

SUPERIOR UNIVERSITY LAHORE



Faculty of Computer Science & IT

Final Year Project PROJECT REPORT

[Coaching Corner]

Project ID: **[FYP-BSCS-S18-010]**

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Project Report

[Coaching Corner]

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Dedication

We dedicated our dissertation to our beloved parents, who taught us that even the largest task can be accomplished if it is done with sincerity and devotion and gave us all of their resources for our study. We want to dedicate this to our teachers also who enlightened us with knowledge.

Acknowledgements

First of all we are very grateful to Almighty ALLAH who gave us strength and guidance to carry out our research project. We take immense pleasure in thanking Assistant Professor Sir Khurram Jillani, our project supervisor (The Superior University Lahore) for having permitted us to carry out this project work. We would like to express our heartfelt thankful to our beloved parents for their blessings.

Executive Summary

Coaching corner is a web based platform for sports persons (Athletes, Coaches or Trainers) where players and coaches can interact with each other. Basically, it is a freelancing website and its main focus is solely on athletes, coaches or trainers. As there are not many platforms for athletes to learn and to enhance their skills for the higher level of their respective game, apart from clubs or academies which are also low in numbers in small cities or there are not many well qualified coaches or trainers that can help them do well in advanced level. As sportsmen don't have longer careers, so their time is vital for them. They have to do well in a shorter period of time and sometimes they have to travel far from their places for coaching classes or training which also consumes a lot of their time. So keeping this in mind we're making a freelancing website for coaches and athletes where they can interact with each other without travelling miles away from their home and it will also save their time and they can get the services of highly qualified coaches which can help them take their game to the next level. This website will contain services for most of the sports like Football, Cricket, Hockey, Badminton, Tennis, Basketball & several other sports as well. There will also be trainers or nutritionists and several other people related to sports. Both parties can interact with each other through chatting and can make up a deal. Athletes can hire a coach for a single session or for as long as they want them to or as per coach's demand. This will be highly beneficial for both athletes and coaches as athletes will get the services of highly qualified coaches and they don't have to travel far it will also save their time and for coaches as well as they can use their free time and they don't have to go any far to coach athletes and can earn more as well. As technology is growing faster day by day it's the need of the time people are earning and learning more and more through online web based platforms but there aren't many opportunities for sports persons and it will be a game changer for them.

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Chapter 1

Introduction

Chapter 1: Introduction

In this chapter, we will briefly describe our project. The idea generation, motivation and challenges we will face, existing systems that are running or problems in existing systems, system we want to build, problems we are giving solutions of, why are we building this system? All the goals and objectives we want to achieve and the project planning building, running, assigning tasks and completion of project will be discussed in this chapter.

1.1. Background

Freelancing is a new way of earning in this modern world of technology. People are earning through online web based platforms. Now there are so many such platforms available on internet where people can earn according to their skills. It has almost covered every field but there aren't many opportunities for sportsmen to earn and use this platform. They are still facing problems as the amount of sports being played now a days and the bigger the level the more challenges they face so it is necessary for them to find a high qualified coach who can help them moving forward and it's not easy to find a coach of that level. So our focus is to provide sportsmen with a platform where they can find and hire good and highly qualified experienced coaches as well as coaches can apply for new assignments as well and it will be a game changer for both the player and coaches as they don't have much time. It will be time saving and effective for them s they don't have to travel or visit far to find a new coaching or for coaching classes.

1.2. Motivations and Challenges

Coaching corner is a whole new platform for sporting persons as there isn't any existing system for sportsmen. So it will be our responsibility to provide them with best, easy to use, effective and understandable system so they can easily learn and understand how to use the system for their benefit. Usually sportsmen are not well educated persons so it will be a challenge for us to provide them with a system that will be helpful for them in each and every case. It is our motivation as well to help them learning to use technology for their own benefits and earning their needs.

1.3. Goals and Objectives

To provide them with a platform where sportsmen can find new coaches and coaches can find new jobs as well. Helping them to learn how to use technology for their benefits and making their life easier with new way of earning and coaching as it will help them to proceed in their daily life.

1.4. Literature Review/Existing Solutions

Now a day's technology is growing day by day and it is making life easier than it used to be now everything we need we can get it staying at home or anything we need to learn we can just Google it even though people are getting jobs and starting earning money staying back at home and they don't have to go anywhere else. But in this progressing world there are not many opportunities for sportsmen. In under developed cities there are not much clubs or academies for sportsmen to practice and train well and if there are clubs or academies then there are not well qualified coaches or they are too far away from their places and it is tough for players to manage their time. It is tough to find good and well qualified experienced coaches or trainers or academies and in this case players suffer a lot and it consumes a lot of their time.

We have some competitors in the market related to our product and they are listed below.

YouTube:

YouTube is our one of the biggest competitor because lots of foreign coaches are coaching through online videos on YouTube and many players are learning from them and it is a new trend as well but there aren't much local coaches of subcontinent and many players or athletes of subcontinent are not able to understand everything because of language barrier and they can only teach by making and publishing videos and they are earning from it as well.

Freelancing Websites:

Freelancing websites are also our competitors as well as there are many teachers and professors are working and in near future they can also introduce a new feature like our product and that can be a quite challenging for us because they are already running a system they just have to add a new feature into the system.

Online Coaching Courses:

Online coaching courses can also be our competitors because many foreign coaches or clubs have launched their websites in which they are offering online coaching courses for every type of players but because of language barrier many of subcontinent athletes are unable to understand them quite well and they are quite expensive too.

1.5. Gap Analysis

Coaching corner is a huge platform as our goal is to cover all sports. But in the start we will cover just few core fields of sports where audience is large as it will help us to grow our system and we will be able to maintain and stabilize our system. Then further on we will add more fields of sports once we become stable and then will enhance our system and meet our desired goals and needs.

1.6. Proposed Solution

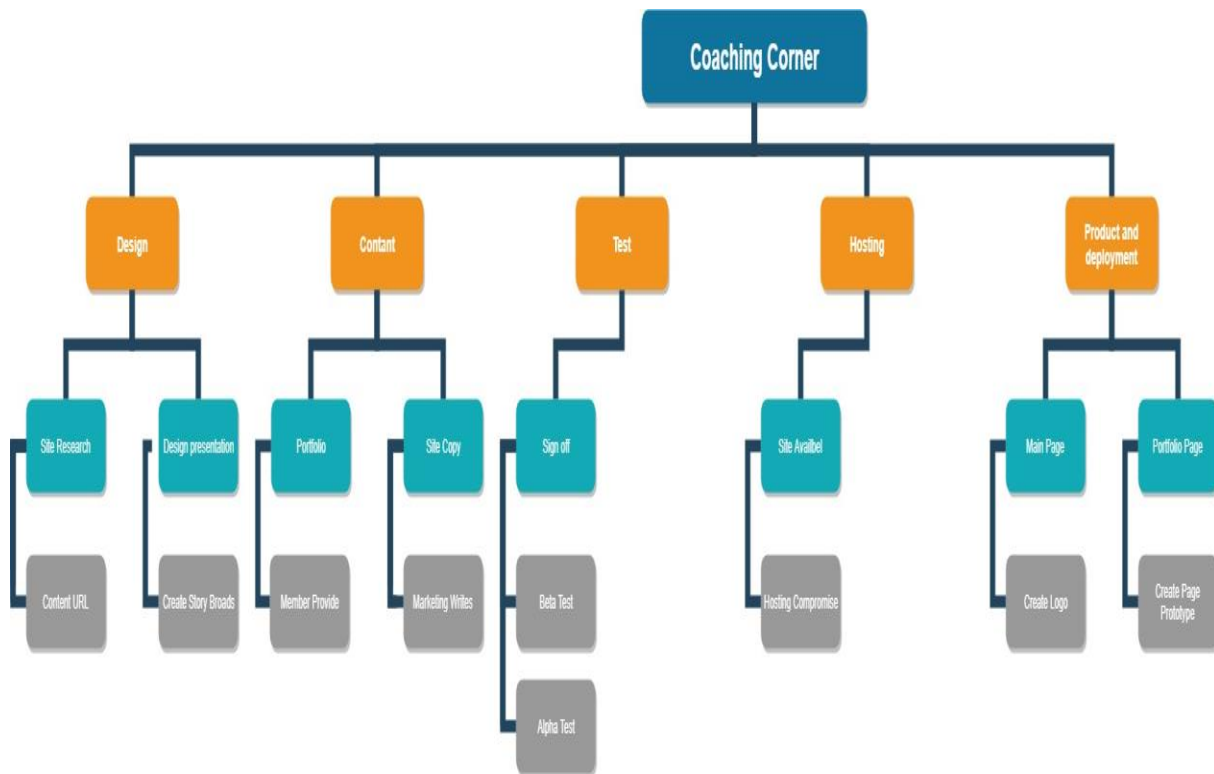
In the modern age of technology where everything is accessible with the help of technology, we're making a website called "Coaching Corner" a freelancing website for sportsmen. Coaching Corner will be helpful for all the sports persons playing or representing any sports. As it is a freelancing website so here well qualified or trainers will make accounts and upload their skills and certifications regarding their fields and players will also make their accounts and they can contact any coach regarding their game or can set up a deal with them beneficial and easy for both or book a personal live coaching session with them if they are near their place in anyway both are comfortable. Our main focus is to hire local coaches so that players won't have any problems with the language and they can understand each and everything quite well. Coaches will charge them as per session and the amounts will be reasonable not too high for players that they cannot afford and not too low for coaches as well beneficial and reasonable for both.

1.7. Project Plan

In project planning, we will plan our overall work that needs to be done to complete the project. We will divide our work in several tasks and assign tasks to all team members that they have to deliver under the given time frame to achieve our project goals. Project planning

consists of three main tasks Work Breakdown Structure, Roles and Responsibility Matrix and Gantt chart. They are mentioned below:

1.7.1. Work Breakdown Structure

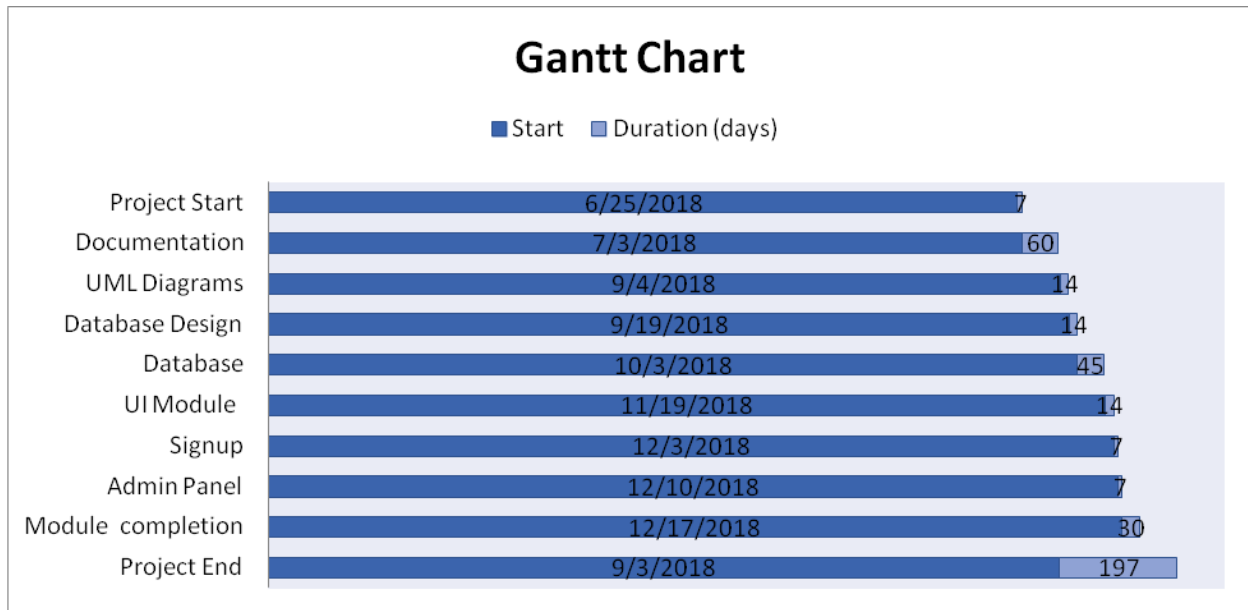


1.7.2. Roles & Responsibility Matrix

The purpose of roles & responsibility matrix is to identify who will do what.

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	Project Start	1	One week	7	Azeem
2	Documentation	2	Two months	60	Waleed
3	UML Diagrams	3	Two weeks	14	Muqtadir
4	Database Design	4	Two weeks	14	Waleed
5	Database	5	1.5 months	45	Azeem
6	UI Module	6	Two weeks	14	Muqtadir
7	Signup	7	One week	7	Muqtadir
8	Admin Panel	8	One week	7	Waleed Afzal
9	Module completion	9	One month	30	Azeem
10	Project End	10	Approx. Eight months	197	All members

1.7.3. Gantt chart



1.8. Report Outline

- Online Sports freelancing website is a need of every sports person mainly players.
- They can hire coaches online through our platform which can help them improve their game.
- Coaches can also earn from this platform as it's a new source of earning for them.
- They can use our platform to coach players online and in response they can get their payment through online transaction and payment gateways.
- Players can look for coaches regarding their skills and game field.
- Coaches can also look for projects in browse projects category and can bid for a project they think they can do and the one that matches their skills and experience.
- Players can also look for coaches by looking at their profile portfolio and if they fulfill their requirements then they can also hire them.
- It is the need of the future and sportsmen because nowadays competition is tough and everyone wants to be trained by highly qualified coaches to take their game to the next level.
- Our website will give them this platform to work on and help them achieve the success they deserve.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

2.1.1. Purpose

The purpose of this document is to build an online web based system for sportsmen and coaches or trainers called “Coaching Corner” where players can find or hire new coaches to enhance their level of game to get better or desired results and for coaches to find new coaching assignments or players want to master any special skills that a coach possesses.

2.1.2. Document Conventions

Standards or typographical conventions that were followed when writing this SRS, Font: **Calibri**
Font Size: **12pt** Line spacing: **1.5 lines spacing** Text Alignment: **Justified**

2.1.3. Intended Audience and Reading Suggestions

This document is intended for our whole team such as developers, our marketing manager, our project manager and our college Prof's for our project evaluation purposes. Right now it is restricted within the college premises. The rest of this document contains all the software requirement specifications, use cases, and diagrams each and every phase of building this system. Document is written in proper manner so can read this document in the defined order.

2.1.4. Product Scope

Coaching corner is a platform for sports persons who are having problems regarding finding good and well qualified coaches or academies. It will be a game changer for both coaches and players because it will be time saving for as they don't have to look too far or travel too far for finding good coaches or academies they can just open the website make their account and find any coach relevant to their particular sport and can make up a deal with him like if the player want to hire a coach for a session or two or for a specific period of time. The coach will charge according to the deal and if they coach is nearby then they can also set up a live coaching session with them which will be helpful and beneficial for both as coaches can earn a handsome

amount and players will be coached by the professional coaches which will enhance their skills and will take their game to the advanced level and will save their time as well.

2.1.5. References

www.google.com

www.freelancer.com

www.upwork.com

www.krazytech.com

www.wikipedia.com

www.smart.io

www.smartdraw.comwww.wordpress.com

2.2. Overall Description

This section gives background information about specific requirements of the online sports freelancing system to be developed in brief. Although we will not describe every requirement in detail, this section will describe the factors that affect the final product.

2.2.1. Product Perspective

This system is intended mainly for sports fields for sportsmen and coaches or trainers. It will be a complete web based online system users can access through our website. Website will be main user interface where users can operate all the provided functionality. There will be different sections of websites that are mentioned below:

Registration/Log in:

This section will include all the data about the user whether user is a player or a coach, whether he wants to hire or want to be hired, all the bio data of the user email, address, age etc. Users have to make their profile and then they will be able to use our site.

Find Work:

In this section, users can look for work other users have posted and if it matches to their own skill they can also bid for that.

Hire:

In this section, users can hire other users like different coaches or trainers.

Post a Job/Project:

In this section, users can post a project or work they want to be done.

Help:

In this section, users can learn how to use this website. We will provide them with a complete guide about how to do each and everything.

2.2.2. Product Functions

- Users can access the website from any web browser
- Users can register their profile (for new user) or can login through already built profile.
- Users can find work/projects.
- Users can hire coaches or trainers.
- Users can post a work as well and then different coaches can apply and bid for that work.
- Users can chat with freelancers and can setup a deal if suitable for them.
- Freelancers have to complete the work or task with user under a specific time frame.
- Freelancers can also check their income as well as reviews from customers.
- Users can choose different verified payment methods like PayPal, visa, master card etc.
- Users can also contact us through contact us or about us page.

2.2.3. User Classes and Characteristics

Our website will be used by several different users mainly sports persons because it is a sports freelancing site so there will be a lot more sportsmen, athletes, coaches or trainers using our platform.

- **Players**

Players can login and look for any particular coach or trainer they need regarding their skills or can post their requirements they need in find a coach section.
- **Coaches**

Coaches can check jobs relating to their skills and field and can apply through bidding or can post their skills CV in hiring section so that if anyone wants those to hire can contact them directly.

- **Administrators**

Admin can edit, update or modify the website. They can insert the data into the database, managing or updating the database, security purposes make website fully secure and prevent stuff like hacking and several different sections as well.

2.2.4. Operating Environment

Operating environment for Coaching Corner is listed below:

- distributed database
- client/server system
- Operating system: Windows
- database: Sql + database
- platform: vb.net/Java/PHP

2.2.5. Design and Implementation Constraints

- The software design (maintainability) will not be responsibility of developer or company.
- It will be the responsibility of the admin
- In case of any mishap in the software the developer or company will not be responsible for that lose
- Developer or company gives a first trail of the software and after that they will not entertain their quires.
- After delivering the project any increment in the software will be charged by per hour

2.2.6. User Documentation

User documentation, tutorials and online help will be available on website.

2.2.7. Assumptions and Dependencies

Client:

We have assumed that all of the computer systems in the Engineering building labs are in proper working condition and that the user is capable of operating these system's basic functions including but not limited to being able to power on the system, login and open either Internet Explorer or Mozilla Firefox, and navigate the browser to the address of this website.

Provider:

We have assumed that the website will be running on a properly working web server and database system with an Internet connection that allows this system to perform all communications with clients.

Assumptions:

- The manager account's username and password maybe hard coded.
- The manager cannot be a customer.
- Any user can edit their account.
- Access to the system is restricted to the user name.
- Restrictions and limitations of all the levels are known by the higher level users.
- Security personnel have access to any user's account.

2.3. External Interface Requirements**2.3.1. User Interfaces**

Various interfaces for the product could be

- Login Page
- Registration Form
- Home Page
- Find Coaches / Hire Coaches
- Post Job / Browse Jobs
- Contact Us Page
- Help / how it works

These pages will be the main user interface of our website. Link of every page will be accessible from any page like any other website. This website will be like several other freelancing websites working right now. So that users can understand easily and will not face any difficulty using our website.

2.3.2. Hardware Interfaces

- Windows.
- Mobile Android (Later on we will expand our system and will launch an android or apple app as well so that users can access their profile and progress from anywhere).
- A browser which supports HTML & Java script.

2.3.3. Software Interfaces

Following are the software that will be used for our system.

Language: Php / Html / CSS

Database: SQL server

Browsers: All web browsers

2.3.4. Communications Interfaces

This project supports all types of web browsers. The system shall use HTTP protocol for communication interface.

2.4. System Features

These are the features of the system that are really important to write there in a way that if developer starts his work from first requirement to the last he won't have to face any problem of like this requirement should in first now I have to change all the code to fulfill that requirements such problems will cause a great time lose.

2.4.1. System Feature 1

Login / Registration

2.4.1.1. Description and Priority

This feature is one of the main features of our system and it is of High priority. A player can't hire a coach or a coach can't apply for job until he is logged in or have a registered account.

2.4.1.2. Stimulus/Response Sequences

First of all the user will browse our website through any web browser and open our website through URL. Then it will direct the user to our front page of the website where

he can login or register their account and then they will be directed to the main page where they can access their profile and can apply, hire or can be hired by employers.

2.4.1.3. Functional Requirements

REQ-SF1-1: User Information

User should enter this information precisely

REQ-SF1-2: User log data

User login data should be logged.

2.4.2. System Feature 2

Freelancer Profile

2.4.2.1. Description and Priority

In an online world where anyone can go anonymous, a profile with basic information is preferred. Likewise in our website, a public profile is a must have feature to help players have the very first impression about the coach or trainer they want to work with and it is also a high priority feature as well. Apart from the basic information like name, self description, nationality, skills, freelancers should also upload their portfolio as well as it will showcase their professional expertise.

2.4.2.2. Stimulus/Response Sequences

When the user registers their account their next activity is to make their public profile with their complete bio data their name, email, address, contact details, skills, their rate, experience, projects they have worked on and their earning (optional). After filling all this information they can publish their information and they can check this information in their account details and they can also edit or update that information as well.

2.4.2.3. Functional Requirements

REQ-SF2-1: User should enter his correct information in his profile.

REQ-SF2-2: He should enter the skill he mastered and not the one's he has no idea whatsoever.

REQ-SF2-3: User should also upload his portfolio in his profile.

2.4.3. System Feature 3:

Bidding for job

2.4.3.1. Description and Priority

Bidding is surely one of the most desired features in a freelancing website. Unlike micro services, projects are bigger in scale, outsourcing fee is higher, so employers need to consider and choose which freelancer or coach to assign the task to. To avail this, it is recommended that each project has the bid button to let many freelancers or coaches to bid for it. After that project owner will choose the most appropriate candidate for the job. More than that, project owners can also invite their favorite freelancers to bid for the projects.

2.4.3.2. Stimulus/Response Sequences

After making their profile portfolio employers can browse for the projects relating to their skills and then all the projects relating to their skills will show up and they can choose one they can do well and efficiently and can bid according to the work how much it would cost them to do the work. Then it's up to the project owner whether he wants to hire the employer or not after checking his work experience, his skills, his profile, previous work reviews if he has done any work and then will check the bid whether it is suitable or not and can setup a deal with him.

2.4.3.3. Functional Requirements

REQ-SF2-1: User should find the project according to his skill.

REQ-SF2-2: Then he should bid for the project not too much and not too less just reasonable for both parties.

REQ-SF2-3: Then if the owner thinks that the candidate is the right one for the work then they will setup a deal and time limit for the project and the employer had to finish the project in the time limit to get his money.

2.5. Other Nonfunctional Requirements

2.5.1. Performance Requirements

- Its performance should be accurate.
- It should be available all the time to users.
- Its server's link should never be down.
- To get best speed, should use fast and best internet service.
- It should bear the load of as many users at a time can login to site and system should not be crashed.
- System should not get slow while having extra load on site.

2.5.2. Safety Requirements

- Servers should be placed where the temperature is low.
- System should have a backup server all the time stand by.
- System should have a backup database in case of any lose or damage.
- Systems should be well updated.
- System should be well secured every time.
- Systems should be well updated.

2.5.3. Security Requirements

- System should be well secured by full proof security.
- It should have logins.
- It should have a strong password.
- It should have pin option as well.
- Accounts should be integrated.
- Personal information of a client should not be leaked out.
- Passwords should not be shown on the URL or password box.
- Security personals should have access to all the user accounts so that in case of any suspicious activity they can take control.

2.5.4. Software Quality Attributes

AVAILABILITY: The website should be available anytime and from anywhere as many users are connected and working.

CORRECTNESS: The website should work correctly and accurately deliver whole information to user.

MAINTAINABILITY: The administrators and db managers should keep the database and the data of the user and website well maintained and managed.

USABILITY: The website and its design and interface should be designed for the ease of user. Its interface should be simple not that complex for user to understand.

2.5.5. Business Rules

- The software design (maintainability) will not be responsibility of developer or company.
- It will be the responsibility of the admin.
- In case of any mishap in the software the developer or company will not be responsible for that lose.
- Developer or company gives a first trail of the software and after that they will not entertain their quires.
- After delivering the project any increment in the software will be charged by per hour.

Payment Gateways:

For Locals:

- HBL
- UBL
- Easy Paisa

For International:

- PayPal
- Master card
- Visa

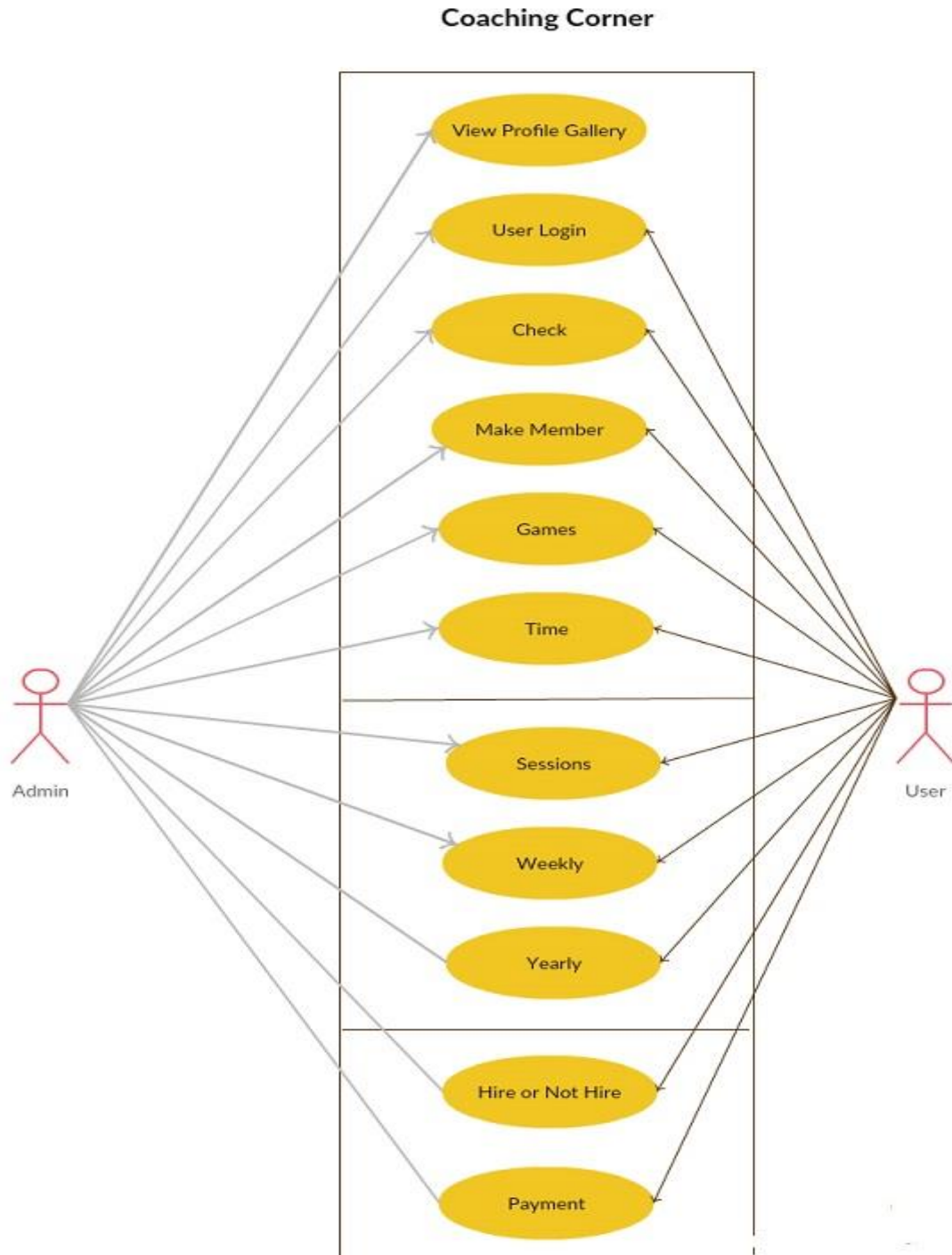
2.6 Other Requirements

The system must store all the user account information all the data shall be stored in text-based flat files. For each user account, the login ID, name, password, age, email address (optional) shall be stored in database table.

Chapter 3

Use Case Analysis

3.1. Use Case Model



3.2. Fully dressed Use Case

Use case Name	Registration/ login
Description	User or Admin should login first to access the system
Primary Actor	User/Admin
Precondition	User browse the website
Post condition	After login/registration he/she can access all the features of the website.
Main Success Scenario	User admin enters the website Then user enter login and input his login credentials in the form Then system will check whether the details are correct
Alternate Scenarios	Wrong login credentials Username or password is incorrect

Use case Name	Record of user
Description	System will have the complete record of the user which both the admin and user can check
Primary Actor	User/Admin
Precondition	User should login first
Post condition	After login he can check his user data and previous record.
Main Success Scenario	User login to his account Then can view his profile and his previous work he has performed
Alternate Scenarios	N/A

Use case Name	Search
Description	User can search through for different projects and look for different coaches in the search bar
Primary Actor	User
Precondition	User goes to the search bar
Post condition	After the user inputs his search he will get the results accordingly.
Main Success Scenario	User enters the search Then he can browse through his search results and can look for different projects and coaches to hire.
Alternate Scenarios	N/A

Use case Name	Games/Fields
Description	User can select his field or game according to his skills
Primary Actor	User
Precondition	User selects the game tab
Post condition	After the selection of the game he can find coaches or can find work relative to his field or game.
Main Success Scenario	User selects the game or field he wants to work or he plays from the Game tab and then he can access all the coaches and work available in his particular field.
Alternate Scenarios	Wrong game selection.

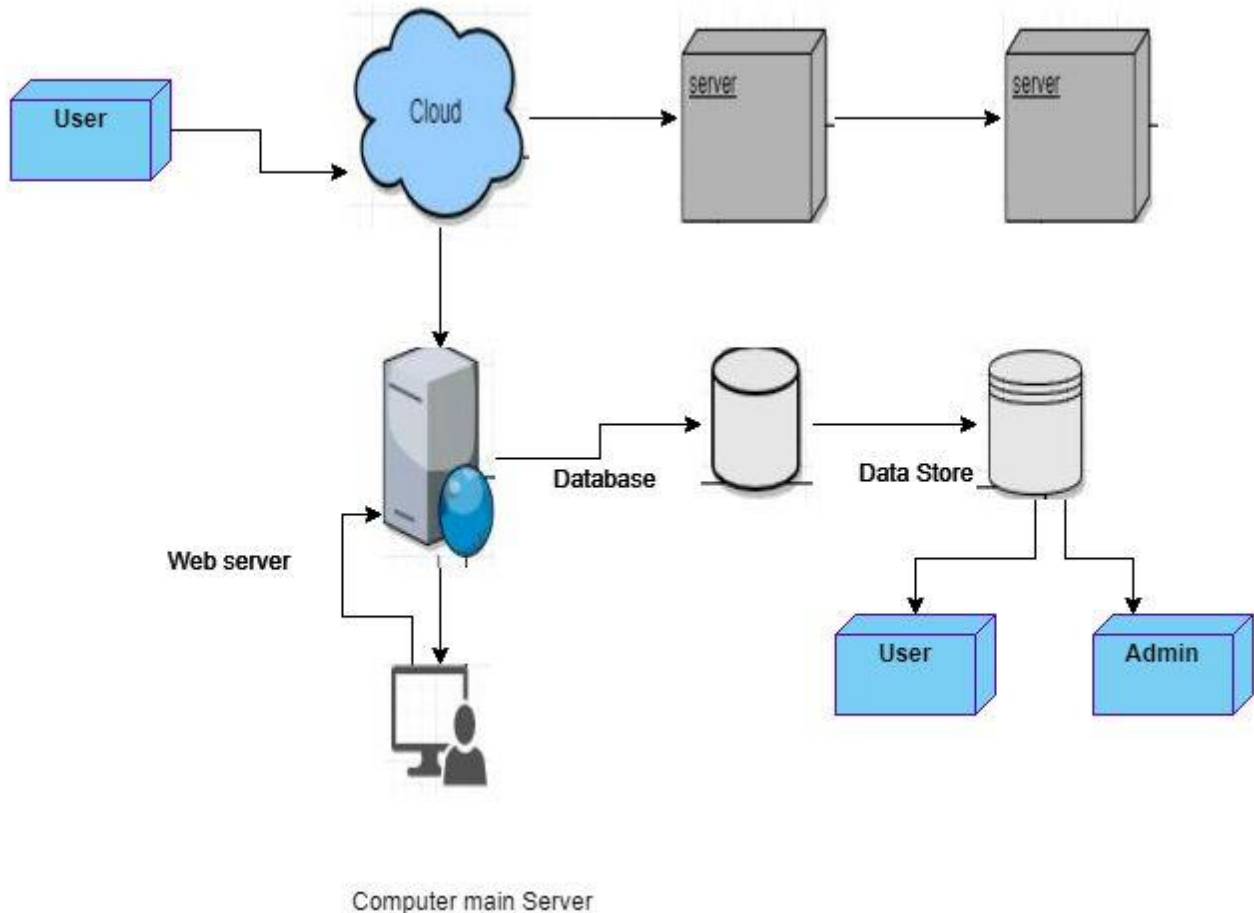
Use case Name	Payment
Description	User can receive or can give payment through online platforms for local and foreign platforms.
Primary Actor	User
Precondition	User hires a coach and do work with him.
Post condition	After the coach works with player the player will give him his fee that has been decided earlier.
Main Success Scenario	Player posts his problem and then any coach who can solve his problem can work with him and can setup the dues player has to pay to the coach after the work. Then If the work is done then the player has to pay the coach through our payment platform.
Alternate Scenarios	N/A

Chapter 4

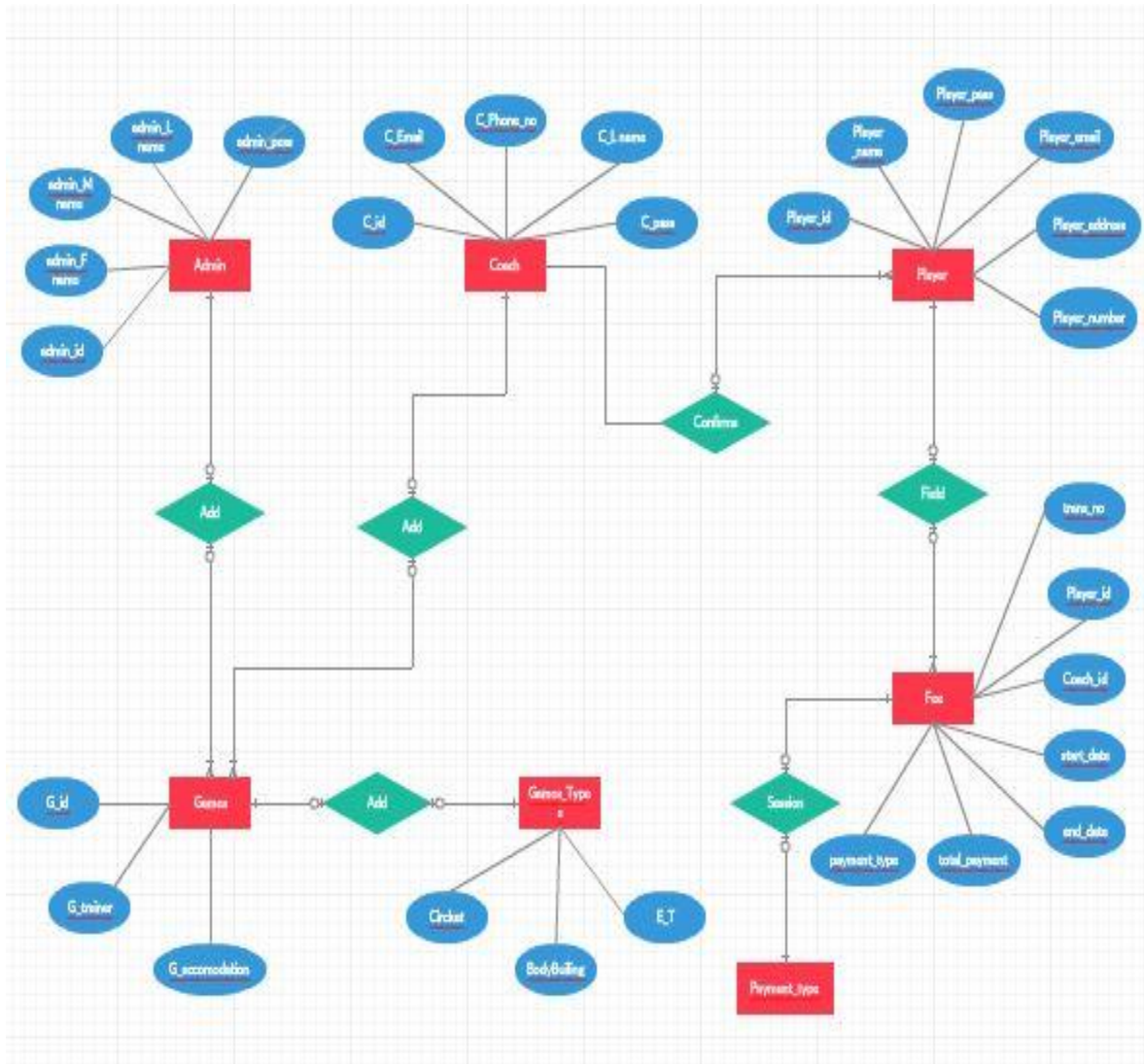
System Design

Chapter 4: System Design

4.1. Architecture Diagram

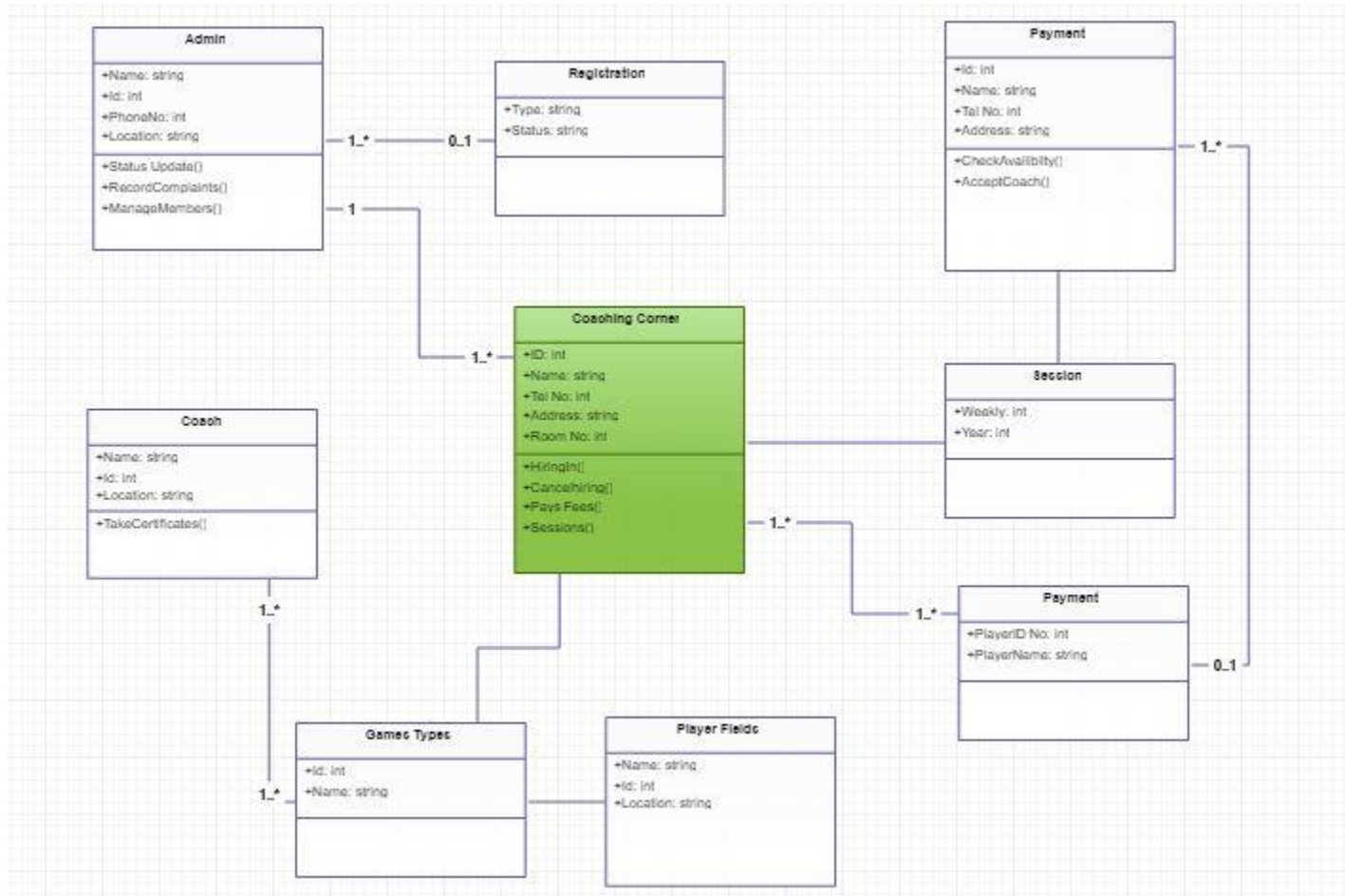


4.2. Entity Relationship Diagram with data dictionary

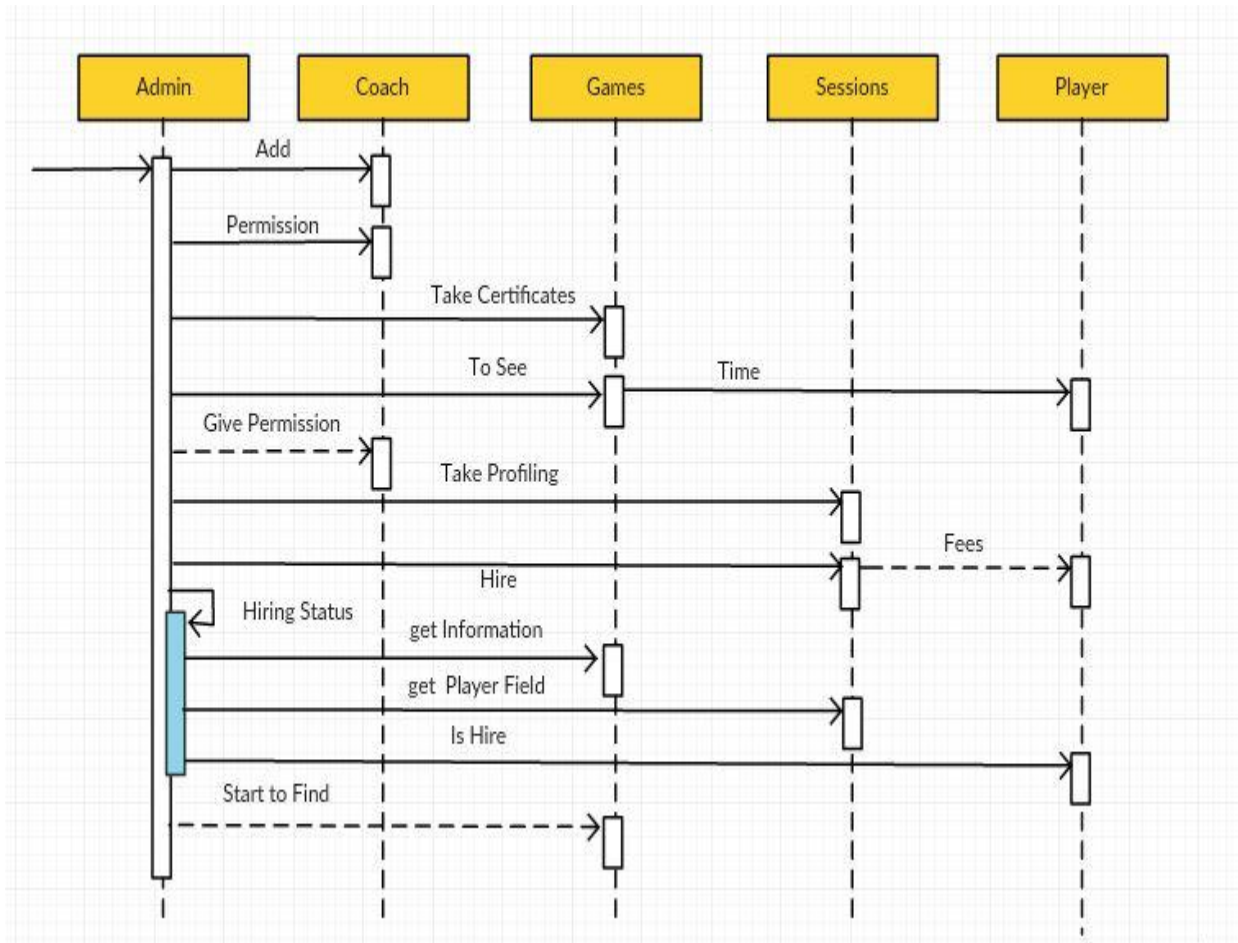


Entity	Attributes	DataTypes	Primary Key	Foreign Key	Nullable
Admin	Id	Int	Yes		
	Name	Varchar			
	Email	Varchar			
	Password	Varchar			
	City	Varchar			Yes
Coach	Id	Int	Yes		
	Name	Varchar			
	Email	Varchar			
	Password	Varchar			
	Address	Varchar			
	Certificate	Varchar			Yes
Games	Id	Int	Yes		
	Accommodation	Varchar			
	Trainer	Varchar		Yes	
Player	Player_id	Int	Yes		
	address	Varchar			
	Email	Varchar			
	Contact no	Int			Yes
Fee	Id	Int	Yes		
	Sessional	Int		Yes	
	Weekly	Int		Yes	
	Yearly	Int			
	Payment Coach	Currency			
	Coach_Id	Varchar		Yes	

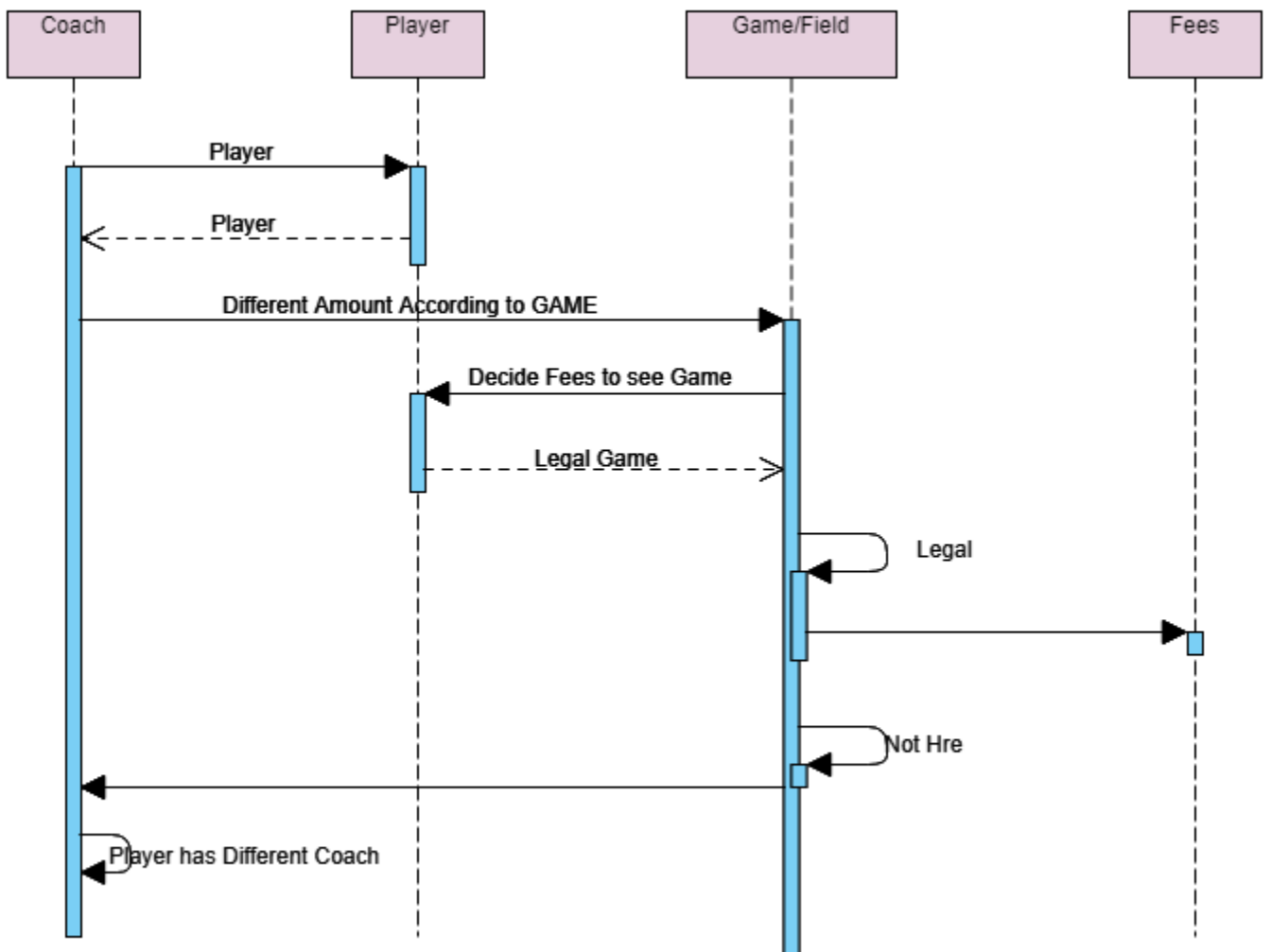
4.3. Class Diagram



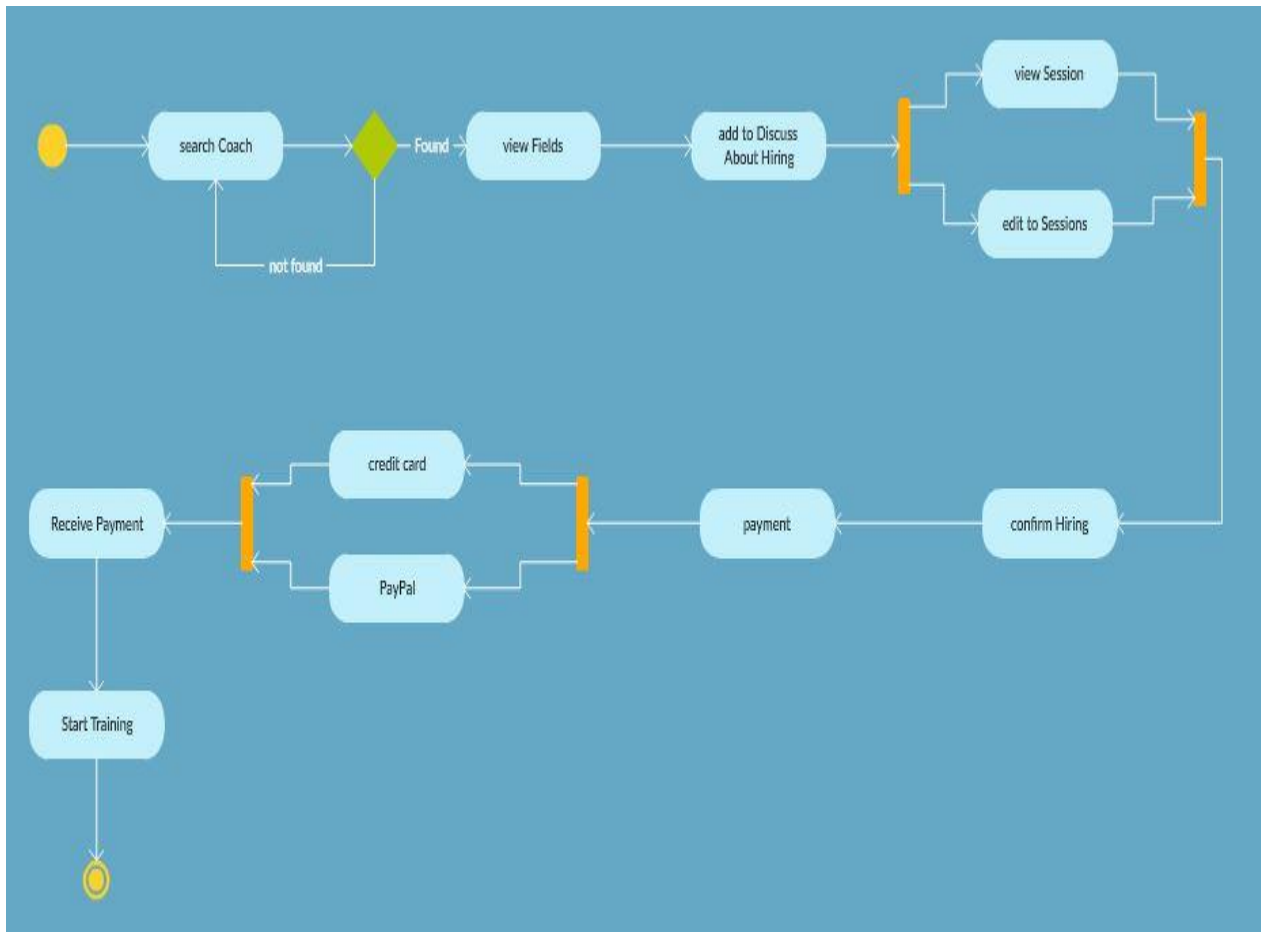
4.4. Sequence / Collaboration Diagram



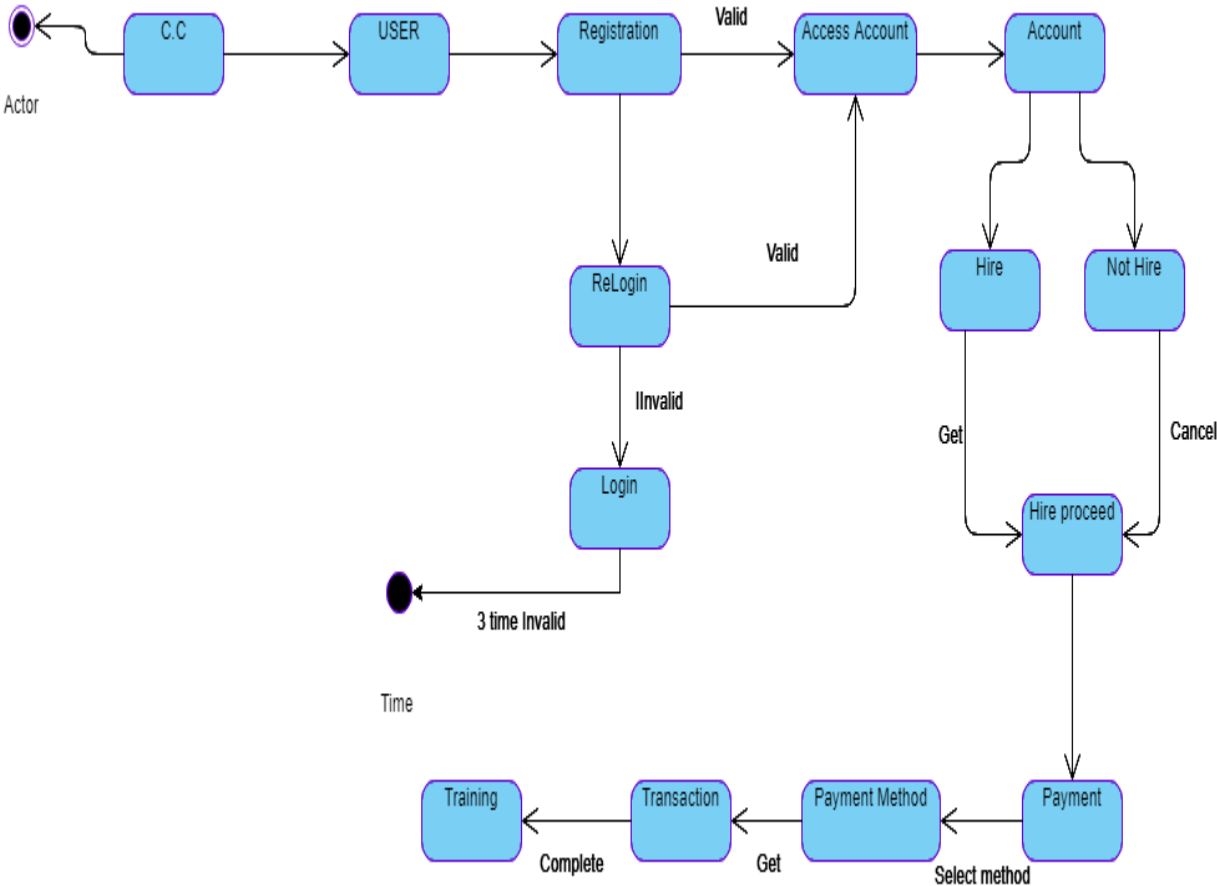
For User



4.5. Activity Diagram

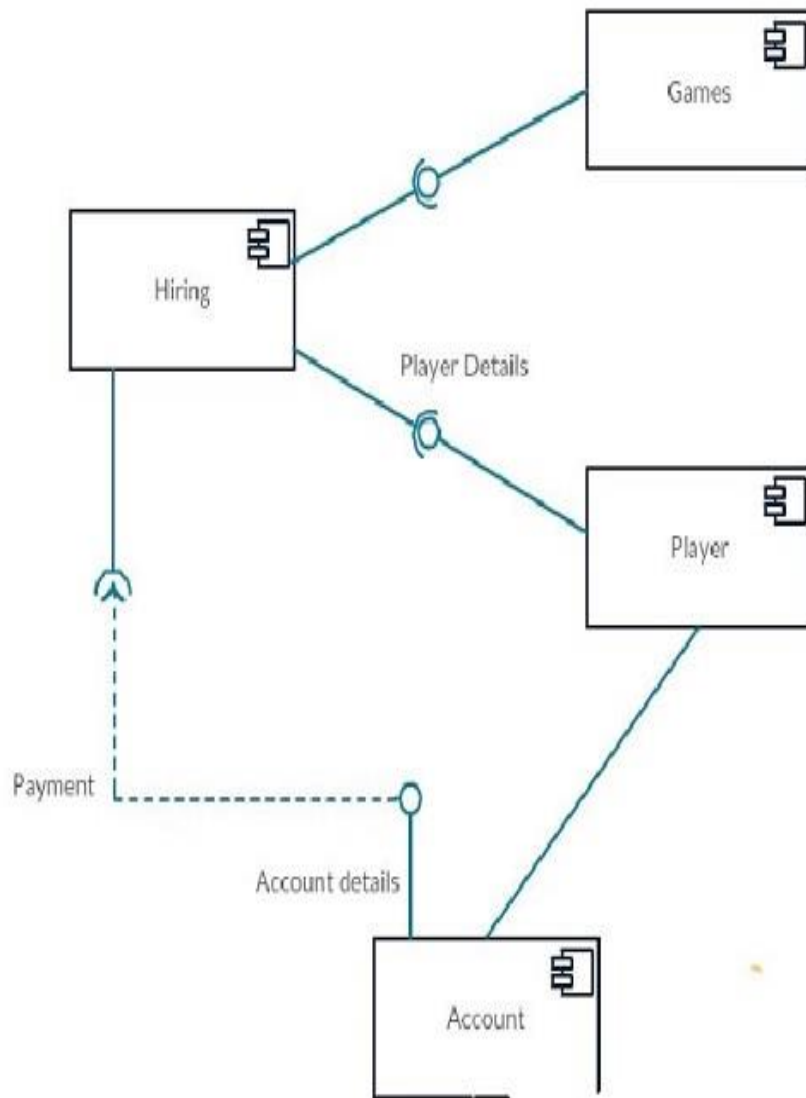


4.6. State Transition Diagram

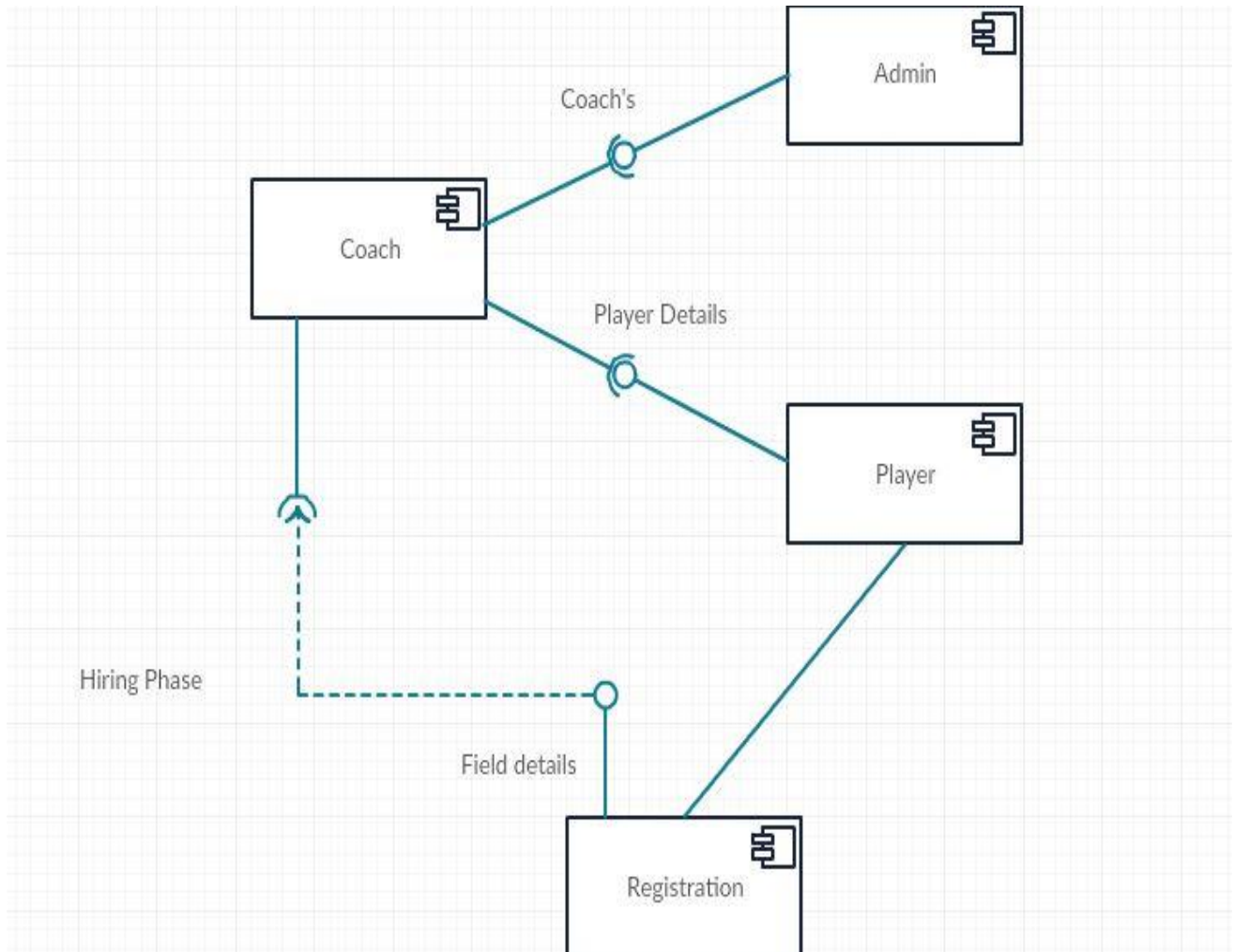


4.7. Component Diagram

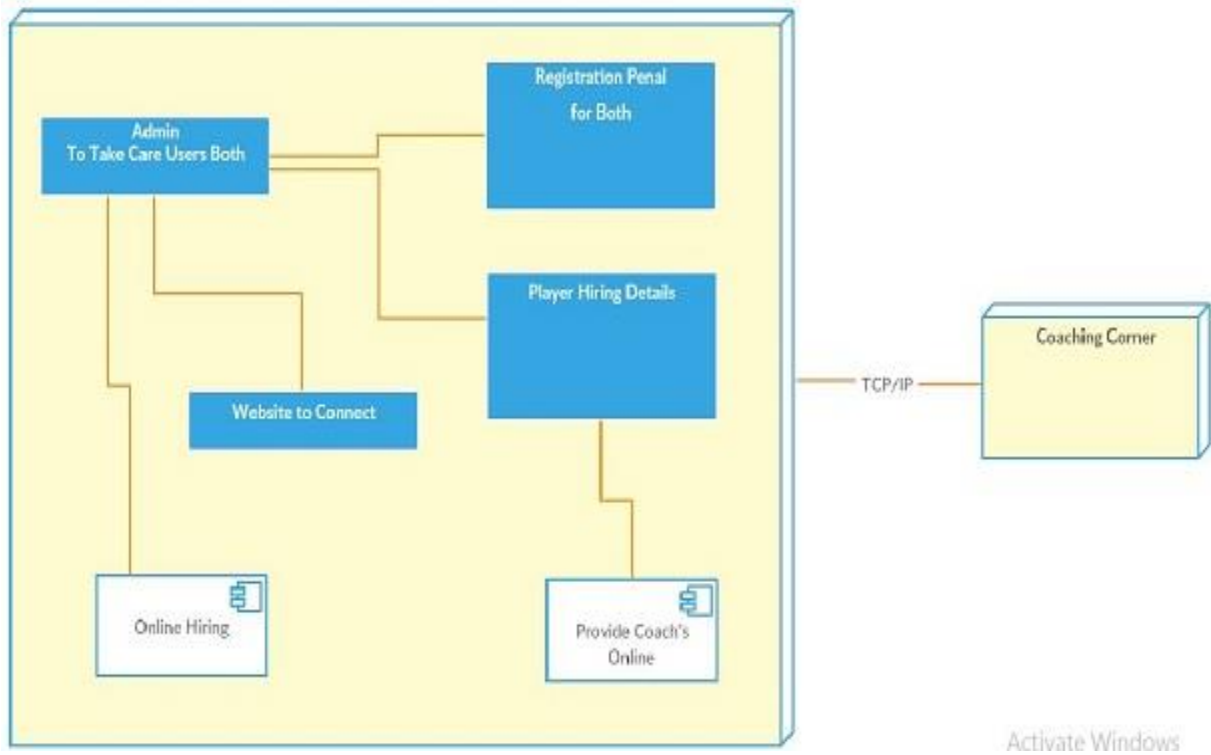
For User



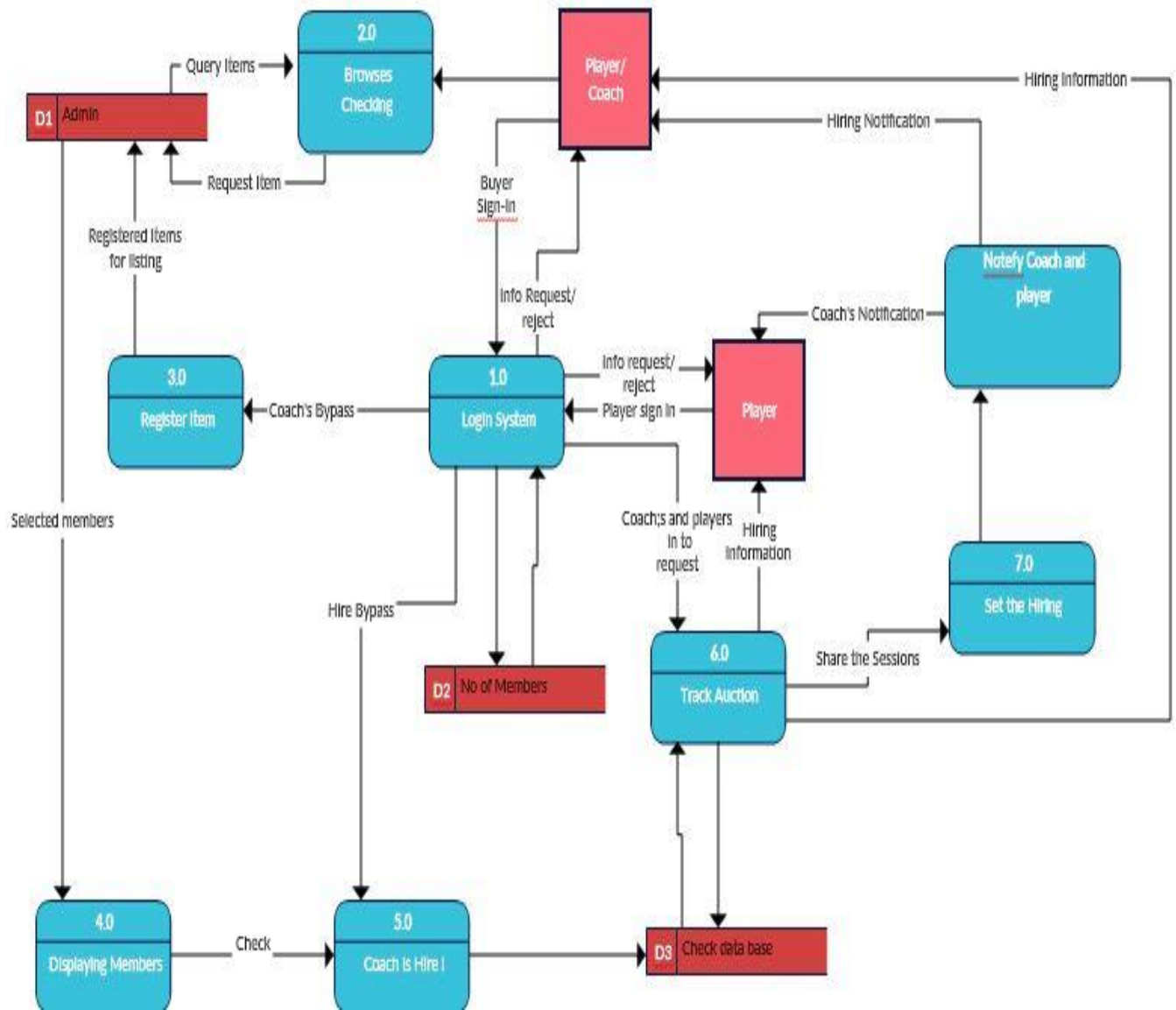
For Admin



4.8. Deployment Diagram



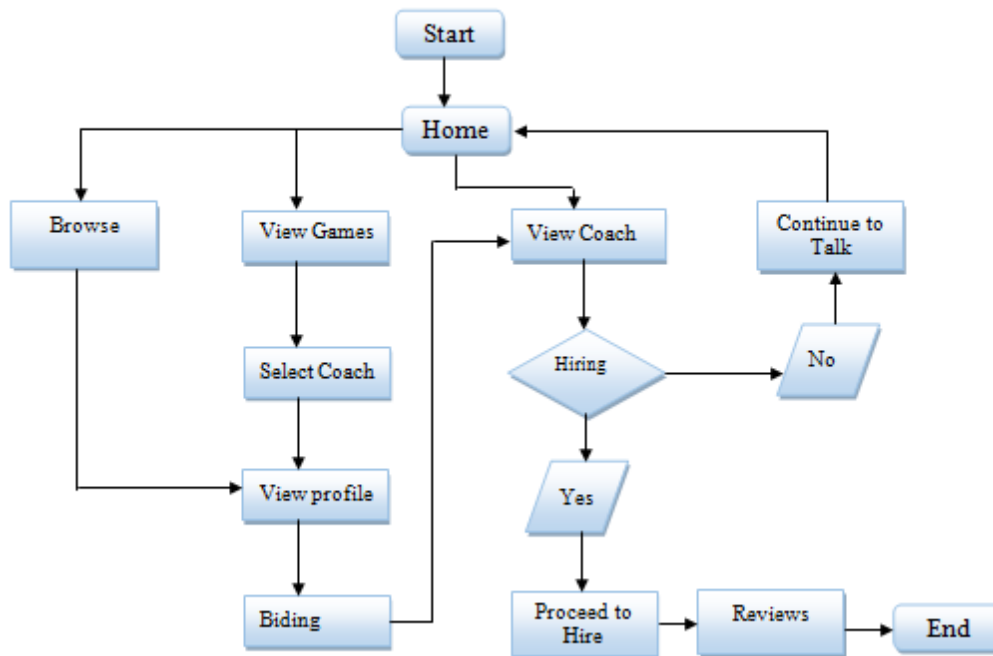
4.9. Data Flow diagram



Chapter 5

Implementation

5.1. Important Flow Control/Pseudo codes



5.2. Components, Libraries, Web Services

Components

- Database
- Server
- Firewall
- Router
- Switch

Web services

- Html
- Php
- Word press

5.3. Deployment Environment

Our deployment is nothing special we get together after university in our friend's house and we do our work for at least couple of hours on daily basis. We help each other in working to make it easy for us to do the work.

5.4. Tools and Techniques

- Php
- Html
- JavaScript
- Bootstrap
- Entity framework
- Asp.net web api
- SQL server
- CSS

Reference and Bibliography

Reference and Bibliography

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Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

6.1. Use Case Testing

Admin/User Login

Positive Test Case	
ID	TC-1
Priority	High
Description	User should log-in by entering the correct credentials email and password, If he/she is registered.
Reference	Functional requirement reference.
User	Admin/User
Pre-condition	<ol style="list-style-type: none"> 1. System should be online. 2. Login form should work properly. 3. User should have internet access.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login
Input Criteria	Email: abc@xyz.com Password: *****
Expected Result	Admin Panel/ User Account will open.
Status	Pass

Negative Test Case	
ID	TC-1
Priority	High
Description	User should not be logged in by entering the wrong credentials email and password, If he/she is registered.
Reference	Functional requirement reference.
User	Admin/User
Pre-condition	<ol style="list-style-type: none"> 1. System should be online. 2. Login form should work properly. 3. User should have internet access.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login
Input Criteria	Email: abc@xyz.com Password: *****
Expected Result	Admin Panel/User Account will not open.
Status	Pass
Status	Pass

User Profile Access

Positive Test Case	
ID	TC-2
Priority	High
Description	System will have the complete record of the user which both the admin and user can check. Access will be provided only to the authentic admin and user.
Reference	Functional requirement reference.
User	Admin/User
Pre-condition	<ol style="list-style-type: none"> 1. System should be online. 2. Login form should work properly. 3. User should have internet access.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the profile
Input Criteria	Click Profile Info
Expected Result	User profile and record will be shown.
Status	Pass

Negative Test Case	
ID	TC-2
Priority	High
Description	System will have the complete record of the user which both the admin and user can check. Access will not be provided to the non authentic admin and user.
Reference	Functional requirement reference.
User	Admin/User
Pre-condition	<ol style="list-style-type: none"> 1. System should be online. 2. Login form should work properly. 3. User should have internet access.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the profile.
Input Criteria	Click Profile Info
Expected Result	User profile and record will not be shown.
Status	Pass

Search

Positive Test Case	
ID	TC-3
Priority	High
Description	User can search through for different projects and look for different coaches in the search bar.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should have internet access 2. User should login to his/her account. 3. Search bar should work properly.
Steps	<ol style="list-style-type: none"> 1. Enter the email & password. 2. Login 3. Access the search bar and search whatever he/she wants.
Input Criteria	Access the Search bar and type the search he/she wants.
Expected Result	Desired results will be shown to the user according to his/her search.
Status	Pass

Negative Test Case	
ID	TC-3
Priority	High
Description	User can search through for different projects and look for different coaches in the search bar. No search results will be shown for the inappropriate search or non relevant search.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should have internet access 2. User should login to his/her account. 3. Search bar should work properly.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the search bar and search whatever he/she wants.
Input Criteria	Access the Search bar and type the search he/she wants.
Expected Result	Desired results will not be shown to the user according to his/her search.
Status	Pass

Game Selection

Positive Test Case	
ID	TC-4
Priority	High
Description	User selects the game or field he wants to work or he plays from the Game tab and then he can access all the coaches and work available in his particular field.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should have internet access 2. User should login to his/her account. 3. Games tab should work properly.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the games tab and select the game he want to look for a coach or a player.
Input Criteria	Clicks the tab Game Category and selects his required game if available.
Expected Result	Results will be shown to the user according to the game he selected.
Status	Pass

Negative Test Case	
ID	TC-4
Priority	High
Description	User selects the game or field he wants to work or he plays from the Game tab and then he can access all the coaches and work available in his particular field. Coaches or players will not be accessible if the required game is not being offered.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should have internet access 2. User should login to his/her account. 3. Games tab should work properly.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the games tab and select the game he want to look for a coach or a player.

Input Criteria	Clicks the tab Game Category and cannot select his required game if not available.
Expected Result	This game is not available yet.
Status	Pass

Payment

Positive Test Case	
ID	TC-5
Priority	High
Description	User can receive or can give payment through online platforms for local and foreign platforms.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should look for a particular coach. 2. User should contact the coach. 3. User hires a coach and work with him.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the coach's tab and look for particular coach. 5. User hires a coach, setup the fee structure and do work with him. 6. Pays the coach through online platform local or foreign.
Input Criteria	Clicks the tab Hire a Coach and hire a particular coach and after the work pay him his dues.
Expected Result	Your payment has been delivered. You will be notified when the payment has been accepted.
Status	Pass

Negative Test Case	
ID	TC-5
Priority	High
Description	User can receive or cannot give payment through wrong online platforms for local and foreign platforms.
Reference	Functional requirement reference.
User	User-Player/Coach
Pre-condition	<ol style="list-style-type: none"> 1. User should look for a particular coach. 2. User should contact the coach.

	3. User hires a coach and work with him.
Steps	<ol style="list-style-type: none"> 1. Open the website 2. Enter the email & password. 3. Login 4. Access the coach's tab and look for particular coach. 5. User hires a coach, setup the fee structure and do work with him. 6. Pays the coach through online platform local or foreign.
Input Criteria	Clicks the tab Hire a Coach and hire a particular coach and after the work pay him his dues.
Expected Result	Your payment cannot be delivered. Please select the correct platform.
Status	Pass

6.2. Equivalence partitioning

Registration

Field Name	Data Type	Invalid	Valid	Invalid
First Name	String	Less than 1, no numeric, special characters	Character 1-15	More than 15 not accept
Last Name	String	Less than 1, no numeric, special characters	Character 1-15	More than 15 not accept
Email	Varchar	Missing '.'	Must be valid email type	Missing '@'
Password	Varchar	Less than 8 characters not acceptable	Alphanumeric characters >=8	Less than 8 characters not acceptable.
Phone	Varchar	Less than and greater than 13 not accepted	13 number digits	First, 2 digits should be '+9'
Country	Varchar	Should not include special characters	Country name must be valid	Should not include numbers

Login

Field Name	Data Type	Invalid	Valid	Invalid
Email	Varchar	Missing '.'	Must be valid email type	Missing '@'
Password	Varchar	Less than 8 characters not acceptable	Alphanumeric characters >=8	Less than 8 characters not acceptable.

6.3. Boundary value analysis

N/A

6.4. Data flow testing

Most of the product uses the variables to make the data flow within the program. The program may use multiple variables to calculate values for different variables. Now, these variables get some values from the user interface or sometimes from different sources. This complexity makes a program full of risk. So testing these variable data flow makes sense and Dataflow testing concept can be used to test all the variables from the program.

Levels of Dataflow Testing:

Static data flow testing

- Identifying Potential Defects within the program.
- Analyzing code for defects.
- The code will not be executed.

Dynamic data flow testing

- We will execute the program
- Looks like a control flow testing
- List out the path need test

About Variables:

There are two types of variable in a program called use and definition occurrence.

Definition Occurrence: Values are assigned to variables.

Use Occurrence: Values are used in the program from other variables.

Predicate Use Occurrence: Value of this type of the variable will be used to an execution path.

Computational Use Occurrence: Value of variable will be used to calculate the value of another variable.

Def-Use Pair Variable: It is a pair of Definition Occurrence and Uses Occurrence.

6.5. Unit testing

If Login button is pressed without entering password	It will notify the user to enter the password
If we enter the wrong password	The application will give the message of invalid password
If the format of the user name is not correct while creating an account	The application will not create your account until you enter a user name according to the required format
While creating the accounts you enter password less than 6 characters	It will notify the user to enter password consists of more than 6 character

6.6. Integration testing

Is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. Test drivers and test stubs are used to assist in Integration Testing.

- We tested each module or each interface of our application separately first.
- Then we tested how each module or interface is working with each other

Our users orders the food and selected 3 Items from the menu and send requests to the admin panel

- How much times those request take to arrive.
- Is order is at it is as the user has sent.
- Billing of the order is correct or not.

Now admin panel responds to the user order and change the status of the order preparing

- Those the status is changed at the user end that his order is preparing
- How much time does it takes

That's how we tested the interaction between the admin and user side that how they are working together.

6.7. Performance testing

Performance testing should be carried out after the implementation of the product. We shall test the speed, accuracy, and effectiveness of functions as well as quantitative test e.g. response time of any function. We have tested the performance of our system by checking the working of every complex operation, again and again, multiple times. We have followed the following steps.

- List of all complex functions especially database related function.
- Assess response time and accuracy of core functions.
- Risk assessment of error or exception code (if any).

6.8. Stress Testing

Stress testing should also be carried out after the implementation of the product. We shall test the product's robustness, availability, and reliability under extreme conditions. The goal of stress testing is to identify application issues that arise or become apparent only under extreme conditions. We have tested our system by simultaneously using our system as a different user and performing their associated tasks in a continuous manner. Following steps have been followed:

- We have analyzed system behavior under high traffic.
- We have gathered statistics reviews about crashing website, time taking operations and We will resolve issues later in revisions.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Coaching corner is a web based platform for sports persons (Athletes, Coaches or Trainers) where players and coaches can interact with each other. Basically, it is a freelancing website and its main focus is solely on athletes, coaches or trainers. As there are not many platforms for athletes to learn and to enhance their skills for the higher level of their respective game, apart from clubs or academies which are also low in numbers in small cities or there are not many well qualified coaches or trainers that can help them do well in advanced level. As sportsmen don't have longer careers, so their time is vital for them. They have to do well in a shorter period of time and sometimes they have to travel far from their places for coaching classes or training which also consumes a lot of their time. So keeping this in mind we're making a freelancing website for coaches and athletes where they can interact with each other without travelling miles away from their home and it will also save their time and they can get the services of highly qualified coaches which can help them take their game to the next level. This website will contain services for most of the sports like Football, Cricket, Hockey, Badminton, Tennis, Basketball & several other sports as well. There will also be trainers or nutritionists and several other people related to sports. Both parties can interact with each other through chatting and can make up a deal. Athletes can hire a coach for a single session or for as long as they want them to or as per coach's demand. This will be highly beneficial for both athletes and coaches as athletes will get the services of highly qualified coaches and they don't have to travel far it will also save their time and for coaches as well as they can use their free time and they don't have to go any far to coach athletes and can earn more as well. As technology is growing faster day by day it's the need of the time people are earning and learning more and more through online web based platforms but there aren't many opportunities for sports persons and it will be a game changer for them.

7.2. Achievements and Improvements

- Website Development
- Working on Databases
- Best Coding practices
- Integration of different objects on a single platform
- Creative Thinking
- Familiar with several different freelancer websites
- Working with different sportsmen and coaches

7.3. Critical Review

We will improve our platform and will include different sports and fields as well and will expose our website globally so that many sports persons can take advantage from this platform and can enhance their game.

7.4. Lessons Learnt

We absorb very much from this project. This project sharpens our skills in hardware development, designing tools, and many management concepts as well as how to deal with a Problem and how to stick for finding the solution to any problem until you find. As well as Technical skills this project also enhances our personal development skills such as team building, dedication. Our passion for making a unique product that contains innovation and nationwide best achievement and we succeeded it. We continue our work after this to make it through worldwide. This project is a stepping stone for us, in the beginning, we don't even know that if we accomplished it or not but due to our hardworking and research we do it and It's an achievement for us that motivate us to do better and more.

7.5. Future Enhancements/Recommendations

- Harden the security
- Protect website against spam
- Configure an SEO plug-in
- Proper linking of database with the database
- Hack proof
- Enhancing the payment methods
- Introduce new features for the users