



ClickSports Requirements Specification

Version 2.1

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CLICKSPORTS REQUIREMENTS SPECIFICATION

VERSION 1.0

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1. Executive Summary

1.1 Project Overview

Doing exercises and having a regular sport schedule are significant factors for both adults and children in terms of being healthy. Today, people tend to be more inactive in their lives and this circumstance impacts them badly. Several causes may lead to the problem of playing less sport for children, however, this problem can be dealt with by offering various solutions.

One of the best solutions to get people to engage in more sports activities is to build an app that functions as a link between sports center owners and players. Everything has already been digitized, therefore through parts of our product users will have it easier to book their favorite sports activity. The software we are providing aims to assist sports administrators in the process of planning, organizing, managing and scheduling leagues, events, facilities, teams, and players and most importantly to help people to play more sport activities to keep their mind and body healthy.

1.2 Purpose and Scope of this Specification

In scope

The following specifications describe the purpose of this product and how it intends to be used:

- The aim of this software product is to push people to practice more sports activities by integrating the cooperation between sports centers and sports players.
- To simplify the process of booking a sports field by bringing sports fields to people and not people to spot fields.
- To provide a user-friendly interface that can be accessed from the web by fulfilling the user's requirements.
- The owners of sports centers have the simplest organization of activities and finding clients. As well, players find it easier to reserve a field within a few seconds.

Out of scope

- This software product does not guarantee whether the user will have a healthier lifestyle or not. This depends on the user (player) how many times he decides to engage in sports activity.
- In case there are schedule confusions or uncertainties regarding the booking process, maintenance services are ready to take responsibility.

The purpose of this application is to enable a healthier lifestyle for each of its users, simplifying the process of booking his favorite sports activities. Users will not have to wait in long lines in sports centers to practice their favorite sport. Just like the owners of sports centers can have their own business portal, presenting a document which verifies their business.

Now simply by clicking a button they can see the various sports centers in the city, the sports they offer as well as the relevant playgrounds. Within a few minutes, the player can reserve his favorite playground, for himself and for friends. Just a network connection and payment by a credit card is enough to make the booking process possible.

Furthermore, in the absence of reservation by the Player, this reservation process can also be done manually by calling the Managers of certain sports centers.

2. Product/Service Description

2.1 Product Context

ClickSports is a web app that simplifies the reservation process for our favorite sports.

Daily exercise and participation in sports are important health factors for both adults and children. Because everything has already been digitized, customers will be able to book their preferred sports activity more easily through portions of our offering.

By integrating collaboration between sports centers and athletes, the goal of this software product is to encourage people to participate in more sports activities.

Making it easier to book a sports field by bringing sports fields to people rather than people to sports fields. To meet the needs of the user by providing a user-friendly interface that can be accessed via the web.

They may now see the many sports centers in the city, the sports they offer, and the corresponding playgrounds by just pressing a button. The gamer can book his favorite playground for himself and his buddies in only a few minutes. The booking process can be completed with just a network connection and credit card payment.

Furthermore, if the Player has not made a reservation, this step can be completed manually by calling the managers of specific sports centers.

2.2 User Characteristics

There are five types of users that will interact with the system:

Admin

- Admin is the one who owns and maintains the app.
- Admin has access over every functionality of the app.

Owner

- Owner is the one who owns one or more businesses
- A user becomes an Owner by taking the Admin's permission.
- Owner may add, update, or delete their Centers in the app.
- Owner may add, update, or delete the Fields of one Center of theirs in the app.
- Owner may add, update, or delete the Manager of one Center of theirs in the app.
- Owner may add, update, or delete the Employees of one Center of theirs in the app.
- Owner may create, update, or delete a reservation in one Field of one Center of theirs in the app.
- Owner may view the list of active reservations of each Field of each Center of theirs in the app.
- Owner may view the list of completed reservations of each Field of each Center of theirs in the app.
- Owner may view the list of completed reservations of each Player in the app.
- Owner may offer discount to regular Players in the app.
- Owner doesn't need to have any previous experience to use such an app
- Owner needs to learn how to use CRUD operations to manage the Centers, the Managers, the Employees, the Fields, and the reservations.
- Owner needs to learn how to view different reservation lists and how to offer discounts to Players.

Manager

- Manager is the one who manages one business of the Owner in the app.
- A user becomes a Manager by taking the Owner's permission.
- Manager may add, update, or delete the Fields of one Center of theirs in the app.
- Manager may create, update, or delete a reservation in one Field of one Center of theirs in the app.
- Manager may view the list of active reservations of each Field of each Center of theirs in the app.
- Manager may view the list of completed reservations of each Field of each Center of theirs in the app.
- Manager may view the list of completed reservations of each Player in the app.
- Manager may offer discount to regular Players in the app.

- Manager doesn't need to have any previous experience to use such an app
- Manager needs to learn how to use CRUD operations to manage the Fields and the reservations.
- Manager needs to learn how to view different reservation lists and how to offer discounts to Players.

Employee

- Employee is the one who interacts with the Players when they (the players) get to the physical business
- A user becomes an Employee by taking the Owner's permission.
- Employee may view the list of active reservations of each Field of each Center of theirs in the app.
- Employee may view the list of completed reservations of each Field of each Center of theirs in the app.
- Employee may view the list of completed reservations of each Player in the app.
- Employee may offer discount to regular Players in the app.

- Employee doesn't need to have any previous experience to use such an app
- Employees need to learn how to view different reservation lists and how to offer discounts to Players.

Player

- Player is the one who manages one business of the Owner in the app.
- A user becomes a Player by creating a simple account in the app.; no permission from anyone is needed.
- Player may search for a Center using the Center's name in the app.
- Player may search for a Field to reserve using the Field's type in the app.
- Player may view the list all the Centers in the app.
- Player may view the list all the Centers that possess one specific type of Field in the app.
- Player may view the list all the Fields of one Center in the app.
- Po
- Player may create, update, or delete a reservation in one Field of any Center in the app.

- Player doesn't need to have any previous experience to use such an app
- Player needs to understand how searching works.
- Player needs to understand how Centers and their respective Fields are viewed.
- Player needs to understand how CRUD operations work to manage a reservation.

2.3 Assumptions

- We assume that the user can see.
- We assume that the user can read.
- We assume that the user understands the language used in the app (in our case English).
- We assume that the user owns a computer device or smartphone to access this app.
- We assume that the user has access to internet connection on their device when trying to access this app.
- We assume that the user possesses a Web Browser needed to access this WebApp in their device.
- We assume the Players understands the action flow of the app.
- It is assumed that Owners has their businesses already registered .

2.4 Constraints

This system will be potentially constrained by:

- the fact that users can only access this system application through a Web Browser.
- the need to have an internet connection and strong mobile data signals.
- the need to have every staff-person understand the way the system works
- security concerns on data accessibility
- offline usability

2.5 Dependencies

- Good internet connection
- Training the employees to use the ticket-checking device correctly and efficiently.

3. Requirements

3.1 Functional Requirements

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FR_001	The application should have a homepage that once a user logs in to create an idea from the images and background that is an interactive system for a variety of functions within sports and sports centers	This statement was proposed and approved by all investors and members who were present at last week's meetings. Everyone agreed that the impression left by the first page of the application visually is very important for all new users who do not have information what is the purpose of this application	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_002	The application should have one section for sign up and one section for sign in. All users and business members should firstly create an account at app, then they can log in at account on sign in section	This statement was proposed and approved by all investors and members who were present at last week's meetings. Everyone agreed that creating an account will avoid spam and malicious targets of bad actors and will help to keep all important data safe and saved on a database personalized for every user.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_003	The sign-up option should have a section in the center of the application layout, a section in the right edge of the beginning layout of the app and in the bottom of the layout app.	Most of the attendees proposed this idea but not all were full for the registration section to appear in 3 different application locations. Some of the attendees thought that a registration option in the center of the application layout was more than enough.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_004	The application should have two alternatives where users can sign up, one for users and one for business members with different attributes and privileges from each other.	This statement was proposed and approved by all investors and members. Normally a person that just enters the app for making a reservation to a sport center can't have the same attributes and tools as a sport center manager.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FR_005	When users create an account and log in all content that was hidden before creating an account should be shown and the needed tools like reservation option, or save option.	This statement was proposed and approved by all.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_006	A database application should save the date when the user has signed up and the location tracked.	Some of the attendees thought that this was not necessary.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_007	Center sports managers or owners when applying for creating an account should submit their business document and the account shouldn't be active due the team members of the product verify that it is valid.	This proposal was given by investors to avoid abuse of the business members that can create hundreds of accounts to promote the same center and to cover all layout by multiple sections from their accounts. Investors want to promote fair competition between businesses.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_008	In case that the business hasn't uploaded a valid document business the system should allow giving a last option to re-upload his documents.	This proposal was given by investors to avoid abuse of the business members.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_009	The app shall have a page called "Our Centers" where visitors can view all sport centers that are members of the system, their business name, sport category, numbers of sports fields and facilities, their staff information, free schedule when they can make a reservation.	This statement was proposed and approved by all investors and business members who were present at last week's meetings.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FR_10	The system should have an option for users to make reservations, to make updates like changing the timetable or delete the reservation. The user also should have the option to save a sport center post and to leave review with comment for any sport center.	This statement was proposed and approved by all investors and business members who were present at last week's meetings.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_11	The user shall have the option for leaving like/unlike or reporting a sport center for any scam or incorrect service to members of the system .	This was proposed by investors but some business members thought that this is necessary because all sport centers would be part of monthly review and rechecks from team members of the app.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_12	The system should make it possible to make payments online for the reservation of sport centers. To make the system flexible where users can do their payment and businesses easily can take their profits from platform	All attendees agreed that this is a great idea but most of them think that this would make users leave the platform or to not make a reservation.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_13	At the sport center section all centers should have an email and phone number contact so clients can easily make a call or send any email to ask for any information or inquiry about sport fields, reservation, prices or staff members.	All investors and businesses agree with this because communication is very important to keep the platform an efficient system for the public.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_14	System should create an alternative message app inside of the system where clients can communicate with each-other.	Some of the investors think that is an unnecessary additional cost and not necessary for as long as clients have information of sport centers, their email addresses and phone numbers.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FR_15	System should create an option for users to delete their account or to temporarily disable it if they desire it.	All of people that was in meeting think that system shouldn't keep account alive in case that a user wants to delete it or to close it for a temporary time	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_16	System should allow sport centers manager to add photos, videos and events as much as they want inside of their section but without passing a limit that would take up all the database storage	This statement was proposed and approved by all investors and members who were present at last week's meetings.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_17	ClickSports Interactive system should give the option to sport centers to delete any photo, video or captions, to change their contact information or to update their name or other details that are related with their sport center but following the guideline of the internal regulatory of the ClickSports center.	This statement was proposed and approved by all investors and members who were present at last week's meetings.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_18	ClickSports System should allow sport centers managers/owners to see all details and information of the clients that make a reservation to their sport center through the platform to avoid any false reservation made by a fake client.	This statement was proposed and approved by all investors and members who were present at last week's meetings. Security of sport centers is primary for ClickSports Project.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_19	ClickSports Application should give option to sport centers to hide their section from any other sport center at platform they want to avoid unfairly competition in case that any business will steal strategy of promotion that a sport center is using in platform. Also giving an option to report any from those business competitors for copyright violation in case that any business will post same content.	This is a supported idea but some businesses were skeptical about this because they think that this can't stop piracy and an unfairly businesses can open a user account and to see all details from the sport center section without needing of seeing those from his business account	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FR_20	The platform shall give option to sport centers to add payment method option to take any profit they can get from clients through platform	All members think that this is a good idea but most of them think that users will be afraid to make the payments online.	2	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_21	The platform shall give sport centers managers/owners to delete their account, to temporarily disable their account at platform or to remove every information that is related with the business at ClickSports system.	Respecting business decisions and privacy is a primary principle on which ClickSports members work.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari
FR_22	The system should give the option for businesses to make promotions at platform so their section can be shown at advertising zones to give higher visibility to clients that are members at platform.	This was a proposal from investors because the platform should have their profits from businesses and this is one of the best methods that is favorable for business, investors and ClickSports team members too.	1	07/04/2022	Reviewed: Elvis Dervishi Approved: Arlind Myzeqari

3.2 Non-Functional Requirements

3.2.1 Product Requirements

The purpose of this web application is to simplify the booking and reservation process for all sport players of Albania. This product will be compatible with any web browser , so the users will be able to access it from mobile or desktop. Initially, there will be a main interface where the user will have a clear view of what ClickSports has to offer, starting from the cooperation with different sports centers throughout the country, sports categories and different fields as desired.

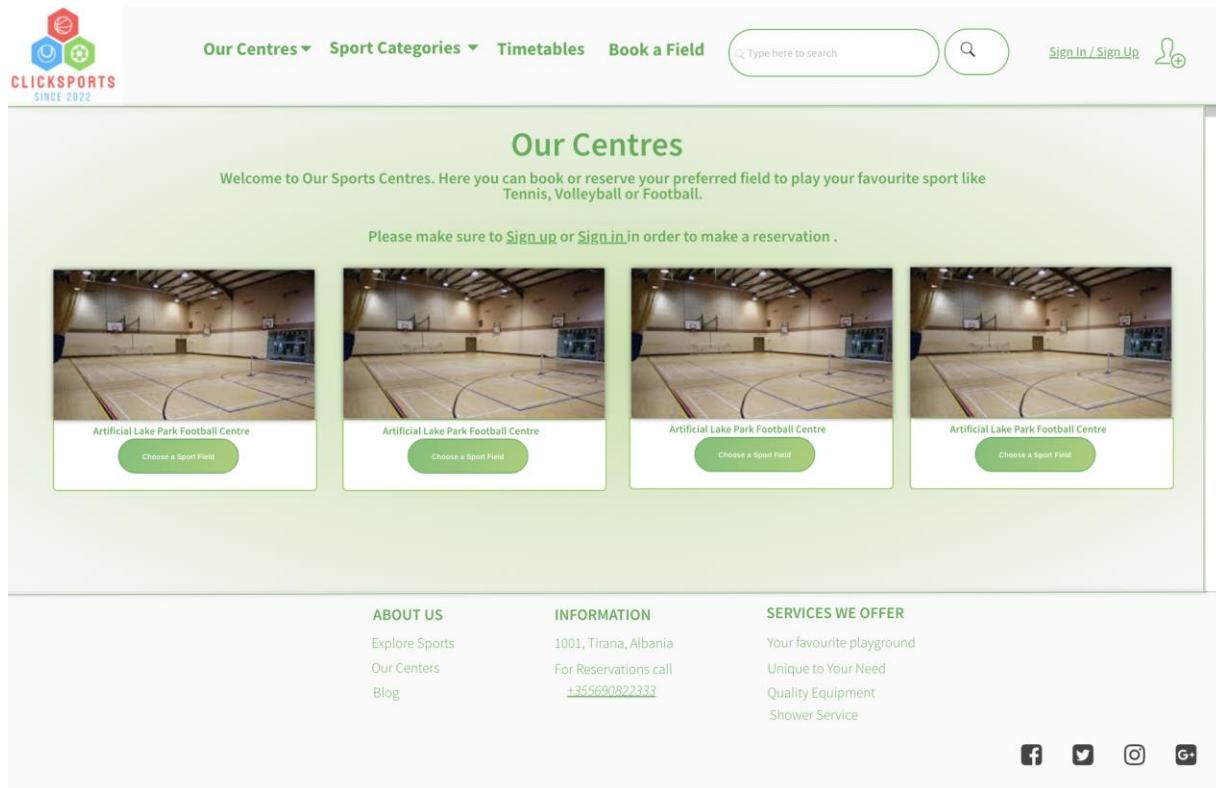
3.2.1.1 User Interface Requirements

The User Interface should be compatible with any browser in order for the user to access it from Desktop or Mobile. In addition with the functions required, in this section we are going to describe the characteristics of each interface associated with the relevant sketches.

- Different screen resolutions based on devices.
- Simplistic and responsive design.
- Receive native push notifications in real time.

→ **Main Interface as a viewer**

In cases when a random user wants to access ClickSports , this main interface will be displayed to the user. In this case, we will call it a “viewer” because it can only take a look but finds it impossible to perform actions as he must have an account to proceed further.



Welcome to Our Sports Centres. Here you can book or reserve your preferred field to play your favourite sport like Tennis, Volleyball or Football.

Please make sure to [Sign up](#) or [Sign in](#) in order to make a reservation .

ABOUT US

- Explore Sports
- Our Centers
- Blog

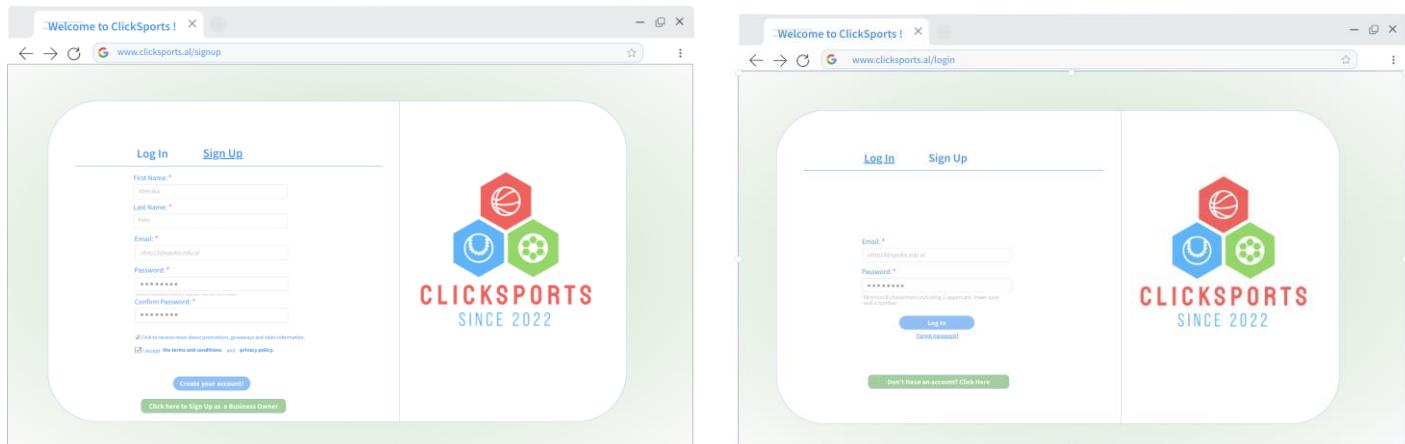
INFORMATION

- 1001, Tirana, Albania
- For Reservations call [+355690822333](tel:+355690822333)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service

→ **Sign Up / Log in Interface**

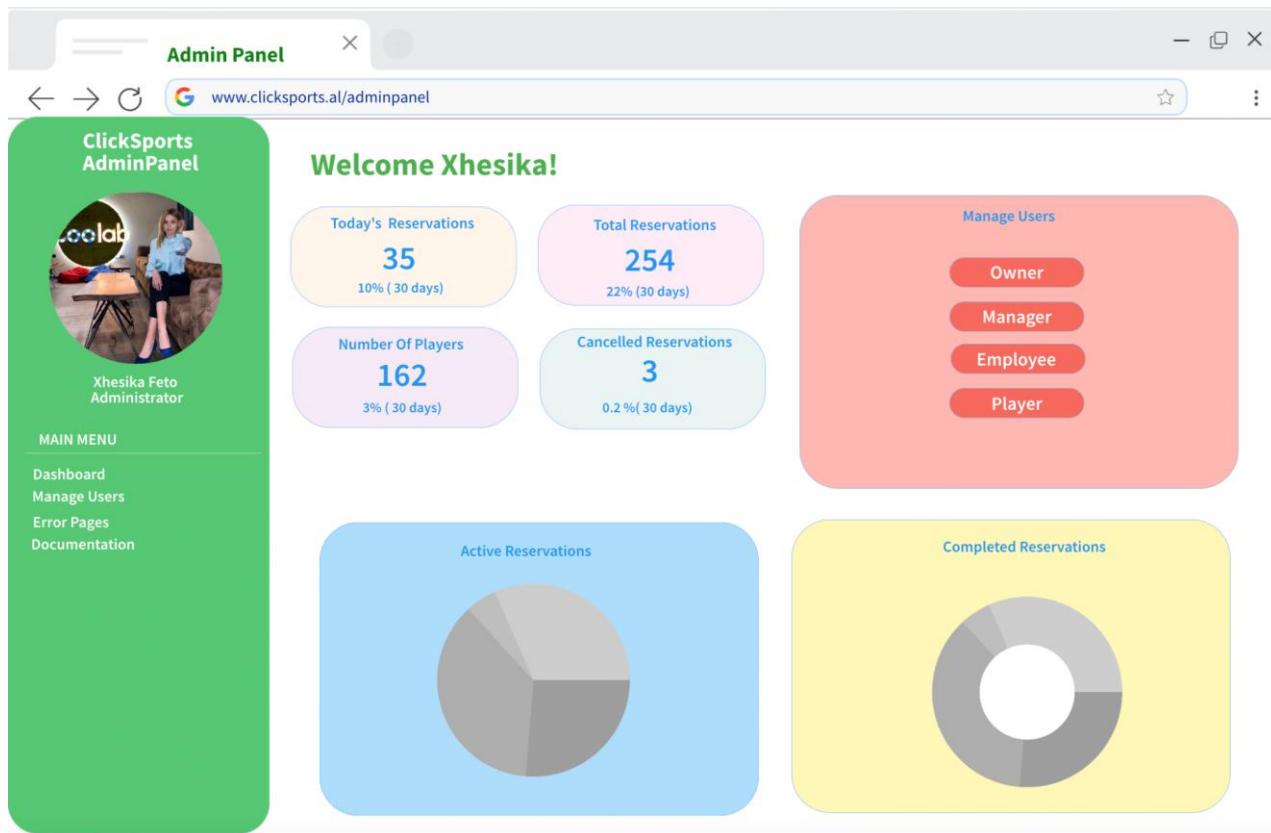


→ Admin Interface

The admins interface will contain an admin panel that should help in optimizing team's work and make it more efficient, achieving tasks as fast as possible. This admin interface should not have a complex design, instead it should make it possible for the users to interact quickly and easily with the data and the content. The easier, more intuitive, and understandable the interface is, the faster the users will perform their tasks and analyze the data presented on the dashboard

It should contain:

- User Profile Management. Everyone who uses the admin panel has a personal account, so you should always keep user profiles in mind when designing such panels. ...
- Content Management.
- User Authorization.
- Security and Permissions.
- Viewing Data.
- Editing Data.
- Easy Navigation.



The screenshot shows the ClickSports Admin Panel interface. On the left, there is a sidebar with a green header containing the ClickSports AdminPanel logo and a circular profile picture of a person named Xhesika Feto. Below the profile picture, the name "Xhesika Feto" and the title "Administrator" are displayed. The sidebar also contains a "MAIN MENU" section with links to "Dashboard", "Manage Users", "Error Pages", and "Documentation". The main content area is titled "Welcome Xhesika!" and features several data cards and a pie chart.

- Today's Reservations:** 35 (10% (30 days))
- Total Reservations:** 254 (22% (30 days))
- Number Of Players:** 162 (3% (30 days))
- Cancelled Reservations:** 3 (0.2% (30 days))

Manage Users:

- Owner
- Manager
- Employee
- Player

Active Reservations: A pie chart divided into three segments.

Completed Reservations: A donut chart.

Those are some of the most important user requirements but for more detailed sketches and design, visit the Appendix C part of this document.

3.2.1.2 Usability

ClickSports web app should be useful for all its users. The system should meet the customers' requirements. Each action should be performed fast and without many complex situations or errors. It should be easy to use and most importantly should have a document manual, to explain a "how to" for every interaction between the client and the server.

Accessibility

ClickSports shall be easy to access remotely and at all times, since both the business users and player users, will use the application on their devices.

Responsiveness

The software shall be responsible both in design and data transactions, especially because of the reliance on the Cloud Services.

Flexibility

Our software product shall be easy to update in order to accommodate new requirements.

The software shall be designed in such a way that the isolation and management of errors are possible.

Effectiveness

The software shall provide both businesses and players practical tools of managing their data and with a convenient way of communicating their needs across the platform.

3.2.1.3 Efficiency

- ClickSports will provide the users and the administrator with a fast and reliable way of accomplishing their goals such as creating reservations or updating sports center's data in a little time at their own convenience.
- The operations between interfaces to reserve or book should be in real time without interruptions.
- The actors can easily use the web application and then can easily perform the preferred actions like reserving a sport's field, booking, like/dislike, feedback, reporting for spam.
- Also, for every question that the user has, he is able to contact the manager via email and phone number.

3.2.1.4 Dependability

Availability

- The user is able to reserve/book a field anytime.
- If the user wants to cancel the reservation, he must cancel it one day before the "reserved" field.
- The system will be able to be at its best performance whenever the user prefers to take actions.
- This WebApp is user-friendly, open source and can be used in any geographical area, the only criteria are that the user should be connected to the Internet.
- The user is able to report actions that interrupt the booking process or the payment process.

Monitoring

- This WebApp will be built in order to be secure and reliable, so the client will be able to use the app as simply and efficiently as possible.
- Validation of fields will be used, for example when trying to log in, when a new user is added, when a new employee is added, when trying to change a password etc. In these cases when the input does not match the requirements a specific message will be shown to the user to inform them about the problem that occurred.
- For most of the possible error scenarios, informative messages will be prepared to be shown to the user, in order for him to know what the problem is. Any requirements for product or service health monitoring, failure conditions, error detection, logging, and correction.

Maintenance

- The administrator shall be provided with a proper interface to perform maintenance operations.
- The application will be developed in modules so it can be easily extended. New modules can be easily added to the application anytime.
- In case of system malfunction, a system restart should help. If that does not help, then maybe the server is down, so the maintenance department should be contacted.
- In case of any software update or bug correction, the users will be informed. User is able to reserve/book a field anytime.
- Attributes of the system that relate to ease of maintenance. These requirements may relate to modularity, complexity, or interface design. Requirements should not be placed here simply because they are thought to be good design practices.

Integrity

The app will use either Wi-Fi, or mobile data to connect to the internet. Other network related issues are automatically handled by Firebase Infrastructure, including connection monitoring, operation queueing during offline periods, etc.

3.2.1.5 Security

All the information that is in the system will be considered as sensitive information. Us as software Engineers should make sure that the security of our system is at a high level. We should make sure that no data will be lost and the transactions will be secure.

3.2.2 Organizational Requirements

- One of the points no less important than the other non-functional requirements of the software engineering of our project is the organizational requirements.
- We include our products vulnerable points and solutions, the importance of the performance of our final software product by considering also speed of reaction of every action of users and organizational aspects like available devices where our product would be able to use, what type of connection is required or product to be accessible to users, the durability and limits of products to be usefully for public every seconds of time without any break or any broken function.
- Organizational performance of our "ClickSports" metric assesses how our product will react to users' actions, the speed of reaction to clicks, mouse hovering, and key presses, input and output correlation, and other aspects. Overall, performance-related non-functional requirements can be divided into several types.

3.2.2.1 Environmental Requirements

- The main principle of our product is to be 24/24h at the service of the public, every day of the year.
- The "ClickSports" application will be developed such that it will not be forced to encounter downtime since the data used by the users is very sensitive and time-varying.
- Our product Software will be used in an optimization and simplified way for users of every age where everyone that love sports would explore an virtual environment that would give chances for public to give every possible action that have to do with sports that an user can do in an online platform by starting with every sports centers that exists in Albania and ending with an online reservation when no need for more actions for the user to do when S/he will be physically in the actual sport center that have reserved by avoiding in this way wasting a lot of time or other resources.
- In case of any problem unscheduled maintenance of the application shall not allow the system to be down for any day. The team of product should monitor the "ClickSports" System every day to avoid unpleasant cases when people can't be able to do anything on the platform.
- "ClickSports" will be available to everyone who owns a device connected to the Internet and since the first click of any user to platform cookies and sessions should be applied immediately, so where user will enter again the system may appear to him his personalized webpage where his preferred sports can appear in the first line of platform wall.
- Also, if a user lost his connection, he will be available to see some information that have been retained from sessions like for example, timetable of free reservation of ClickSports centers.
- The latency of the "ClickSports" platform will depend on: Internet connection strength, the size of the database, the efficiency of the algorithms used to fetch data from the database.
- The primary environment for our platform will be Web but the focus of our team is to extend the platform also in IOS and Android System.

3.2.2.2 Operational Requirements

- The users that enter the platform will have different roles based on their interest for what they want to use our platform.
- The users will have the possibility to see the main page of the platform by including all sports options and the primary page where the sport centers with no need to login to the platform.
- The users can create an account and login and to see the information of their profile every time they want.
- The information of any user can't be updated without approval of team members of "ClickSports" except any sensitive data like passwords that can be changed any time in case the user thinks that the security of his account is at risk of being hacked.
- The main information of the user can be accessed from the manager of sport centers in case the user wants to make any reservation to their sport center.
- The sensitive data like password or personal information will be part of the encryption and decryption process to avoid any privacy violation.
- Business managers can create a virtual center inside of our platform only after they have applied with all information required from platform and application have been approved from product management of our "ClickSports" center. After the team have approved the application the section center should be appeared and added automatically at platform.
- The "ClickSports" will be an interactive system where normal users, subscribed clients, sport centers managers and product team management can interact in accordance with each other and approve of each other any action like reservation or make possible to each other any update of information like for example a manager adding a new free possible time where players can reserve a center, or a player make an update by canceling a reservation and this is going as notification to the sport center manager. All interactions with each user should be made in real time at platform without having any incident like delay of any change from a user or a delay of any update to be appeared that will cause any misinformation to people that will use "ClickSports" System.

3.2.2.3 Development Requirements

- The technologies that will be used to create this product is technologies basically used in Web application:
- Front-End: Html + CSS + Javascript + Bootstrap
- Design of the Website will be also based on suggestions of our investors and sports centers owners where we will propose to them some of layout design options and we will come with a final design and look of how our platform will be.
- Backend: Php and MySQL
- After the product has been finished it will be uploaded firstly in server only for some beta tester to see how the platform will work and if the platform will be faced with any issue or incident and after some tests it will be published to be used by all users of the public.

3.2.3 External Requirements

3.2.3.1 Regulatory Requirements

- All users should agree that if they want to take actions at platform they should have created an account at platform with all information required. And that information may be subject of any verification from the management team.
- Also users should agree that some information is shown at all parts by sportists, usually users, sports centers managers and product team management.
- Owners of sports centers should agree that "ClickSports" isn't a free platform for businesses and for each transaction that is made at platform a percentage of profit is deducted for platform finance.
- All sportist users and business managers should agree that in case that platform detects any sign of abuse, scam, or false information they may be subject to penalisation like termination of account or disability of account for a temporary or permanent time.

3.2.3.2 Ethical Requirements

- Sportists and Sports centers should have an accepted name that fulfills the ethical criteria of the platform.
- Name of the sports center should be normal and shouldn't attract a public audience in an abnormal way like example: "This_is_the_best_football_center_of_the_platform".
- Every user and sport center should have a unique username which represents their profile on the platform.
- Every sport center manager should post only images and descriptions that represent sport or their sport center. Every content that is outside of sports scope isn't allowed to be published at ClickSports System.

- Sport centers managers shouldn't make comparisons with other centers or try to express at advertisement as better than other centers by harming fair competition.
- In case that "ClickSports" platform will provide a conservation section for its users, all users should follow the guidelines of "ClickSports" and not talk with abusive words that may offend any person.
- In case that any user reports a content or a conservation between sportists or sport centers managers product team management will have the right to control the data and to check if any of Guideline terms are violated.
- The accounts that stay more than 4 months inactive will automatically get deleted from the system and the user that had this account will not have any way to appeal the decision or to retract the account back.
- In case that ClickSports team detects repeated violations the account will be subject of termination due up to getting the account permanently deleted.

3.2.3.3 Legislative Requirements

- The data that will be collected in the ClickSports platform will be processed and stored by the ClickSports system in full compliance with the provisions of law no. 9887 dated 10.03.2008 "On Personal Data Protection" amended. These actions will be carried out according to the principle of respect and guarantee of fundamental human rights and freedoms and in particular the right to privacy.
- ClickSports System states that the submission of your personal data is not mandatory and is at the discretion of any entity to voluntarily provide the requested information and to proceed further with the application for the purpose for which it is requested (e.g., account creation application, application for creating a shop for a sports center, application of a sports center reservation).
- In this context, ClickSports wants to put to the attention of every user after the information has reached the Web server of the ClickSports platform, the latter implements a security system of the highest standards for the storage and further processing of this data, in accordance with the provisions of law no. 9887 dated 10.03.2008 "On Personal Data Protection" amended. We use appropriate security measures to protect data under our control against manipulation, loss, destruction, unauthorized access and unauthorized disclosure. Our security procedures are constantly being improved by putting new technologies into operation.
- The user confirms the completeness and veracity of the information provided by stating that he has correctly and truthfully completed all the required information. Also, by completing the online application, the user declares that he gives his consent for the further processing of the information provided for use by ClickSports according to the privacy statement on which the client gives his consent in the case of the application or for the purpose of which the user has voluntarily declared his personal data and / or for promotional announcements by various means of communication in case the data subject has given his consent online.
- We would like to clarify to all data subjects that the information provided by you will be processed by us according to the defined purpose, or the consent of the client, or the definitions of the Albanian legislation. This data is not transmitted to unauthorized third parties without the consent of the client, according to the framework of Albanian legislation on personal data protection.

3.2.3.3.1 Accounting Requirements

- Distributing of financially profits of the platform will be done in some parts. The platform will be used as a third part Service where users will make reservation and payment to the sport center, platform will guarantee the user that done payment that they will get the service for what they done payment and guarantee to sports centers managers that they will get their payments.
- A profit percentage of 25% will be deducted from the payment made in favor of the platform to further contribute to the development of the platform and the payments of system team members.
- In case that a cancellation is done no percentage from the payment will not affect the budget of the clients.
- The "ClickSports" platform will be used also as a Social Media App where sport centers manager can advertise and promote their centers to appear first on the front page unlike the other centers in exchange of any additional payment for the platform.

3.2.3.3.2 Security Requirements

- From day one, the primary principle of "ClickSports" will be security and privacy of his clients and the purpose of the platform will be helping people getting in touch with sports easier than any time ever, and to share information with people with same interest like owner of sport centers that want their centers to be reserved from players or players to connect with each other at platform so they can create new teammate or creating different tournaments. And this can happen only by sharing information at platform. So "ClickSports" to avoid security risks will build end-to-end encryption of everything that has to be about information of users' platform.

- This is because with end-to-end encryption, information of users is secured with a lock, and only the recipient and users have the special key needed to unlock and read them. All of this happens automatically: no need to turn on settings or set up special secret chats to secure users' information.
- Payments on "ClickSports", which will be available in Albania and Kosovo, enable transfers between accounts at financial institutions. Card and bank numbers are stored encrypted and in a highly-secured network. However, because financial institutions can't process transactions without receiving information related to these payments, these payments will not be end-to-end encrypted.

3.3 Domain Requirements

The primary purpose of the domain requirement of our product is that at the end of this project to have a successfully interactive system application that will be easily usable by all users that will be available and eligible to use the platform.

The objective of our team is to implement this system firstly in Web format and after this to extend the application at every mostly usable server like IOS and Android by users.

The primary responsibility of this system is to fulfill the need of all people that love sports to interact with sport centers in our region and to see all possible options to choose all sport options that are available in Albania or Kosovo.

The idea is about a user will have some option to choose when create his account. In case that the user is a player or a person that have interest in sport S/he can create an account to search for all sportive area, all sports options, all free possible timetable when can make reservation and everything that has to do with sports.

Also, a user that is an owner of a SportsCenter or a manager of it can create an account like a shop inside of platform when can promote his center, to attract new clients and to make possible easily for his old and new clients to see free timetable, to make reservations or to see any update of his clients like cancelation of a reservation or asking a request for postponement of a reservation schedule.

Domain requirements would include 4 roles of user: player or person interested for a sport or sport center, manager or owner of a sport center, investors of ClickSports and product team management of ClickSports platform.

Team management platforms have the absolute authority at platform where they will have the possibility to remove access of any user from platform but investors and business managers have the power to ask and require the product management team for their responsibilities.

The usability and efficiency of the system is secure as long as the platform team is active in intervening to fix any problems or incidents that may arise from any errors along the way.

4. User Scenarios/Use Cases

4.1 REQUIREMENT ANALYSIS

4.1.1 User Scenarios

4.1.1.1 User Scenarios List

NO.	NAME	DESCRIPTION
US_01	Player signs up	Player sign up directly with email
US_02	Owner, manager, and employee sign up	Owners, managers, and employees sign up as staff and must specify their specific position
US_03	User logs in	Admins, owners, managers, employees, and players log in using username/email and password
US_04	View profile	Admins, owners, managers, employees, and players view their profile
US_05	Change password	Admins, owners, managers, employees, and players change their password
US_06	Allow user to be Owner	Admin accepts user's request to be an Owner
US_07	Allow user to be Manager	Owner accepts user's request to be a Manager
US_08	Allow user to be Employee	Owner accepts user's request to be an Employee
US_09	View Centers as Player	Player may view all the Centers in the App at their (player's) home page
US_10	Search a Center	Player searches for a specific Center's name
US_11	Search a field type	Player searches for the type of field corresponding to the sport they want to play
US_12	Filter search	After searching for the type of field, the Player may filter the suggested Centers by date, time, field size, and number of players
US_13	Manage reservation	Players and one center's Owner and Manager manage a reservation. They may make a reservation, may view the previously made reservation, may edit their reservation, and may also cancel their reservation They get refunded if cancellation happens within the free-cancellation period

US_14	Manage center	Owner manages a Center Owner may add a Center, may view a Center they own, may edit some components of a Center (name and address), and may also delete a center they no longer own
US_15	Manage manager	Owner manages a Manager Owner may add a Manager to a specific Center, may view a Manager's profile, may edit at which Center a Manager works, and may also delete the Manager when the manager doesn't work for that Owner anymore
US_16	Manage employee	Owner manages an Employee Owner may add an Employee to a specific Center, may view an Employee's profile, may edit at which Center an Employee works, and may also delete the Employee when the employee doesn't work for that Owner anymore
US_17	Manage field	Owner and Manager manage the Field of a Center Owner and Manager may add a Field to a Center, may view a Field's data, may edit a Field's data when the physical field undergoes change, and may also delete the Field when the physical field doesn't exist anymore
US_18	View centers as Owner	Owner views all the Centers they own at their (owner's) home page
US_19	Fields' list	Owner and Manager view all the Fields of a specific Center
US_20	Active reservations' list	Owner, Manager, and Employees view a list of all the active reservations made by Players, Owner, or Manager
US_21	Completed reservations' list	Owner, Manager, and Employees view a list of all the completed reservations made by Players, Owner, or Manager
US_22	Player's reservations list	Owner, Manager, and Employees may view a list of all the completed reservations made by each Player Discount is offered to the Player with a specific (or more) number of completed reservations
US_23	User logs out	Owners, managers, employees, and players sign up with email

4.1.1.2 User Scenarios Extended

US_01 – Player Signs Up

- a. Get a general view of how the interface/system looks like.
- b. To reserve or book he needs to sign up.
- c. Player chooses account type: business or player.
- d. Player signs up with an email and a password.
- e. In order to reserve/book he needs to register as a player.
- f. Player is redirected to the Main User Interface where we can take actions (like post, report, cancel reservation etc.).

US_02 – Owner, Manager and Employee sign up

- a. To sign up, those actors need to specify their position.
- b. They enter Full Name, Email, Password and Position in the input boxes.
- c. If the actor does not specify the position or any of the other fields, an error message will be shown and the actor must repeat the steps.
- d. They will be redirected to their interfaces

US_03 – User logs in

- a. Gets a general view of the user interface.
- b. Must Log In in order to take actions on the system.
- c. User Logs In using username/email and password.
- d. If the username/email or password is wrong then the user must repeat the steps. ex. after logging in each type of user is redirected to their interfaces and privileges.

US_04 – View Profile

- a. Each user will be able to view their “My Profile”.
- b. User clicks on “My Profile”.
- c. Redirected to the corresponding interface of each user.
- d. Users will be able to change profile picture, change password, change/remove payment data etc.

US_05 – Change Password

- a. User logs in following the steps in US_03.
- b. User chooses the menu “Change Password”
- c. User types his old password and his new password (2 times)
- d. User presses the button “Save Changes”
- e. If the old password is correct and if the new password is the same in both fields the user is alerted: “Password was changed successfully!”
- f. In case the old password is wrong or the new password is not the same in both fields then user is alerted: “Password was not changed. Please try again.”

US_06 – Allow user to be Owner

- a. User requests to be Owner
- b. Admin allows user to become an Owner
- c. Owner is able to : Create, Read, Update or Delete:
 - Sport Center
 - Sport Center Manager
 - Sport Center Field
 - Sport Center Employee
 - Reservation
- d. The owner can offer a discount to players after viewing one player's active reservations.

US_07 – Allow user to be Manager

- a. Owner accepts the user's request to be a Manager.
- b. Manager should submit a business document.
- c. If the business has not uploaded a valid document, the system should allow a last option to re-upload the required documents.

US_08 – Allow user to be Employee

- a. User requests the Owner to become an Employee.

US_09 – View centers as Player

- a. Player logs in.
- b. The main interface is displayed to the player.
- c. Players are able to see what the system offers, the facilities and other activities in different sport centers.

US_10 – Search a center

- a. The sport's fields are displayed to the player.
- b. Players search for a sport center that can offer its preferred sport activities.
- c. Different sport centers are displayed to the player.
- d. Each entry has a name, description, location, sports and price.

US_11 – Search a field type

- a. Now the player has chosen the center he/she wants to play.
- b. Players are able to search for a sports field in this center.

US_12 – Filter Search

- a. To fulfill the player's search requirement, the player can filter the search.
- b. The filtering can be:
 - filter by nearest location
 - filter by number of players
 - filter by price of the field
 - filter by sport type
 - filter by date available
 - filter by time available

US_13 – Manage Reservation

- a. The reservation can be done by the player or by the manager.
- b. In cases where the player cannot do the reservation, he lets the manager know about the reservation process and the manager does it manually.
- c. The owner, manager and player can make reservations.

US_14 – Manage Center

- a. Admin logs in.
- b. A center is managed by the Manager, but it is owned by the Owner, meanwhile the Admin has access to all the information.
- c. Admin can view the profiles of other members.
- d. Admin can add centers.
- e. Admin can add data to the different sport centers.
- f. Manages suspicious activity.
- g. Admin creates, updates, reads and deletes content on the system.

US_15 – Manage Manager

- a. The manager is allowed to make changes to the system by:
 - creating, reading, updating or deleting a field
 - creating, reading, updating or deleting a reservation made by the player
- b. Managers can add photos, video, events that follow the guidelines of the system.
- c. The manager can view the list of active reservations.
- d. After viewing one player completed reservations, the manager can offer a discount.
- e. If the player cannot make the reservation by himself, the manager makes the reservation manually.
- f. Manager can make a reservation, view, edit or cancel a reservation.
- g. After viewing the list of active reservations by the player, he can offer discounts.

US_16 – Manage Employee

- a. Owner manages an employee.
- b. Owner may add an Employee to a specific center, may view an Employee's profile.
- c. Owner may edit at which Center an Employee works and may also delete the Employee when the Employee doesn't work anymore for that center.
- d. The employee is able to view the list of active reservations.
- e. The employee can offer a discount to the player.

US_17 – Manage Field

- a. A field is managed by the Owner or/and the Manager of the center.
- b. Owner and Manager may add a field to a center, may view/update field's data.
- c. Owner and Manager may edit a Field's Data when the physical field doesn't exist anymore.

US_18 – View Centers as Owner

- a. Owner logs in.
- b. Owner is able to view all the data of the sport's centers registered in the system and can make changes when needed.

US_19 – Fields List

- a. The fields list is managed by the Owner and the Manager of the center.
- b. The fields list can be viewed by the player.
- c. The fields list is shown to the player when the player searches for different fields.
- d. Then the players can select one field from the list.

US_20 – Active reservations list

- a. Owner, Manager, and Employees view a list of all the completed reservations made by Players, Owner, or Manager.
- b. The active reservations list is hidden for the player.

US_21 – Completed reservations list

- a. Owner, Manager, and Employees view a list of all the completed reservations made by Players, Owner, or Manager.
- b. When a player has completed a specific number of reservations, the Manager offers a discount for the player.

US_22 – Players Reservation list

- a. Owner, Manager, and Employees may view a list of all the completed reservations made by each Player.
- b. Player searches for a field type.
- c. Player searches for the center.
- d. Player views all centers.
- e. Player reserves a field of a specific sport center.
- f. While making a reservation the player can:
 - Ask for equipment
 - View free schedule
 - Verify payment
 - Player views the reservation made by him
- g. Player can also Edit reservation:
 - Canceling the reservation
 - Requesting refund

US_23 – User logs out

- a. Owners, managers, employees, and players log out after making a reservation or just viewing the content of the system.

4.1.2 Use Case Tables

Name	UC_01 – Player Signs Up
Summary	Player signs up after choosing to register as a player
Actor	Player
Description	Player gains access to his account after entering the credentials in the sign-up interface.
Pre-Condition	Players must enter an email and a password.
Alternative	If the player already has an account, he can log in.
Post Condition	Players can book a playground.

Name	UC_02 – Owner, Manager and Employee sign up.
Summary	Owner, Manager and Employee can sign up after specifying their position whether they are a business or a player, in this case they must register as a business account.
Actor	Owner, Manager, Employee
Description	Owner, Manager and Employee sign up by specifying their position, then they can take more actions.
Pre-Condition	Must register as a business account and provide business documents.
Alternative	If the business has not provided a valid document, the system should allow a last option to re-upload the required documents.
Post Condition	Owner, Manager and Employee are signed up.

Name	UC_03 – User Logs in
Summary	A user can log in as a business or player. Depends on the account type they are registered.
Actor	Owner, Manager, Employee, Player
Description	User can only view the main interface and to take actions like booking, reporting a problem, saving a center etc., he needs to log in.
Pre-Condition	User logs in using username/email and password.
Alternative	If the username/.email is wrong then the user must repeat the steps.
Post Condition	User is logged in successfully.

Name	UC_04 – View Profile
Summary	All of the users have their profile on the system.
Actor	Owner, Manager, Employee, Player
Description	Each user has its own “My profile” on the system and can make changes on its account like: changing the profile picture, changing its position, change/remove payment data, delete account etc.
Pre-Condition	Must be logged in.
Alternative	If the user chooses not only to view its profile, but to update his data he must provide valid data about the payment.
Post Condition	User has viewed or updated his data.

Name	UC_05 – Change Password
Summary	All users can change the password of their account.
Actor	Owner, Manager, Employee, Player
Description	Every user that is registered previously on the system is able to change its password.
Pre-Condition	Must be registered previously. When changing the password, the user must enter the Old Password of its account and click “Save Changes”.
Alternative	If the old password is correct and typed correctly in both fields, then the user is alerted : “ Password was changed successfully”. If the Old Password is typed wrong or the new password isn't the same in both fields, then the user is alerted: “Password was not changed. Please try again!”.
Post Condition	The user has changed its password.

Name	UC_06 – Allow user to be Owner
Summary	User requests to be Owner.
Actor	Manager, Employee, Player
Description	Users of type: Manager, Employee or Player are allowed to request the Admin to become an Owner.
Pre-Condition	Must be registered as a Manager, Employee or Player in order to make the request to the Admin.
Alternative	If the user doesn't fulfill the criteria to become an Owner, the user is alerted: “Your account doesn't fulfill the criteria to become an Owner. Please provide a valid document.”
Post Condition	User becomes an Owner.

Name	UC_07 – Allow user to be Manager
Summary	User requests the Admin to become a Manager.
Actor	Owner, Employee, Player
Description	Users of type: Owner, Employee or Player are allowed to request the Admin to become a Manager.
Pre-Condition	Must be registered as an Owner, Employee or Player in order to make the request to the Admin.
Alternative	If the user doesn't fulfill the criteria to become a Manager, user is alerted: "Your account doesn't fulfill the criteria to become a Manager. Please provide a valid document."
Post Condition	User becomes a Manger.

Name	UC_08 – Allow user to be Employee
Summary	User requests the Admin to become an Employee.
Actor	Owner, Manager, Player
Description	Users of type: Owner, Manager or Player are allowed to request the Admin to become an Employee.
Pre-Condition	Must be registered as an Owner, Manager or Player in order to make the request to the Admin.
Alternative	If the user doesn't fulfill the criteria to become an Employee, user is alerted: "Your account doesn't fulfill the criteria to become an Employee. Please provide a valid document."
Post Condition	User becomes an Employee.

Name	UC_09 – View centers as Player
Summary	Player logs in and is able to view all the sport centers that offer different sport activities.
Actor	Player
Description	The player must be logged in. The “Our Centers” interface is displayed to the player. Then the player is able to see what the system offers, the facilities and other activities.
Pre-Condition	After logging in, the main interface is displayed to the player. The player should click “Our Centers” interface from the toolbar. An interface with different sport centers is displayed to the player.
Alternative	No alternatives.
Post Condition	The player chose to view centers or click and view more information about that center.

Name	UC_10 – Search a center
Summary	Player can search a sport center.
Actor	Player
Description	Player can search for its preferred sport center in the city by searching it at the “Our Centers” interface.
Pre-Condition	Must be logged in.
Alternative	If the Sport Center the Player is searching doesn't exist, an alert is displayed: “The sport center you are searching doesn't exist”.
Post Condition	Preferred sport center is displayed.

Name	UC_11 – Search a Field Type
Summary	Player is able to search for a playground inside the chosen center.
Actor	Player
Description	After the player has chosen the preferred sport center to play activities, the player can search for a field type that fulfills its requirements.
Pre-Condition	Must have chosen a center.
Alternative	No alternatives.
Post Condition	The playground and its characteristics are displayed to the player.

Name	UC_12 – Filter Search
Summary	Players can put filters while searching for facilities provided by the system.
Actor	Player
Description	If the player wants to have a specific search, he can put a filter and the required information will be displayed on the screen. The filtering includes: location, number of players, price, sport type, date/hour available.
Pre-Condition	Must have selected Search Bar/Toolbar.
Alternative	It is not a must. The user chooses whether or not to apply the filter search. If the information requested by the user does not exist, an alert will pop up saying: “The requested information does not exist”.
Post Condition	The information will be displayed on the screen.

Name		UC_13– Manage Reservation
Summary		The reservation can be done by the player or the manager.
Actor		Player, Manager
Description		The reservation process can be done by the player, but there are some cases when the manager can reserve manually for the player.
Pre-Condition		The player must have an account.
Alternative		No alternatives.
Post Condition		The reservation is done successfully.

Name		UC_14 – Manage Center
Summary		The center is managed by the Manager.
Actor		Manager, Owner, Admin
Description		A center is managed by the manager, meanwhile an Owner can add, delete, change a Center.
Pre-Condition		The user must have a business account.
Alternative		No alternatives.
Post Condition		The center is managed in a secure way.

Name	UC_15 – Manage Manager
Summary	The manager is managed by the Admin or Owner.
Actor	Admin, Owner
Description	Managers can add photos, video, events that follow the guidelines of the system.
Pre-Condition	The manager can view the list of active reservations.
Alternative	If the player cannot make the reservation by himself, the manager makes the reservation manually.
Post Condition	After viewing one player completed reservations, the manager can offer a discount.

Name	UC_16 – Manage Employee
Summary	Owner manages an Employee.
Actor	Owner
Description	Owner may add an Employee to a specific center, may view an Employee's profile. Owner may edit at which Center an Employee works and may also delete the Employee when the Employee doesn't work anymore for that center.
Pre-Condition	Owner can view the information of the system, make changes or add new employees.
Alternative	No alternatives.
Post Condition	The employee is able to view the list of active reservations and can offer a discount to the player.

Name		UC_17 – Manage Field
Summary		A field is managed by the Owner or/and the Manager of the center.
Actor		Owner, Manager
Description		Owner and Manager may add a field to a center, may view/update field's data. Also, they may edit a Field's Data when the physical field doesn't exist anymore.
Pre-Condition		The user must have a business account like Owner or Manager in order to change data on the system.
Alternative		No alternative.
Post Condition		The data about the fields information on the system is updated.

Name		UC_18 – View centers as owner
Summary		Owner of the center must be logged in, in order to view the centers.
Actor		Owner
Description		Owner is able to view all the data of the sport's centers registered in the system and can make changes when needed.
Pre-Condition		Must be logged in.
Alternative		If the owner thinks it is reasonable to make changes about the centers, then he can choose to update, change, read, view data etc.
Post Condition		

Name		UC_19 – Fields List
Summary		The fields list is managed by the Owner and the Manager of the center.
Actor		Owner, Manager
Description		The fields list can be viewed by the player and is displayed to the player after he searches for different fields at “Our Centers” interface.
Pre-Condition		Must search the fields in order to show the list of the fields with their information.
Alternative		No alternative.
Post Condition		The list of fields is displayed on the screen.

Name		UC_20 – Active reservations list
Summary		Active reservations can be only seen by the Business accounts and not by the Player.
Actor		Owner, Manager, Employee
Description		Owner, Manager, and Employees view a list of all the completed reservations made by Players, Owner, or Manager.
Pre-Condition		The active reservations list must be hidden for the player.
Alternative		No alternatives.
Post Condition		The active reservations list is displayed to the screen.

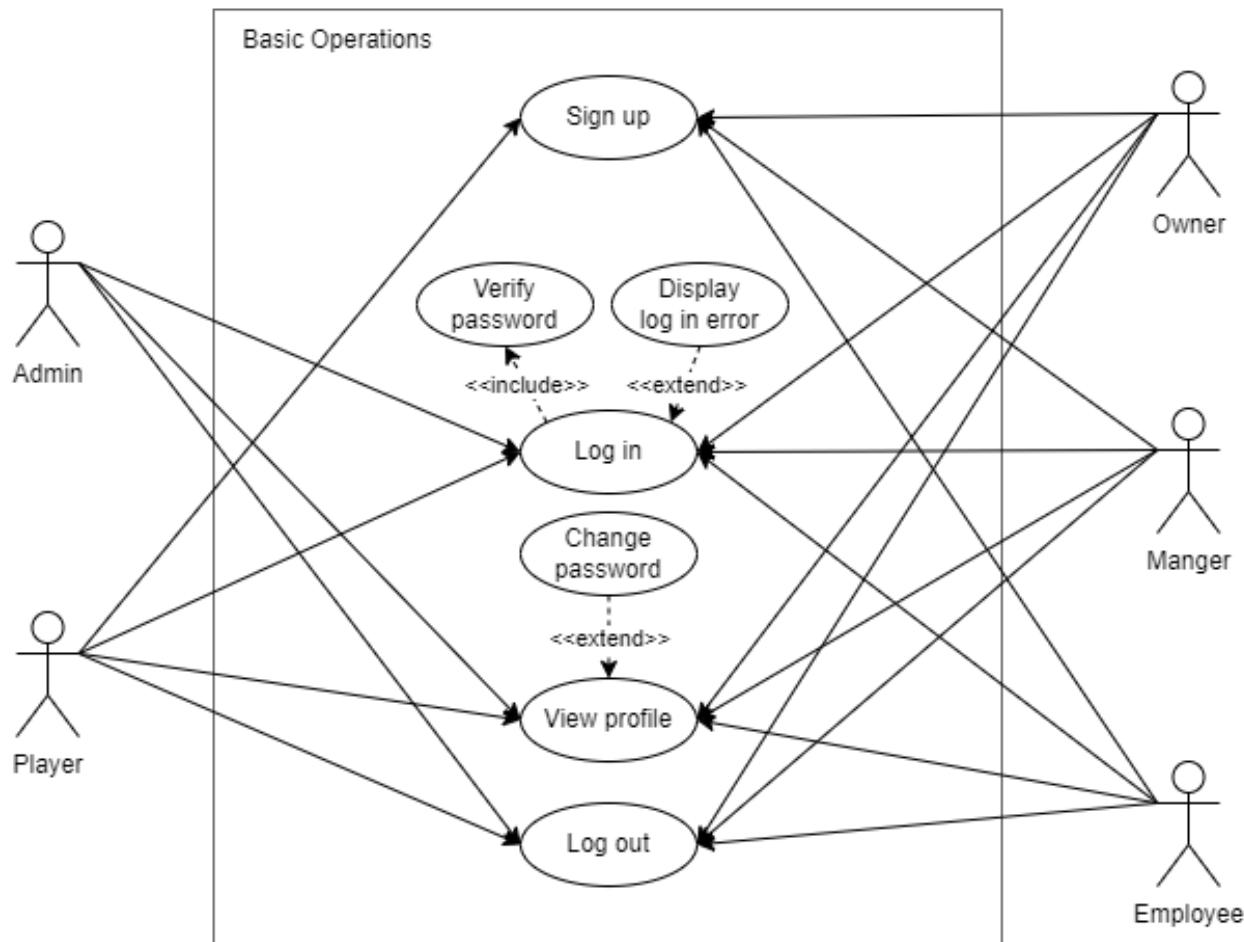
Name		UC_21 – Completed reservations list
Summary		The business accounts can view a list of all the reservations made by the player.
Actor		Owner, Manager, Employee
Description		When a player has completed a specific number of reservations, the Manager offers a discount for the player.
Pre-Condition		The player must have a specific number of completed reservations in the past.
Alternative		If the player hasn't completed a specific number of reservations, no discount is offered.
Post Condition		Discount is offered.

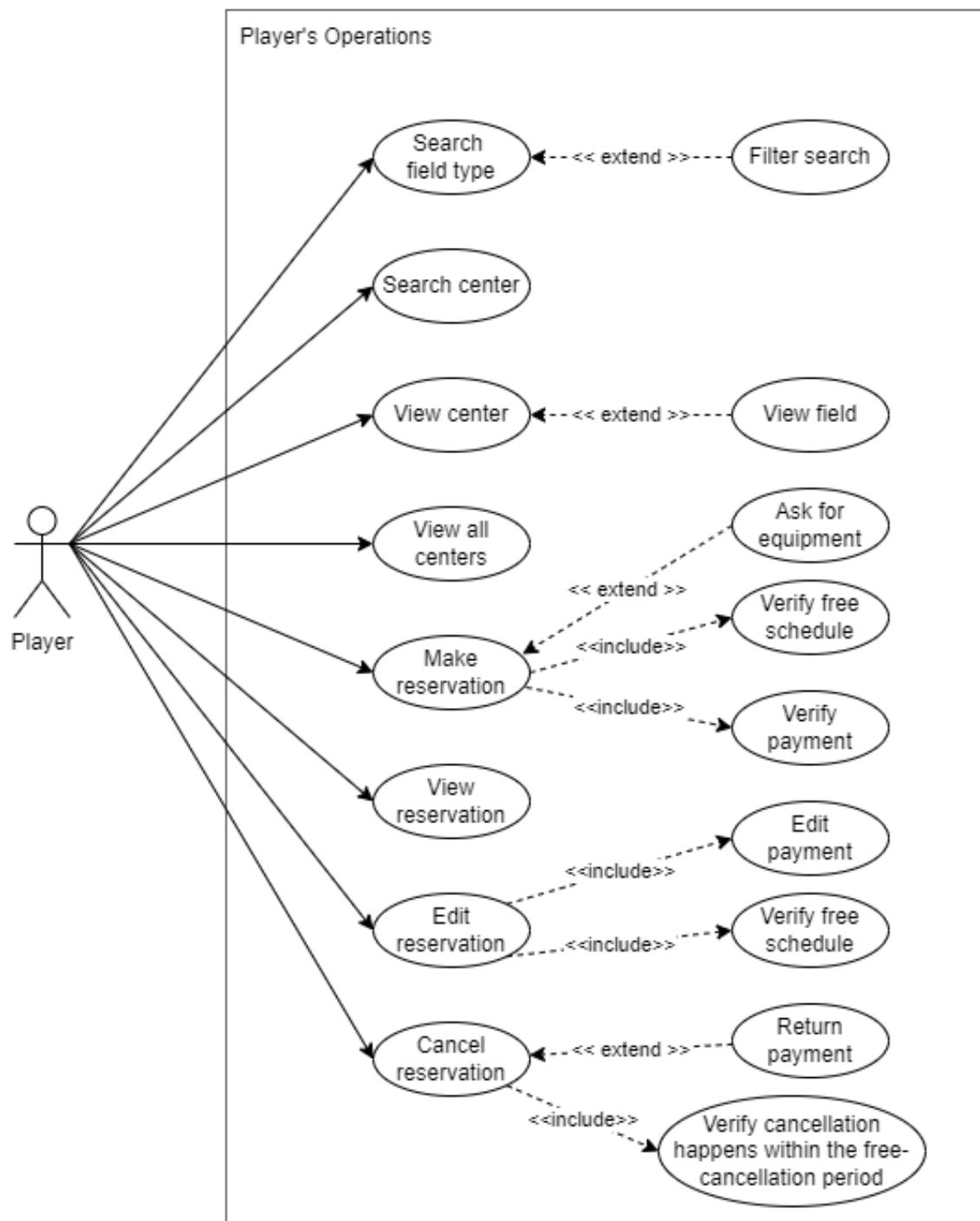
Name		UC_22 – Players reservation list
Summary		Owner, Manager, and Employees may view a list of all the completed reservations made by each Player.
Actor		Owner, Manager, Employee
Description		Every player can take actions on the systems like: access to "My Profile", Like/Save/Comment/Review/Report action, can make reservations through payment with a credit card. The player can reserve a field of a specific sport center, ask for equipment, verify free schedule etc.
Pre-Condition		The player must provide and make the reservations with a valid credit card.
Alternative		The player can cancel the reservation and can get a refund only if the cancellation happens within a free cancellation period.
Post Condition		Owner, Manager and Employee can view a list of all the reservations made by the player.

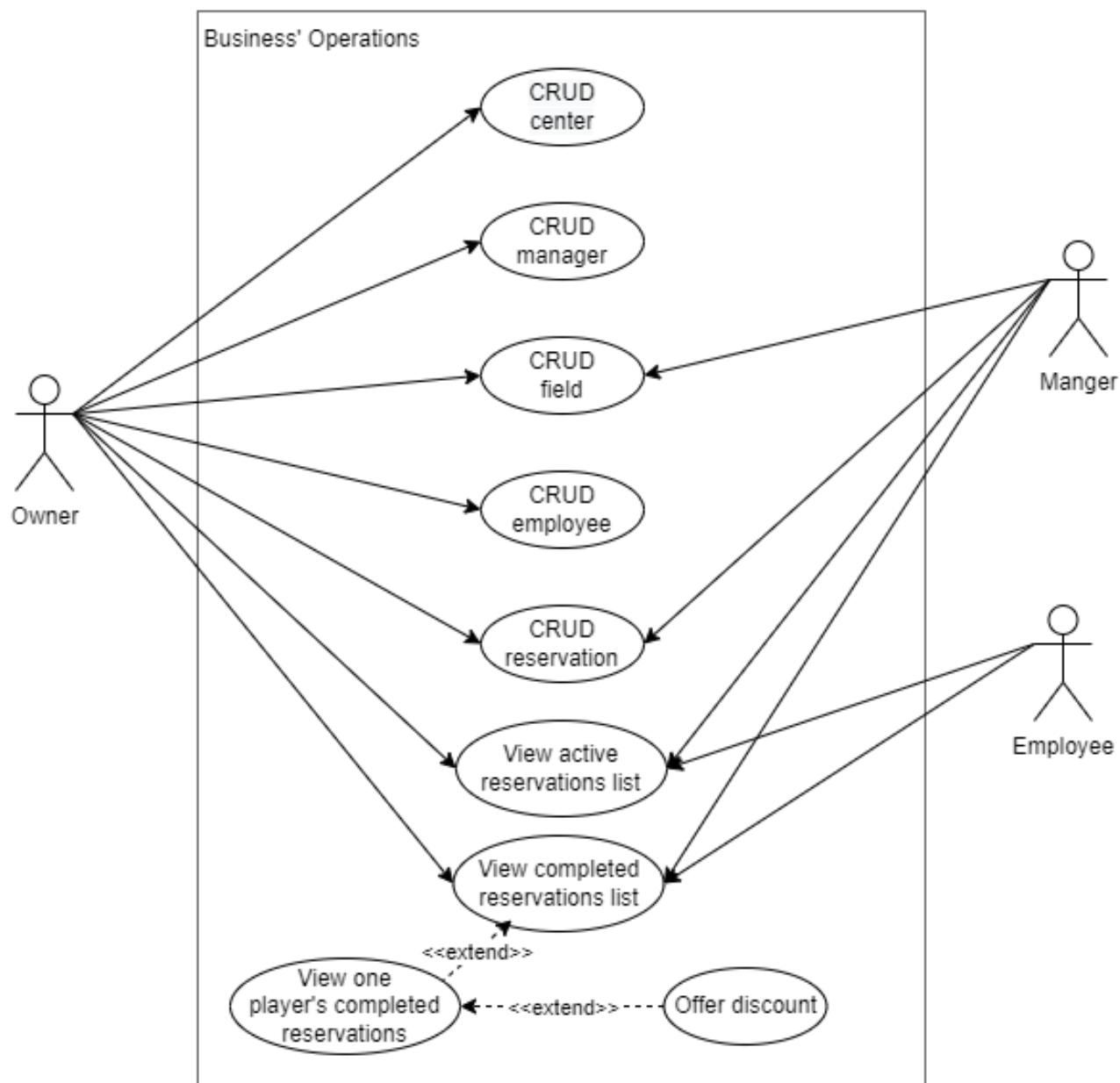
Name	UC_23 – User Logs Out
Summary	All of the users are able to log out.
Actor	Owner, Manager, Employee, Player
Description	After taking the preferred actions on the system every user can choose to log out.
Pre-Condition	Must have an account.
Alternative	It's the user's choice if he wants to log out or not.
Post Condition	The user is logged out.

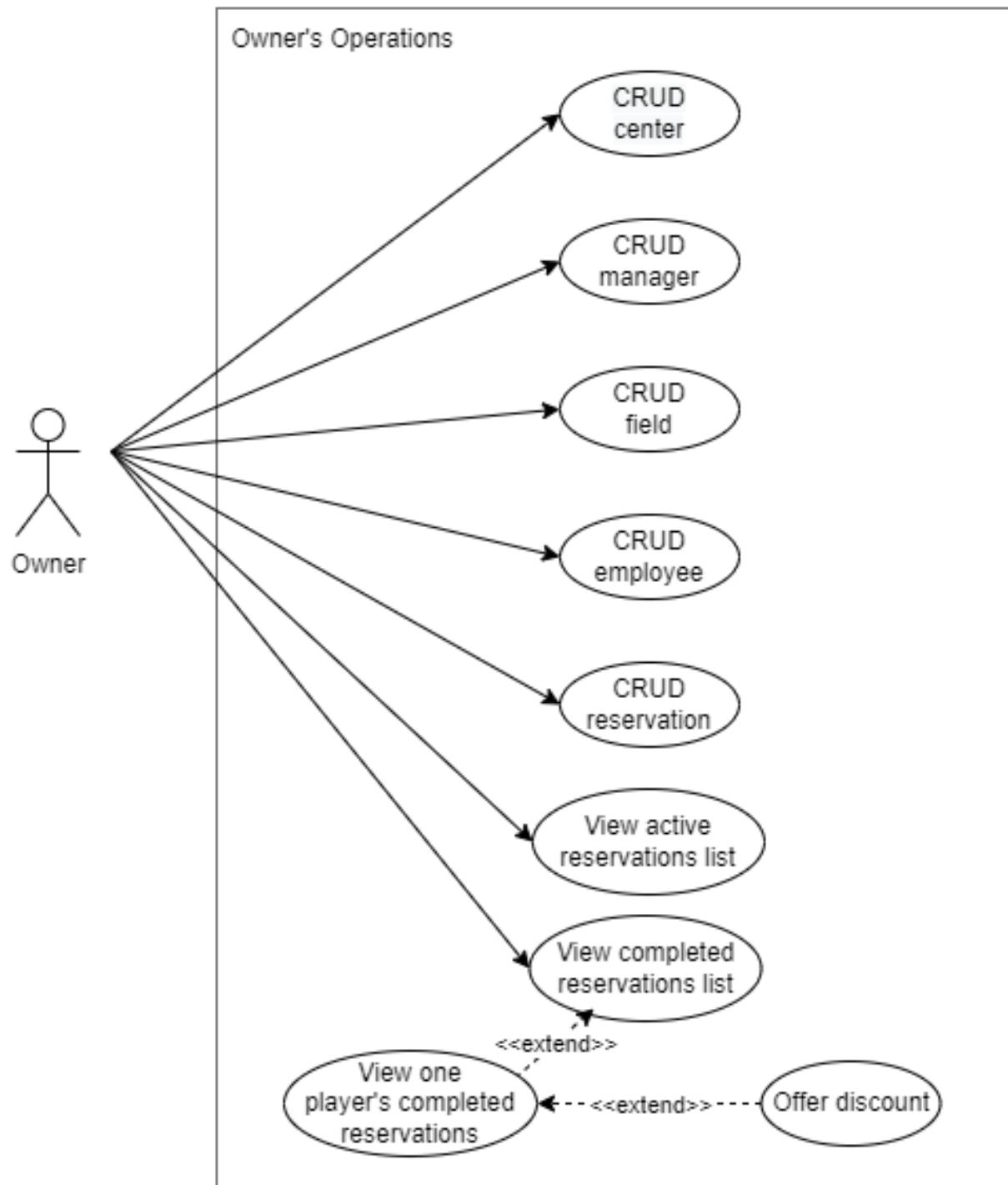
4.2 Behavioral Diagrams

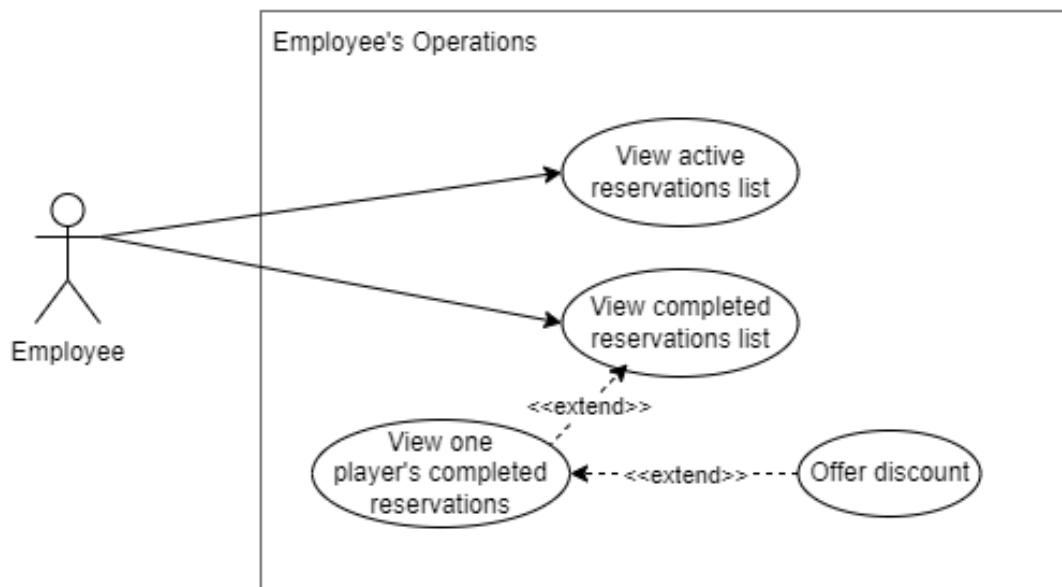
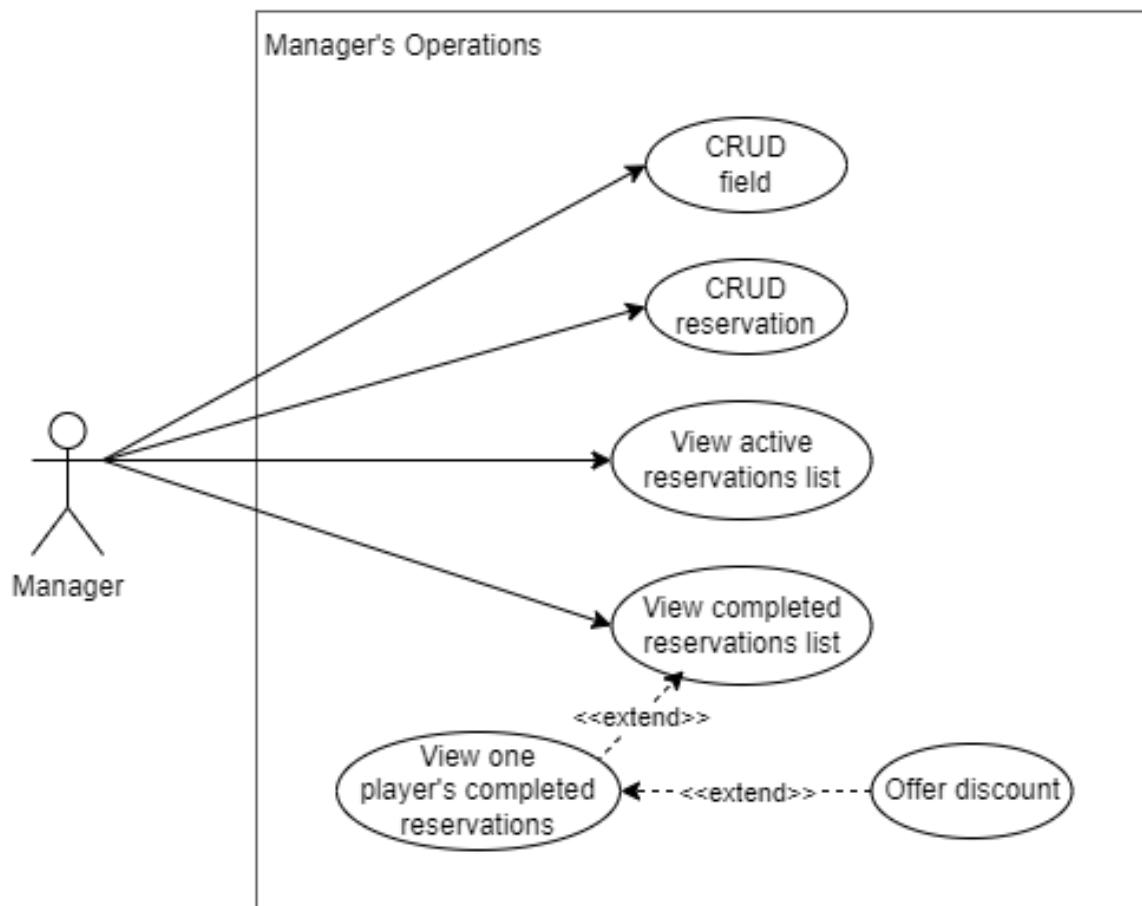
4.2.1 Use Case Diagrams





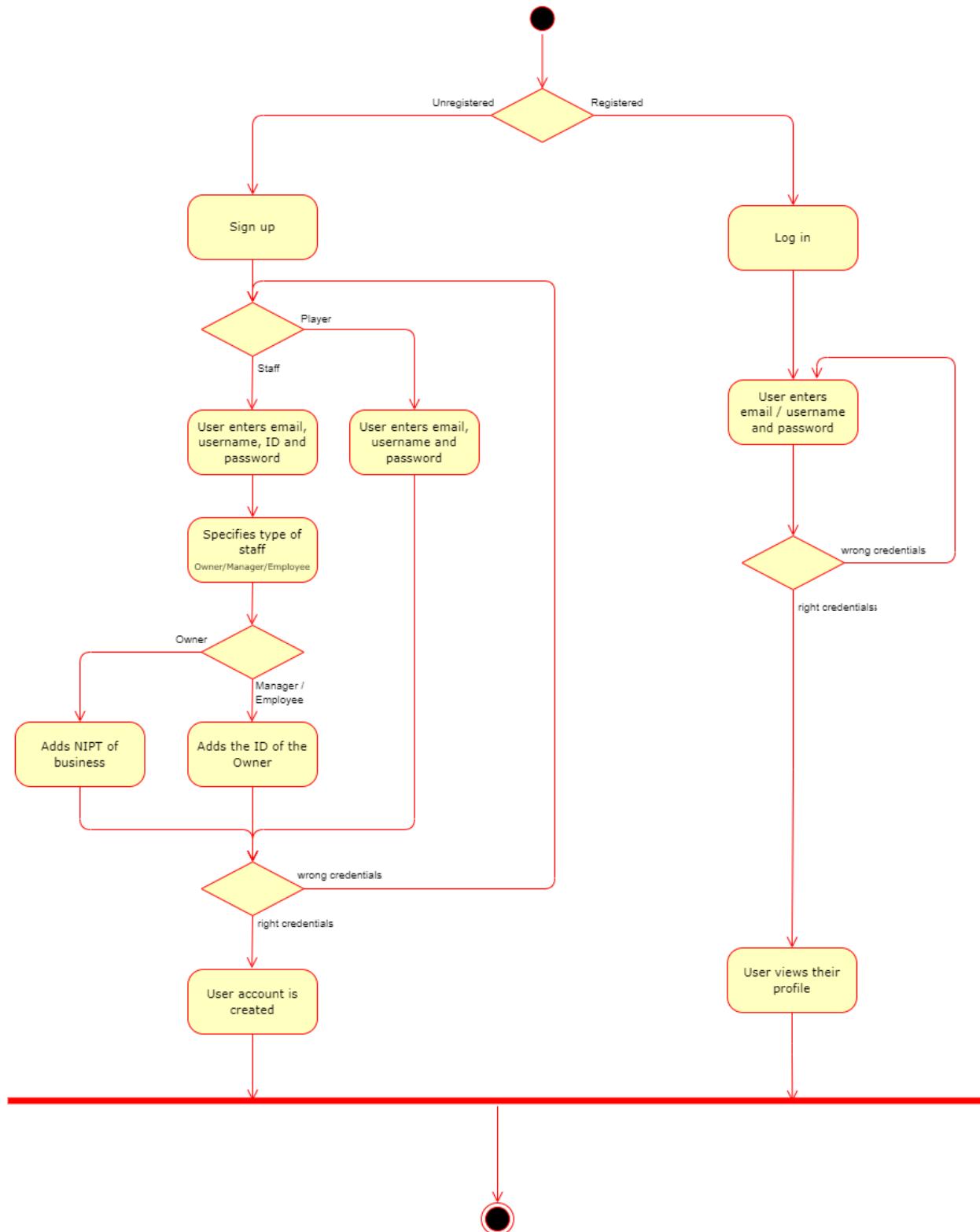




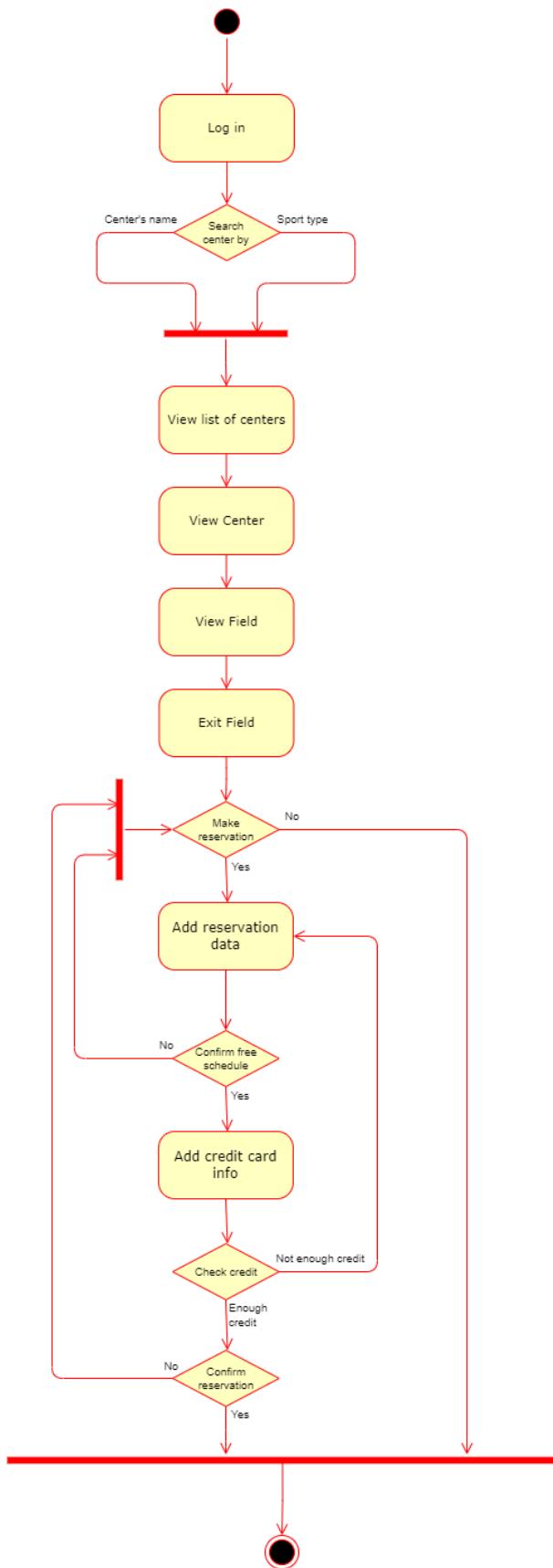




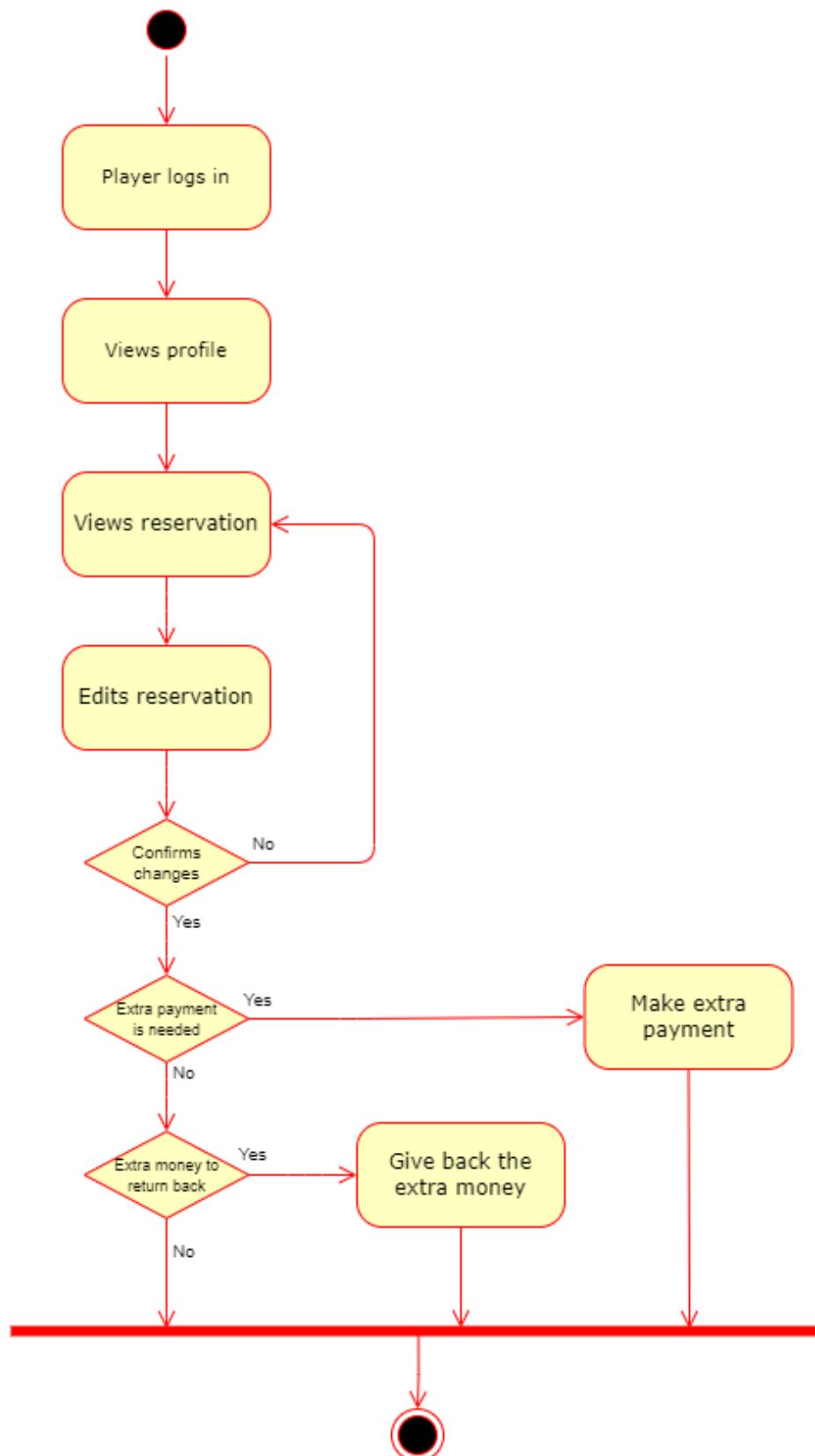
4.2.2 Activity Diagrams



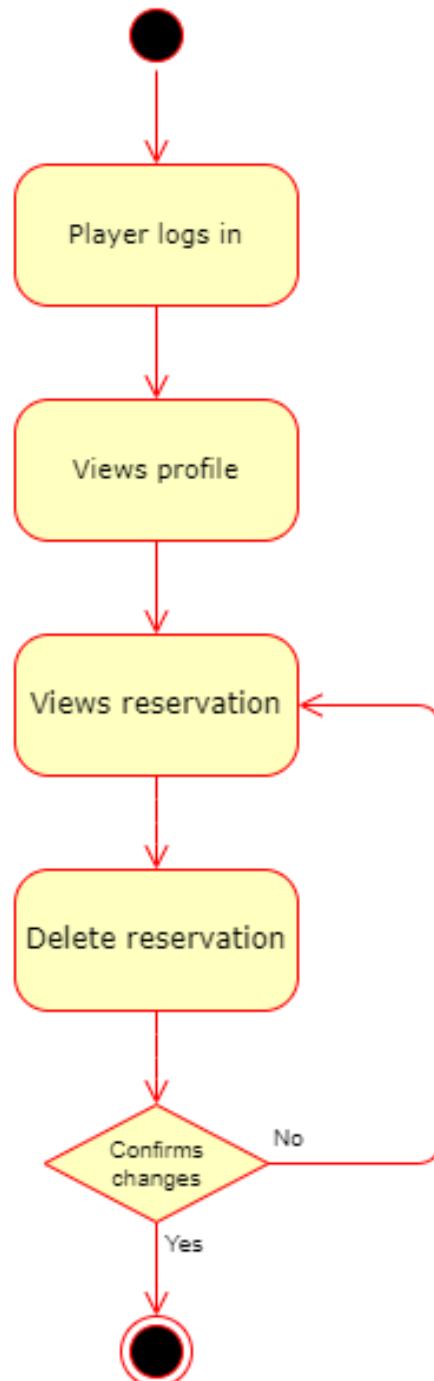
AD_01 – Sign up & Log in

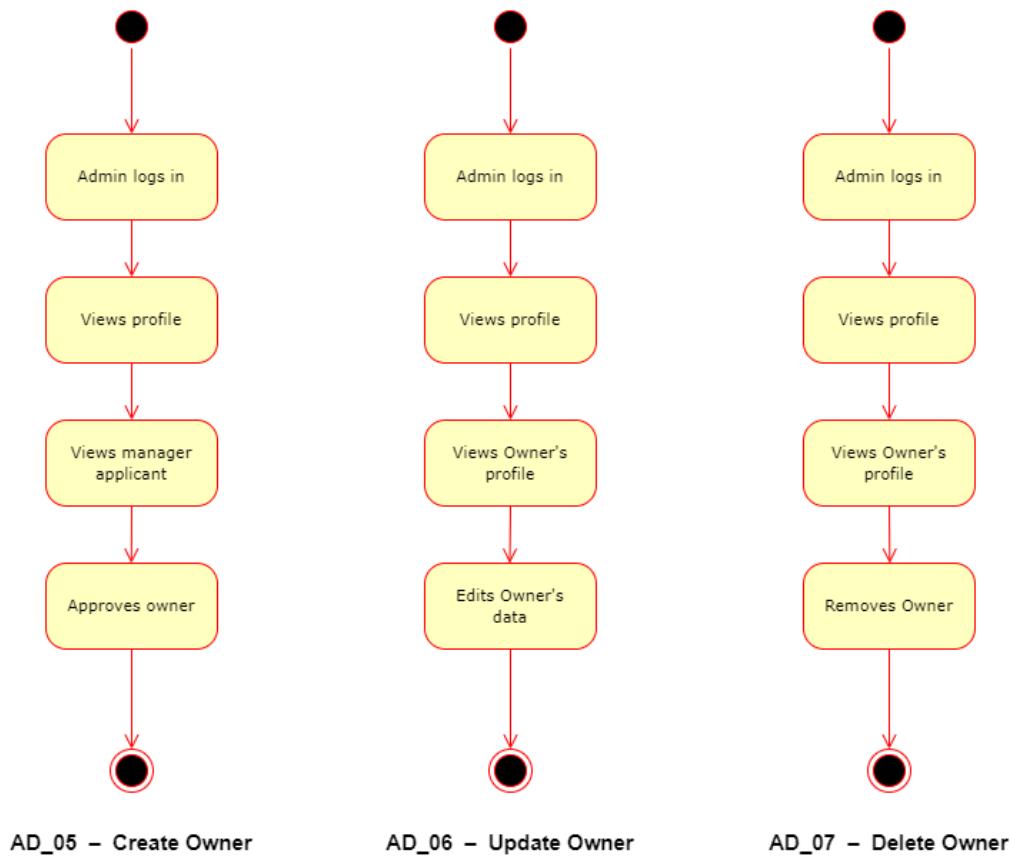


AD_02 – Add Reservation

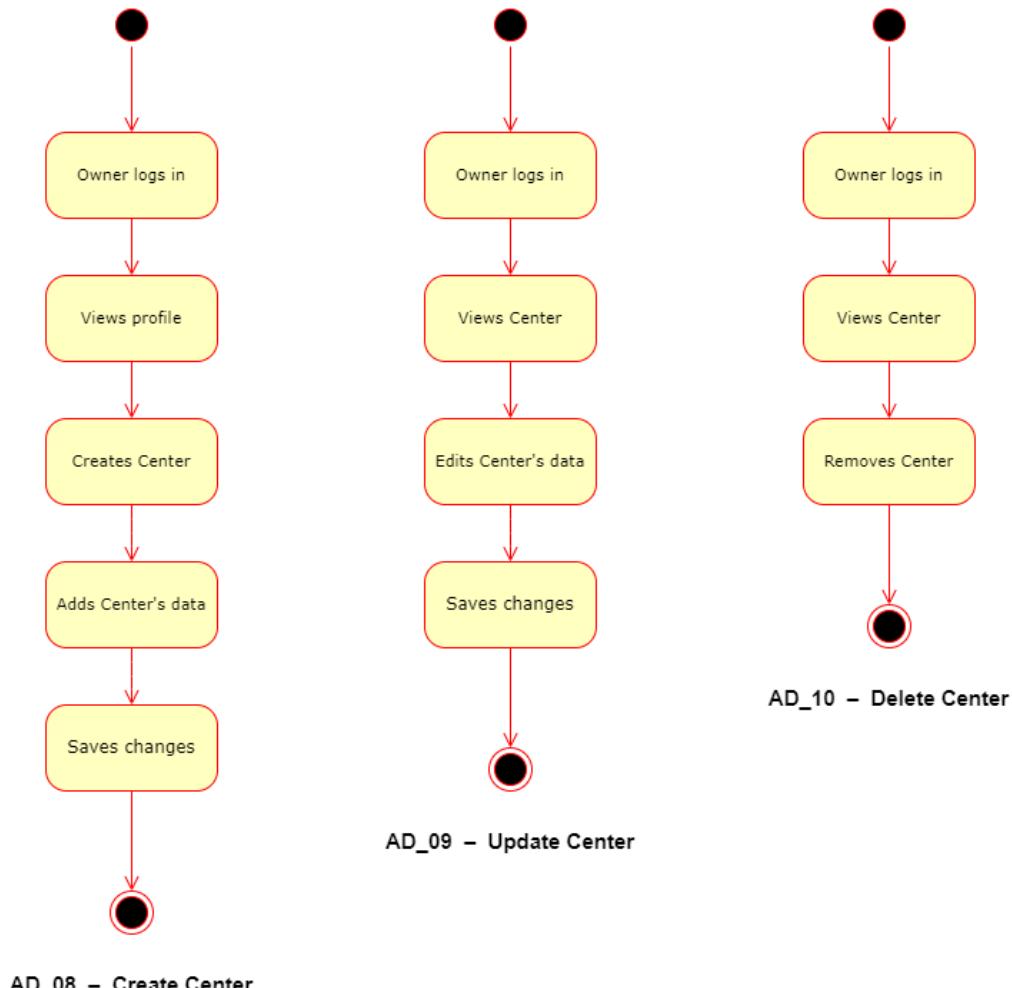


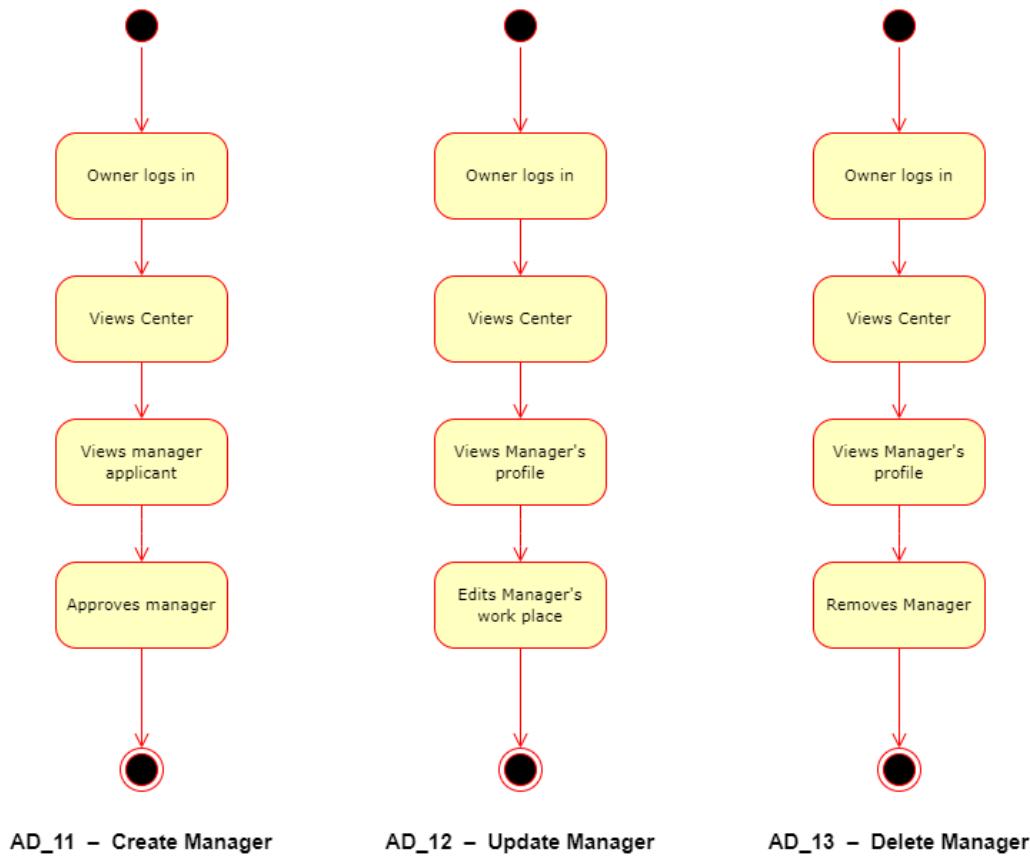
AD_03 – Edit Reservation

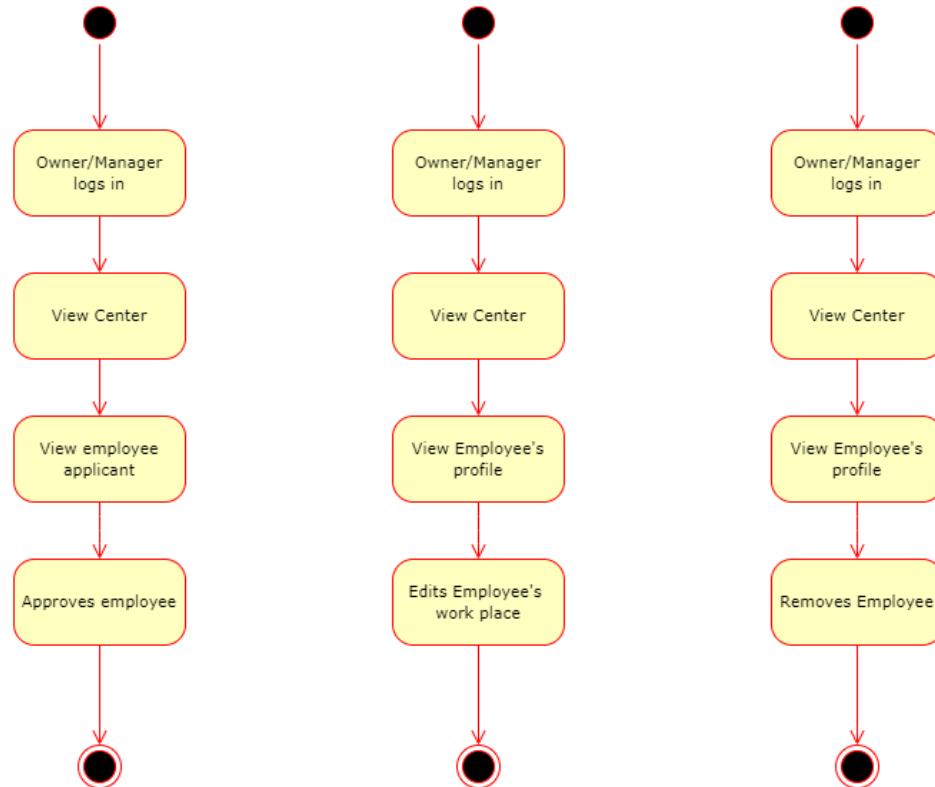
**AD_04 – Delete Reservation**



Text



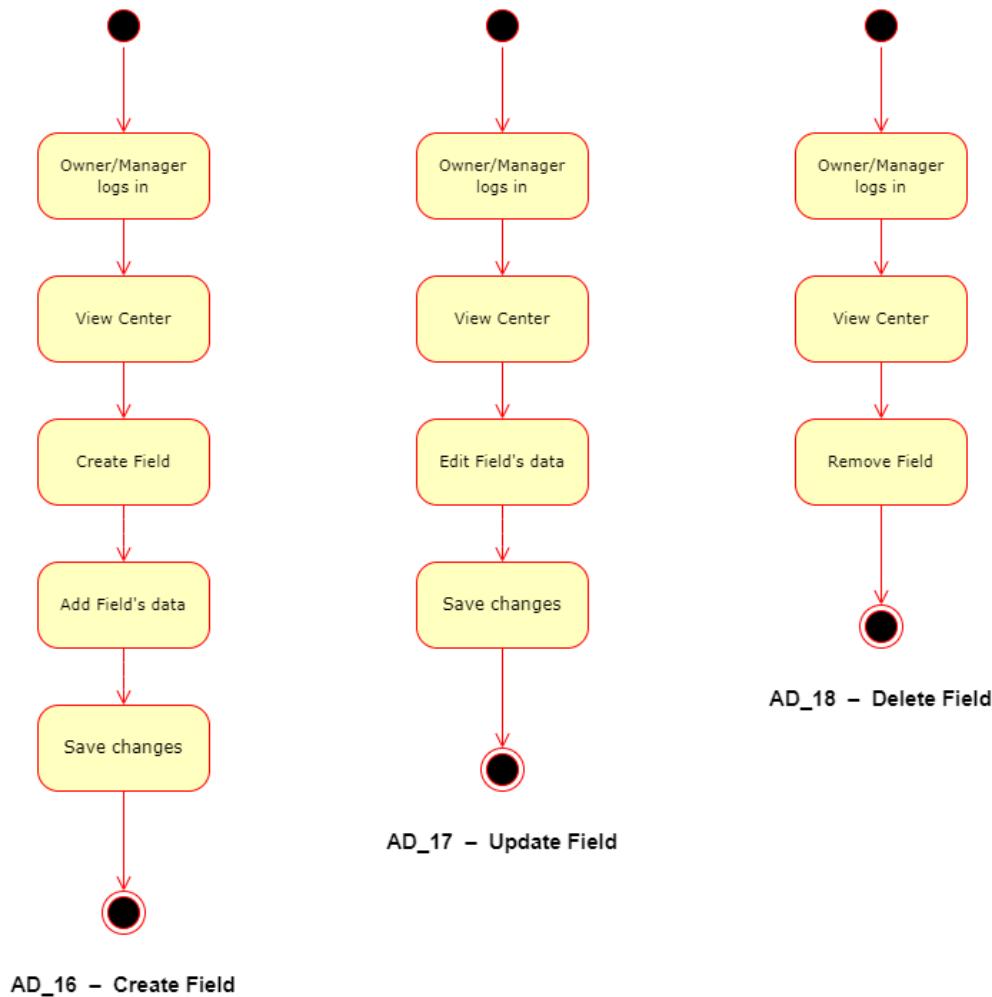




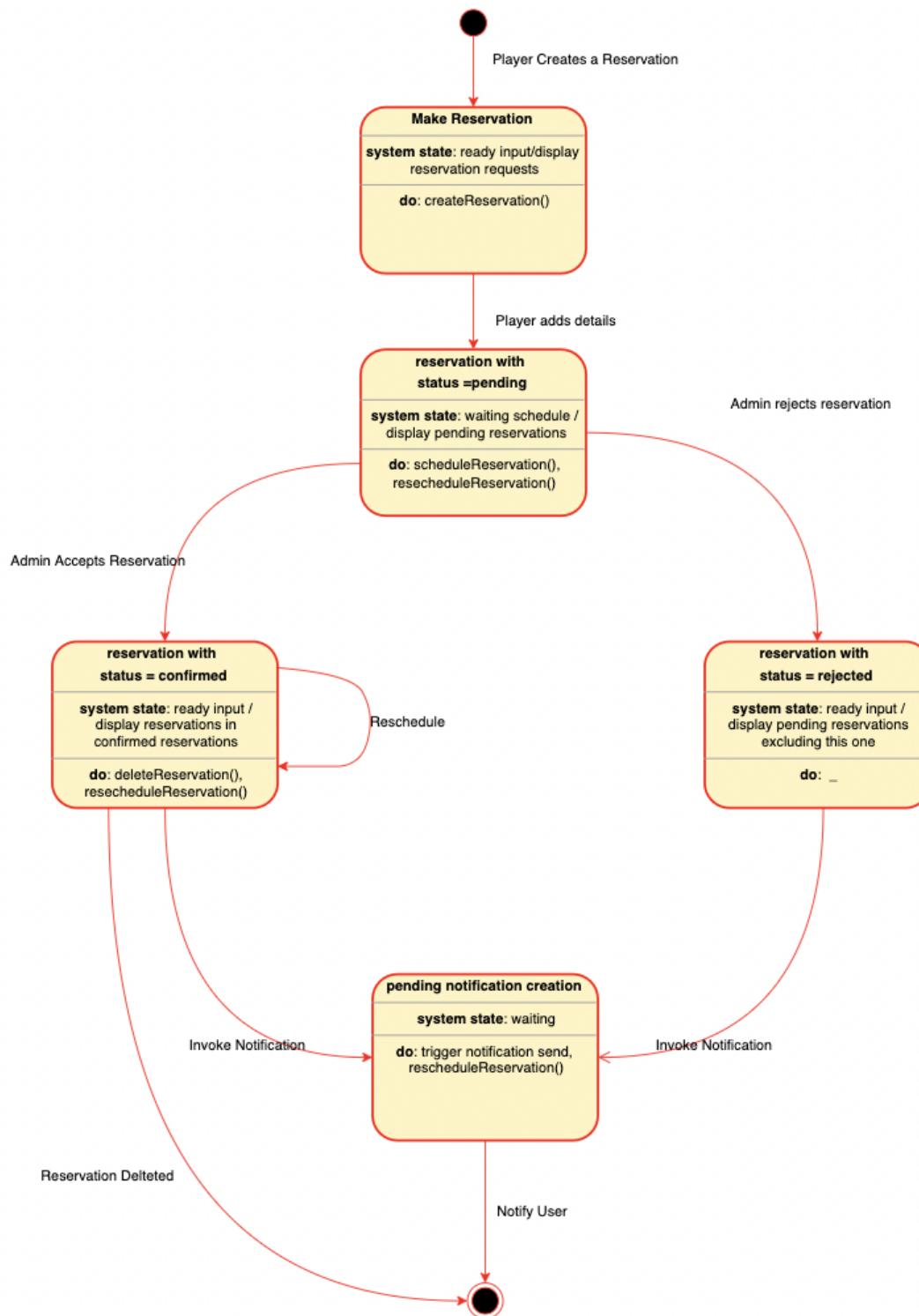
AD_14 – Create Employee

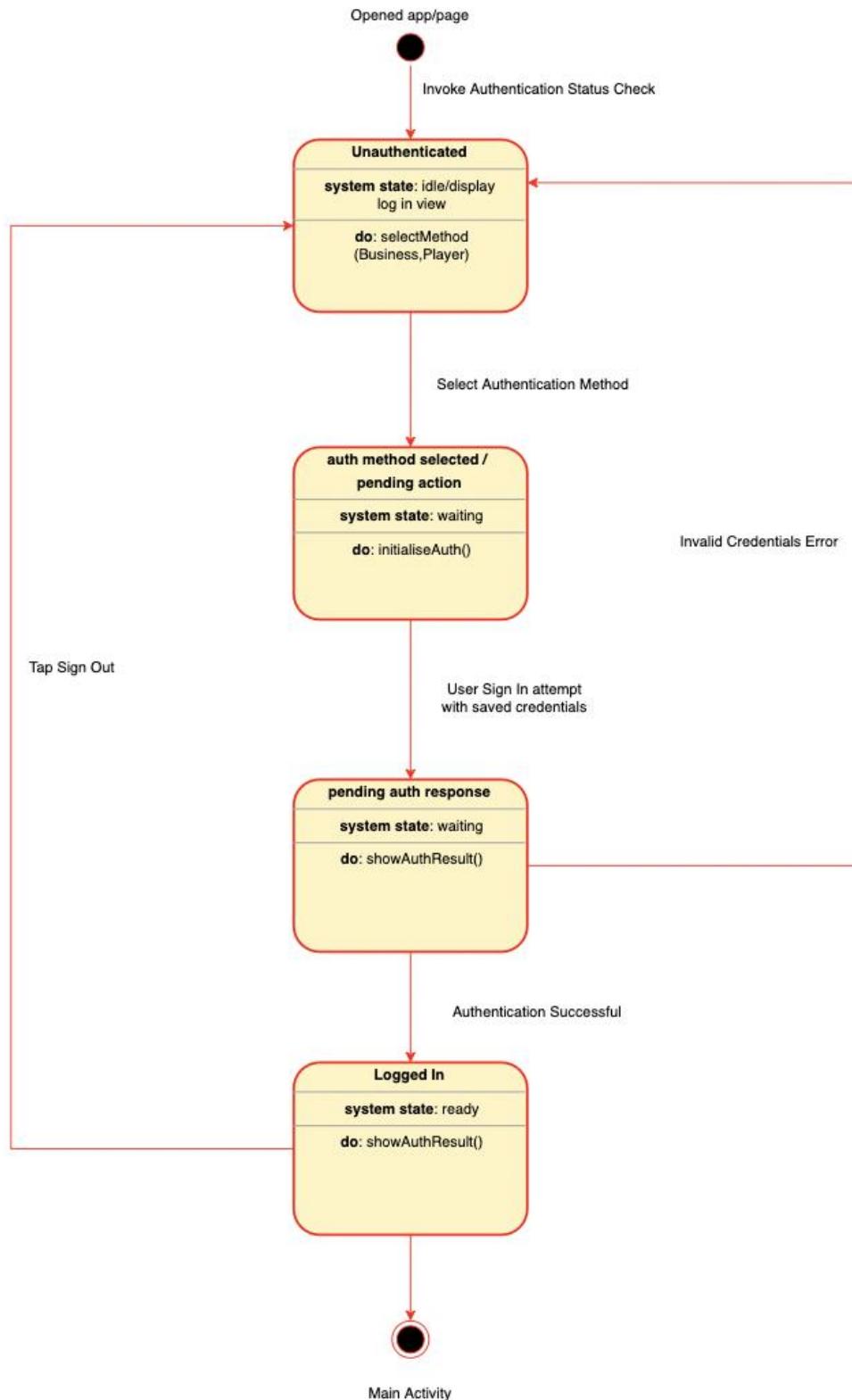
AD_15 – Update Employee

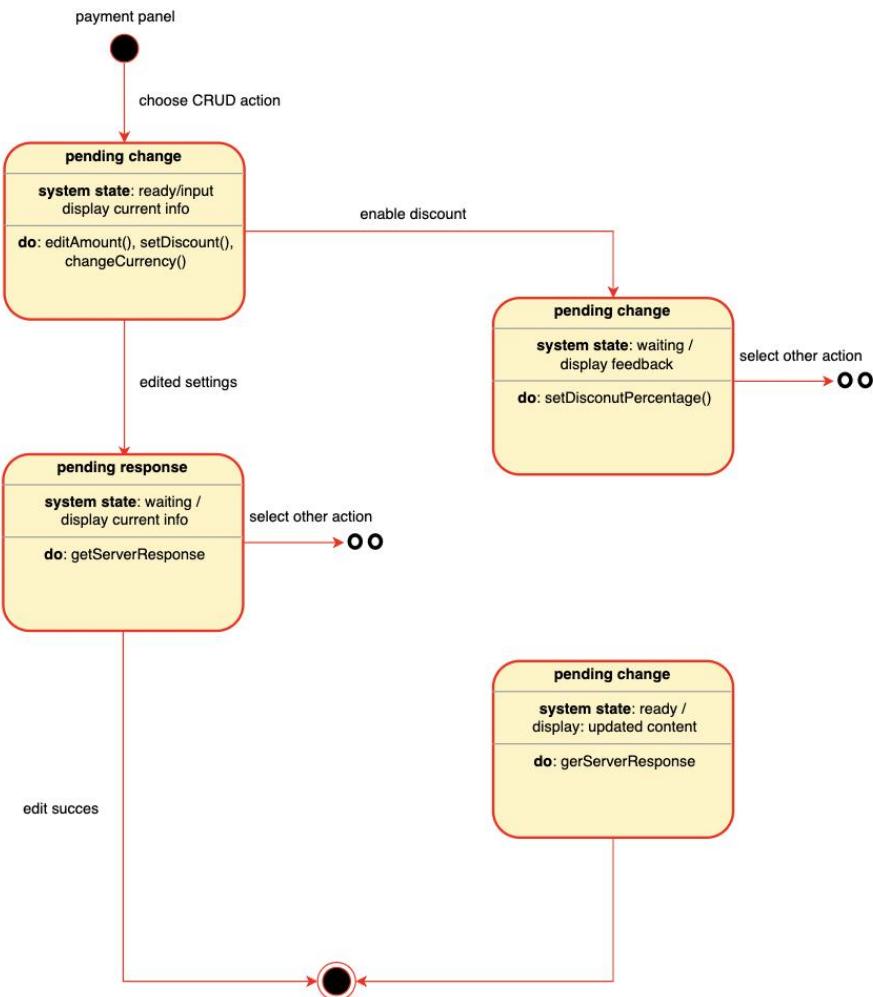
AD_16 – Delete Employee

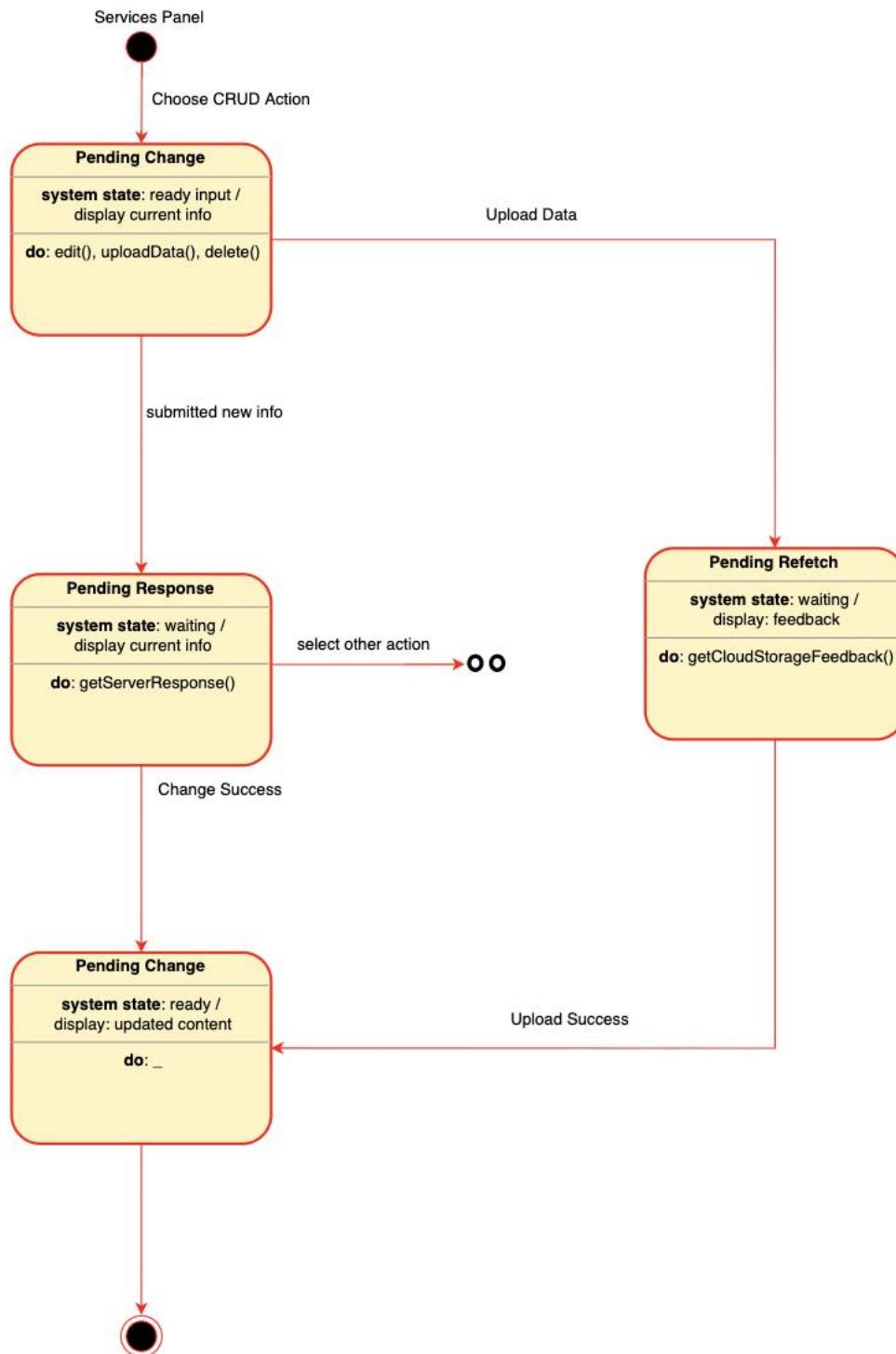


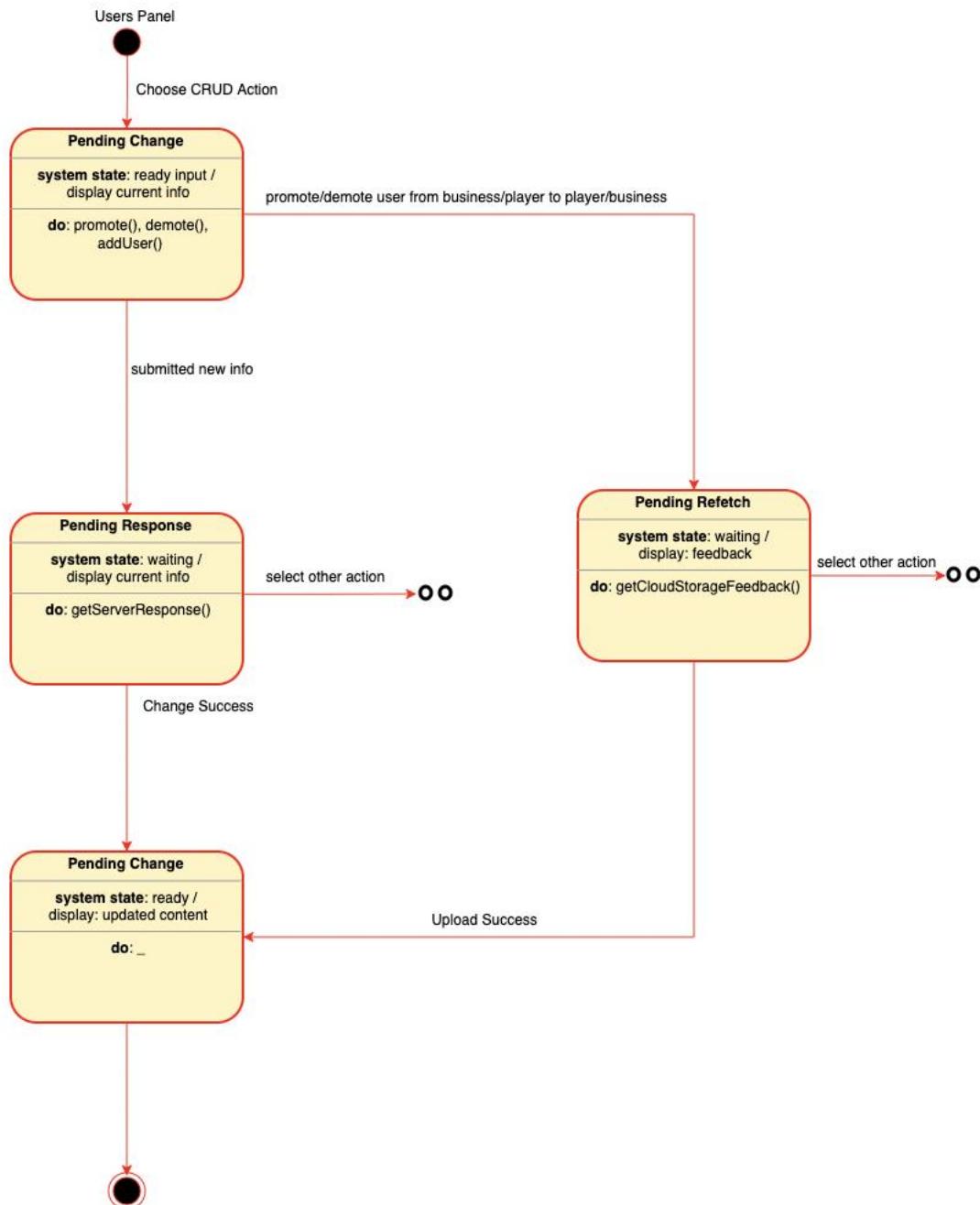
4.2.3 State Diagrams



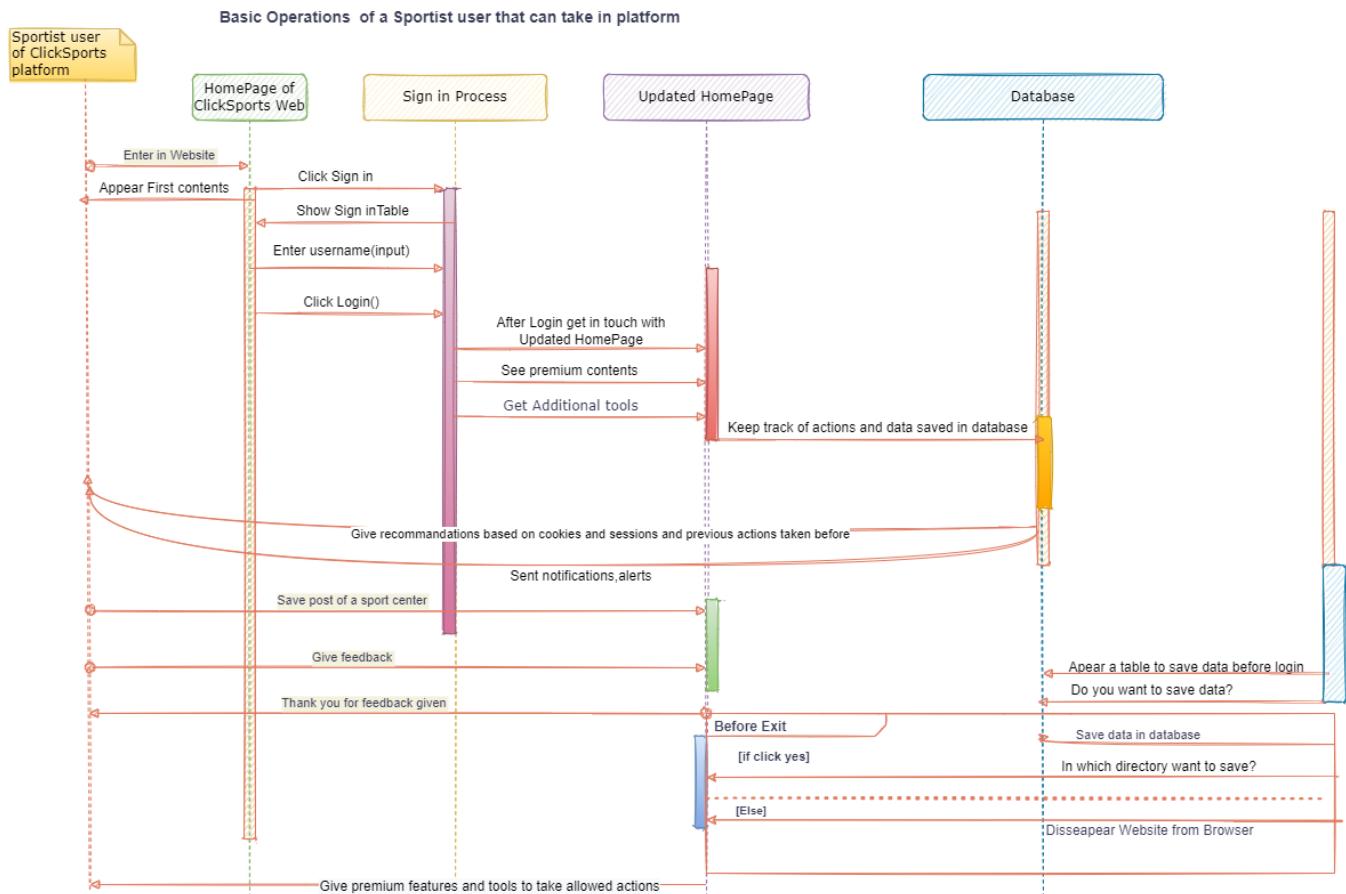




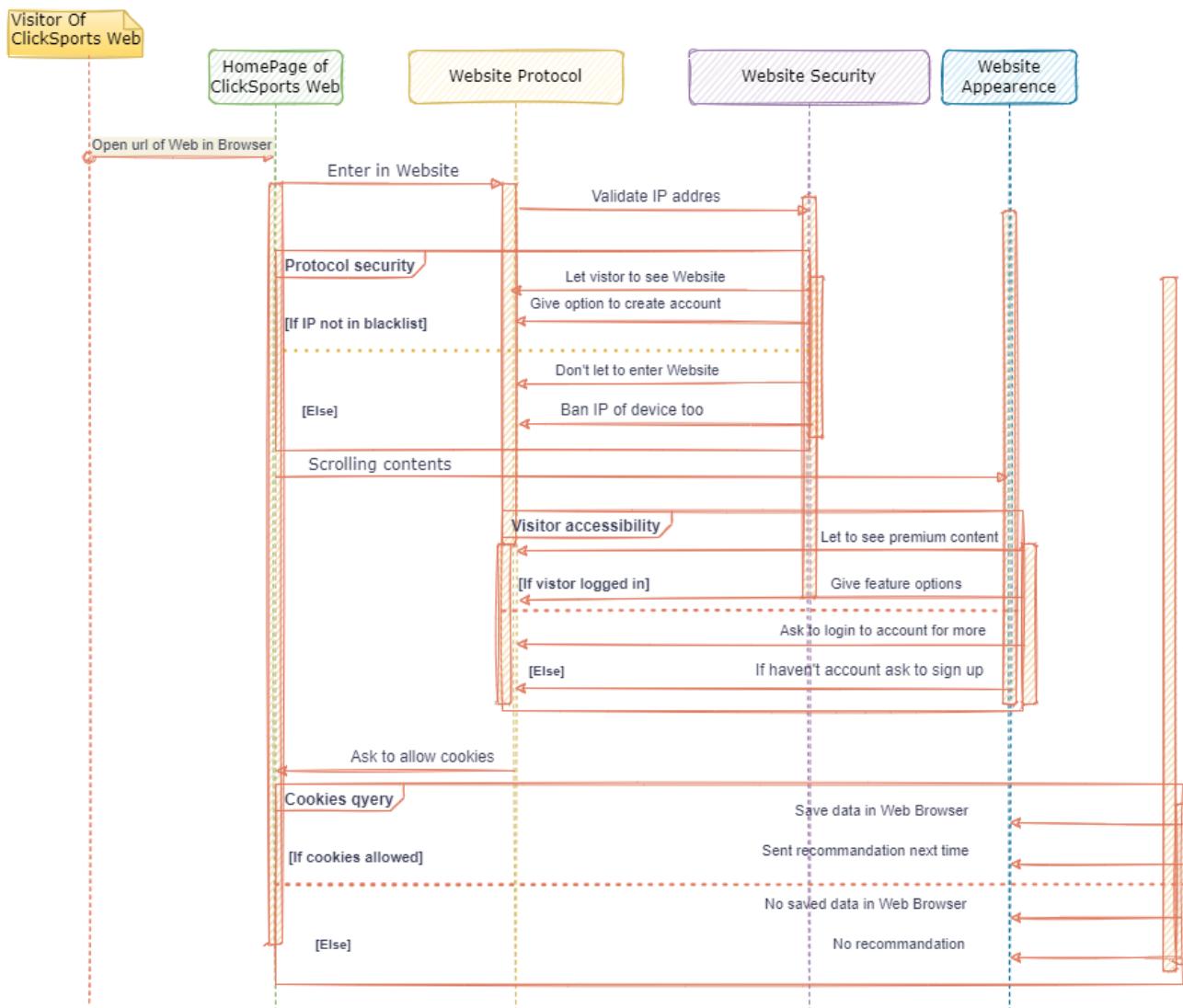


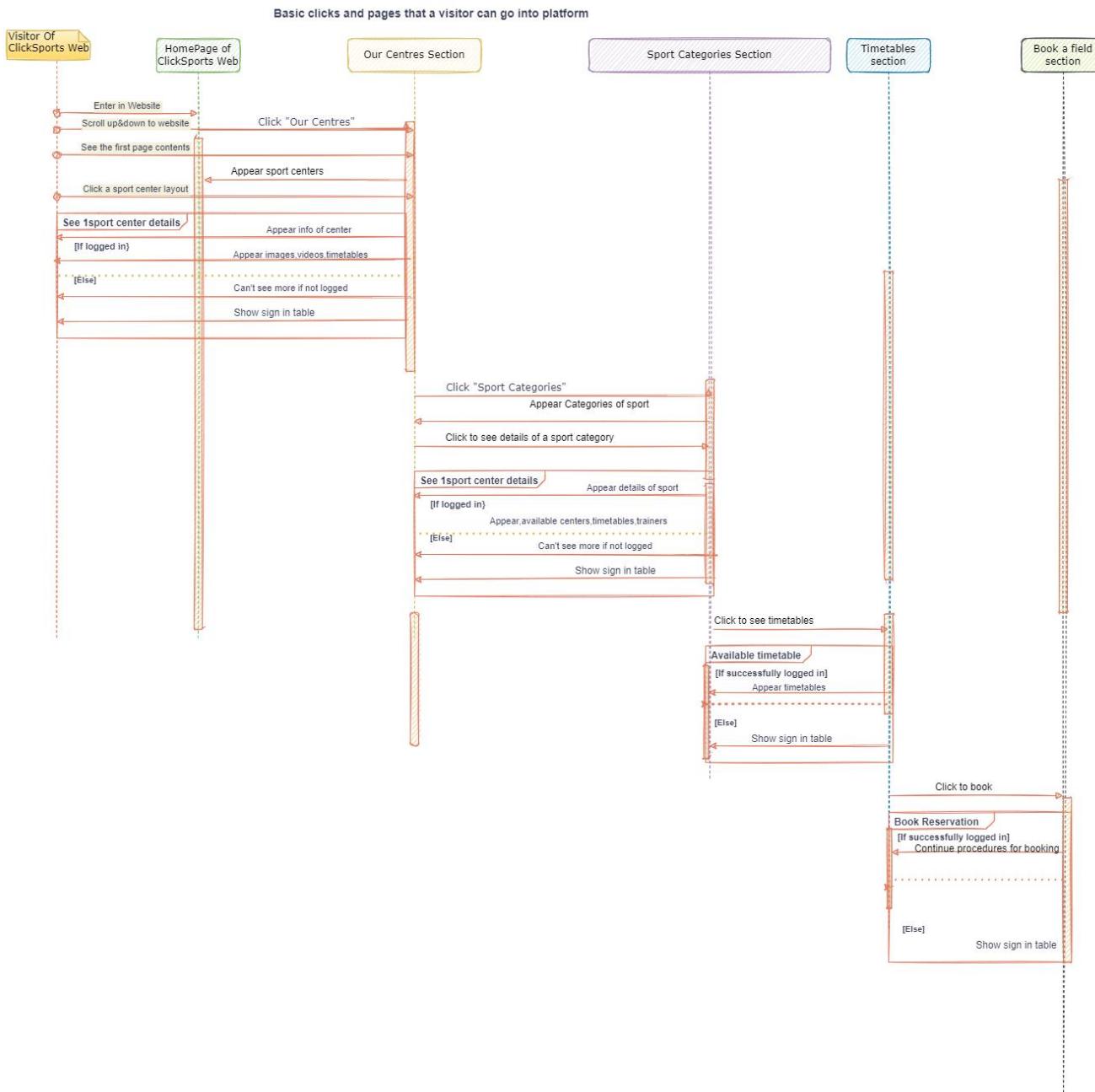


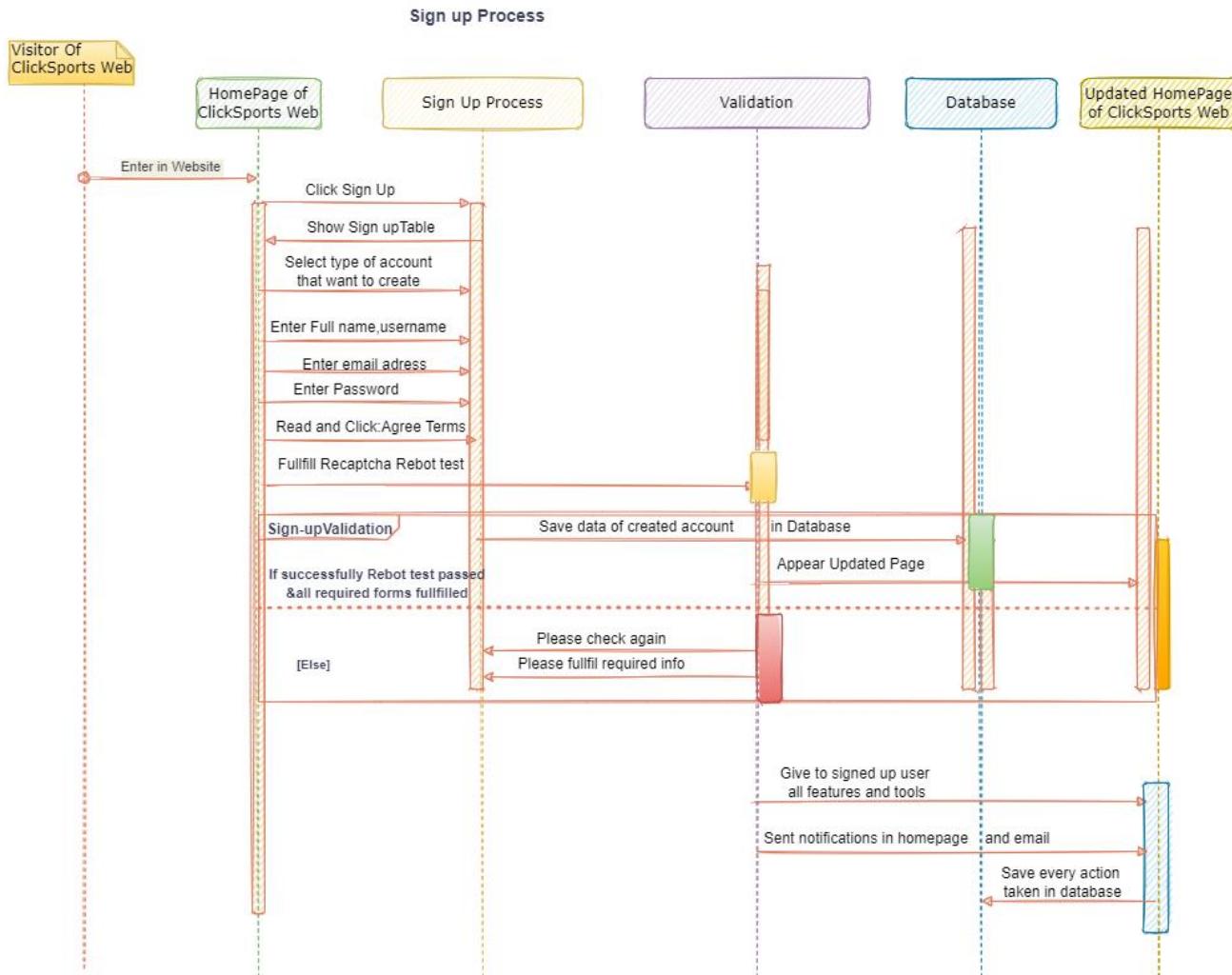
4.2.4 Sequence Diagrams

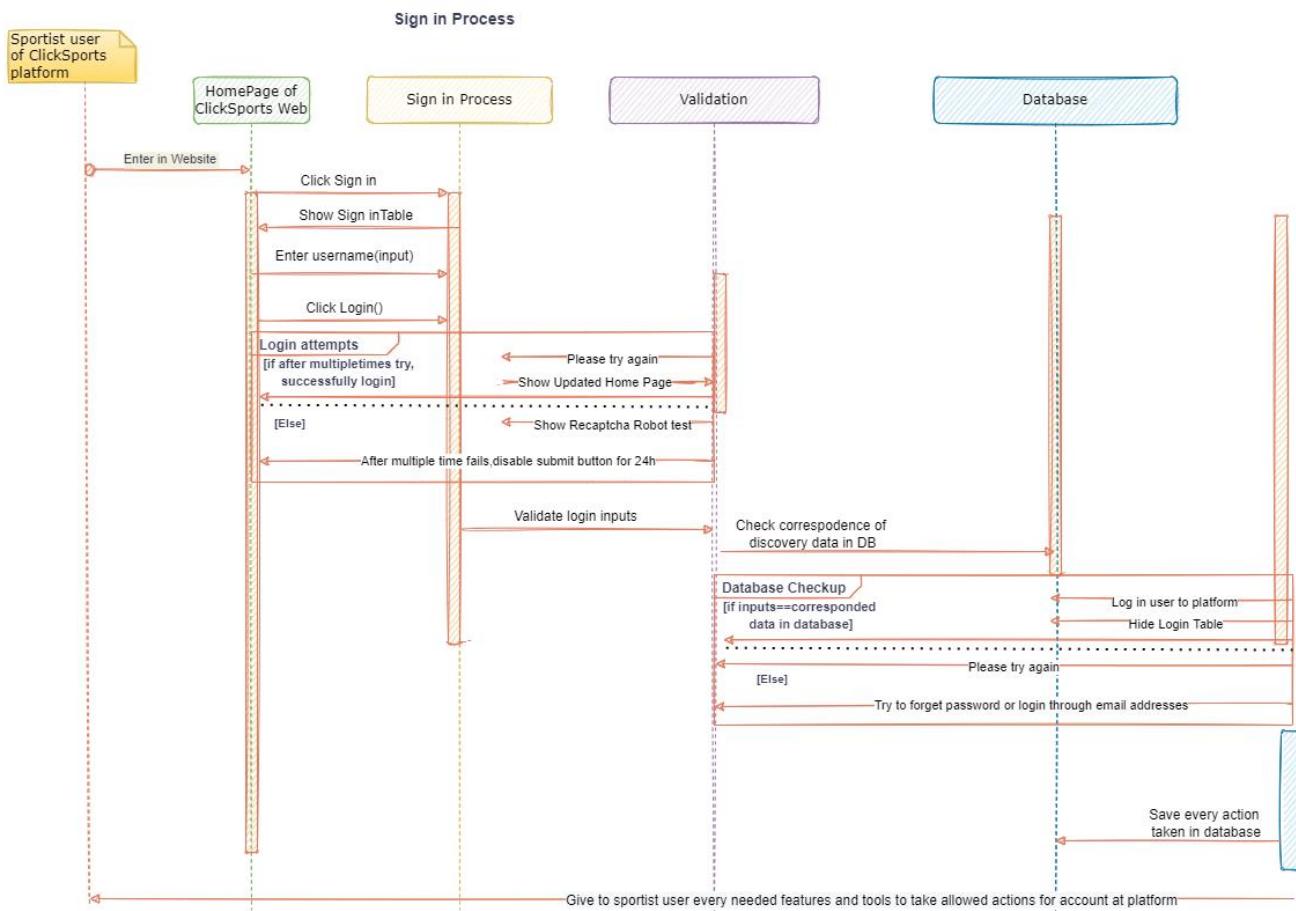


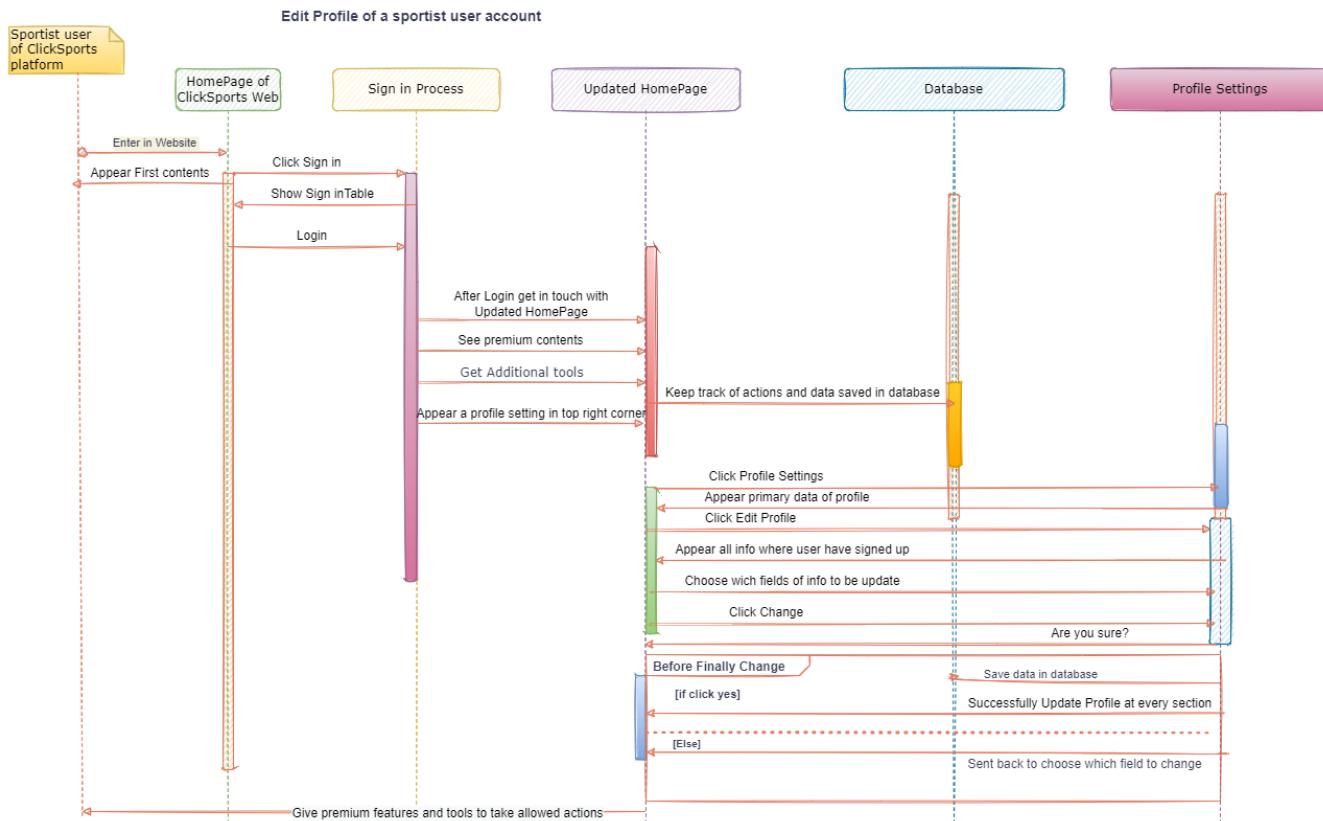
Basic interactive actions that happen sequently where a visitor click different pages of ClickSports Platform

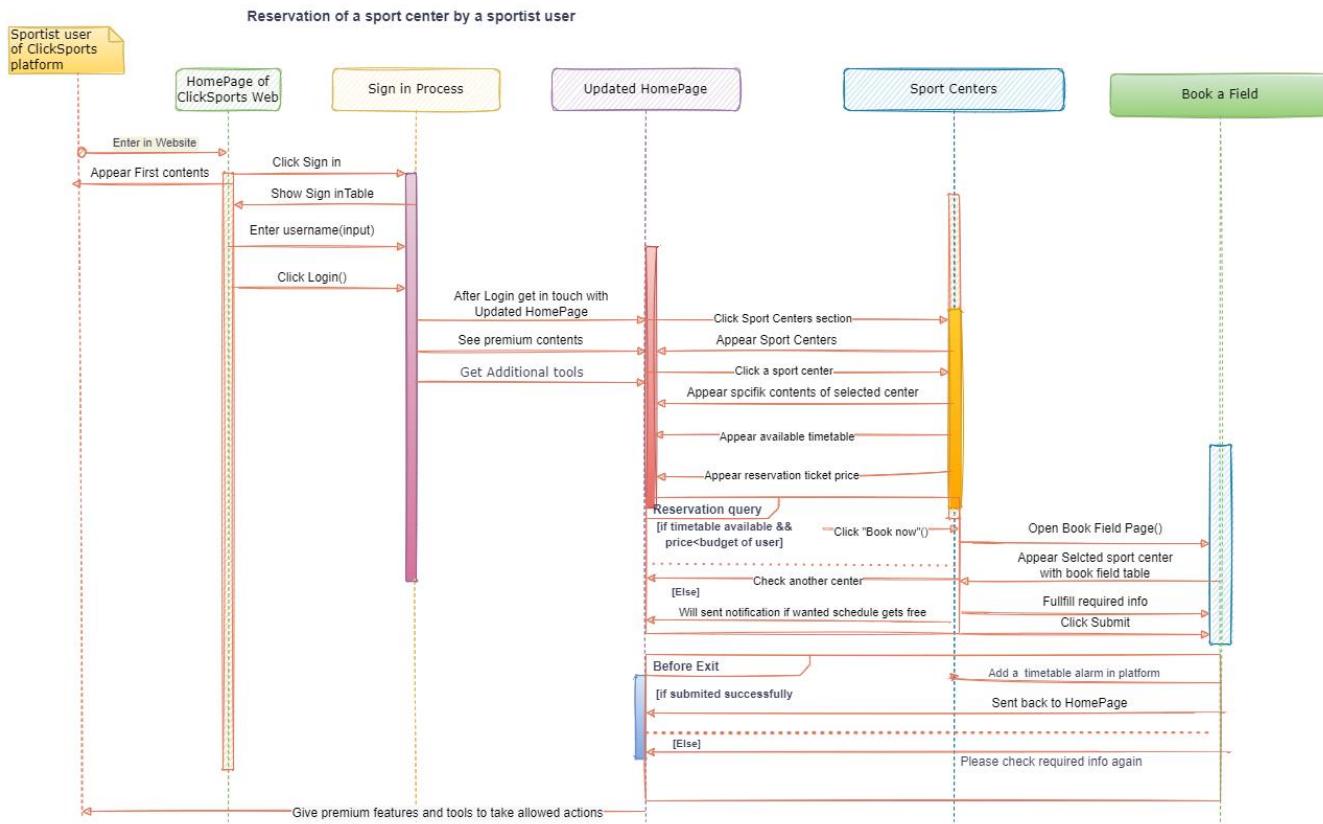


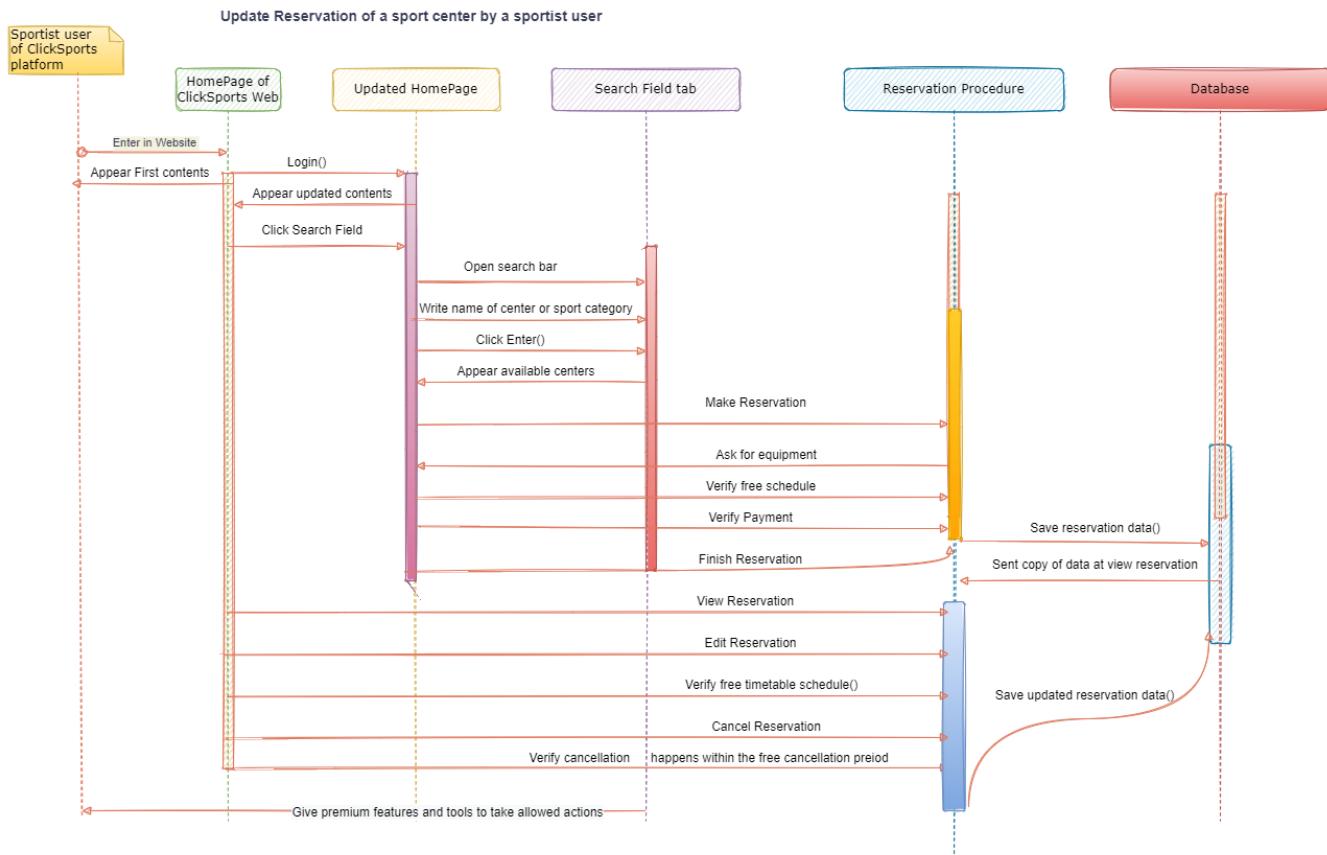


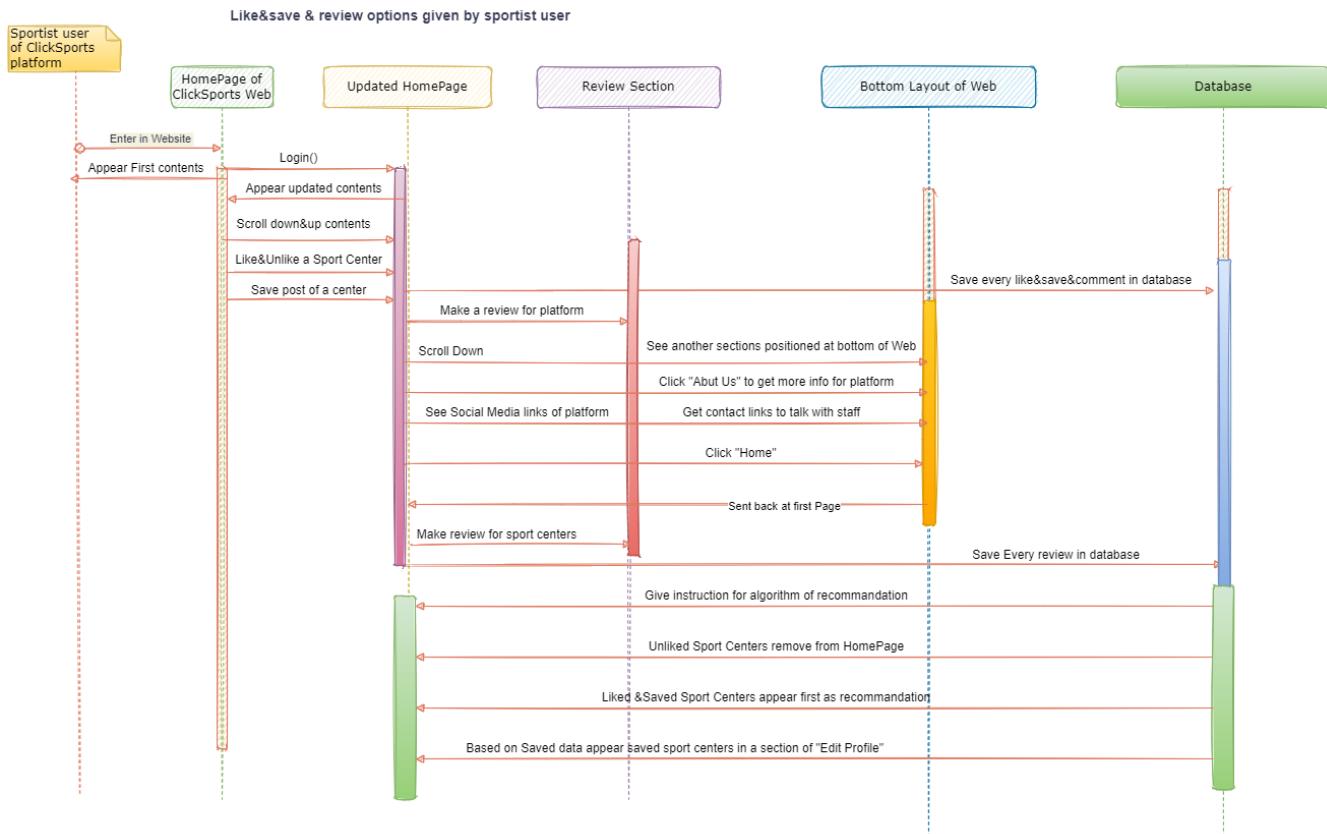


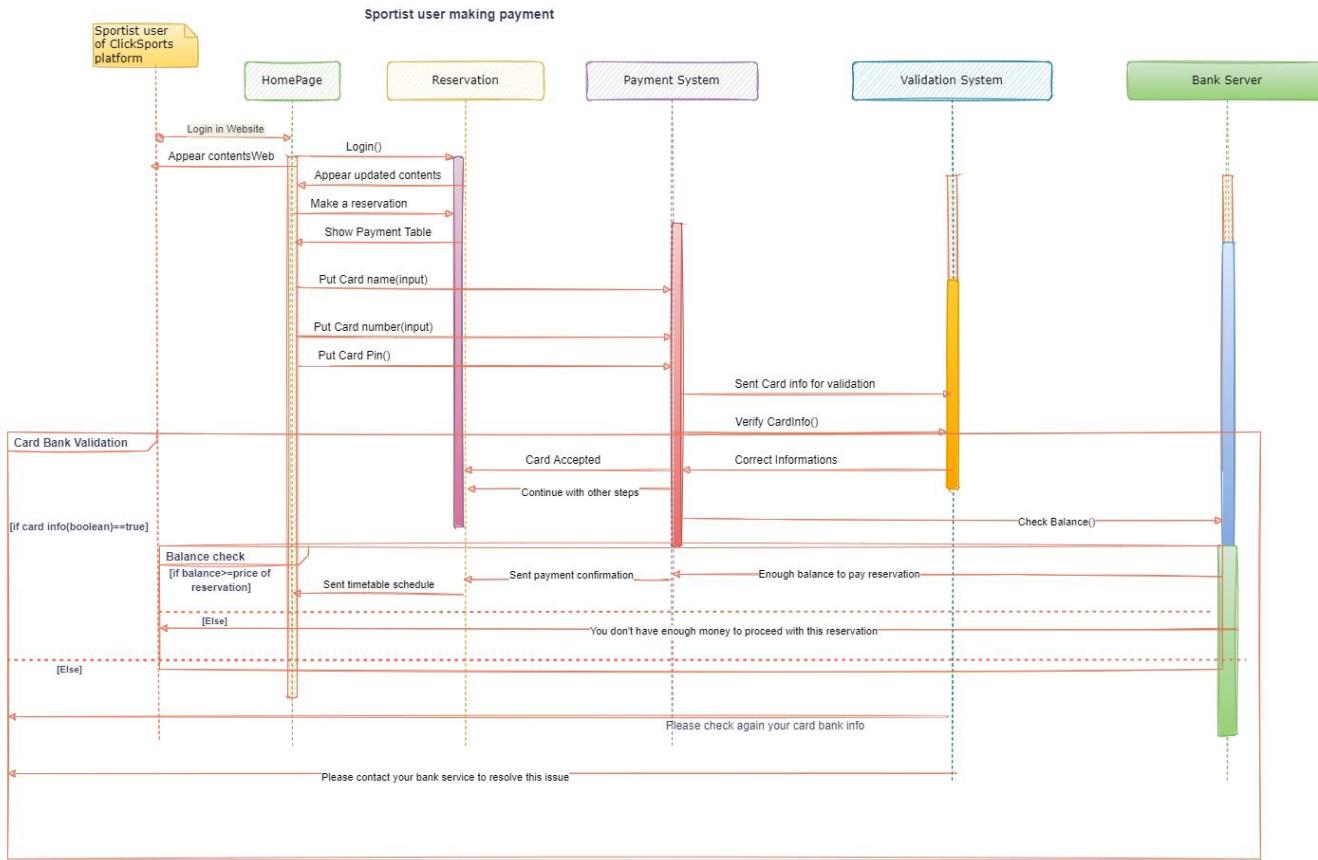


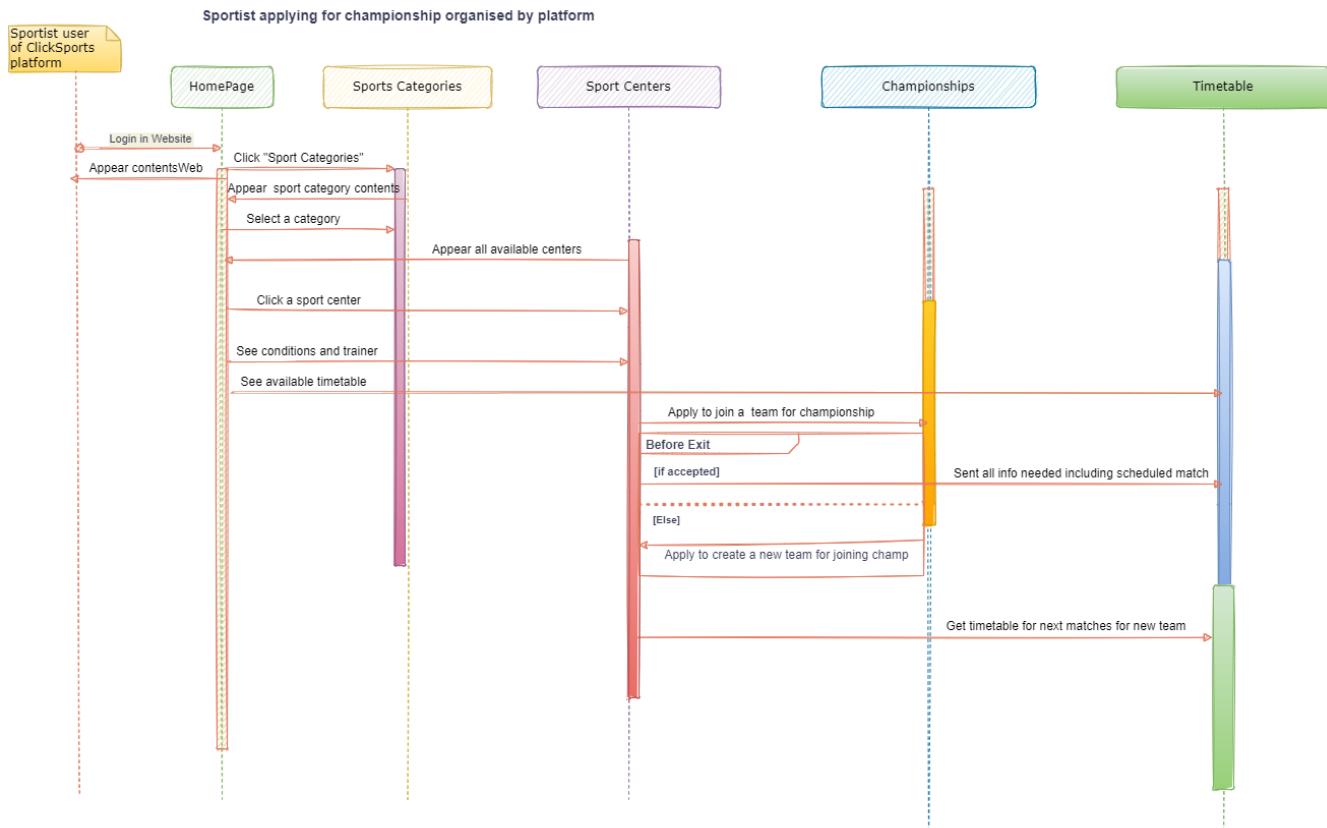


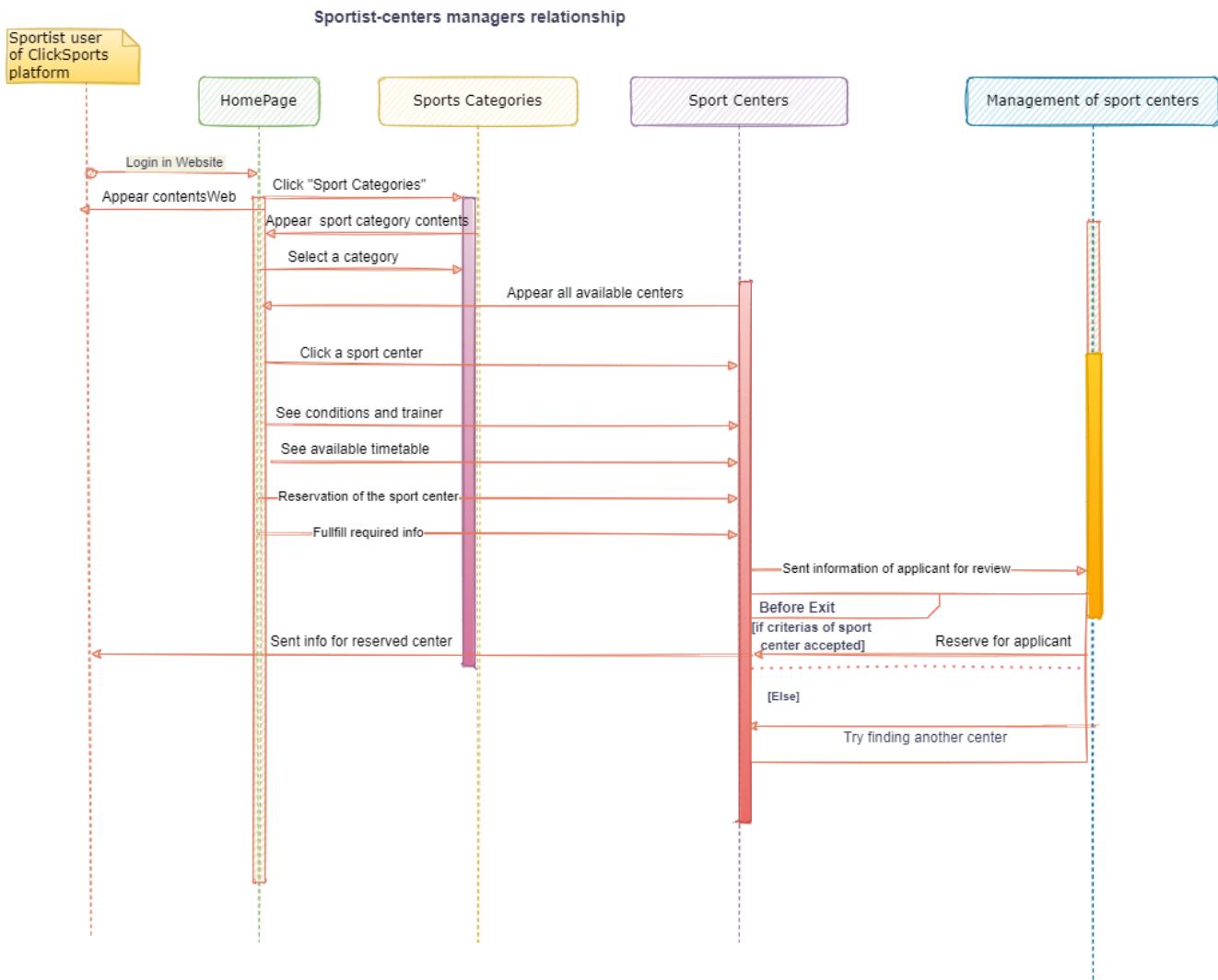


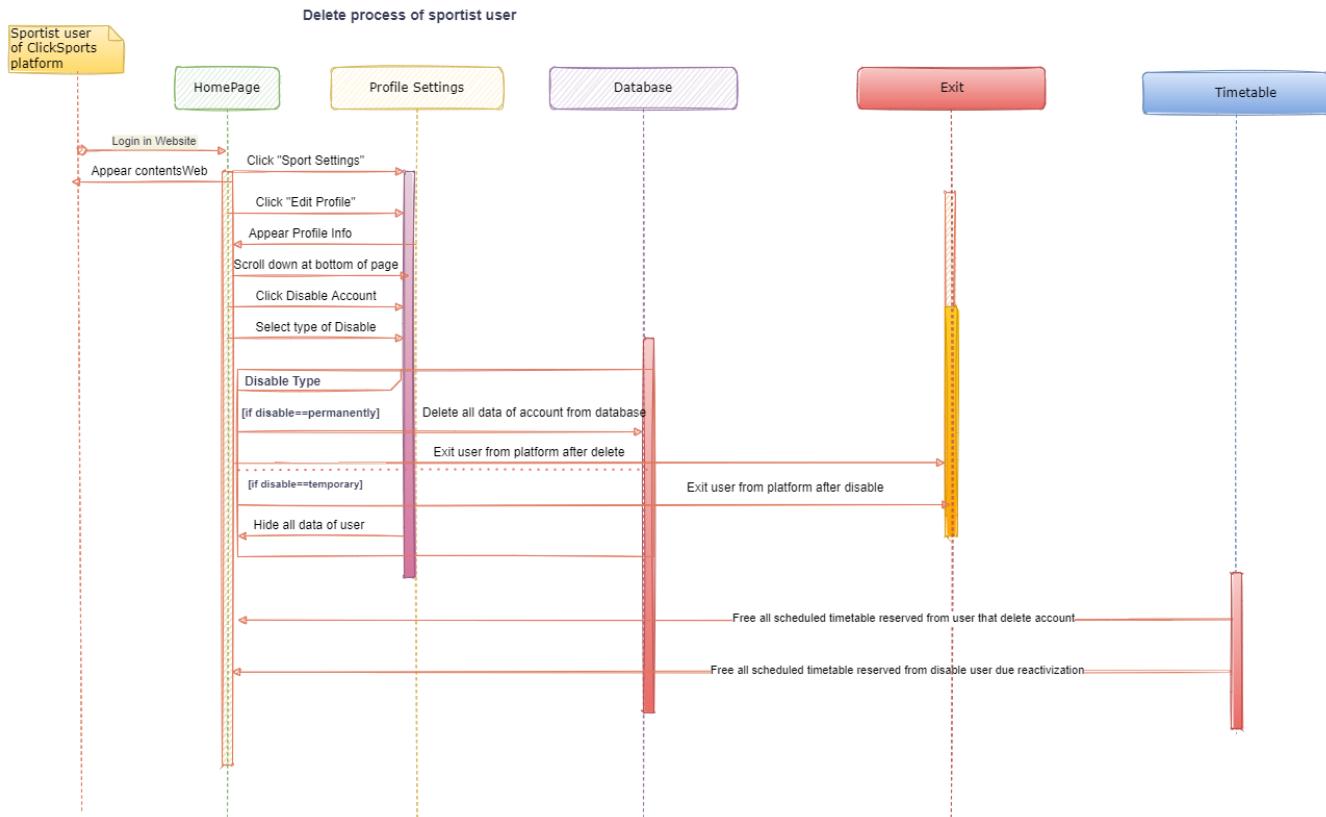


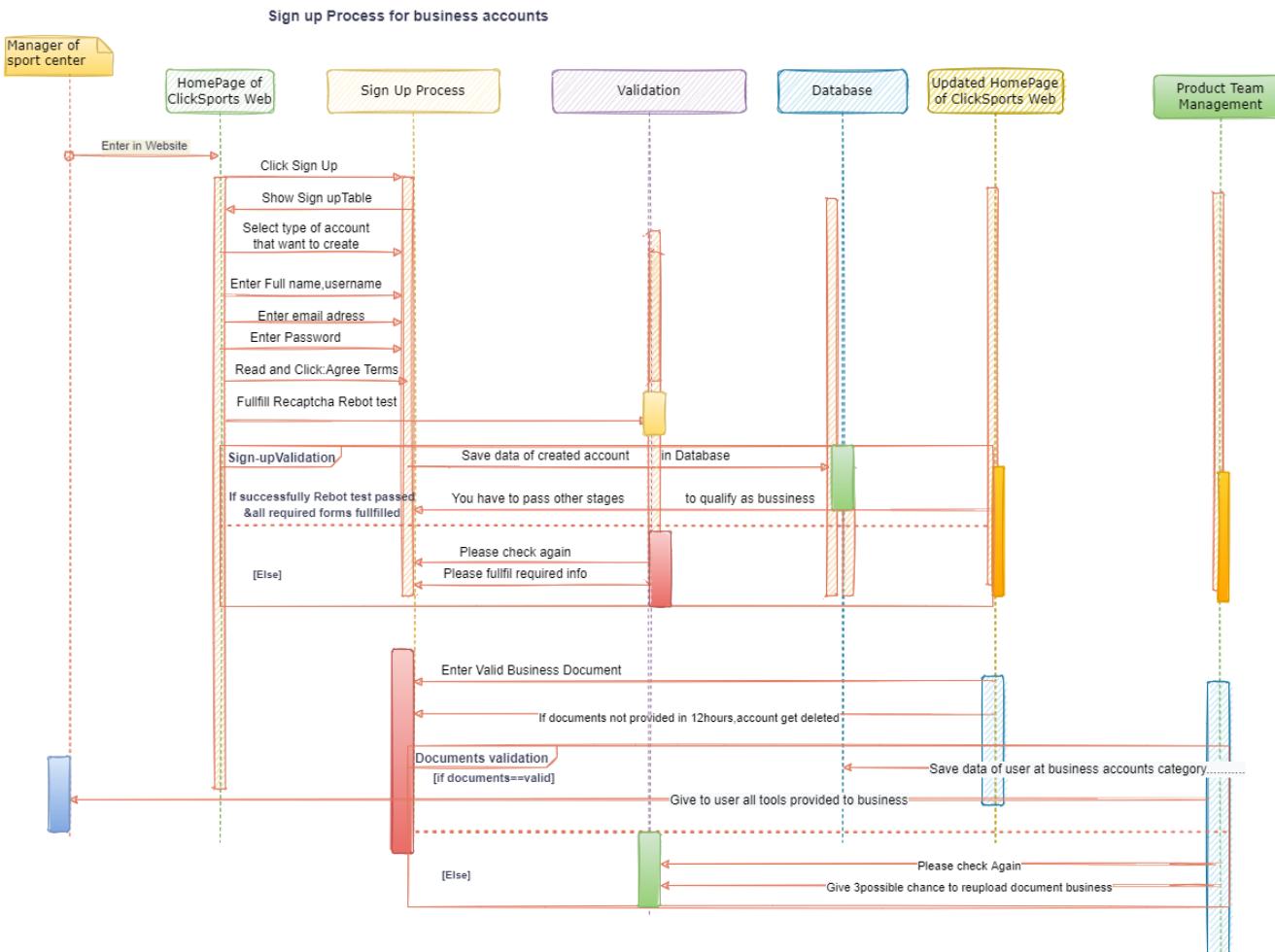


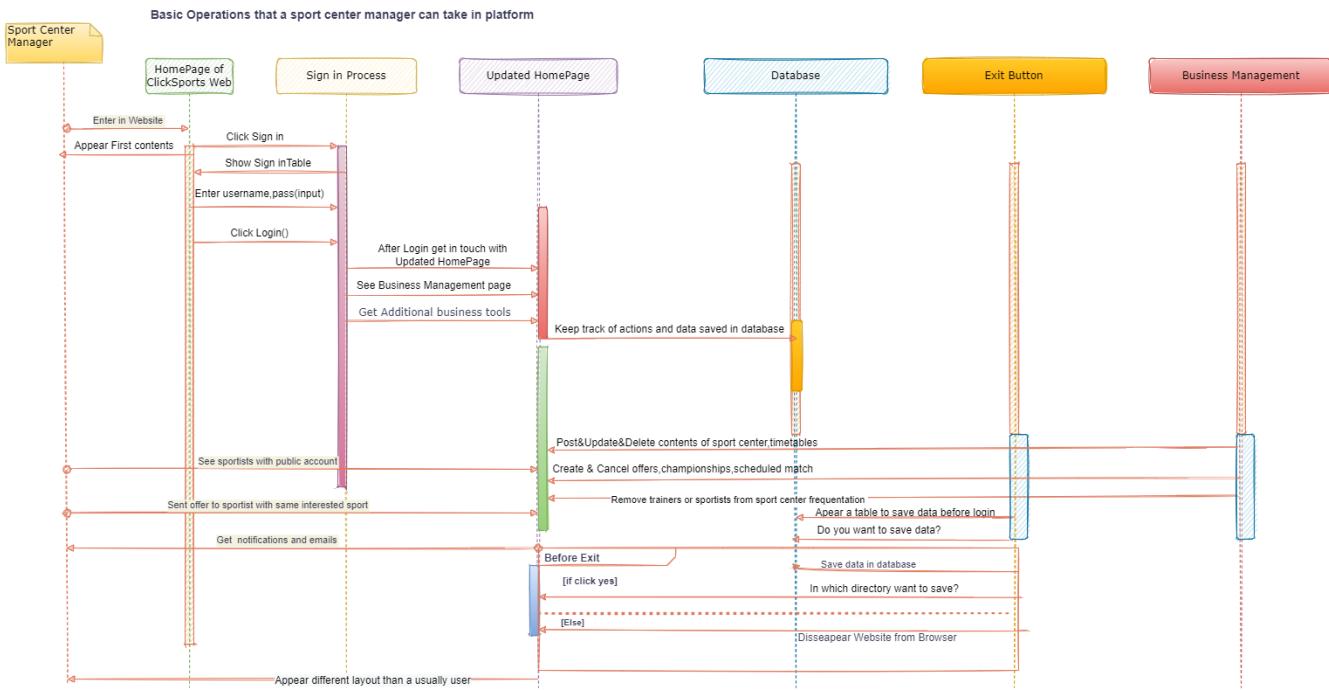


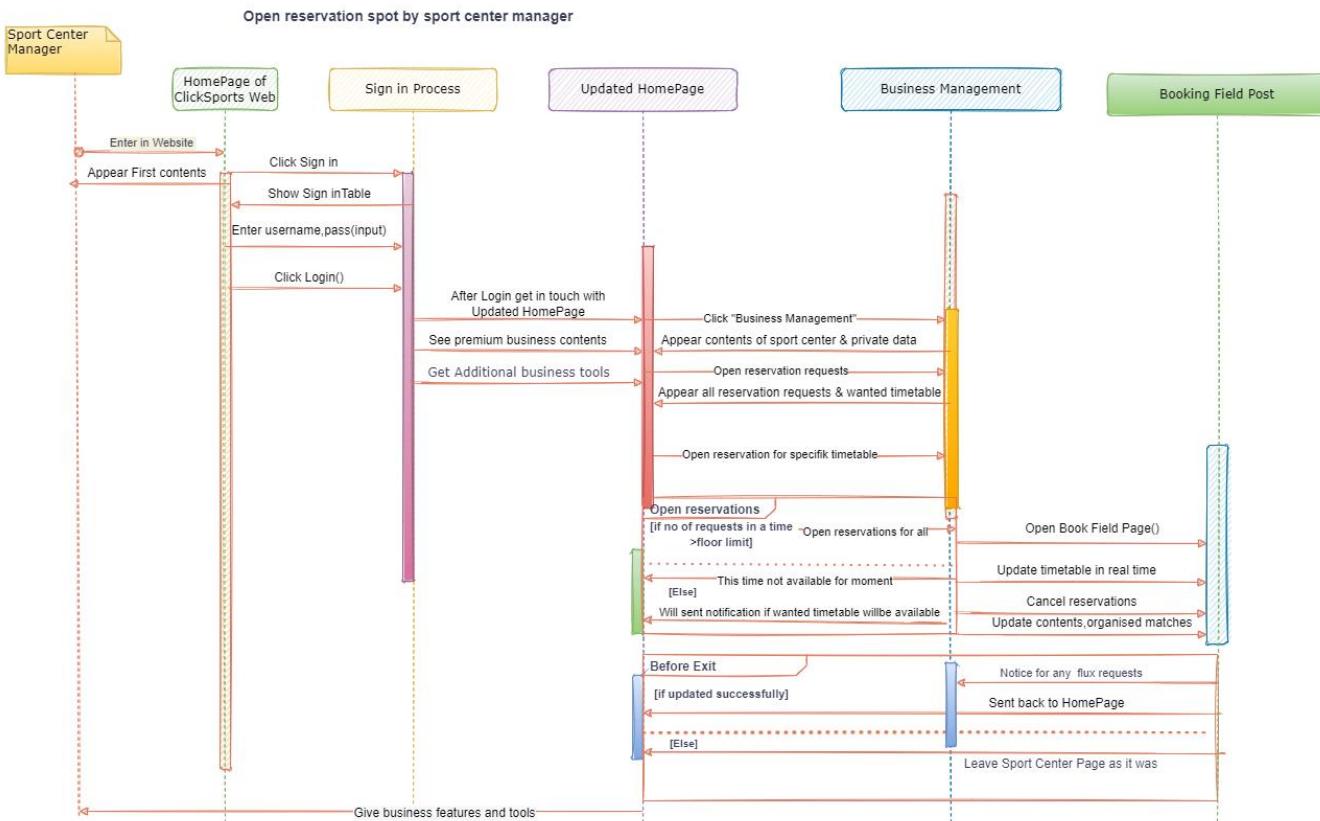


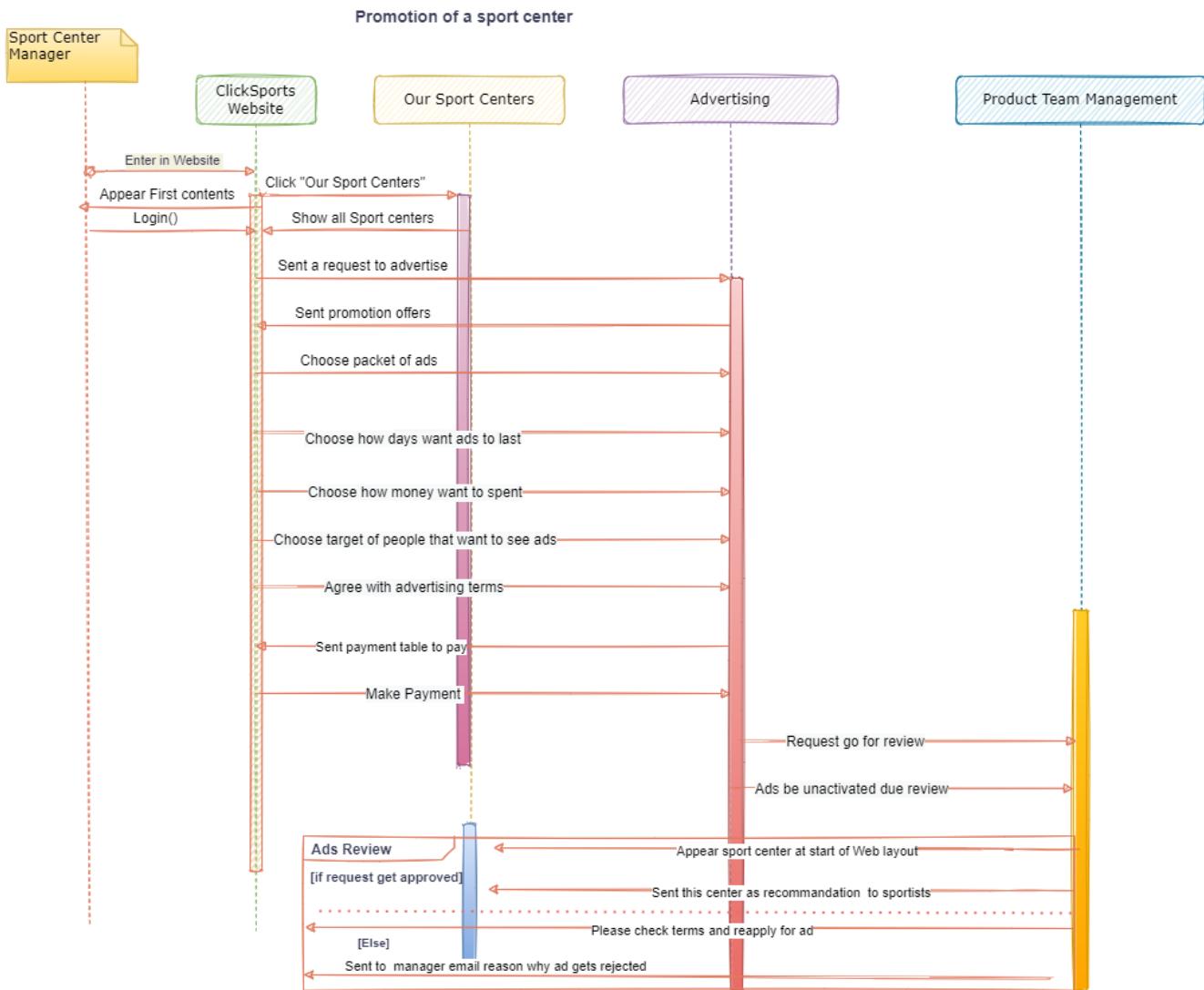


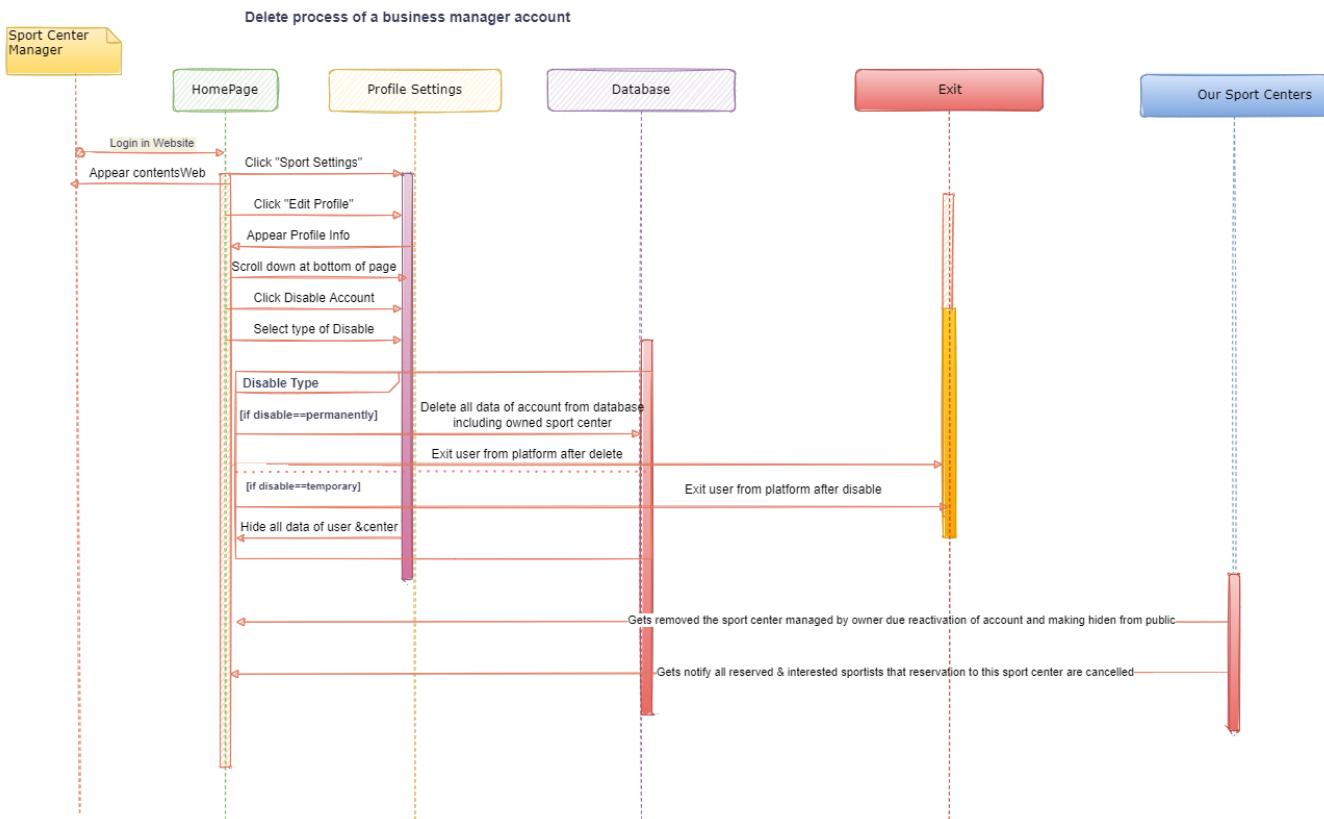




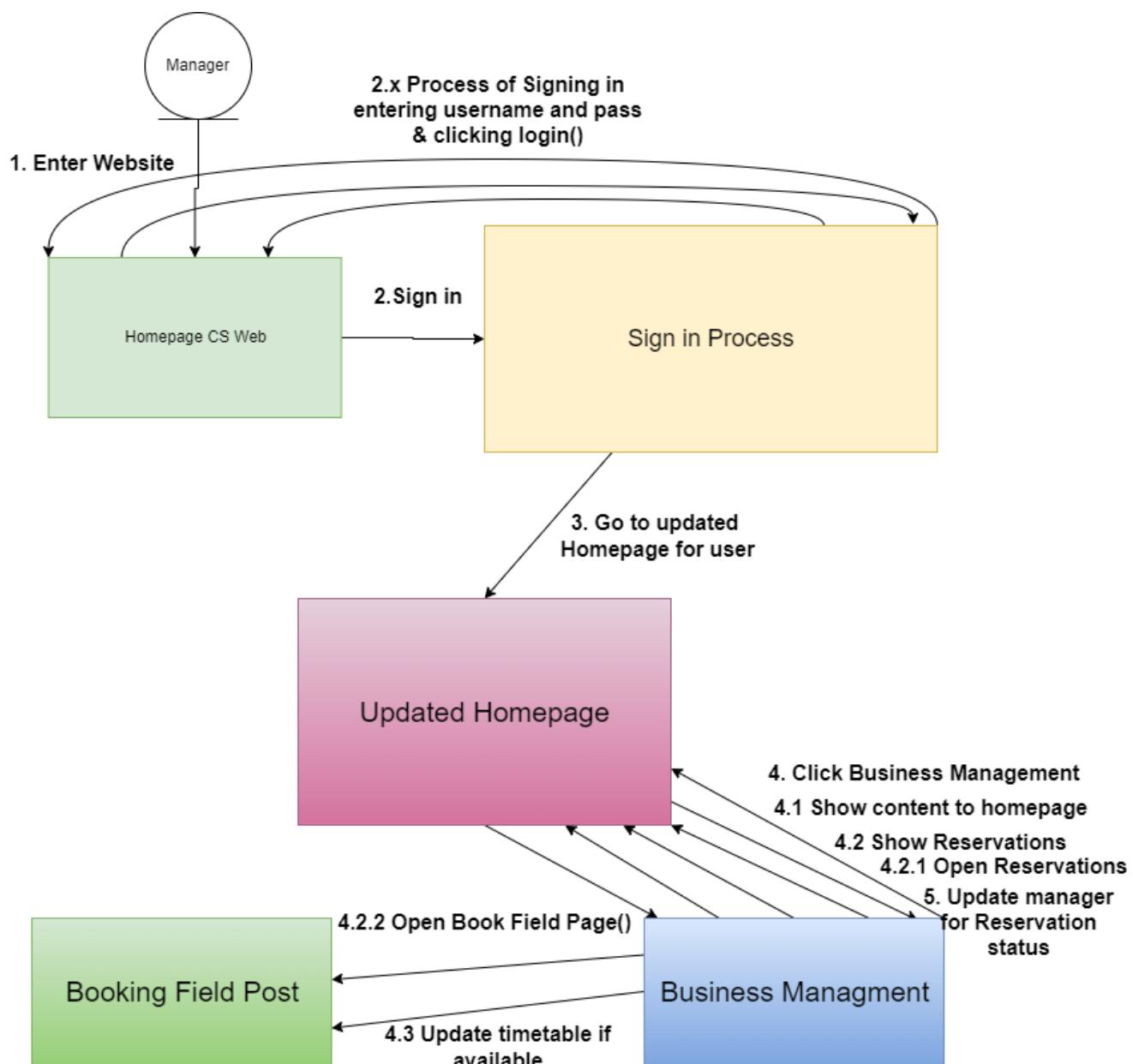


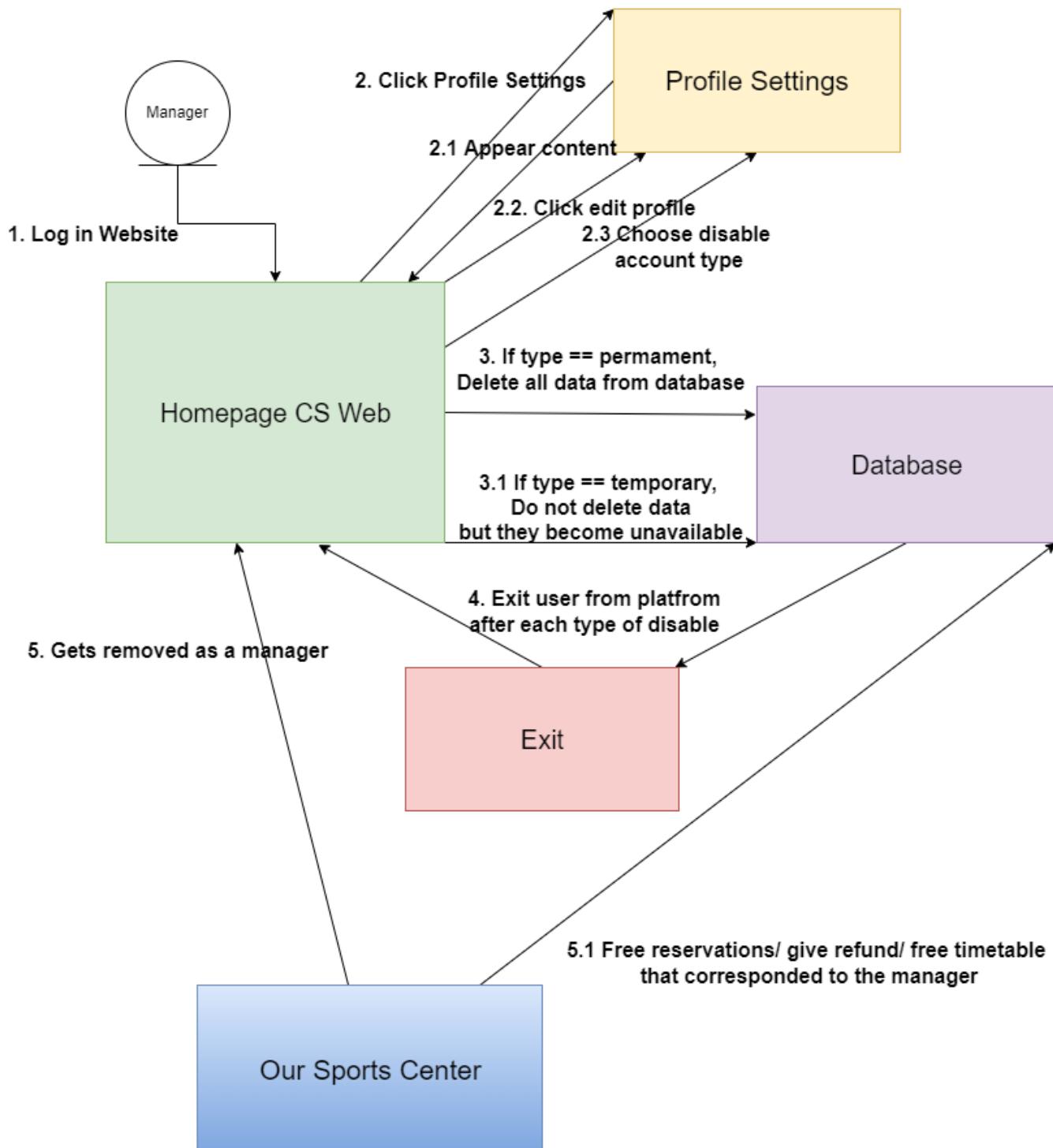


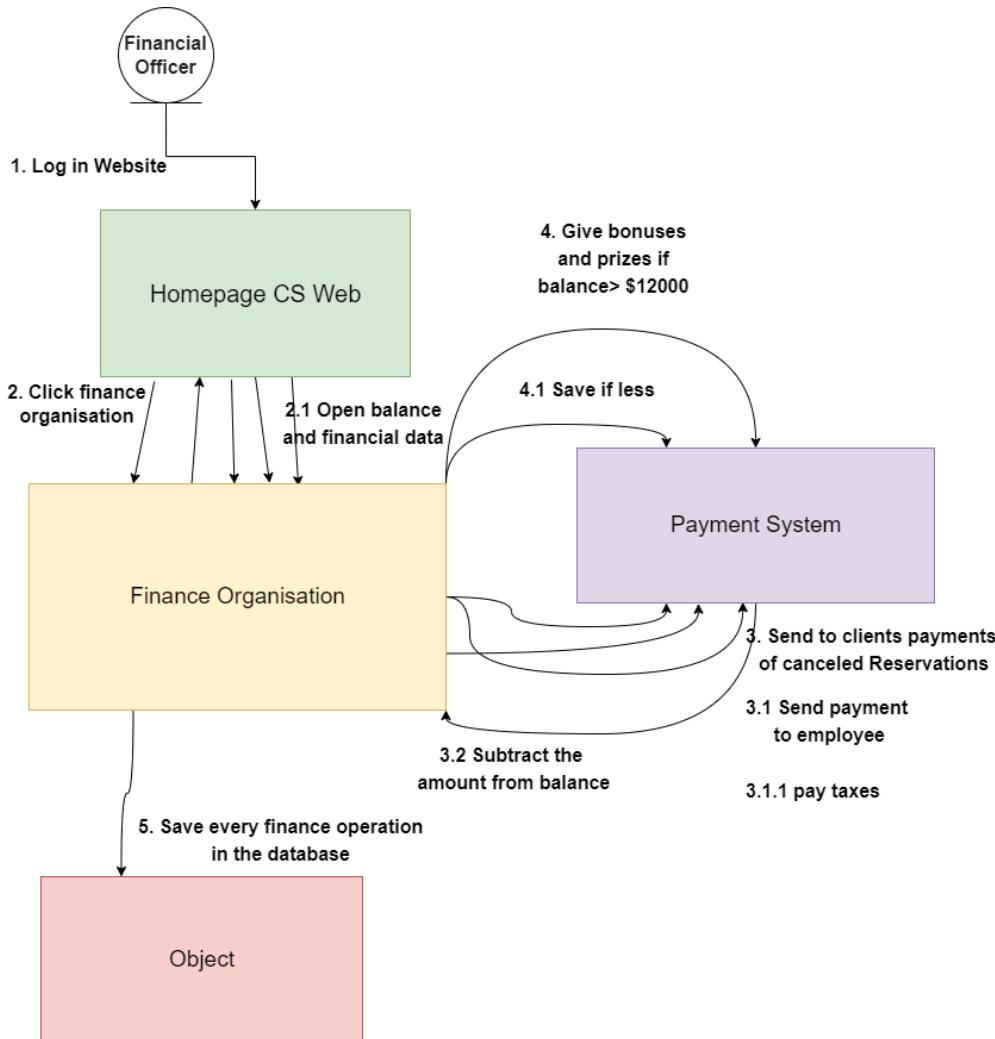


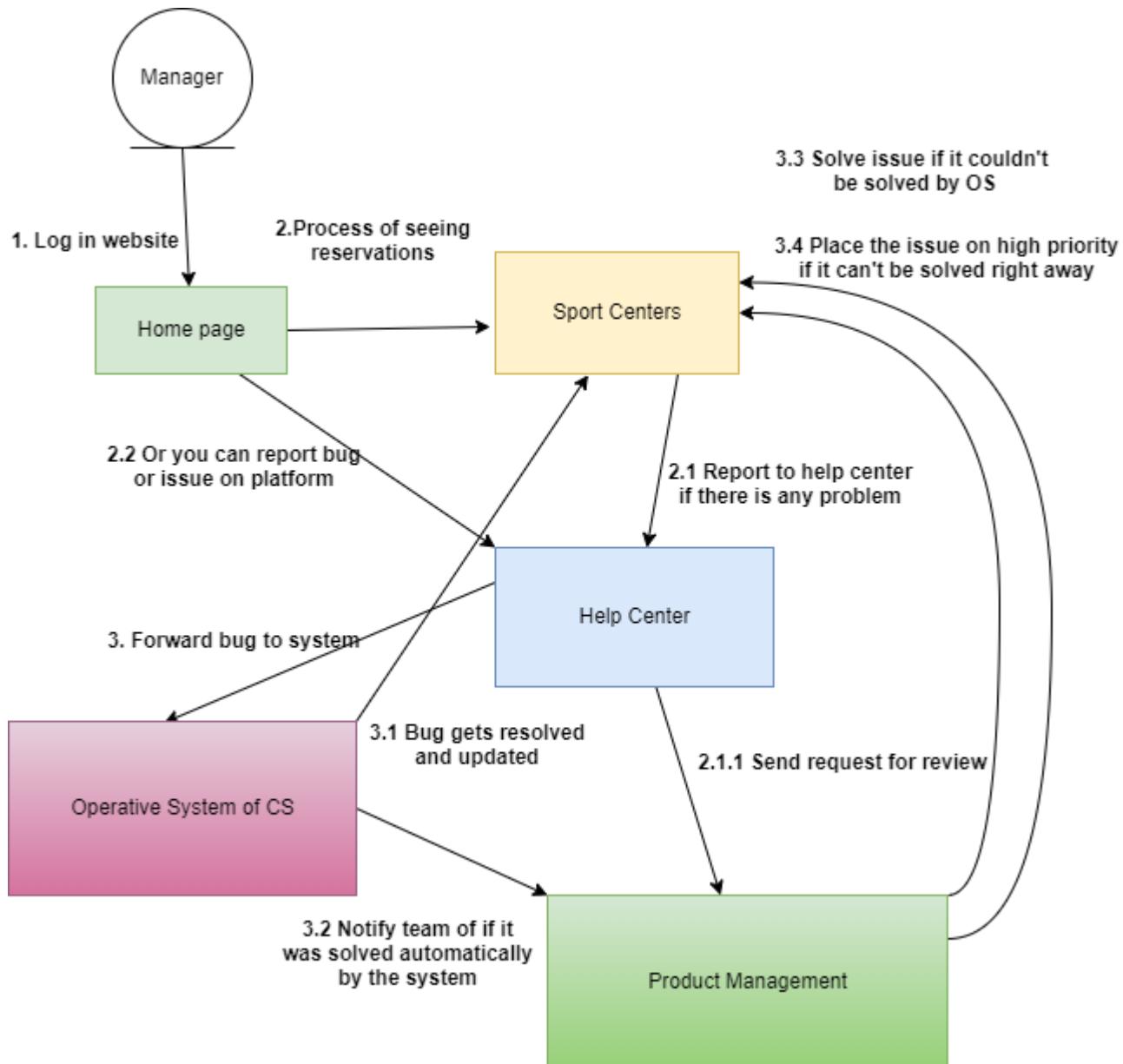


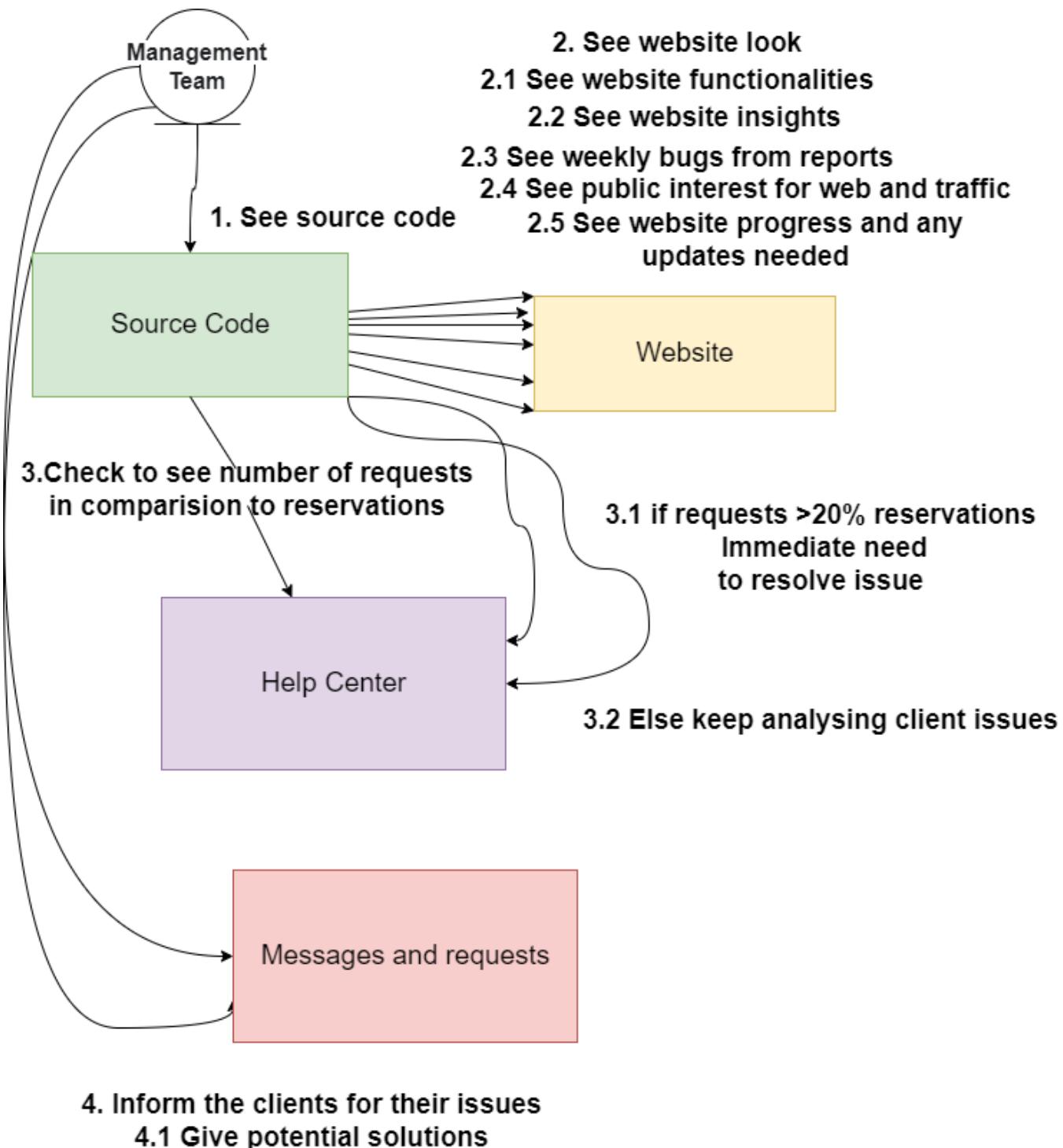
4.2.5 Collaboration Diagrams

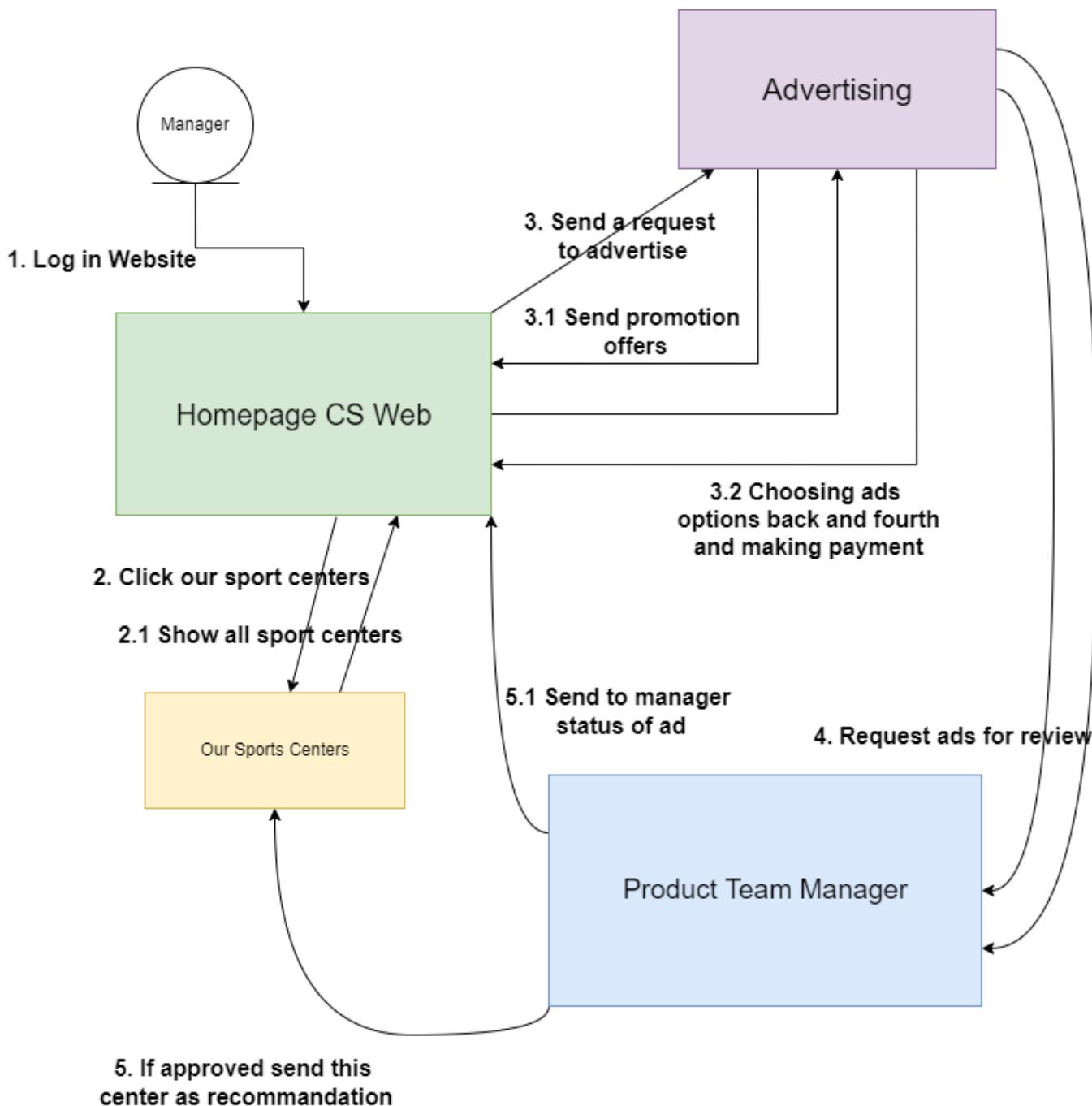


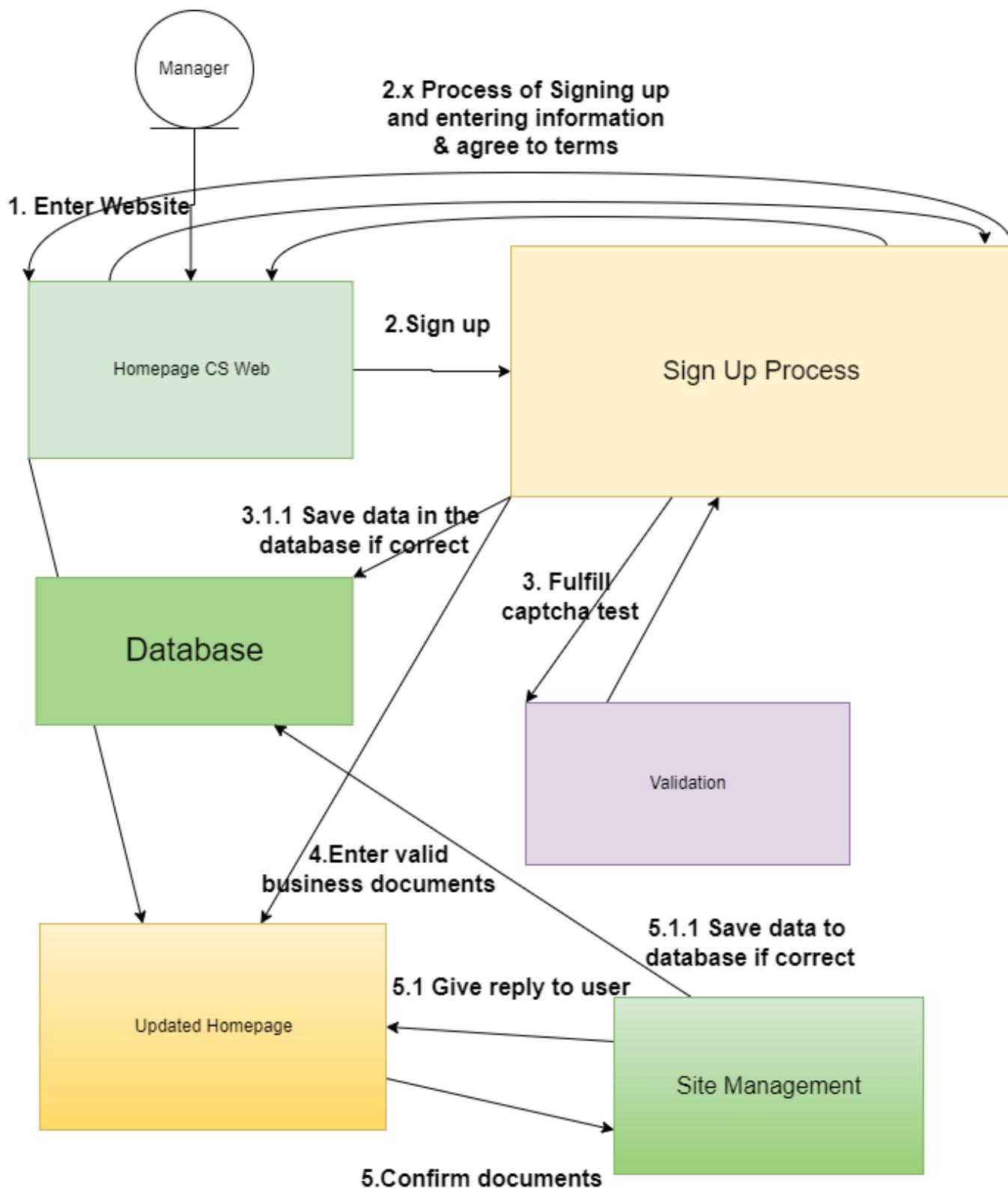


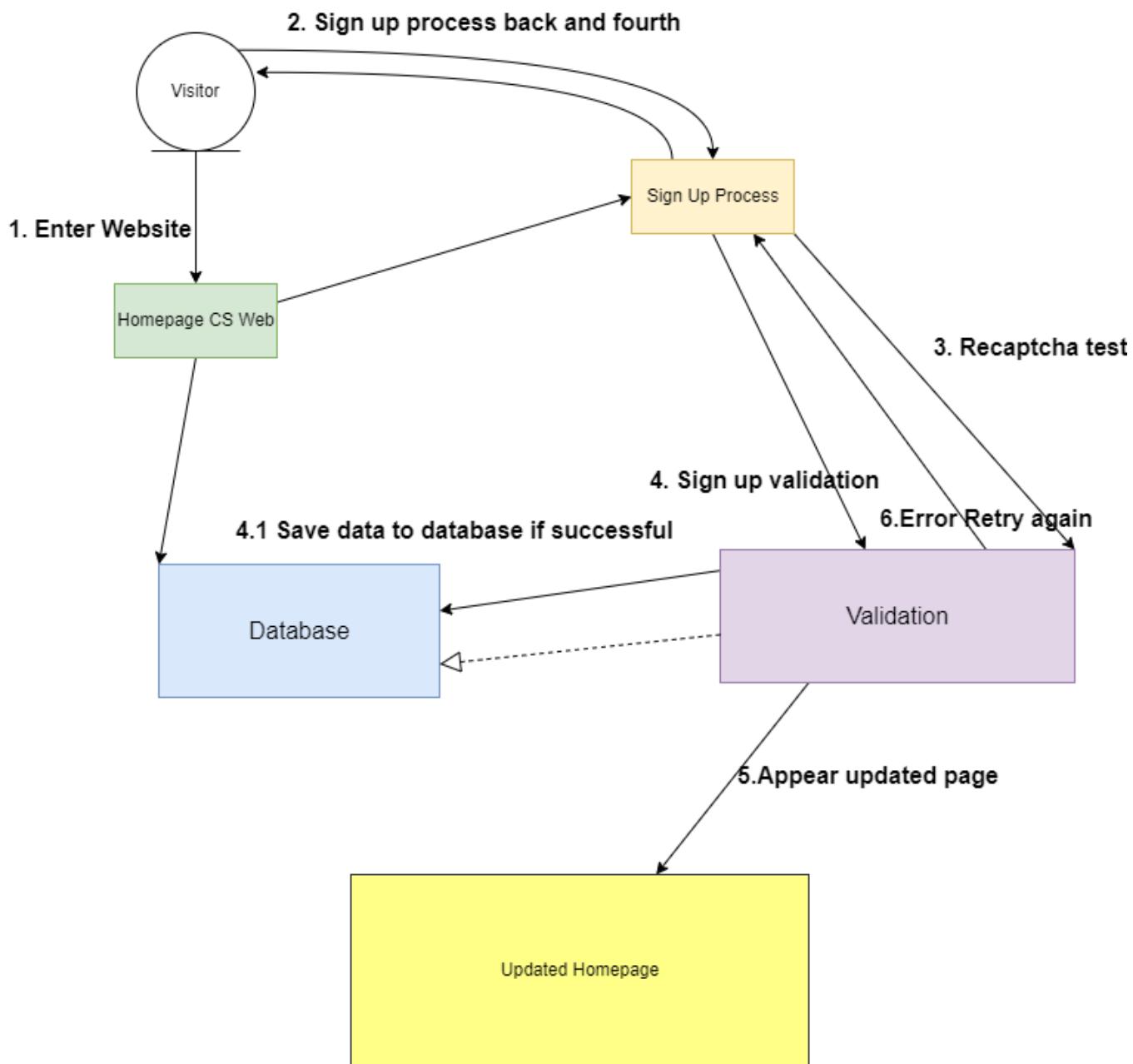


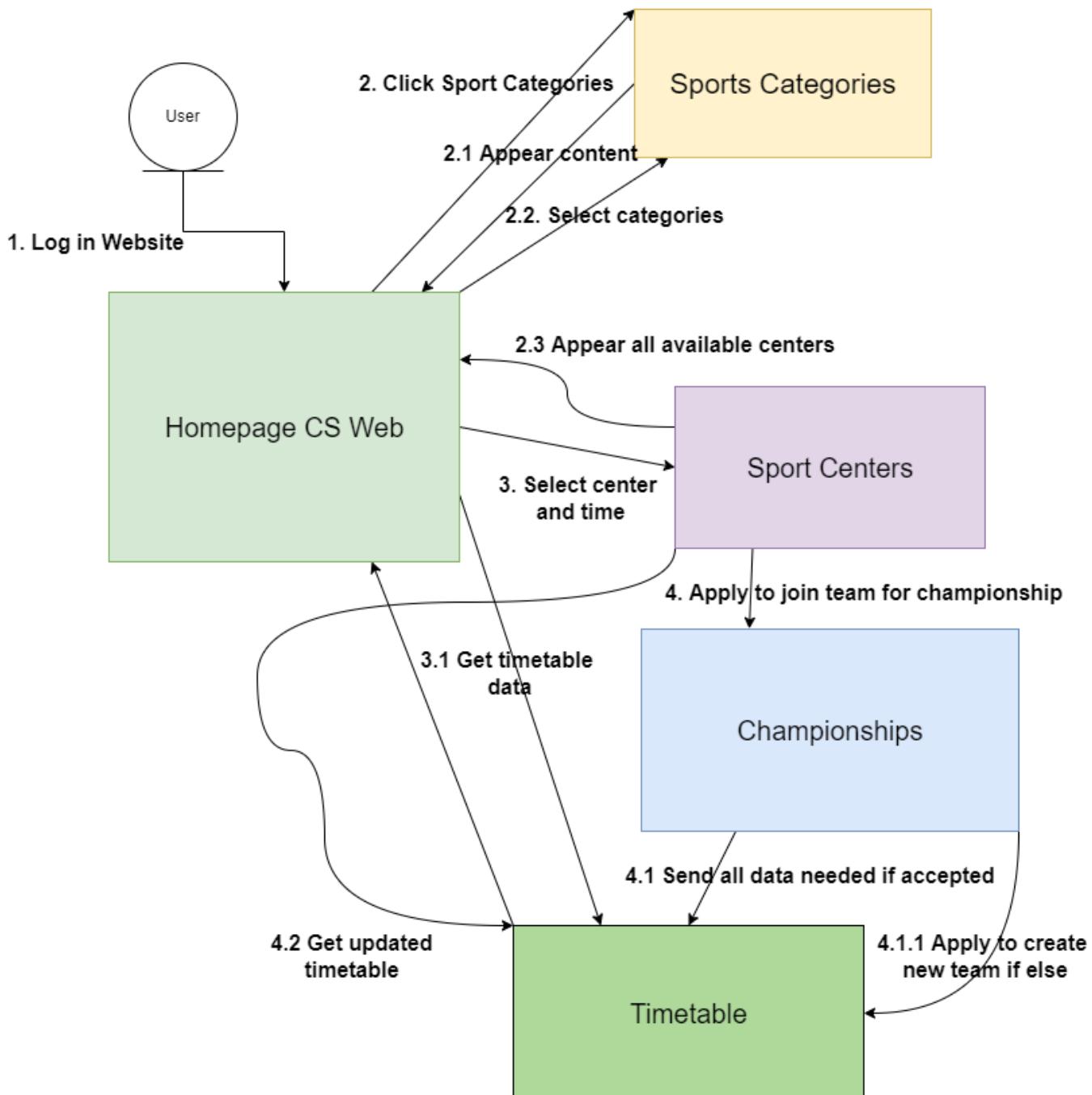


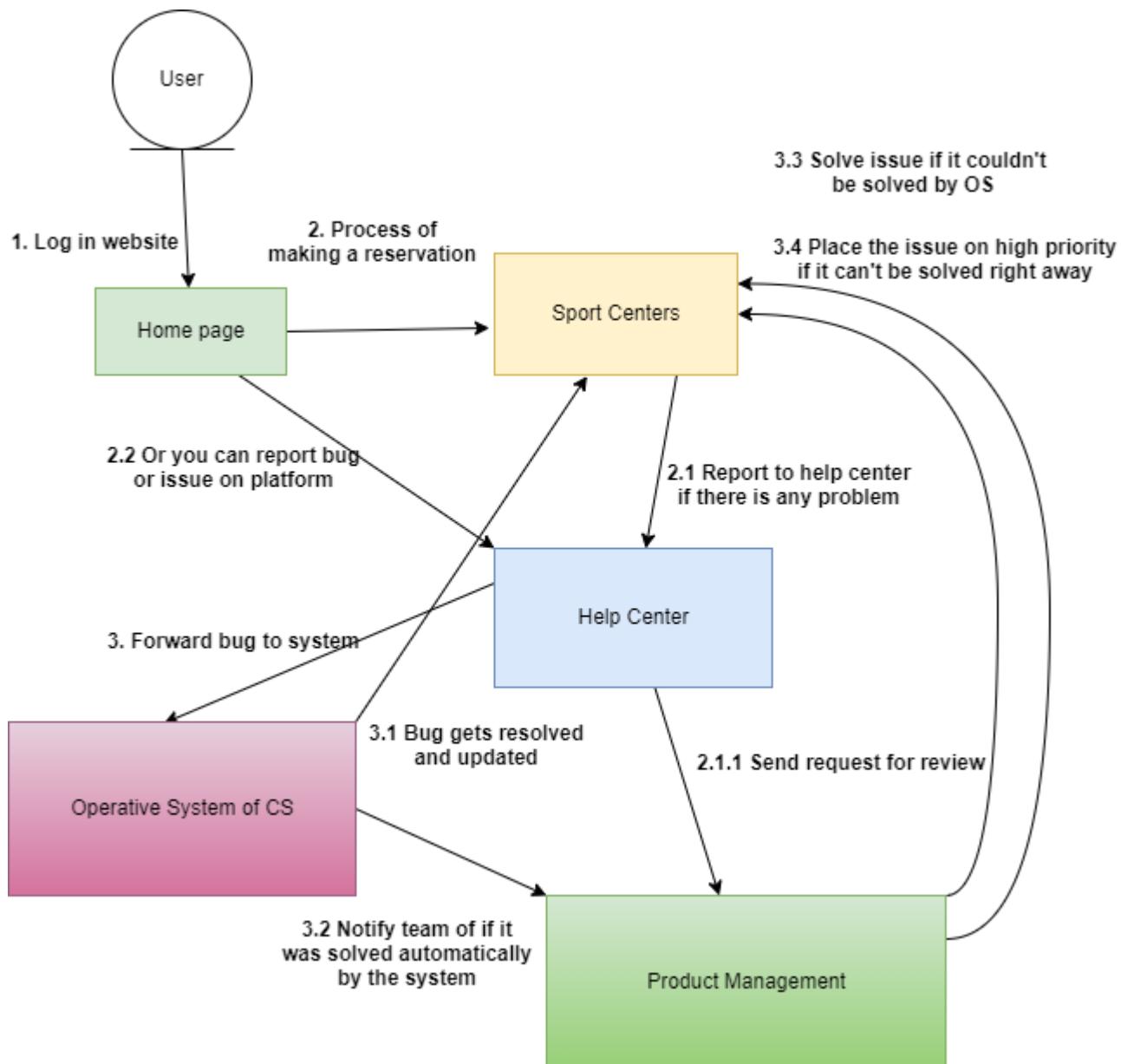


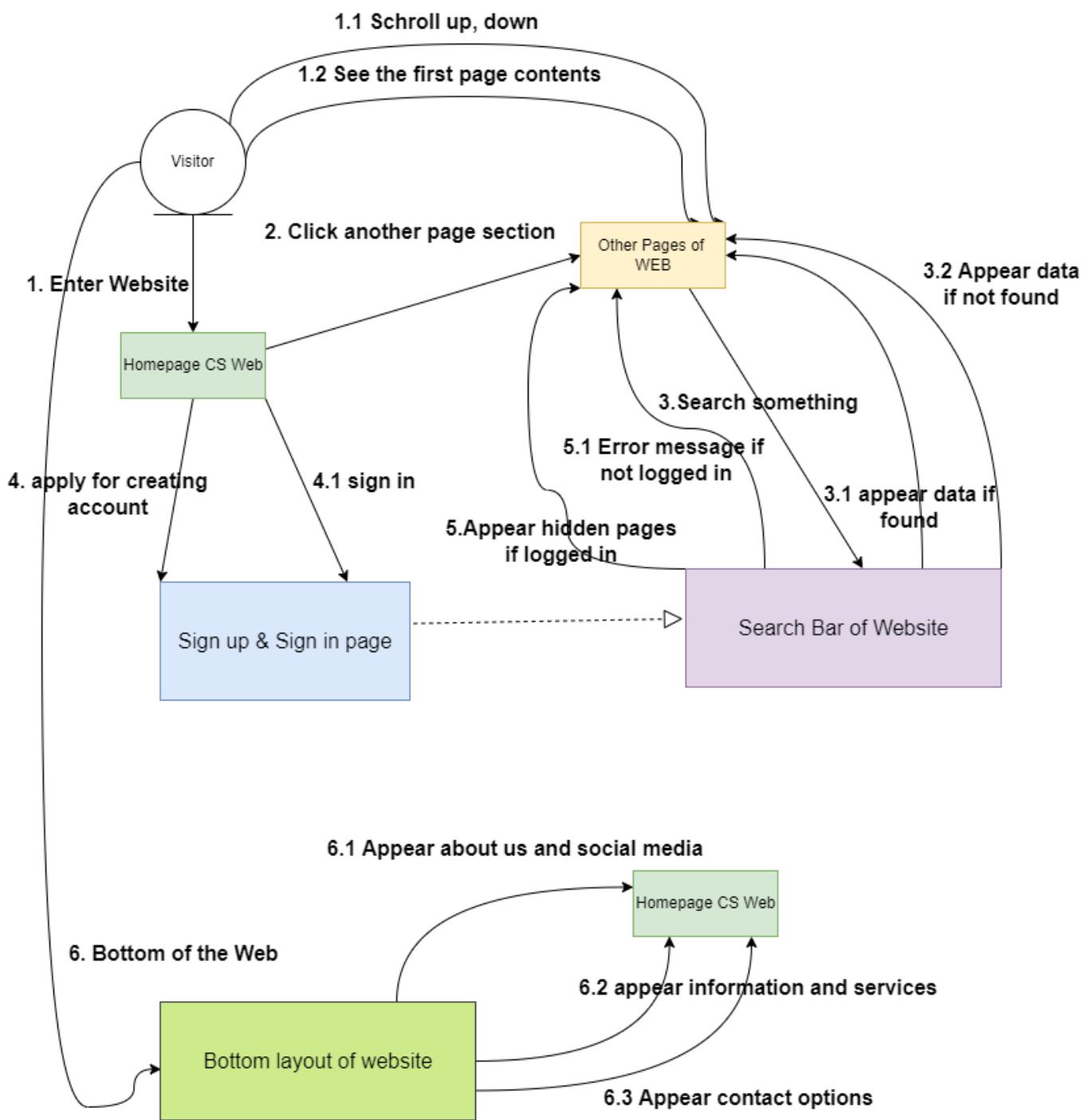


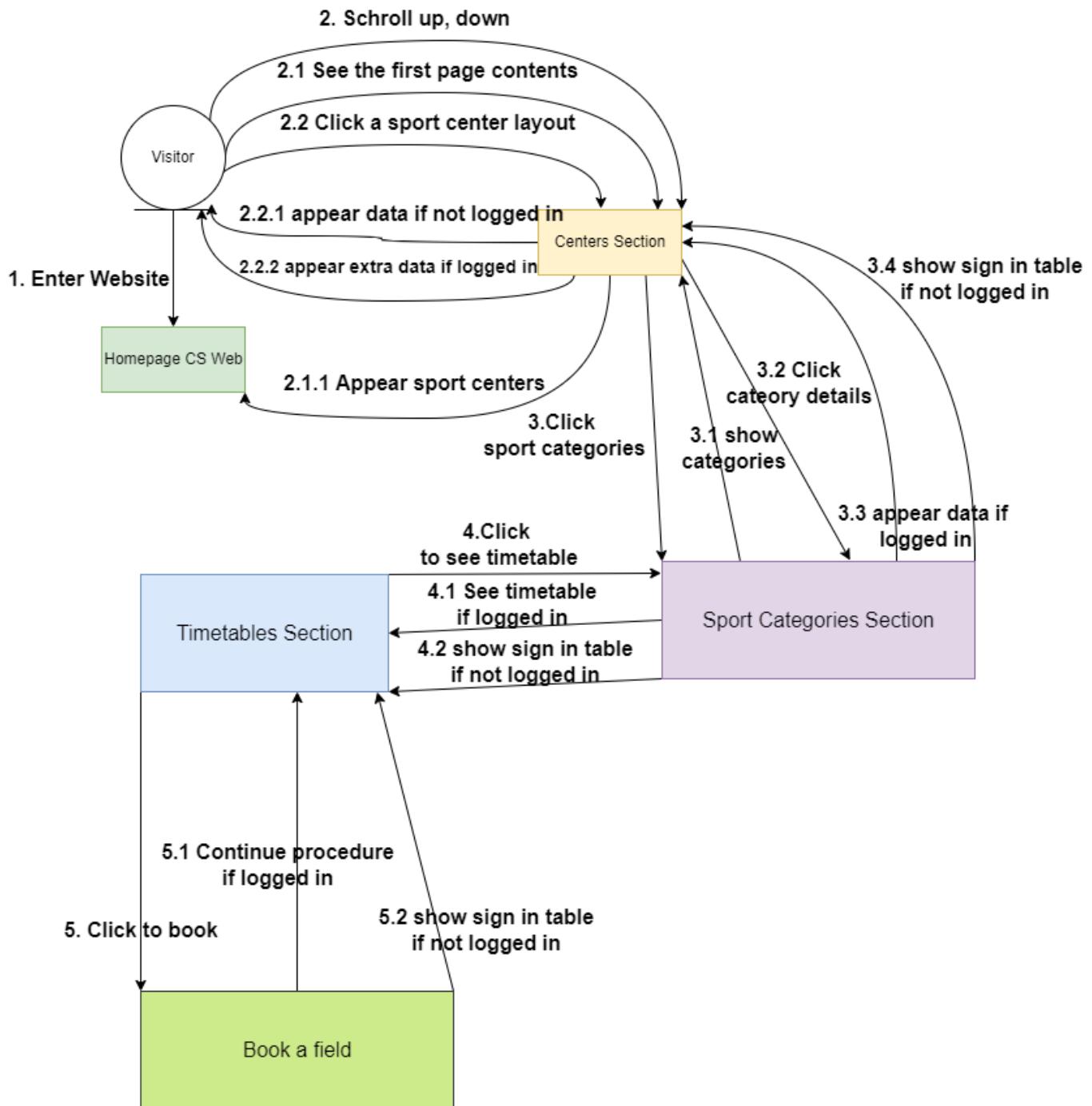


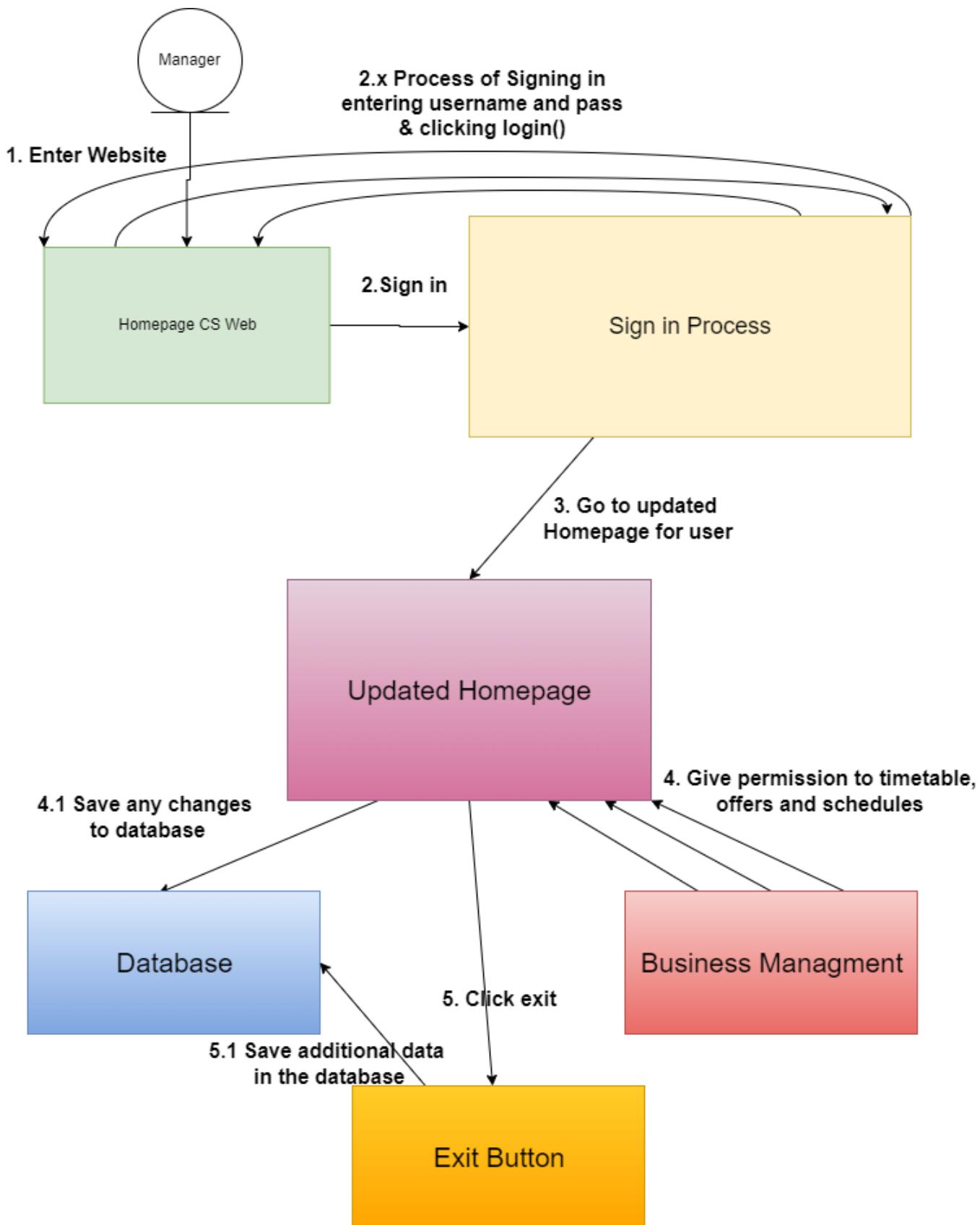


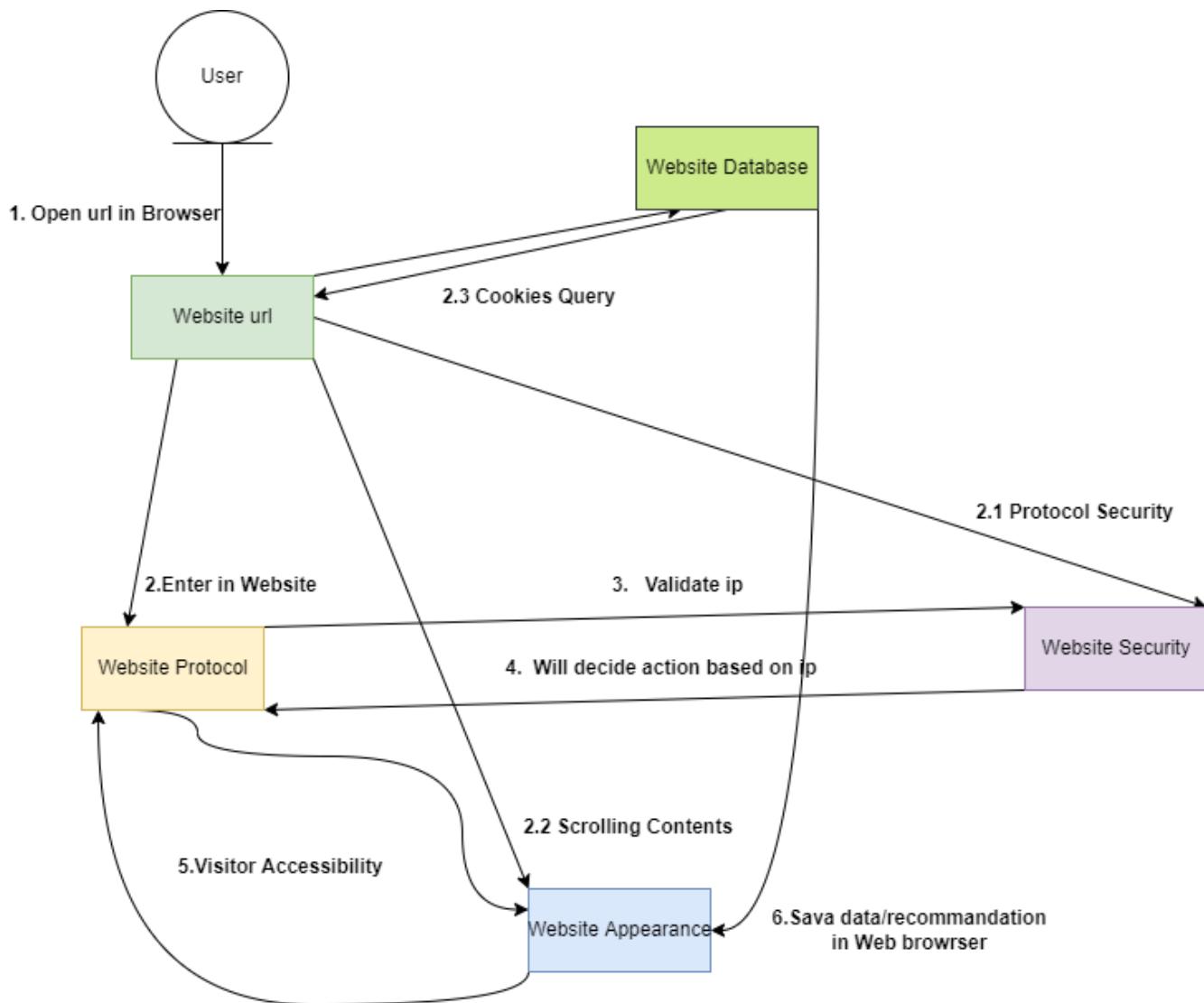


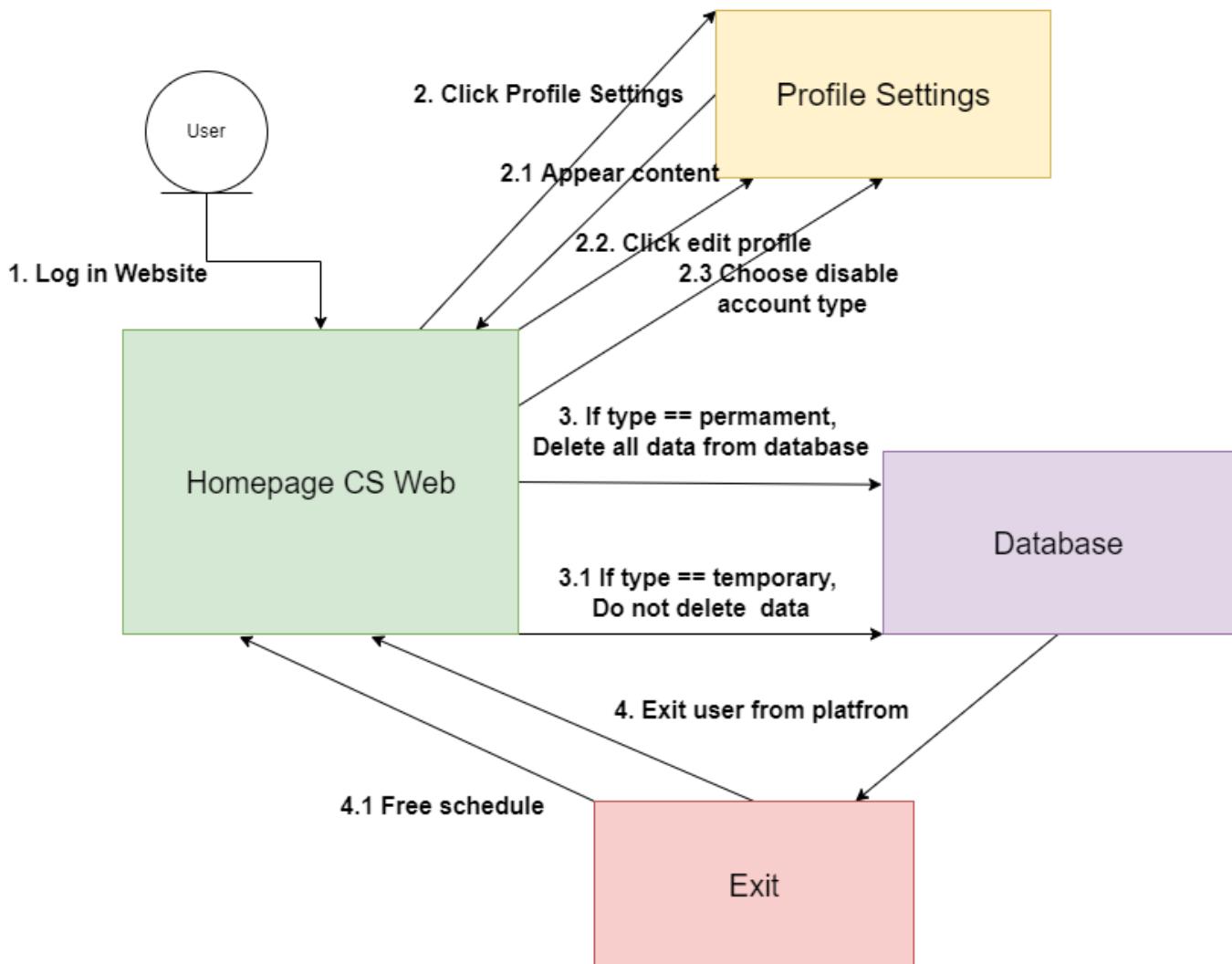


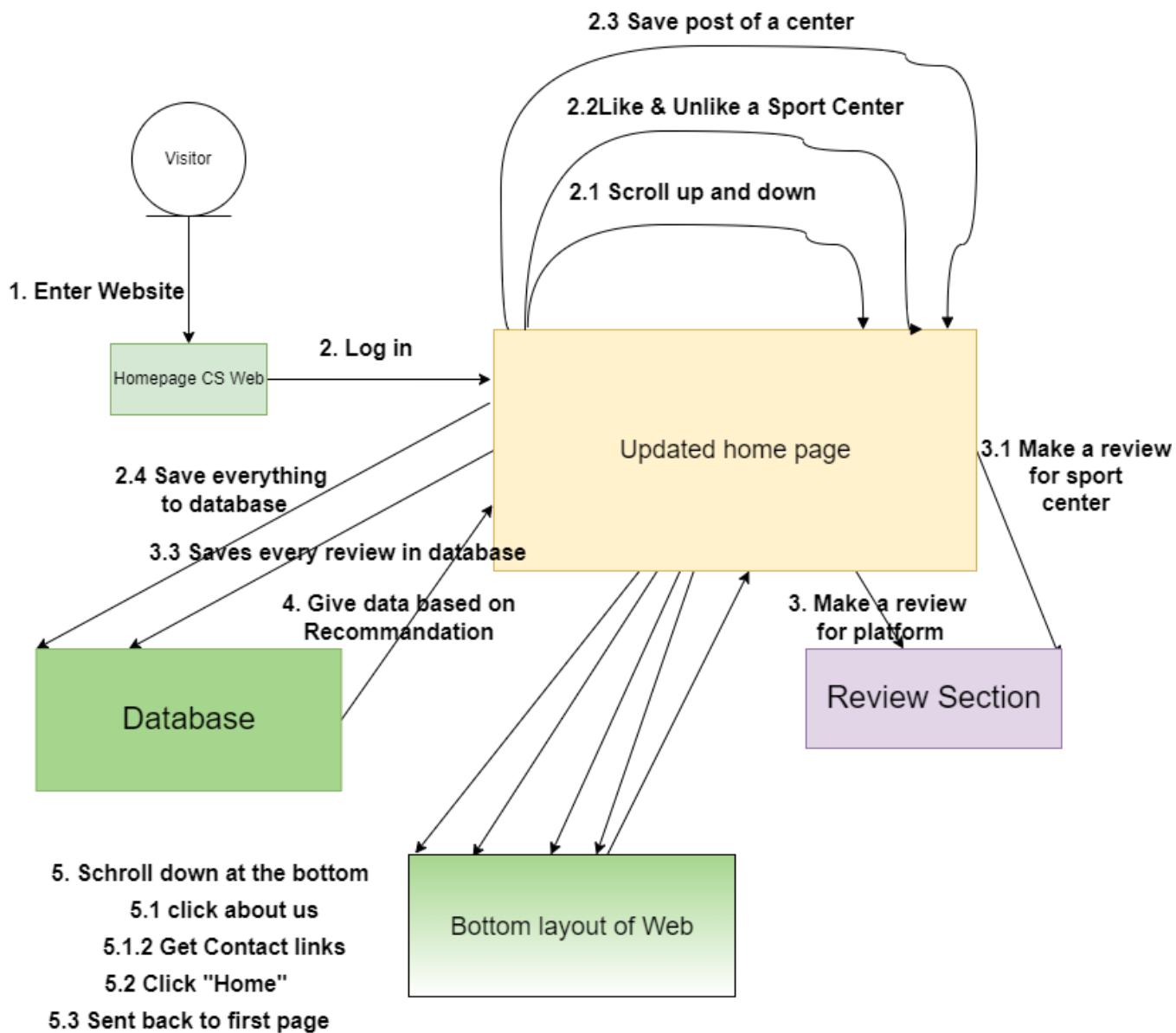


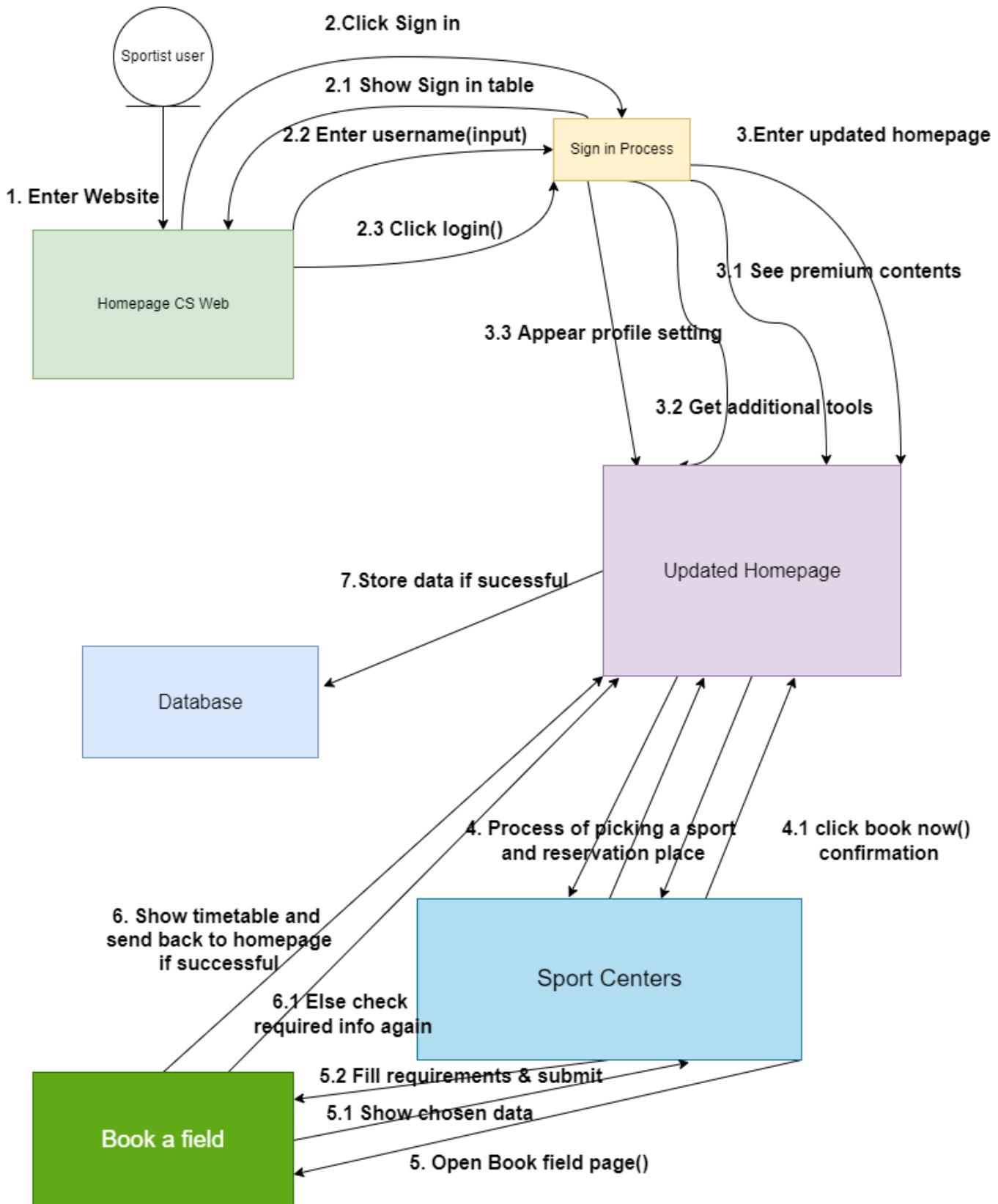


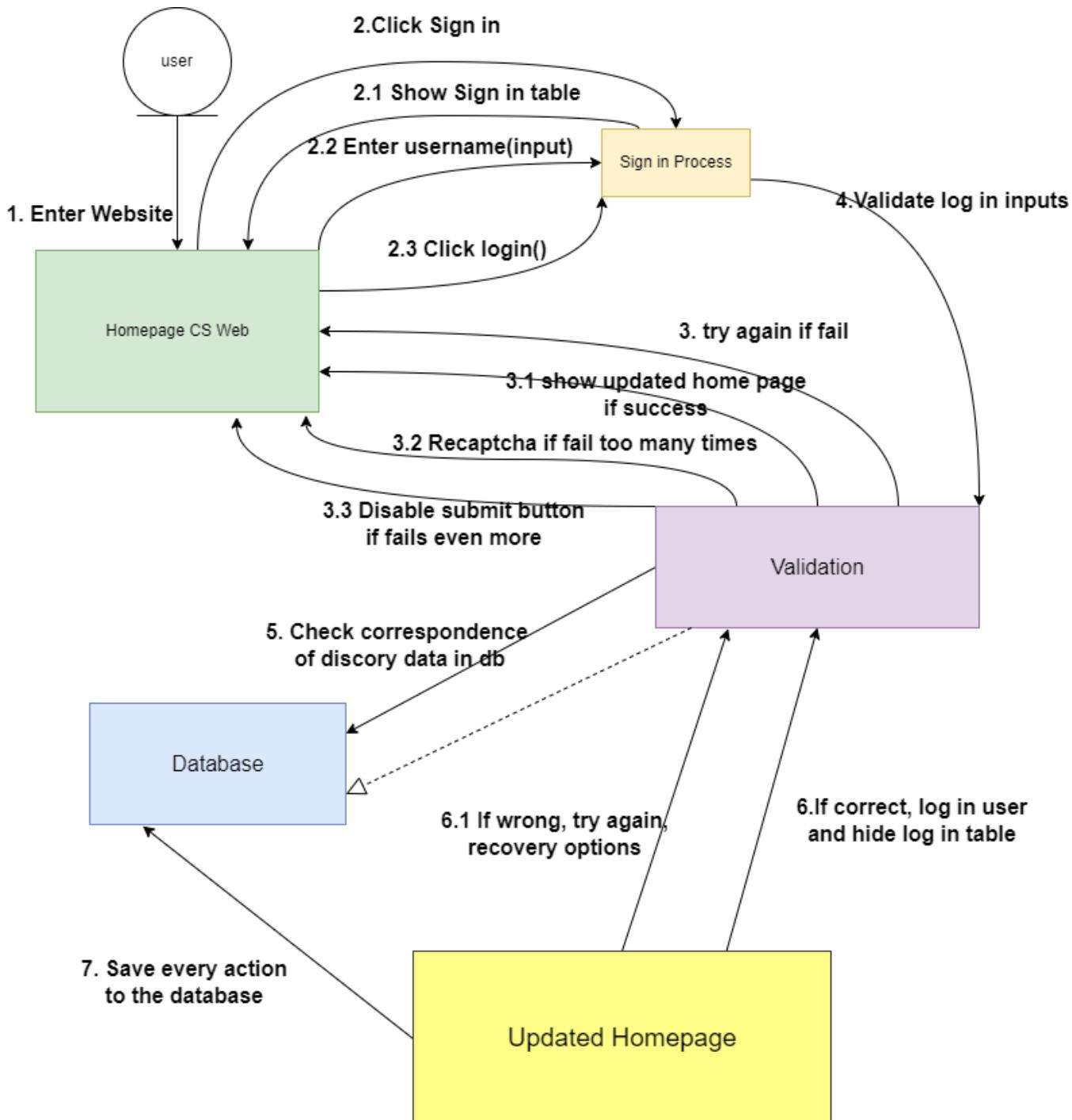


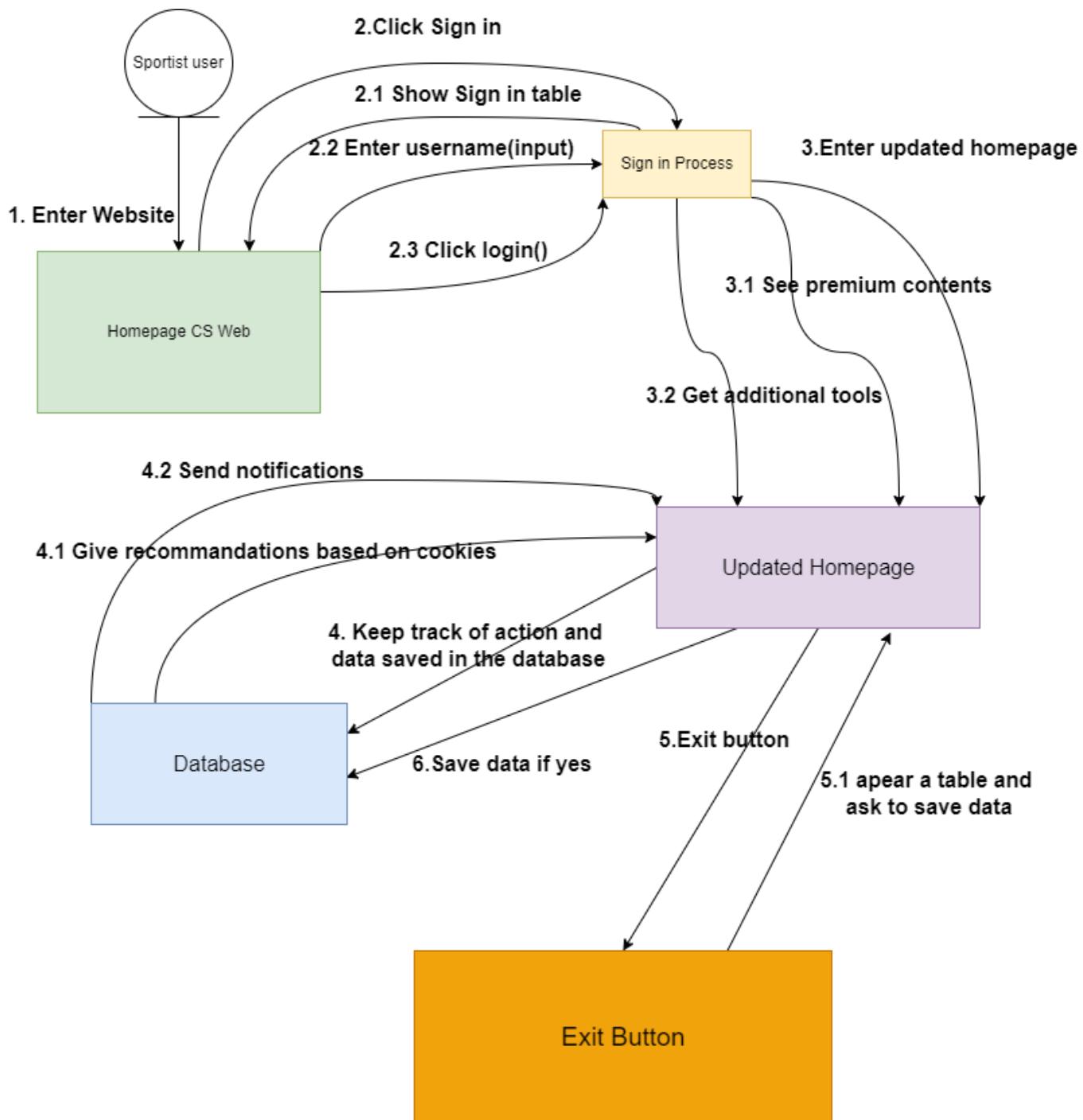


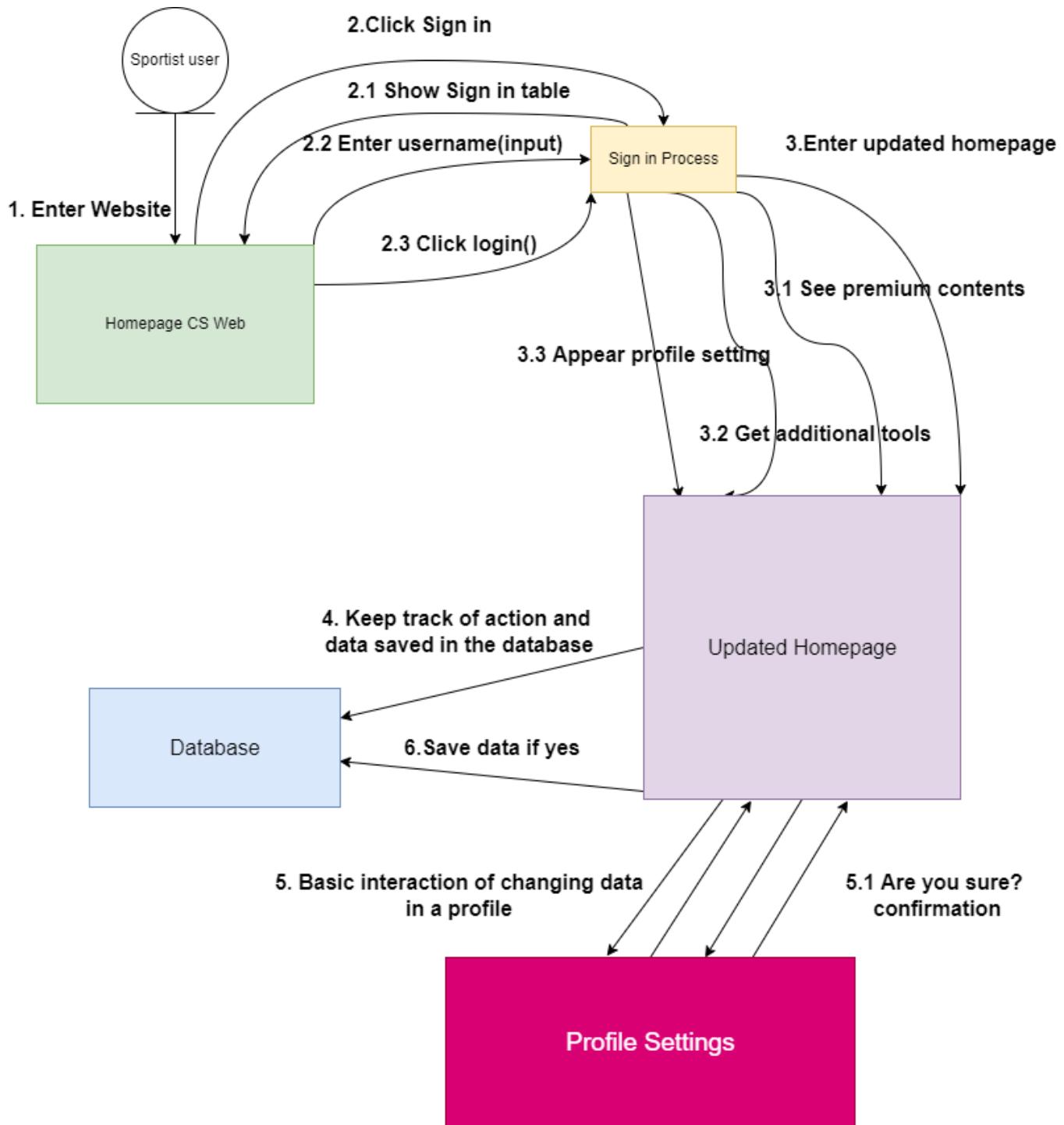


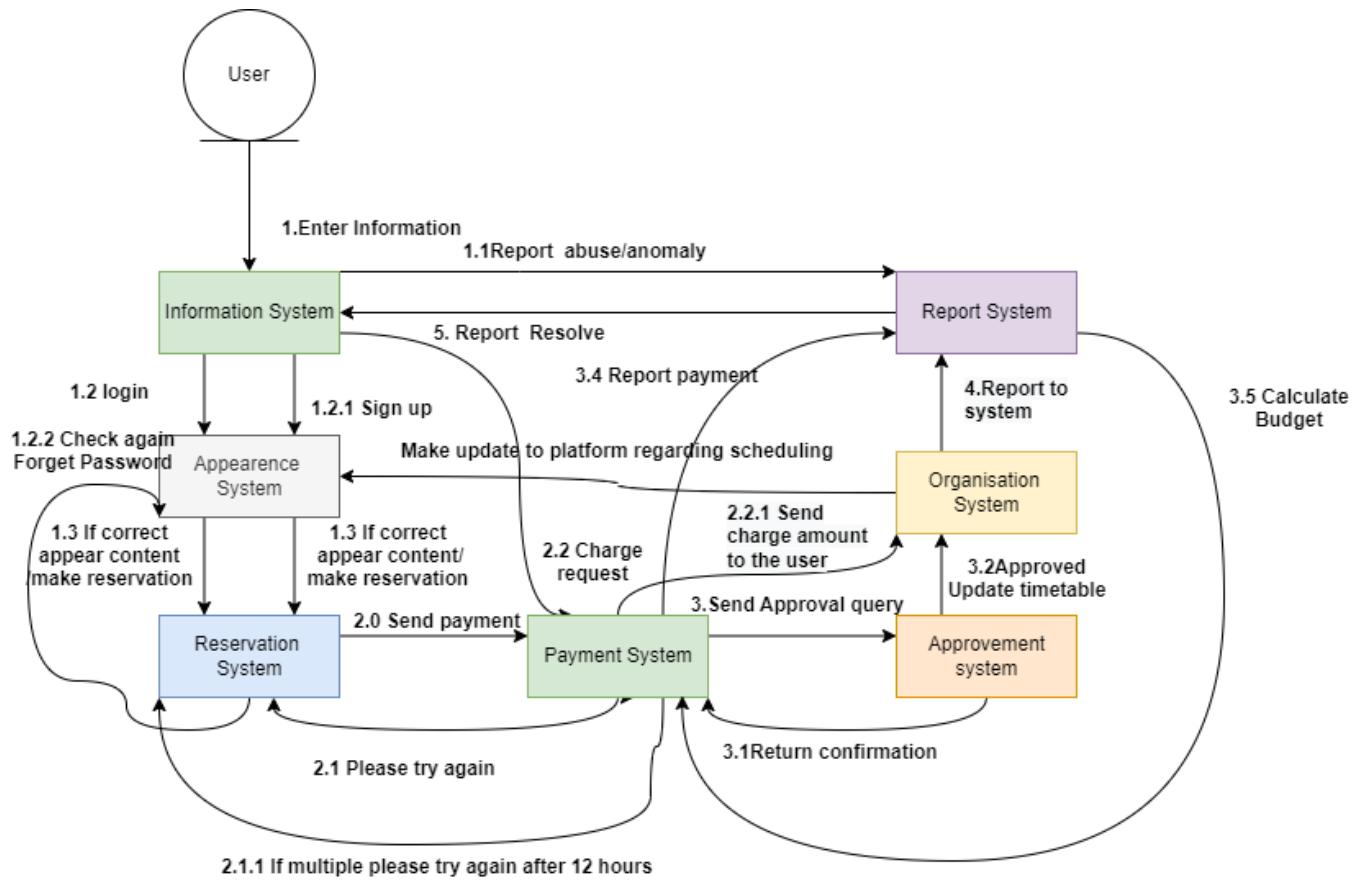


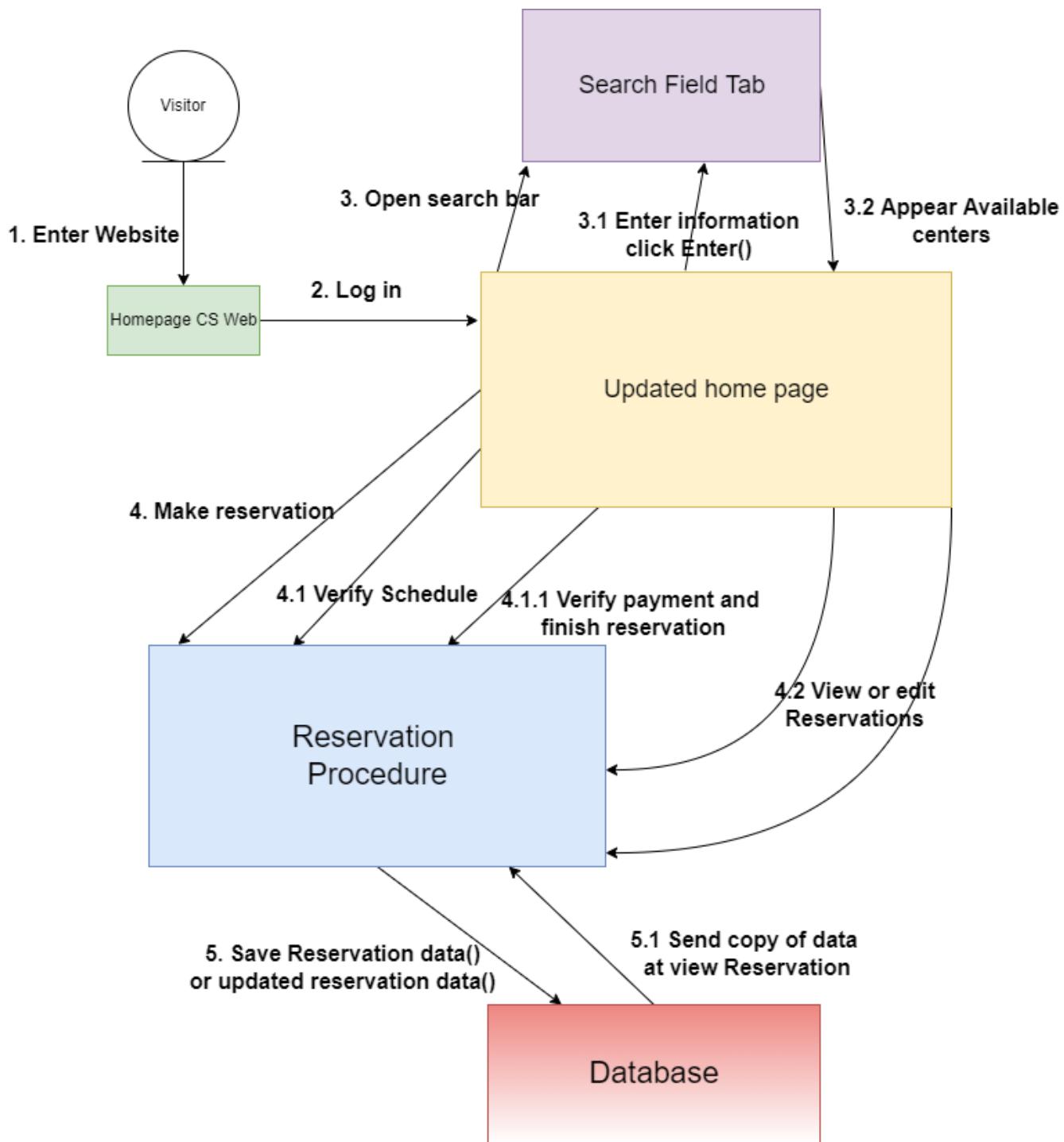


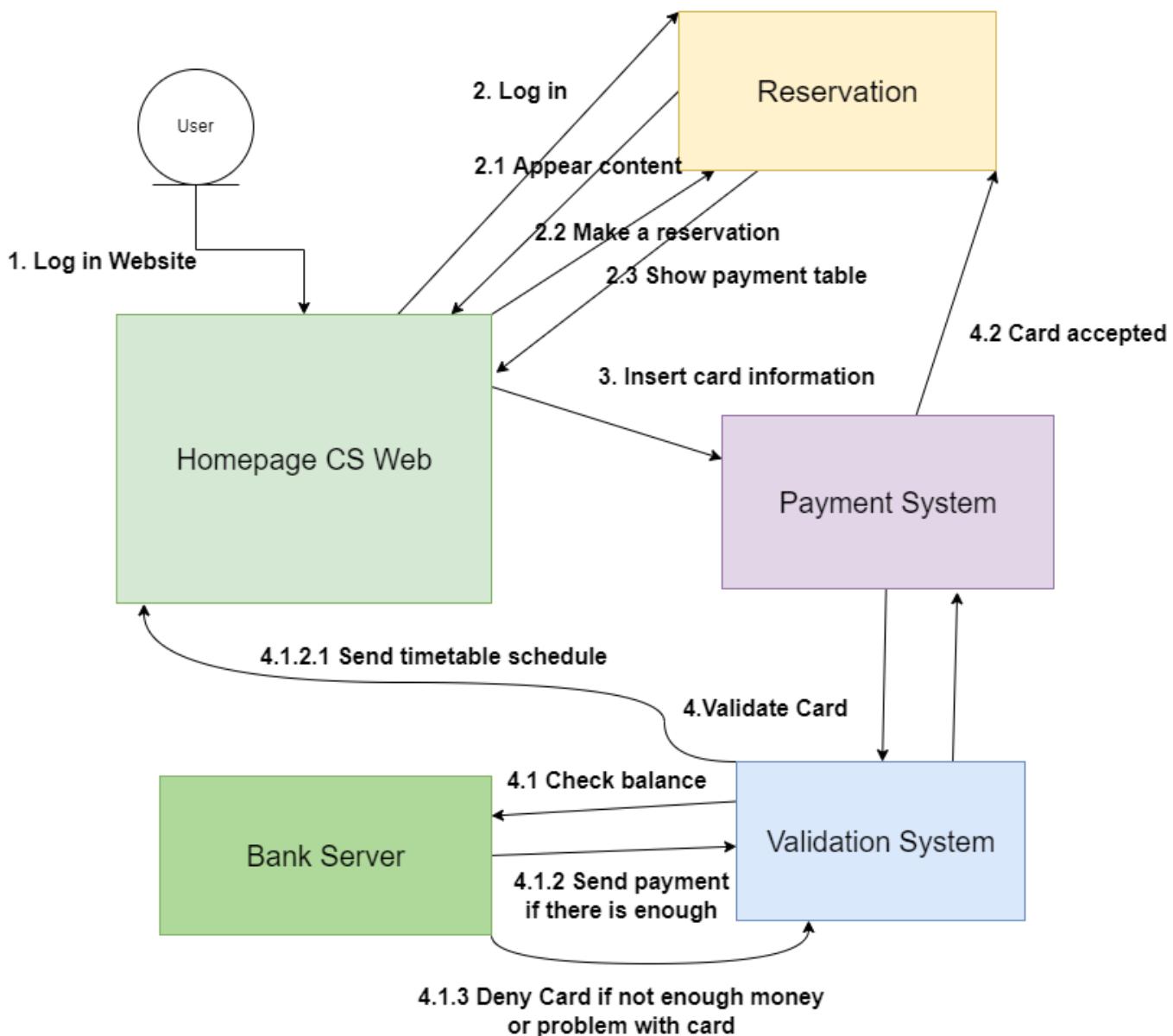


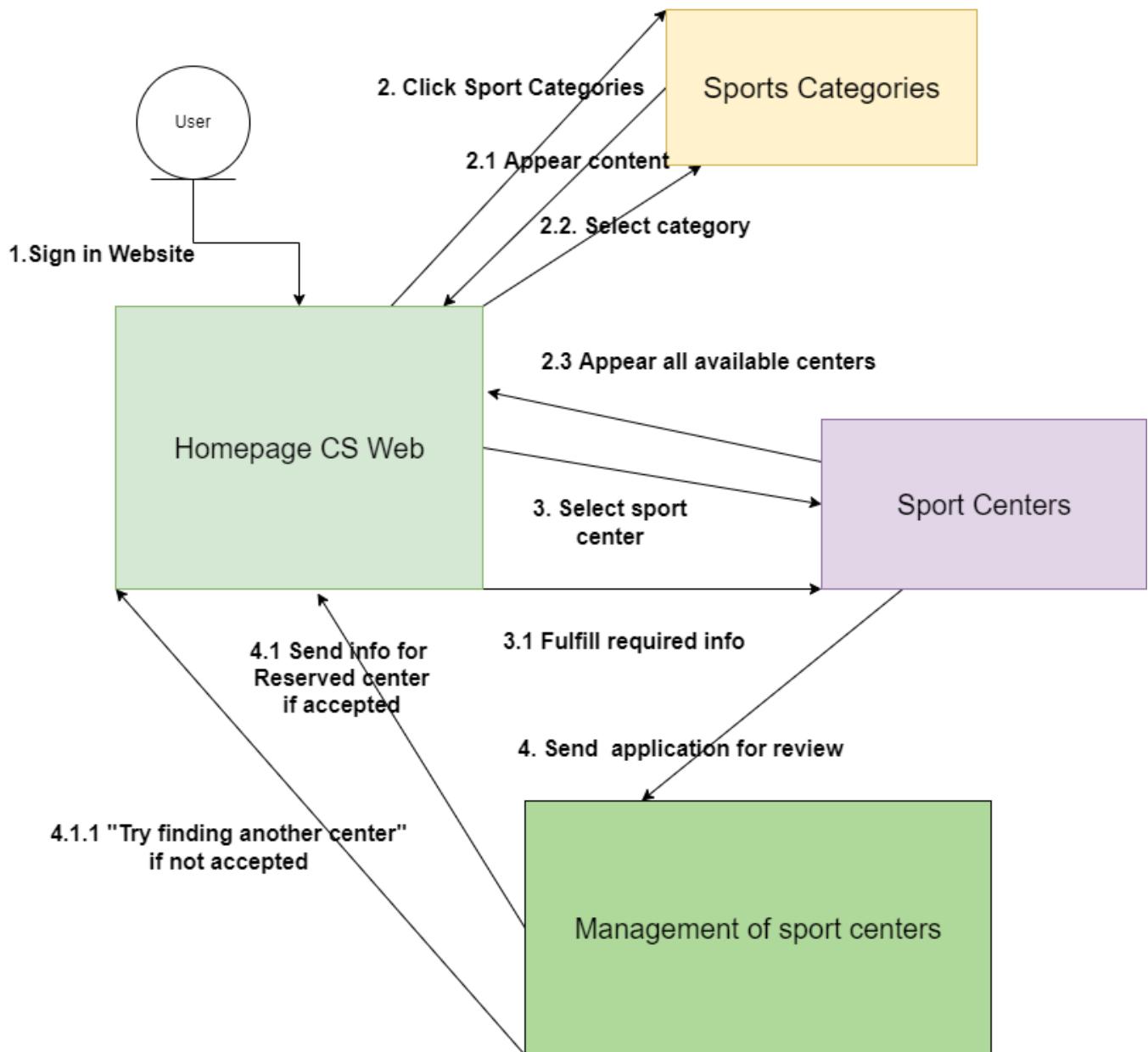




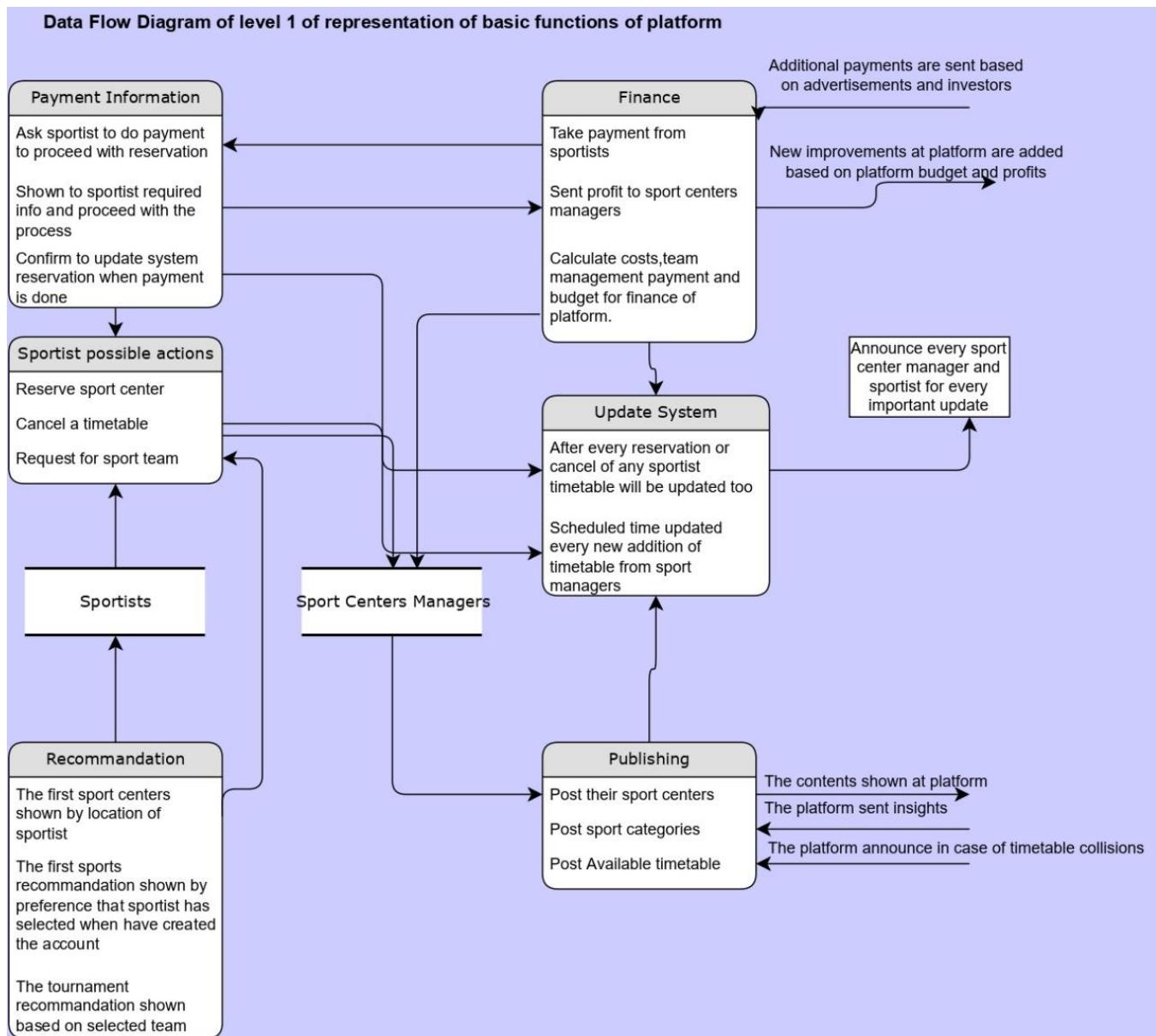


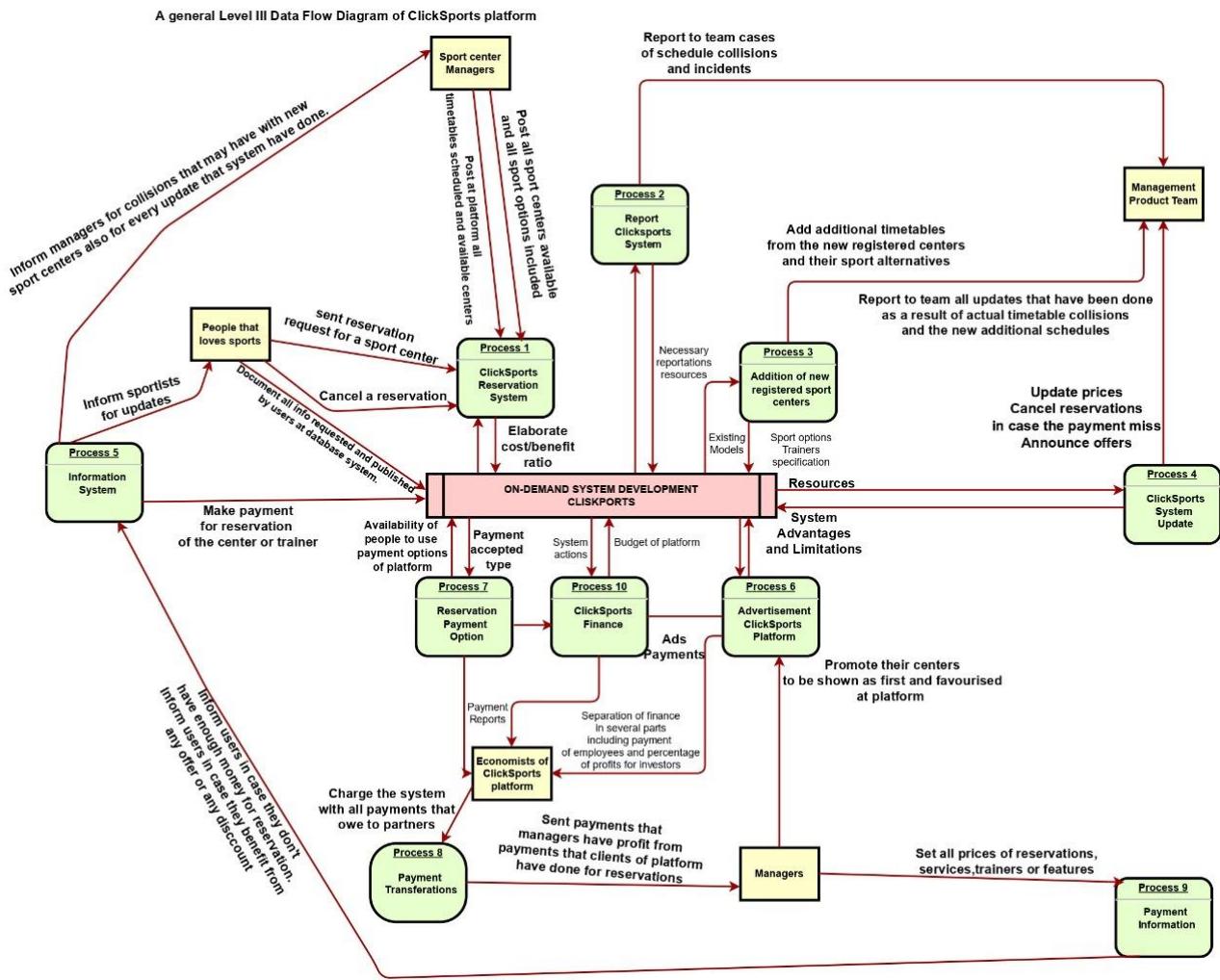




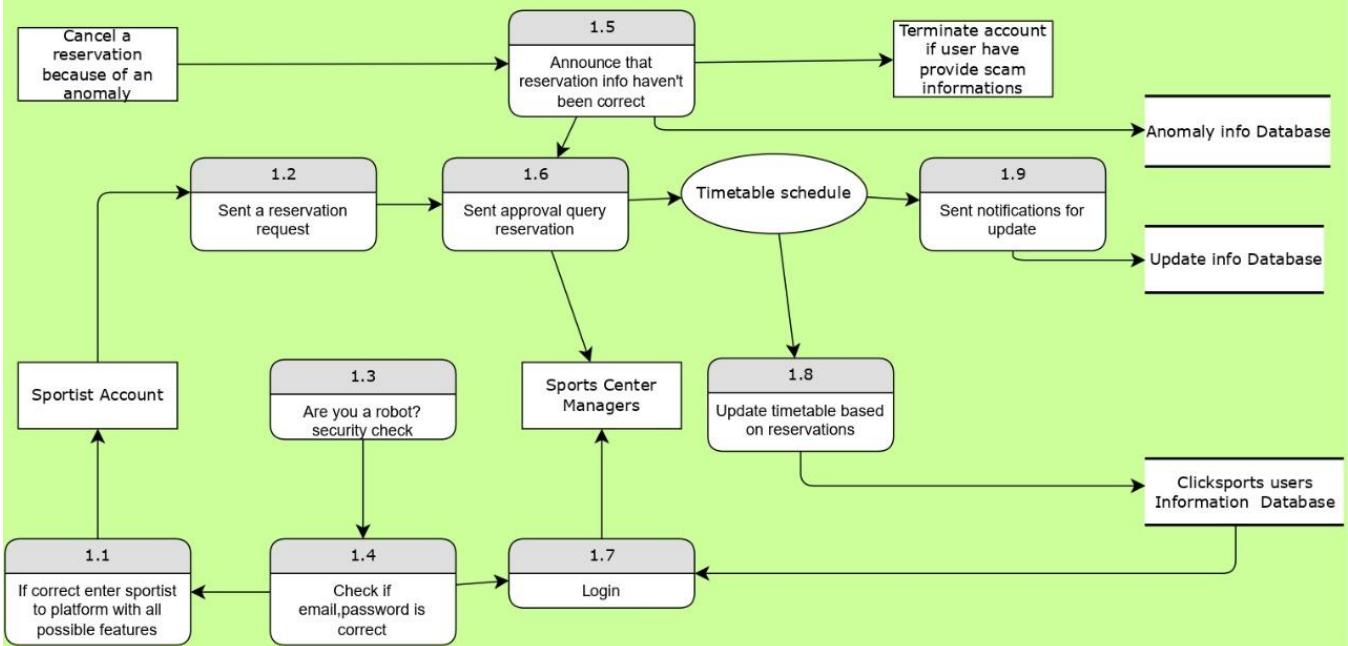


4.3 Data Flow Diagrams



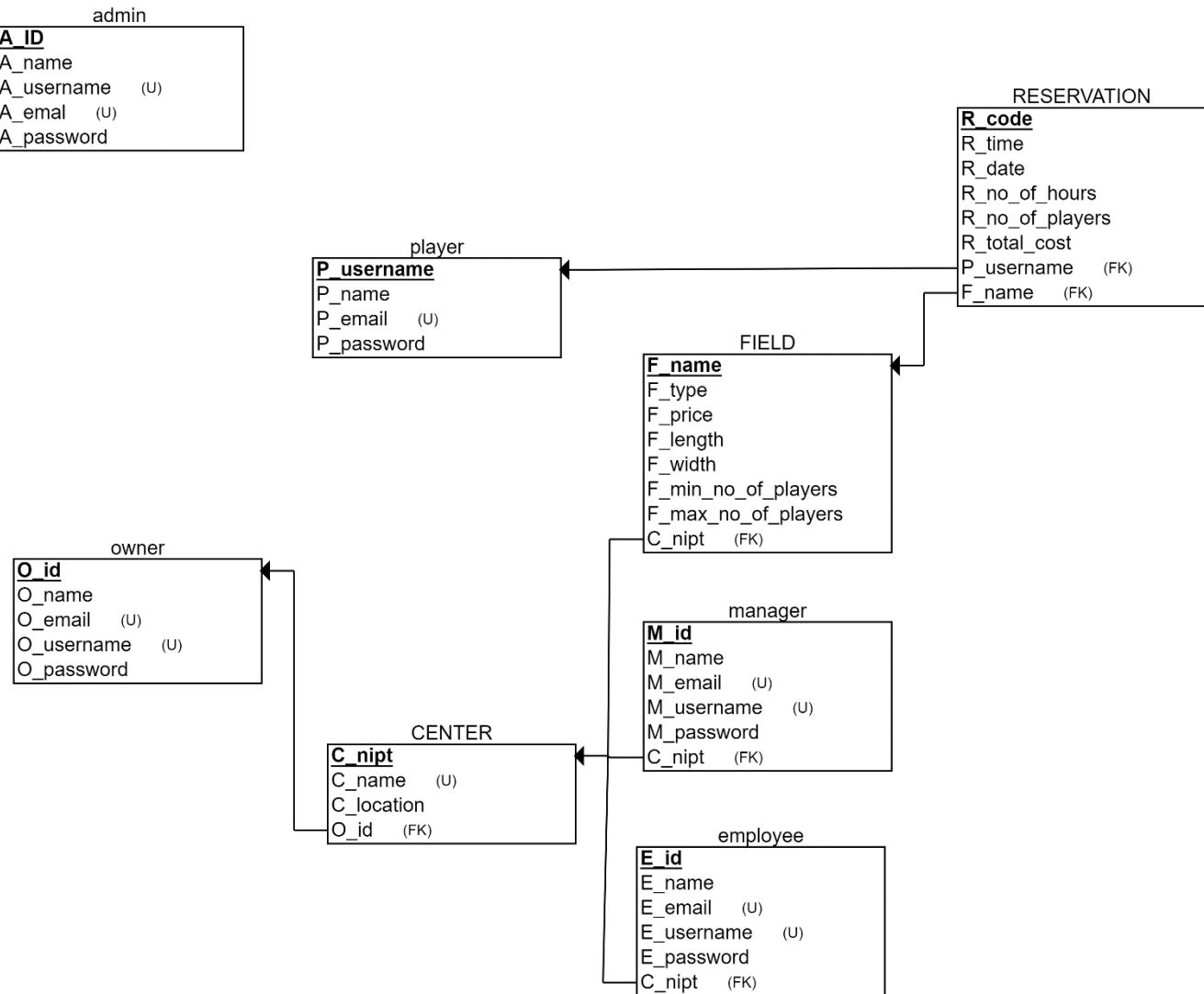


Data Flow Diagram of level 2 for reservation processes through platform

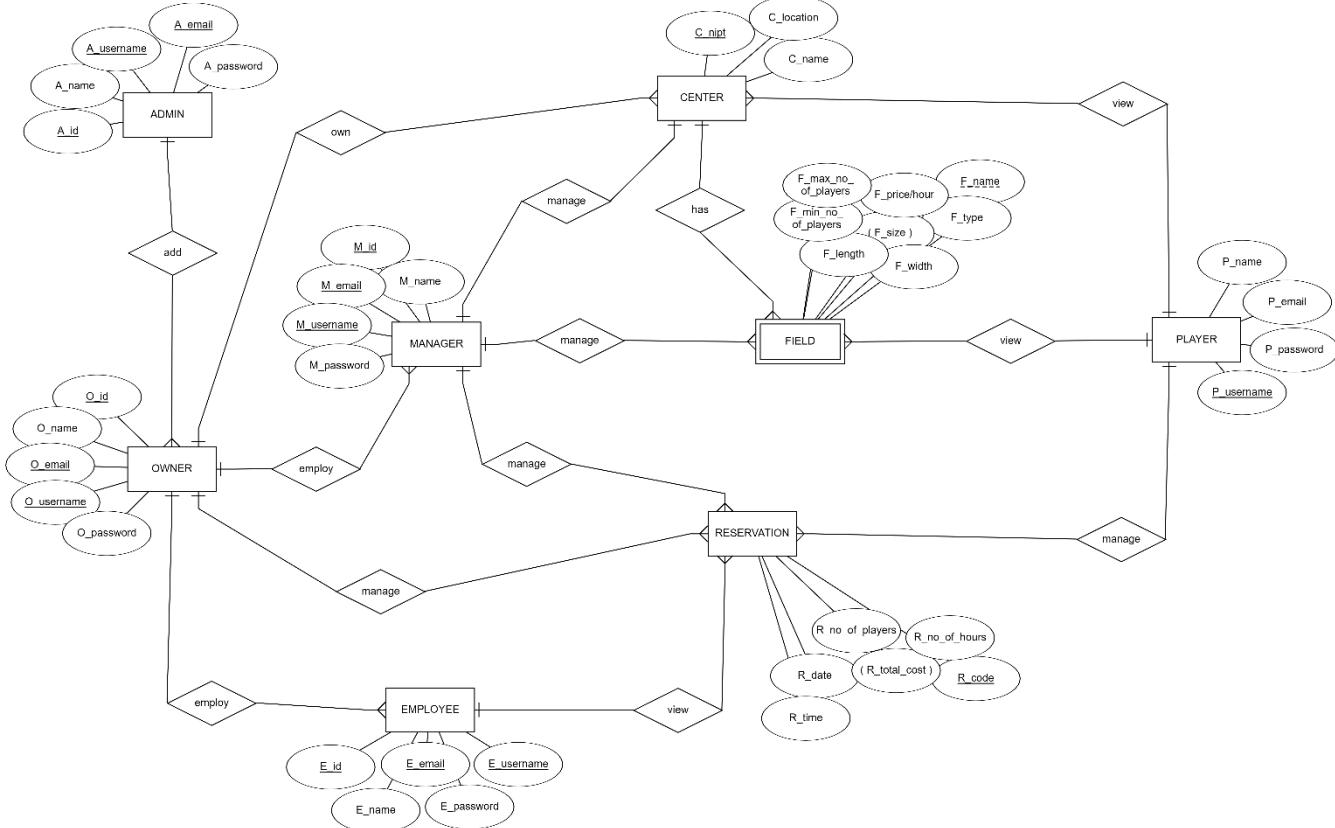


4.4 Entity Relation Diagrams

4.4.1 Database Schema Diagrams



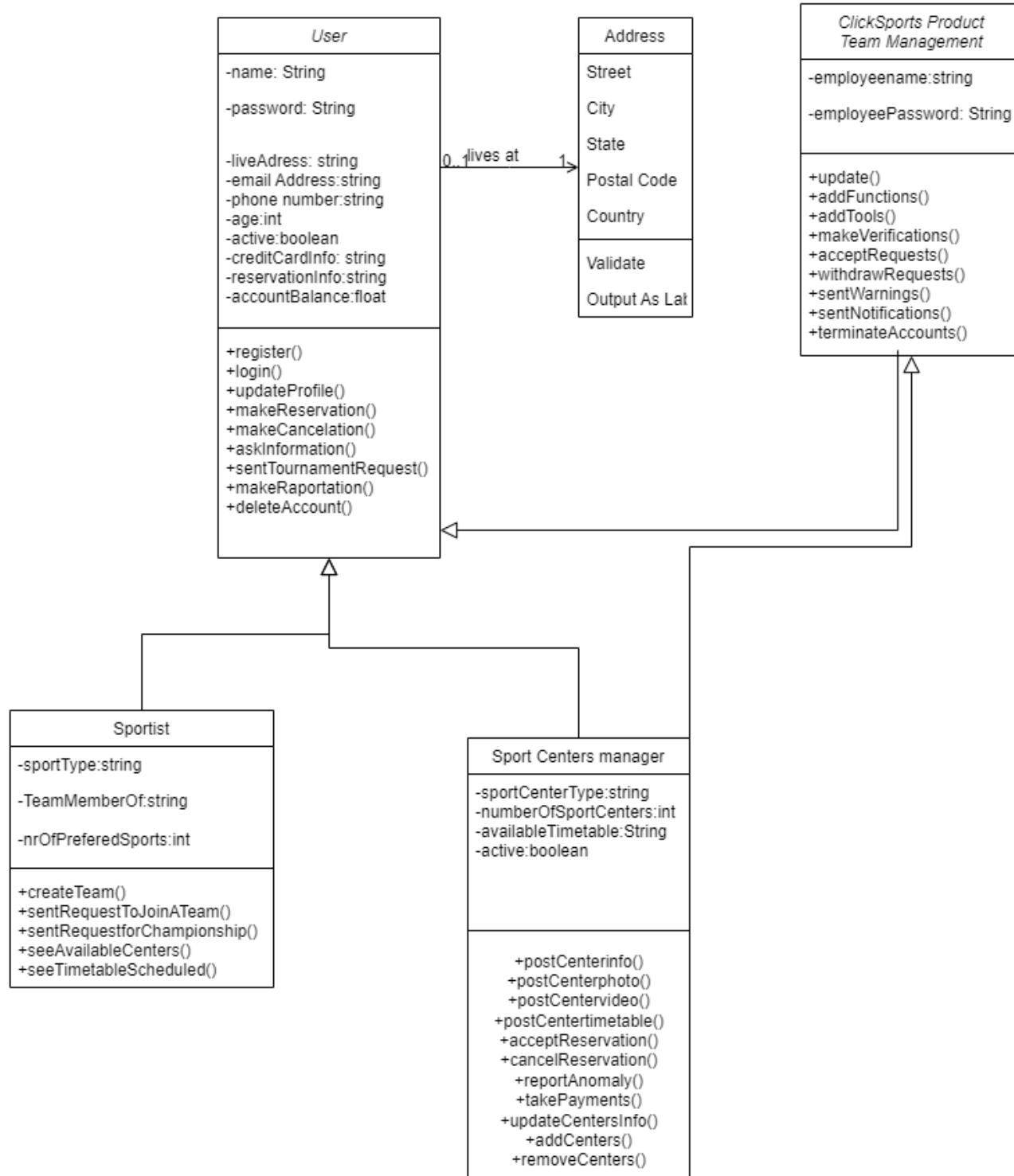
4.4.2 Entity Relation Diagrams



4.5 Structural Diagrams

4.5.1 Class Diagrams

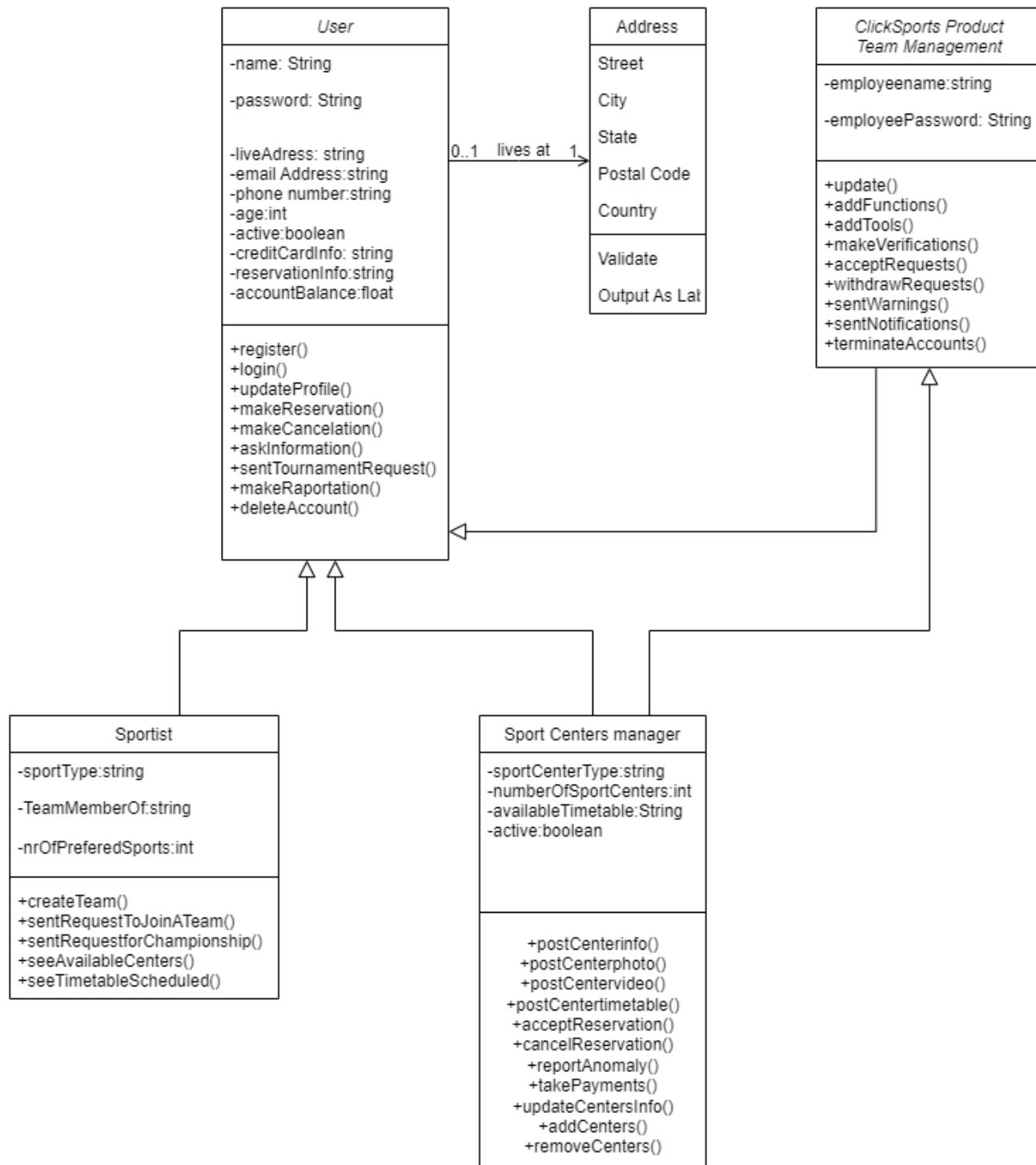
Class Diagram for different roles of people at ClickSports Platform

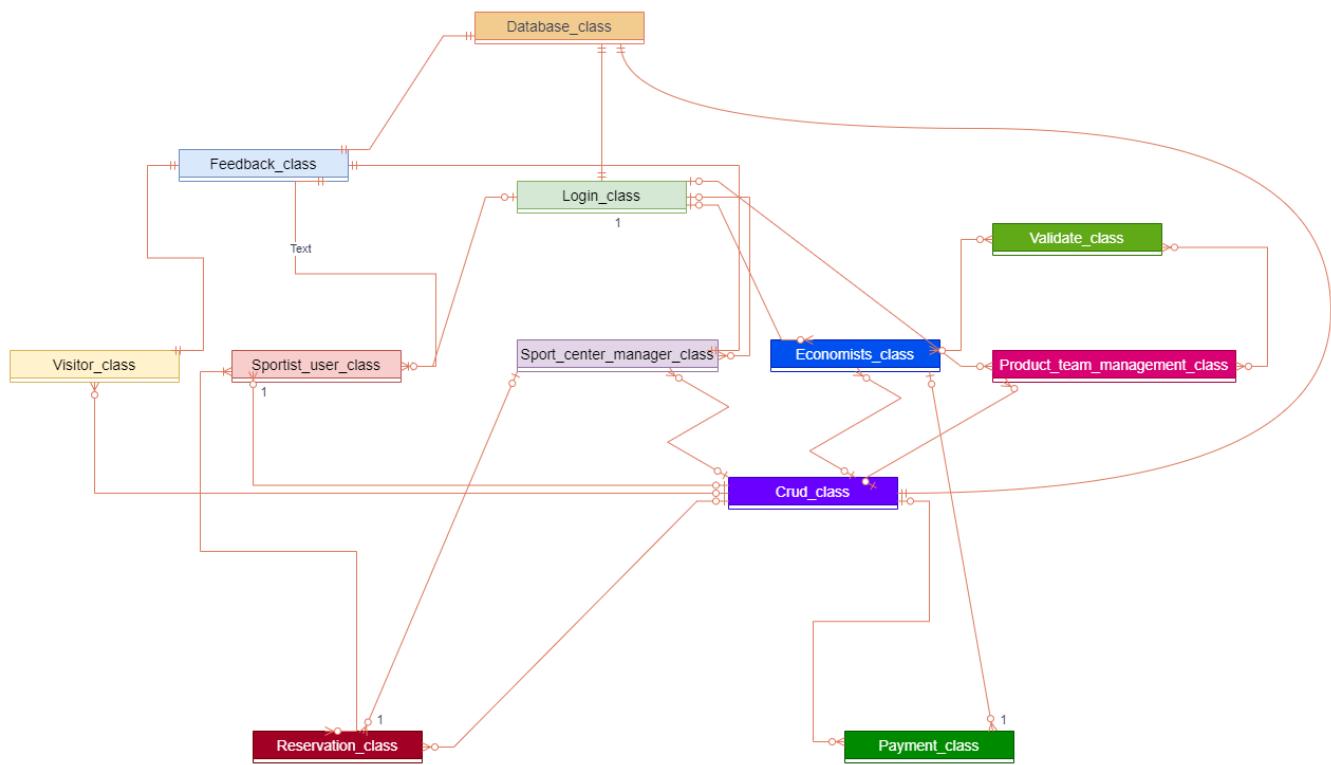


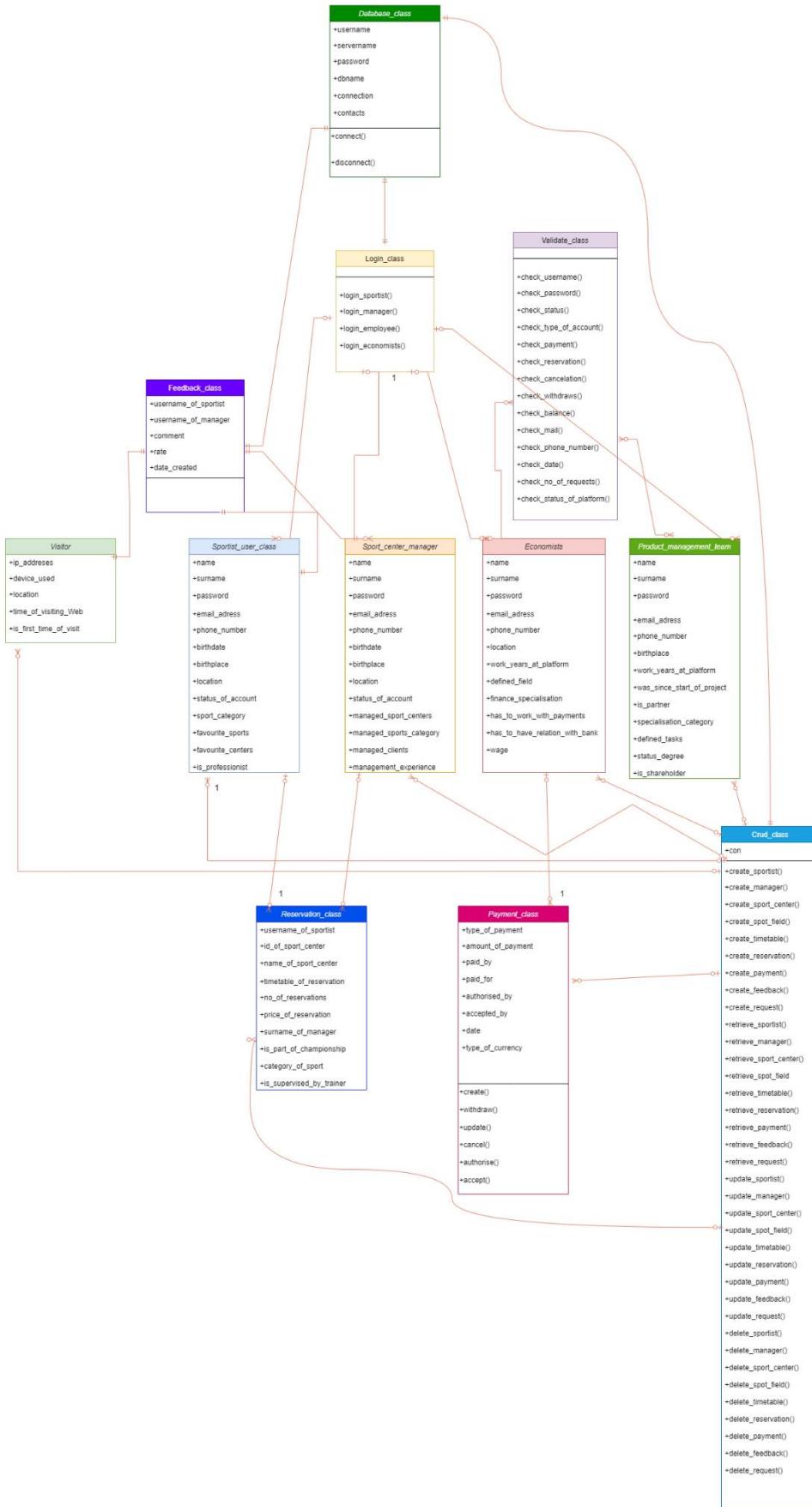
General overview to attributes and methods used



Class Diagram for different roles of people at ClickSports Platform

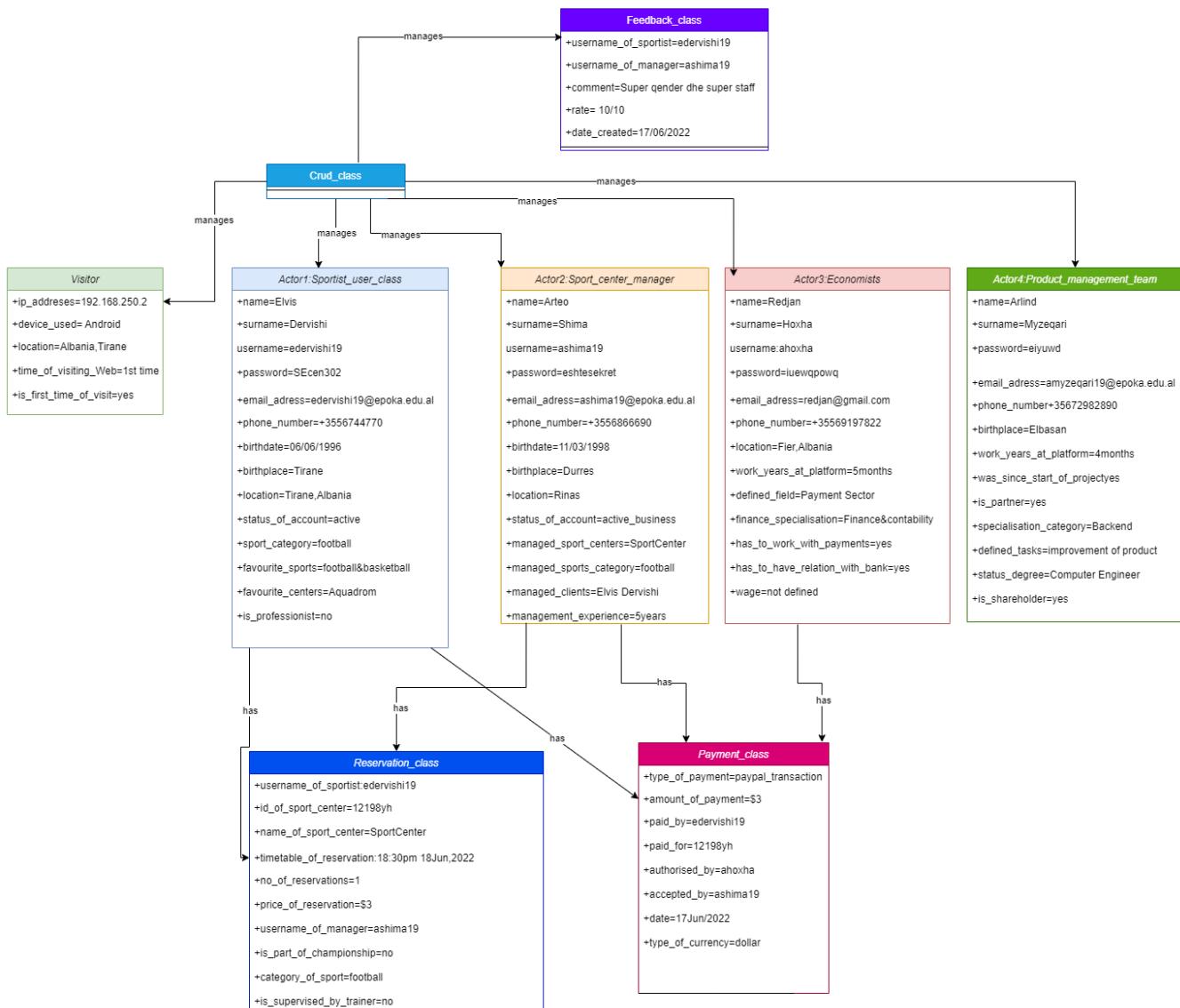




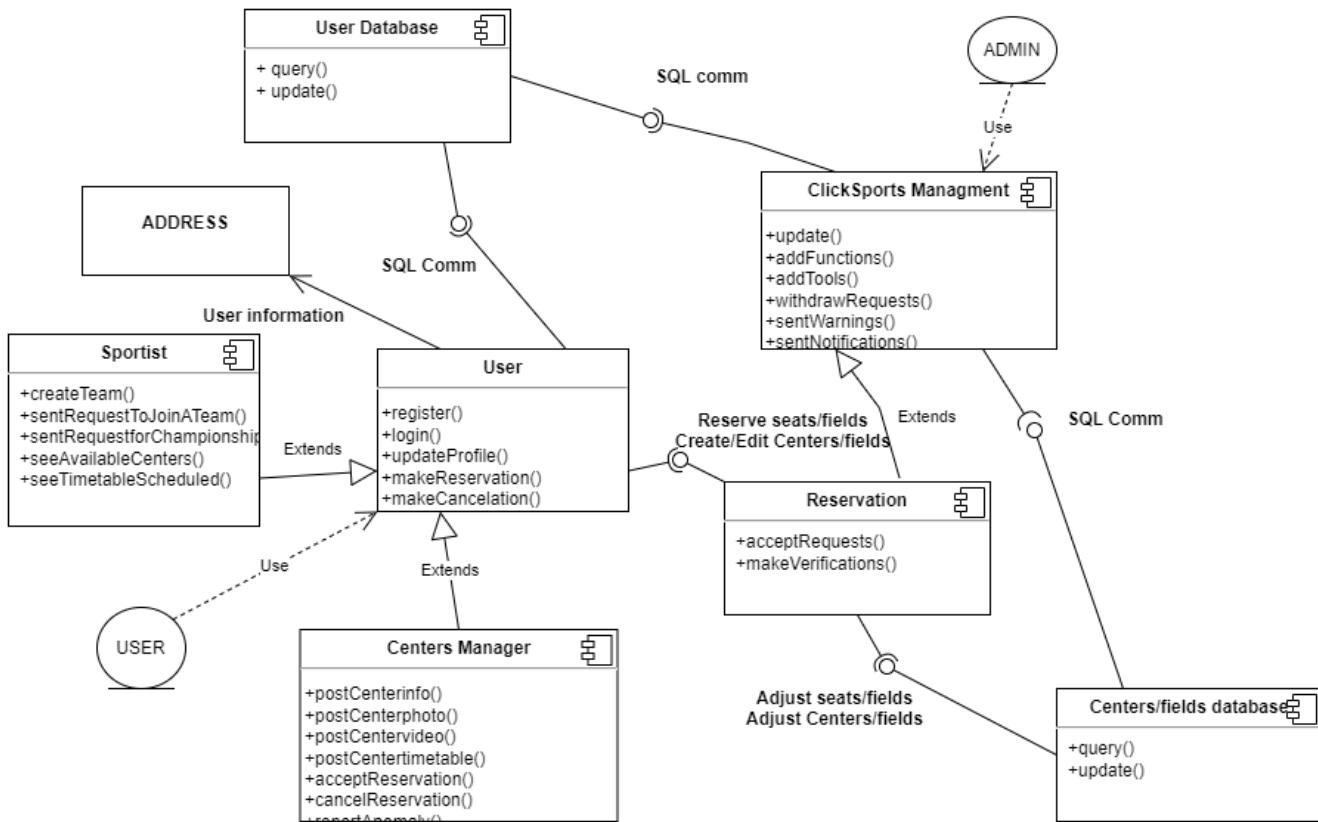
Complete framework of class diagram


4.5.2 Object Diagram

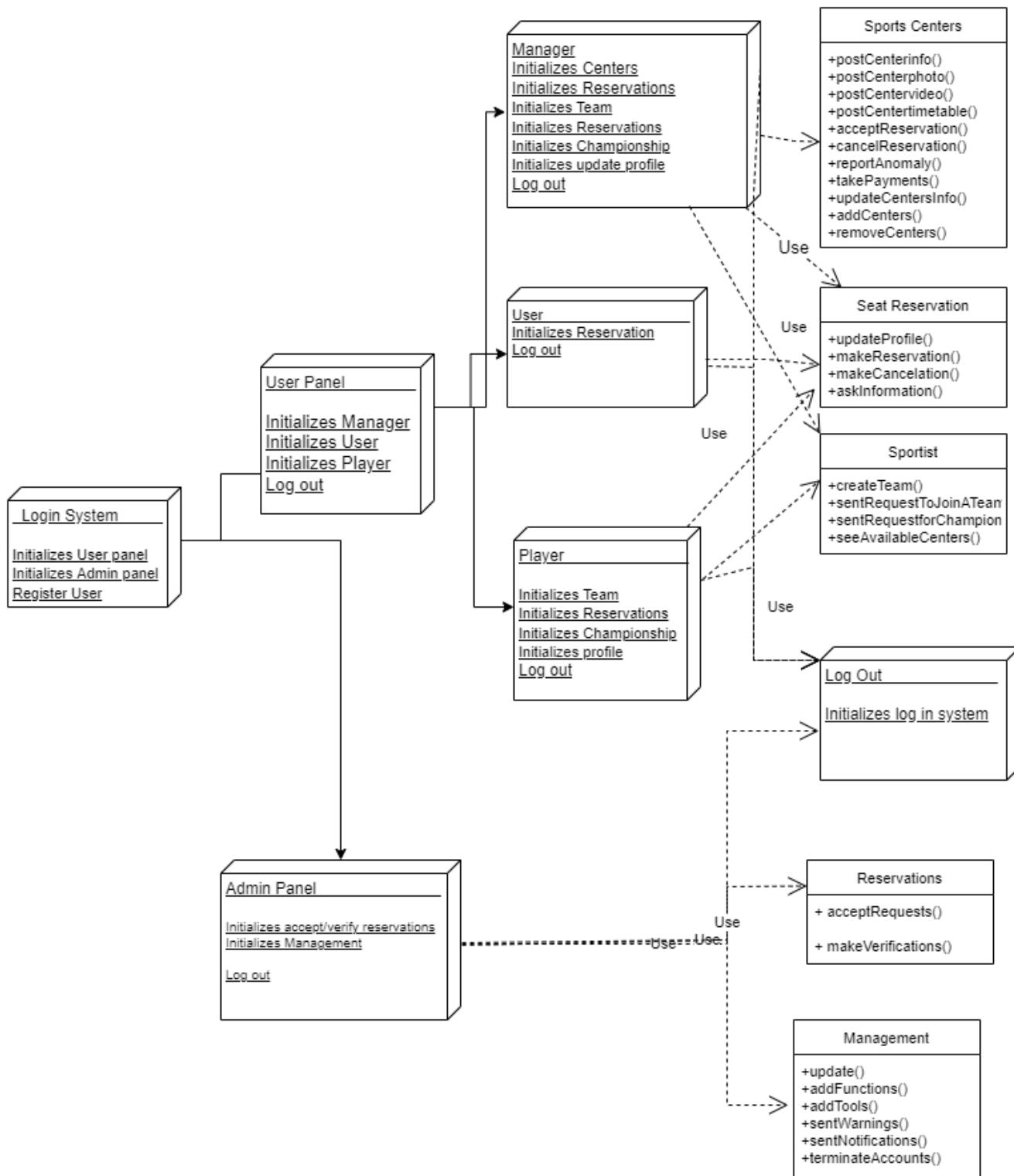
Object Diagram



4.5.3 Component Diagram



4.5.3 Deployment Diagram



5 Implementation Technology

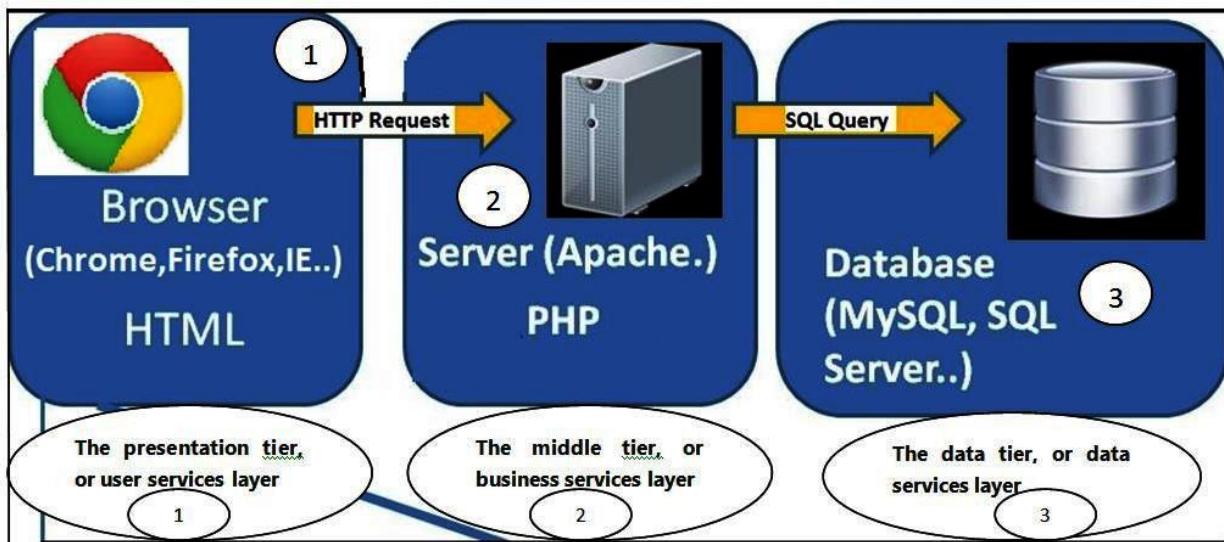
For the implementation of this project and as we specified in our repository's main page we considered a dynamic approach to our web based management system. ClickSport is a standardized Web Application, developed in Html, Css, Javascript with the help of other languages such as PHP and SQL.

While implementing the project a client – server architecture model is required because it is a web application.

The architecture models are one tier, two tiers and three tier.

The used architecture model in this project is three – tier model. The purpose of selecting this architecture model is because of the development time, future flexibility and maintenance of the application.

The three – tier architecture model is the fundamental framework for the logical design model. It separates into three tiers of services an application's components.



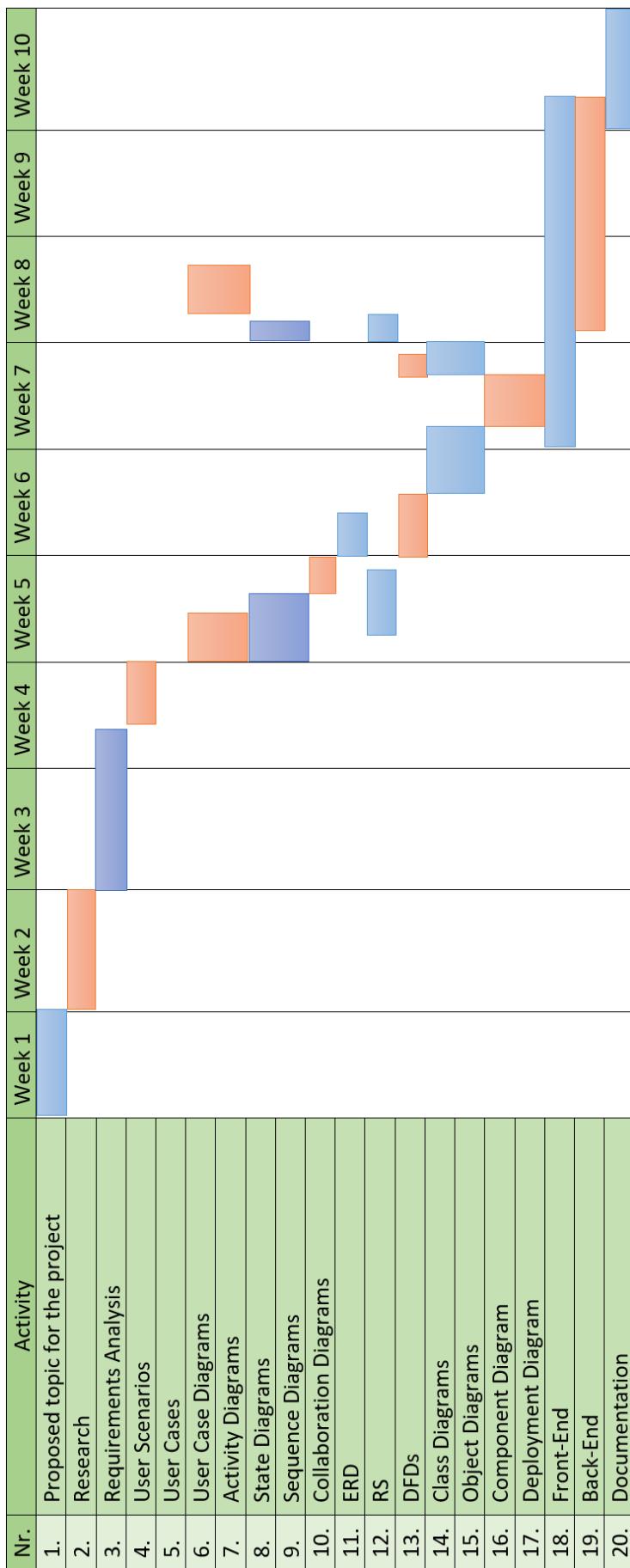
We chose this approach as it is not only suitable for our project's scope but also because we decided as a team that we could take all the lessons and information the university has given us, and make a final product that is polished and well done. In order to create ClickSport connection with the database we had to explore multiple options such as using python but ultimately went with PHP PDO.

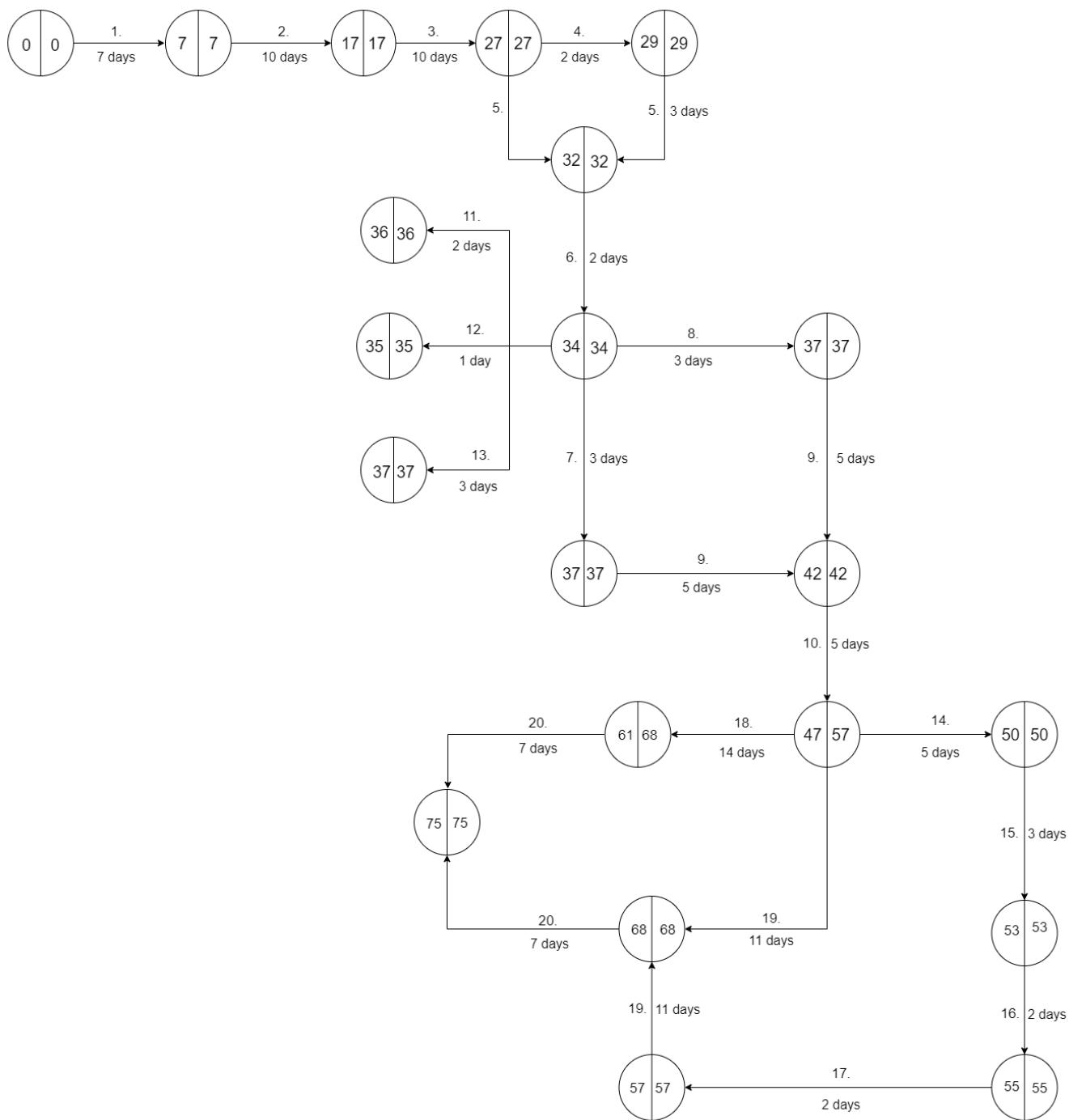
Some Key Parts Of The Technology Used And Their Purpose:

- **Html – The foundation of the program**
- **Css – Helps to make the interface more friendly and appealing**
- **Javascript – To make the html page into a more dynamically driven web page**
- **SQL – Used to store, modify, use all infomation**
- **PHP – The backend of the program, it establishes multiple connections with the databases and implements the four basic functions (CRUD)**

6 Project Planning

Nr.	Activity	Duration (days)	Dependencies	Worked
1.	Proposed topic for the project	7		
	Team organization			Joana Allushi, Xhesika Feto
2.	Research	10	1	
	Meet with clients			Franci Karaj
	Determine technologies			Arlind Myzeqari, Franci Karaj, Arteo Shima
	Domain Analysis			Joana Allushi
	User Experience			Joana Allushi
	User Interface			Xhesika Feto
3.	Requirements Analysis	10	2	
	Functional			Elvis Dervishi, Arlind Myzeqari
	Non-functional			Xhesika Feto, Elvis Dervishi
	Domain			Elvis Dervishi
	Software Analysis	5		
4.	User Scenarios	2	3	Joana Allushi, Xhesika Feto,
5.	Use Cases	3	3,4	Xhesika Feto
	Behavioral Diagrams	18		
6.	Use Case Diagrams	2	5	Joana Allushi
7.	Activity Diagrams	3	6	Joana Allushi
8.	State Diagrams	3	6	Xhesika Feto
9.	Sequence Diagrams	5	7,8	Elvis Dervishi
10.	Collaboration Diagrams	5	9	Arlind Myzeqari
11.	ERD	2	6	Joana Allushi
12.	RS	1	6	Joana Allushi
13.	DFDs	3	6	Elvis Dervishi
	Structural Diagrams	10		
14.	Class Diagram	3	10	Elvis Dervishi
15.	Object Diagram	3	14	Elvis Dervishi
16.	Component Diagram	2	15	Arlind Myzeqari
17.	Deployment Diagram	2	16	Arlind Myzeqari
	Implementation	25		
18.	Front-End	14	10	Arteo Shima, Franci Karaj
19.	Back-End	11	10,17	Arteo Shima, Arlind Myzeqari
	Review	7		
20.	Documentation		18,19	Joana Allushi, Xhesika Feto





7 APPENDIX

7.1 Appendix A - Definitions, Acronyms and Abbreviations

Admin - the actor in the app

Owner - the actor in the app

Manager - the actor in the app

Employee - the actor in the app

Player - the actor in the app

admin - the actor in real life

owner - the actor in real life

manager - the actor in real life

employee - the actor in real life

player - the actor in real life

US_ - User Scenario

UC_ - Use Case

7.2 Appendix B - References

https://books.google.al/books?hl=en&lr=&id=MonAzzQLYRkC&oi=fnd&pg=PP2&dq=research+paper+for+sport+management+system&ots=CeMtVWFnio&sig=EGI7rQnuDP8G3hRM4I6_MAutgME&redir_esc=y#v=onepage&q=research%20paper%20for%20sport%20management%20system&f=false

<http://stud-proj.epoka.edu.al/courses/cen302/>

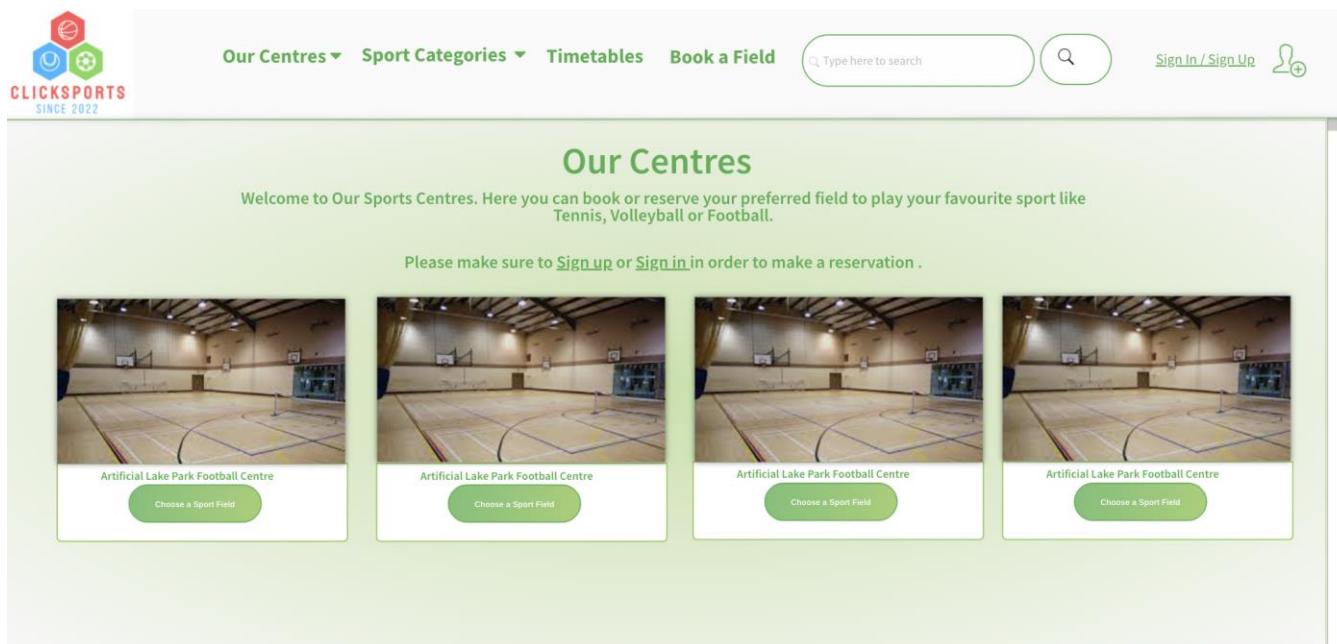
<https://www.tutorialspoint.com/uml/index.htm>

<https://project-management.info/project-schedule-network-diagram/>

<https://fshf.org/en/>

<https://www.geeksforgeeks.org/software-engineering-prototyping-model/>

7.3 Appendix C – Sketches



Our Centres

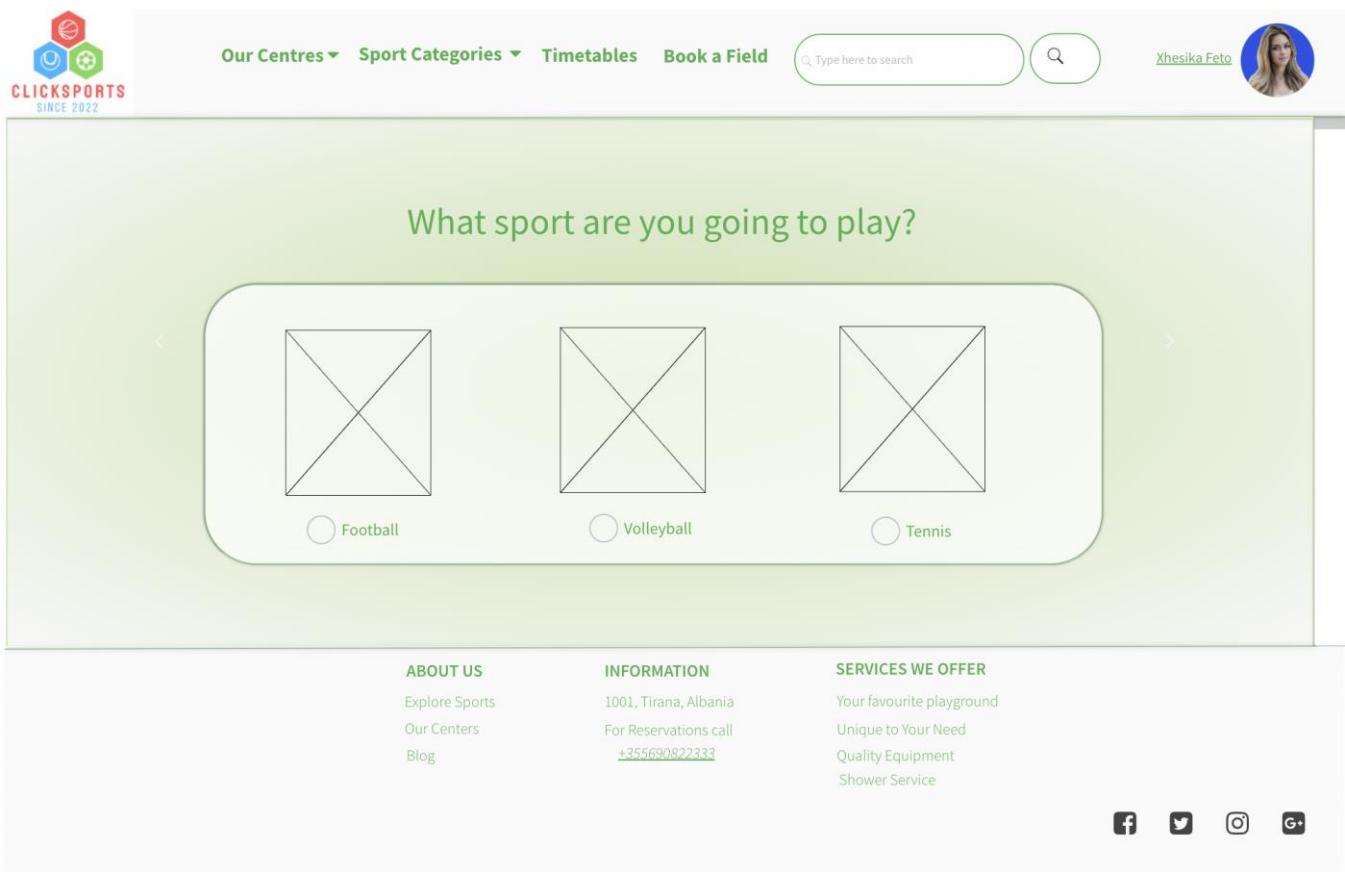
Welcome to Our Sports Centres. Here you can book or reserve your preferred field to play your favourite sport like Tennis, Volleyball or Football.

Please make sure to [Sign up](#) or [Sign in](#) in order to make a reservation .

ABOUT US	INFORMATION	SERVICES WE OFFER
Explore Sports Our Centers Blog	1001, Tirana, Albania For Reservations call +355690822333	Your favourite playground Unique to Your Need Quality Equipment Shower Service





The screenshot shows a user interface for selecting a sport. At the top, there is a navigation bar with links: "Our Centres", "Sport Categories", "Timetables", "Book a Field", a search bar, and a user profile for "Xhesika Feto". Below the navigation is a large green header area with the question "What sport are you going to play?". In the center, there is a horizontal row of three square icons, each containing a large 'X'. Below each icon is a radio button and the sport name: "Football", "Volleyball", and "Tennis". On either side of this row are small left and right arrows. At the bottom of the page, there are sections for "ABOUT US", "INFORMATION", and "SERVICES WE OFFER", along with social media links for Facebook, Twitter, Instagram, and Google+.

ABOUT US

- Explore Sports
- Our Centers
- Blog

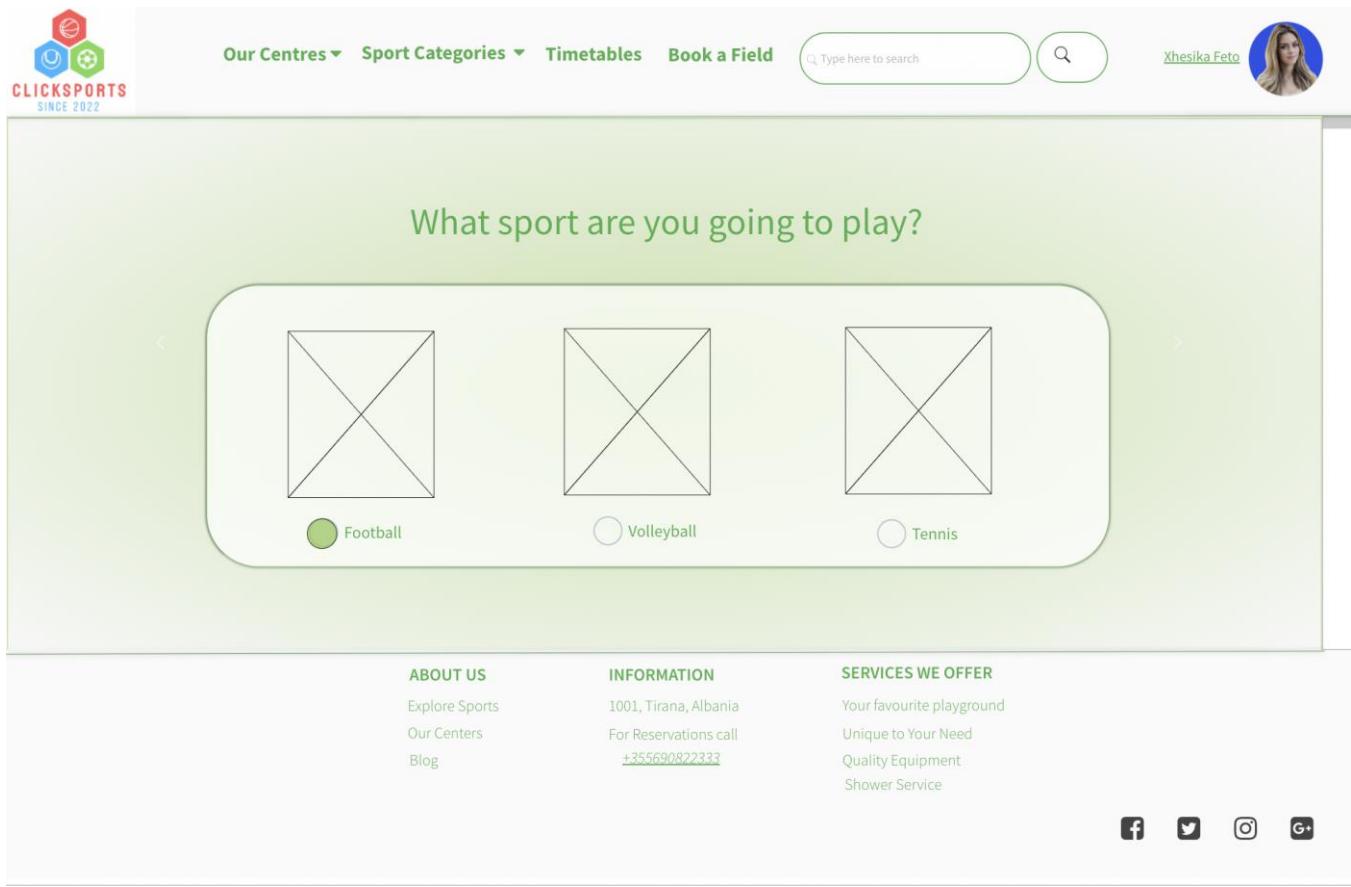
INFORMATION

- 1001, Tirana, Albania
- For Reservations call
[+355690822333](tel:+355690822333)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service

[f](#) [t](#) [i](#) [g](#)



This screenshot is identical to the one above it, but the "Football" option has been selected. The radio button next to "Football" is filled with a green color, while the others are white. All other elements, including the navigation bar, header, and footer, remain the same.

ABOUT US

- Explore Sports
- Our Centers
- Blog

INFORMATION

- 1001, Tirana, Albania
- For Reservations call
[+355690822333](tel:+355690822333)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service

[f](#) [t](#) [i](#) [g](#)



[Our Centres](#) ▾ [Sport Categories](#) ▾ [Timetables](#) [Book a Field](#)

 🔍
Xhesika Fetó 

What sport are you going to play?



 Football



 Volleyball



 Tennis

ABOUT US

[Explore Sports](#)
[Our Centers](#)
[Blog](#)

INFORMATION

1001, Tirana, Albania
For Reservations call
[+355690822333](#)

SERVICES WE OFFER

Your favourite playground
Unique to Your Need
Quality Equipment
Shower Service

fb tw ig g+



[Our Centres](#) ▾ [Sport Categories](#) ▾ [Timetables](#) [Book a Field](#)

 🔍
Xhesika Fetó 

What sport are you going to play?



 Football



 Volleyball



 Tennis

ABOUT US

[Explore Sports](#)
[Our Centers](#)
[Blog](#)

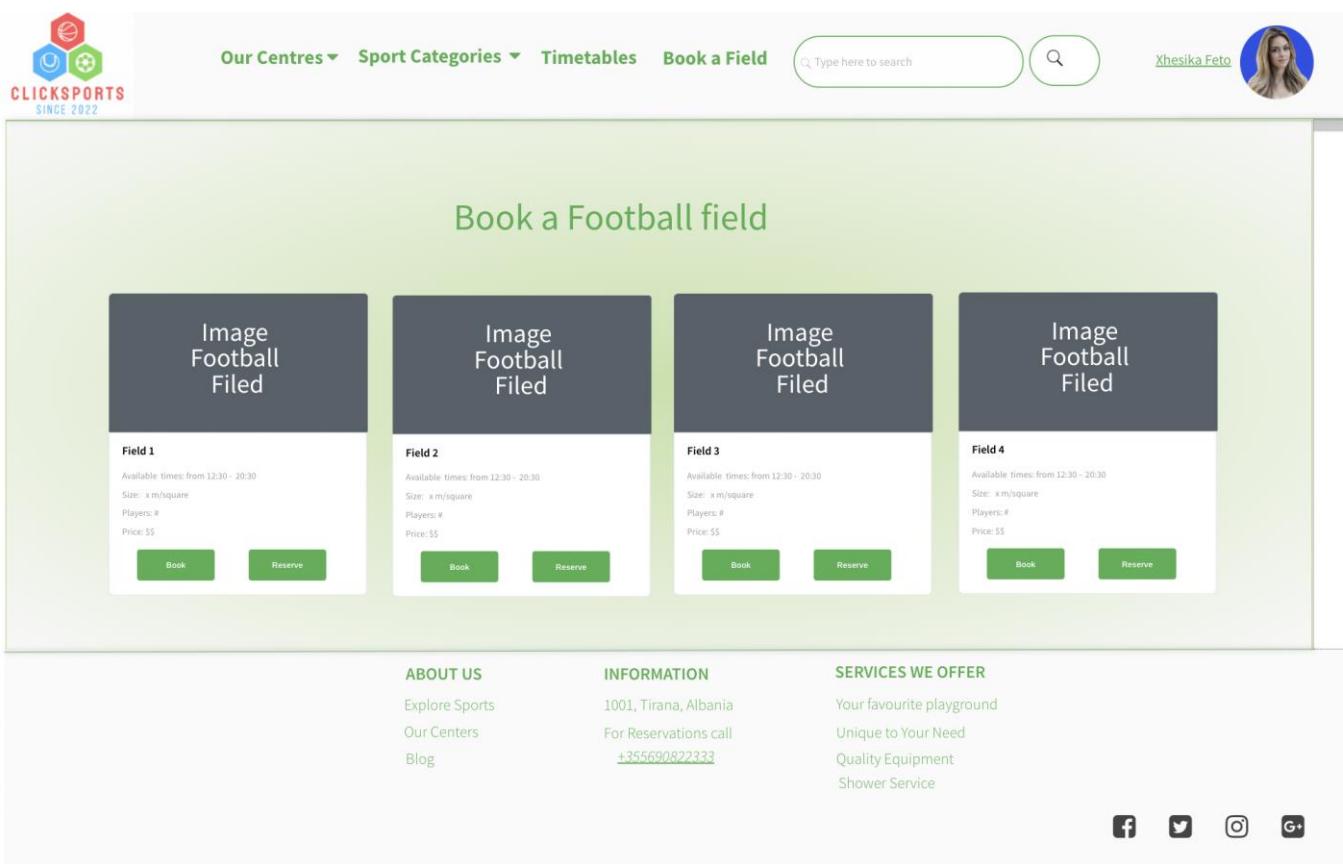
INFORMATION

1001, Tirana, Albania
For Reservations call
[+355690822333](#)

SERVICES WE OFFER

Your favourite playground
Unique to Your Need
Quality Equipment
Shower Service

fb tw ig g+



The screenshot shows the ClickSports website interface. At the top, there is a navigation bar with links: 'Our Centres ▾', 'Sport Categories ▾', 'Timetables', 'Book a Field', a search bar, and a user profile picture of Xhesika Feto.

Book a Football field

Image
Football
Filed

Field 1

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Football
Filed

Field 2

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Football
Filed

Field 3

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Football
Filed

Field 4

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

ABOUT US
INFORMATION
SERVICES WE OFFER

Explore Sports

1001, Tirana, Albania

Your favourite playground

Our Centers

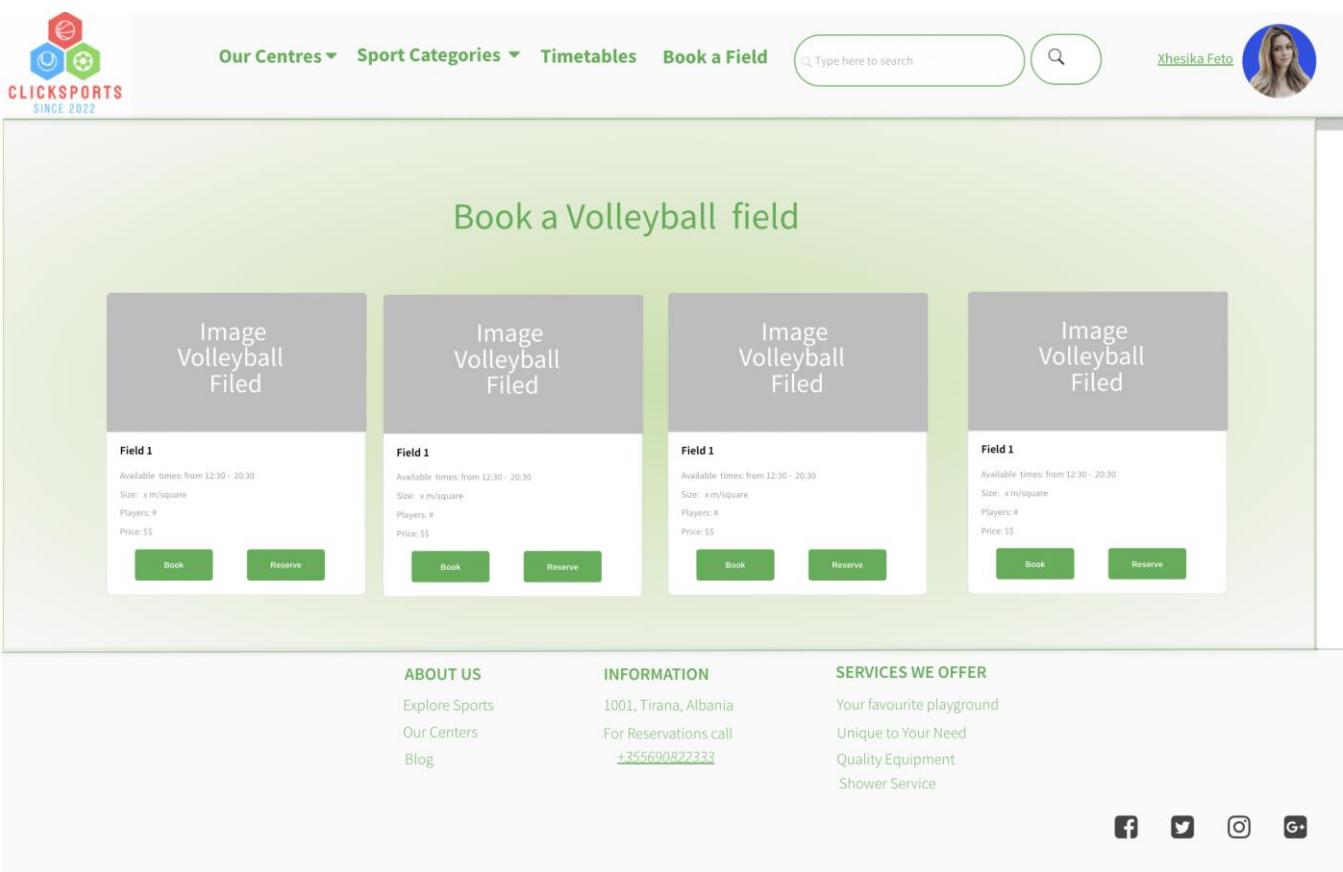
For Reservations call [+35690822333](tel:+35690822333)

Unique to Your Need

Blog

Quality Equipment

Shower Service



The screenshot shows the ClickSports website interface, similar to the previous one but for volleyball fields.

Book a Volleyball field

Image
Volleyball
Filed

Field 1

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Volleyball
Filed

Field 1

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Volleyball
Filed

Field 1

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

Image
Volleyball
Filed

Field 1

Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$\$

Book Reserve

ABOUT US
INFORMATION
SERVICES WE OFFER

Explore Sports

1001, Tirana, Albania

Your favourite playground

Our Centers

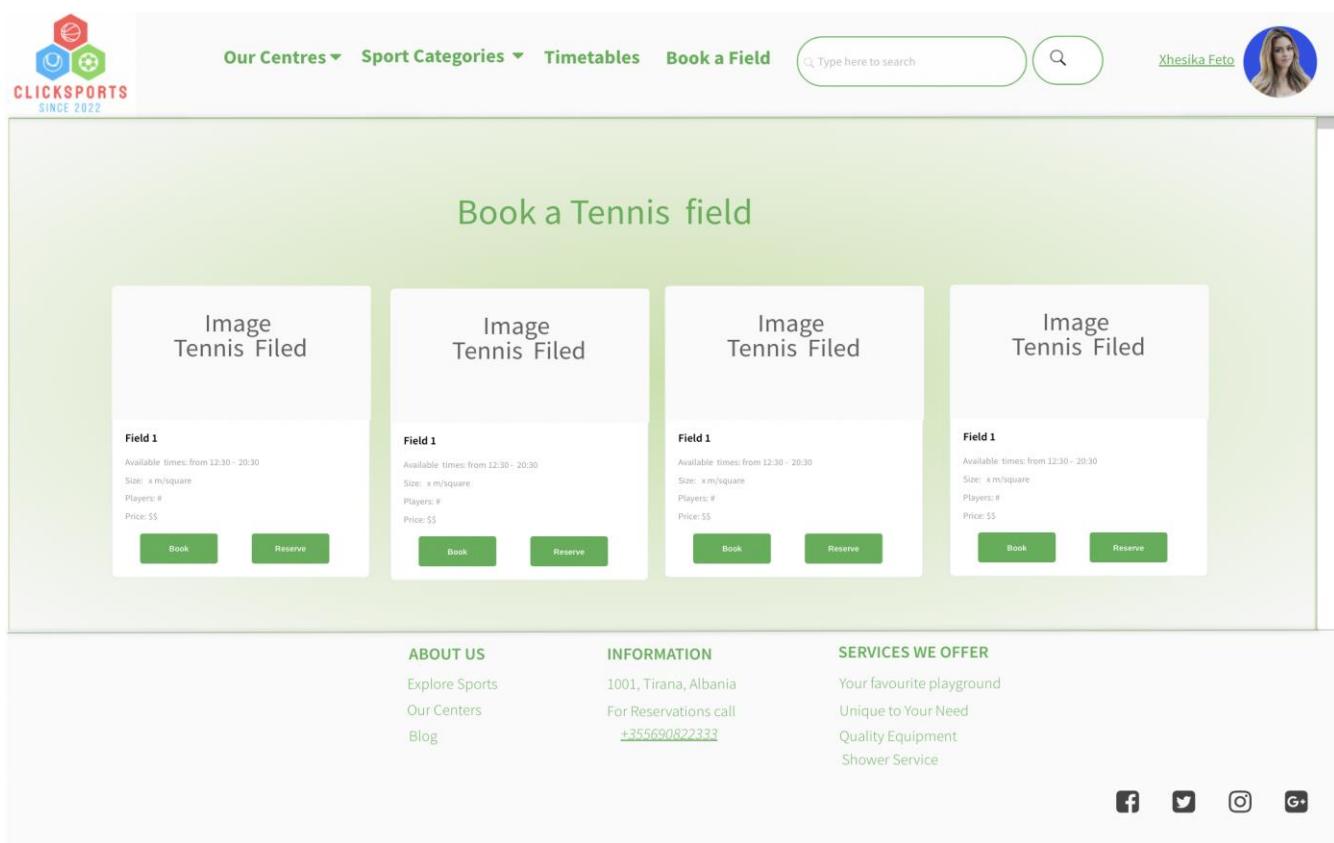
For Reservations call [+35690822333](tel:+35690822333)

Unique to Your Need

Blog

Quality Equipment

Shower Service



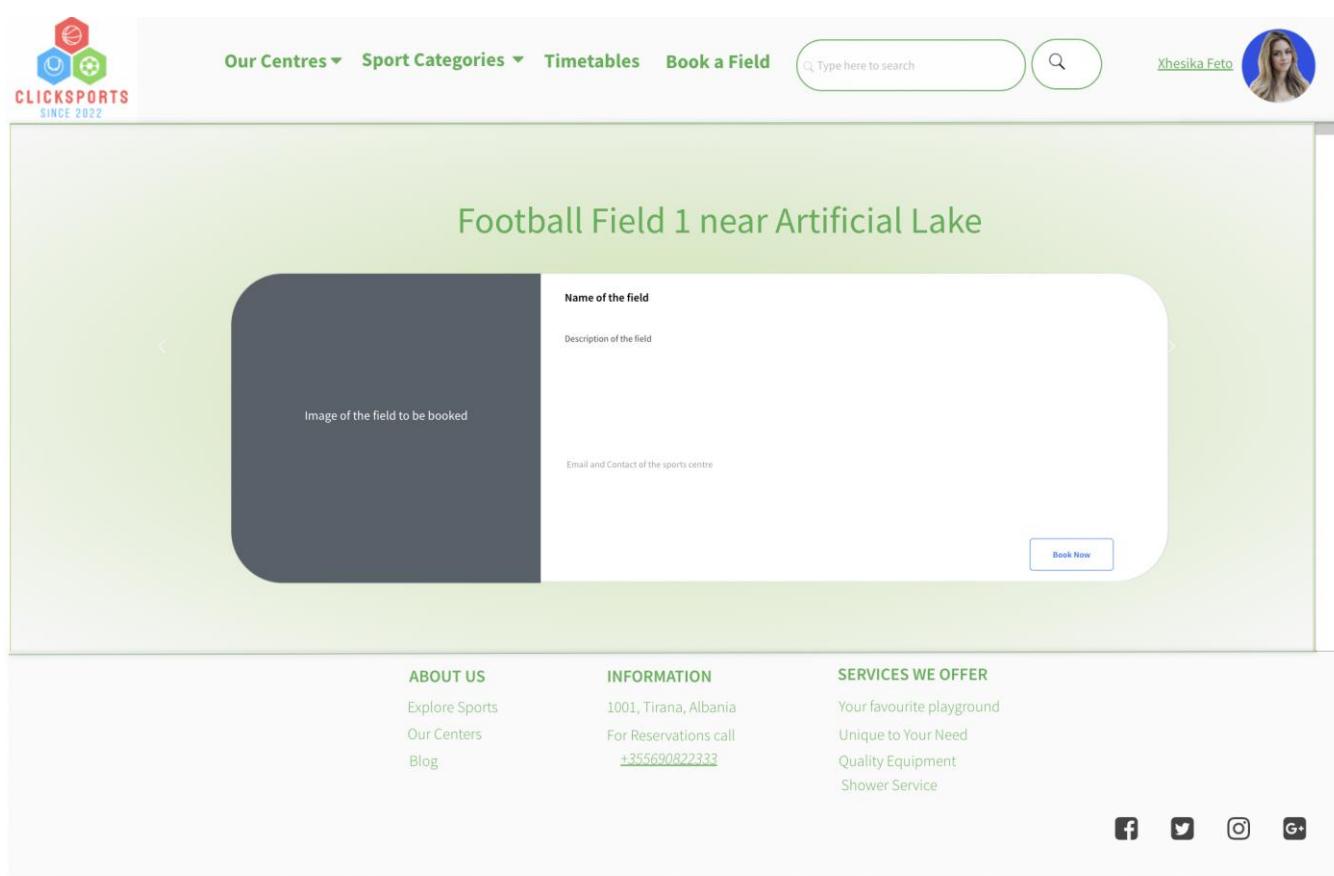
The screenshot shows a search result for "Book a Tennis field". There are four identical card-like entries, each representing a tennis court:

- Image Tennis Filed**
- Field 1**
- Available times: from 12:30 - 20:30
Size: x m/square
Players: #
Price: \$5
- Book** **Reserve**

Below the cards, there are three columns of links:

- ABOUT US**: Explore Sports, Our Centers, Blog
- INFORMATION**: 1001, Tirana, Albania, For Reservations call [+355690822333](tel:+355690822333)
- SERVICES WE OFFER**: Your favourite playground, Unique to Your Need, Quality Equipment, Shower Service

Social media icons for Facebook, Twitter, Instagram, and Google+ are at the bottom right.



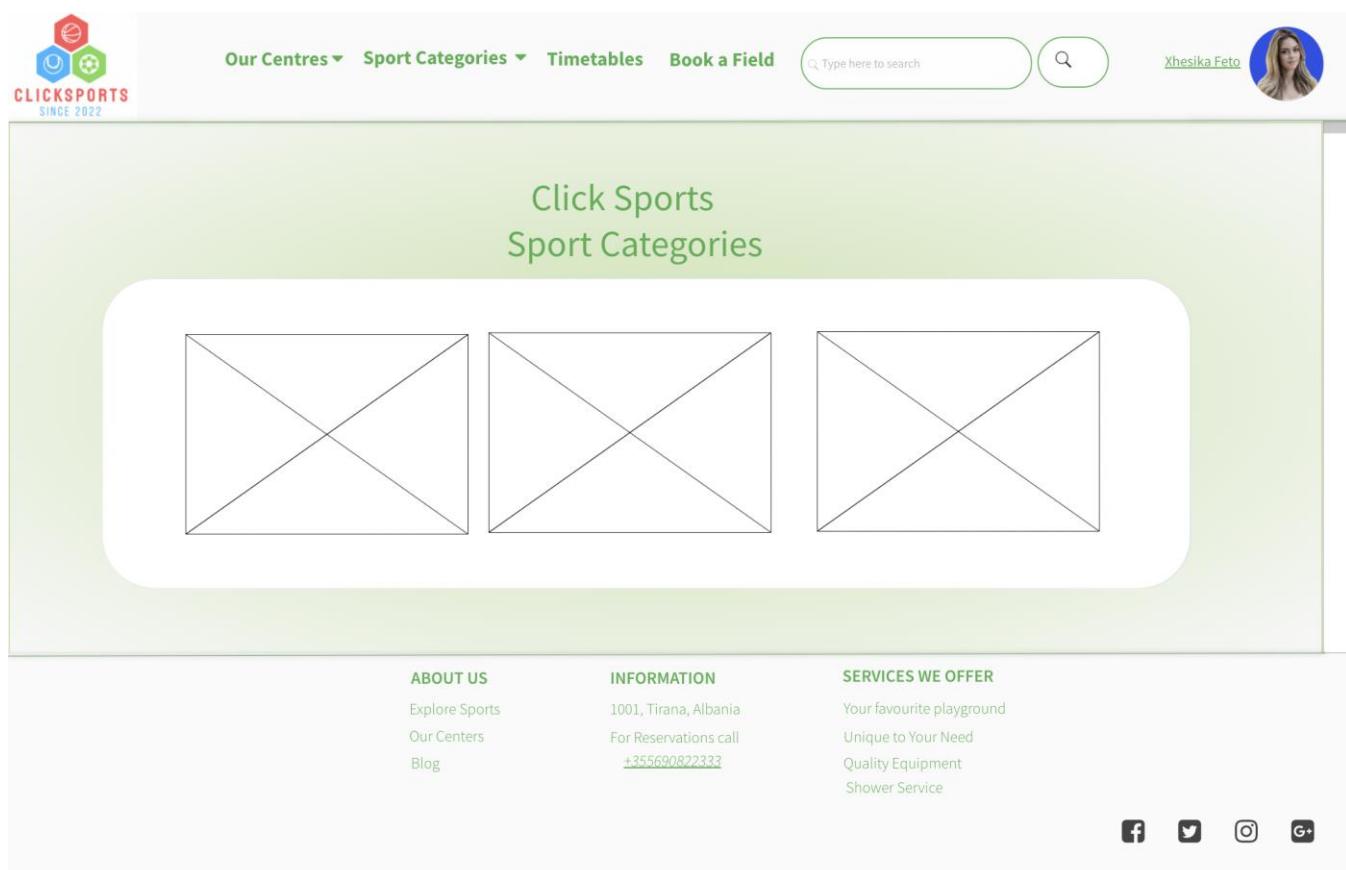
The screenshot shows a search result for "Football Field 1 near Artificial Lake". It features a large dark gray placeholder image for the field and a white form area:

- Name of the field**
- Description of the field**
- Email and Contact of the sports centre**
- Book Now**

Below the form, there are three columns of links:

- ABOUT US**: Explore Sports, Our Centers, Blog
- INFORMATION**: 1001, Tirana, Albania, For Reservations call [+355690822333](tel:+355690822333)
- SERVICES WE OFFER**: Your favourite playground, Unique to Your Need, Quality Equipment, Shower Service

Social media icons for Facebook, Twitter, Instagram, and Google+ are at the bottom right.



The screenshot shows the ClickSports website's Sport Categories page. At the top, there is a navigation bar with links: Our Centres, Sport Categories, Timetables, Book a Field, a search bar, and a user profile for Xhesika Feto. Below the navigation is a large green header with the text "Click Sports Sport Categories". Underneath is a white rounded rectangle containing three large, empty square boxes with diagonal crosses through them, likely placeholders for sport categories. At the bottom of the page is a footer with sections for About Us, Information, Services We Offer, and social media links.

ABOUT US

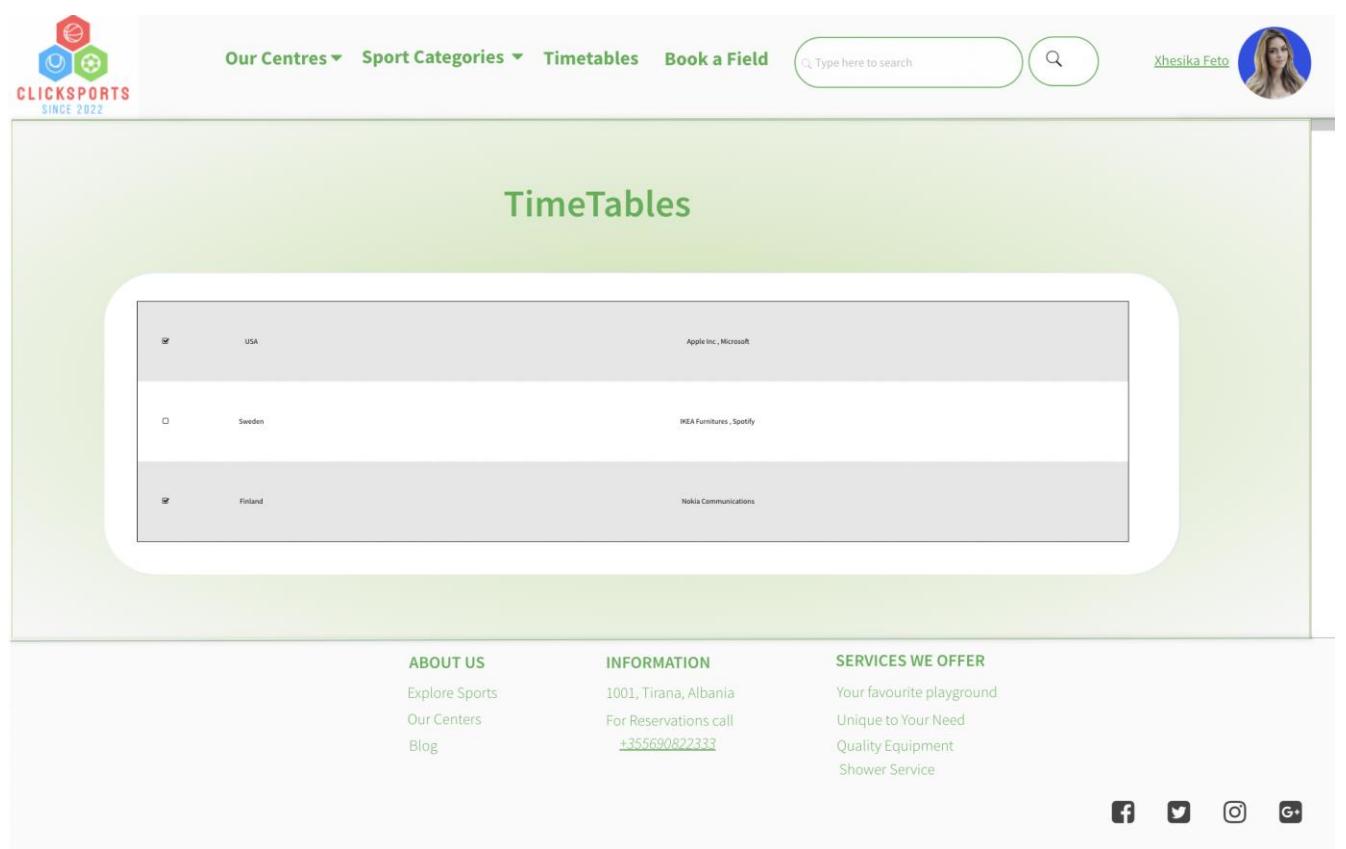
- Explore Sports
- Our Centers
- Blog

INFORMATION

- 1001, Tirana, Albania
- For Reservations call [+355690822333](#)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service



The screenshot shows the ClickSports website's TimeTables page. At the top, there is a navigation bar with links: Our Centres, Sport Categories, Timetables, Book a Field, a search bar, and a user profile for Xhesika Feto. Below the navigation is a large green header with the text "TimeTables". Underneath is a white rounded rectangle containing three light gray boxes representing time tables for USA, Sweden, and Finland, each with a small icon and company names. At the bottom of the page is a footer with sections for About Us, Information, Services We Offer, and social media links.

ABOUT US

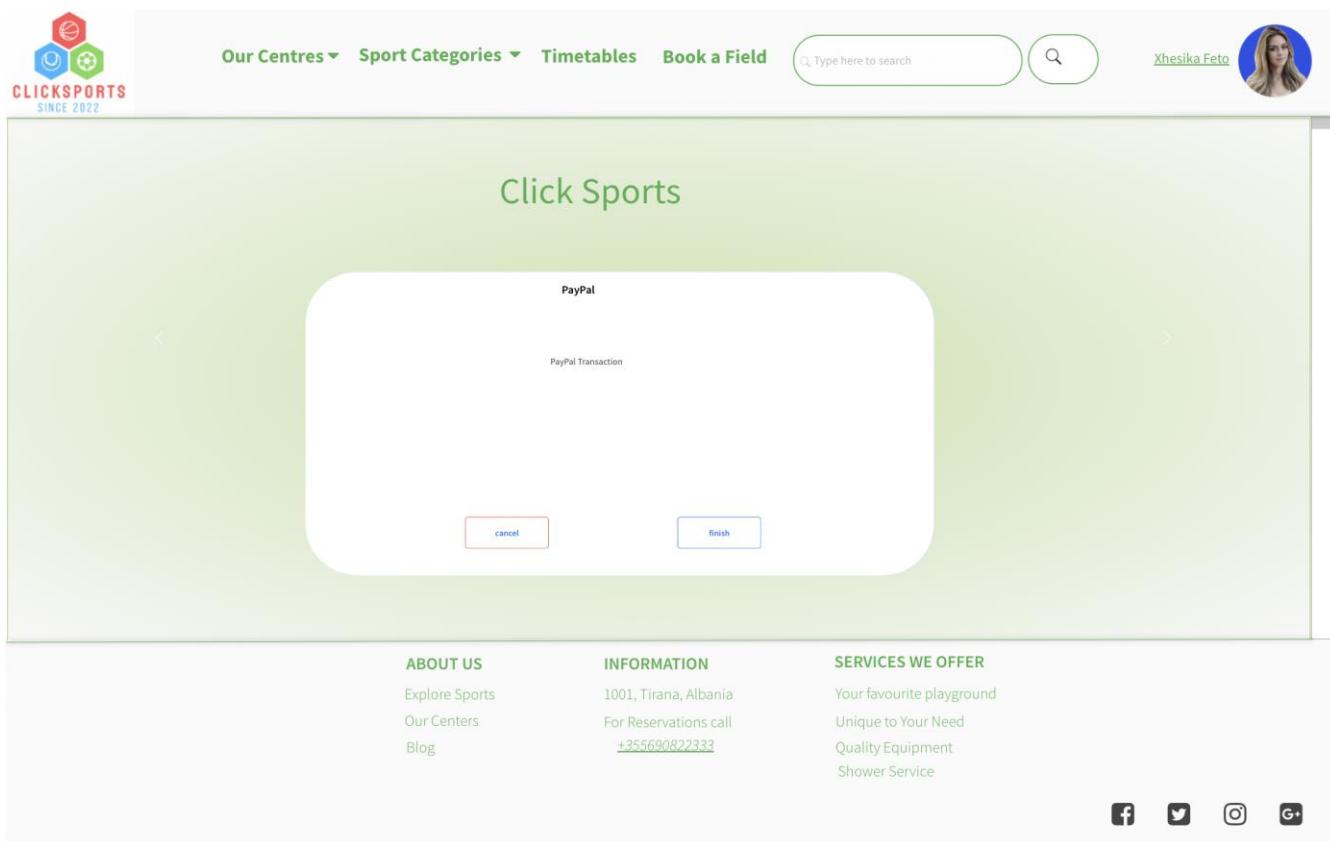
- Explore Sports
- Our Centers
- Blog

INFORMATION

- 1001, Tirana, Albania
- For Reservations call [+355690822333](#)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service



The screenshot shows a web page for ClickSports. At the top, there is a navigation bar with links: "Our Centres", "Sport Categories", "Timetables", and "Book a Field". There is also a search bar and a user profile picture for "Xhesika Feto". On the main content area, the text "Click Sports" is displayed above a large white rounded rectangle containing a "PayPal" logo and the text "PayPal Transaction". Below this, there are two buttons: "cancel" and "finish". At the bottom of the page, there are three columns: "ABOUT US" (Explore Sports, Our Centers, Blog), "INFORMATION" (1001, Tirana, Albania; For Reservations call [+355690822333](#)), and "SERVICES WE OFFER" (Your favourite playground, Unique to Your Need, Quality Equipment, Shower Service). Social media icons for Facebook, Twitter, Instagram, and Google+ are located at the bottom right.

Our Centres ▾ Sport Categories ▾ Timetables Book a Field

Type here to search

Xhesika Feto

Click Sports

PayPal

PayPal Transaction

cancel finish

ABOUT US

- Explore Sports
- Our Centers
- Blog

INFORMATION

1001, Tirana, Albania

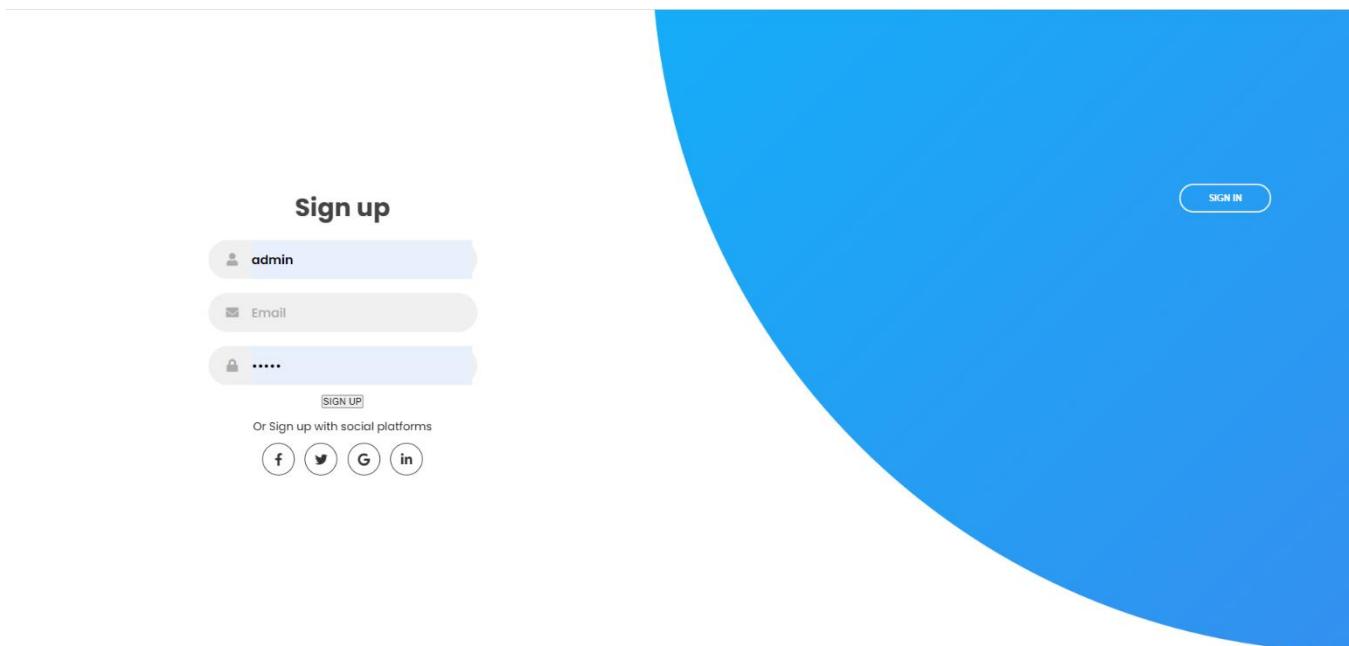
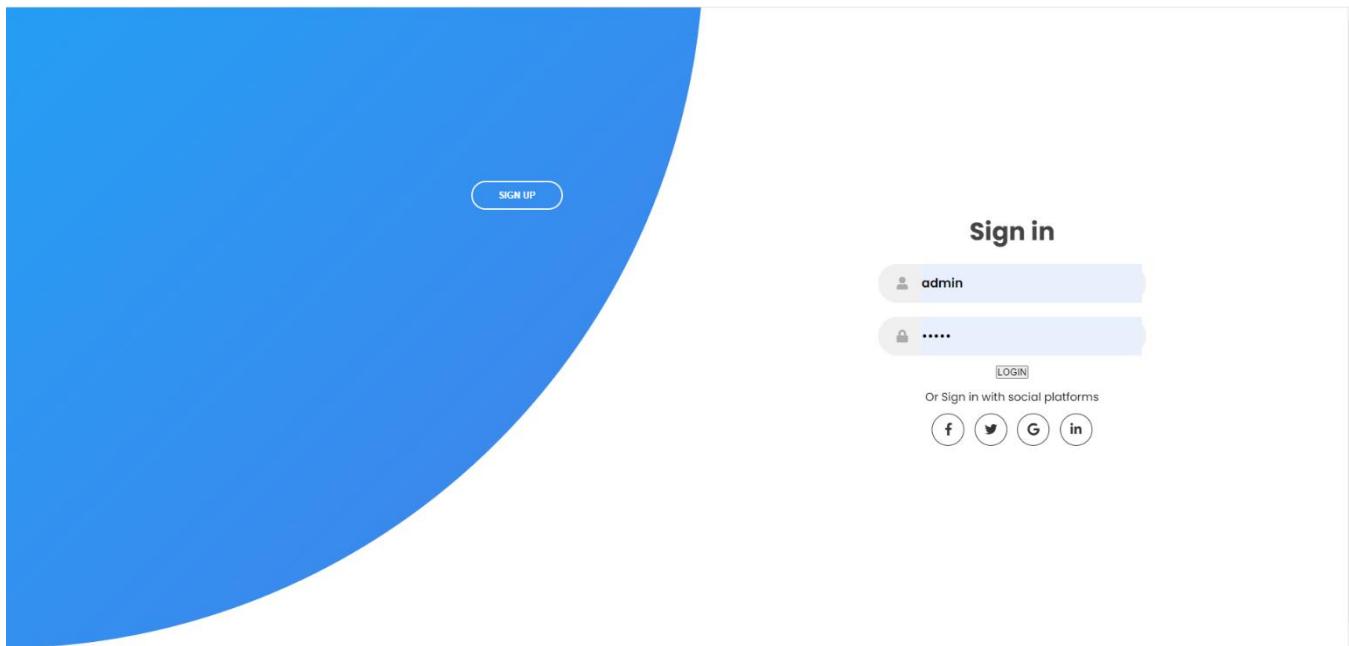
For Reservations call [+355690822333](#)

SERVICES WE OFFER

- Your favourite playground
- Unique to Your Need
- Quality Equipment
- Shower Service

7.4 Appendix D – Screenshots



Get Started

What Activities We Offer:



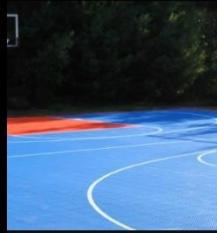
1-St Field
Arteo Shima



2-Nd Field
Arteo Shima JR.



3-Rd Field
Robert Lewandowski



4-Th Field
Julian Shehu



5-Th Field
Elvis Dervishi

< Talents Top Talents >



1-ST Talent
Position:Right Winger
Goals:300



2-ND Talent
Position:Libero
Points:2000



3-RD Talent
Position:Center Back
Goals:50



4-Th Talent

TOTAL PRIZE



1-ST FIELD
Buy



2-ND FIELD
Buy



3-RD FIELD
Buy



4-TH FIELD
Buy

< Reservation

TIME AVAILABLE


Football FIELD
[To Continue Click On Image](#)

Volleyball FIELD
[To Continue Click On Image](#)

Tennis FIELD
[To Continue Click On Image](#)

Basketball FIELD
[To Continue Click On Image](#)

Ping Pong FIELD
[To Continue Click On Image](#)

TIME AVAILABLE


1-ST FIELD
 Once Hours Are Start To 8pm

Day: Dd/Mm/Year

Number Of Players:
[Reserve](#)

2-ND FIELD
 Once Hours Are Start To 8pm

Day: Dd/Mm/Year

Number Of Players:
[Reserve](#)

3-RD FIELD
 Once Hours Are Start To 8pm

Day: Dd/Mm/Year

Number Of Players:
[Reserve](#)

4-TH FIELD
 Once Hours Are Start To 8pm

Day: Dd/Mm/Year

Number Of Players:
[Reserve](#)

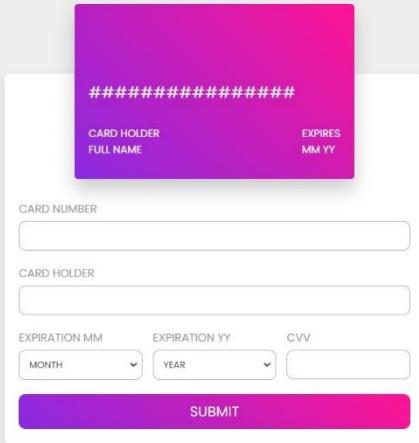
5-TH FIELD
 Once Hours Are Start To 8pm

Day: Dd/Mm/Year

Number Of Players:
[Reserve](#)

TOTAL PRIZE





A placeholder image showing a credit card payment form with fields for card number, expiration date, and CVV.

Our Fields



Football

"Ability Is What You're Capable Of Doing.
Motivation Determines What You Do. Attitude
Determines How Well You Do It." —Lou Holtz

[Read More](#)



Tenis

"I'll Let The Racket Do The Talking."

[Read More](#)



Volleyball

"Luck Is What Happens When Preparation
Meets Opportunity"

[Read More](#)



Ping Pong

"Whatever I Do, I Love To Win."

[Read More](#)

More Information

football
\$
engin18bm
Visibl9 M

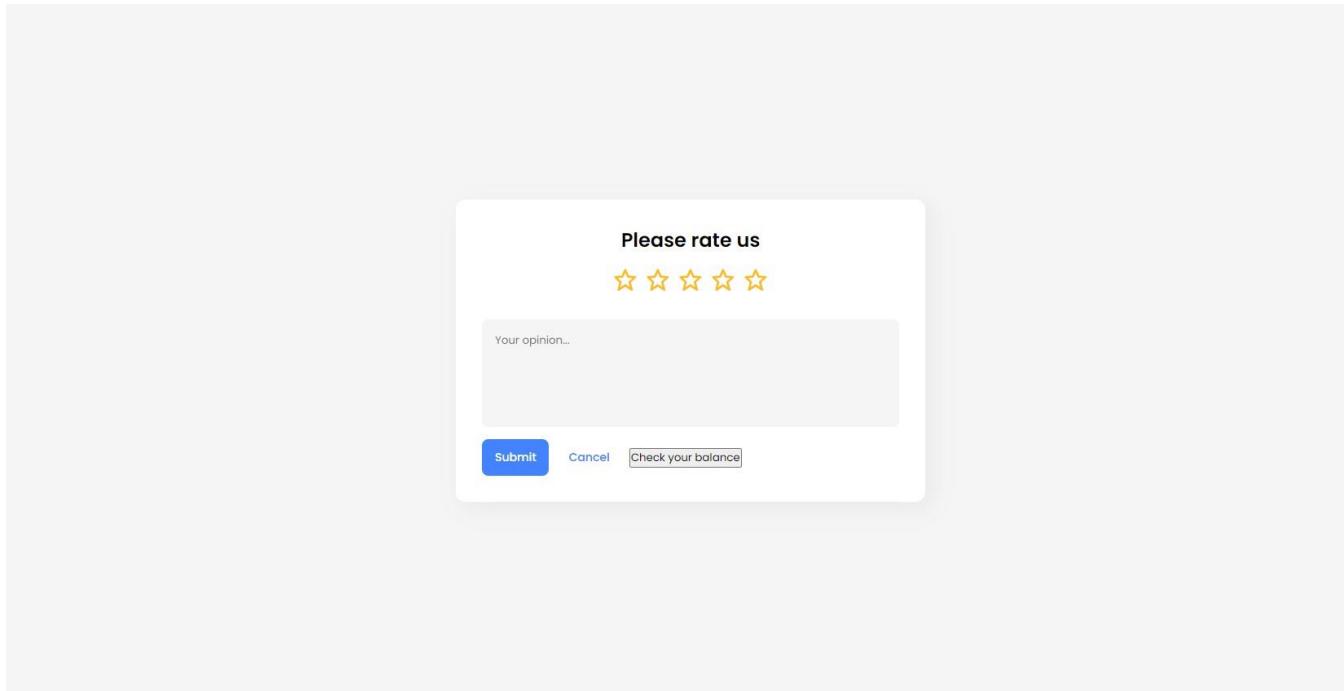
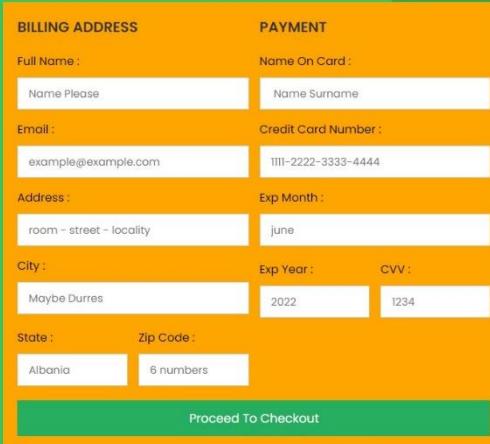
Number Of Players:

Date: Office Hours Are From To 8pm

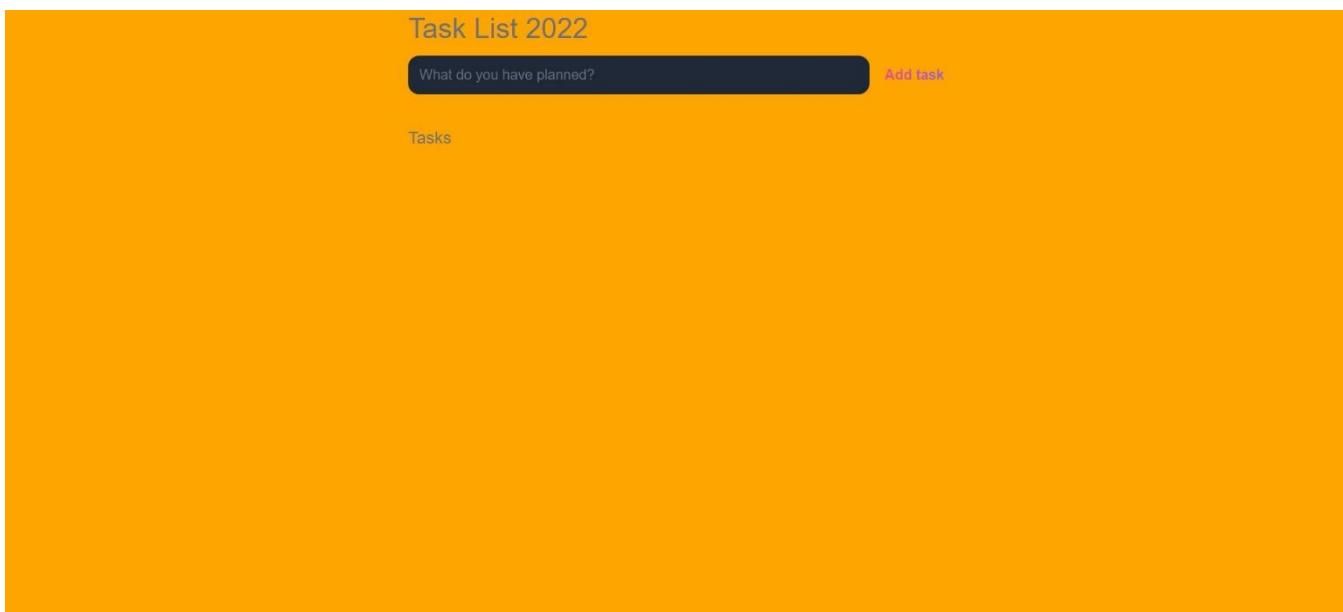
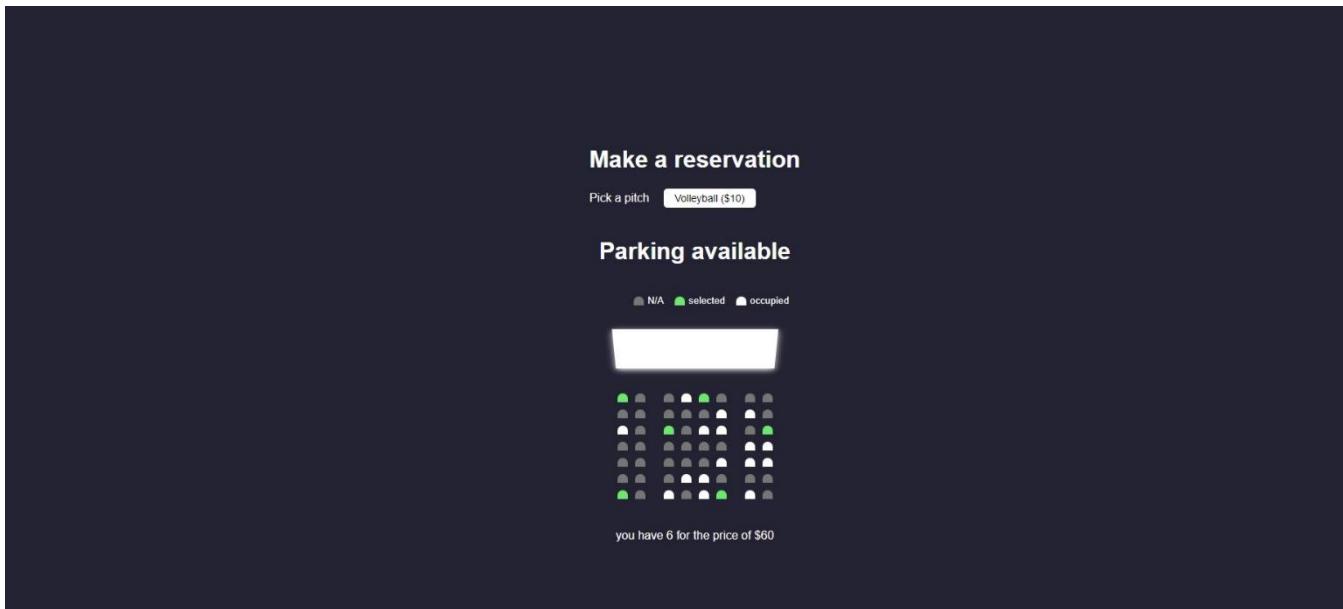
Day: / Month: / Year:

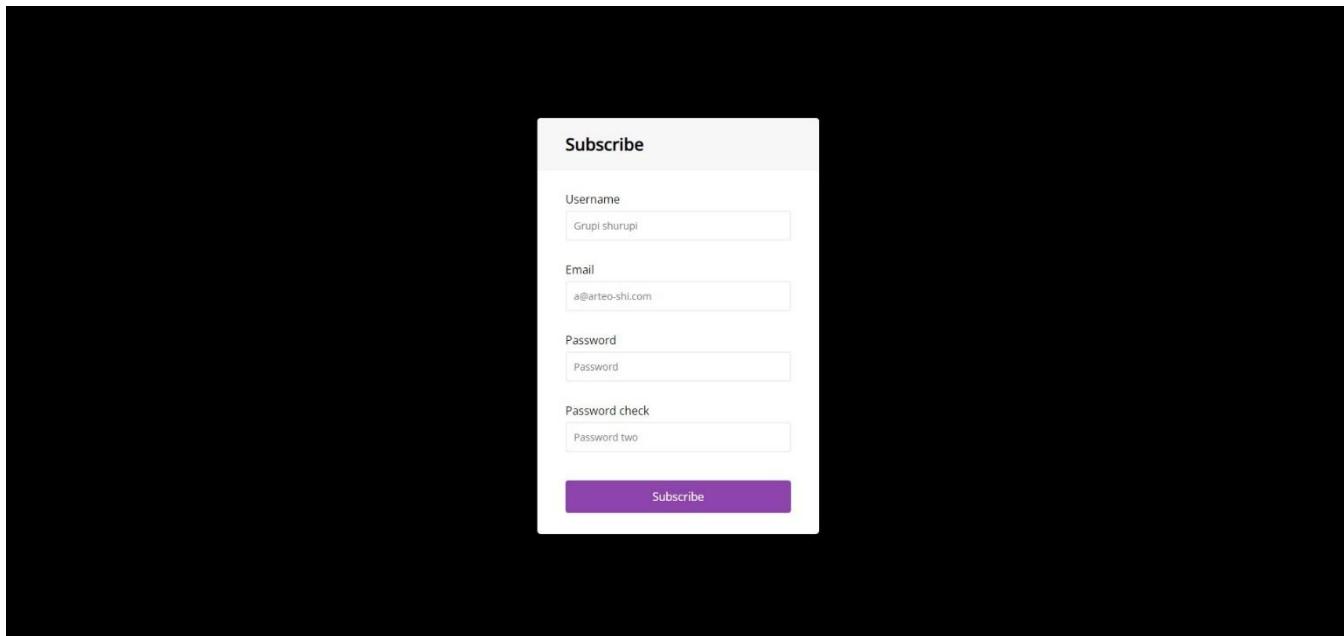
Number Of Players:

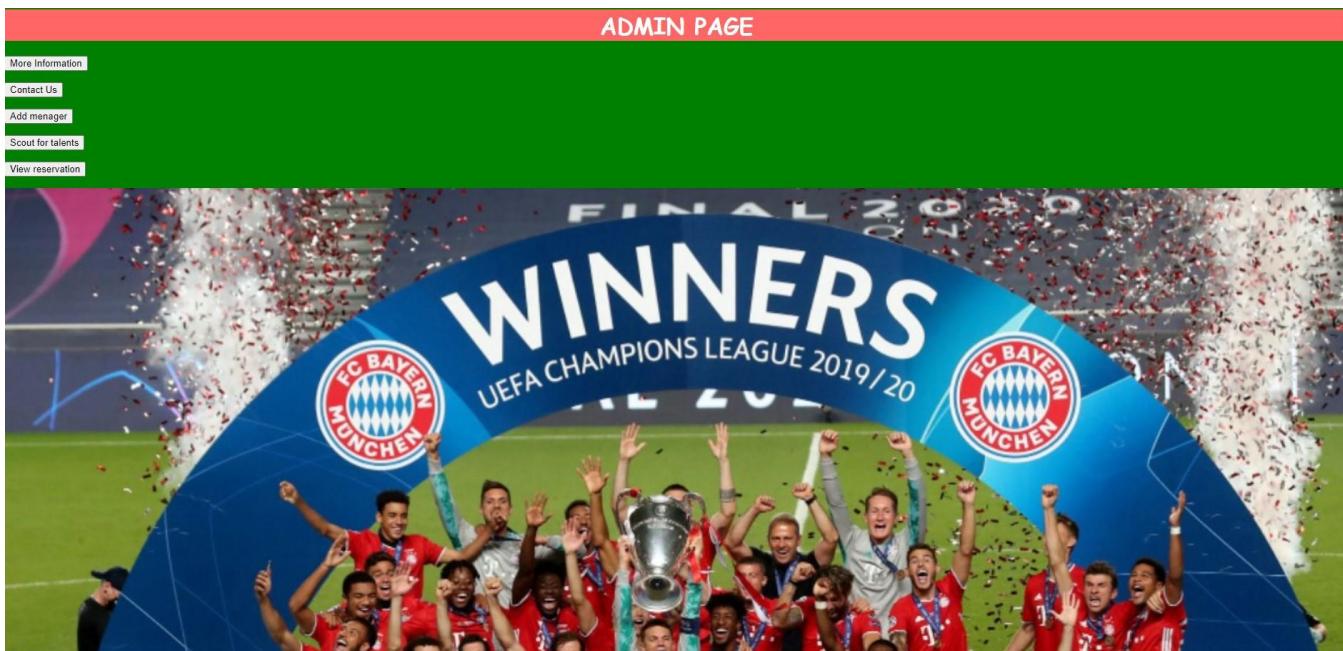
volleyball
\$
aventure18bm

BILLING ADDRESS		PAYMENT	
Full Name :	Name Please	Name On Card :	Name Surname
Email :	example@example.com	Credit Card Number :	1111-2222-3333-4444
Address :	room - street - locality	Exp Month :	june
City :	Maybe Durres	Exp Year :	2022
State :	Zip Code :	CVV :	1234
Albania	6 numbers		
Proceed To Checkout			







DETERMINES
HOW WELL
YOU DO IT."

[Play More](#)

< >

OUR SERVICES



Contact Us

Your Name

Your Email

Phone

Message

Send

