

Software Requirements Specification

(SRS) Document

UNCG Group Fitness

09/26/2024

Version 1

Trinity Boler, Jennifer Galicia-Torres, Natalie Hildreth

1. Project General Description

The UNCG Group Fitness app is designed to enhance the fitness experience for UNCG students by allowing them to easily sign up for a variety of fitness classes led by qualified instructors. The app provides essential class information, including materials needed and schedules, helping students find options that align with their availability and comfort levels. Instructors have the ability to create, modify, and delete classes, while administrators can oversee content to ensure a safe environment for all users.

The motivation behind the app is to encourage students to improve their health and well-being by providing a personalized fitness experience. By allowing individuals to select classes based on their preferences, intensity, and instructor comfort, the app aims to promote a culture of wellness and support among the UNCG community. Ultimately, the UNCG Group Fitness app serves as a vital tool for fostering student engagement in physical fitness activities.

2. Product Features

Class Sign-Up: UNCG students can browse and register for fitness classes tailored to their preferences, helping them find options that align with their schedules and comfort levels.

Class Details: Each class includes a description and information on materials required and provided by the instructor, ensuring students are well-prepared.

Instructor Management: Instructors can create, modify, or delete classes, as well as schedule them at specific times. This flexibility allows for a diverse range of fitness options.

Administrative Oversight: Administrators can manage class content and communications, ensuring a safe and supportive environment for all users by flagging and removing inappropriate content.

Personalized Scheduling: The app addresses availability issues by allowing students to choose classes based on their schedules, desired intensity, and instructor comfort level.

3. Functional requirements:

- FR0: The app will allow UNCG students to create a profile.
- FR1: The app will allow UNCG students to modify their profiles.
- FR2: The app will allow UNCG students to view, search, and sign up for fitness classes.
- FR3: The app will allow UNCG students to view instructor announcements and profiles.
- FR4: The app will allow UNCG students to write reviews on completed classes.
- FR5: The app will allow all instructors to create a profile.
- FR6: The app will allow all instructors to modify their profiles.
- FR7: The app will allow instructors to create and edit a fitness class.
- FR8: The app will allow the instructors to view the created fitness class.
- FR9: The app will allow the instructors to create and post announcements.
- FR10: An administrator (SysAdmin) will be assigned to manage our app and keep it environmentally -friendly, safe, and inclusive.
- FR11: The app will allow the SysAdmin to view users profiles and information.
- FR12: The app will allow the SysAdmin to delete users if needed.
- FR13: The app will allow the SysAdmin to view services and remove inappropriate listings.
- FR14: The app will allow the SysAdmin to view, reply, and delete reviews.
- FR15: The app will allow the SysAdmin to view analytics and manage activity across the System.

4. Non-functional product requirements:

- NFR0: Ease of Use: The interface for creating and managing classes should be user-friendly, with clear steps for each action (create, edit, delete). A calendar view should help instructors see all their classes at a glance.
- NFR1: Notification System Add/Drop: Instructors should receive instant notifications when students register, cancel, or communicate about a class.
- NFR2: Notification System created: Instructors should receive instant notifications when a class is created
- NFR3: Ease of Student Use: The interface for students to sign up and view all pages will be user friendly and concise, with clear understanding of each icon within the home page.
- NFR4: Instant Search Options: Students will be able to search for different options, sorting between instructors and classes.
- NFR5: Ratings for Students: Students will only be able to write reviews on completed classes. Students can read reviews before signing up for classes in order to gain more information about the class before signing up.
- NFR6: The SysAdmin will authenticate themselves by logging in with their username and password, but also making sure that they are being admitted into the app as an admin and not a user.
- NFR7: Notification System for SysAdmin: SysAdmin should be alerted if a new user, review, class, or flagged comment was created.
- NFR8: The SysAdmin will have a clear and concise board of data upon login and manage the activity that is happening within the app.

5. Scenarios:

a. Student Use Cases - Natalie Hildreth

- I. **Create Student Profile:** This use case lets customers create or modify their “profile”. The customer may be allowed to add information about their needs/preferences.
 - Initial Assumption:
 - We are assuming that the individual signing up for the UNCG Group Fitness app is a student currently attending UNCG. We assume the student has a mobile phone or computer with access to the internet. The student is on the login page of the app.
 - Normal:
 - Upon clicking the option “Sign Up for Students” below the login screen, the student fills out required fields, including their name, username, UNCG email, and password. The student then saves their new information, and the app confirms the successful creation of the profile.
 - What Can Go Wrong:
 - If any fields are left blank, the profile will not be able to be created.
 - Errors may arise if the information is entered incorrectly.
 - Profile creation may fail if there are connectivity issues.
 - Other Activities:
 - The student will agree to the terms and conditions and agree that they are currently a student at UNCG.
 - System State on Completion:
 - The student's profile is successfully created and stored in the system. The student is now able to use the UNCG Group Fitness interface, such as viewing the home, search, classes, and profile page.
- II. **Modify Student Profile:**
 - Initial Assumption:
 - The UNCG student is logged into the app with an existing profile, and clicks on the “profile” icon at the top of the page. The student is greeted by their profile page, then the student clicks the option “Modify Profile” to open the profile modification section.
 - Normal:
 - The student can update their username, name, bio, and profile picture. The student then clicks the “Save” option, and the app confirms the changes.
 - What Can Go Wrong:

- Certain fields may not save due to illegal characters. The student will need to manually change these fields or discard changes in order to proceed.
 - Connectivity issues or system errors could cause the changes to be lost.
 - Other Activities:
 - Students can reset their password or view their past fitness classes they have signed up for.
 - System State on Completion:
 - The student's profile will reflect all changes made accurately.
- III. **View Available Classes:** This use case lets a student see a list of available fitness classes. It also lets the student see what other students have said in reviews of classes.
- Initial Assumption:
 - The student is logged in and on the UNCG Group Fitness app main page, or already on the additional classes page located on the UNCG Group Fitness homepage.
 - Normal:
 - The student browses through the list of available classes, viewing descriptions, schedules, instructors, and required materials.
 - The student can read reviews and ratings from other participants.
 - What Can Go Wrong:
 - Available or new classes listed may not load or update due to connectivity issues or server problems.
 - Other Activities:
 - Students can write reviews upon completion of classes.
 - System State on Completion:
 - Upon completion of the classes or home page loading, students will be able to see a list of available classes and know the exact required materials for each class, along with the instructor, time of the class, and intensity.
- IV. **Search for Classes and Instructors:** This use case lets a student search for specific classes and/or instructors according to certain criteria.
- Initial Assumption:
 - The student is logged in and on the UNCG Group Fitness app main page, or already on the more in-depth search page located on the UNCG Group Fitness homepage.
 - Normal:
 - The student can click on the search bar on the home page, and type in a query. If the student is on the search page, they can also type in a subject, but also have access to specific options for search filtering. A student is able to

filter and sort different classes by time, instructor, intensity, and materials.

- What Can Go Wrong:
 - Available or new class sorting filters may not load or update due to connectivity issues or server problems.
 - Active instructors may not load due to connectivity issues or server problems.
 - A student may accidentally press the search/enter button before they are finished writing in their search request. The student can click on the search bar again, and type in their desired result.
- Other Activities:
 - The student can clear search results and start a new search with different filters.
- System State on Completion:
 - Upon completion, the student is presented with a list of classes and instructors matching their search criteria, allowing them to make informed decisions about which classes to sign up for.

V. **Sign Up for Available Classes:** The customer can sign up for a service they choose. The service should be added to the customer's list of added services.

- Initial Assumption:
 - The student is logged in, and is viewing a list of available classes.
- Normal:
 - The student selects the desired class and signs up, adding it to their schedule.
 - The UNCG Group Fitness app will update the class onto the student's profile.
- What Can Go Wrong:
 - Subscription may fail if the class is fully booked or if there are connectivity or server issues.
 - Scheduling conflicts could arise if the student is already booked for another class at the same time.
- Other Activities:
 - The student can cancel their signup for a class at any point.
 - The student can enable notifications for the class.
- System State on Completion:
 - The class is successfully booked, reflected in the student's profile page, and sent a reminder through the app if notifications are from the class.

VI. **Write a Review:** This use case should not be initiated until the student has finished a class that they attended. The student may then write a review that future students may see.

- Initial Assumption:

- The student is logged in, viewing a list of available classes, and has chosen a class that fits their preferences. The student has attended a class and is logged into the app. The class is marked as “completed” in the student’s schedule, and the review feature is enabled. The student has access to the internet and is on the class details page or review section.

- Normal:

- The student navigates to the class details page and selects the “Write a Review” option.
- The student rates the class out of 5 stars and may choose to add additional text. They may comment on their experience, providing feedback on the instructor, class intensity, and overall satisfaction.
- The student submits the review, and it is immediately posted, becoming visible to other students browsing the class.
- If the review is flagged as inappropriate, it will be held for administrator moderation.

- What Can Go Wrong:

- The review submission might fail due to internet connectivity issues or app/server errors.
- The student might accidentally submit the review under the wrong class or unintentionally write incorrect information.
- Reviews containing inappropriate language or offensive content could be flagged, requiring admin approval before posting.
- The application may crash and fail to save the review, causing the student to lose their written feedback.

- Other Activities:

- The student can edit or delete their review if they wish to change their feedback after submission.
- The student can view responses from the instructor or other students to their review.
- The student can reply to other reviews written by students.

- System State on Completion:

- The review is successfully posted under the attended class, and the instructor receives feedback.

b. Provider Use Cases: - Trinity Boler

- VII. **Create/modify/withdraw provider profile:** Allow fitness Instructors to create, modify, or withdraw their profile.
- Initial Assumption: The provider has successfully registered on the UNCG fitness app and has access to their account.
 - Normal:
 - **Create Profile:**
 - Provider logs into their account.
 - Navigate to the "Profile" section.
 - Enters personal details (name, qualifications, services offered).
 - Input contact information (phone number, email).
 - Saves the profile.
 - A confirmation message is displayed.
 - **Modify Profile:**
 - Provider logs into their account.
 - Navigate to the "Profile" section.
 - Edits desired fields (e.g., services offered, availability).
 - Updates contact information if necessary.
 - Saves the updated profile.
 - A confirmation message is displayed.
 - **Withdraw Profile:**
 - Provider logs into their account.
 - Navigate to the "Profile" section.
 - Selects the option to withdraw their profile.
 - Confirms withdrawal (optional feedback may be requested).
 - The profile is removed from the system.
 - A confirmation message is displayed.
 - What Can Go Wrong:
 - **Account Issues:** Provider forgets login credentials, preventing access.
 - **Validation Errors:** Missing required fields during profile creation or modification. Invalid contact information (e.g., incorrect format).
 - **System Errors:** Technical glitches during profile saving (e.g., server timeout).
 - **Withdrawal:** Provider accidentally withdraws their profile and needs to restore it.
 - Other Activities:
 - **FAQ:** Offer tutorials or FAQs on how to create/modify/withdraw profiles effectively.
 - **Customer Feedback:** Enable customers to leave feedback on provider profiles.

- **Profile Review:** Allow providers to review their profiles before saving changes.
 - System State on Completion:
 - **Profile Creation:** The system stores the new provider profile with all entered information.
 - **Profile Modification:** The system updates the provider's profile with new data.
 - **Profile Withdrawal:** The system removes the provider's profile from public view and marks it as withdrawn in the database.
- II. **Create services:** This use-case lets a provider create a new entry to their list of available services.
 - Initial Assumption: The provider is logged into their account on the UNCG fitness app.
 - Normal:
 - **Access Services Section:** Provider navigates to the "Services" section of their profile.
 - **Add New Service:** Provider selects the option to create a new service.
 - **Enters required details:**
 - Service name (e.g., Yoga, Personal Training).
 - Description of the service.
 - Duration (e.g., 30 minutes, 1 hour).
 - Pricing (if applicable).
 - Availability (days and times offered).
 - **Save Service:**
 - Provider reviews the entered information.
 - Confirms and saves the new service entry.
 - A confirmation message is displayed.
 - What Can Go Wrong:
 - **Validation Errors:**
 - Missing required fields (e.g., service name or description).
 - Invalid pricing format (e.g., negative numbers).
 - **Duplicate Entries:**
 - Attempting to create a service with a name that already exists in their profile.
 - **System Errors:**
 - Technical issues preventing the service from being saved (e.g., server errors).
 - Other Activities:
 - **Management:** Allow providers to edit or delete existing services.
 - **Categorization:** Enable providers to categorize services (e.g., group classes, one-on-one training).

- **Feedback:** Allow customers to leave reviews for each service offered.
- System State on Completion:
 - The new service entry is successfully added to the provider's list of available services.
 - The system reflects the updated service list in the provider's profile, making it visible to customers.

III. **View customer statistics:** This use case lets a provider see statistics about their services or customer base.

- Initial Assumption: The provider is logged into their account on the UNCG fitness app and has appropriate permissions to view statistics.
- Normal:
 - **Access Statistics Section:** Provider navigates to the "Statistics" or "Analytics" section of their dashboard.
 - **Select Metrics:** Provider selects the type of statistics they want to view, such as:
 - Total number of customers served.
 - Popular services offered.
 - Customer demographics (age, gender, etc.).
 - Customer attendance rates.
 - Revenue generated from services.
 - **View Statistics:** The system displays the selected statistics in a clear format (graphs, charts, tables). Provider can filter statistics by date range (e.g., weekly, monthly, yearly).
 - **Analyze Data:** The provider reviews the statistics to gain insights into their service performance and customer engagement.
- What Can Go Wrong:
 - **Data Loading Issues:** Statistics take too long to load due to high traffic or technical issues.
 - **Insufficient Data:** No statistics are available if the provider is new and has not yet gotten customers.
 - **Incorrect Statistics:** Data may be inaccurately displayed due to a bug or data retrieval errors.
 - **Access Denied:** The provider may not have the necessary permissions to view certain statistics.
- Other Activities:
 - **Export Data:** Allow providers to download statistics as reports (CSV, PDF).
 - **Set Goals:** Enable providers to set performance goals and track progress against them.
 - **Receive Notifications:** Provide alerts or notifications for significant changes in statistics (e.g., sudden drop in attendance).

- System State on Completion:
 - The provider successfully views the selected statistics.
 - The system accurately displays updated data reflecting the provider's customer interactions and service performance.

IV. **Reply to review:** This use case lets a provider see all of their reviews, and if desired, write a reply to the review (e.g. thanking the customer or explaining any problems noted by a reviewer).

- Initial Assumption: The provider is logged into their account on the UNCG fitness app and has received reviews from customers.
- Normal:
 - **Access Reviews Section:** Provider navigates to the "Reviews" or "Feedback" section of their dashboard.
 - **View Reviews:** The system displays a list of all customer reviews, including ratings and comments.
 - **Select Review to Respond:** Provider selects a specific review they wish to reply to.
 - **Compose Reply:** Provider writes a response (e.g., thanking the customer, addressing concerns, or clarifying issues mentioned). Optionally, the provider can edit or format their reply for clarity.
 - **Submit Reply:** Provider submits the reply. A confirmation message is displayed, indicating the reply has been successfully posted.
- What Can Go Wrong:
 - **Reply Submission Issues:** Technical errors may prevent the reply from being submitted (e.g., server issues).
 - **Character Limit:** The reply may exceed a predetermined character limit, requiring truncation or editing.
 - **Inappropriate Content:** The provider may inadvertently include inappropriate language, leading to rejection of the reply.
 - **Access Issues:** The provider may not see all reviews due to filtering issues or lack of permissions.
- Other Activities:
 - **Flag Inappropriate Reviews:** Allow providers to report reviews that are inappropriate or violate guidelines.
 - **Respond to Multiple Reviews:** Enable bulk actions for responding to multiple reviews at once, if applicable.
 - **Analytics on Reviews:** Provide insights or statistics on review trends (e.g., average rating over time).
- System State on Completion:
 - The provider's reply is successfully added to the specific review.
 - The system updates the review section to reflect the new response, ensuring it is visible to customers.

c. SysAdmin Use Cases - Jennifer Galicia-Torres:

- V. **Manage user access:** This use case lets a Sys Admin manage customer's and provider's access to the system. For example, at the sys admin's discretion, they may ban a customer from using the system for writing unacceptable reviews or ban a provider from the system based upon customer reviews.
- Initial Assumption:
 - We are assuming that the Sys Admin is an individual that has access to our UNCG Group Fitness App System. The Sys Admin will login and enter their credentials. As they are prompted to login, they will insert both the username and password.
 - Normal:
 - If both the username and password were successful, then the login was successful. Once it was verified that the login was successful, they will be prompted to the Sys Admin Home Page.
 - Once they are able to login into the Sys Admin Page, they will be able to have controls such as the User Page.
 - Once in the User Page, this will display the classes that the instructors have posted (which will also display other pivotal information as to when it was posted, when the class is occurring, where is the event taking place)
 - If the Sys Admin were to click on a specific user, this will initially display the users main information as (name, username, password, UNCG email, classes they have signed up for)
 - The Sys Admin will also be granted access to being able to delete users. If a user were to be deleted, this would mean that all of their individual data will be entirely erased from the system.
 - What Can Go Wrong: The Sys Admin inserted something incorrectly either for the username or for the password. Meaning, that it will return that the login entry was unsuccessful. For every time there was an unsuccessful login, it will return back to the beginning of the Sys Admin Home Page.
 - Another instance that something could go wrong would be that the Sys Admin forgot their login information entirely, or either the username or password.
 - An individual who is not a Sys Admin is able to get admitted into the Sys Admin Home Page and System.
 - If a user's account were to be deleted, perhaps the entire information and data about this user does not entirely delete.
 - Other Activities:

- Should have access to see which users have access into the SysAdmin Page/ see which users only have access to the general UNCG fitness mobile app.
- System State on Completion: Upon completion, the Home Page will appear but it will display as the admin Home page. Once granted the home page, the Sys Admin will be able to enter the Admin Page and control various tasks.

VI. **Moderate services:** This use-case lets an admin view services and remove listings that may be inappropriate for whatever reason.

- Initial Assumption: As we enter the services page, the Sys Admin will have access to all of the services that are being offered by the various instructors, the instructors activity among the app, and the users activity among the app.
- Normal: Assuming that everything goes normal, the Sys Admin will be able to see all of the services appear on the services page. These services page include the classes page.
 - Classes Page: Within the classes page you can see. The Sys Admin will also have access to delete classes that have already passed, canceled, or were mistakenly uploaded.
- What Can Go Wrong:
 - Something that could go wrong would be that the services page does not show up entirely.
 - The services page
- Other Activities:
 - The Sys Admin should be able to see what services are being offered in the moment. However, they should also be able to witness which listings are appropriate or inappropriate. If not appropriate, then the Sys Admin will do nothing since it fits in the requirements. If any inappropriate content is detected, the Sys Admin will be able to handle it and delete it.
- System State on Completion: The SysAdmin should be able to see the entire display of the service page. Be able to make pivotal decisions by ensuring the well-being of both the user and the instructor.

VII. **Moderate reviews:** This use case lets a sys admin view all reviews and replies and delete any from the system that are unacceptable.

- Initial Assumption: We can assume that the Sys Admin will want to have access to the review page.
 - As the Sys Admin clicks on the review page, they will also be able to see key details on who wrote the review that they are currently reviewing.
- Normal:

- The review page will be able to display the user's name, the rating of the class that is based out of 5 stars, any additional text that they may have wanted to add, any comments that they left based on their experience, any feedback that they maybe have left for the instructor, the class intensity, and the overall users satisfaction.
 - The SysAdmin should also be able to view if a specific review was flagged in the process of it being posted in the reviews page. If a specific review were to be flagged, the SysAdmin should have the ability to take a look at it, determine if it was inappropriate, and be able to take it down if it was inappropriate or allow the review to be posted upon verification.
- What Can Go Wrong:
 - One thing that could go wrong for the review page would be that a review does contain inappropriate content, but it was not able to have been flagged or revised by the SysAdmin.
- Other Activities:
 - SysAdmin should be able check out the reviews, whether they may be new or old, they should be able to have this access.
 - The SysAdmin should also be able to reply to the reviews, whether that may be offering gratitude to the user or responding with a call to action to create change for better service next time.
- System State on Completion: Once the reviews have been examined for if they were flagged, then they can now be verified and allowed to be posted on our UNCG Fitness app.

VIII. **View usage statistics:** This use case lets a sys admin see how the system is being used.

- Initial Assumption: We are initially assuming that the Sys Admin wants to be able to access key details about the system and the users. We are also assuming that the Sys Admin would like to be able to see more specific information/analytics throughout the UNCG fitness app.
- Normal: The Sys Admin will be able to see all the data, information, and services that were offered to the user.
- What Can Go Wrong:
 - Some of the statistics on either the user or services could be missing. We want to make sure that everything that we have been given can be proven by its existence (make sure that the data is conserved and that as a SysAdmin, they can be able to see it). Therefore, missing information could be bad.

- Other Activities:
 - The statistics will display all of the information of the user.
- System State on Completion: Once the Sys Admin has access to the statistics of the system, they can now view the specific analytics and also manage activity across the website.