Software Requirements Specification

Version 1.0

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Gym Management System

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# Table of Contents

[Table of Contents i](#_Toc77487619)

[List of Figures ii](#_Toc77487620)

[1.0. Introduction 1](#_Toc77487621)

[1.1. Purpose 1](#_Toc77487622)

[1.2. Scope of Project 1](#_Toc77487623)

[1.3. Glossary 1](#_Toc77487624)

[1.4. References 2](#_Toc77487625)

[1.5. Overview of Document 2](#_Toc77487626)

[2.0. Overall Description 3](#_Toc77487627)

[2.1 System Environment 3](#_Toc77487628)

[2.2 Functional Requirements Specification 4](#_Toc77487629)

[2.2.1 Subscriber Use Case 4](#_Toc77487630)

[Use case: Search Course 4](#_Toc77487631)

[2.2.2 Trainer Use Case 5](#_Toc77487632)

[Use case: Show Profile 5](#_Toc77487633)

[2.2.3 Administrator Use Case 6](#_Toc77487634)

[Use case: Add Course 6](#_Toc77487635)

[2.3 User Characteristics 7](#_Toc77487629)

[2.4 Non-Functional Requirements 7](#_Toc77487649)

[3.0. Requirements Specification 8](#_Toc77487650)

[3.1 External Interface Requirements 8](#_Toc77487651)

[3.2 Functional Requirements 8](#_Toc77487652)

[3.2.1 Search Course 9](#_Toc77487653)

[3.2.2 Show Profile 9](#_Toc77487654)

[3.2.3 Add Course 9](#_Toc77487655)

[3.3 Detailed Non-Functional Requirements 10](#_Toc77487652)

[3.3.1 Logical Strucure of the data…………………………………………………………………11](#_Toc77487667)

3.3.1 Security………………………………………………………………………………………12

[3.3.2 Ease of use 13](#_Toc77487664)

[3.3.3 Safty 13](#_Toc77487664)

[Index 14](#_Toc77487668)

# 

# List of Figures

[Figure 1 - System Environment 3](#_Toc77487669)

[Figure 2 - Logical Structure of the Gym management system 10](#_Toc77487672)

# 1.0. Introduction

## 1.1. Purpose

The purpose of this document is to present a detailed description of the Gym Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do. This document is intended for both the stakeholders and the developers of the system.

## 1.2. Scope of Project

This software system will be a Gym Management System for a local gym. This system will be designed to help the admin that manage data of Subscribers, Trainers, Courses. Admin can publish post about courses, trainers, machines, he can advert about starting a course. Admin add a subscriber who wish to do. Subscribers either have join to another course or be a new subscriber.

## 1.3. Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Subscriber | Someone who comes regularly to the club in order to exercise |
| Trainer | The person who trains the subscriber in the club |
| Database | Collection of all the information monitored by this system. |
| Administrator | The person responsible for managing the club, subscribers and trainer’s information |
| Medical Record | It contains the medical information of subscriber |
| Post | declaration of discounts and courses opening |
| Report | Displays a report on salaries and subscription |
| Course | In it, a group of female subscribers come at the same time for training |
| Software Requirements Specification | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |
| Stakeholder | Any person with an interest in the project who is not a developer. |
| Users | Subscriber or Trainer |

## 1.4. References

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.

## 1.5. Overview of Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

# 2.0. Overall Description

## 2.1 System Environment

Trainer

Administrator

HS DB

Gym Information

Gym Manager

Gym Management System

Subscriber

Figure 1 - System Environment

The Gym Management System has three active actors and one cooperating system. The Trainer and Subscriber accesses to see gym information (posts, profile) through the internet. The Administrator accesses the entire system directly.

## 2.2 Functional Requirements Specification

This section outlines the use cases for each of the active users separately. The subscriber and the trainer have many use cases apiece while the administrator is main actor in this system.

### 2.2.1 **Subscriber Use Case**

#### Use case: Search Course

**Diagram:**

Subscriber

Search Course

**Brief Description**

The Subscriber accesses the Gym Website, searches for a course

**Initial Step-By-Step Description**

Before this use case can be initiated, subscriber has already accessed the Gym website

The Subscriber chooses to search by trainer name or type.

1. The system displays the choices to the Subscriber.
2. The Subscriber selects the course desired.
3. The system views the description of course.

**Xref:** Section 3.2.1, Search Course

### 2.2.2 **Trainer Use Case**

#### Use case: Show Profile

Trainer

Show Profile

**Diagram:**

**Brief Description**

The Trainer accesses the Gym Website and login

**Initial Step-By-Step Description**

Before this use case can be initiated, the Trainer has already connected to the Online Gym Website.

1. The Trainer login to the website
2. The Trainer can visit his profile by profile link.
3. The system show Trainer information .

**Xref:** Section 3.2.2, Show Profile

### 2.2.3 Administrator Use Case

**Use case:** Add Course

**Diagram:**

Admin

Add Course

**Brief Description**

The Admin create post about Add new course or discount on course.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Admin has already login to the dashboard of website and open page Add course.

1. Admin chooses the appropriate trainer according to the type of sport and the trainer spare time.
2. He sends email to the trainer informing him of the new course and asking for his approval.
3. If approved, the course, its times, and the trainer will be announced.
4. Admin adds subscriber who wish to do so.
5. The course begins when the required number is completed.
6. In the event that the trainer is not accepted, he shall choose another trainer.

**Xref:** Section 3.2.5, Add Course

## 2.3 User Characteristics

The Subscriber is expected to be Internet literate and be able to use a search engine.

The main screen of Gym Website will have the search function and a link to “Trainer/Course Information.”

The Trainer is expected to be Internet literate.

The Admin is expected to be Internet literate, to be able to use web pages and expected to be Windows literate and to be able to use button, pulldown menus, and similar tools.

The detailed look of these pages is discussed in section 3.2 below.

## 2.4 Non-Functional Requirements

The website will be on a server with high speed Internet capability. The physical machine to be used will be determined by the manager of Gym. The software developed here assumes the use of a tool such as Laravel for connection between the Web pages and the database. The speed of the Subscriber connection will depend on the characteristics of this system rather than hardware.

`The Admin will run on the search engine PC and will connection with server for SQL Database. Server is already connection with this computer

.

# 3.0. Requirements Specification

## 3.1 External Interface Requirements

It will be here the home interface that contain many links about” Trainers /Courses/Machines/Posts information” and additional to dashboard interface that there are many components as buttons, link, list.

We need to system manage database as SQL Server

## 3.2 Functional Requirements

The Logical Structure of the Data is contained in Section 3.3.1.

### 3.2.1 Search Course

|  |  |
| --- | --- |
| **Use Case Name** | Search Course |
| **XRef** | Section 2.2.1, Search Course  SDD, Section 7.1 |
| **Trigger** | The Subscriber assesses the Online Gym Website |
| **Precondition** | The Web is displayed with grids for searching |
| **Basic Path** | 1. The Subscriber chooses how to search the Web site. The choices are by Trainer and by kind of sport. 2. If the search is by Trainer, the system creates and presents an alphabetical list of all Trainer in the database. 3. The Subscriber selects a Trainer and system display all course that train it and all information that related to him. 4. The Subscriber selects the Course that want to join it. |
| **Alternative Paths** | In step 2, if the Subscriber selects to search by kind of sport, the system creates and presents a list of all kinds in the database.   1. The Subscriber selects a kind. 2. The system creates and presents a list of all Course in that kind in the database. 3. The Subscriber selects the Course that want to join it. |
| **Postcondition** | The Subscriber is demanded the details about The selected course and can liked it. |
| **Exception Paths** | The Subscriber may abandon the search at any time. |
| **Other** | The kinds of sport list are generated from the information provided when course is adverted and not predefined in the Online Gym database. |

### 3.2.2 Show Profile

|  |  |
| --- | --- |
| **Use Case Name** | Show Profile |
| **XRef** | Section 2.2.3, Show Profile  SDD, Section 7.2 |
| **Trigger** | The trainer clicks on link of Show Profile. |
| **Precondition** | The Trainer must be login Gym website. |
| **Basic Path** | 1. The Trainer login. 2. Click to the profile link. 3. The system display trainer information include salary, hired day, administrator who supervisor her and courses information (sport type, time of course, subscribers).. |
| **Alternative Paths** | none |
| **Postcondition** | The Subscriber is demanded the details information like time of specific course. |
| **Exception Paths** | none |
| **Other** | None |

### 3.2.3 Add Course

|  |  |
| --- | --- |
| **Use Case Name** | Add Course |
| **XRef** | Section 2.2.5, Add Course  SDD, Section 7.4 |
| **Trigger** | The Admin selects to add a new course to the database. |
| **Precondition** | The system display adds course interface that admin can adding a new course. |
| **Basic Path** | 1. Admin chooses the appropriate trainer according to the type of sport and the trainer spare time. 2. He sends email to the trainer informing him of the new course and asking for his approval. 3. If approved, the course, its times, and the trainer will be announced. 4. Admin adds subscriber who wish to do so. 5. The course begins when the required number is completed. |
| **Alternative Paths** | 1. In step 3, In the event that the trainer is not accepted, Admin shall choose another trainer. |
| **Postcondition** | The system saves new course and member of this course in the Gym database. |
| **Exception Paths** | If it doesn’t have required number is completed, admin delete course. |
| **Other** | None |

## 3.3 Detailed Non-Functional Requirements

### 3.3.1 Logical Structure of the Data

The logical structure of the data to be stored in the internal Article Manager database is given below.

supervision

supervision

administrator

Train

subscriber

trainer

exercise

publish

have

device

course

advert

Figure 4 - Logical Structure of the GYM Manager Data

The data descriptions of each of these data entities is as follows:

**Trainer Data Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of principle Trainer |  |
| ID | Integer | ID number of Trainermember |  |
| Email Address | Text | Internet address |  |
| Phone | Integer | Phone of trainer | May be several |
| Birthday | Date |  |  |
| salary | Integer |  |  |
| Certification | Category | Certification that trainer has it | May be several |
| Image | Text | Image of trainer |  |
| Hours\_work | Integer | Sum hours of all course that train it. |  |
| Hour\_cost | Integer | Cost of one hour |  |
| Kind of sport | Text | Kind of sport that trainer play it. | May be several |

**Course**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Id | Integer | Id of course |  |
| Sport type | Text | Type of sport for course |  |
| Subscribe type | Text | Either daily or monthly |  |
| Subscribe cost | Integer |  |  |
| Created\_at | Date | Date of starting course |  |
| Finished\_at | Date | Date of finishing course |  |

**Subscriber**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| ID | Integer | ID number of Subscriber  member |  |
| Email Address | Text | Internet address |  |
| Phone | Integer | Phone of trainer | May be several |
| Birthday | Date | Birthday of Subscriber |  |
| Full\_name | Text | Name of subscriber |  |
| Contents | Text | Body of article | Contains Abstract as first paragraph. |
| UserName | Text | Username of account subscriber |  |
| Password | Text | Password of account subscriber | Needs Copyright form returned |
| Work\_place | Text | If he has job |  |
| Image | Text | Image of subscriber |  |

**Admin**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of Admin | Name |
| ID | Integer | ID number of Admin member | ID |
| Email Address | Text | Internet address | Email Address |
| Phone | Integer | Phone of Admin | Phone |
| UserName | Text | Username of account Admin |  |
| Password | Text | Password of account Admin |  |
| Image | Text | Image of Admin |  |
| Salary | Integer | Salary of Admin |  |
| Certification | Category | Certification that trainer has it | May be several |

**Device**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| ID | Integer | ID number of devices | ID |
| Type | Text | Type and description about device |  |
| State | Text | State of device |  |

**Advert**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| ID | Integer | ID number of adverts | ID |
| title | text | Title of advert |  |
| Context | Text | description of advert |  |
| Created At | Date | Date begin discount of course |  |
| Ended At | Date | Date end discount of course |  |

### 3.3.2 Security

The server on which the Gym website resides will have its own security to prevent unauthorized *write*/*delete* access. There is no restriction on *read* access. The use of email by a Trainer is on the client systems and thus is external to the system.

3.3.3 Ease of use

We take care not to complicate the interfaces and use colors that are comfortable to the eye of the beholder.

3.3.4 Safety

Protecting the system from unauthorized access in order to preserve the privacy of the data, so that the permissions are given only to the director.

Speed in data processing

System response within a short period.