity>>:Notification

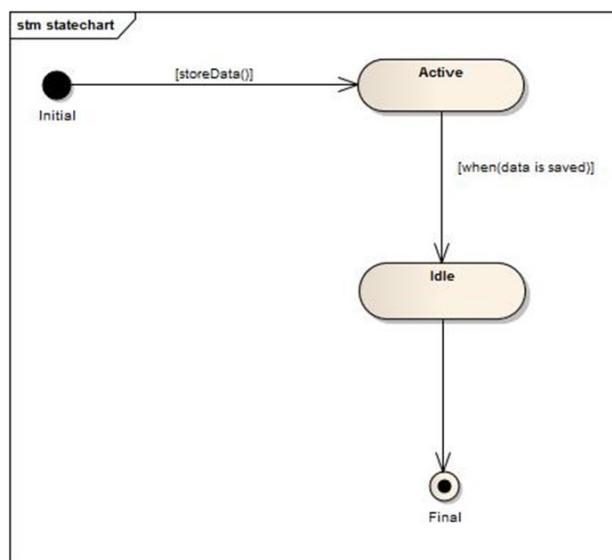
<<entity>>:Member

Use-Case: Complain



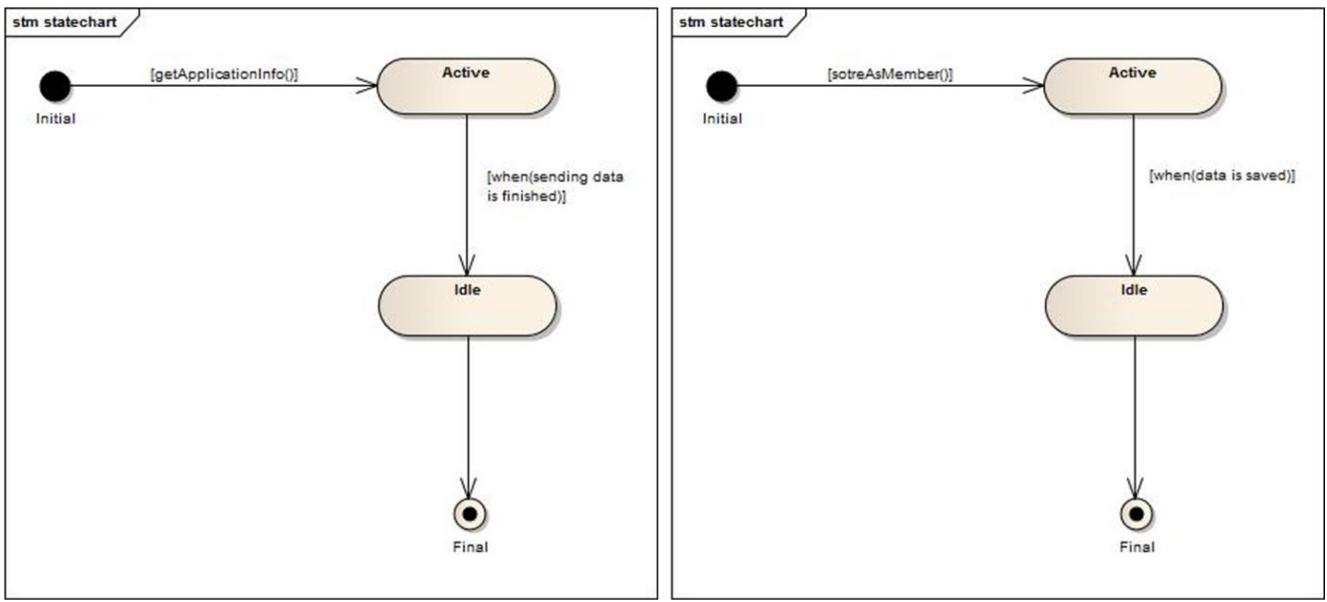
5.5.2.2 Registration Subsystem:

Use Case: Registration



<<entity>>:ApplicationData

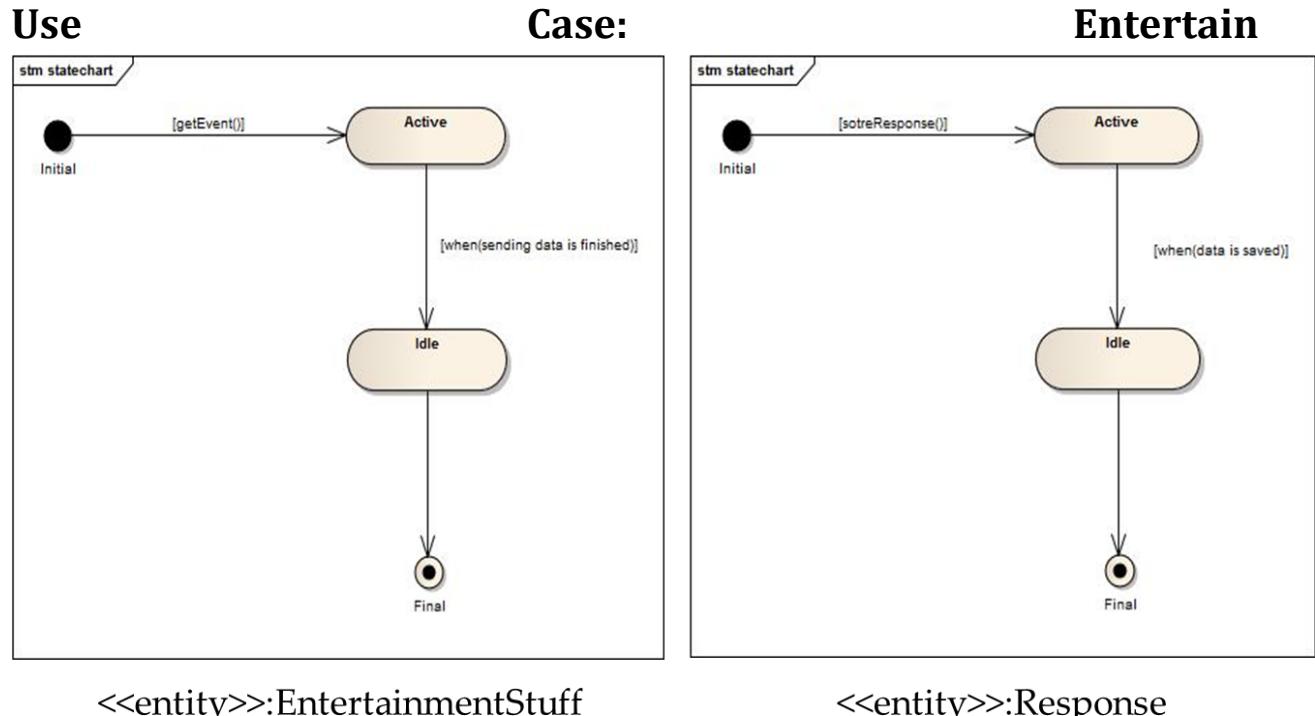
Use Case: Confirmation



<<entity>>:ApplicationData

<<entity>>:Member

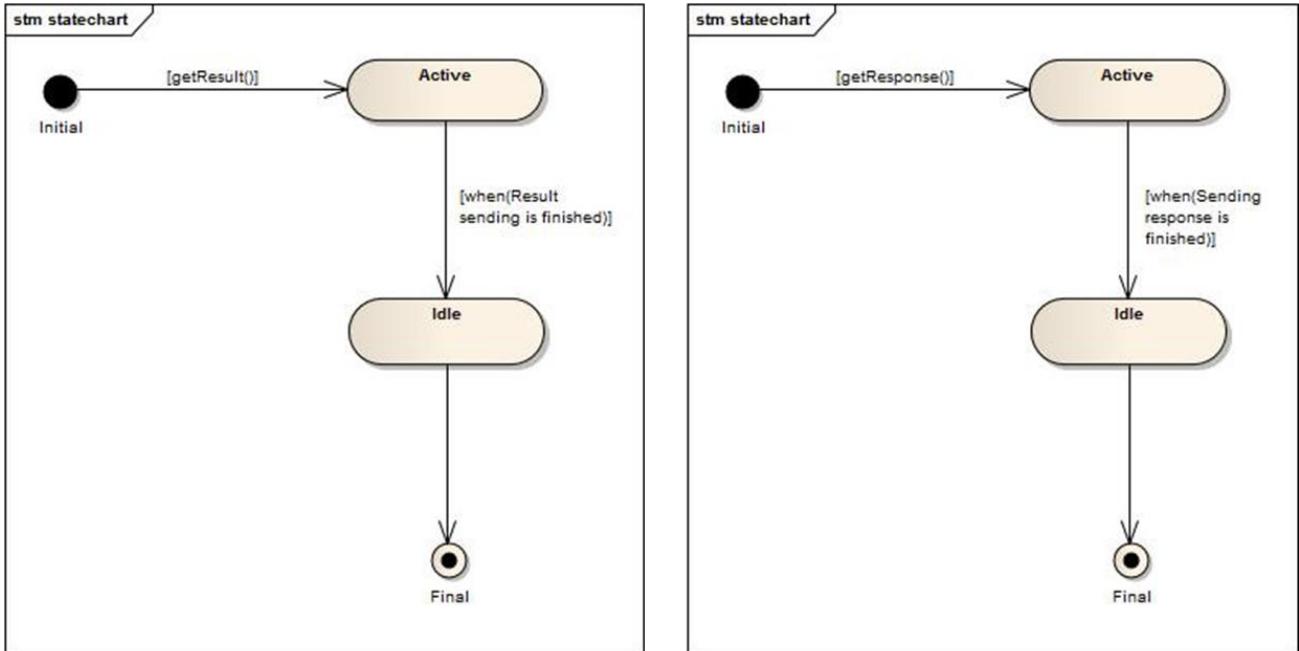
5.5.2.3 Social Interaction Subsystem:



<<entity>>:EntertainmentStuff

<<entity>>:Response

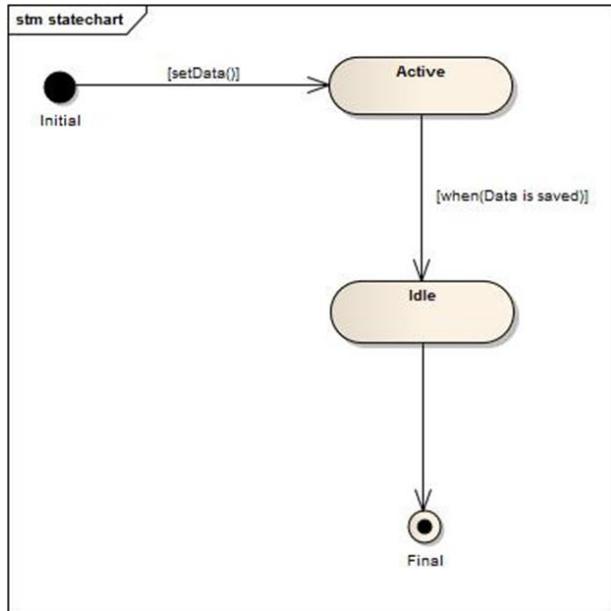
Use Case: Result Publish



<<entity>>:EntertainmentStuff

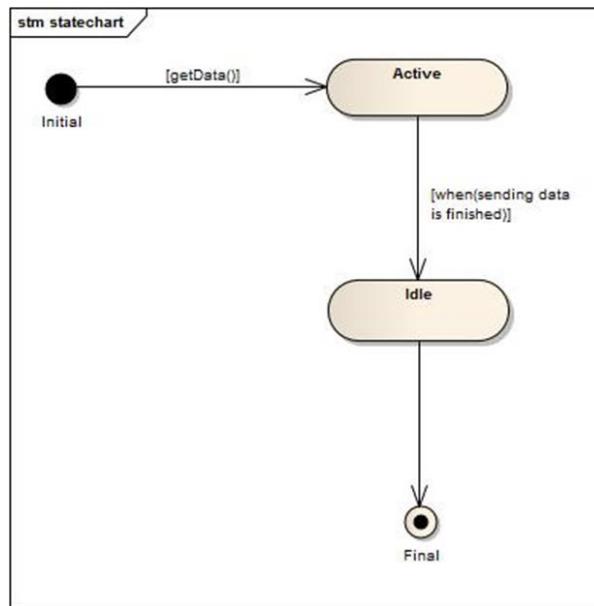
<<entity>>:Response

Use Case: Update



<<entity>>:InteractionData

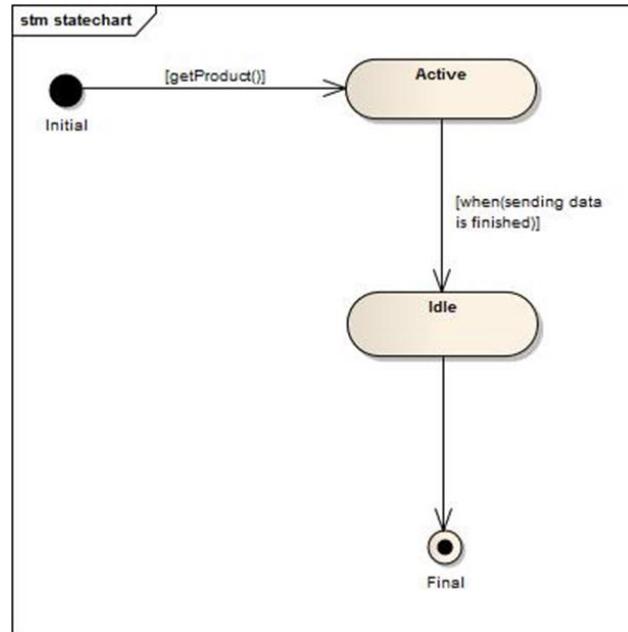
Use Case: View Website



<<entity>>:Information

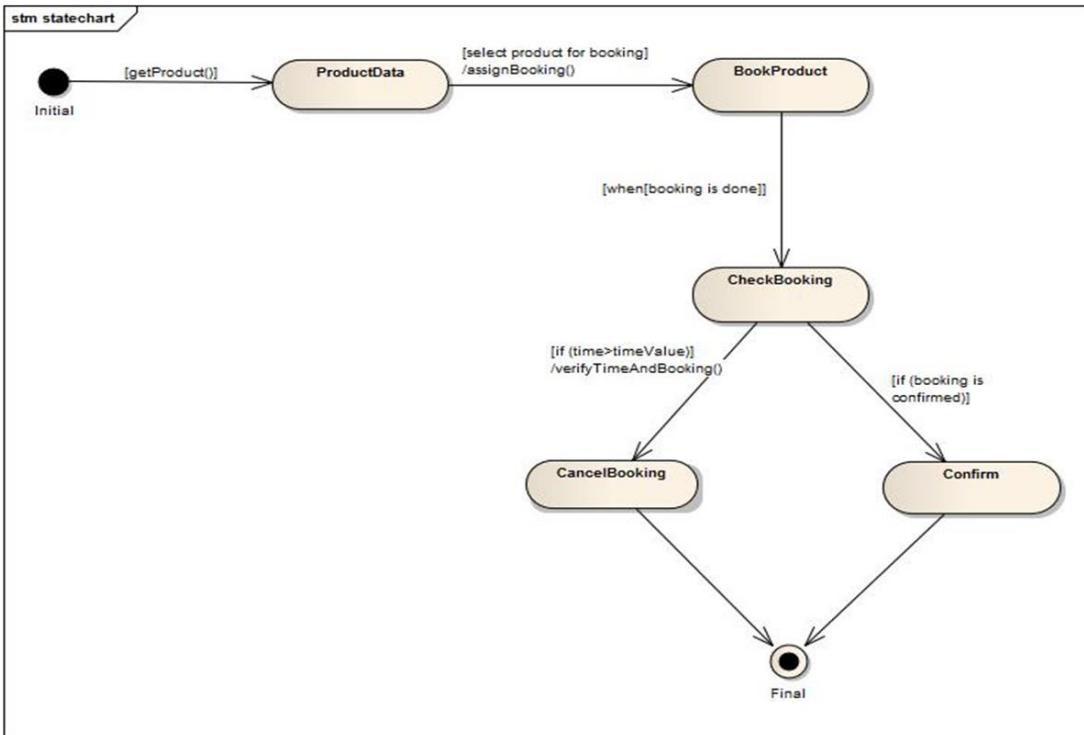
5.5.2.4 Online Store Subsystem:

Use Case: View Product



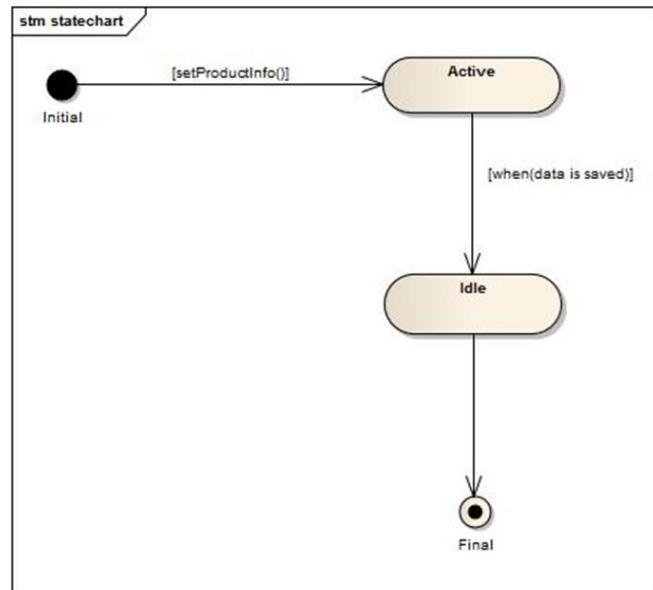
<<entity>>:Product

Use Case: Product Booking



<<entity>>:Product

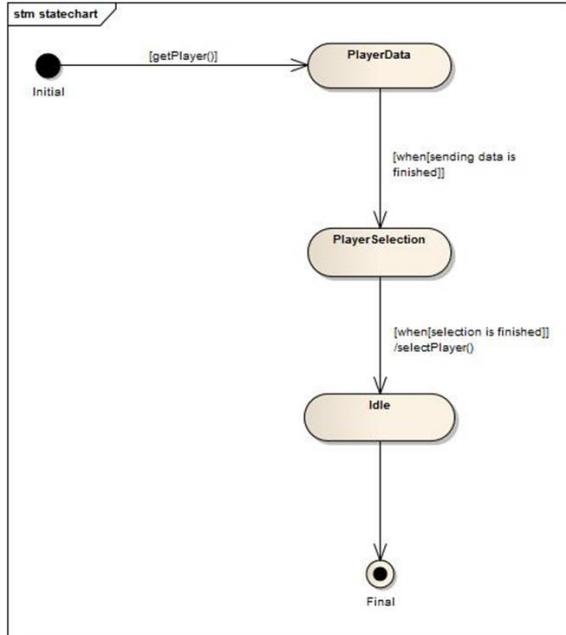
Use Case: Product Update



<<entity>>:Product

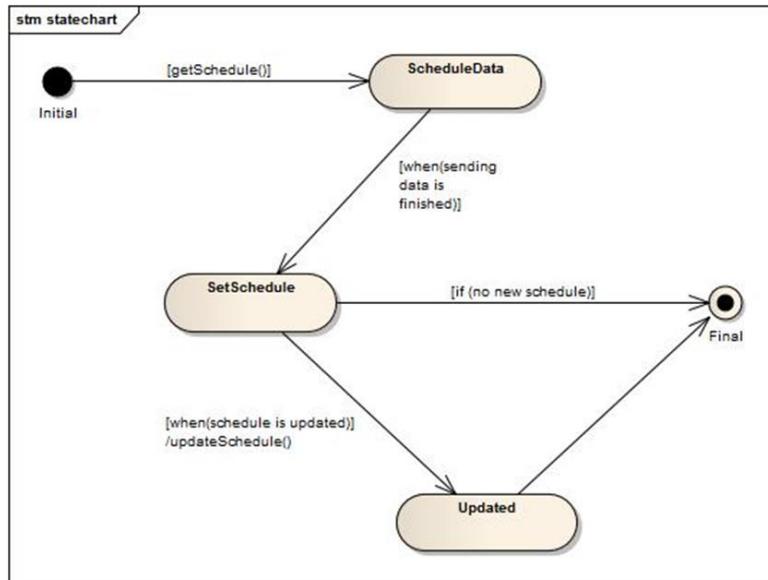
5.5.2.5 Team Management Subsystem:

Use Case: Squad Selection



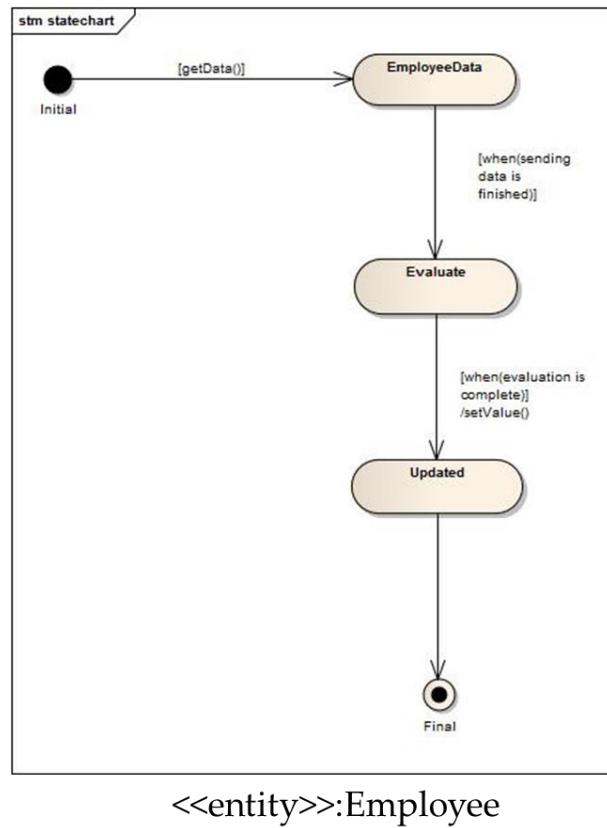
<>entity>>:Player

Use Case: Schedule Management



<>entity>>:Schedule

Use Case: Evaluation

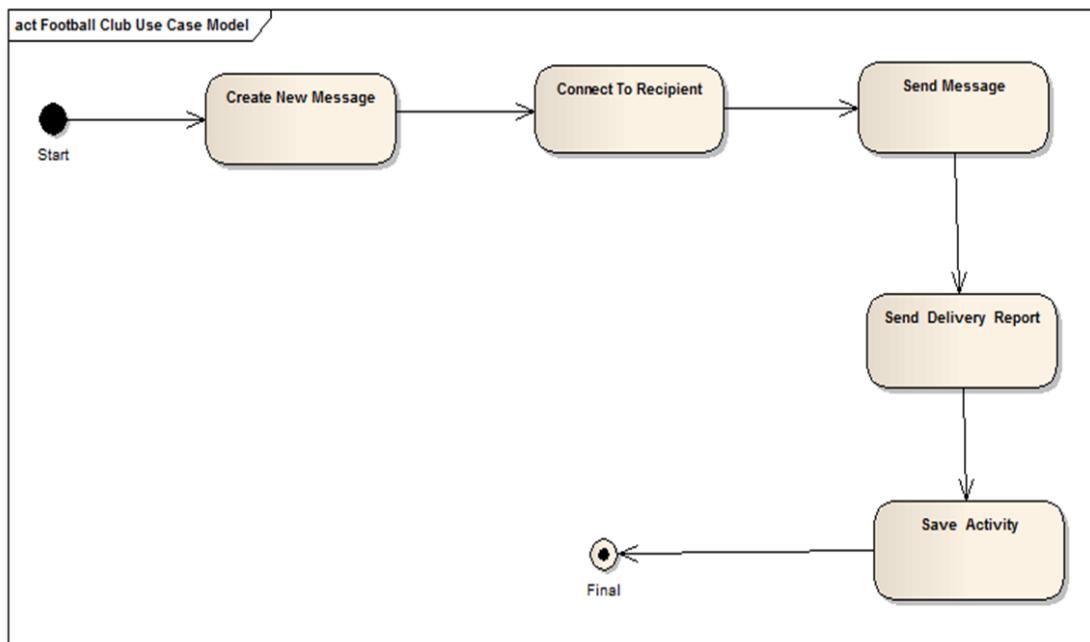


<<entity>>:Employee

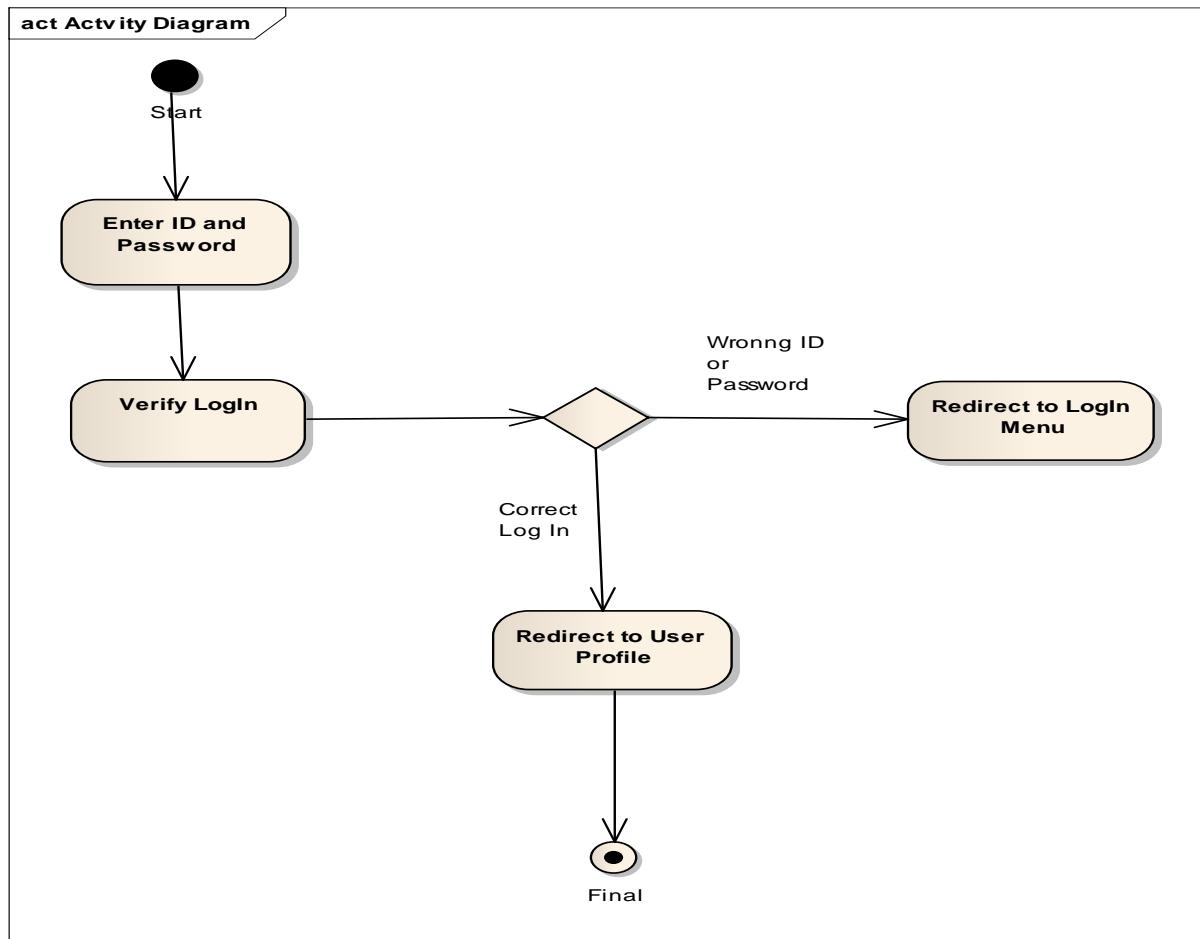
5.5.3 Activity Diagram

5.5.3.1 Communication Subsystem:

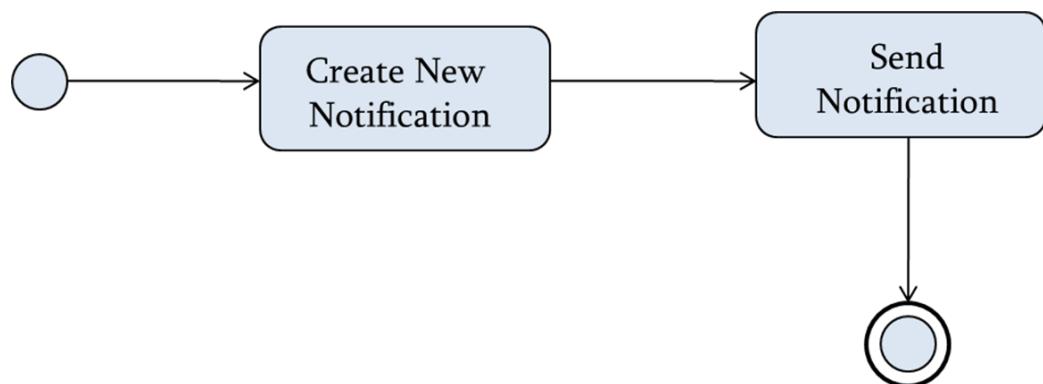
Use-Case: Communication



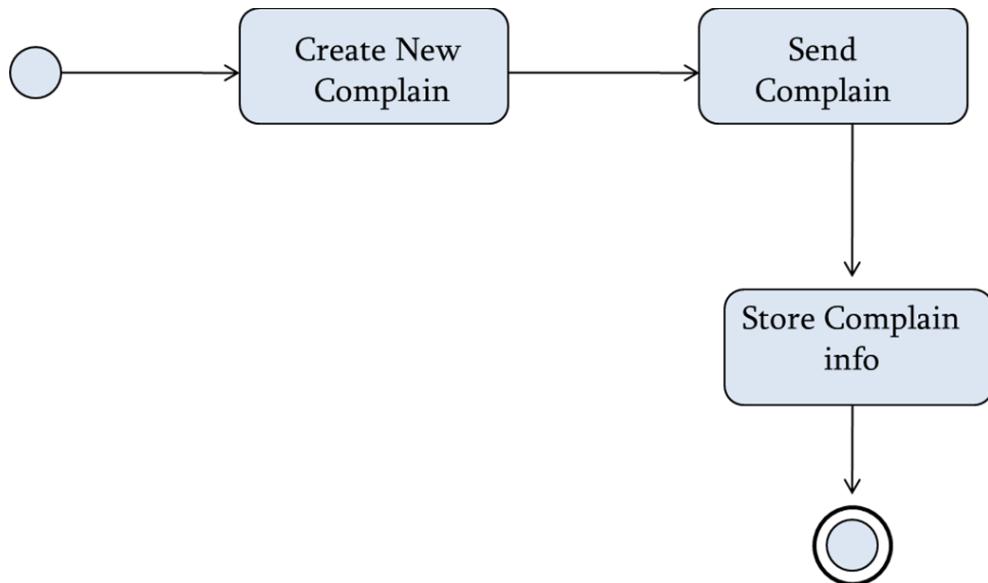
Use Case: Login



Use-Case: Notification

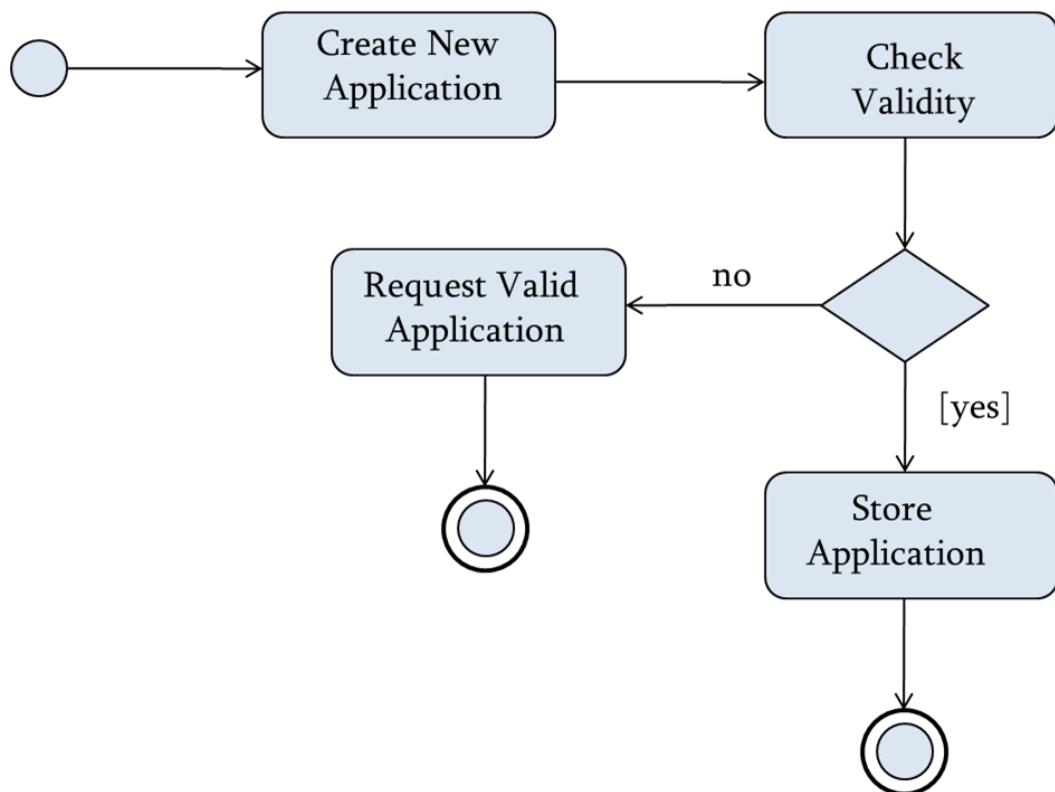


Use-Case: Complain

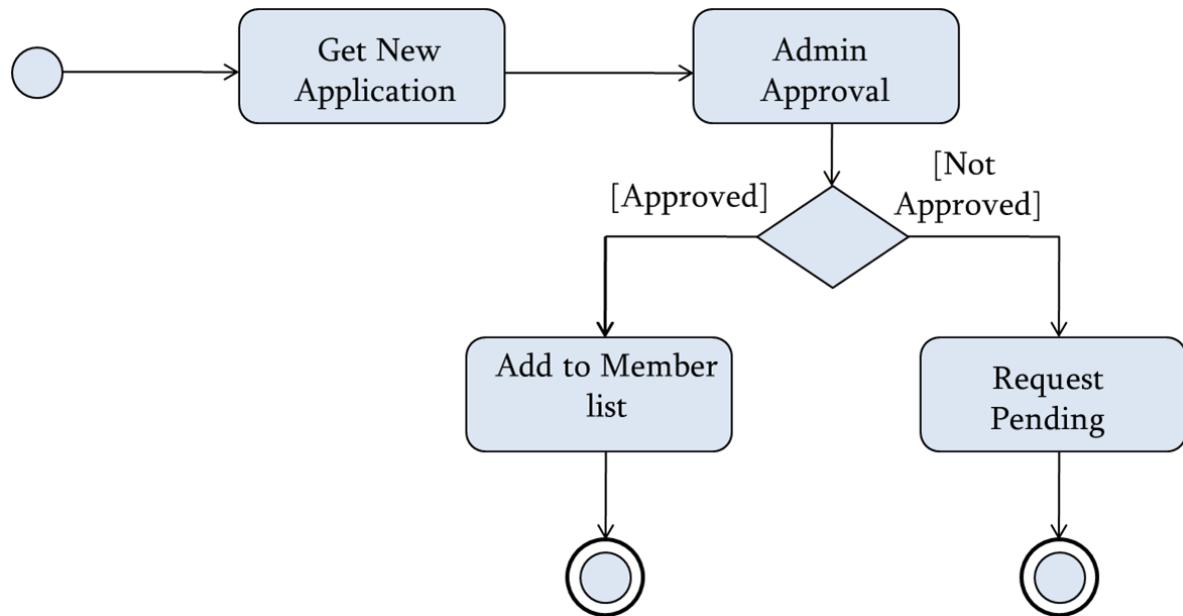


5.5.3.2 Registration Subsystem:

Use Case: Registration

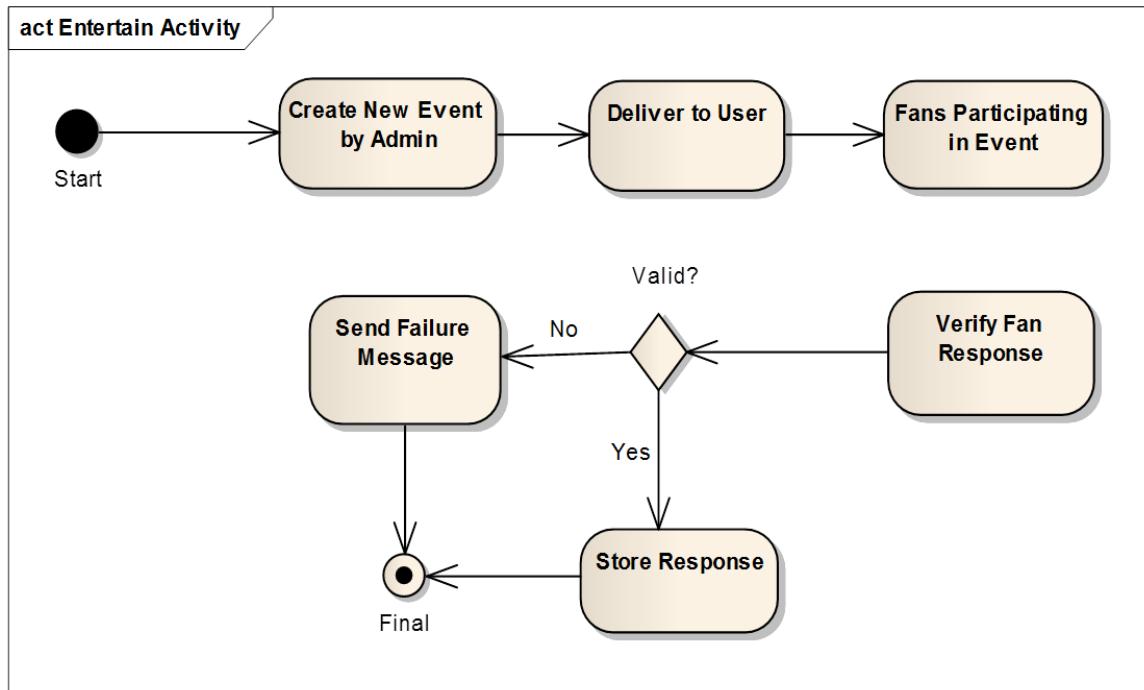


Use Case: Confirmation

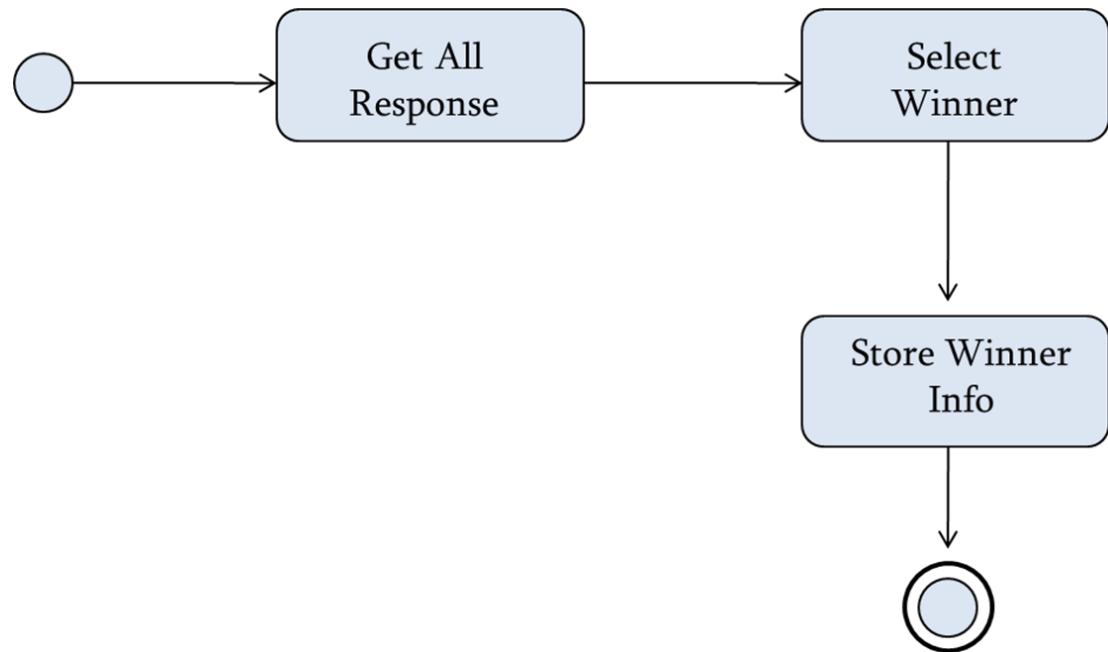


5.5.3.3 Social Interaction Subsystem:

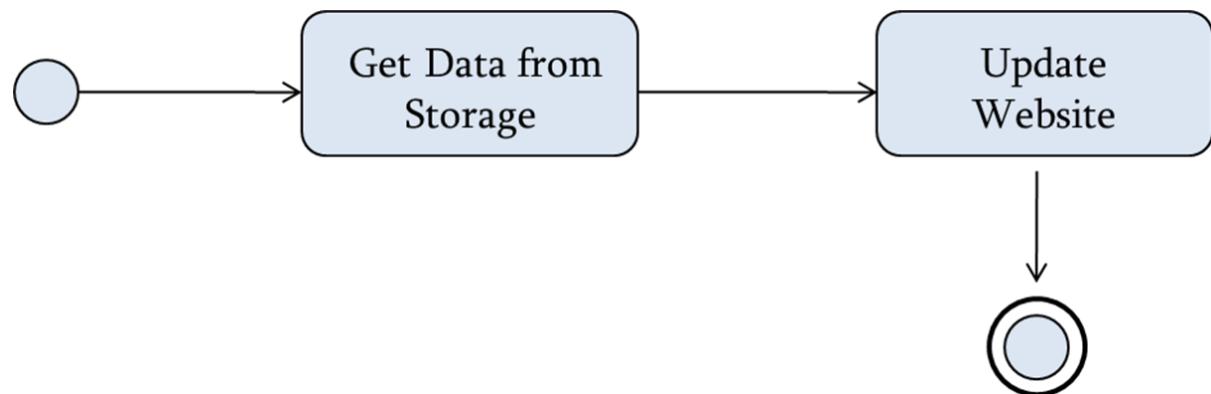
Use Case: Entertain



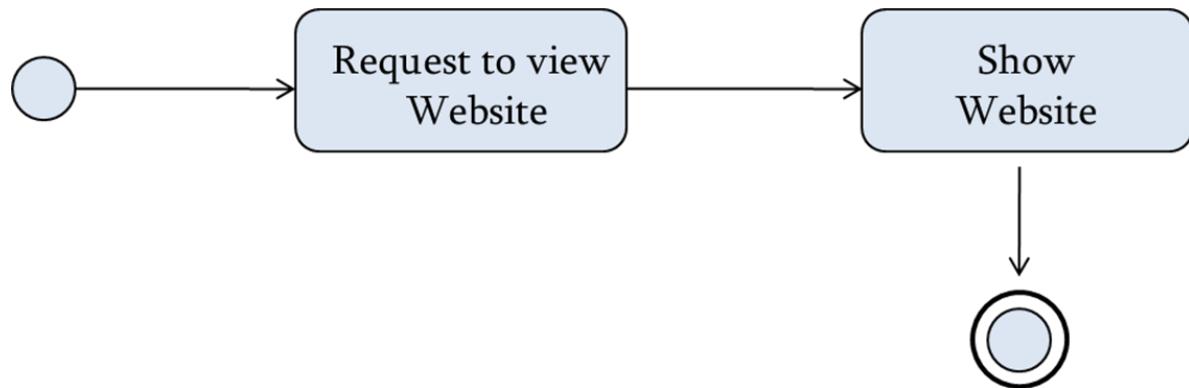
Use Case: Result Publish



Use Case: Update Website

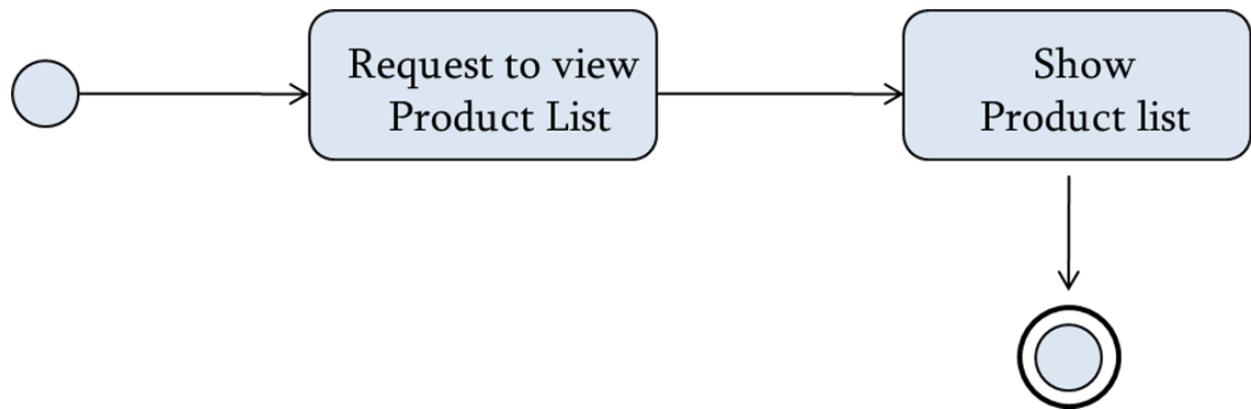


Use Case: View Website

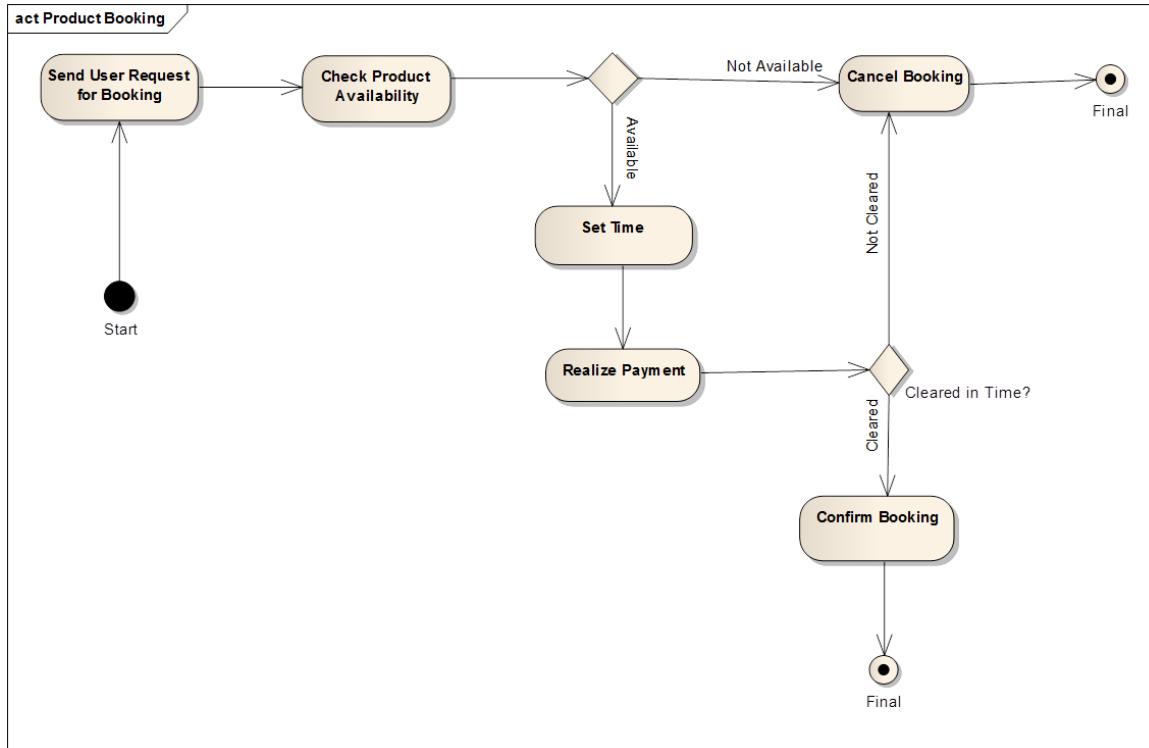


5.5.3.4 Online Store Subsystem:

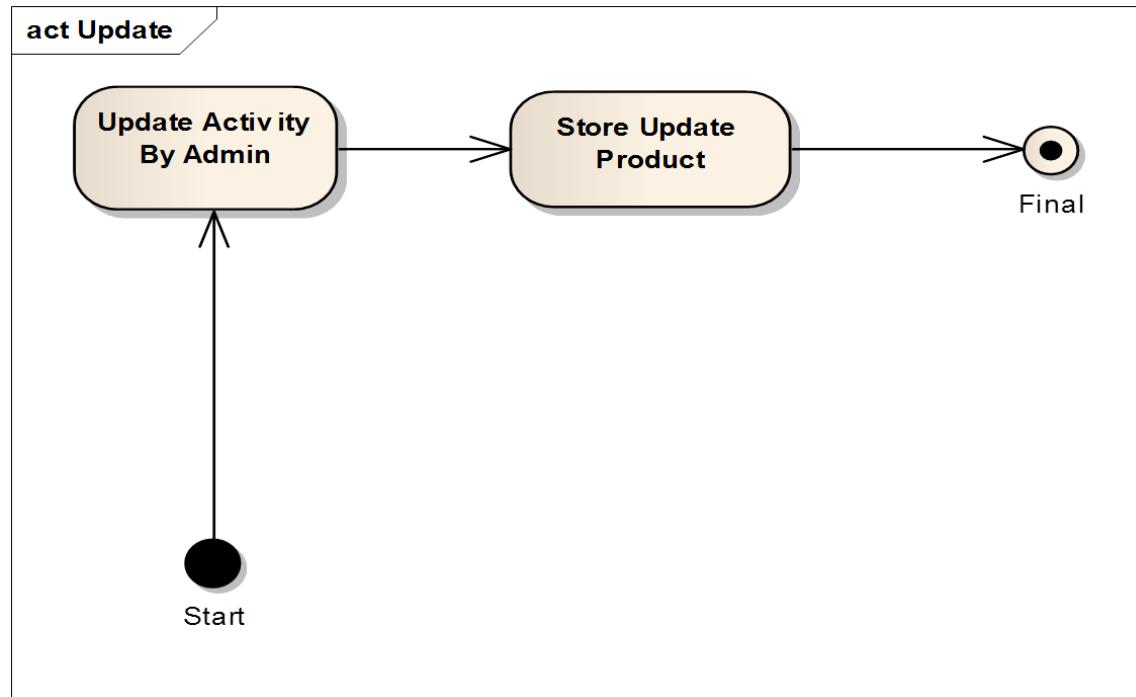
Use Case: View Product



Use Case: Product Booking

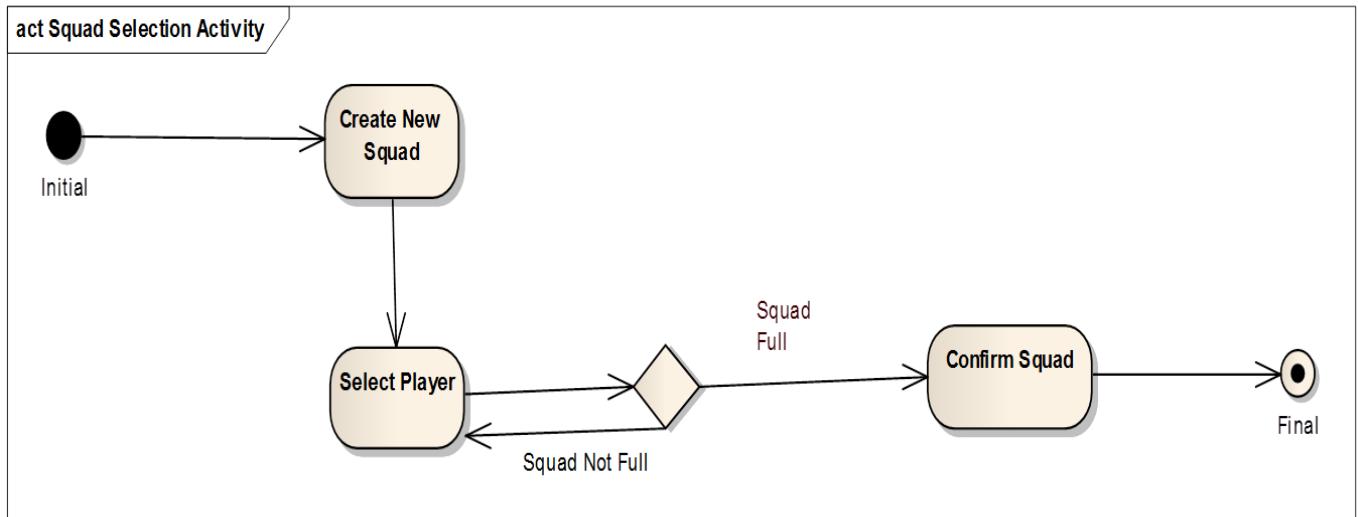


Use Case: Product Update

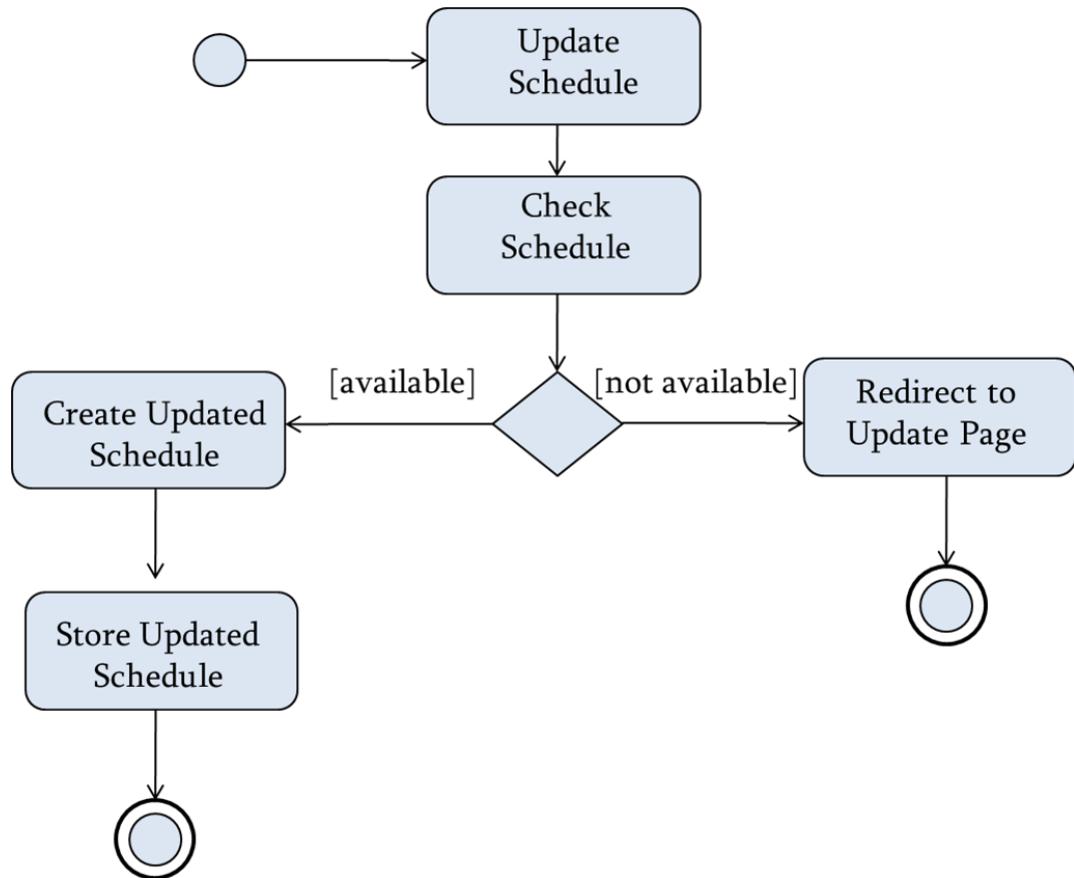


5.5.3.5 Team Management Subsystem:

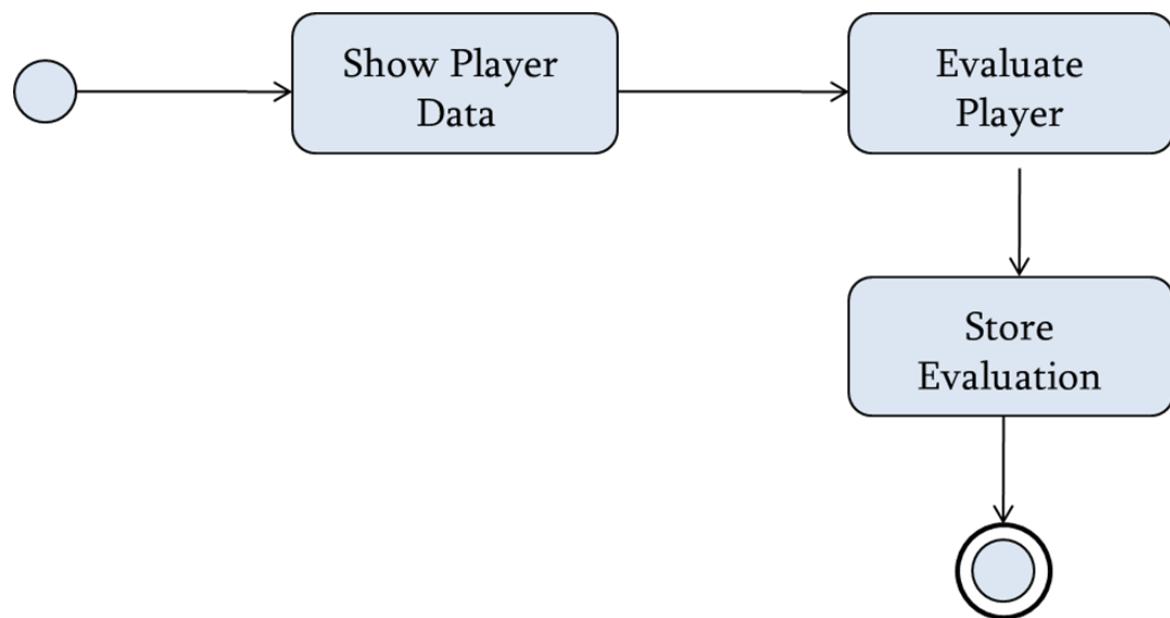
Use Case: Squad Selection



Use Case: Schedule Management



Use Case: Evaluation



Chapter 6

Database Design

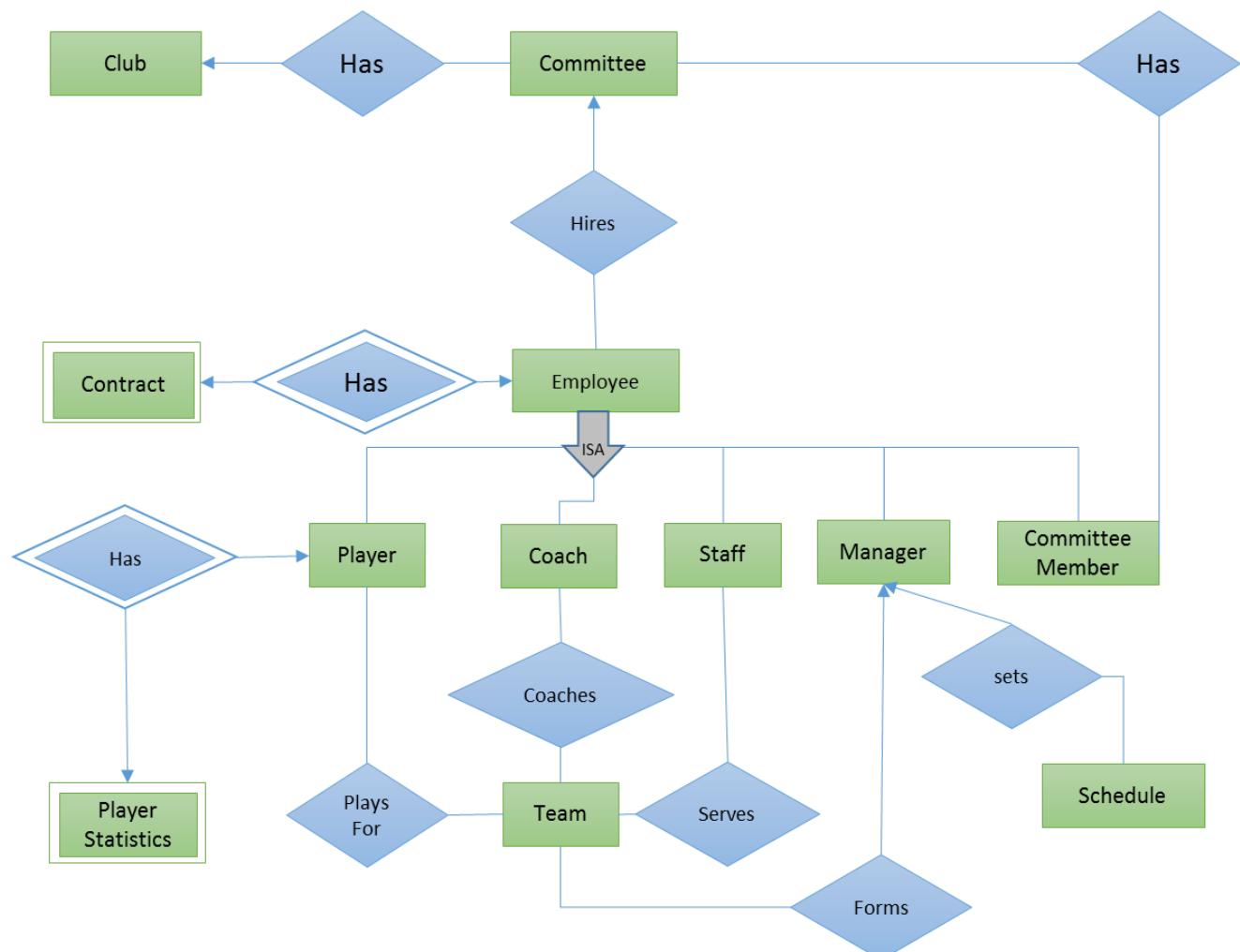
6.1 Introduction

Database design is an important phase for information system design. An efficient database system ensures better performance of the system.

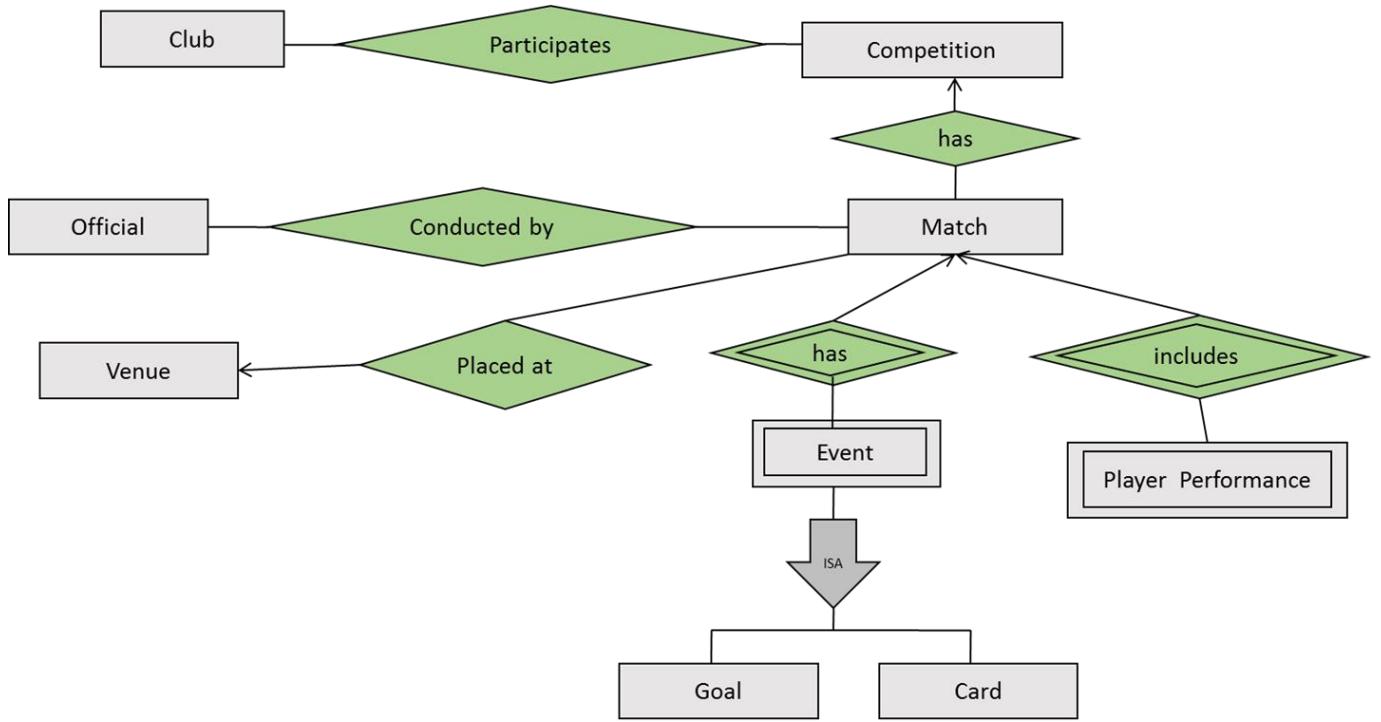
6.2 ERD

6.2.1 ERD at a Glance

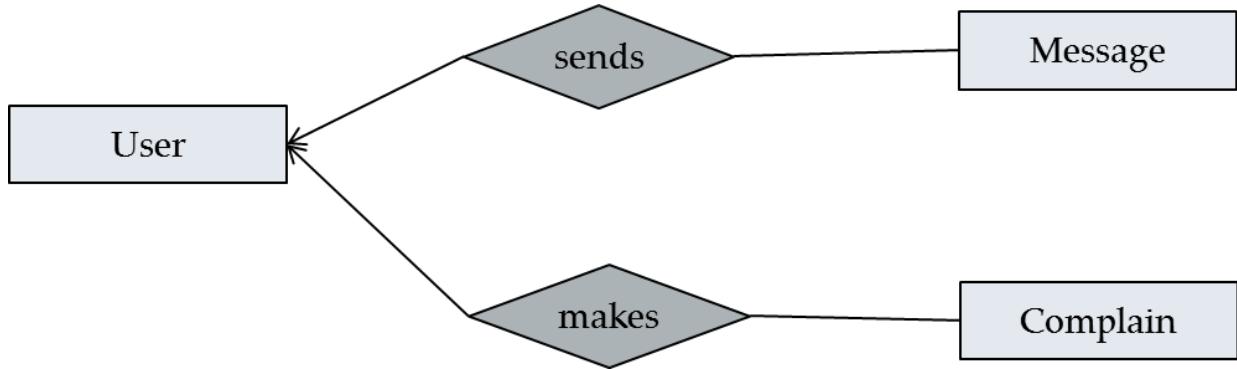
ERD for Employee and Schedule



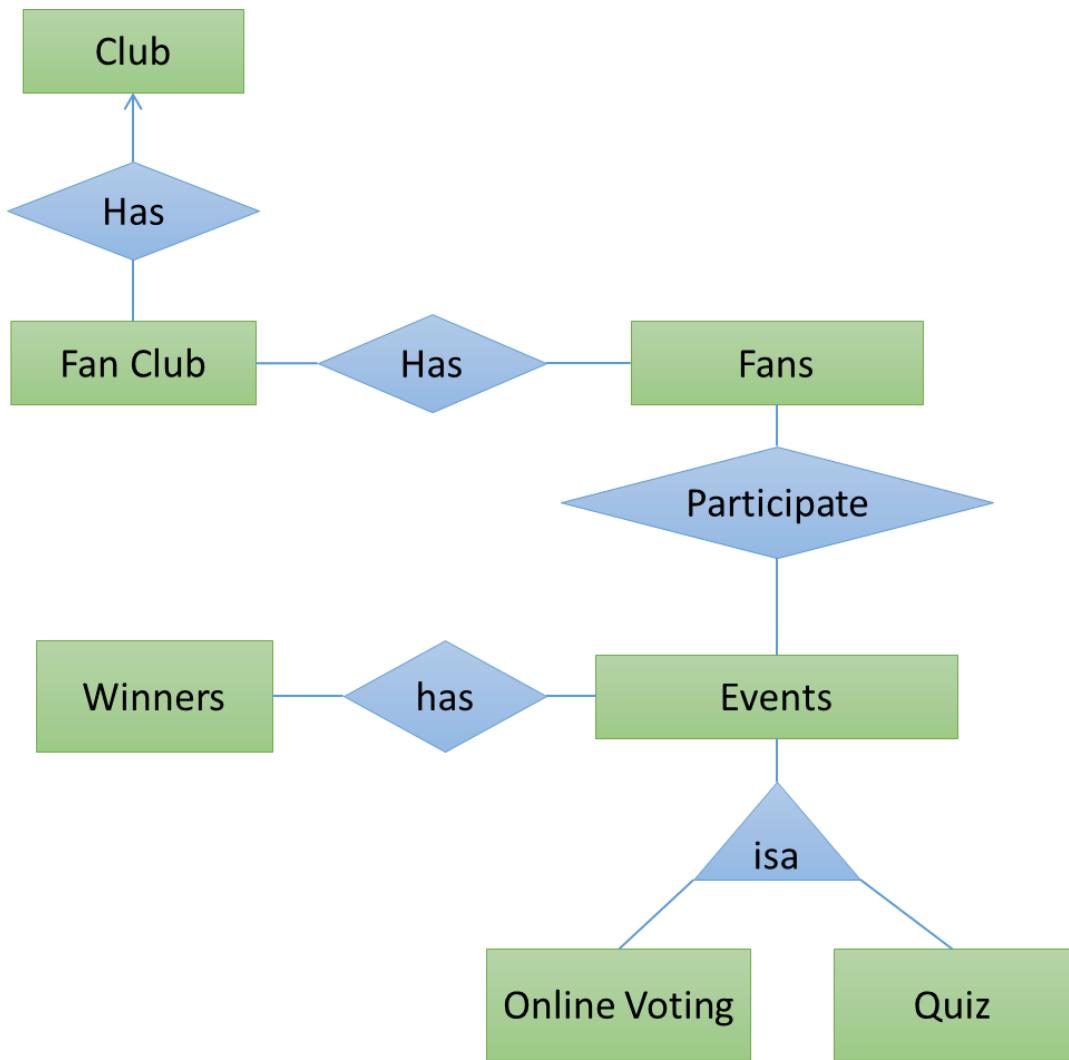
ERD for Match



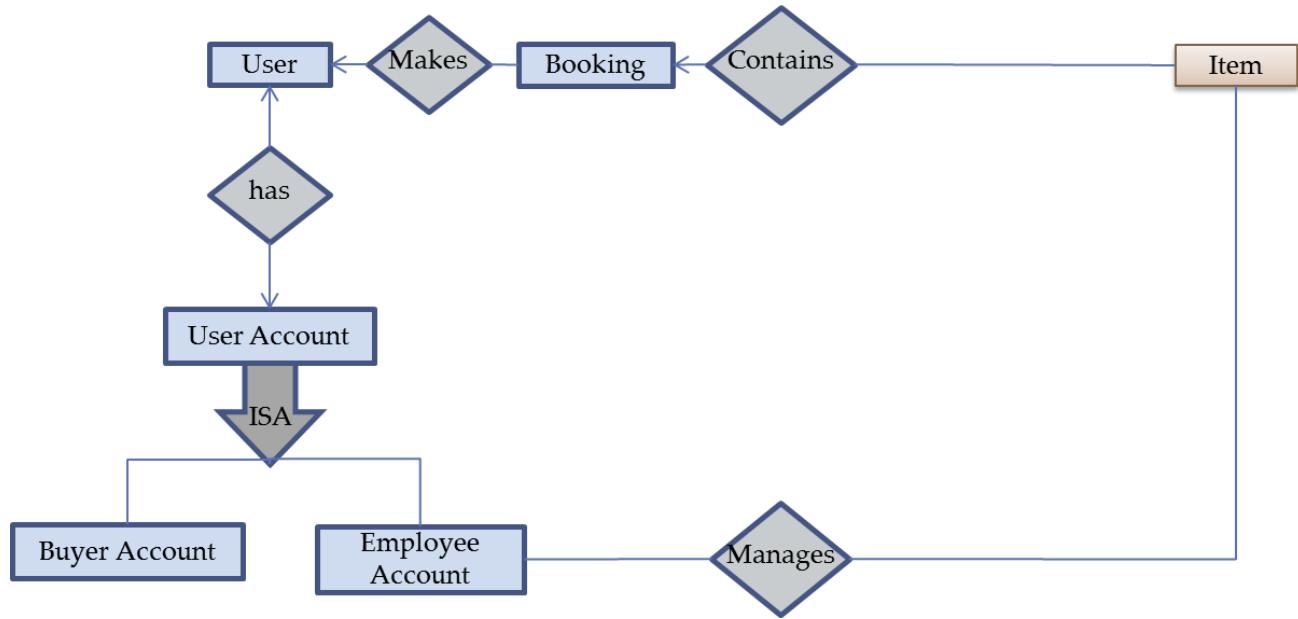
ERD for Communication



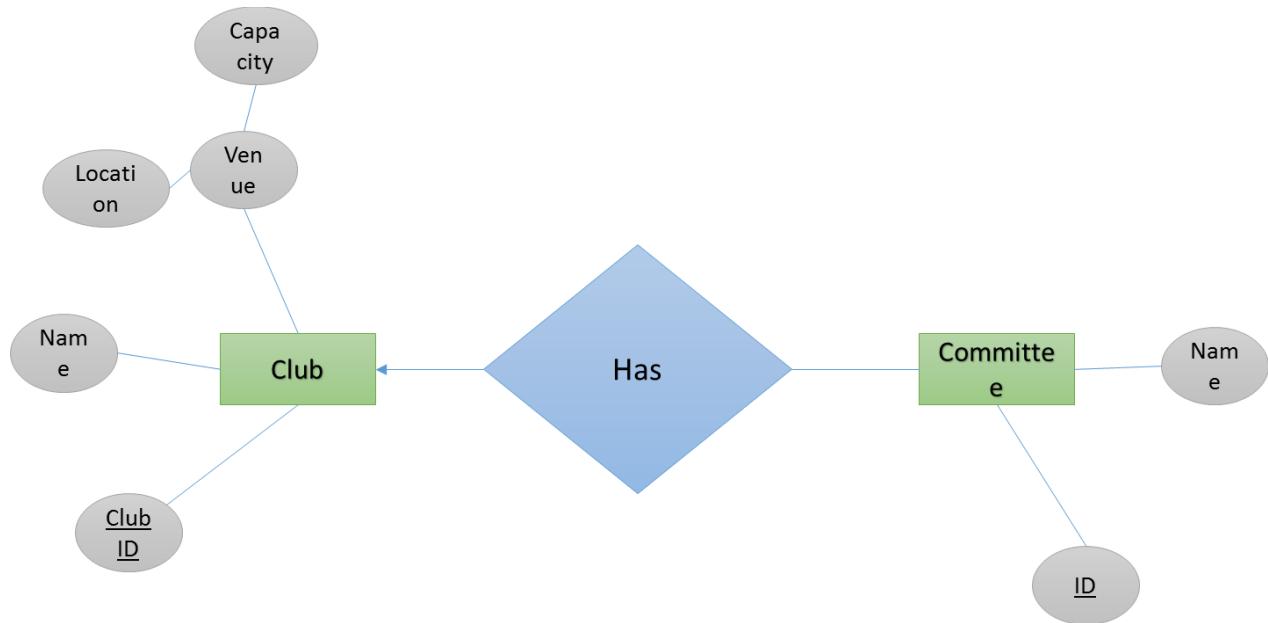
ERD for Fan Club

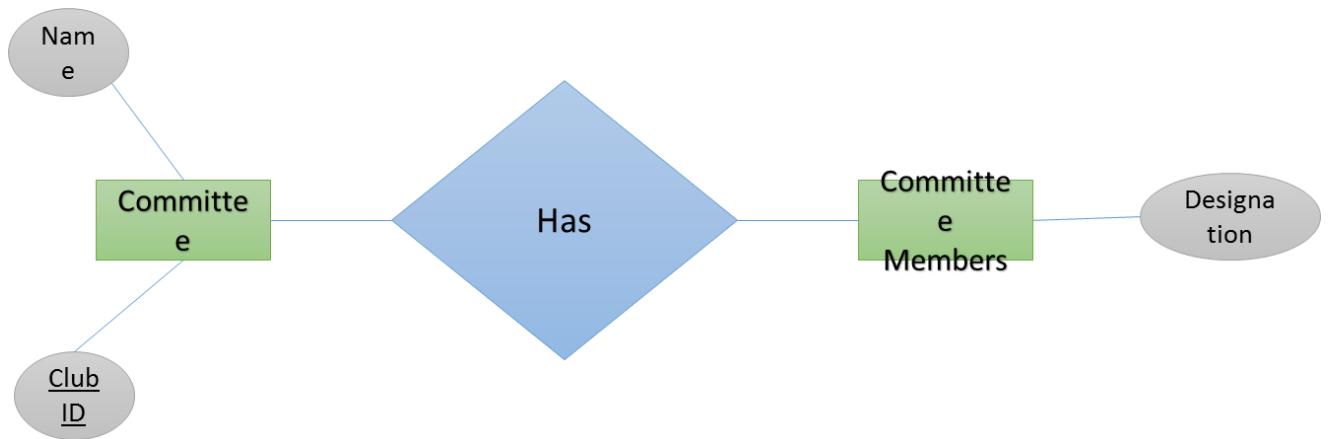
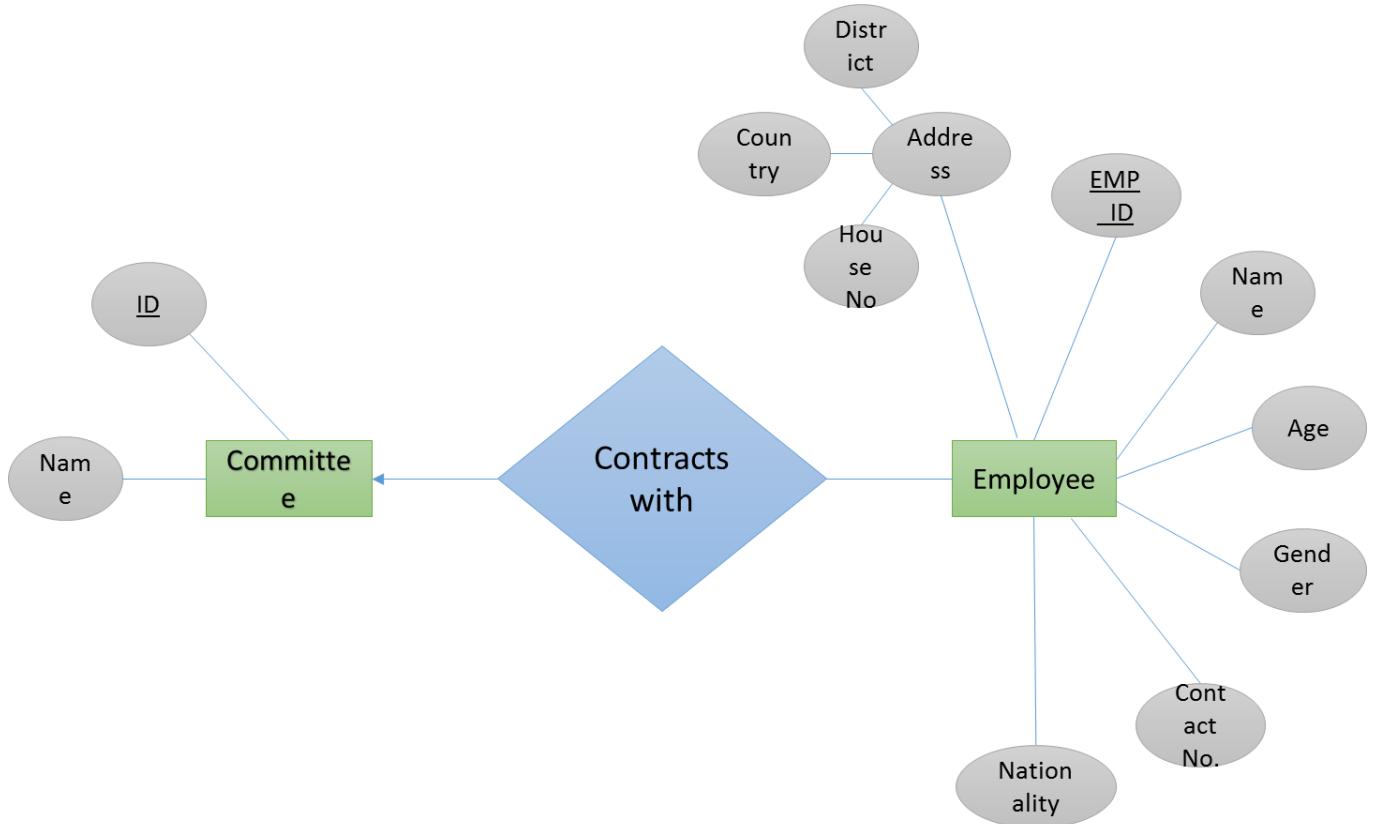


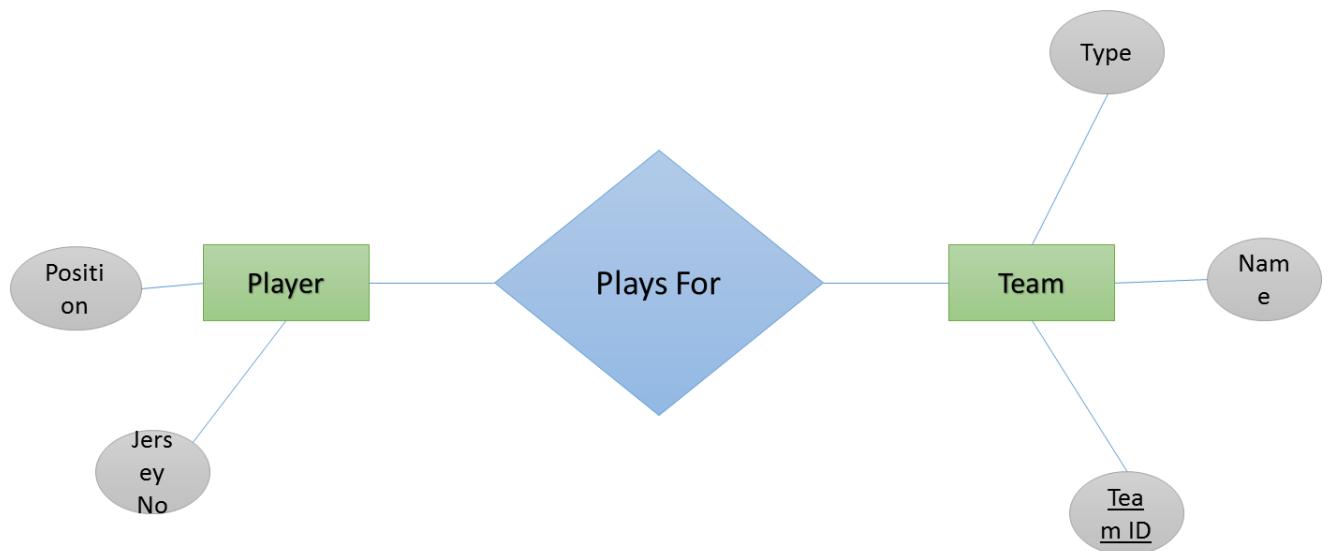
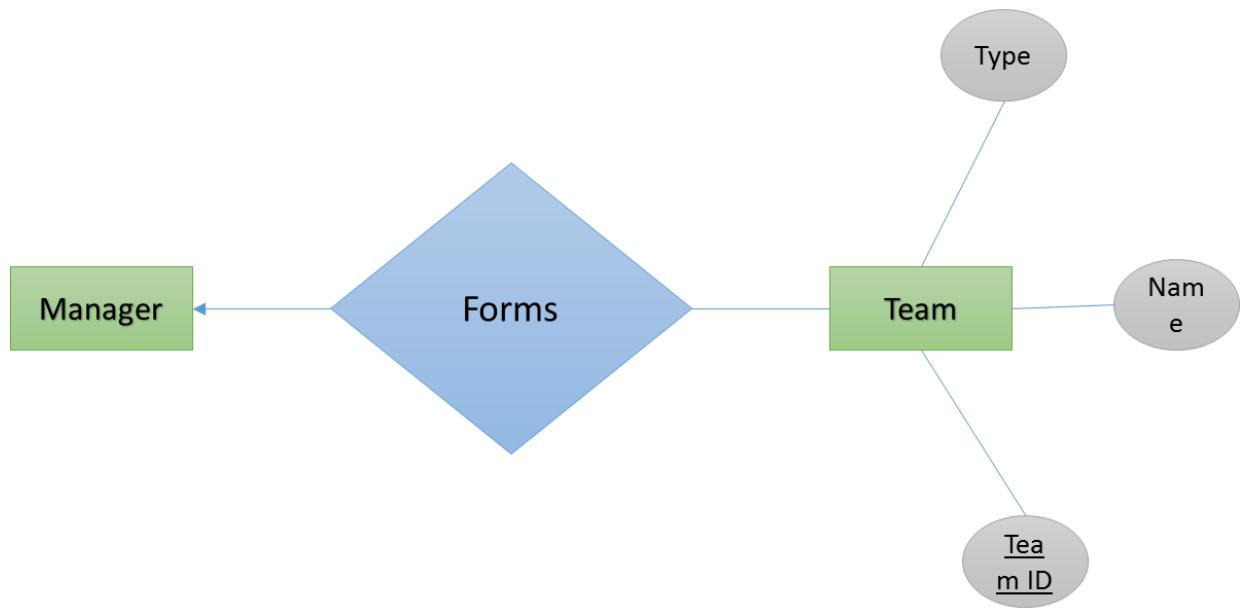
ERD for Product Booking

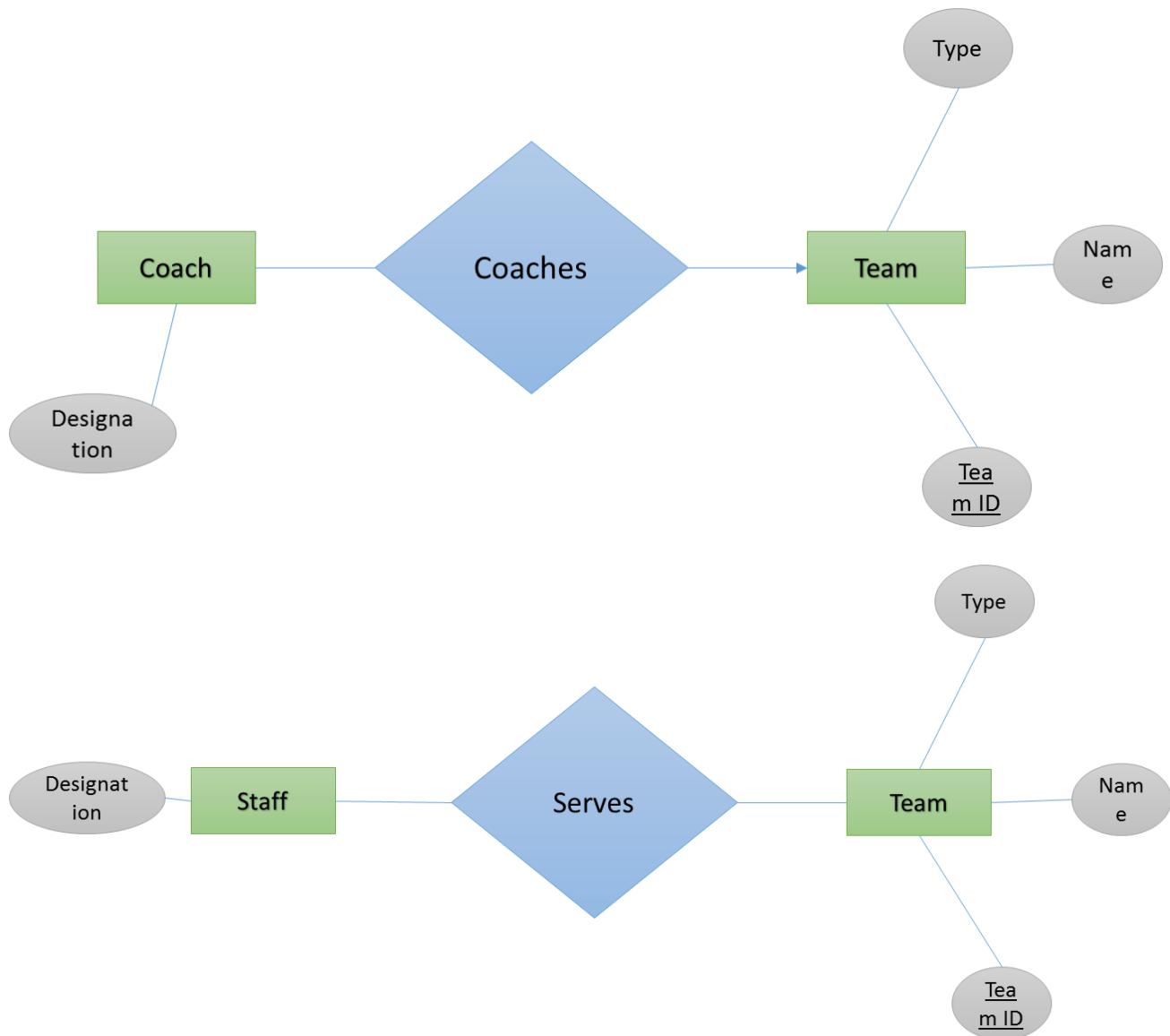


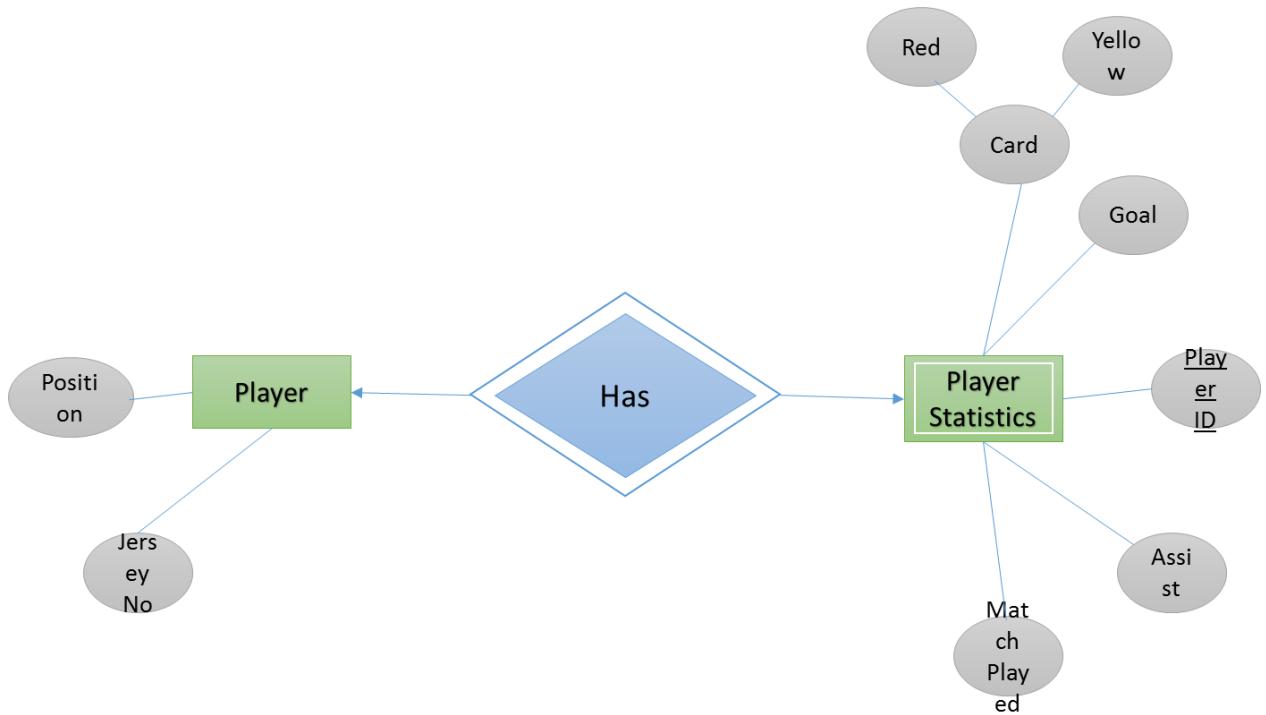
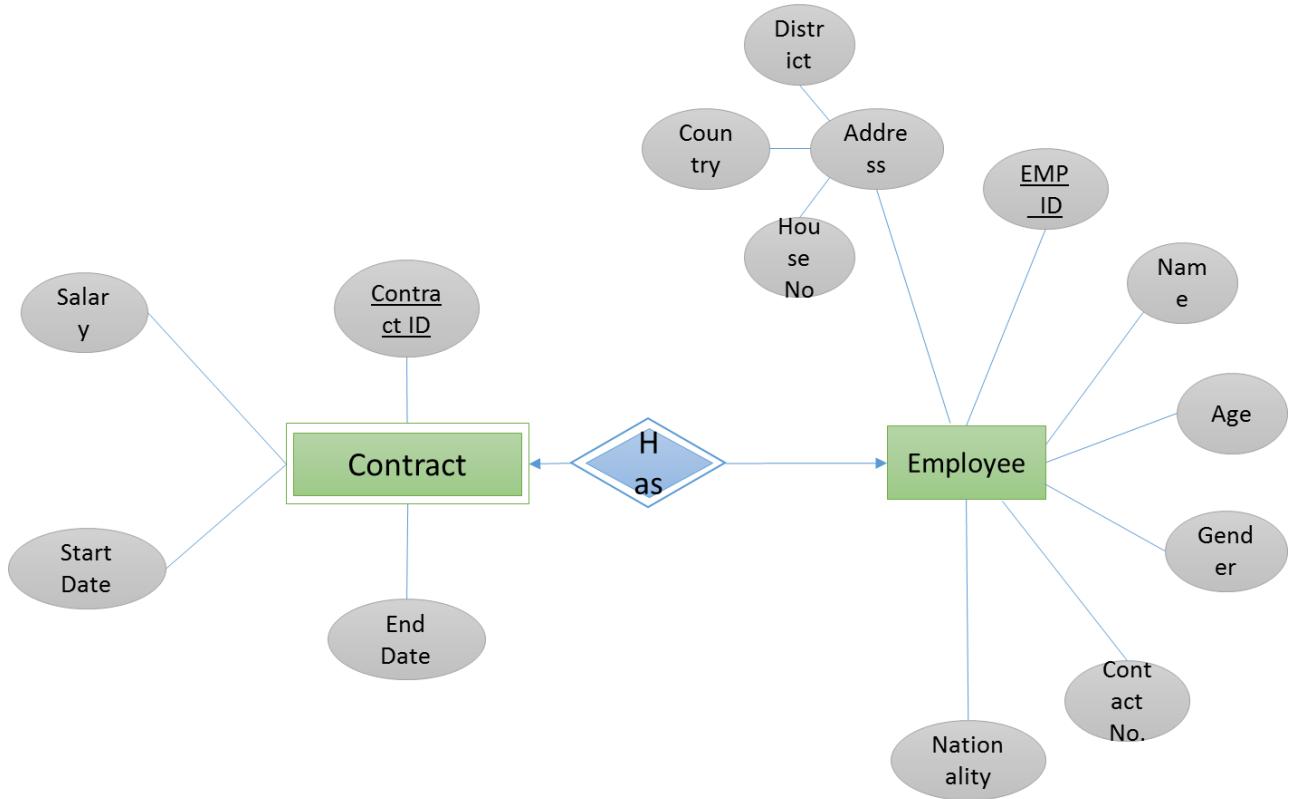
6.2.2 Anatomizing the ERD

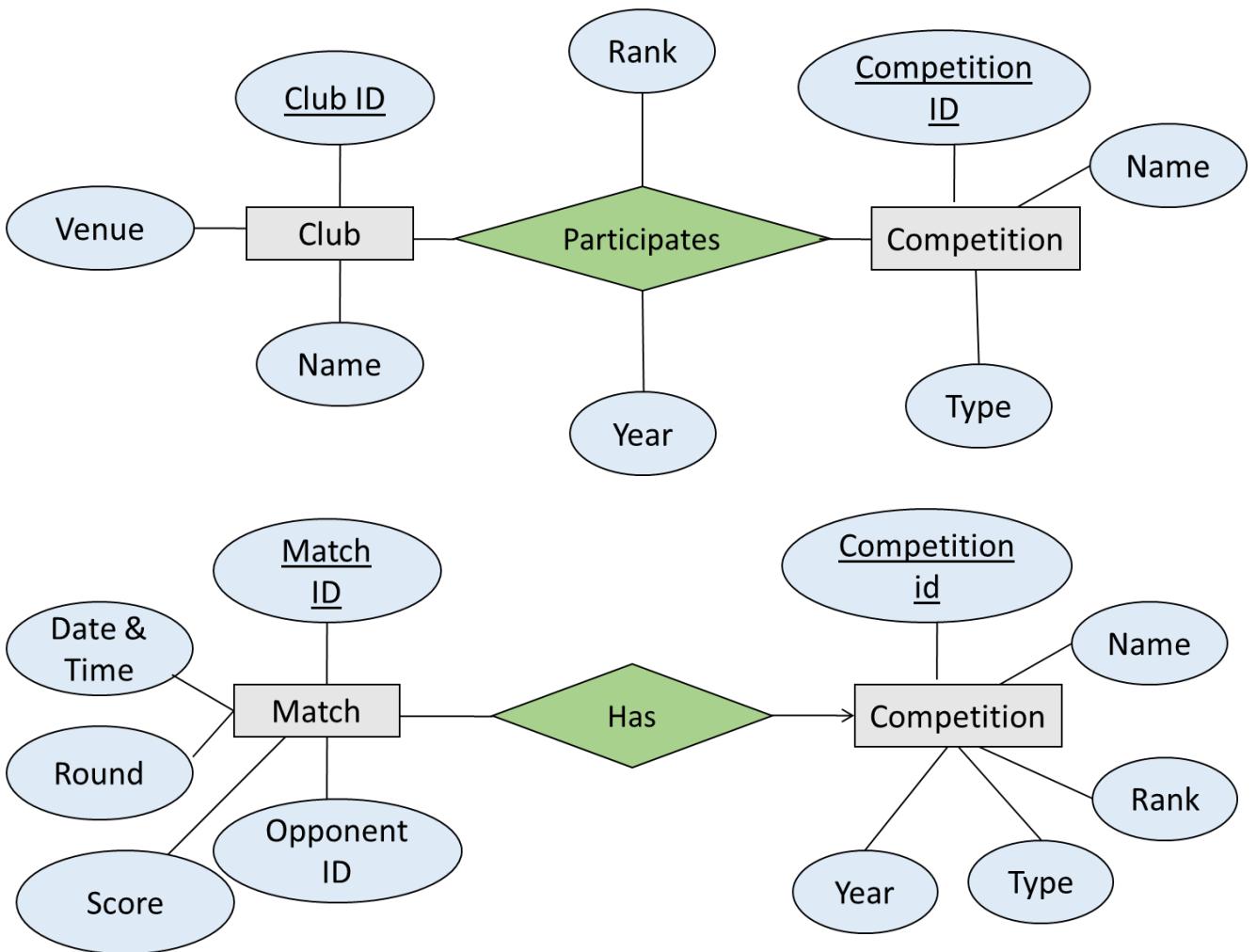
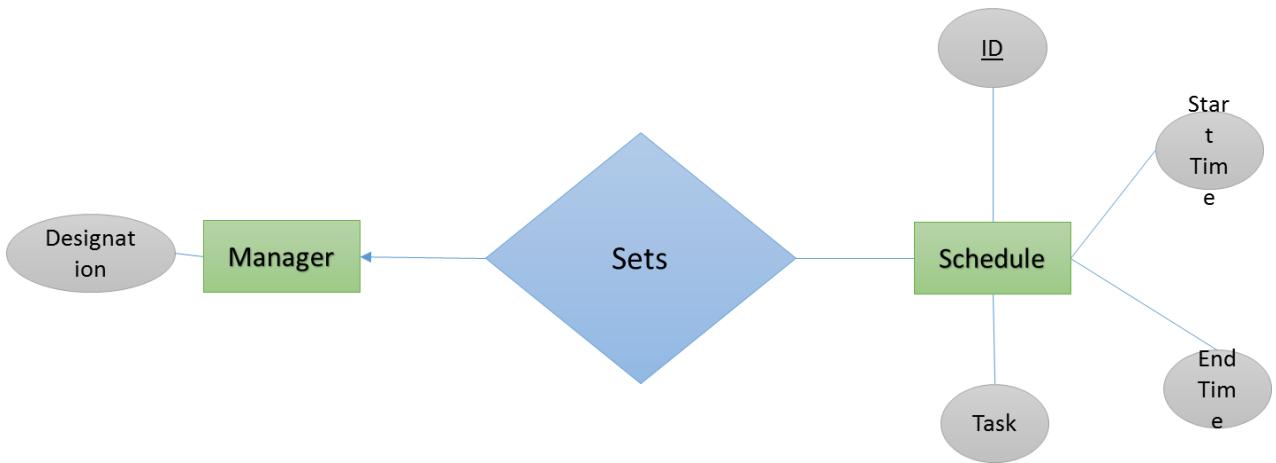


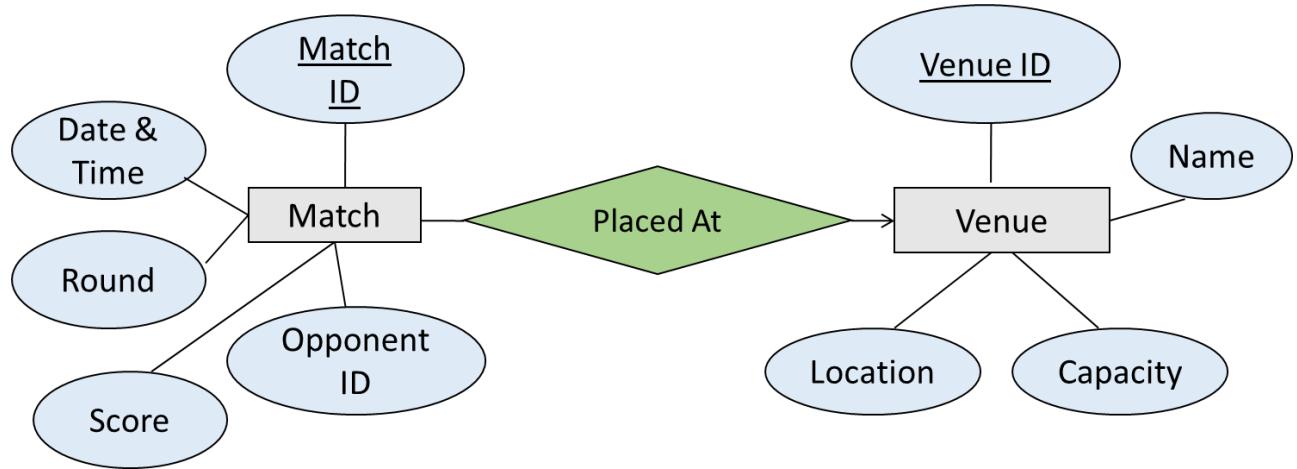
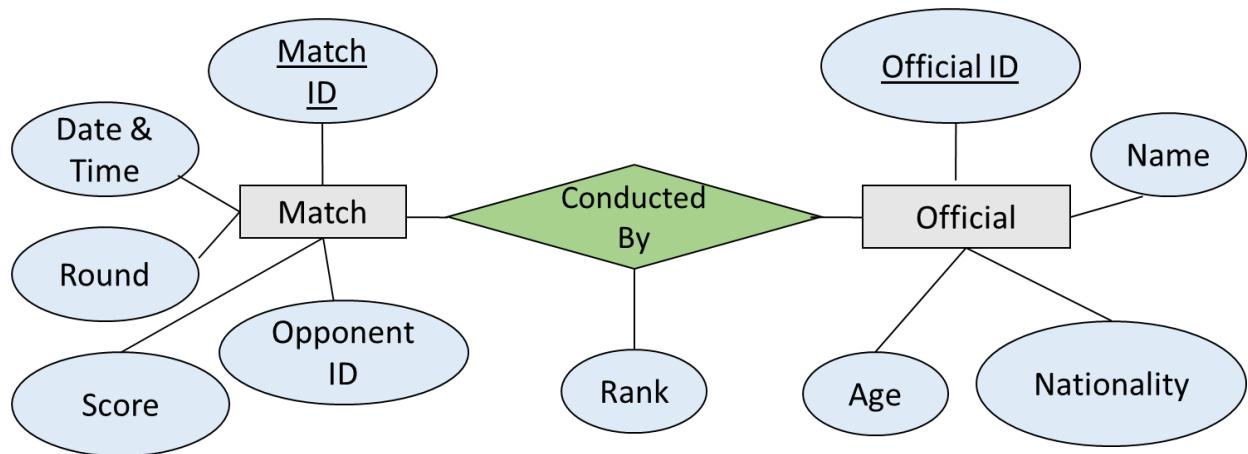


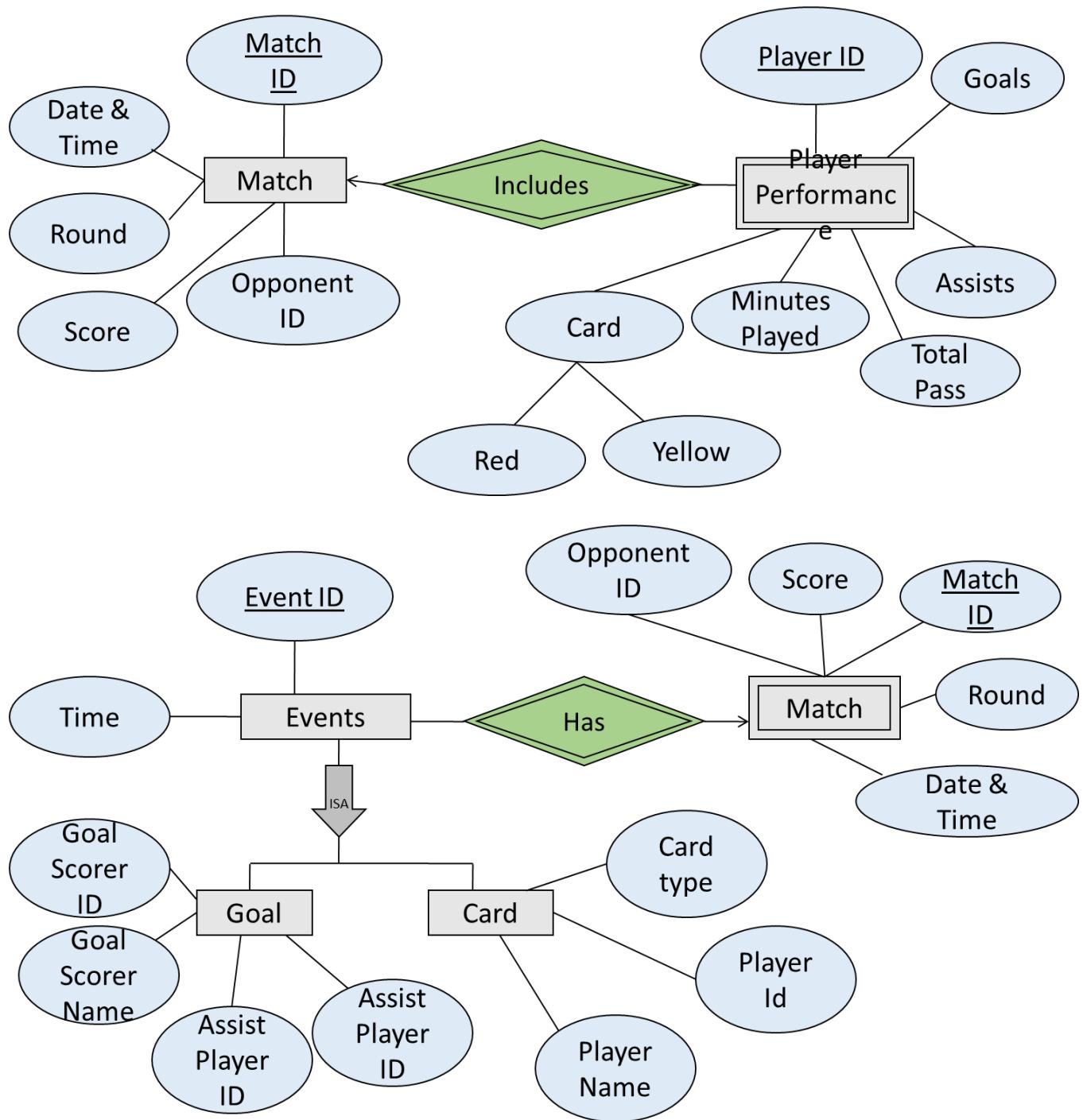


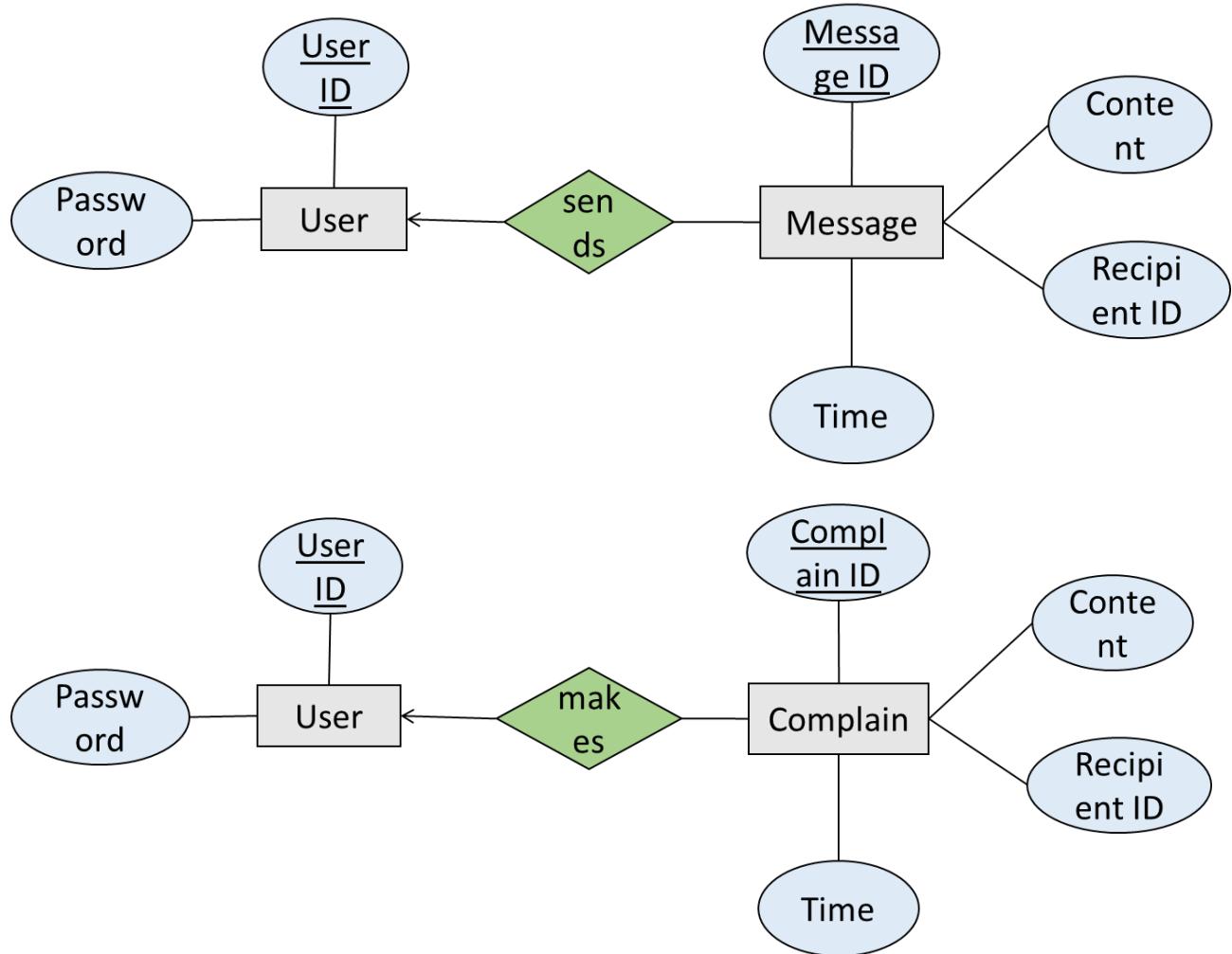


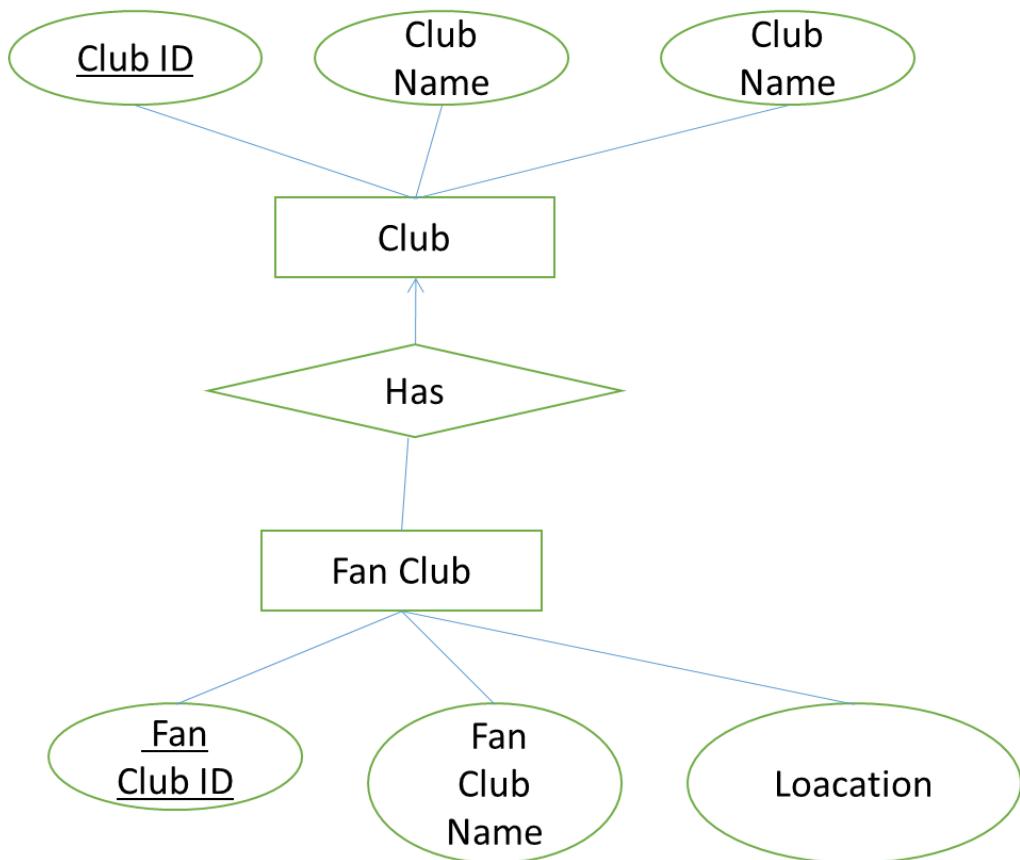


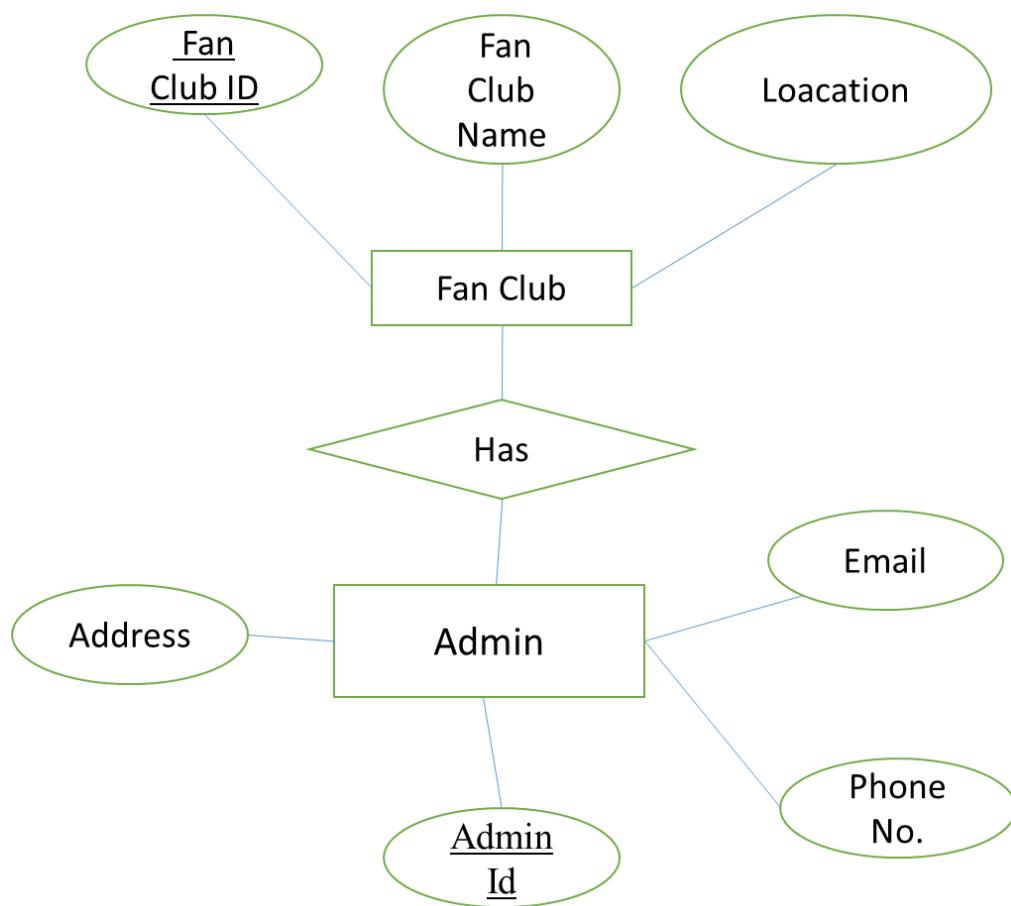


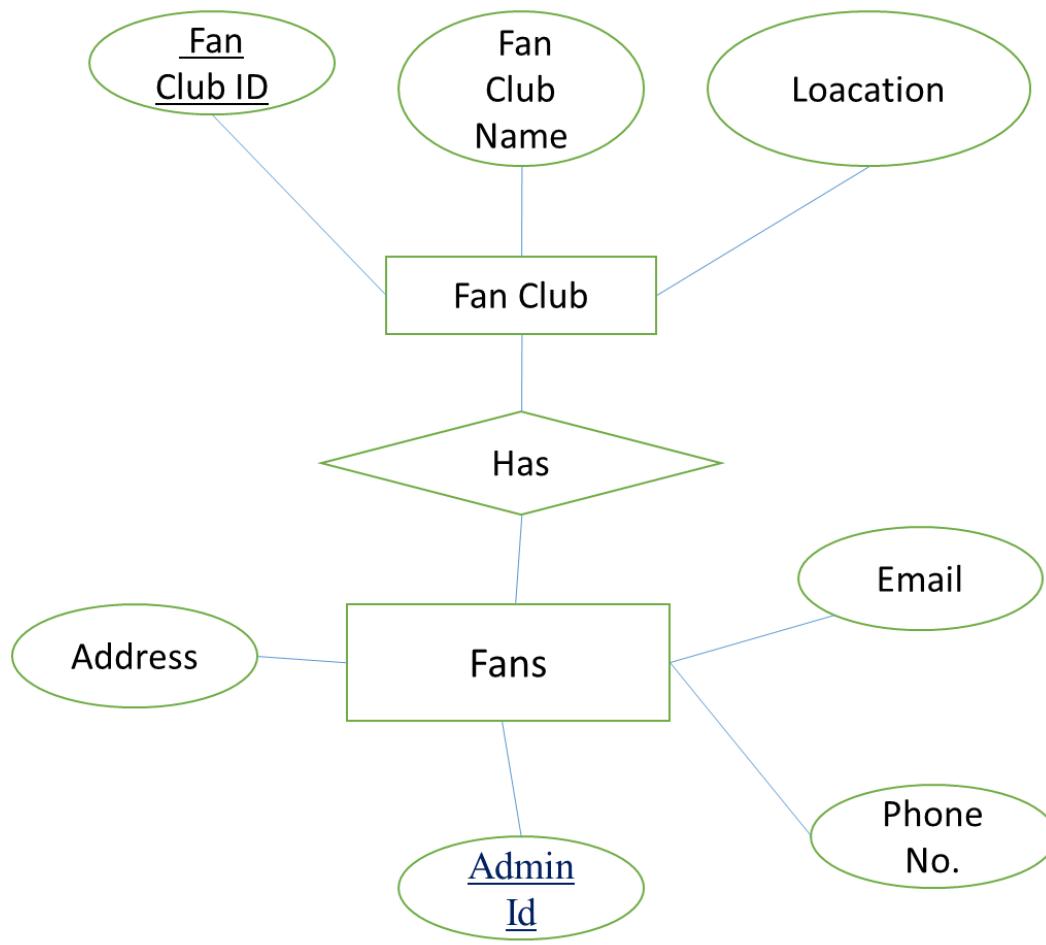


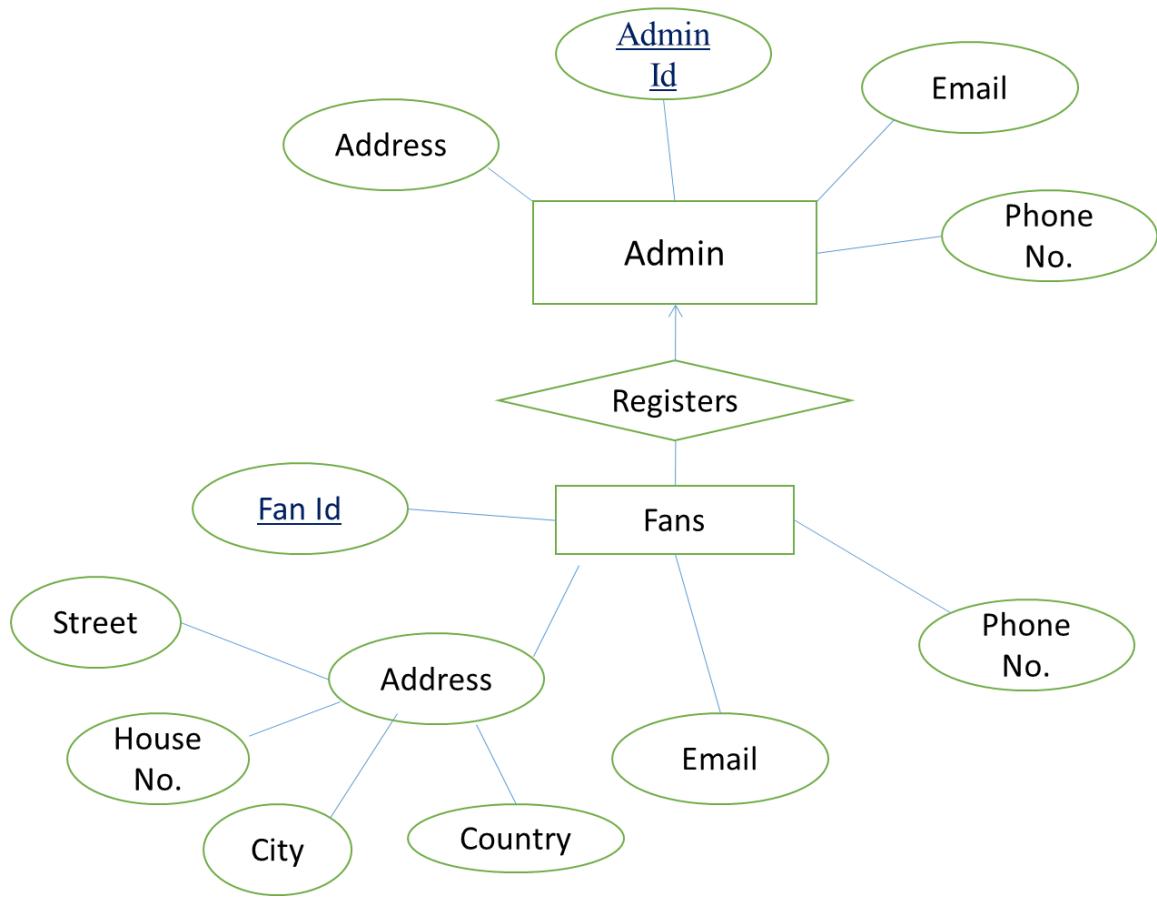


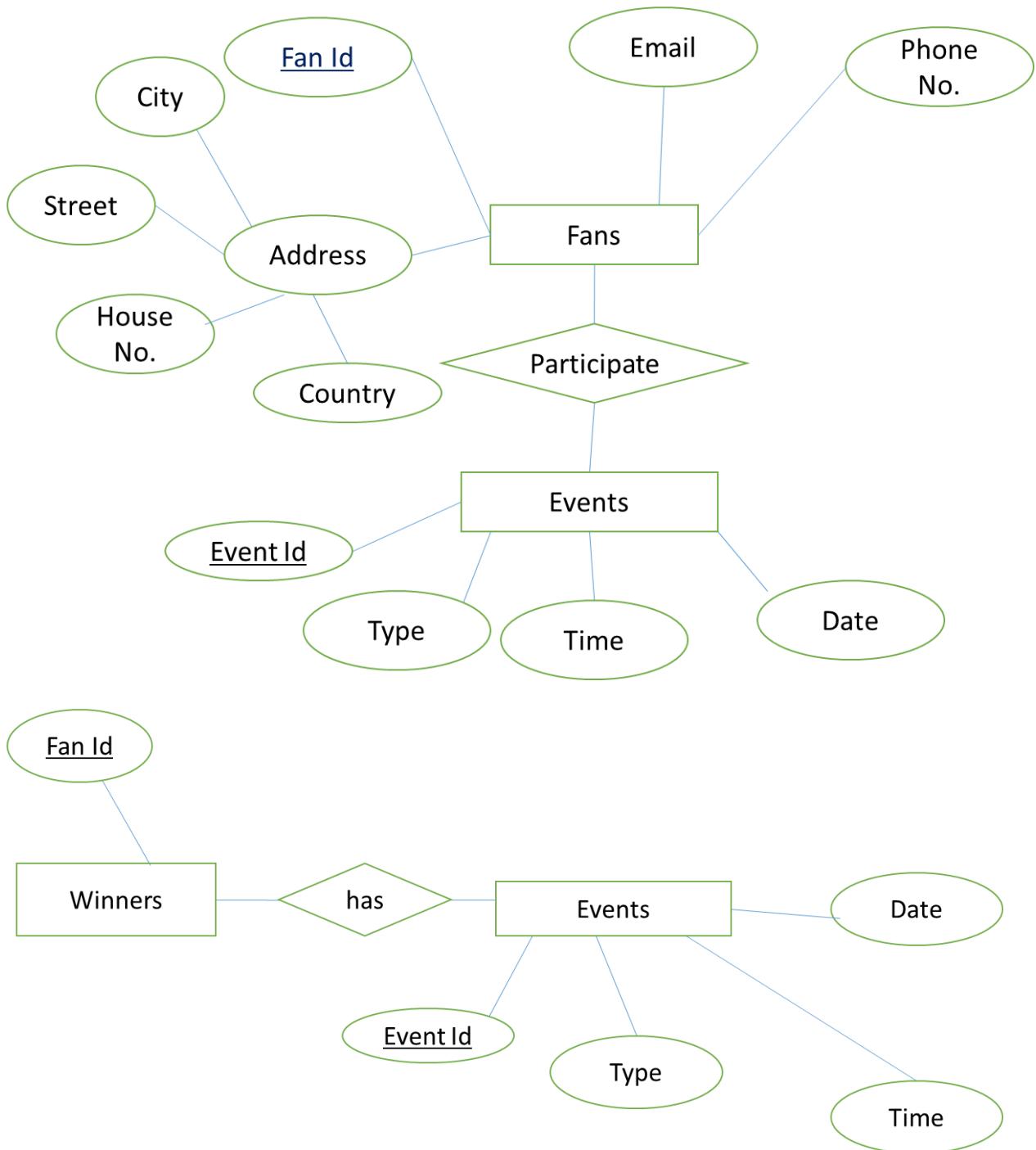


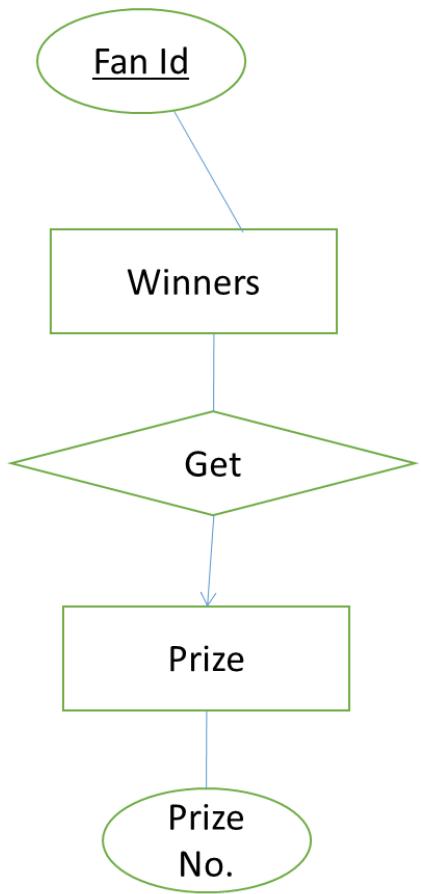


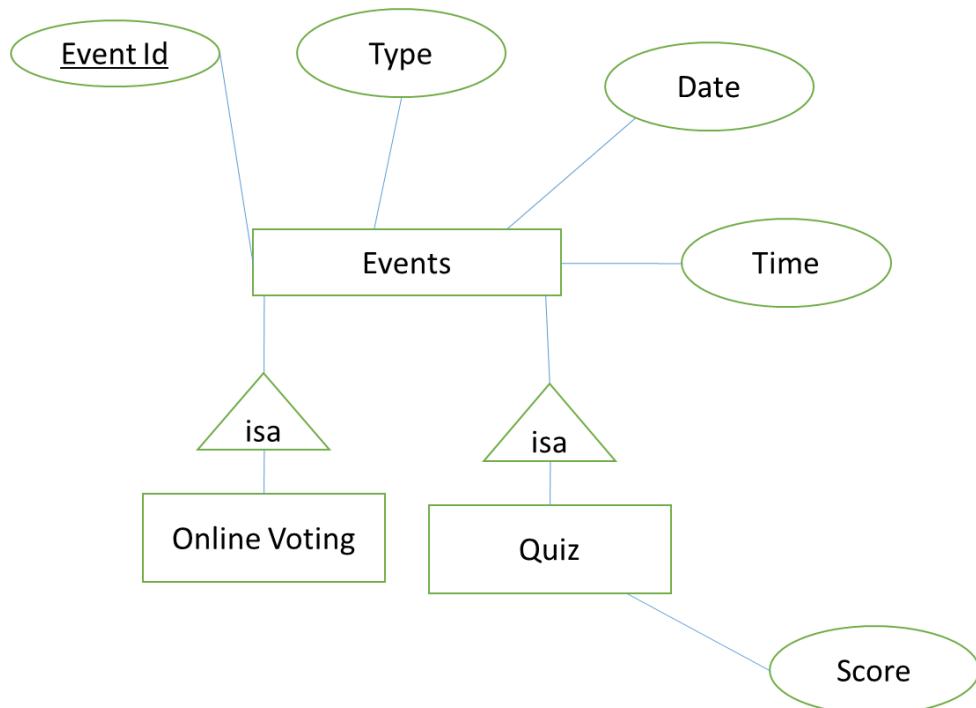


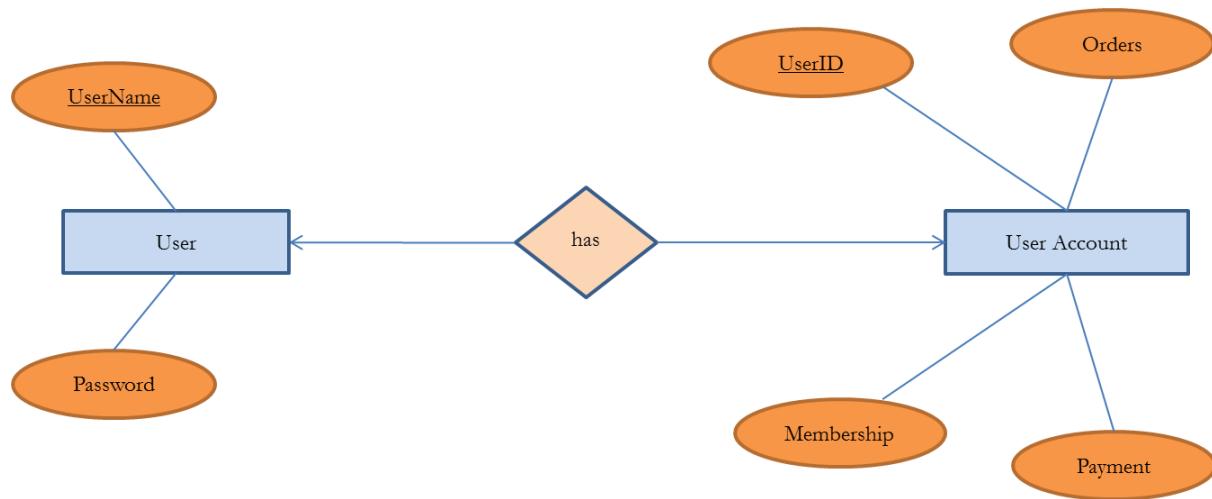
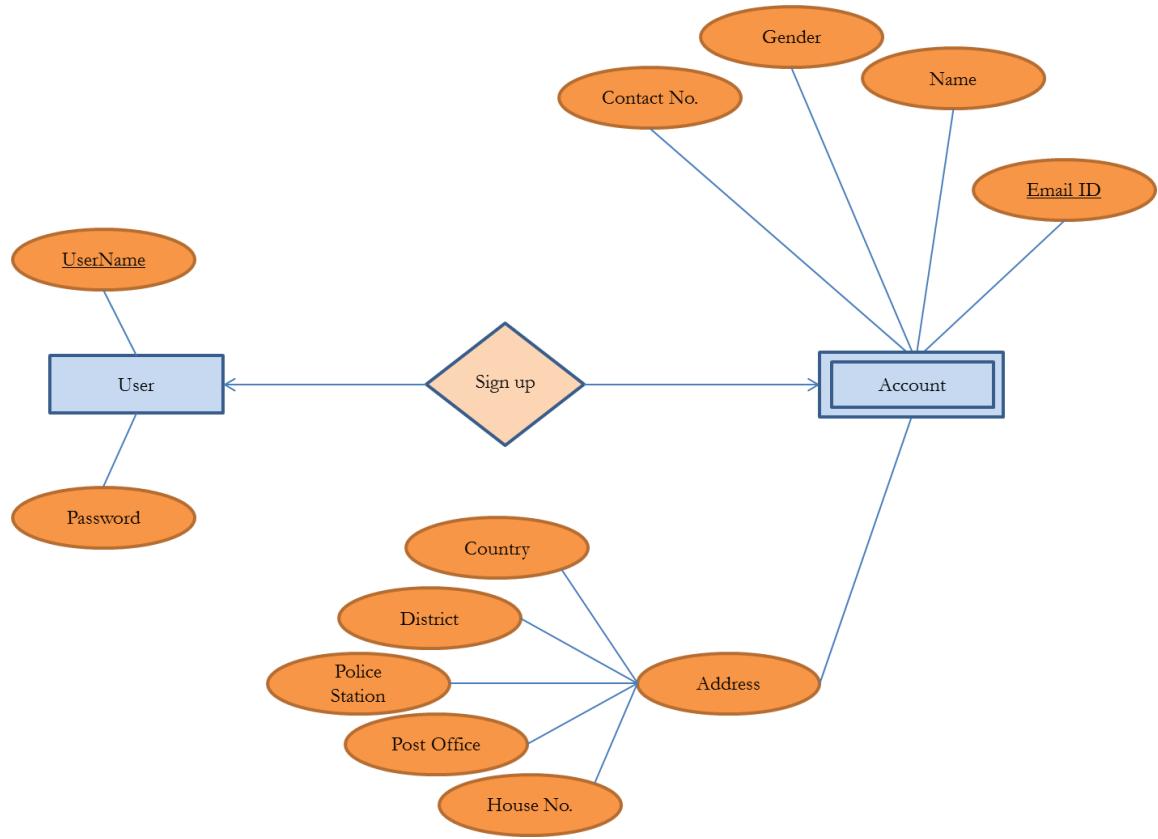


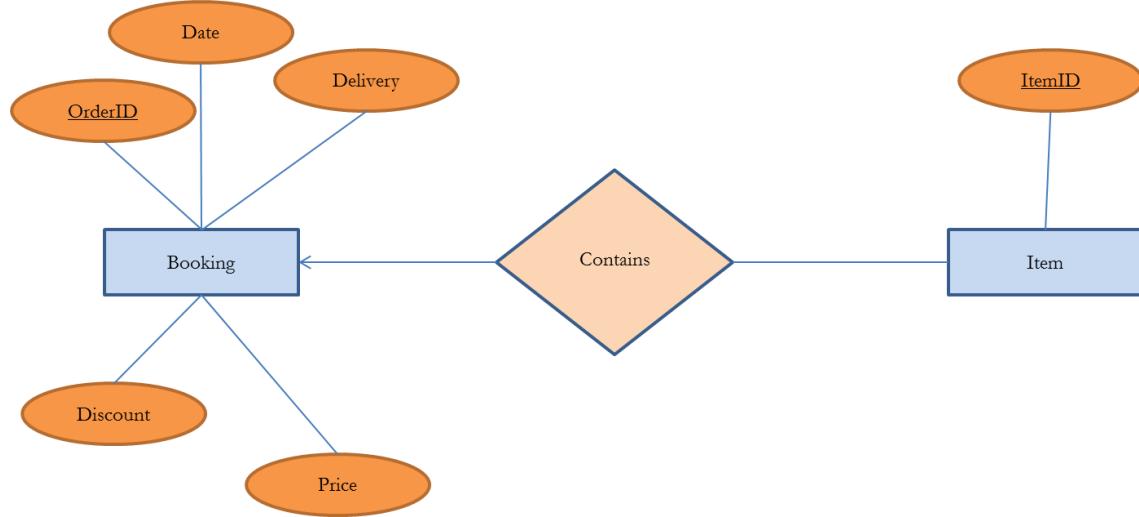
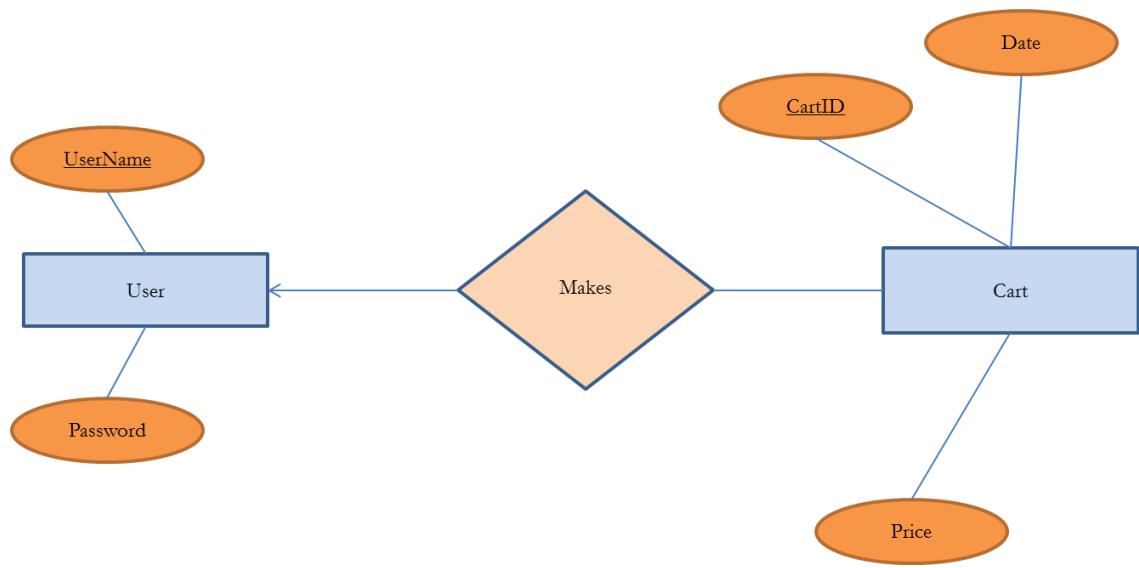


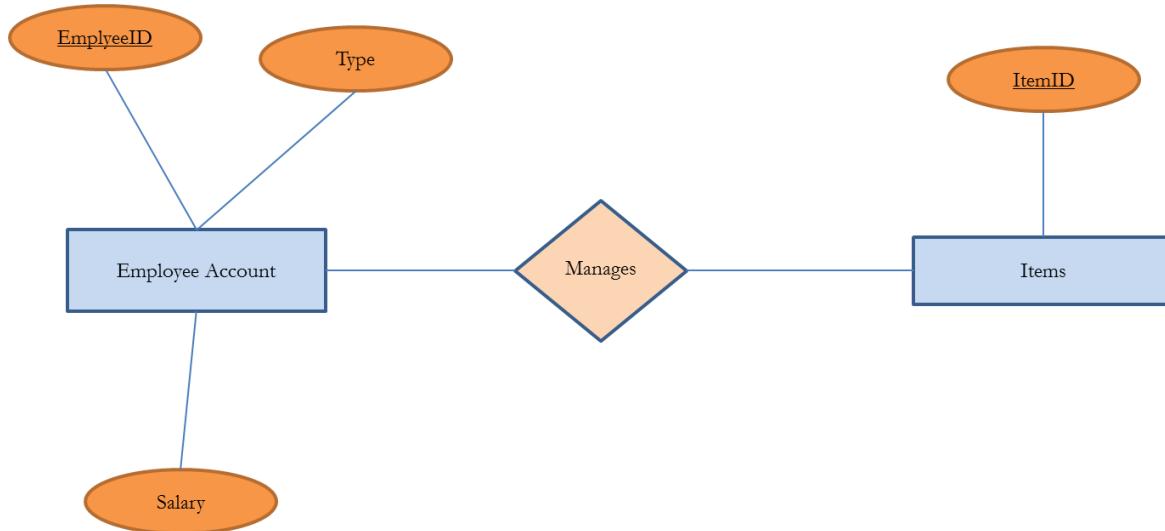












6.3 Database Schema

Club	
<u>ClubID</u>	char(10)
Name	varchar(50)
Venue	varchar(50)

Competition	
<u>CompetitionID</u>	char(10)
Name	varchar(50)
Type	varchar(50)

Participates	
<u>ClubID</u>	char(10)
<u>CompetitionID</u>	char(10)
Position	num(2)
Year	char(4)

Match	
<u>MatchID</u>	char(10)
CompetitionID (fk)	char(10)
Date	date
Round	varchar(20)
Score	varchar(6)
Opponent ID (fk)	char(10)

Official	
<u>OfficialID</u>	char(10)
Name	varchar(50)
Age	number(2)
Nationality	varchar(15)

Conducted_by	
<u>MatchID</u>	char(10)
<u>OfficialID</u>	char(10)
Role	varchar(20)

Player Performance	
<u>MatchID</u>	char(10)
PlayerID (fk)	char(10)
Goals	number(2)
Assists	number(2)
Minutes	number(3)
Passes	number(4)
Card	char(5)

Venue	
<u>Venue ID</u>	char(10)
Club ID (fk)	char(10)
Name	varchar(30)
Location	varchar(50)
Capacity	number(7)

Event	
<u>EventID</u>	char(10)
<u>MatchID</u>	char(10)
Time	number(3)

Goal	
<u>EventID</u>	char(10)
<u>GoalScoredID</u>	char(10)
<u>AssistPlayerID</u>	char(10)
<u>ScorerName</u>	varchar(30)
<u>AssistName</u>	varchar(30)

Card	
<u>EventID</u>	char(10)
<u>PlayerID</u>	char(10)
<u>PlayerName</u>	varchar(30)
<u>CardType</u>	varchar(30)

Club	
<u>ClubID</u>	char(10)
Name	varchar(30)
Venue	varchar(30)

Employee	
<u>EmployeeID</u>	char(10)
Name	varchar(30)
Age	number(3)
Gender	char(6)
Contact	char(15)
Nationality	varchar(30)
Address	varchar(50)

Committee	
<u>CommitteeID</u>	char(10)
Name	varchar(30)
ClubID (fk)	char(10)

Player	
<u>EmployeeID</u>	char(10)
Position	varchar(20)
jersey	varchar(2)

Staff	
<u>EmployeeID</u>	char(10)
Designation	varchar(30)

Coach	
<u>EmployeeID</u>	char(10)
Designation	varchar(30)

Committee Member	
<u>EmployeeID</u>	char(10)
Designation	varchar(30)

Team	
<u>TeamID</u>	char(10)
Name	varchar(30)
Type	varchar(30)

Contract	
<u>EmployeeID</u>	char(10)
<u>ContractID</u>	char(10)
StartDate	varchar(30)
EndDate	varchar(30)
Salary	number(7)

Player Statistics	
<u>PlayerID</u>	char(10)
MatchPlayed	varchar(30)
Goals	number(4)
Assists	number(4)
YellowCard	number(4)
RedCards	number(4)

Schedule	
<u>ScheduleID</u>	char(10)
StartTime	varchar(30)
EndTime	varchar(30)
Task	varchar(30)

User	
<u>UserID</u>	char(10)
Password	varchar(30)

Message	
<u>MessageID</u>	char(10)
Content	varchar(30)
ReciepentID (fk)	char(10)
Time	varchar(30)

Complain	
<u>ComplainID</u>	char(10)
Content	varchar(30)
ReciepentID (fk)	char(10)
Time	varchar(30)

Fan Club	
<u>FanClubID</u>	char(10)
Name	varchar(30)
Location	varchar(50)

Fan	
<u>FanID</u>	char(10)
Name	varchar(30)
Address	varchar(50)
Contact	varchar(15)

Event	
<u>EventID</u>	char(10)
StartTime	varchar(10)
EndTime	varchar(10)

Participate	
<u>FanID</u>	char(10)
<u>EventID</u>	char(10)
Response	varchar(100)

Winner	
<u>EventID</u>	char(10)
FanID	char(10)
Rank	number(2)

Account		
EmailID	varchar(50)	
UserID(fk)	char(10)	
Name	varchar(100)	
Gender	Char(1)	
ContactNo	varchar(15)	
Address	HouseNo	varchar(10)
	District	varchar(20)
	PoliceStation	varchar(20)
	PostOffice	varchar(20)
	Country	varchar(20)

Booking	
BookingID	char(10)
Date	DATE
End_Date	DATE
BuyStatus	Integer
Price	Float
Discount	Float

Item	
ItemID	char(10)
ItemName	Varchar(20)
Price	Float
ArrivalDate	Date

EmployeeAccount	
EmployeeID	char(10)
EmployeeType	varchar(10)
EmployeeSalary	Float

Manages	
EmployeeID(FK)	char(10)
ItemID(FK)	char(20)

Contains	
OrderID(FK)	char(10)
ItemID(FK)	char(10)

6.4 Triggers and Procedures

6.4.1 Triggers

Enforce Deletion

Trigger Name		DELETE_PLAYER_INFO		
Time of Execution		AFTER DELETE on PLAYER		
Actions			Remarks	
Commands	Attributes	Tables		
DELETE	Player ID, Goal, Card, Match Played	Player Statistics	Delete the entire row associated with the player in the player statistics table	

Update Attribute

Trigger Name		UPDATE_BOOKING	
Time of Execution		AFTER UPDATE on BOOKING	
Actions			Remarks
Commands	Attributes	Tables	
UPDATE	END_DATE	BOOKING	Set END_DATE=DATE+BOOKING_PERIOD in the BOOKING Table.

Prevent Change

Trigger Name		UPDATE_SCHEDULE	
Time of Execution		BEFORE UPDATE on SCHEDULE	
Actions			Remarks
Commands	Attributes	Tables	
UPDATE	Time	SCHEDULE	Prevent update if there is a conflicting schedule and redirect to the conflicting row to enforce user to change it or keep both unchanged

Enforce Insertion

Trigger Name		INSERT_PLAYER_INFO	
Time of Execution		AFTER INSERT on PLAYER	
Actions			
Commands	Attributes	Tables	Remarks
INSERT	Player ID, Goal, Card, Match Played	Player Statistics	Insert a row with attribute value 'null' associated with the player in the player statistics table

Enforce Deletion

Trigger Name		DELETE_EVENT_INFO	
Time of Execution		AFTER DELETE on MATCH	
Actions			
Commands	Attributes	Tables	Remarks
DELETE	Time, Goal Scorer ID, Goal Scorer Name, Assist Player ID, Player Name, Player Id, Card type	GOAL, CARD	Delete the entire row associated with the player in the GOAL and CARD table

En
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Trigger Name		INSERT_EVENT_INFO	
Time of Execution		AFTER INSERT on MATCH	
Actions			
Commands	Attributes	Tables	Remarks
INSERT	Time, Goal Scorer ID, Goal Scorer Name, Assist Player ID, Player Name, Player Id, Card type	GOAL, CARD	Insert a row with attribute value 'null' associated with the player in the GOAL, CARD table

Enforce Deletion

Trigger Name		DELETE_PLAYER_PERFORMANCE_INFO	
Time of Execution		AFTER DELETE on MATCH	
Actions			
Commands	Attributes	Tables	Remarks
DELETE	Player ID, Goal, Card, Minutes Played, Total Pass, Assists	Player Performance	Delete the entire row associated with the player in the player performance table

Enforce Insertion

Trigger Name		INSERT_PLAYER_PERFORMANCE_INFO	
Time of Execution		AFTER INSERT on MATCH	
Actions			
Commands	Attributes	Tables	Remarks
INSERT	Player ID, Goal, Card, Minutes Played, Total Pass, Assists	Player Performance	Insert a row with attribute value 'null' associated with the player in the Player Performance table

6.5.2 Procedures

Listing of members

Procedure Name	List_Member
Time of Execution	A member executes this function when he wants to send a message, notification or complain from his account
Input	
Output	Member_list
Apply on	Member, SendMessageUI

Actions	Remarks
Select members from Member_list shown in user interface fetched from Member	First, user selects member from MEMBER, then he writes message in SendMessageUI and sends

Account Login

Procedure Name	Login_Account
Time of Execution	This function is executed when a person wants to sign in to account
Input	UserID, Password
Output	Member Account
Apply on	LoginUI

Actions	Remarks
Members enters UserID and Password in LoginUI	First, user enters UserID and Password and then system logs into his account if information is correct

Listing of Events

Procedure Name	List_Event
Time of Execution	Admin executes this function when an event is to be initiated
Input	
Output	Event_list
Apply on	EntertainUI, EntertainmentStuff

Actions	Remarks
Admin selects event from Event_list shown in EntertainUI fetched from EntertainmentStuff	First, Admin enters in the user interface and then gets the Event_list and then he selects and initiates it

Listing of Players

Procedure Name	List_Player
Time of Execution	Manager executes this function when he selects players for squad
Input	AuthorizedID
Output	Player_list
Apply on	Player, SquadSelectionUI

Actions	Remarks
Manager selects player from Player_list shown in SquadSelectionUI fetched from Player	First, manager selects player from Player_list, then he selects players and adds to squad for a match

Listing of Products

Procedure Name	List_Product
Time of Execution	User or admin executes this function when he needs to see the products or update information
Input	AuthorizedID
Output	Product_list
Apply on	Product, ProductBookUI, UpdateProductUI

Actions	Remarks
User or admin select products from Product_list shown in interface fetched from Product	First, user or admin selects product from Product_list, then he selects product for booking or updating

Registration

Procedure Name	Register_Application
Time of Execution	When a player or fan applies for membership, this function is executed
Input	Application request
Output	Application_form
Apply on	RegistrationUI, ApplicationData

Actions	Remarks
Requests for application form in RegistrationUI	Player or fan enters information in the form and then it is sent to ApplicationData and saved

Listing of Applied Applications

Procedure Name	Application_verification
Time of Execution	This function is executed when admin verifies the applied members
Input	AuthorizedID
Output	Applied_list
Apply on	RegistrationUI, ApplicationData

Actions	Remarks
Admin select applied members from Applied_list fetched from ApplicationData	First, admin selects applied members and then confirms membership or rejects

Listing of Schedule

Procedure Name	Schedule_list
Time of Execution	This function is executed when a member wants to see schedule or authorized person wants to update it
Input	AuthorizedID
Output	Schedule_list
Apply on	ScheduleData, ScheduleManagementUI

Actions	Remarks
A member can view Schedule_list in user interface fetched from ScheduleData.	First, view request is performed by a member and Schedule_list is shown. An authorized person can change the schedule.

Chapter 7

Graphical User Interface (GUI) Design

The screenshot shows a club website's home page. At the top is a logo featuring a soccer ball and the text "Club Name". Below the logo is a navigation bar with tabs: Home, Tickets, Shop, and Membership. To the right of the navigation bar are search fields and links for Log in and Register. A horizontal menu bar below the navigation bar includes News, Matches, Players and Staff, Club, Venue, Fans, and History. On the left, a "News" section displays four empty placeholder boxes. To the right of the news section is a social media sidebar with icons for Facebook, Twitter, YouTube, Google+, and Instagram, along with a "Like" button for 25m and a "Follow" button. Below the social media is a "NEXT MATCH" section for Team C on Tuesday, March 18, at 19:45, listing the venue, ticket news, and all fixtures. It also features a "ROTARY" logo and a timer showing 2 days, 22 hours, 31 mins, and 36 secs. The main content area below the news section shows a "LAST MATCH" result between Team A (1) and Team B (0), dated Saturday, March 15, 2014, at 17:30, with an attendance of 40,084. A "Match Report" link is available for this match.

GUI: Home Page



Club Name

Home Tickets Shop Membership

Search

Search

News | Matches | Players and Staff | Club | Venue | Fans | History

Login

Register

Login

Username or Email Address

Password

Remember Me

[Forgotten Password?](#)

GUI: Login



Home Tickets Shop Membership

Search Search

News | Matches | Players and Staff | Club | Venue | Fans | History

Log in Register

Registration

Login Details

Username *

Password *

Retype Password *

Security Question *

What's your birth place? ▾

Answer *

Your Details

First Name *

Last Name *

Email Address *

Confirm Email Address *

Date of Birth *

Day ▾ Month ▾ Year ▾

Gender *

Choose ▾

Country *

GUI: Registration



Club Name

Home Tickets Shop Membership My Account Search

 NAME
Coach

Notification 5

Office Squad Transfers Season

Inbox (7)	
Bhajji, Gayle (2)	My Bhangnam style video - part 2 Sweet Azzi >> Harbhajan wrote: did this just yesterday! :D
Mazhar Majeed	Your orientation ceremony at the fixers' club - details Please find doc attached
Mohammed Azharuddin	Don't worry Sree I'll try to see if we can have you in the Congress party. I'll talk to madam!
BJP, PM, Sonia (3)	We demand the PM's resignation over the Sreesanth issue! Faccpalm >> PM wrote: Thcek hai!
NDTV, Narendra Modi (2)	Major blow to Modi HOW ON EARTH?! >> NDTV wrote: It's a major blow to Narendra Modi as Sreesanth has been....
Salman Butt	Awesome! Arey aap to chupa rustam nikle!! Wah bhai wah!
Rahul Gandhi	Which jail are you at? I want to come over and eat daal-chawal with you.
Shashi Tharoor (2)	Lecture On second thoughts, maybe not >> Shashi wrote: Delivering a lecture on role models from Kerala. I want you to co
PJ Kurien, Me (2)	You are disgrace to Kerala! Look, who's talking! >> Kurien wrote: Sree, you have brought disrepute to
Sir Ravindra Jadeja	People will always suspect you for match-fixing... unless you're Sir Ravindra Jadeja! ;) He fixes fate ;)
Suresh Raina, Me (2)	BEWARE OF NEPHEWS! No, beware of your cousins :(>> Raina wrote: My nephew ...
Sharad Pawar, Me (2)	I strongly condemn corruption! STFU! For a sec, I thought this was an email from The UnReal Times! >> Pawar wrote
Rupa Towels	Check out our new comfort-fit trouser towels! Easy to put inside the trouser's pocket and take out!
Misbah Ul Haq	Was your world cup 07 catch fixed too? Coz if it is, I'm so gonna kill the bookie who ordered that!
Me, Jiju Janardhan (2)	OUT OF OFFICE I'm currently out of office and will not be on email - Jiju! >> Sree wrote: Enda monne, where the fuck are y
N Srinivasa, Me, N Srinivasa (3)	BCCI's zero tolerance to corruption DEI, I'M SERIOUS! >> Sree wrote: Hehe. Good one! >> Srinivasan wrote: WE DO NOT.
TN Youth Cong, Janardhan Dwivedi (2)	We're protesting against Jiju Janardhan IDIOTS! Stop burning my posters! >> TN Youth Cong wrote: Don't worry Sree
Andre Nel	My dance video! Please find attached.

GUI: Coach Profile Inbox



Club Name

Home Tickets Shop Membership My Account

Search

Notification 5



NAME
Coach

Office Squad Transfers Season

Inbox (7)

GUI: Coach Profile- New Message



Club Name

Home Tickets Shop Membership My Account

Search Settings Log out

Notification 5

NAME
Coach

Office Squad Transfers Season

Team Management

Squad Report

Players

Squad Selection

No.	Name	Kit No.
1	Player 1	1
2	Player 2	2
3	Player 3	3
4	Player 4	4
5	Player 5	5
6	Player 6	6
7	Player 7	7
8	Player 8	8
9	Player 9	9
10	Player 10	10
11	Player 11	11
12	Player 12	15
13	Player 13	17
14	Player 14	21
15	Player 15	22

4. Player 4

Player Statistics

Send Message

GUI: Coach Profile – Players' Statistics



Club Name

Home Tickets Shop Membership My Account

NAME
Coach

Search Settings

Notification 5

Office Squad Transfers Season

Selected Players			
No.	Name	Kit No.	Position
1	Player 1	1	GK
2	Player 2	2	CB
3	Player 3	3	LB
4	Player 4	4	RB
5	Player 5	5	CB
6	Player 6	6	CDM
7	Player 7	7	LWM
8	Player 8	8	CAM
9	Player 9	9	ST
10	Player 10	10	CM
11	Player 11	11	RWM
12	Player 12	15	CAM
13	Player 13	17	RW
14	Player 14	21	RB
15	Player 15	22	LW
16	Player 16	24	CDM

Main Team			
No.	Name	Kit No.	Position
1	Player 1	1	GK
4	Player 4	4	RB
9	Player 9	9	ST

Substitutes

No.	Name	Kit No.	Position
2	Player 2	2	CB
16	Player 16	24	CDM

GUI: Coach Profile – Squad Selection



Club Name

[Home](#) [Tickets](#) [Shop](#) [Membership](#) [My Account](#) Search 

NAME

Coach

Notification 5[Office](#) [Squad](#) [Transfers](#) [Season](#)[Calender](#)
[Results](#)
[Team Stat](#)
[Player Stat](#)
[Fixtures](#)
[Schedule](#)

March 2014

Mon	Tue	Wed	Thu	Fri	Sat	Sun
					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					

14 March 2014

Time	To do	Place	
10.00-11.00 am	Exercise	Gymnasium	<input type="button" value="Change"/>
3.00-5.00 pm	Practise	Field	<input type="button" value="Change"/>
6.00-7.00 pm	Team Meeting	Conference Room	<input type="button" value="Change"/>
7.30-8.30 pm	Board Meeting	Conference Room	

[« Feb 2014](#) | [March 2014](#) | [April 2014 »](#)

GUI: Coach Profile – Schedule Management



Home Tickets Shop Membership My Account

Search Settings Log out

NAME
Player

Notification 5

Personal Season

Calender Results Team Stat Fixtures Schedule

March 2014

Mon	Tue	Wed	Thu	Fri	Sat	Sun
					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					

14 March 2014

Time	To do	Place
10.00-11.00 am	Exercise	Gymnasium
3.00-5.00 pm	Practise	Field
6.00-7.00 pm	Team Meeting	Conference Room
7.30-8.30 pm	Board Meeting	Conference Room

« Feb 2014 || March 2014 || April 2014 »

GUI: Player Profile - Schedule



Home Tickets Shop Membership My Account

NAME
Fan

Search Settings Log out

Personal Events

Score Predictor
Goal of the month
Player Rating

Team 1 vs Team 2

Make Prediction

Time Left: 02 20 15 34
days hours mins secs

This screenshot shows a user interface for a fan profile on a club website. At the top, there's a navigation bar with links for Home, Tickets, Shop, Membership, and My Account. On the right side of the header are buttons for Search, Settings, and Log out. Below the header, the user's name 'Fan' is displayed next to a placeholder profile picture. A tab menu at the top of the main content area includes Personal and Events, with Personal currently selected. Under Personal, there are three options: Score Predictor (selected), Goal of the month, and Player Rating. The main content area shows a match prediction interface. It features two team logos (one with a mountain-like shape, one with a circle) separated by a 'vs' symbol. Below the teams are two empty square boxes for entering predictions. A large 'Make Prediction' button is centered between the teams. At the bottom of the page, a timer displays 'Time Left: 02 20 15 34' with labels 'days', 'hours', 'mins', and 'secs' underneath.

GUI: Fan Profile – Score Prediction



Home Tickets Shop Membership

Search

[News](#) | [Matches](#) | [Players and Staff](#) | [Club](#) | [Venue](#) | [Fans](#) | [History](#)

[Log in](#) [Register](#)

Opponent AWAY Sun 13 Apr	SEASON TICKETS 1 per person	Mon 17 March	more information
	MEMBERS 1 per person	Mon 24 March	
	STs & MEMBERS 2 extra per person	Mon 31 March	
Opponent HOME Sun 20 Apr	MEMBERS 1 per person	Book Online	more information
	STs & MEMBERS 2 extra per person	Mon 17 Mar	
	GENERAL SALE 4 per person	Mon 24 Mar	
	HOSPITALITY	Book Online	

Fixtures

GUI: Tickets



Home Tickets Shop Membership

News | Matches | **Players and Staff** | Club | Venue | Fans | History

Search Log in Register

Players and Staff

> The First Team
> The Management
> On Loan Players
> Under 21s
> The Academy
> Player of the Year

Name 1	Name 2	Name 3	Name 4	Name 6	Name 7	Name 8
Name 9	Name 10	Name 11	Name 13	Name 14	Name 16	Name 17
Name 18	Name 20	Name 21	Name 22	Name 24	Name 27	Name 28
Name 31	Name 33					

Team A 1 0 Team B Watch Report

Saturday 15 Mar 2014, 17:30 attendance: 40,084

GUI: Players and Stuffs



Home Tickets Shop Membership

Search

[News](#) | [Matches](#) | [Players and Staff](#) | [Club](#) | [Venue](#) | [Fans](#) | [History](#)

[Log in](#) [Register](#)

[Jersey](#) [Jacket](#) [Hoodies](#) [Polo Shirt](#) [T Shirt](#) [Tracksuit](#) [Souveniers](#)



Nike Sport Water Bottle

(0)

Price: 500.00 tk

Sizes: 9



Topps Match Attax Starter Pack

(0)

Price: 400.00 tk



Team Rubber Duck

(0)

Price: 125.00 tk

Sizes: Celtic



Team Rubber Duck

(0)

From 75.00 tk

Sizes: Rangers

[Show More...](#)

MOST WANTED

NEW IN



Manchester United Home
Shirt 2013/14...

Price: 900.00 tk



Netherlands Home Shirt
2014/15 Orange

Price: 700.00 tk



Portugal Home Shirt
2014/15 Red

Price: 1000.00 tk



England Away Shirt
2013/14 - Mens Red

WAS: 1000.00 tk

NOW: 925.00 tk

SAVE: 75.00 tk



Real Madrid Home Shirt
2013/14

WAS: 900.00 tk

NOW: 750.00 tk

SAVE: 150.00 tk



Arsenal Home Shirt
2012/14 - Kids

WAS: 700.00 tk

NOW: 650.00 tk

SAVE: 50.00 tk

GUI: Online Store

Chapter 8

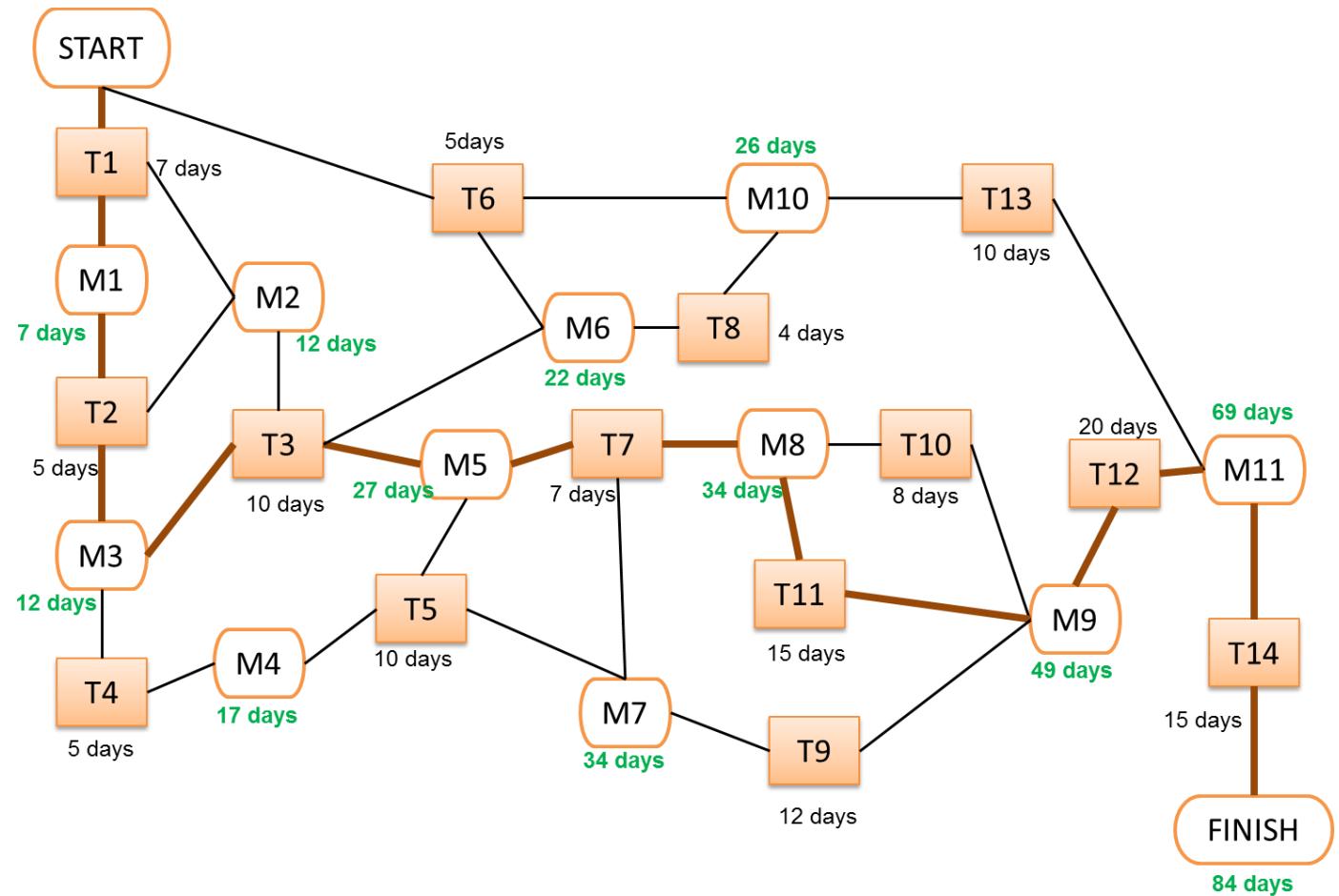
Project Phases and Activities

8.1 Work Schedule

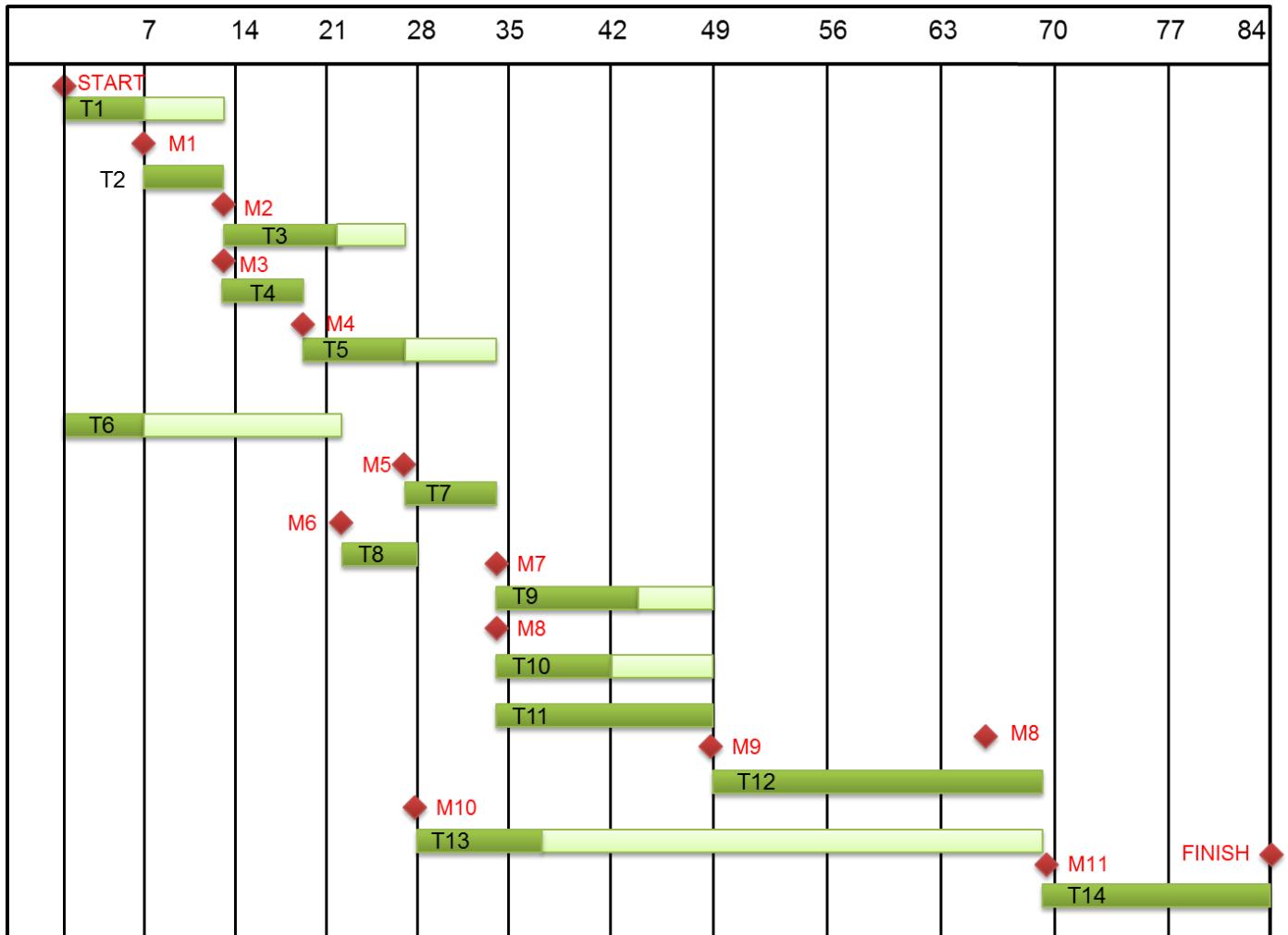
8.1.1 Project Timeline

Tasks	Task number	Dependency	Milestone	Estimated Working Days
Analyze the current system	T1			7
Define Scopes of project	T2	T1	M1	5
Plan the project	T3	T1, T2	M2	10
List the problems	T4	T2,T3	M3	5
Analyze the problems	T5	T4	M4	10
Identify business requirement	T6			5
Analyze system requirement	T7	T3, T5	M5	7
Analyze Feasibility and Cost	T8	T3, T6	M6	4
Design system architecture	T9	T5, T7	M7	12
Design system database	T10	T7	M8	8
Design system interface	T11	T7	M8	15
Design application logic	T12	T9, T10, T11	M9	20
Hardware installment	T13	T6, T8	M10	10
Software installment	T14	T12 ,T13	M11	15

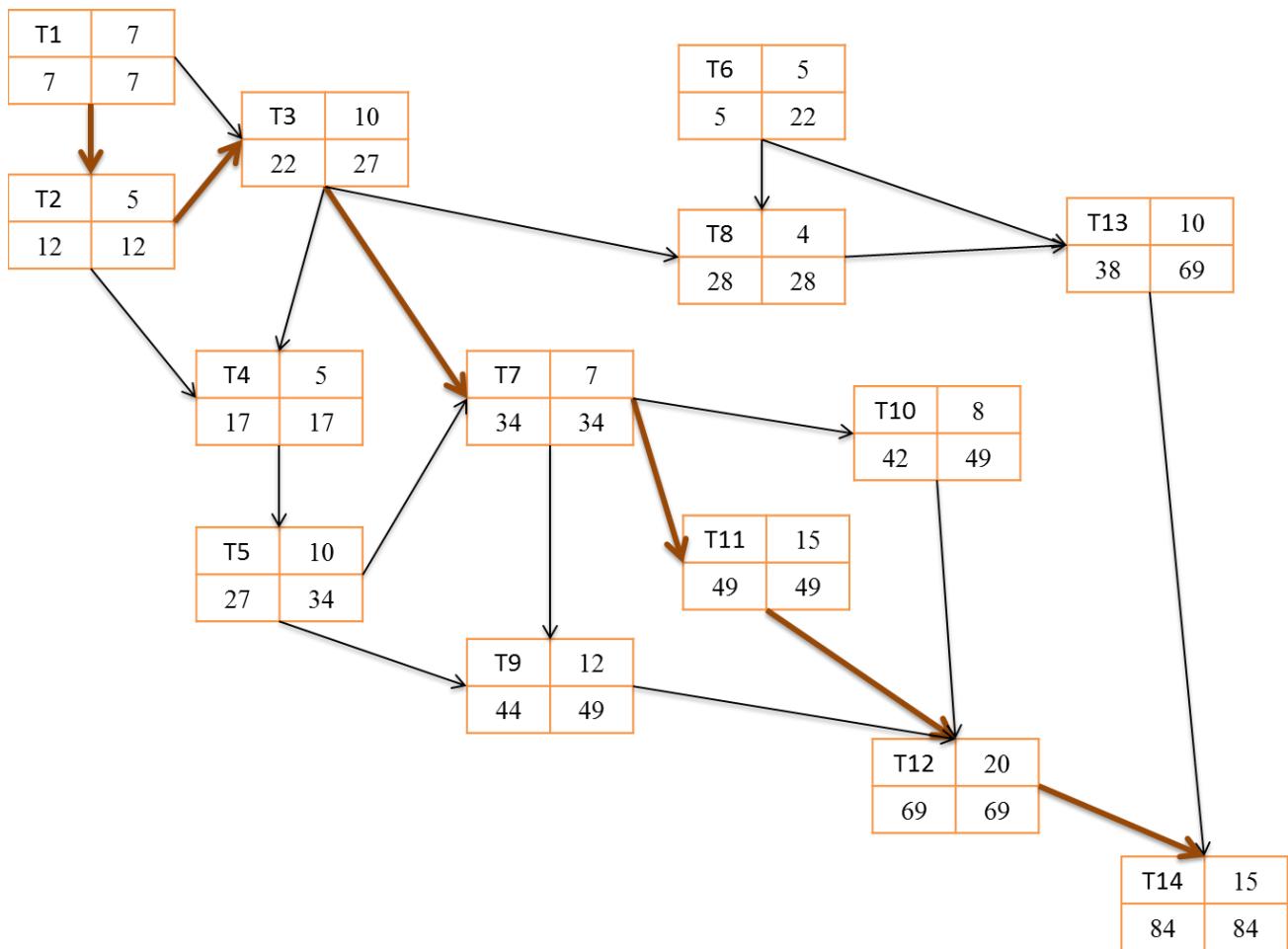
8.1.2 Activity Network



8.1.3 Activity Timeline



8.1.4 Pert Chart



8.2 Cost Benefit Analysis

8.2.1 Cost Analysis

Cost Analysis is discussed in Economic Feasibility in details.

8.2.2 Cost Benefit Analysis

Cost Benefit Analysis is discussed in Economic Feasibility in details.

8.2.3 Tangible Benefits

- Website Advertisement
- Membership charge

8.2.4 Intangible Benefits

- Easy Management
- Fans' Happiness
- Convenient communication

8.3 Risk Analysis

8.3.1 Risk Analysis

Risk	Probablilty	Effect
Organizational financial problem forces reduction in the project budget	Moderate	Catastrophic
Unavailability of skilled staff	High	Catastrophic
Change of requirement which require major design rework are proposed	Moderate	Catastrophic

Key staff illness at critical time of project	Moderate	Serious
Sudden change of Staff	Low	Serious
Required training for the staffs is unavailable	Low	Tolerable
The hardware need is insufficient	Moderate	Serious
The time required to develop the s/w is underestimated	High	Serious
The database used in the system cannot process as many transactions per second as expected	Low	Serious
The Case Tools cannot be integrated	High	Tolerable
The code generated by CASE tools is inefficient	Moderate	Insignificant
Components which should be reused contains certain defects which limit the functionality	Moderate	Serious
The size of the s/w is underestimated	Low	Tolerable
The rate of defect is underestimated	Moderate	Tolerable

8.3.2 Risk Management

Risks	Strategy
Organizational financial problem	Prepare a briefing document for operational manager of intended club showing how the project is making a very important contribution to that club
Recruitment Problems	Alert customer of potential difficulties and the possibility of delays, investigate buying-in components
Requirement change	Derive traceability information to assess requirements change impact, maximize information hiding in the design.
Difficulty integrating work	Increase communication, integrate often
Staff Illness	Form the team such that no overlap of work and people therefore understand each other's jobs.
Sudden change of staff	Pass over the job to other staff who knows the best about that job, and he will explain to him before leaving.
Training unavailability	Assign skilled staffs to help other staffs.
Common meeting times	In the beginning of the project, determine all possible common times to meet based on class schedules and other commitments
Lack of communication	Set up a group Web page, group e-mail accounts, trade instant messaging IDs, meet regularly

Database performance	Investigate the possibility of buying a higher-performance database.
Insufficient hardwares	Inform the clients about possibility of delays.