BBM384 -Software Engineering Laboratory

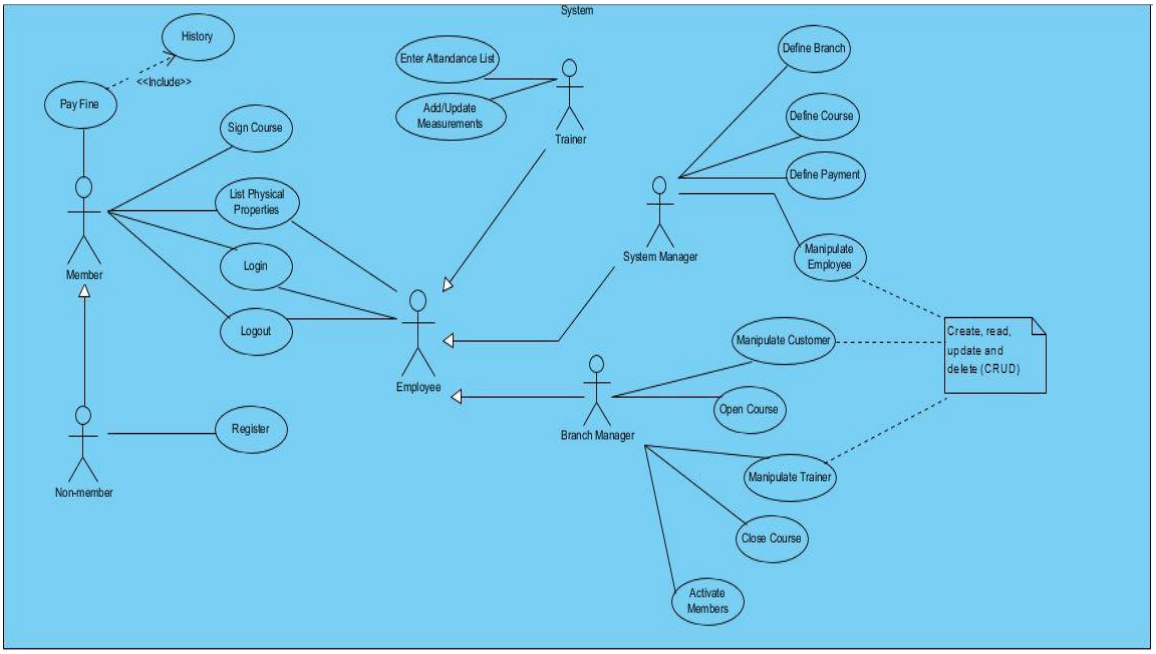
Sports Center Membership System
System-Wide Requirements Specification

Group 4:
Aycan ÖZMEN – 21427248
Muazzez Şule KARAŞLAR-21427066
İlayda KAYA- 21580836
Mustafa DANYILDIZ – 21426845
Uğurcan ÇİFTÇİ -21526863

Sports Center Membership System
System-Wide Requirements Specification

1. Introduction

A System Requirements Specification (SRS) is a document that describes the features and behavior of a system or software application. A SRS is a document that helps establish the foundation for an agreement between participants. It outlines what the overall expectations are and what the software is going to do – and not do. As this document requires a thorough evaluation of requirements before the design phase, it helps to drastically reduce the need to redesign later.



2. System-Wide Functional Requirements

2.1 Auditing

All user transactions will be stored as logs. The system manager control this for situations that should not happen. The system manager gather statistics about which tables are being updated, how many logical I/Os are performed, or how many concurrent users connect at peak times.

2.2 Authentication

Database authentication is the process of confirming that a user who is attempting to log in to a database. System expects them to have unique usernames in registering process. Each user type is only realize activities that he or she has been authorized to do.

2.3 Reporting

All related logs must be reported when an unexpected event occurs. Managers see reports on monthly record of user or record of course.

3. System Qualities

3.1 Usability

This application is designed to provide ease of use. The following items were considered for this:

- Simplicity: There should not be too many options on page layouts. Thus, the user can perform the operation more easily.
- In application all functions should not be visible. Some functions will be hidden in pop-up menus.
- The user must be able to access the hidden functions mentioned in the previous item with one or two clicks.
- Each page will be returned to the main page.
- The current page will have the option to switch to all other pages.

3.2 Reliability

- A backup system will be created for the database. This system allows the data to be backed up periodically. Thus, if there is any problem, data loss will be prevented.
- Regression tests will be applied to ensure that the application works reliably. Regression tests check that existing problems have been eliminated and whether the newly added features are producing an error.
- Tests and backups will be made at regular intervals so that if there is a problem, it will be intervened immediately.

3.3 Performance

It is planned that the user will be able to perform many transactions such as course registration, profile editing, payment processing in maximum 3 or 4 seconds. If this time is exceeded, complexity check will be performed because complexity is the number one factor that impacts response time.

3.4 Supportability

- Users will be able to contact the help support team via e-mail. The incoming mails will be reported at regular intervals and will be replaced by the development team.
- Documentation will be created to inform users.
- A maintenance version will be offered at times deemed appropriate to ensure maintainability.

4. System Interfaces

4.1 User Interfaces

User interfaces have been developed to meet project requirements. The interface communicates with the project software and the users. Designed user interfaces have been added to the Appendix B document.

4.1.1 Look & Feel

The look and feel of the interfaces is a clean and functional application experience for the user. It should be an image that does not disturb the users. For simple and good design, the functionality is divided into different windows or tabs. Which makes it easier for everyone to use.

4.1.2 Layout and Navigation Requirements

Users encounter different functions on all tabs. There are several types of users on the system. Each user has different views according to the type. Windows must contain tabs to other functionalities. The operations to be used are grouped in windows and tabs to combine similar functions.

At the homepage, there are the tabs with the information about the sports hall and login register buttons. Login window, homepage window and user's windows are separated windows. The interfaces of user types have masterpage for convenience.

4.1.3 Consistency

In our product design, windows and tabs are grouped and named according to their contents. Having similar operation buttons placed in the same places makes it easier for users to guess and adapt. It also reduces the time it takes to get used to the product.

4.1.4 User Personalization & Customization Requirements

The system interface will give users different views for members, managers and trainers. It differs in terms of the functionality of the users. When the customer enters the system, the appropriate window will meet him. When the managers enter the system, he will encounter the manipulate screens. In short, creating different users will change the content displayed.

4.2 Interfaces to External Systems or Devices

4.2.1 Software Interfaces

Connect to MySQL database in ASP.Net application with the help of MySQL Connector using C#. We will need to download and install the MySQL Connector in order to connect to the MySQL database in ASP.Net. Inside that you will find the MySql.Data.dll which you need to copy inside the BIN folder of project. And write the connection string to the MySQL Database.

In shortly, Microsoft Visual Studio, MySQL, C#, ASP.NET and MySQL Connector are used to develop this project

4.2.2 Hardware Interfaces

There won't be a hardware interface associated with project.

4.2.3 Communications Interfaces

There won't be a communications interface associated with project. To improve portability, the software can be integrated into a mobile application in the future.

5. Business Rules

5.1.1 Membership status

5.1.2 Maximum time to stay on the system without active

If members do not enroll to any course within 3 months after joining the system, their membership will be deactivate on the system.

5.2 Courses

5.2.1 Time overlapping courses

Users can not register for courses offered at the same time.

5.2.2 Course payments

Each course has a certain fee. Course registration will not be completed until payment is processed.

6. System Constraints

- This application is a web application.
- C# will be used when the application is being developed.
- Asp.net will be used as the framework in this application.
- jQuery library will be used.
- For the database management system MySQL will be used.

7. System Compliance

7.1 Licensing Requirements

The source code can be reached by anyone.

7.2 Legal, Copyright, and Other Notices

The source code can be shared, copied and modified, provided that it is not commercial.

7.3 Applicable Standards

IEEE standards will be considered when the system is being developed.

8. System Documentation

In this application, a user manual will be created for the users.

This user manual contains the may include any of the following for technical users:

- If any the files created by the team that created the system and database accessed during the program's operation.
- Short explanations of the functions and subprograms used in the program.
- A general program structure that explains which pages use which functions.

The user manual for end users contains information about all menus / options in the system, communication and additional support information.