

Cairo University

Faculty of Computers and AI



Intro to Software Engineering

Software Design Specifications Template

Team

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Phase 2 – Bullet

Project: Gym system

Software Design Specifications

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Phase 1

Project Idea

- The Gym Management System is a software solution that simplifies gym operations, including membership management, class scheduling, workout tracking, payments, and communication.
- It also allows members to easily book classes, track progress, and access personalized workout and diet plans.
- The system aims to improve efficiency for gym staff and enhance the experience for members, helping them stay on track with their fitness goals.

Problem Definition

- Gyms and fitness centers often struggle to manage their operations smoothly while keeping members engaged.
- Without a single system to handle things like memberships, schedules, and workout tracking, tasks become slow, error-prone, and lack a personal touch.
- This makes it harder for staff to work efficiently and for members to enjoy their experience, affecting both fitness goals and the gym's success.



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Objectives

1. **Easy Account Management:** Let gym owners, trainees, and coaches create and manage their accounts quickly and easily.
2. **Better Staff and Coach Management:** Help gym owners update staff and coach details and schedules without any hassle.
3. **Clear Gym Information:** Show gym details like location, hours, and membership plans so users can easily find what they need.
4. **Simple Session Scheduling:** Allow coaches to set up and manage sessions so trainees can book them smoothly.
5. **Enhance Training Quality:** Use session tracking and feedback to improve training programs and coach performance.
6. **Flexible Membership Plans:** Let gym owners create and update plans, and help users pick the best one for their needs.
7. **Help Trainees Reach Goals:** Provide trainees with workout and diet plans tailored to their goals.



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8. **Helpful Notifications:** Notify users about session updates, cancellations, or other important details.
 9. **Lost-and-Found Help:** Let users report and track lost items at the gym.
 10. **Financial Reports:** Give gym owners reports about income and expenses to manage their business better.
 11. **Find Nearby Gyms:** Let users search for gyms close to their location.
 12. **Fast and Reliable System:** Ensure the system is quick to respond, works smoothly for many users at once, and stays online most of the time.
- These objectives aim to make gym management smoother and improve the user experience for everyone involved.

Stakeholders

1. Gym Owner:
 - Needs: Manage memberships, prices, and schedules easily. □ Expectations: A system that saves time and boosts profits.
2. Coaches:
 - Needs: Access to member details, schedules, and plans.



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- Expectations: A simple system to reduce admin work and improve service.

3. Developers:

- Needs: Clear instructions and easy-to-maintain software. □ Expectations: A system that is scalable and easy to fix or upgrade.

4. Trainees:

- Needs: Create and update profiles, browse available classes, trainers, and time slots, book or cancel classes.
- Expectations: An application or website that is easy to use, Fast and reliable, and reminding notifications.

5. Testers:

- Needs: Clear test cases, documentation, and proper test environments.
- Expectations: A system that works well and has as few problems as possible.

6. Product owner:

- Needs: Clear goals for the product and feedback from users.
- Expectations: A system that is delivered on time, to make sure the right features are built and the product meets customer needs.

User Stories

User Story 1: As a user (a user could be a trainee, coach, or gym owner), I want to register and log in the gym system, so that I can create a portfolio and explore the platform.

User Story 2: As a gym owner, I want to insert coaches into the system, have access to their schedules and contact methods, so that I can monitor them and avoid disruptions in trainee schedules in case of absence.



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User Story 3: As a gym owner, I want to view detailed reports of income, so that I can record financial transactions.

User Story 4: As a gym owner, I want to manage membership plans, like trial or premium with the option of changing their pricing or even the entire plan, so that I can focus on different clients' needs.

User Story 5: As a gym owner, I want to set my gym's operating hours, so that clients know when the gym is open.

User Story 6: As a coach, I want to schedule sessions with my trainees, so I can organize my week effectively.

User Story 7: As a coach, I want to offer both online and offline training sessions, so trainees can choose their preferred training mode.

User Story 8: As a trainee, I want to keep and maintain a history of my training activities, so that I can stay motivated.

User Story 9: As a user (a user could be a trainee, coach, or gym owner), I want to view and compare available gym membership plans, so that I can select the one that suits my needs.

User Story 10: As a trainee, I want to have animated guides for exercises, so that I can accurately follow the exercises.

User Story 11: As a coach, I want to receive feedbacks from my trainees, so that I can improve my routines and workout plans.

User Story 12: As a user (a user could be a trainee, coach, or gym owner), I want to receive notifications of my upcoming sessions updates, cancellation, or substitution, so that I can be prepared beforehand.

User Story 13: As a Gym owner, I want to receive complaints and feedback from my clients about their experience, so that I can work on areas that need improvement.

User Story 14: As a Developer, I want to receive feedback form the end-users occasionally, so that I can address any issues.

User Story 15: As a Gym owner, I want to upload photos and videos of the gym, so that I can show the inside of the gym and the sessions.

User Story 16: As a Trainee, I want to receive personalized diet and protein products recommendations, so that I can reach my fitness goals faster.



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User Story 17: As a user (a user could be a trainee, coach, or gym owner), I want a lost and found tracking feature, so I can report and recover misplaced items.

User Story 18: As a Trainee, I want a customized work out plan for specific goals like “3-week plan to lose 5 kg,” so that I can achieve my desired weight.

User Story 19: As a Trainee, I want to be able to search nearby gym branches, so that I can choose one close to me.

User Story 20: As a Gym owner, I want to view the current equipment and the equipment that will be added, so that I can manage inventory efficiently and plan for future upgrades.

User Story 21: As a Trainee, I want to choose the payment method, so that I can pay using my credit card online or cash at the gym.

User Story 22: As a Trainee, I want to be able to view my workout and diet plans offline, so that I can track them when there is no internet connection.

User Story 23: As a user (a user could be a trainee, coach, or gym owner), I want to have my information saved, so that I can easily sign in every time.

User Story 24: As a user (a user could be a trainee, coach, or gym owner), I want the system to react to my actions in under 2 seconds, so that I have a smooth experience with no delays.

User Story 25: As a user (a user could be a trainee, coach, or gym owner), I want the interface of the system to be intuitive and user-friendly, so that I can use the system easily with no problems.

User Story 26: As a user (a user could be a trainee, coach, or gym owner), I want the system to be available 99.9% of the time, so that I can access it without experiencing unexpected downtimes.

User Story 27: As a user (a user could be a trainee, coach, or gym owner), I want my personal and payment information to be encrypted and securely stored, so that I can feel safe when using the gym system.

User Story 28: As a user (a user could be a trainee, coach, or gym owner), I want the system to be able to support up to 10,000 users concurrently, so that I can use it without noticeable slowdowns or crashes in peak times.

Functional Requirements

Requirement 1: The System should be able to create accounts of the gym owner, trainees, and coaches. (From User Story 1)



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Requirement 2: The Gym owner should have the ability to manage coaches' accounts. (From User Story 2)

Requirement 3: The Gym owner will be able to manage membership plans. (From User Story 4)

Requirement 4: The Trainees should be able to view the gym operating hours. (From User Story 5)

Requirement 5: The Gym owner will be able to view the current equipment and the upcoming ones. (From User Story 20)

Requirement 6: The System should allow the coach to set and schedule their sessions with the trainees. (From User Story 6)

Requirement 7: The System should allow trainees to view workout plans and diets plan. (From User Story 22)

Requirement 8: The System gives the trainee an option to choose the type of training session, whether online or offline. (From User Story 11)

Requirement 9: The System should maintain the history of training sessions associated with every trainee. (From User Story 12)

Requirement 10: The System must allow the gym owner to create and modify plans for membership of the gym. (From User Story 18)

Requirement 11: The System should allow trainees to view membership plans and choose the suitable one. (From User Story 9)

Requirement 12: The Trainees will give feedback on the training session and coaches. (From User Story 11 & 13)

Requirement 13: The System will notify the users regarding updates of their sessions, their cancellations, or substitutions. (From User Story 12)

Requirement 14: The System should provide personalized work-out and diet plans to the trainees based on their goals. (From User Story 18)

Requirement 15: Based on trainee profiles and health conditions, the system will recommend diet and protein products. (From User Story 16)

Requirement 16: The System allows users to report and track lost or found items in the gym. (From User Story 17)



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Requirement 17: The Gym owner should be able to track financial reports and income. (From User Story 3)

Requirement 18: The User will be able to search for nearby gym branches depending on his location. (From User Story 19)

Requirement 19: The Gym owner will have the ability to upload photos and videos showcasing the gym. (From User Story 15)

Requirement 20: The System should display animated guides for separate workouts to keep the trainees on the right track. (From User Story 10)

Requirement 21: The User should be able to choose the payment method whether using credit card or cash. (From User Story 21)

Non-Functional Requirements

Performance Requirements:

- ❖ The system should react to every action that may be performed by the user, like bookings or submitting feedback, within 2 seconds. (From User Story 24)

Usability Requirements:

- ❖ The system interface should be intuitive and user-friendly for gym owner, coaches, and trainees. (From User Story 25)

Availability Requirements:

- ❖ The system should be available 99.9% of the time, reducing the downtime as much as possible. (From User Story 26)

Security Requirements:



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- ❖ The system should ensure secure handling of user data, like encryption of sensitive information such as payment details. (From User Story 27)

Scalability Requirements:

- ❖ The system should handle up to 10,000 concurrent users without performance degradation. (From User Story 28)

Offline workout plans:

- ❖ The trainees should be able to view their workout and diet plans offline. (From User story 22)

Save user info for future actions:

- ❖ The system should save the user information to facilitate future actions and sign in process (From user story 23)

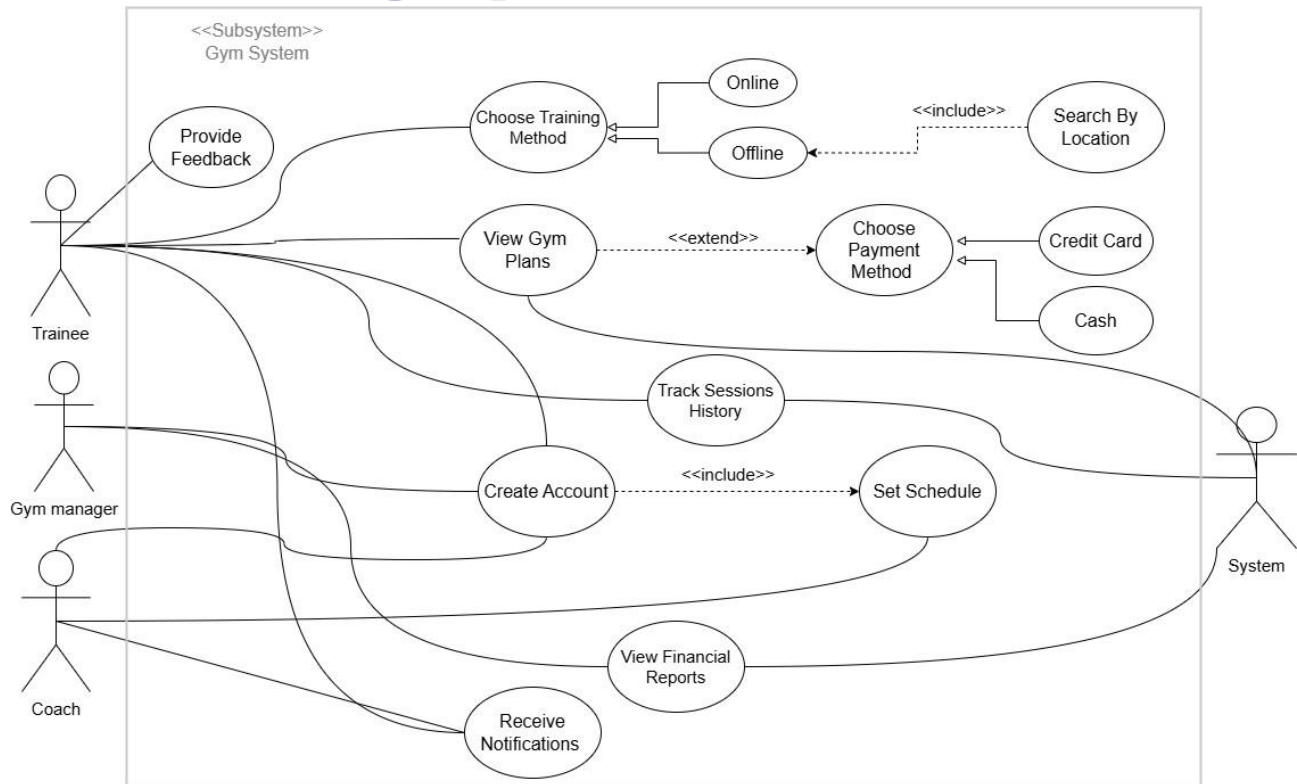
Use case Diagram



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Use Case Tables:

The coding for IDs in the inserted tables follows this format:

RE is an abbreviation for requirement followed by the number of the requirement, then US that stands for User Story that's followed by the number of the user story. For example: RE5-US10 (Requirement 5 – User Story 10)

Use Case Table 1:

Element	Detail
Name	Scheduling Sessions
ID	RE6-US6
Description	The coach sets their training sessions and makes their own schedule and They can update and manage it.
Actors	The Coach
Organization Benefits	Improves session planning and management for better revenue generation through efficient scheduling, reduced session conflicts, and increased client utilization.
Frequency of Use	Daily
Triggers	The coach logs in and taps the 'Schedule Set-up' feature.
Preconditions	<ul style="list-style-type: none">- The coach must log in with their verified account.- There must be a number of trainees assigned to the coach.
Postconditions	<ul style="list-style-type: none">- The schedule is constructed/ updated in the system.- The schedule is displayed to the coach and gym owner once it's done.



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Main Course	<ol style="list-style-type: none"> 1- The coach logs into the system 2- The coach selects the 'Schedule Set-Up' option 3- The coach enters the session details like the date, time, and participants. 4- The system saves the constructed schedule once it's done.
Alternative Course	3.1- If a session timing conflicts with another session's timing, the system prompts the coach to select another time slot.
Exception Course	<ul style="list-style-type: none"> - If the system is unavailable, the coach will handle the schedule set-up manually. - If the coach misses filling a required data field, the system should alert them before confirming the schedule.

Use Case Table 2:

Element	Detail
Name	Type of training sessions
ID	RE8-US11
Description	The trainee should choose the type of workout session to be online or offline (at the gym)
Actors	The trainee and the system
Organization Benefits	This will benefit the gym by increasing the income, attracting a wider audience, improving member satisfaction, and ensuring flexibility.
Frequency of Use	Before choosing the workout session
Triggers	The trainee clicks on the start session option on the dashboard



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Preconditions	The user is assigned to a coach and get a workout plan
Postconditions	The user will start the session whether online or offline (at the gym)
Main Course	1.The system will assign the user (trainee) to a coach. 2.The trainee will get a workout plan according to his goal. 3.The trainee will choose the type of workout session to be online or at the gym.
Alternative Course	3.1- If the trainee didn't select the type of workout session, the system will select a default type according to the vacancy at the gym.
Exception Course	-There is no available vacancy to assign a trainee at an offline session In this case the trainee will not have two options to choose from, he will be assigned to an online session.

Use Case Table 3:

Element	Detail
Name	Provide Personalized Workout and Diet Plans
ID	RE14-US18
Description	The system gives trainees workout and diet plans based on their fitness goals
Actors	Trainee, Admin
Organization Benefits	Ensures the satisfaction of the trainees, supporting them in reaching their personal fitness goals by improving member retention and business growth.



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Frequency of Use	Daily
Triggers	Trainee logs in and selects their fitness goal
Preconditions	Trainee must have an account and set a fitness goal
Postconditions	The system generates and delivers personalized workout and diet plans for the trainee
Main Course	<ol style="list-style-type: none"> 1- Trainee logs into the system. 2- Trainee selects their fitness goal. 3- The system creates a workout and diet plan. 4- The plan is shown to the trainee.
Alternative Course	<p>2.1- If no goal is set:</p> <ol style="list-style-type: none"> 1- System asks trainee to set a goal. 2- Trainee sets the goal, and the system continues.
Exception Course	<p>If trainee enters wrong data:</p> <p>-System shows an error and asks for the correct data</p> <p><i>IF</i> system is down:</p>
	-System shows a message about the issue and estimated fix time.



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Use Case Table 4:

Element	Detail
Name	Submit feedback
ID	RE12-US11-13
Description	The user provides feedback for the session and the coach
Actors	The trainee, coach and gym owner
Organization Benefits	Improves the quality of the training sessions, enhances coach performance, and maintains a better reputation for the gym hence it will help with business' revenue growing.
Frequency of Use	Each time a trainee attends session
Triggers	-When a session ends and the system prompts the user for feedback -The user taps the 'Submit feedback' feature
Preconditions	1.The trainee is logged in to the system 2.The trainee has attended a session
Postconditions	1.The feedback is successfully saved. 2.The coaches and gym owner have access to the feedback.
Main Course	1. Trainee logs into the system. 2. Navigates to the feedback section. 3. Selects session or coach. 4. Provides feedback. 5. Submits feedback. 6. System confirms submission.
Alternative Course	3.1- If trainee cannot find the session, they are prompted to check session attendance details.



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Exception Course	-System error: Display error message and retry option. - Incomplete form: Display a message for the user to fill the required fields.

Scrum Implementation

- The scrum method is a framework for managing and organizing work.
- It is an agile process that focuses on iterative development and incremental delivery of the project to the client. It also depends on setting a set of sprint cycles each with a fixed period of time (usually 2 to 4 weeks).

The project is broken into sprints, each delivering functional increments, for example:

Sprint 1: Completing user account creation and login functionality.

Sprint 2: Adding session scheduling and enabling trainee notifications.

- At the beginning of each sprint, we can add the new customer requirements and assign the priorities.

For example:

Adjustments can be made to prioritize some features, such as feedback, notifications could be enhanced to include more details, like trainer **changes**, **class reminders**, or **membership expiration reminders**.

Product owner:

Jumanah

-Is considered the manager of the project.

-Ensures that the team is productive **Scrum master:**

Rabab

-Is responsible for defining the software features, adjusting and prioritizing them.



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-Decides the release date for the project **Development**

team:

-The team is usually from 5 to 9 people.

-The members can be programmers, testers, UI designers, etc.

Sprint Planning

Task prioritization and sprint duration:

Tasks are prioritized based on their value to end-users and the business. For example:

- **High Priority:** Features like user registration, membership plans, and payment integration are essential for system functionality.
- **Medium Priority:** Features like class scheduling and workout tracking improve the user experience but are less urgent.
- **Low Priority:** Additional features like notifications or interactive workout animation are considered enhancements and can be deferred.
- Complexity and risks are assessed for each task. Higher-risk tasks, such as data security for payment processing, are addressed in earlier sprints to allow sample testing time.
- **Sprint Duration:**
A ten-day sprint duration is chosen. This duration balances providing enough time to complete meaningful increments of work while ensuring frequent opportunities for feedback and adjustments.



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❖ Breaking down user stories **Process:**

Larger user stories are broken into smaller, manageable tasks. For example:

Epic: "Session and Appointment Management"

- Task 1: Allow gym owners/coaches to add, edit, and delete classes.
- Task 2: Allow trainees to choose workout session type.
- Task 3: After choosing the session and its type allow two types of payment method whether by credit card or cash.

❖ Task Effort Estimation

□ Tasks in the gym system are estimated using story points, focusing on their complexity, effort, and uncertainty. ❖ Defining Sprint Goals □ **Process:**

Sprint goals are set by focusing on delivering a specific functional or nonfunctional requirement of the gym system. For example:

- Sprint 1 Goal: " To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their profiles, laying the foundation for additional features."
- All tasks within the sprint are aligned with achieving this goal.

❖ Progress Tracking

- Progress is tracked using a JIRA board with tasks organized into columns: *To Do*, *In Progress*, *Done*.
- Each member will be responsible for the selection of his task status on JIRA.
- Daily stand-ups are conducted to ensure alignment, address blockers, and reassess priorities if needed.

❖ Sprint review

- At the end of each sprint, organize a sprint review meeting with the team and key stakeholders.
- Demonstrate the completed features or tasks, focusing on what was achieved during the sprint.



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- Gather feedback from stakeholders on the delivered increment to ensure it meets requirements and aligns with gym system goals.
- Based on feedback and insights, refine the product backlog by:
 - Re-prioritizing tasks or adding new ones to reflect user needs or business changes.
 - Adjusting task descriptions include details learned from the sprint review.

❖ Standups meetings summary

10/11/2024	Get requirements and assign tasks
14/11/2024	Modify the requirements and user stories
24/11/2024	Design the use case diagram

Agile Methodology

- ❖ The Agile methodology focuses on breaking down software development into small increments which allows continuous delivery of the product to the customer and gives the customer flexibility to add more requirements and for him to give feedback. This method focuses on discovering requirements and improving solutions through the collaborative efforts of self-organizing teams with the customers.
- ❖ Utilizing the Agile method in our project:
 - **Breaking tasks into smaller increments:** larger user stories, like "Session and Appointment Management," is split into tasks such as scheduling sessions, choosing training types, and integrating payment methods.
"Personalized Workout and Diet Plans", is split into smaller tasks such as: collect trainee goals and health information, generate customized workout and diet plans, and display the generated plans to the trainee in their profile.
 - **Flexibility:** New requirements, like notifications or feedback submission, can be added to the product backlog and prioritized in future sprints.
 - **Task Assignment and Prioritization:** Tasks are prioritized based on value to deliver essential features like user registration, membership management, and payment integration quickly

Utilizing JIRA:

- Organizing tasks visually into boards for clarity (To Do, In Progress, Done).
- Prioritizing Tasks for Maximum Value:



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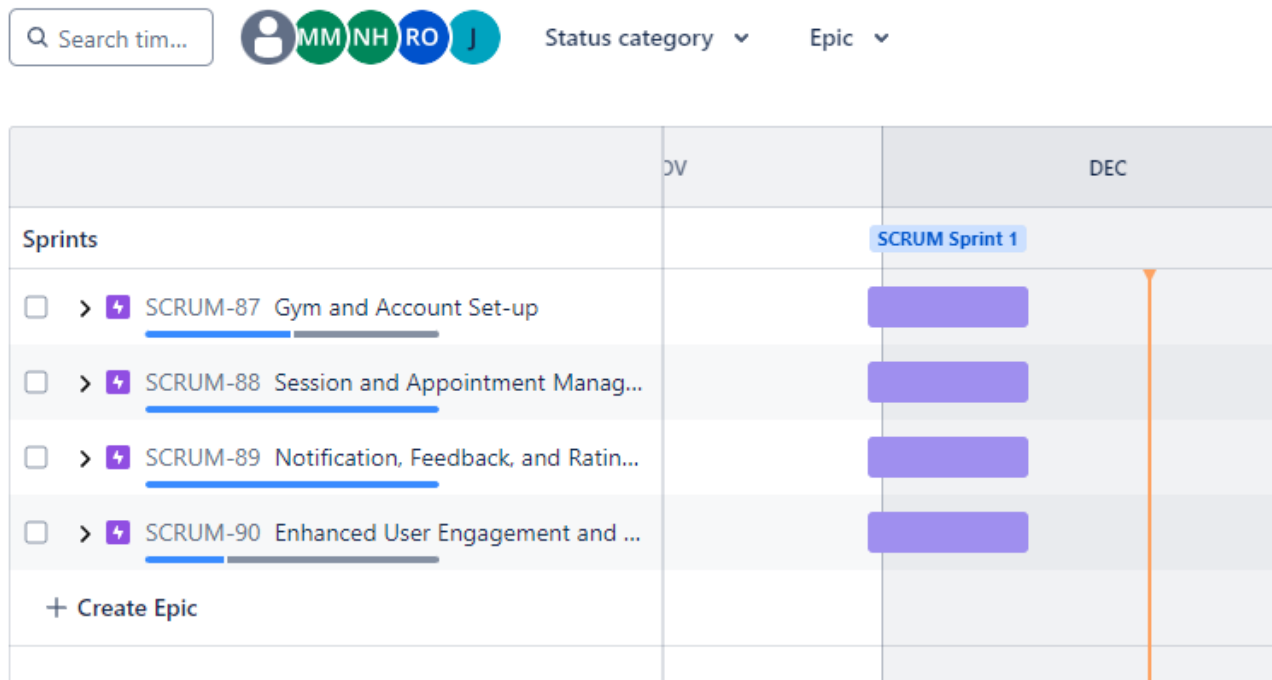
High-priority features, like user login and payment are addressed first to establish core functionality. Lower-priority features, such as animated workout guides, are scheduled for later sprints.

- Assigning and tracking individual responsibilities.
- Ensuring the team remains productive and focused on delivering high-value features quickly.

Jira screenshots:

Projects / Gym system

Timeline





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Backlog

+4 Epic

☐ SCRUM Sprint 1 30 Nov – 10 Dec (24 issues)

0 0 0 Complete sprint

To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their profiles, set schedules and view them, laying the foundation for ...

<input checked="" type="checkbox"/> SCRUM-35 Create Users accounts	GYM AND AC...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-33 Manage gym staff	GYM AND AC...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-69 Schedule sessions	SESSION AND...	IN PROGRESS	-	NH
<input checked="" type="checkbox"/> SCRUM-86 Choose payment method	SESSION AND...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-70 View workout plans	ENHANCED U...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-32 Manage coaches' accounts	GYM AND AC...	TO DO	-	NH
<input checked="" type="checkbox"/> SCRUM-68 View current equipment and upcoming ones	GYM AND AC...	TO DO	-	NH
<input checked="" type="checkbox"/> SCRUM-71 Get personalized diet plans	ENHANCED U...	TO DO	-	MM
<input checked="" type="checkbox"/> SCRUM-72 Choose workout session type	SESSION AND...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-73 Save the history of every trainee's session	ENHANCED U...	IN PROGRESS	-	RO
<input checked="" type="checkbox"/> SCRUM-75 Create and Modify membership plans	GYM AND AC...	IN PROGRESS	-	NH



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Backlog

Q Search	+4	Epic		
✓ SCRUM-83	Search for nearby gym branches	ENHANCED U...	TO DO	MM
✓ SCRUM-82	View financial reports	GYM AND AC...	IN PROGRESS	RO
✓ SCRUM-76	Choose membership plan	GYM AND AC...	TO DO	J
✓ SCRUM-77	Rate training sessions and coaches	NOTIFICATIO...	IN PROGRESS	RO
✓ SCRUM-79	View workout and diet plans offline	ENHANCED U...	IN PROGRESS	J
✓ SCRUM-81	Report and track lost or found items	ENHANCED U...	TO DO	NH
✓ SCRUM-84	Upload photos and videos of the gym	GYM AND AC...	TO DO	MM
✓ SCRUM-34	View Gym operating hours	ENHANCED U...	TO DO	RO
✓ SCRUM-85	Provide animated guides for workouts	ENHANCED U...	TO DO	J
✓ SCRUM-78	Notify the users with updates in the sessions	NOTIFICATIO...	IN PROGRESS	NH
✓ SCRUM-80	Recommend protein products	ENHANCED U...	TO DO	MM
✓ SCRUM-94	Save user info for future actions	ENHANCED U...	TO DO	RO
✓ SCRUM-95	view workout plans offline	ENHANCED U...	TO DO	NH



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SCRUM Sprint 1

To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their pro...



Complete sprint

Search



Epic

GROUP BY

None



TO DO 12

Manage coaches' accounts

GYM AND ACCOUNT SET-UP

✓ SCRUM-32



View current equipment and upcoming ones

GYM AND ACCOUNT SET-UP

✓ SCRUM-68



Get personalized diet plans

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-71



IN PROGRESS 12

Create Users accounts

GYM AND ACCOUNT SET-UP

✓ SCRUM-35



Manage gym staff

GYM AND ACCOUNT SET-UP

✓ SCRUM-33



Schedule sessions

SESSION AND APPOINTMENT MANAGEM...

✓ SCRUM-69



DONE ✓

+ Create issue

Activate Windows
Go to Settings to activate Windows.



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SCRUM Sprint 1

To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their pro...

MM

RO

NH

J

Epic ▾

TO DO 12

Search for nearby gym branches

ENHANCED USER ENGAGEMENT AND SU...

☒ SCRUM-83

=

MM

Choose membership plan

GYM AND ACCOUNT SET-UP

☒ SCRUM-76

=

J

Report and track lost or found items

ENHANCED USER ENGAGEMENT AND SU...

☒ SCRUM-81

▾

NH

IN PROGRESS 12

Choose payment method

SESSION AND APPOINTMENT MANAGEM...

☒ SCRUM-86

↗

RO

View workout plans

ENHANCED USER ENGAGEMENT AND SU...

☒ SCRUM-70

↗

J

Choose workout session type

SESSION AND APPOINTMENT MANAGEM...

☒ SCRUM-72

=

RO

DONE ✓



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SCRUM Sprint 1

To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their pro...

MM RO NH J Epic ▾

TO DO 12	IN PROGRESS 12	DONE ✓
<div><input checked="" type="checkbox"/> SCRUM-81 ▾ NH</div> <div>Upload photos and videos of the gym GYM AND ACCOUNT SET-UP</div> <div><input checked="" type="checkbox"/> SCRUM-84 ▾ MM</div> <div>View Gym operating hours ENHANCED USER ENGAGEMENT AND SU...</div> <div><input checked="" type="checkbox"/> SCRUM-34 ▾ RO</div> <div>Provide animated guides for workouts</div>	<div>Save the history of every trainee's session ENHANCED USER ENGAGEMENT AND SU...</div> <div><input checked="" type="checkbox"/> SCRUM-73 = J</div> <div>Create and Modify membership plans GYM AND ACCOUNT SET-UP</div> <div><input checked="" type="checkbox"/> SCRUM-75 = NH</div> <div>View financial reports GYM AND ACCOUNT SET-UP</div> <div><input checked="" type="checkbox"/> SCRUM-82 = RO</div>	



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To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their pro...

MM

RO

NH

J

Epic ▾

TO DO 12

Provide animated guides for workouts

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-85 ▾ RO

Recommend protein products

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-80 ▾ MM

Save user info for future actions

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-94 = RO

IN PROGRESS 12

View financial reports

GYM AND ACCOUNT SET-UP

✓ SCRUM-82 = RO

Rate training sessions and coaches

NOTIFICATION, FEEDBACK, AND RATINGS

✓ SCRUM-77 ▾ RO

View workout and diet plans offline

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-79 ▾ J

DONE ✓




Phase 2 – Bullet Project: Gym system

Software Design Specifications

Projects / Gym system

SCRUM Sprint 1

To establish the core infrastructure for user management, allowing gym owners, coaches, and trainees to register, log in, and access their pro...

 Epic ▾

TO DO 12

Save user info for future actions

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-94 = RO

view workout plans offline

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-95 = NH

+ Create issue

IN PROGRESS 12

View workout and diet plans offline

ENHANCED USER ENGAGEMENT AND SU...

✓ SCRUM-79 ▾ J

Notify the users with updates in the sessions

NOTIFICATION, FEEDBACK, AND RATINGS

✓ SCRUM-78 ≡ NH

DONE ✓



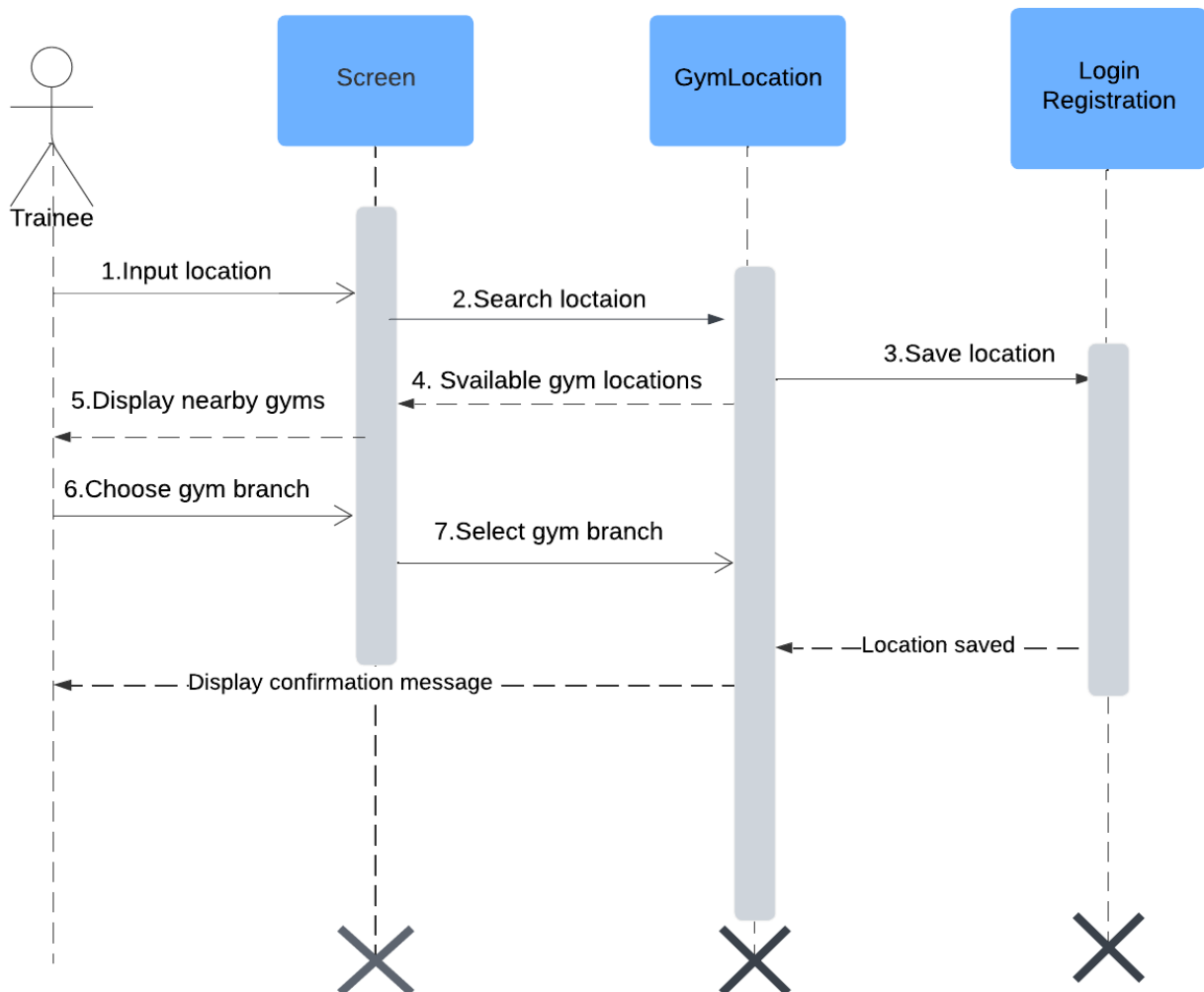
Phase 2 – Bullet

Project: Gym system

Software Design Specifications

Sequence Diagram

1)



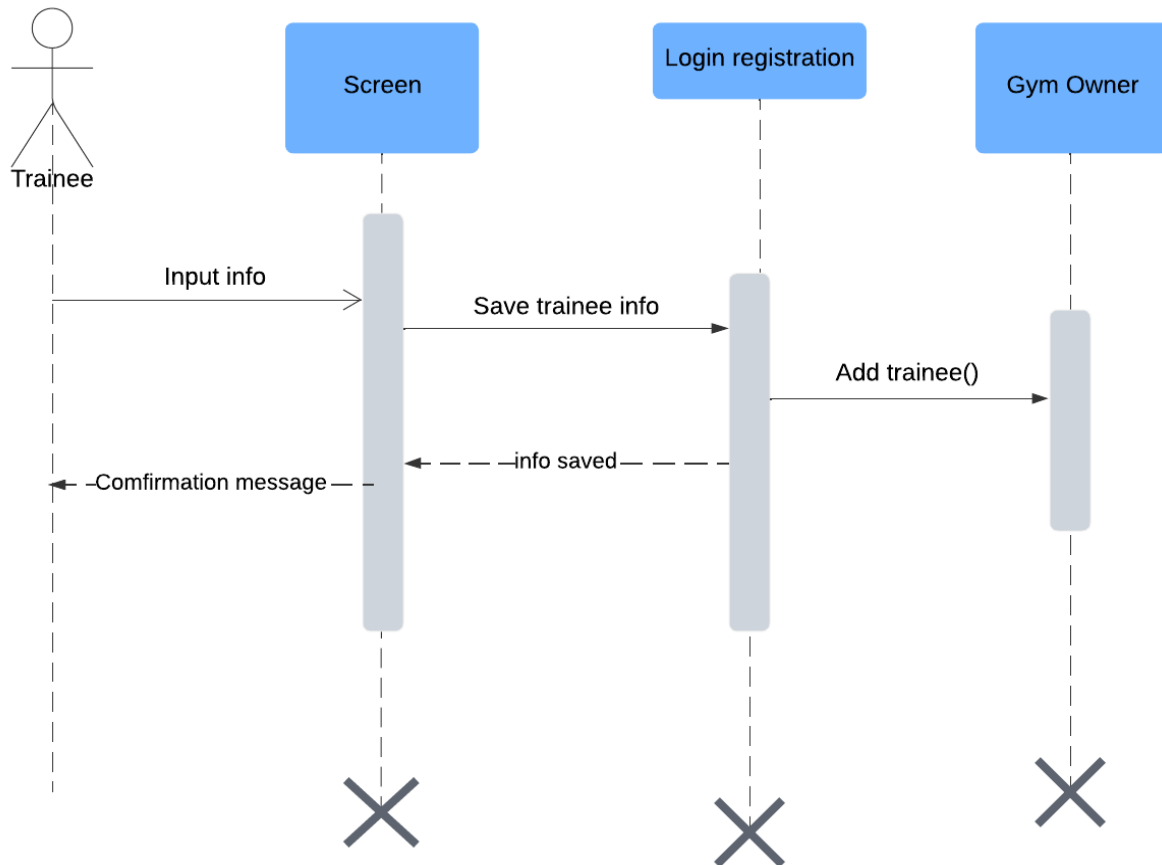


Phase 2 – Bullet

Project: Gym system

Software Design Specifications

2)



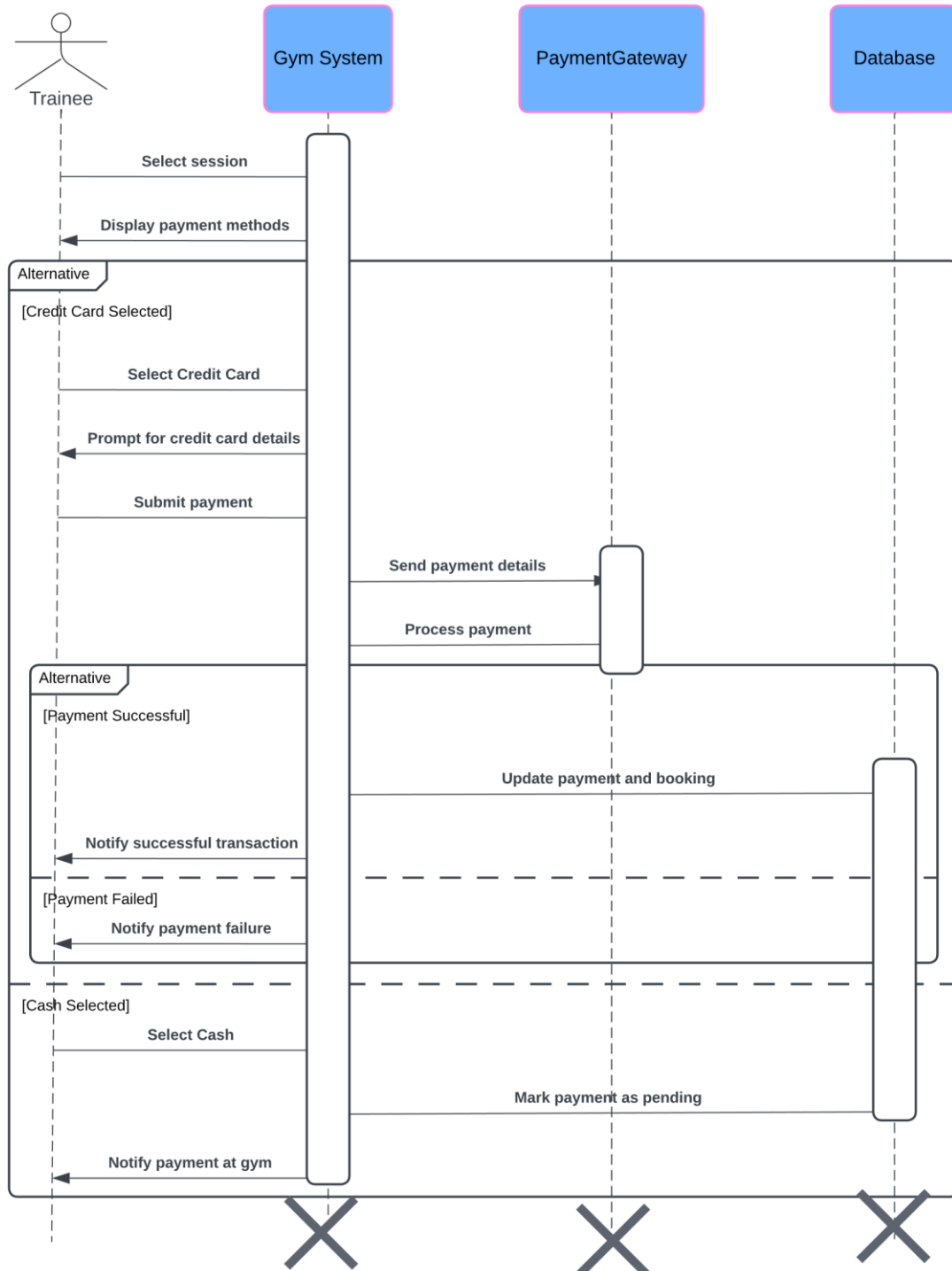
3)



Phase 2 – Bullet

Project: Gym system

Software Design Specifications

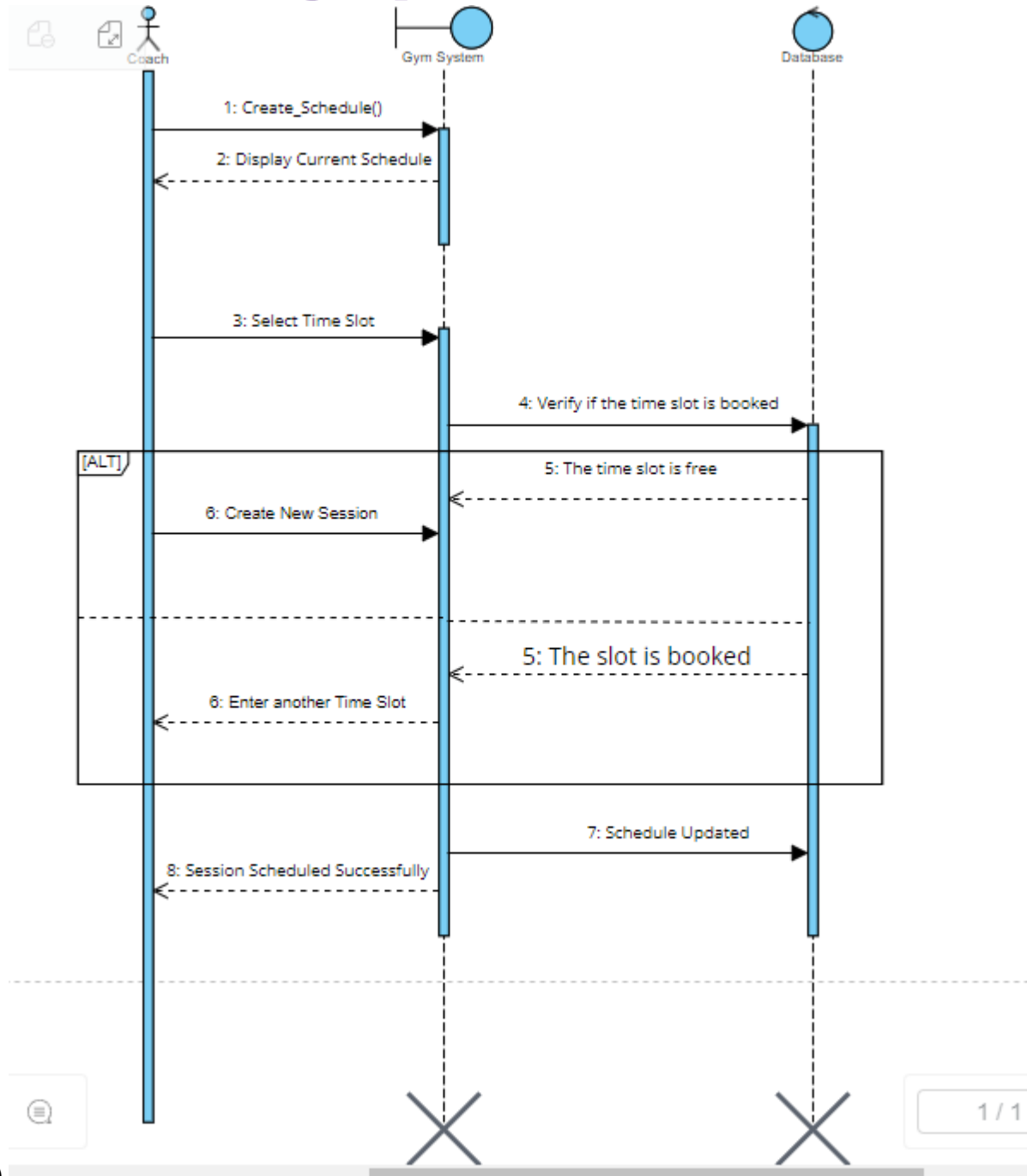




Phase 2 – Bullet

Project: Gym system

Software Design Specifications



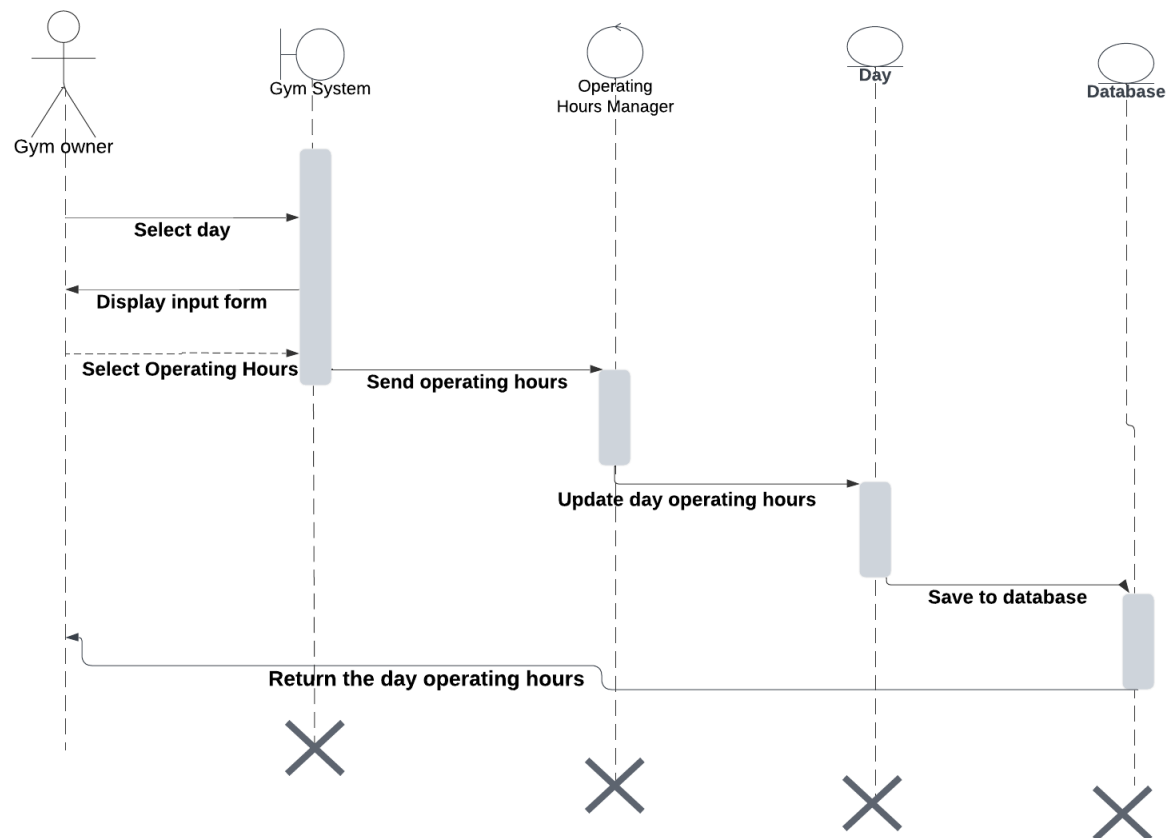
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Project: Gym system

Software Design Specifications

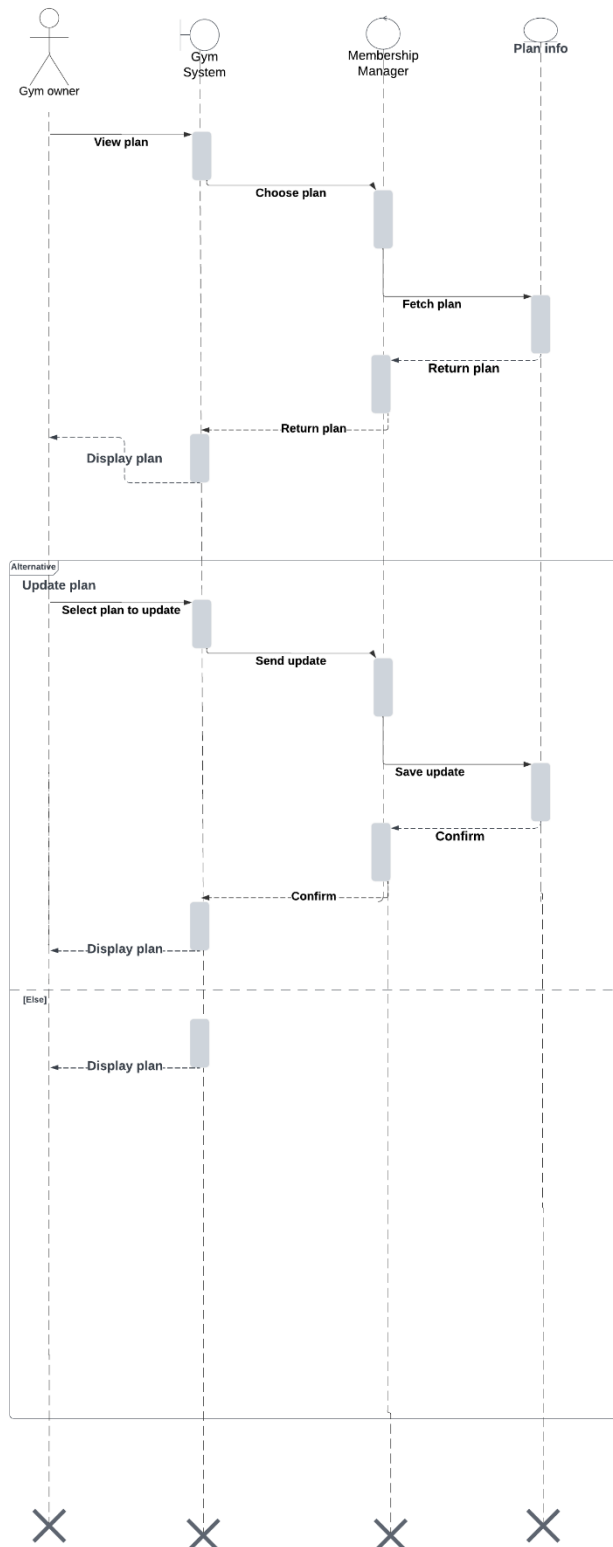




Phase 2 – Bullet

Project: Gym system

Software Design Specifications

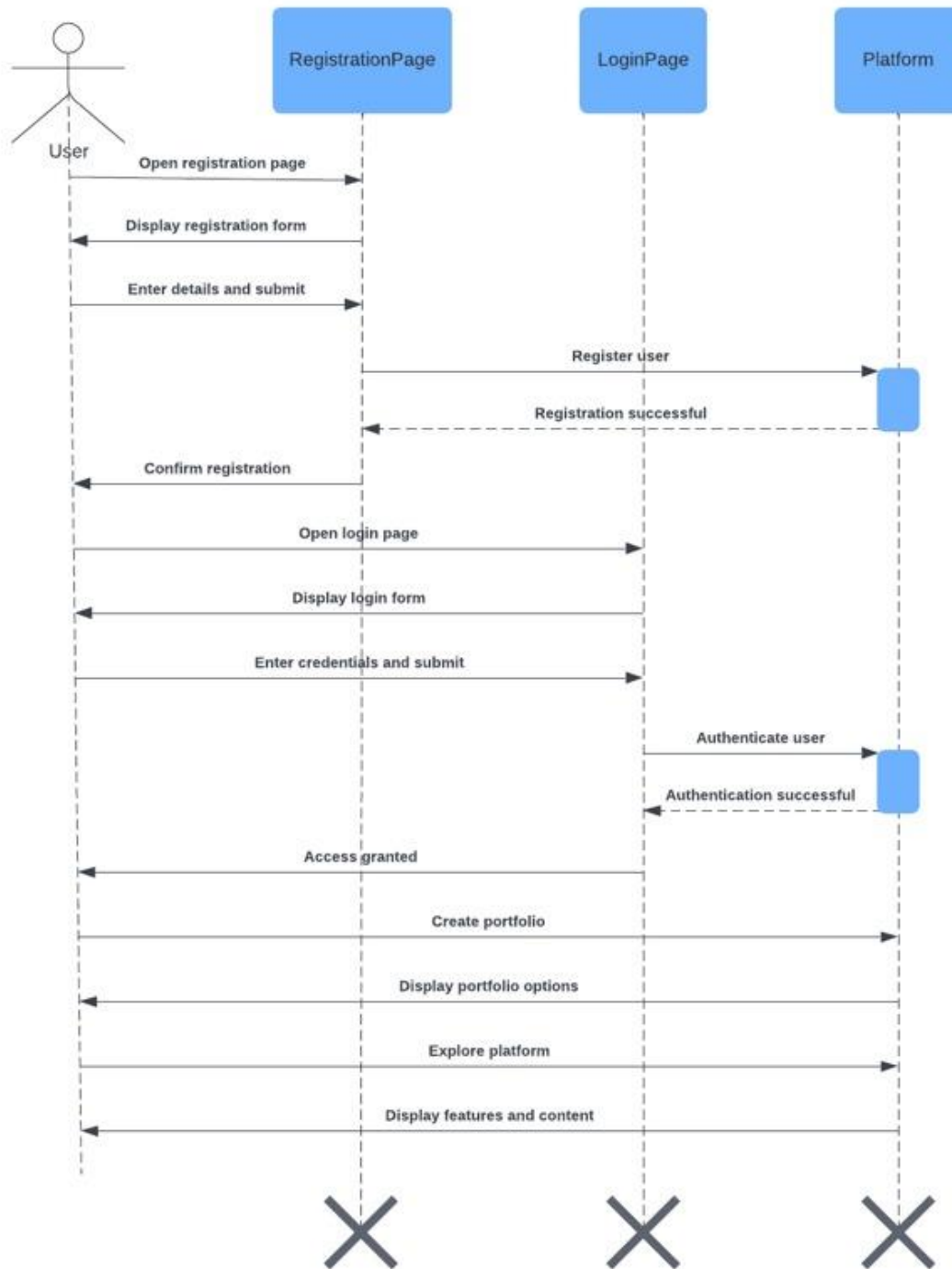




Phase 2 – Bullet

Project: Gym system

Software Design Specifications

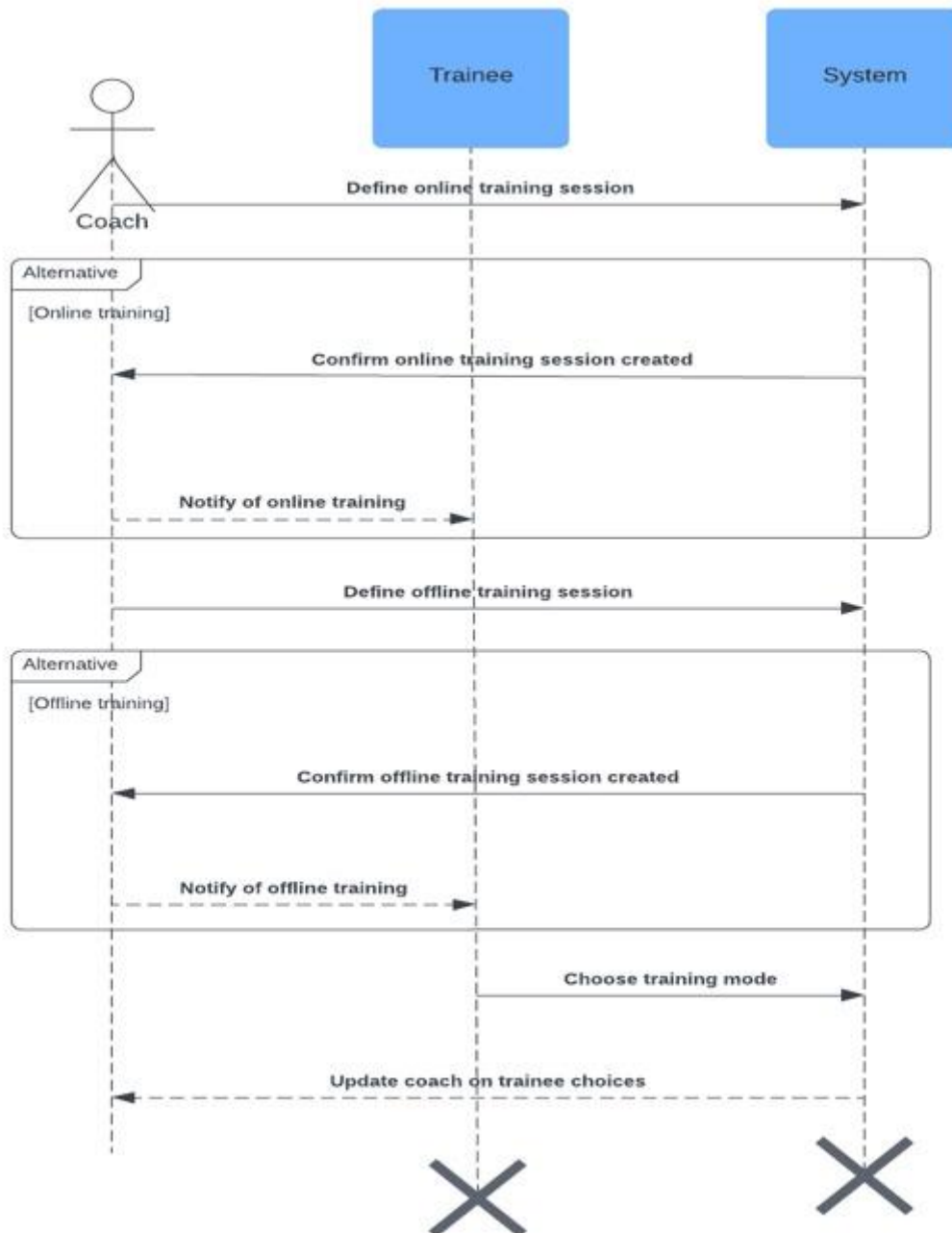




Phase 2 – Bullet

Project: Gym system

Software Design Specifications





Phase 2 – Bullet

Project: Gym system

Software Design Specifications

GitHub repo: [link](#)

GitHub repo

□ GitHub repo link: [Repo](#)

References

- Sommerville, Ian. *Software Engineering*. 9th ed., Pearson Education, 2011: [Book](#)
- The tool used for the use case diagram: [Draw.io](#)
- Jira is used for sprint planning: [Jira](#)
- Tools used for the sequence and class diagram:
[Visual Diagram](#)
[Lucid](#)