

COMP 2663 – Software Engineering 1, Fall 2025

Group Name:

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Project Component 1 - Planning Artifacts

This file is to be used as a basic template for creating your planning artifacts. You may add more to this planning document but do not omit any of these basic sections. **You should include a title page with your group name for this component.**

Please complete this component with your group.

1. Discussion Questions

- a. What are the best and worst experiences your group has had recently which have involved software?

Best:

YouTube Music- clean interface, smooth streaming, offline downloads and personalized recommendations

Amazon- fast search, easy checkout, reliable delivery tracking, and personalized suggestions.

Worst:

DoorDash App- technical issues, cancels orders late, or unexpected delivery delays.

King's transit App- poor real-time tracking, inaccurate bus schedules, and confusing interface.

b. Describe the basic requirements for your project.

Usability: The system needs to have an easy-to-use interface, intuitive, and easy for members, trainers, and admins to use.

Accessibility: The system needs to operate on both desktop and mobile services through a flexible design which supports different screen sizes.

Performance: The system needs to display pages and handle bookings in less than a few seconds.

Security: The system needs to keep user accounts and payment information protected through login protection and encryption.

Scalability: The system should have the ability to handle additional members and classes as the gym expands.

2. Project Story / Concept

a. High level description of the project story / background / conception

We got to the study room and were really just talking while looking for ideas on what project to make, and we started talking about working out and how it can be hard to stay consistent sometimes. I (Welton) remembered an app I've seen some students online use to know track how many hours they study and how cool and useful it must be to track your progress with it and Nabil saw where o was going and said we should make a tracker app for workouts, to which we all agreed. That would of course be a bit too simple, so we then thought to add more features such as workouts, schedules, reminders, analytics, calories burned and all, a membership and more.

- b. Danawe Fitness
- c. Students, Active People, Men
- d. Main Features:
 - Membership management
 - Class booking and scheduling
 - Trainer tools
 - Workout and progress tracking
 - Notifications and reminders
 - Reports and analytics
- e. Success Scenarios

Membership payment:

- a new user signs-up, pays and can immediately access class bookings.
- A member can cancel and renew their membership
- Cancellation of membership disabling future bookings past a certain date but retaining access to records

Class bookings:

- Capability of booking online classes and in-person classes with a limited slot for the presential classes
- Overbooking prevention

Trainer tools:

- Attendance checking for in-person classes and updating records
- Trainer can make a workout plan according to user level

Notification reminders:

- Class reminders 1 hour or 1 day before appointed time

Reports and analytics:

- Popular class reports for admins
- Revenue reports for admins

3. Glossary of Terms

Membership management

Tools and processes that handle a member's account lifecycle, including sign up, renewal and cancellation. Also manages online payments and receipts to ensure smooth financial transactions.

Class Booking and scheduling

A system that allows members to reserve spots in class such as yoga, spin or other group sessions. Includes features to limit the number of participants to avoid overbooking and enables trainers to set and update class schedules.

Trainer tools

A set of features designed for trainers to track attendance, create personalized workout plans and share routines with members for better engagement.

Workout and progress tracking

Functionality that lets members log their workouts or follow pre-made templates. Includes a dashboard showing key stats such as calories burned, sessions completed, and progress over time.

Notifications and reminders.

Automated alerts for important events such as class start times, membership renewals or cancellations. Can be delivered through push notifications or email.

Reports and analytics

Administrative tools that provide insights into gym or studio operations. Include tracking revenue, attendance and identifying the most popular classes for decision making and growth.