Software Requirements Specification

for

A Yoga Centre

Version 1.0 approved by me

Prepared by me

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# Introduction

## Purpose

This SRS describes the functional and nonfunctional requirements for software release 1.0 of the Yoga Center. This document is intended to be used by the members of the project team who will implement and verify the correct functioning of the system. Unless otherwise noted, all requirements specified here are committed for release 1.0.

## Document Conventions

No special typographical conventions are used in this SRS.

## Project Scope and Product Features

The System will permit Authorized individuals to schedule yoga classes and assign members to said classes either manually or automatically. A detailed description is available in the *Yoga Center Vision and Scope Document* [1], along with the features that are scheduled for full or partial implementation in this release.

# Overall Description

## Product Perspective

The Yoga Center Project aims to create a thriving hub for yoga enthusiasts and individuals seeking to enhance their physical and mental well-being. By offering diverse classes, personalized instruction, workshops, wellness services, and fostering a strong sense of community, the center will provide a comprehensive yoga experience that caters to the needs of individuals at all levels. With its serene environment and commitment to promoting holistic health, the Yoga Center will be an ideal destination for those looking to embark on or deepen their yoga journey..

## User Classes and Characteristics

|  |  |
| --- | --- |
| Trainee (favoured) | Characteristics: Individuals who attend yoga classes and utilize the services offered by the yoga center.  Needs and Preferences: Seek a welcoming and inclusive environment for practicing yoga. Have varying levels of experience, from beginners to advanced practitioners. Look for classes that align with their skill level and goals, whether it's building strength and flexibility, stress reduction, or overall well-being. |
| Trainers | Characteristics: Certified and experienced yoga teachers who lead classes at the yoga center.  Needs and Preferences: Have in-depth knowledge of various yoga styles, postures, breathing techniques, and meditation practices. Seek a supportive environment that encourages professional growth and ongoing learning. May require access to training resources, continuing education programs, and opportunities for collaboration with other instructors. |
| Admin | Characteristics: Individuals responsible for the overall management and administration of the yoga center.  Needs and Preferences: Possess organizational and managerial skills to ensure smooth operation of the center. Responsible for scheduling classes, managing registrations, and maintaining the center's facilities and resources. Require effective communication and customer service skills to address inquiries, handle payments, and provide information to users and trainers. |

## Operating Environment

OE-1: The System shall operate correctly with the following web browsers: Windows Internet Explorer versions 7, 8, and 9; Firefox versions 12 through 26; Google Chrome (all versions); and Apple Safari versions 4.0 through 8.0.

OE-2: The System shall operate on a server running the current corporate-approved versions of Red Hat Linux and Apache HTTP Server.

OE-3: The System shall permit user access from the corporate Intranet, from a VPN Internet connection, and by Android, iOS, and Windows smartphones and tablets.

## Design and Implementation Constraints

CO-1: The system’s design, code, and maintenance documentation shall conform to the Process Impact Intranet Development Standard, Version 1.3 [2].

CO-2: The system shall use the current Microsoft SQL Server database engine.

CO-3: All HTML code shall conform to the HTML 5.0 standard.

## Assumptions and Dependencies

AS-1: The Yoga Center is open from 6AM to 4PM with all classes optimally be available at the predetemined time

DE-1: Technological Infrastructure: The project may depend on technological infrastructure such as a website, online scheduling and registration system, payment processing, and customer relationship management tools. The availability and reliability of these systems impact the center's efficiency and user experience.

DE-2: Facility and Infrastructure: The project depends on securing a suitable facility with adequate space for yoga studios, changing rooms, storage, and other amenities. The availability and condition of the facility influence the center's operations and the user experience.

DE-3: User Feedback and Satisfaction: The project depends on receiving feedback from users to assess their satisfaction levels and make necessary improvements. User satisfaction and positive reviews are vital for attracting new users and retaining existing ones.

# System Features

## Users Features

User Registration:

Inputs: User-provided information such as name, contact details, and preferences.

Outputs: User account creation with login credentials.

Description: Users provide their personal information and preferences to create an account in the system. This feature allows users to access personalized features and make use of the yoga center's services.

Class Management:

Inputs: Users can search for classes based on specific criteria such as date, time, instructor, class type, and skill level. The system presents a list of available classes matching the user's preferences.

Booking and Reservation:

Inputs: User-selected classes and booking requests.

Outputs: Confirmation of class reservations, waitlist notifications, and class reminders.

Description: Users can select and book desired classes from the available schedule. The system confirms the booking, notifies the user of successful reservation, manages waitlist requests, and sends reminders for upcoming classes.

Payment and Billing:

Inputs: User-selected payment method and details.

Outputs: Secure payment processing, generation of electronic receipts.

Description: Users provide their payment information and select a payment method to complete the transaction for class bookings. The system securely processes the payment and generates electronic receipts as proof of payment.

Account Management:

Inputs: User-provided updates to personal information and preferences.

Outputs: Updated user profile and booking history.

Description: Users can manage their account information, including updating personal details and preferences. They can also access and review their booking history within their accounts.

## Trainers Features

[Some features described here may already be described in section 3.1.]

Trainer Profiles:

Inputs: Trainer-provided information, such as bio, certifications, and class offerings.

Outputs: Published trainer profiles visible to users, including availability.

Description: Trainers can create and manage their professional profiles, including their bio, certifications, specialties, and class offerings. The system publishes their profiles, making them visible to users, along with their availability for classes.

Class Management:

Inputs: Trainer-provided class details, including class type, duration, location, and specific requirements.

Outputs: Published class schedules, including class information and availability.

Description: Trainers can create and manage their classes, providing necessary details such as class type, duration, location, and any specific requirements. The system publishes the class schedules, making them available for users to book.

## Administrator Features

Dashboard and Analytics:

Inputs: Data from various system components, such as user registrations, class bookings, and financial transactions.

Outputs: Comprehensive analytics, reports, and visualizations to monitor and manage the overall performance of the yoga center.

Description: The admin dashboard provides a centralized interface for administrative staff to monitor and manage the yoga center's operations. It presents analytics, reports, and visualizations based on data from user registrations, class bookings, and financial transactions.

User and Trainer Management:

Inputs: User-provided registration details, trainer-provided information and updates.

Outputs: User and trainer account management, access privileges, and communication preferences.

Description: Admins can manage user accounts, including registrations, access privileges, and communication preferences. They can also oversee trainer profiles, certifications, availability, and class assignments.

Class and Schedule Management:

Inputs: Admin-provided class details, including class type, duration, location, and specific requirements.

Outputs: Published class schedules, including class information and availability.

Description: Admins can create and update the overall class schedule, including adding new classes, modifying timings, and assigning trainers. They also ensure accurate scheduling, manage class capacities, and allocate resources as needed.

Payment and Billing Management:

Inputs: Payment-related data, such as user payments, refunds, and billing inquiries.

Outputs: Tracking of payments, processing refunds, and managing billing-related tasks.

Description: Admins track and manage user payments, monitor overdue payments, and handle billing inquiries. They can process refunds or issue credits for canceled classes or payment discrepancies.

Communication and Notifications:

Inputs: Announcement content, notifications, and updates.

Outputs: Delivery of announcements, notifications, and updates to users and trainers.

Description: Admins can send announcements, newsletters, or general updates to users and trainers via email or notifications. They ensure effective communication between the yoga center and its users and trainers.

# Data Requirements

## Logical Data Model

## Data Dictionary

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## Reports

### Class reservation report

|  |  |
| --- | --- |
| Report ID: | YC-RPT-1 |
| Report Title: | Yoga Class Booking History |
| Report Purpose: | The report provides a list of previously booked yoga classes at the yoga center over a specified time period. It allows users to review their booking history and track the classes they have attended. |
| Priority: | Medium |
| Report Users: | Patrons |
| Data Sources: | Database of class bookings |
| Frequency and Disposition; | The report is generated on demand by a user and contains static data. It is displayed on the user's web browser screen on a computer, tablet, or smartphone. |
| Latency: | Complete report must be displayed to Patron within 3 seconds after it is requested. |
| Visual Layout: | Landscape mode |
| Header and Footer: | Report header shall contain the report title, Patron's name, and date range specified. If printed, report footer shall show the page number. |
| Report Body: | Fields shown and column headings:   * Booking ID * Class * Date * Class Time * Class Type * Instructor * Name * Booking Status (Confirmed, Waitlisted, Canceled)   Selection Criteria: date range specified by Patron, inclusive of end points  Sort Criteria: reverse chronological order |
| End-of-Report Indicator: | None |
| Interactivity: | Users can click on a booking to view additional details about the class, such as location, duration, and any specific requirements. |
| Security Access Restrictions: | Users can only retrieve their own booking history and cannot access other users' information. |

## Data Integrity, Retention, and Disposal

DI-1: Validation: Ensure that all data entered into the system is accurate, complete, and follows defined data validation rules.

DI-2: Access Control: Implement access controls to ensure that only authorized individuals can modify or update data.

DI-3: Error Handling: Implement appropriate error handling mechanisms to detect and address data inconsistencies or discrepancies. External Interface Requirements

## User Interfaces

UI-1: The Yoga Center Systems screen displays shall conform to the *Process Impact Internet Application User Interface Standard, Version 2.0* [3].

UI-2: The system shall provide a help link from each displayed webpage to explain how to use that page.

UI-3: The webpages shall permit complete navigation and classes/trainer selection by using mouse and keyboard combinations.

## Software Interfaces

SI-1: Class Overview Interface

SI-1.1: Shows an overview of available classes

SI-1.2: Allows the user to choose specific class

SI-1.3: Allows the user to reserve the specifically chosen class

SI-2: Payment System

SI-2.1: Shows an interface for payments to a class

SI-2.2: Allows the user to be redirected to a payment page for that payment

SI-2.3: Allows the user to be able to view the history of his/her payments

## Hardware Interfaces

No hardware interfaces have been identified.

## Communications Interfaces

CI-1: The system shall send an email or text message (based on user account settings) to the Patron to confirm acceptance of a reservation, price, and scheduled timetable (if applicable).

CI-2: The System shall send an email or text message (based on user account settings) to the Patron to report any problems with the class reservation.

# Quality Attributes

## Usability Requirements

USE-1: The system to allow the user to be able to attend to a registered class without failure

USE-2: 99% of new users shall be able to successfully reserve a class without errors on their first try.

## Performance Requirements

PER-1: The system shall accommodate a total of 400 users whilst expecting an expansion within the next release and a maximum of 100 concurrent users during the peak usage time window of 9:00 A.M. to 10:00 A.M. local time, with an estimated average session duration of 8 minutes.

PER-2: 90% of webpages generated by the system shall download completely within 4 seconds from the time the user requests the page over a 20Mbps or faster Internet connection.

PER-3: The system shall display confirmation messages to users within an average of 3 seconds and a maximum of 6 seconds after the user submits information to the system.

## Security Requirements

SEC-1: All network transactions that involve financial information or personally identifiable information shall be encrypted per BR-33.

SEC-2: Users shall be required to log on to the System for all operations except viewing a menu.

SEC-3: Only authorized individuals shall be permitted to work with schedules.

SEC-4: The system shall permit Patrons to view only reservations that they placed.

## Safety Requirements

SAF-1: The user is guaranteed

## Availability Requirements

AVL-1: The system shall be available at least 98% of the time between 6:00 A.M. and midnight local time and at least 90% of the time between midnight and 6:00 A.M. local time, excluding scheduled maintenance windows.

## Robustness Requirements

ROB-1: If the connection between the user and the system is broken prior to a new reservation being either confirmed or terminated, the system shall enable the user to recover an incomplete request and continue working on it.