

KolaySpor	Version:1.0
Software Design Document	Date: 27/04/2018

Sport Center Membership System Software Design Document

1. Revision History

<i>Version</i>	<i>Date</i>	<i>Author</i>	<i>Change Description</i>
1.0	26.04.2018	Mert Eroğlu	Some parts of the ER diagram have changed.

2. INTRODUCTION

2.1 Purpose and Scope

The aim of this design document is to try to eliminate the mistakes in the previous versions and try to introduce a more systematic functional design. In this way, even if the project is incomplete, we could create the interface of the system. We designed our system using JAVA. Since we design the system as web-based, to enter the system, the user needs to connect to the internet.

2.2 Document Overview

In general this document is; an overview of the system, descriptions used in the system, design decisions, details of the design, behavior diagrams (sequence diagram), data models and user interfaces software requirements are defined and elaborated.

2.3 System Overview

The project needs a database. So we used MySQL service as database. We used many different technologies in the SCMS such as; Java, Spring, SQL, JSP, HTML, CSS, JavaScript etc. The system consists entirely of these technologies.

2.4 Definitions, Acronyms, and Abbreviations

Term/Acronym	Definition
MVC	Model View Controller
JSP	Java Server Pages
SQL	Structured Query Language
SCMS	Sport Center Membership System
KolaySpor	Our SCMS name

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2.5 References

- 1- <https://medium.com/kodgemisi/spring-boot-ile-%C3%B6rnek-web-uygulamas%C4%B1-914c94c9099f>
- 2- <https://spring.io/guides>
- 3- <https://www.thymeleaf.org/doc/tutorials/2.1/usingthymeleaf.html>
- 4- https://www.tutorialspoint.com/spring/spring_overview.htm
- 5- <https://www.javatpoint.com/spring-tutorial>

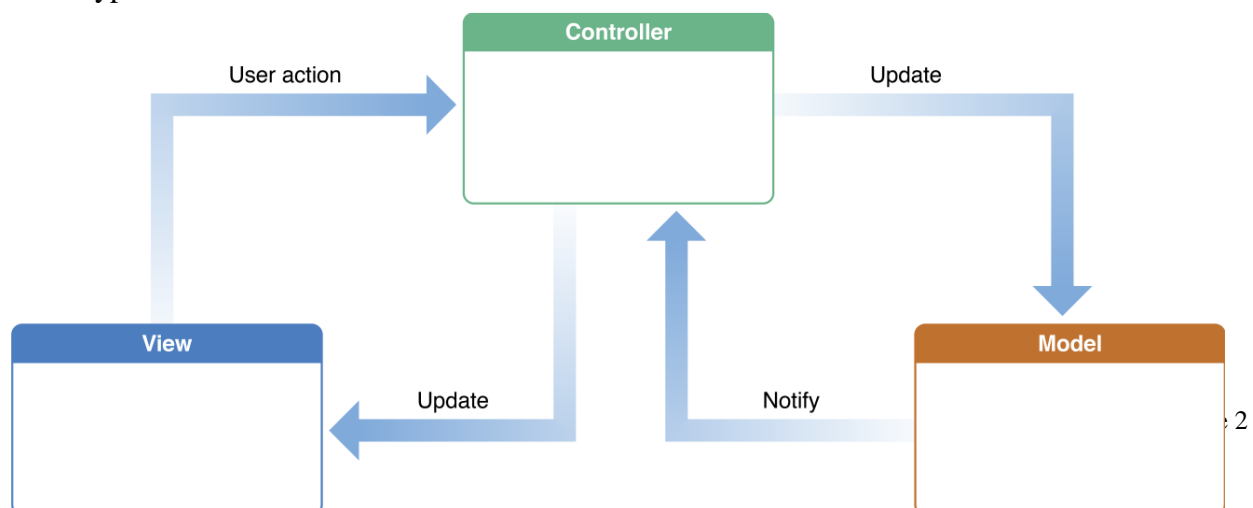
3. Design Constraints and Decisions

- ✓ KolaySpor is developed with Java programming language.
- ✓ GUI is developed with JSP
- ✓ MySQL was used as the database.
- ✓ Model-View-Controller (MVC) is used as an architectural design.
- ✓ Manipulating trainers can only be done by branch manager.
- ✓ KolaySpor is developing using IntelliJ IDE.
- ✓ KolaySpor can be used on any platform that has a web browser and an internet connection.
- ✓ KolaySpor will be able to run in every operating system that runs Java.
- ✓ Information on users, branch managers and trainers are kept in the database. Security precautions will be taken to prevent any attacks on this information. At the same time, the system will be provided with a backup to restore in case of any emergency. In the event of any attack on the system, the capture of personal information will be prevented.

4. Design Details

We designed our system according to the mvc model. There are 3 parts according to mvc model: 1-model,2-view, 3-controller.

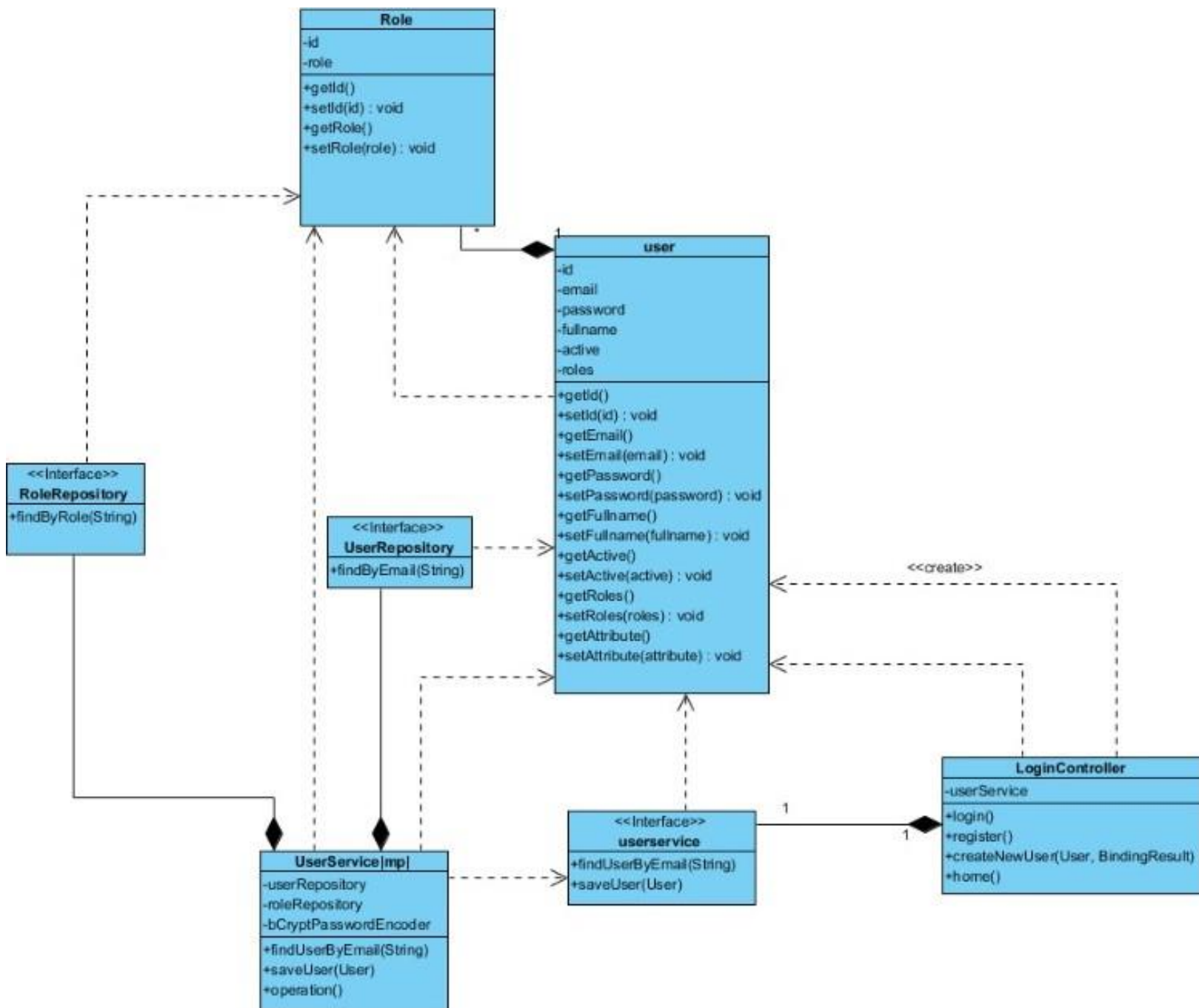
The Model-View-Controller (MVC) design pattern assigns objects in an application one of three roles: model, view, or controller. The pattern defines not only the roles objects play in the application, it defines the way objects communicate with each other. Each of the three types of objects is separated from the others by abstract boundaries and communicates with objects of the other types across those boundaries.



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4.1 Software Components

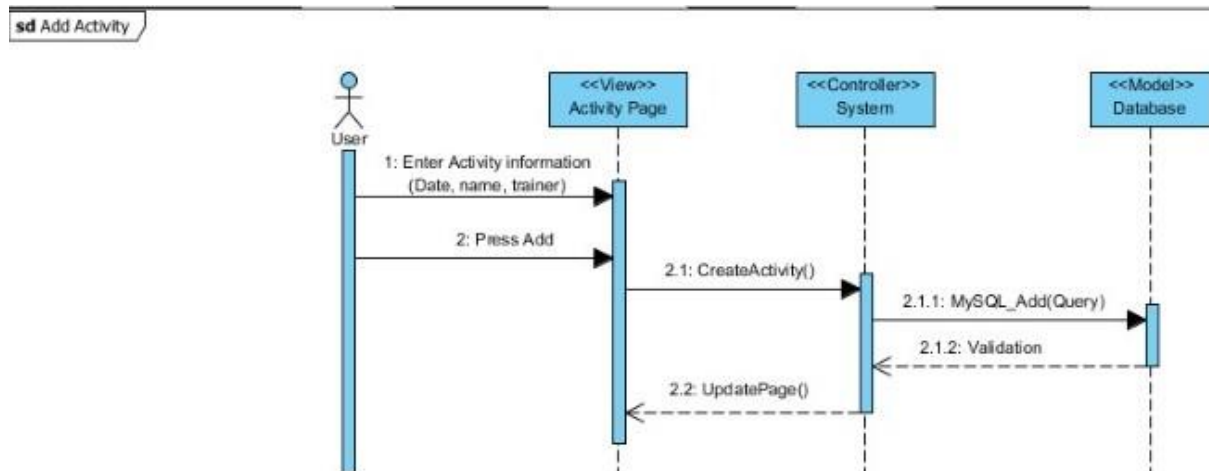
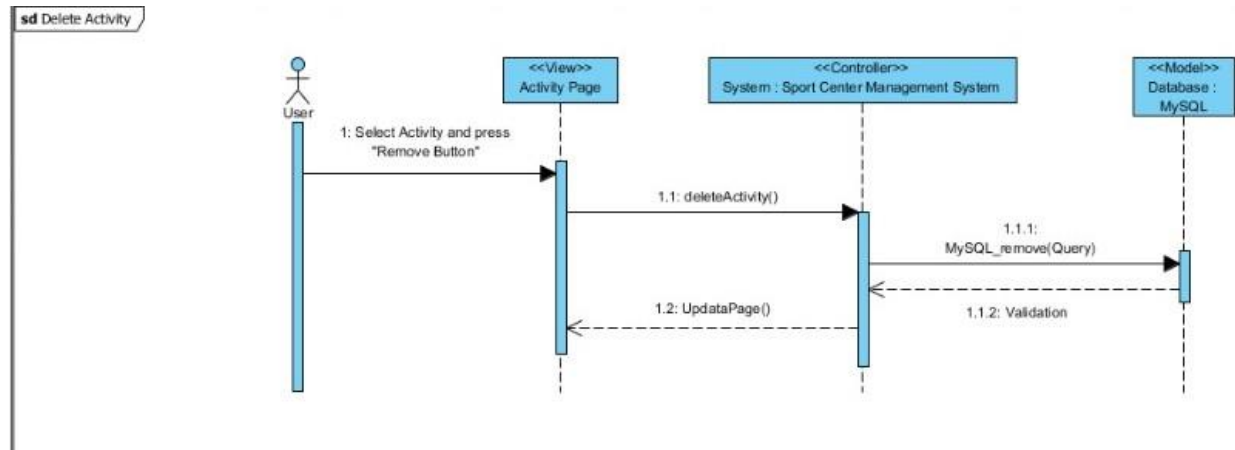
Class diagram:



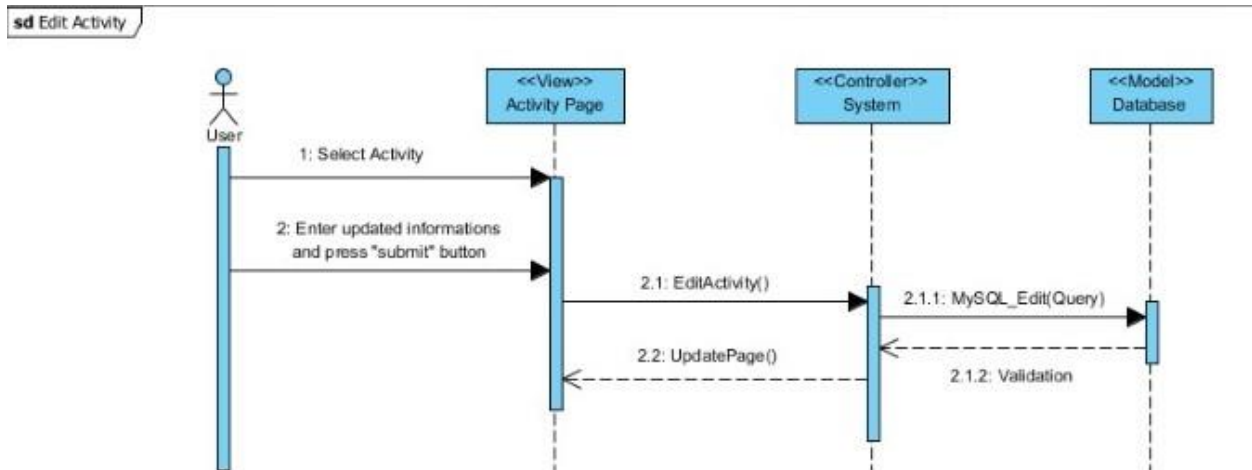
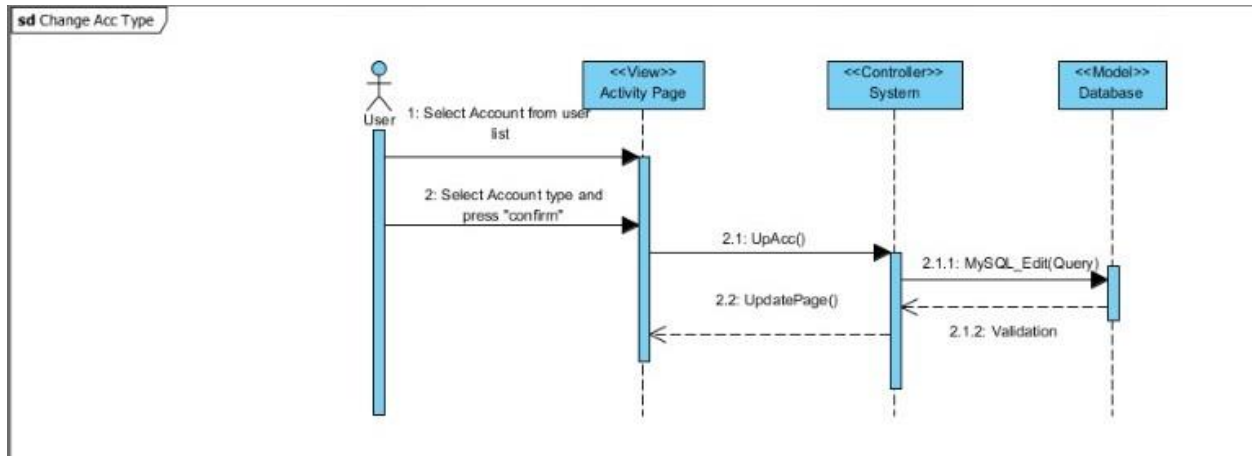
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4.2 Software Behavior

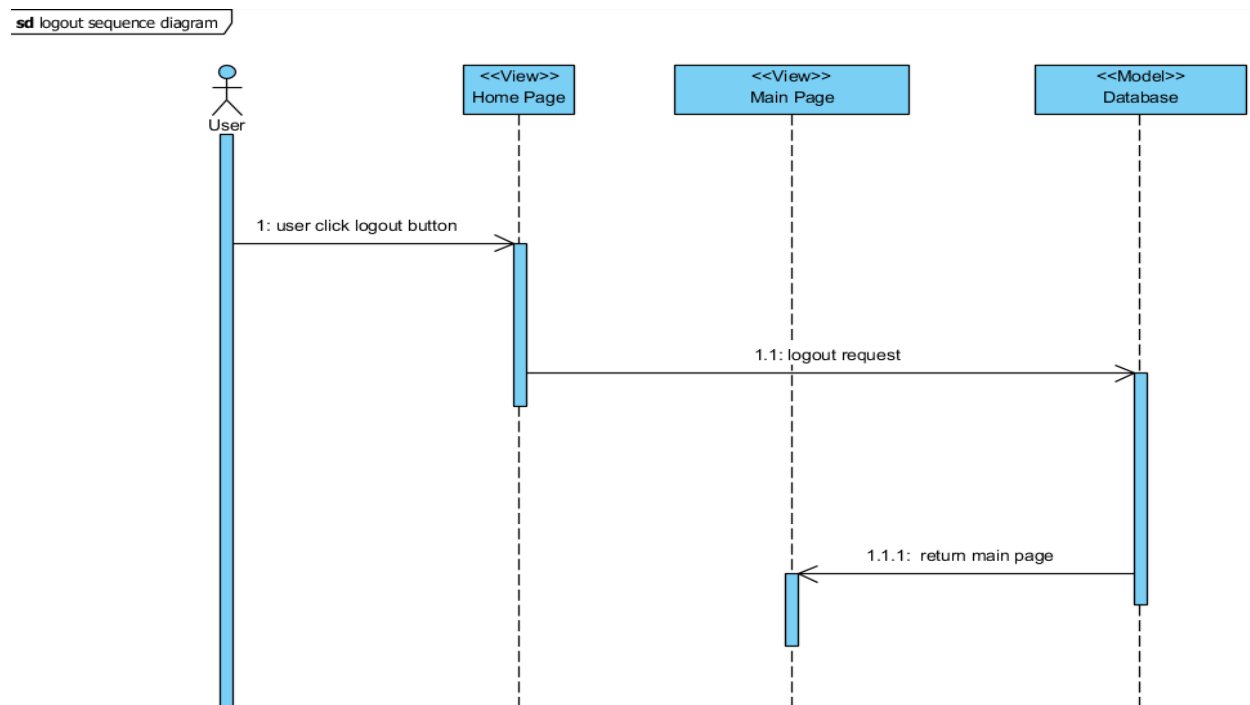
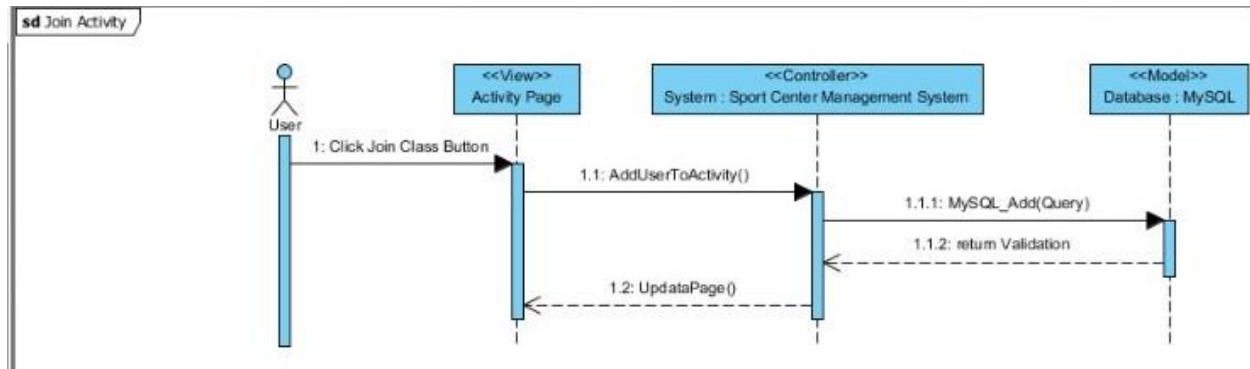
Sequence Diagrams:



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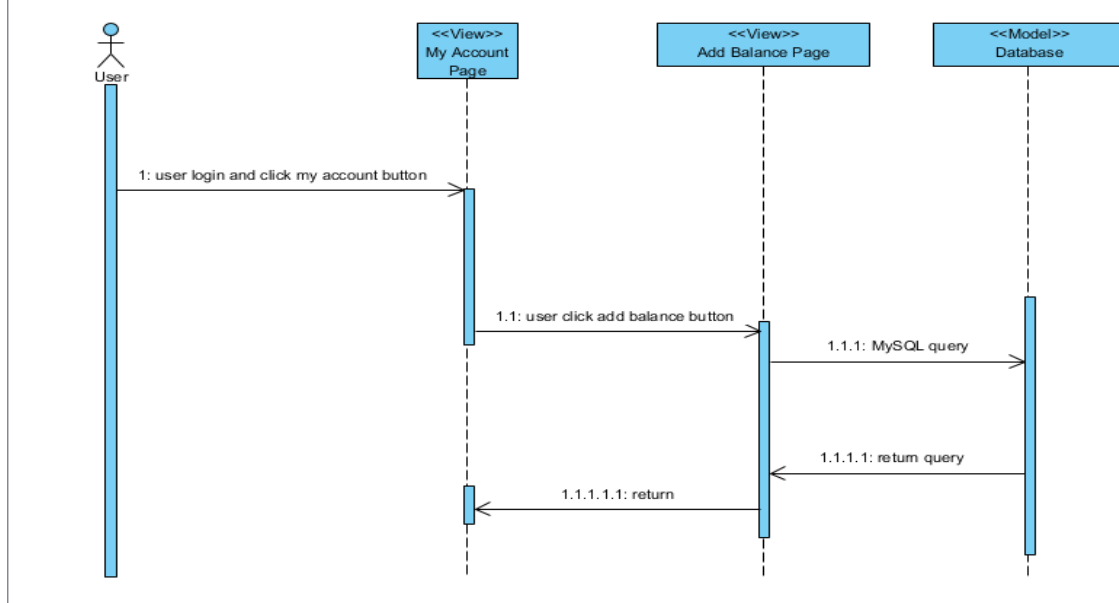


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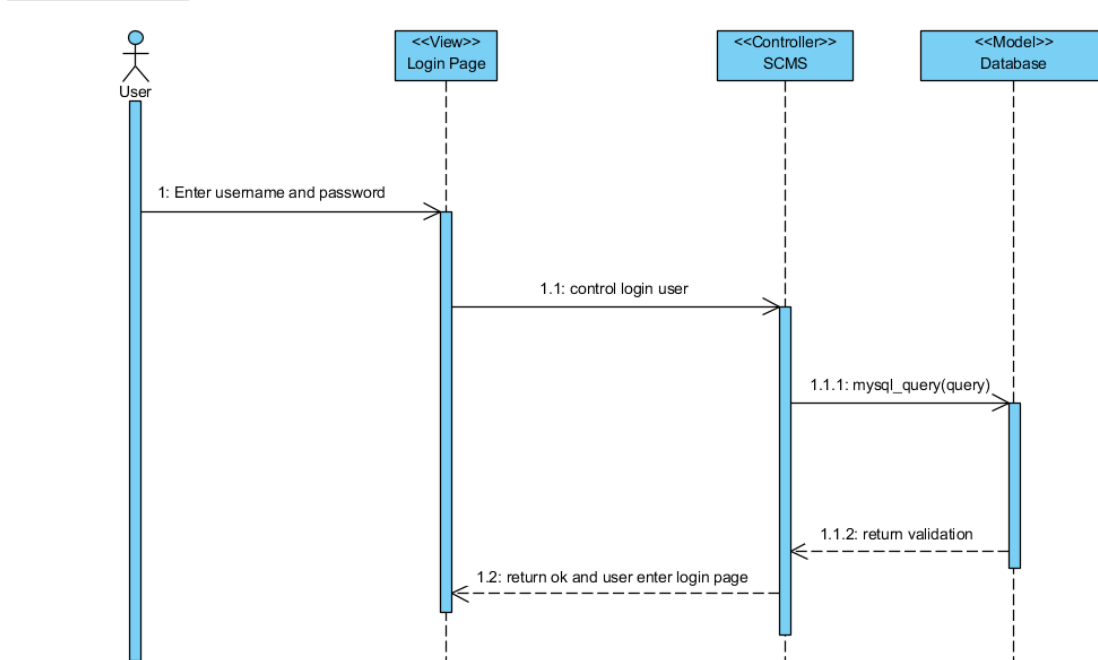


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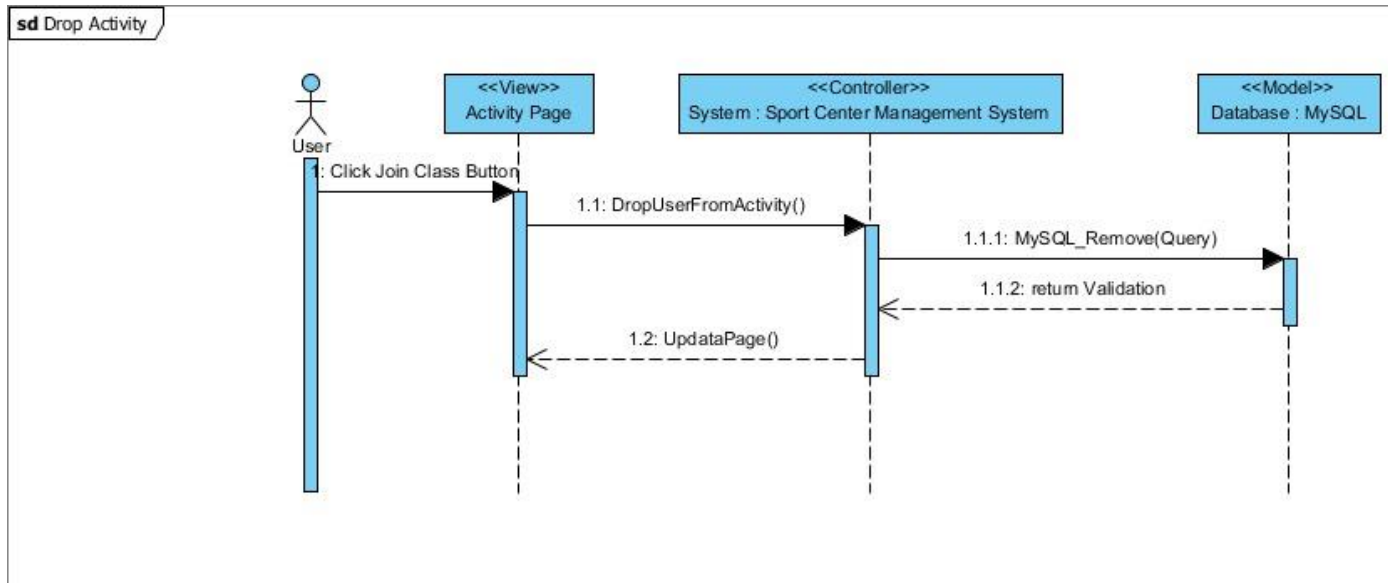
sd payment sequence diagram



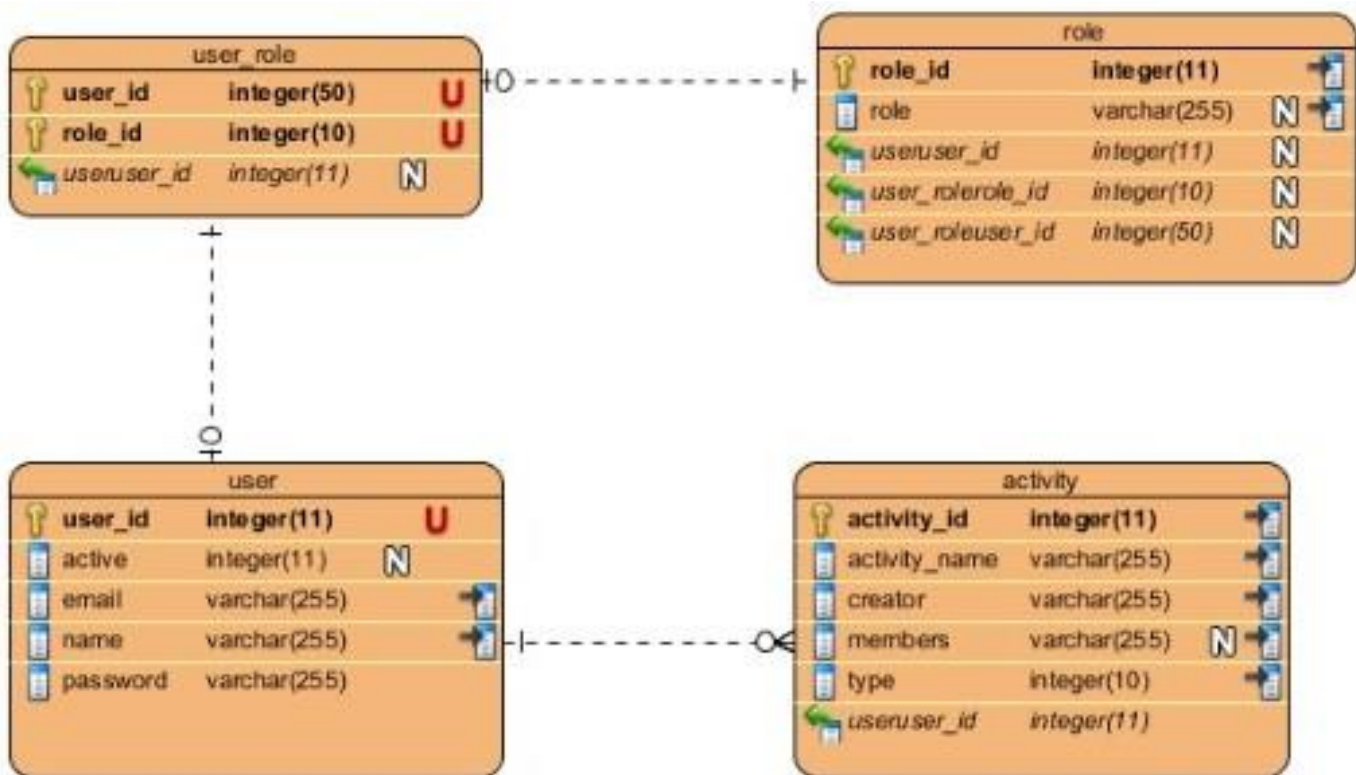
sd login sequence diagram



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4.3 Data Model (ER Diagram)



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4.4 User Interface Design

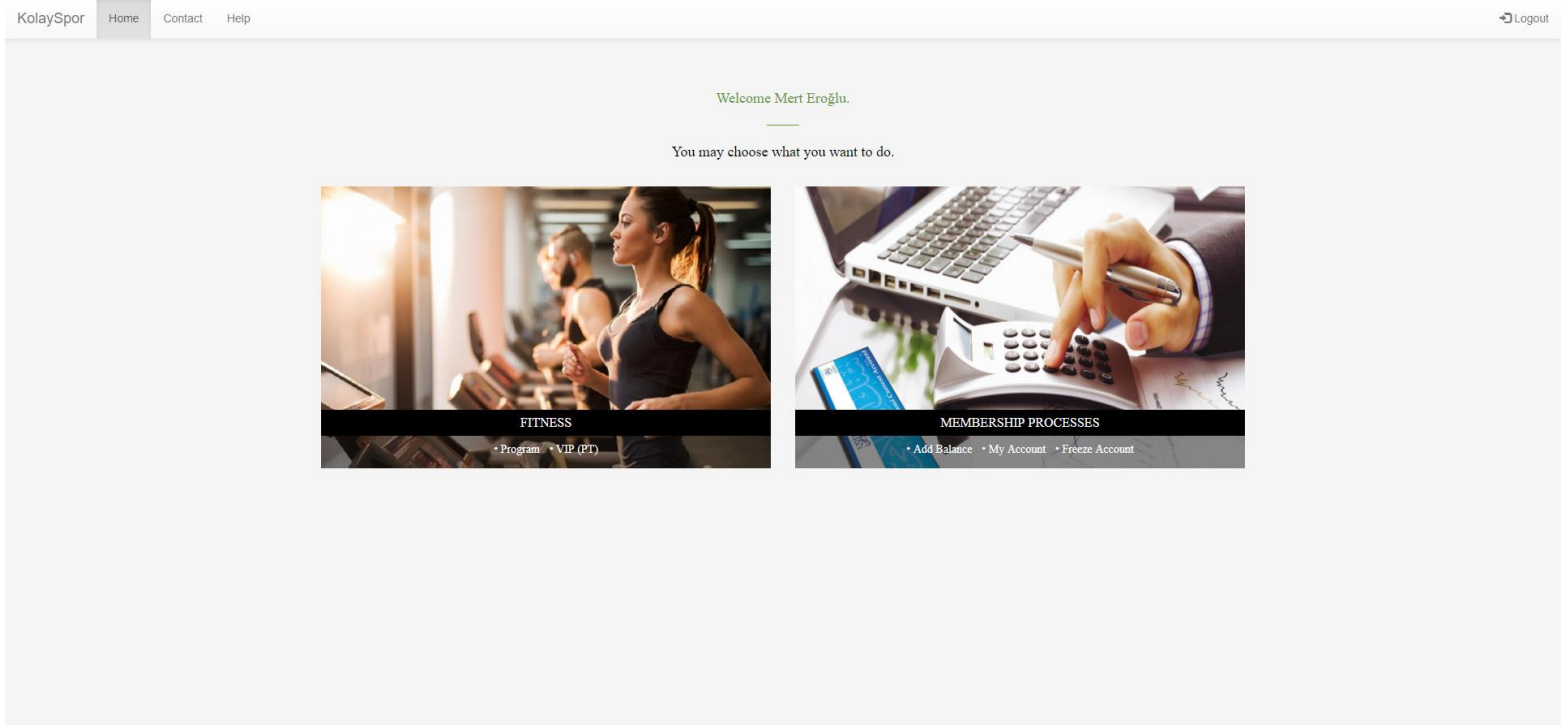


Figure 1 : KolaySpor User's Home Page

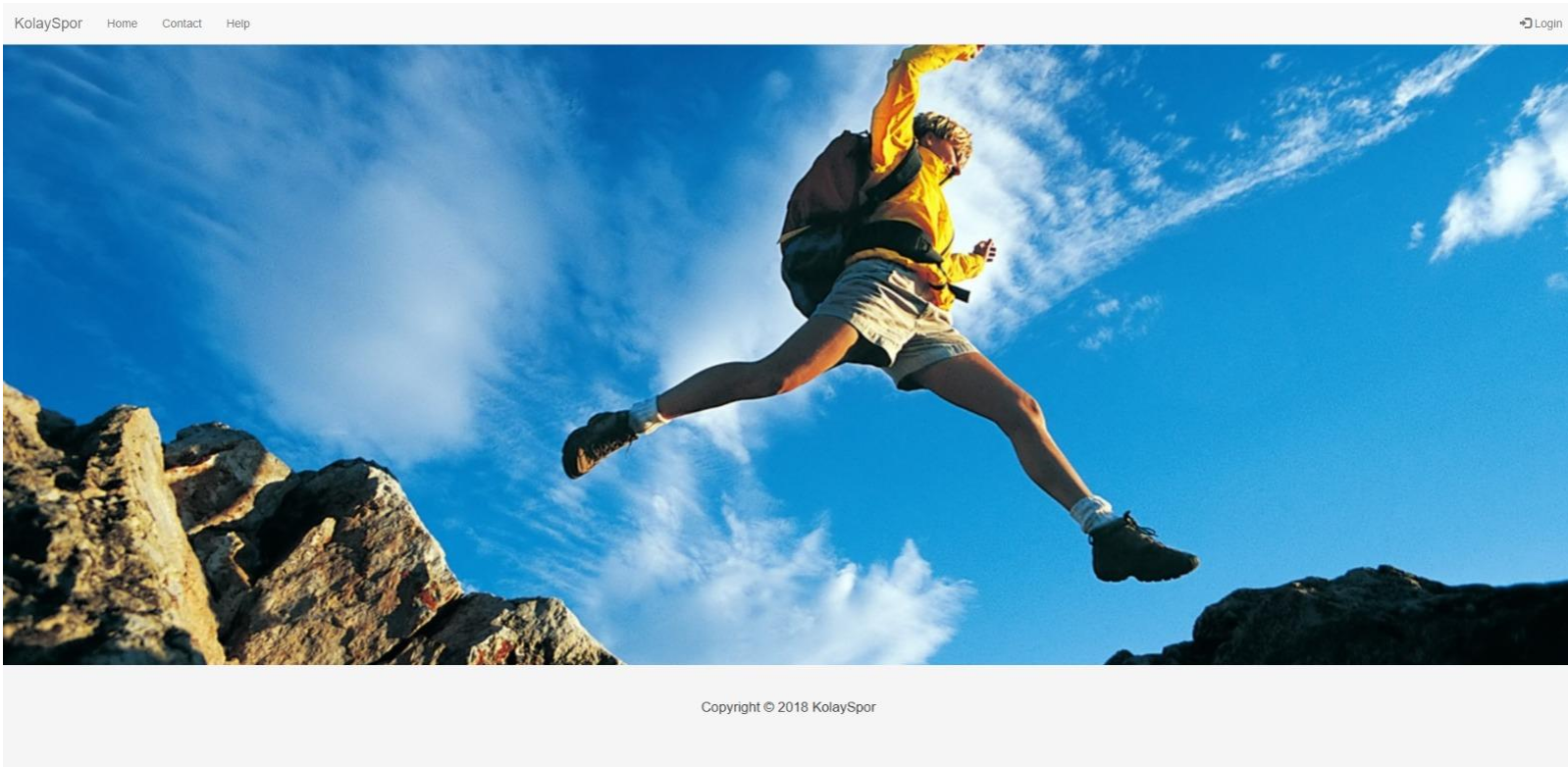


Figure 2 : KolaySpor Main Page

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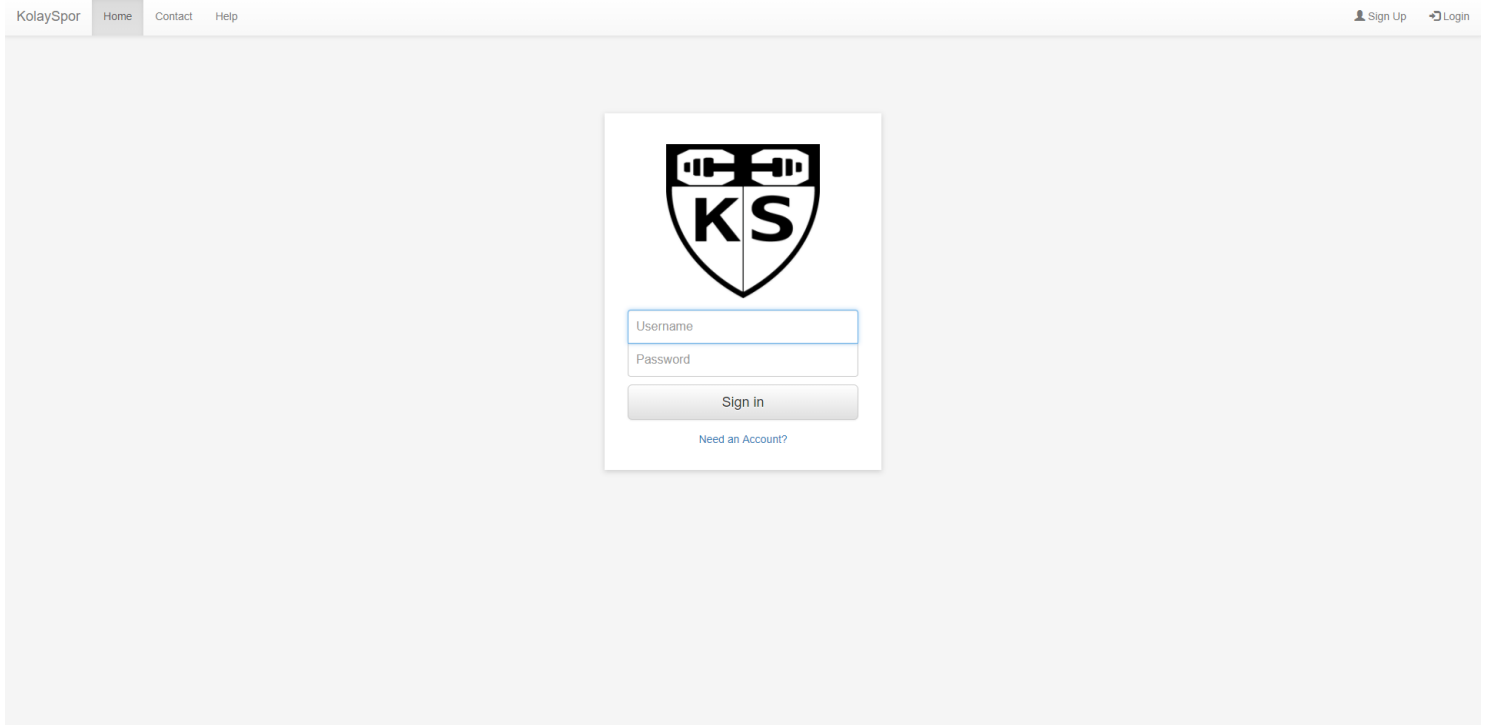


Figure 3 : KolaySpor login Page

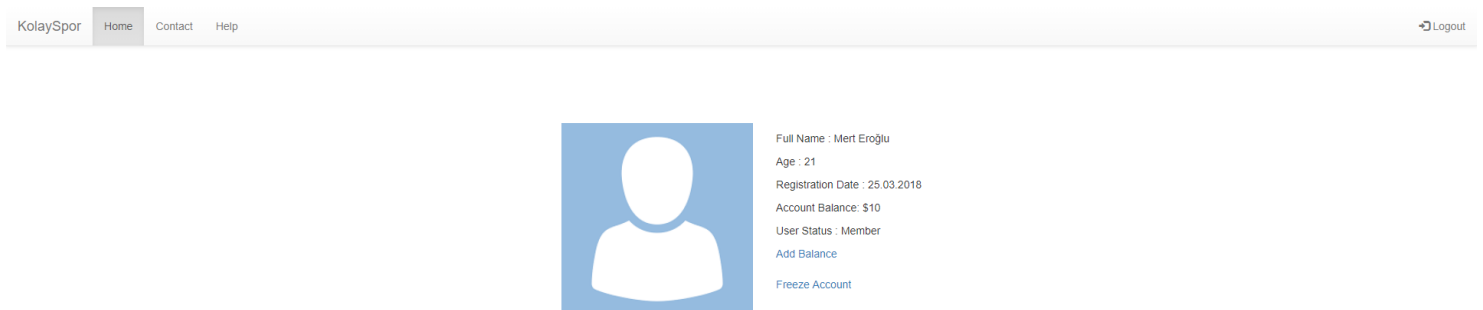


Figure 4 : KolaySpor MyAccount Page

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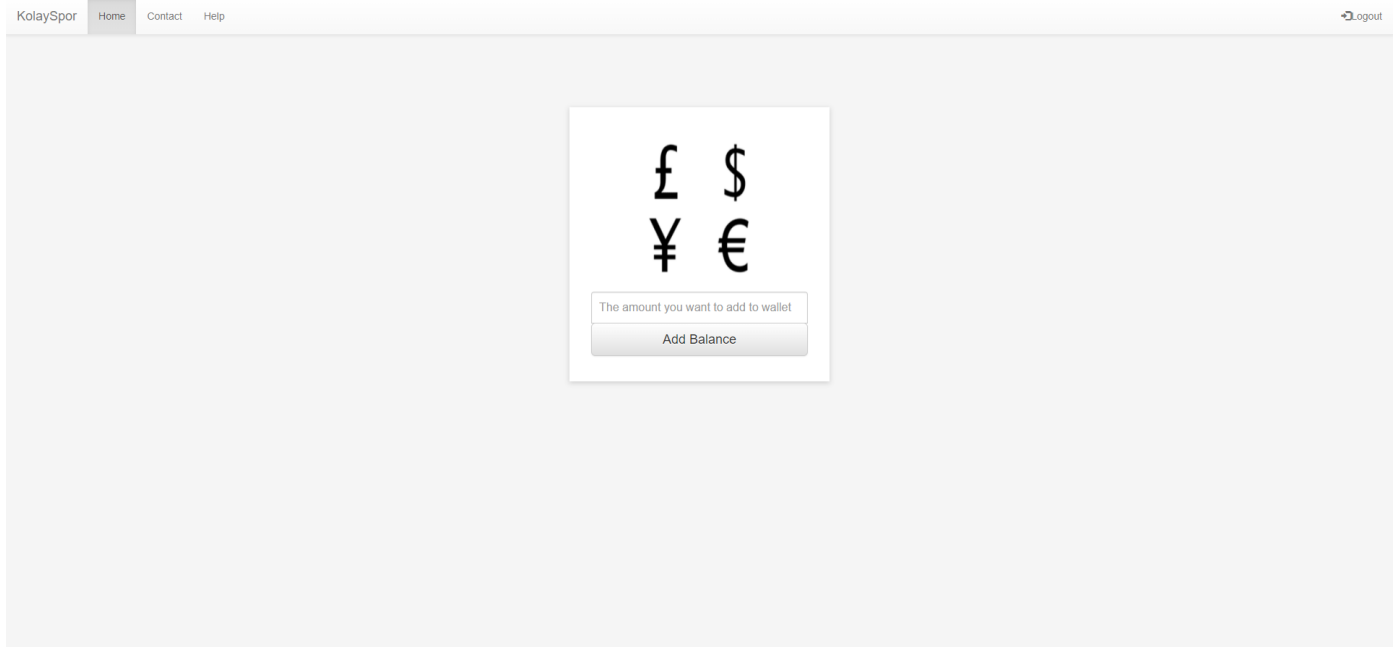


Figure 5 : KolaySpor Add Balance Page

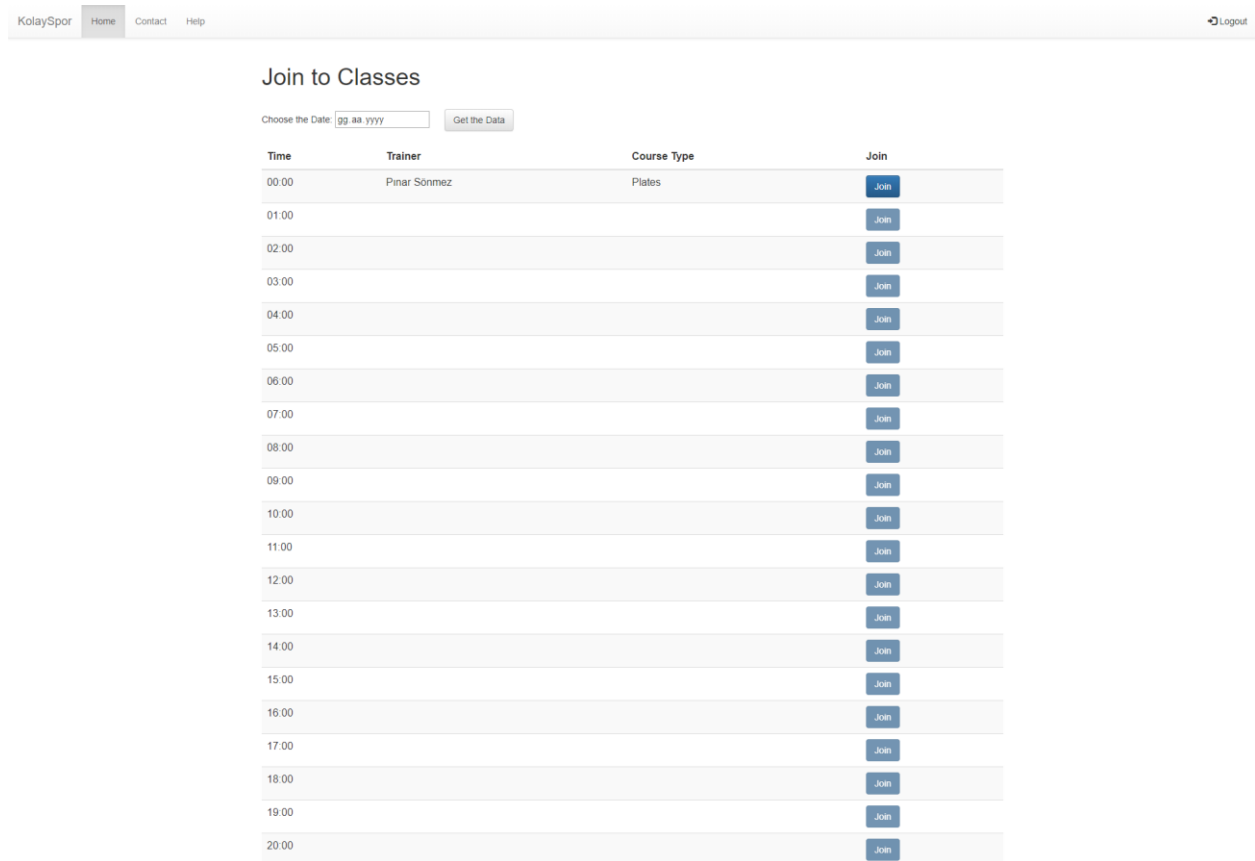


Figure 6 : KolaySpor ActivityJoin Page

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Manage Activities

Choose	Course Date	Course Hour	Members	Cancel
<input type="checkbox"/>	12.03.2018	15:00	Can Berk Sürmeli, Ege Berke Balseven	<button>Cancel</button>

Create Course

Choose Date: Choose Hour: Create as Regular Course Create as VIP Course

Figure 7 : KolaySpor Trainer'sActivityManage Page

KolaySpor Home Contact Help

Logout

Manage Users

Choose	Member ID	Full Name	Email	Status	Telephone
<input type="checkbox"/>	1	Mert Eroglu	dev@merteroglu.com.tr	Root Admin	444-1-444

Set free member Freeze Make Employee Set as VIP Set as Admin Ban

Figure 8 : KolaySpor BranchManager'sManage Page

KolaySpor Home Contact Help

Logout

Choose VIP Courses


Choose the Date: Get the Data

Time	Trainer	Course Type	Join as VIP
12:00	Mine Yilmaz	Yoga	<button>Make Reservation</button>
10:00	Mustafa Ünal	Spinning	<button>Make Reservation</button>

Figure 9 : KolaySpor VIPcourses Page

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KolaySpor Home Contact Help Sign Up Login



Contact us

Name

Your E-mail

Your message

Submit

Figure 10 : KolaySpor Contact Page

KolaySpor Home Contact Help Sign Up Login

Frequently Asked Questions

Figure 11: KolaySpor Help Page

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Login

In login page, the design is very simple, two boxes with the information to be entered on their top and login button.

In the login window, the user enters the user name and password. The information entered is checked against the data in the database. If the entered information is correct, then system opens and the default login page is display. If the any information entered is incorrect, then the system displays an error message.

Activity

There are many actions on the activity page, such as adding, deleting, editing etc.

Users can see the activities already added on the screen as a list, If the user wishes to delete an event - if he has authority - he can do this easily by pressing the "delete" button next to the relevant event in the list. If users want to add a new activity, they have to use the tools listed below, they can choose the time and date of the event via Calendar, so they don't have to write date as text. In the adjacent box you can tell the name of your event. Instead of listing events here we Decided on such a design. Then the event is added to the event list by pressing the "submit" button. The most recently added event is added to the bottom of the list.

If users want to edit activity, first they select activity to edit then write new date or new description after that presses "submit" button. The position of the activity remains the same

Administrator Page

The authorized user can change account types of other users here. There is a list of users on the page, and account types are on the bottom as buttons. Each button is designed in different colors, the user first selects the desired account from the top list and then prints the authorized button that he wants to give from the bottom.

In the system, users are not permanently deleted from the database, which is why it is possible to avoid possible security vulnerabilities in the system and reduce the most possible mistakes and errors. Instead, account freezing or prohibition may apply.

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5. Requirements Traceability

	Login page	Main Page	User's Home page	MyAccount page	Add balance page	ActivityJoin Page	Trainer's Activity ManagePage	BranchManager's Manage Page	VIPcourses Page
login	x	x							
logout			x	x	x	x	x	x	x
Create account	x								
Change accounttype								x	
Create activity							x		
Delete activity							x		
Edit activity							x		
Join activity						x			x
Do payment				x	x				
Drop activity							x		