We Go JIM!

Under the guidance of
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Executive Summary

Our fitness app project, "We Go Jim," is set to revolutionize the fitness landscape by introducing a dual-subscription model app that caters to a wide range of user needs. The key deliverables encompass the creation of an innovative platform featuring AI-generated workouts and meal plans for free users, coupled with personalized training and nutrition advice from professionals for paid subscribers.

The app's core features include a user-friendly interface, social connectivity, and a leaderboard to foster community engagement. The integration of cutting-edge AI algorithms ensures the delivery of personalized fitness solutions, enhancing the user experience and promoting individualized health and wellness journeys.

Under the business model "We Go Jim," the app adopts a dual-subscription strategy, offering a freemium model with AI-generated workout and meal plans and a premium model providing users with access to personal training and nutrition plans. By offering enhanced fitness goals, interactive AI features, and the expertise of personal trainers and nutritionists, "We Go Jim" aims to elevate users' fitness journeys to new heights.

Our project plan outlines key tasks, including the development of workout and meal plans, social connectivity features, and the implementation of robust data security measures. The overarching goal is to provide a versatile fitness solution that addresses diverse user needs while ensuring a seamless and secure user experience.

In conclusion, "We Go Jim" distinguishes itself through its dual-subscription model, combining freemium AI-generated plans with premium personal training and nutrition services. The incorporation of advanced AI technology, interactive features, and a strong focus on community building through friend leaderboards sets our fitness app apart. "We Go Jim" invites users to elevate their fitness journeys with a unique blend of innovation, customization, and social connectivity, positioning itself as a trailblazer in the evolving landscape of fitness apps.

Identification / Selection of Project / Opportunity Evaluation

a. Background:

The inception of the "We Go Jim" fitness app project stemmed from the recognition of a growing demand for versatile and personalized fitness solutions in the market. The current fitness landscape lacks a comprehensive platform that seamlessly integrates AI technology, professional guidance, and community engagement. This void presents an opportunity to develop an innovative fitness app that caters to diverse user needs and preferences.

b. Strategic Planning:

i. Mission:

The mission of "We Go Jim" is to revolutionize the fitness experience by providing users with a dual-subscription model app that combines AI-generated plans for free users and personalized training and nutrition services for paid subscribers. The app aims to empower individuals on their fitness journeys, offering a blend of innovation, customization, and social connectivity.

ii. Objectives:
   - Develop a user-friendly interface with AI-generated workout and meal plans.
   - Implement personalized training and nutrition services for premium subscribers.
   - Foster community engagement through social connectivity features and leaderboards.
   - Ensure data security and privacy for all users.
   - Establish "We Go Jim" as a leading player in the fitness app market.

iii. Competitive Strategies:

"We Go Jim" adopts a dual-subscription model, leveraging a freemium approach to attract a broad user base with AI-generated plans. Simultaneously, the premium subscription offers a competitive edge by providing personalized services from fitness professionals, enhancing the overall value proposition. Social connectivity and a focus on community building further differentiate the app from competitors.

c. Constraints:
   - Budget constraints may impact the scope and scale of features in the initial development phase.
   - Technical limitations in AI algorithms and integration could pose challenges.
   - Market competition and evolving user preferences may affect the app's success.

d. Overall System Need:

The overall system need is to create a comprehensive fitness platform that seamlessly integrates AI-generated plans, personalized training, and nutrition services, while fostering a sense of community among users. The system should prioritize user experience, data security, and adaptability to diverse fitness goals.

e. Strategic Fit:

"We Go Jim" strategically aligns with current trends in the fitness industry, leveraging AI technology to provide personalized solutions. The dual-subscription model caters to both budget-conscious users and those seeking premium services. The emphasis on community building aligns with the increasing importance of social connectivity in the digital fitness space.

In summary, the identification and selection of the "We Go Jim" fitness app project are grounded in addressing a market need for a comprehensive, innovative, and socially connected fitness solution. Strategic planning, mission alignment, and a dual-subscription model form the foundation for a project poised to make a significant impact in the evolving landscape of fitness apps.

Initiation and Planning of System Project

    a. Charter:

PROJECT CHARTER

1. General Project Information				
Project Name:	We Go Jim!			
Executive Sponsors:				
Department Sponsor:				
Impact of project:				

2. Project Team Roles				
	Name	**Responsibility**		
Project Manager:	Adrian Lopez	Planning	Project execution	Monitoring and control
Project Lead	Prayag Padwal	Planning and design	Project execution	Quality Assurance
Project Developer	Akshith Gnan	Develop Application Interface	Develop Application Backend	

4. Project Scope Statement

Business Case: We are going to develop a fitness app in which fitness enthusiasts will be able to get workout plans and meal plans using AI generation and training professionals. The user data includes the user's meal preference, workout goals and fitness goals. Our app will precisely give the users what they want with different options to choose from.

Objectives (in business terms) *Describe the measurable outcomes of the project, e.g., reduce cost by xxxx or increase quality to yyyy*

The objectives of our fitness app is to increase user engagement in fitness, generate freemium and premium subscription to meet user goals, improve user satisfaction, and create a community for friends to keep each other accountable.

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1. General Project Information	
Project Name:	We Go Jim!
Executive Sponsors:	
Department Sponsor:	
Impact of project:	

2. Project Team Roles	

Risk	Risk Rating (Hi, Med, Lo)
Data Security	High
People not using service	Med
Competitors	Med

Assumptions

Assume your team will complete milestones according to schedule

Assume that your employees are capable of completing necessary tasks

Assume costs won't go higher than estimated price throughout the course of the project

5. Resources

1. Templates
2. Guides
3. Softwares and tools
4. Similar case studies
5. Books
6. Consultation from exports

6. Sign-off			
	Name	Signature	Date (MM/DD/YYYY)
Executive Sponsor			
Department Sponsor			
Project Manager			

7. Notes

b. Statement of Work:

   The Statement of Work (SOW) for the "We Go Jim" fitness app project outlines the detailed scope, deliverables, timelines, and responsibilities for all project stakeholders. It encompasses the development of a dual-subscription model app with AI-generated workout and meal plans for free users and personalized training and nutrition services for paid subscribers. Key components include the creation of a user-friendly interface, integration of advanced AI algorithms, implementation of social connectivity features, and the formulation of a robust marketing strategy. The SOW aims to guide the project team in achieving the project objectives effectively.

c. Introduction:
  i. Project Overview:

The "We Go Jim" fitness app project seeks to address the evolving needs of the fitness industry by offering a comprehensive, user-centric platform. The app will provide free users with AI-generated workout and meal plans, while premium subscribers will benefit from personalized training and nutrition advice. The project aims to create a seamless and engaging user experience, fostering community engagement through social connectivity features and leaderboards.

  ii. Recommendation:

Based on market analysis and strategic planning, the recommendation is to proceed with the development and implementation of the "We Go Jim" fitness app. The dual-subscription model aligns with market trends, offering a freemium experience to attract a broad user base and a premium experience for those seeking personalized fitness guidance. The project is recommended for its potential to not only meet user demands but also to establish "We Go Jim" as a leading player in the competitive fitness app landscape.

 d. System Description:
  i. Alternatives:

In considering the development of the "We Go Jim" fitness app, several alternatives were explored. These included variations in the subscription model, such as a single-payment premium model versus the dual-subscription model. Additionally, alternatives in user interface design, AI algorithm selection, and community engagement features were evaluated. The chosen alternatives were those that best aligned with the project's objectives and market demands.

  ii. Recommendation:

The recommended system for the "We Go Jim" fitness app is the dual-subscription model. This model balances accessibility for a wide user base through AI-generated plans while offering a premium experience with personalized training and nutrition services. The recommendation also includes an engaging user interface, robust AI algorithms, and features promoting community connectivity, such as leaderboards. This combination is deemed optimal for achieving the project's goals and providing a competitive and comprehensive fitness solution.

e. Feasibility Assessment:
  i. Economic Feasibility:

The economic feasibility of the "We Go Jim" fitness app project is positive. Revenue streams from both freemium and premium subscriptions contribute to the financial viability. A

comprehensive market analysis supports the pricing strategy, and potential return on investment is deemed favorable.

ii. Technical Feasibility:

The technical feasibility of the project is supported by advancements in AI technology and app development tools. The integration of AI algorithms for workout and meal plans, along with the creation of a user-friendly interface, is technically achievable. However, potential challenges may arise in refining AI algorithms and ensuring seamless integration across various devices.

iii. Operational Feasibility:

Operationally, the project is feasible as it aligns with current fitness industry trends and user expectations. The involvement of fitness professionals in creating personalized plans enhances the operational aspect by ensuring the quality and relevance of the offered services. The scalability of the app to accommodate a growing user base is a key operational consideration.

iv. Schedule Feasibility:

The project's schedule feasibility is contingent on efficient collaboration among team members and adherence to predefined timelines. The phased development approach, incorporating AI integration, interface design, and feature implementation, is designed to optimize the schedule. Regular progress assessments and agile methodologies will be employed to address any deviations and ensure timely project completion.

In summary, the "We Go Jim" fitness app project is recommended based on the chosen system description, emphasizing the dual-subscription model. The feasibility assessment indicates positive economic, technical, operational, and schedule feasibility, supporting the viability of the project.

Implementation Schedule – Gannt Chart

Below is a snippet of our Gannt Chart, and to view the entire Gannt Chart in detail please use this link: https://csulb.sharepoint.com/:x:/s/Course_i_s_699_sec01-eoQmUCeifgXIG-Group3/EQyka07tyEtIuVh4eRP0gP8Bxrl0LkuPB2PRkDf0ImtDLA?e=qt7d9W
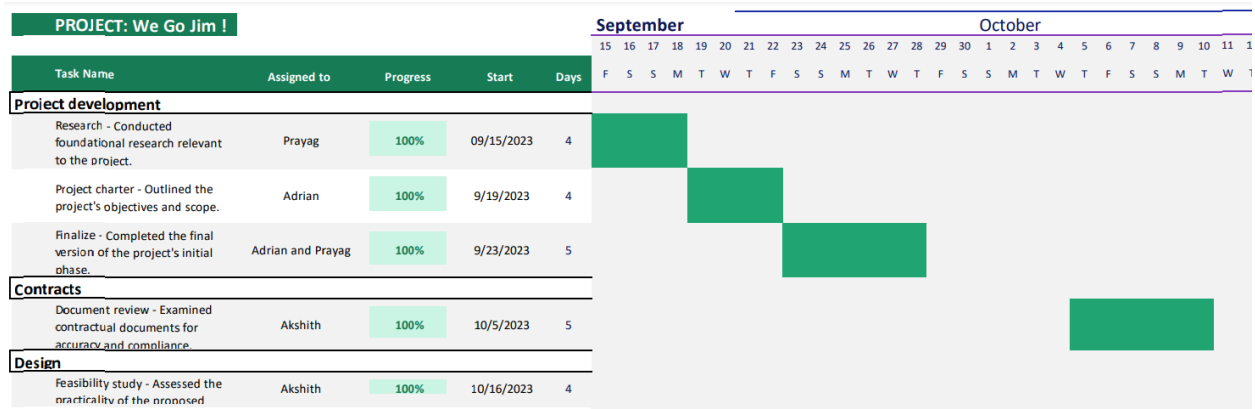
Communication Plan: For our project, we established a comprehensive communication system leveraging a variety of platforms to ensure efficiency and clarity. Microsoft Teams served as our central hub for tracking updated files, allowing for seamless collaboration and document management. For our primary day-to-day communication, we utilized Apple's iMessage, capitalizing on its convenience and immediacy for quick exchanges and updates. Additionally, for more extensive discussions and meetings, we employed a combination of Microsoft Teams and Zoom conference calls. This dual approach allowed us to adapt to meeting different requirements, ensuring effective and flexible communication throughout the project's lifecycle.

Azure DevOps

i. How did your team use Azure DevOps to manage your work? Include screen shots.

We used Azure specifically for the boards, sprints, and to review what is in our backlog. The Azure board function was a nice tool for our team to visualize the progress of our work.

ii. Pros / Advantages
· What did you like about using Azure DevOps?

Azure's functionality was very nice overall, once you are able to figure out the UI. For general sprints, creating, and moving tasks Azure DevOps provides great benefits to keep track of progress. Azure DevOps is good to help projects reach successful completion and monitor progress.

iii. Cons / Disadvantages
· What didn't you like about using Azure DevOps?

DevOps entire UI and functions were not the easiest to use. Certain functions like creating Use Cases & moving progress were easy, besides that some of the team had some difficulty. The main issue was maintaining knowledge of using Azure's functionalities properly.

iv. Potential Usage / Lessons learned
· If you were to start a new project, how would you use it differently?
What features would you take advantage of?

If our team were to start a new project, we would want to use all capabilities of Azure DevOps to work as efficiently as possible. We would like to take advantage of using sprint reviews to communicate properly. We used a lot of text message, although using sprint reviews and other features in Azure DevOps would have likely been more effective and professional.

v. Overall assessment

Overall, Azure DevOps is a great tool for managing the development life cycle. Using DevOps can be very beneficial, even more so understanding the full functionality and capabilities. There may be other tools such as Jira and others that may do the same. Although for the free access from school, Azure DevOps is nice and beneficial tool for seeing development to completion.

Microsoft Teams:
assessment of using Microsoft Teams
i. Pros / Advantages
· What did you like about using MS Teams?

Teams had advantages when using Microsoft suite products such as Word, Excel, and PowerPoint. The chat and video chat meetings are all nice capabilities of Teams. The shared folders for essential documents are also beneficial to have as a central hub for the project.

ii. Cons / Disadvantages
· What didn't you like about using MS Teams?

Often using web browsers and such as google chrome our team often would default to using google drive. Unfortunately, it wasn't as seamless as google drive was. Although there were not too many cons to using MS Teams for our team.

iii. Potential Usage / Lessons learned
· If you were to start a new project, how would you use it differently?
What features would you take advantage of?

If our team were to start a new project, we would ensure everything was done in Teams. We would often stray away using half google drive, zoom, and a mix of Teams. We were organized although by starting fresh we would have had a much more organized system using Teams exclusively. Using teams video chat would have been the one feature we needed to implement, because we used Zoom mostly.

iv. Overall assessment:

Overall, MS Teams is a great platform for team collaboration and is beneficial when working as a group. There were not many issues using Team, although we could have used the platform more efficiently. Team collaboration is crucial in the development life cycle.

h. Quality Management Plan:
   The Quality Management Plan for the "We Go Jim" fitness app project outlines the strategies and processes to ensure the delivery of a high-quality product. Key components of the plan include:
   - Quality Objectives: Clearly defined quality objectives for the project, ensuring that deliverables meet or exceed user expectations.
   - Quality Assurance: Processes and procedures to be implemented throughout the project lifecycle to prevent defects and ensure adherence to quality standards.
   - Quality Control: Mechanisms for monitoring and evaluating project deliverables to identify and rectify any deviations from quality standards.
   - Testing Procedures: Comprehensive testing protocols for the app's functionality, usability, and security to guarantee a robust and error-free end product.

i. Change Control Plan:

The Change Control Plan outlines the procedures for managing changes to project scope, schedule, and resources. Key elements of the plan include:

   - Change Request Process: A formalized process for submitting, reviewing, and approving or rejecting change requests.

   - Impact Assessment: Procedures for assessing the potential impact of proposed changes on project scope, budget, and timeline.

   - Approval Authority: Clearly defined roles and responsibilities for individuals or teams responsible for approving or rejecting change requests.

   - Documentation: Comprehensive documentation of approved changes and their impact on project deliverables.

These plans collectively contribute to the effective management of project quality, change control, and risk mitigation throughout the development and implementation of the "We Go Jim" fitness app.

j. Project Risks:

1. Technical Complexity:
  - Assessment (Likelihood vs. Consequence):
    - Likelihood: Moderate
    - Consequence: High
  - Mitigation Plan:
    - Conduct a thorough technical feasibility study before the project initiation.
    - Employ experienced developers and regularly assess their progress.
    - Implement an agile development approach to address challenges iteratively.

2. Resource Constraints:
  - Assessment (Likelihood vs. Consequence):
    - Likelihood: High
    - Consequence: Moderate
  - Mitigation Plan:
    - Regularly monitor resource allocation and adjust as needed.
    - Identify alternative resources or outsourcing options in case of unexpected constraints.
    - Maintain open communication with team members to address workload concerns promptly.

3. Scope Creep:
  - Assessment (Likelihood vs. Consequence):

- Likelihood: Moderate
- Consequence: High
- Mitigation Plan:
  - Establish a robust change control process to evaluate and approve changes.
  - Clearly define and communicate project scope to all stakeholders.
  - Regularly review project scope and requirements to identify and address potential scope creep early.

System Risks:

1. Data Security Breach:
  - Assessment (Likelihood vs. Consequence):
    - Likelihood: Moderate
    - Consequence: High
  - Mitigation Plan:
    - Implement robust encryption protocols for user data.
    - Regularly conduct security audits and penetration testing.
    - Establish a response plan in case of a security incident, including notifying affected users promptly.

2. Compatibility Issues:
  - Assessment (Likelihood vs. Consequence):
    - Likelihood: High
    - Consequence: Moderate
  - Mitigation Plan:
    - Conduct thorough compatibility testing across various devices and platforms.
    - Regularly update software and ensure compatibility with the latest operating systems.
    - Provide clear system requirements to users to minimize compatibility issues.

3. User Adoption Challenges:
  - Assessment (Likelihood vs. Consequence):
    - Likelihood: Moderate
    - Consequence: Moderate
  - Mitigation Plan:
    - Implement a comprehensive onboarding process to guide users through the app.
    - Gather user feedback during beta testing and address usability concerns.
    - Develop a robust marketing and education strategy to promote the app and its features.

These risk assessments and mitigation plans aim to proactively address potential challenges both in the development process (project risks) and after the system is built and deployed (system risks). Regular monitoring and adaptation of mitigation strategies will be crucial to the success of the "We Go Jim" fitness app project.

4. System Requirements

a. Approach to identifying requirements

To identify the system requirements for the "We Go Jim" fitness app, we will follow a comprehensive approach that includes gathering input from stakeholders, conducting market research, and leveraging industry best practices. The goal is to ensure that the app meets user needs, aligns with industry standards, and provides an exceptional user experience.

Functional System Requirements:
- **User Registration and Profile Management:**
  - *Requirement:* Users must be able to create accounts, log in, and manage their profiles.
- **AI-Generated Workout Plans:**
  - *Requirement:* The app should generate personalized workout plans based on user fitness goals and preferences.
- **Meal Plan Recommendations:**
  - *Requirement:* The app should provide meal plan recommendations tailored to individual dietary preferences and nutritional needs.
- **Social Connectivity:**
  - *Requirement:* Users should be able to connect with friends, share workout achievements, and engage in group challenges.
- **Leaderboard:**
  - *Requirement:* The app should display leaderboards to show users' rankings and progress compared to their friends.

Requirements to Implementation Lifecycle for Three Requirements:

1. User Registration and Profile Management:
- *Requirements:*
  - Users must be able to create accounts with email or social media.
  - Users should have options to update profile information.
- *Analysis:*
  - Define the user registration flow.

- o Identify necessary user profile fields.
- *Design:*
  - o Create wireframes for registration and profile screens.
  - o Design a user-friendly interface for profile management.
- *Development:*
  - o Implement user registration logic.
  - o Develop the database schema for user profiles.
- *Testing:*
  - o Test registration and profile update functionality.
  - o Ensure data is stored and retrieved accurately.
- *Implementation:*
  - o Deploy user registration and profile management to the app.

2. AI-Generated Workout Plans:

- *Requirement:*
  - o Users should select fitness goals (e.g., weight loss, muscle gain).
  - o The app should generate workout plans with exercise routines and schedules.
- *Analysis:*
  - o Identify available fitness goals.
  - o Research and select appropriate workout routines.
- *Design:*
  - o Create a UI for users to choose fitness goals.
  - o Design a workout plan presentation format.
- *Development:*
  - o Develop algorithms to generate workout plans.
  - o Implement the workout plan selection feature.
- *Testing:*
  - o Test the accuracy of generated workout plans.
  - o Validate that workout schedules align with user preferences.
- *Implementation:*
  - o Integrate the AI-generated workout plans into the app.

3. Meal Plan Recommendations:

- *Requirement:*
  - o Users should input dietary preferences and restrictions.
  - o The app should recommend meal plans with recipes and nutritional information.
- *Analysis:*
  - o Define the types of dietary preferences and restrictions.

- o   Research and gather a database of recipes.
- *Design:*
  - o   Create a user interface for specifying dietary preferences.
  - o   Design the meal plan presentation format.
- *Development:*
  - o   Develop algorithms for meal plan recommendations.
  - o   Implement the meal preference input feature.
- *Testing:*
  - o   Test the suitability of recommended meal plans.
  - o   Ensure nutritional information is accurate.
- *Implementation:*
  - o   Integrate meal plan recommendations into the app, allowing users to receive personalized meal plans.

Non-Functional Requirements:

- **Performance:**
  - o   *Requirement:* The app should load and respond to user interactions within 2 seconds.
- **Security:**
  - o   *Requirement:* User data, including personal information and payment details, must be stored and transmitted securely.
- **Scalability:**
  - o   *Requirement:* The app should be able to handle a growing number of users without significant performance degradation.

Addressing Non-Functional Requirements:

- **Performance:**
  - o   **Addressing the Requirement:** To ensure optimal performance:
    - ▪   **Code Optimization:** The app's code will be regularly reviewed and optimized to minimize processing times.
    - ▪   **Caching:** Frequently accessed data will be cached to reduce load times.
    - ▪   **Content Delivery Network (CDN):** Static assets such as images and videos will be served through a CDN to reduce latency.
    - ▪   **Load Testing:** Rigorous load testing will be conducted to identify and address performance bottlenecks.
- **Security:**
  - o   **Addressing the Requirement:** Security is of paramount importance:

- ▪ **Encryption:** Secure Sockets Layer (SSL) or Transport Layer Security (TLS) protocols will be used to encrypt data in transit.
- ▪ **Data Storage:** User data will be stored in a secure, encrypted database with strict access controls.
- ▪ **Authentication:** Strong authentication methods like multi-factor authentication (MFA) will be implemented.
- ▪ **Regular Audits:** Security audits and penetration testing will be conducted regularly to identify and remediate vulnerabilities.

- **Scalability:**
  - o **Addressing the Requirement:** The app's architecture will be designed for scalability:
    - ▪ **Cloud Infrastructure:** Leveraging cloud services like AWS, Azure, or Google Cloud will allow for easy scaling of resources as user demand grows.
    - ▪ **Load Balancing:** Load balancers will distribute traffic evenly across multiple servers to prevent overloading.
    - ▪ **Elastic Resources:** Resources such as databases and servers will be designed to scale horizontally or vertically based on demand.
    - ▪ **Monitoring and Alerts:** Continuous monitoring of app performance will trigger alerts when resources approach capacity limits, allowing for proactive scaling.
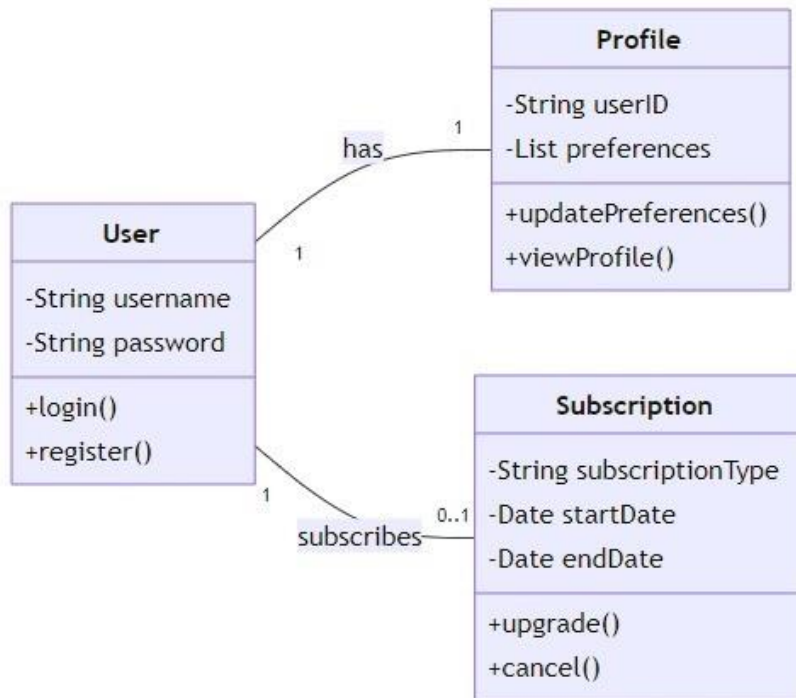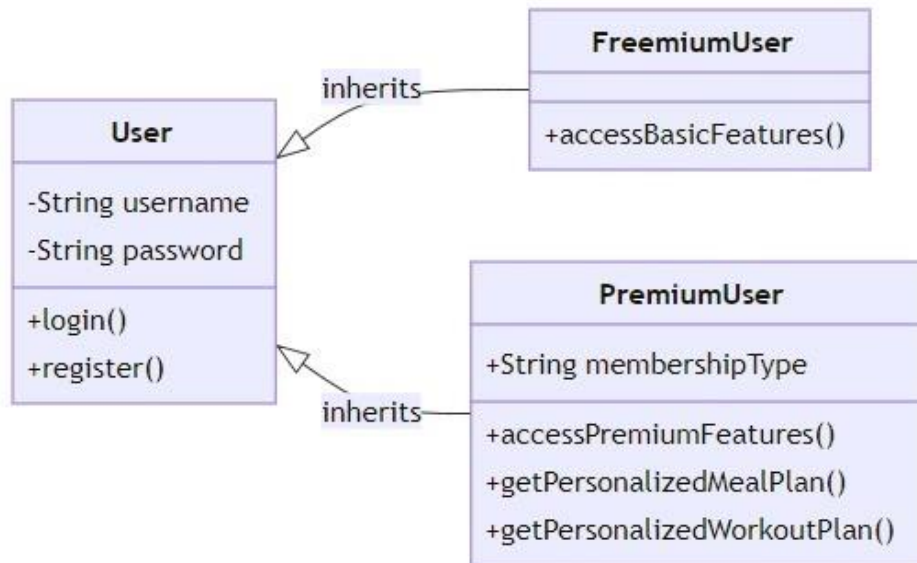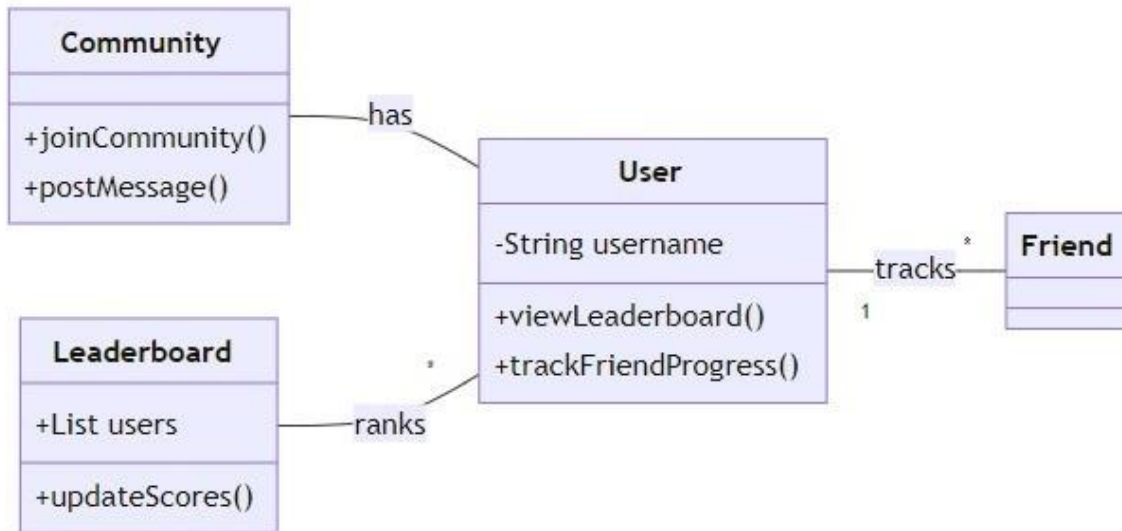
System Architecture Model: -
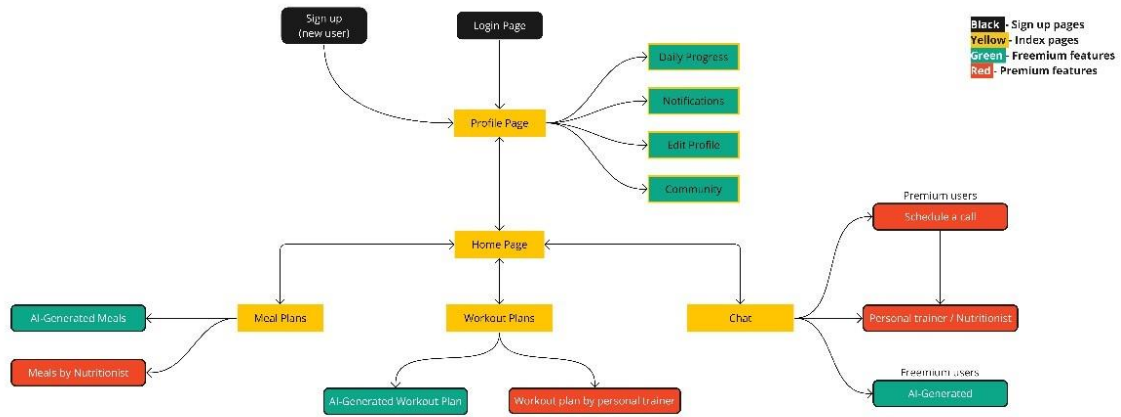
Class Diagram –
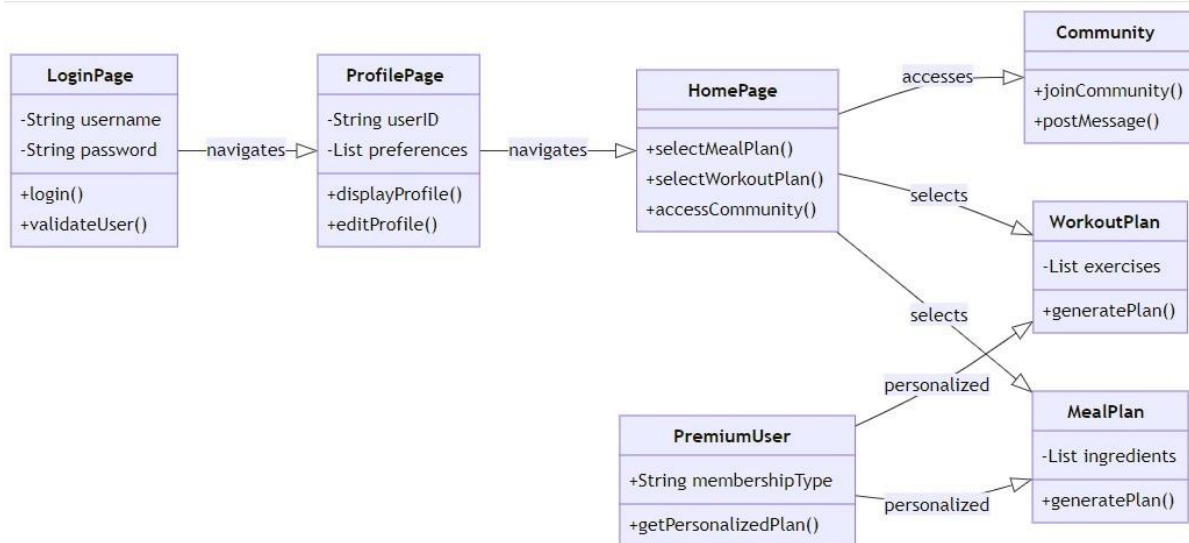
User case diagram: -

Freemium premium class diagram: -

FreemiumUser

+accessBasicFeatures()

inherits

User

-String username
-String password

+login()
+register()

inherits

PremiumUser

+String membershipType

+accessPremiumFeatures()
+getPersonalizedMealPlan()
+getPersonalizedWorkoutPlan()

Community Leaderboard class diagram: -

Community

+joinCommunity()
+postMessage()

User

-String username

+viewLeaderboard()
+trackFriendProgress()

Friend

Leaderboard

+List users

+updateScores()

has

ranks

tracks

c. Use Case Diagrams

High-level Use Case Diagram for Freemium We Go Jim Users

We Go Jim! (Freemium)
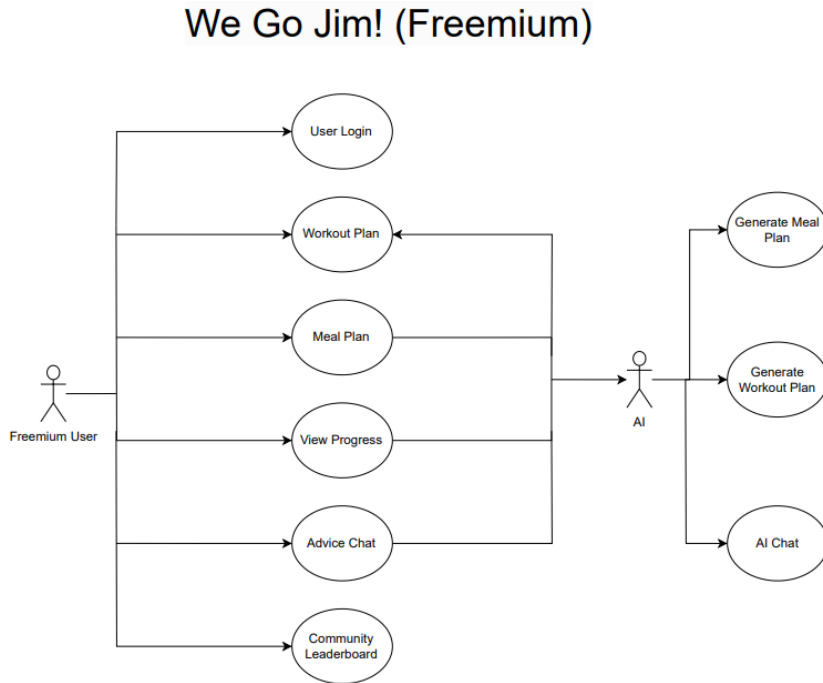
High-level Use Case Diagram for Premium We Go Jim Users:

We Go Jim! (Premium)
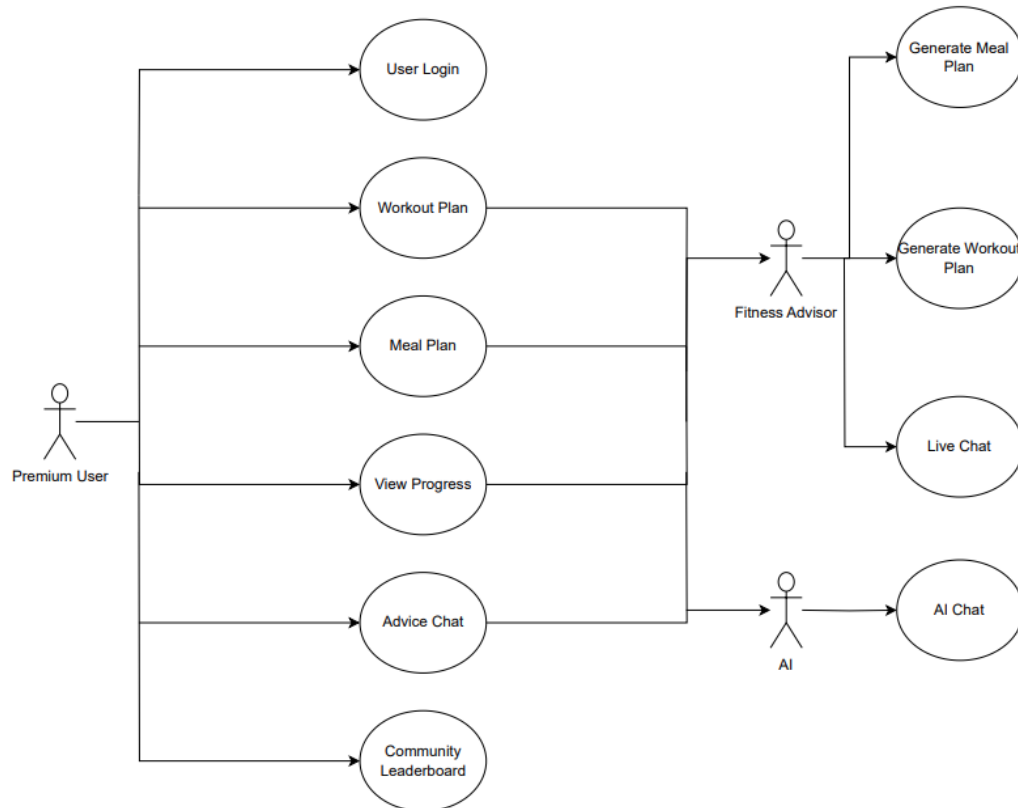
Use Case Diagram for We Go Jim's Workout Plan Feature:
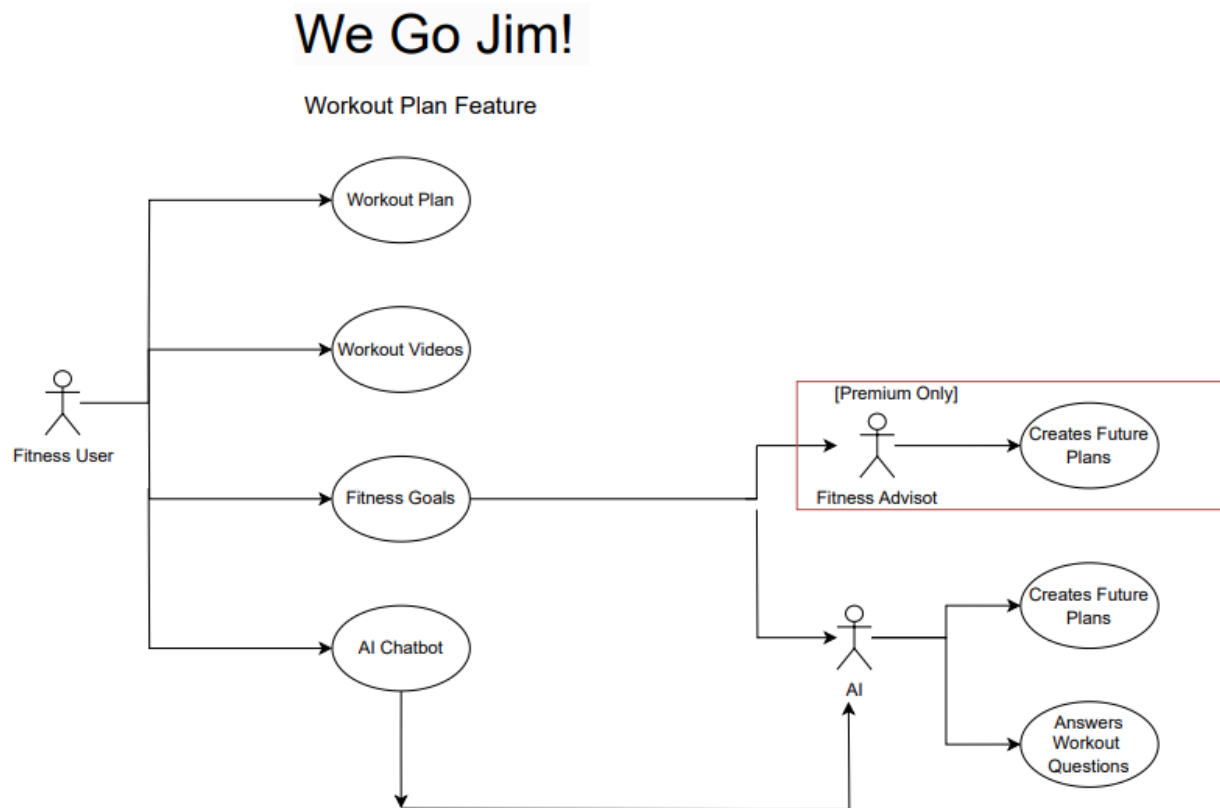
Use Case Title: Workout Plan Feature

Actor: We Go Jim! App User

Stakeholders:
- App Users: Seeking workout plan assistance to meet fitness goals.
- We Go Jim: Provide workout planning to meet fitness goals.

Preconditions:
- The user must have a We Go Jim! account.

Postconditions:
- The user has a workout plan to meet their fitness goals.

Main Use:

- User inputs Fitness Goals to guide the workout plan creation process.
- User have a plan to follow throughout the week.
- User can utilize Workout Videos for exercise demonstrations.
- User can use the AI Chatbot for guidance and to get questions answered if needed.
- Premium users will receive personalized workout plans from a Fitness Advisor.

Requirements:

- The AI Chatbot must deliver fitness guidance based on user goals.
- Fitness Advisors for premium users must provide expert and customized workout planning to meet user fitness goals.

Use Case Diagram for We Go Jim's Meal Plan Feature:

We Go Jim!
Meal Plan Feature
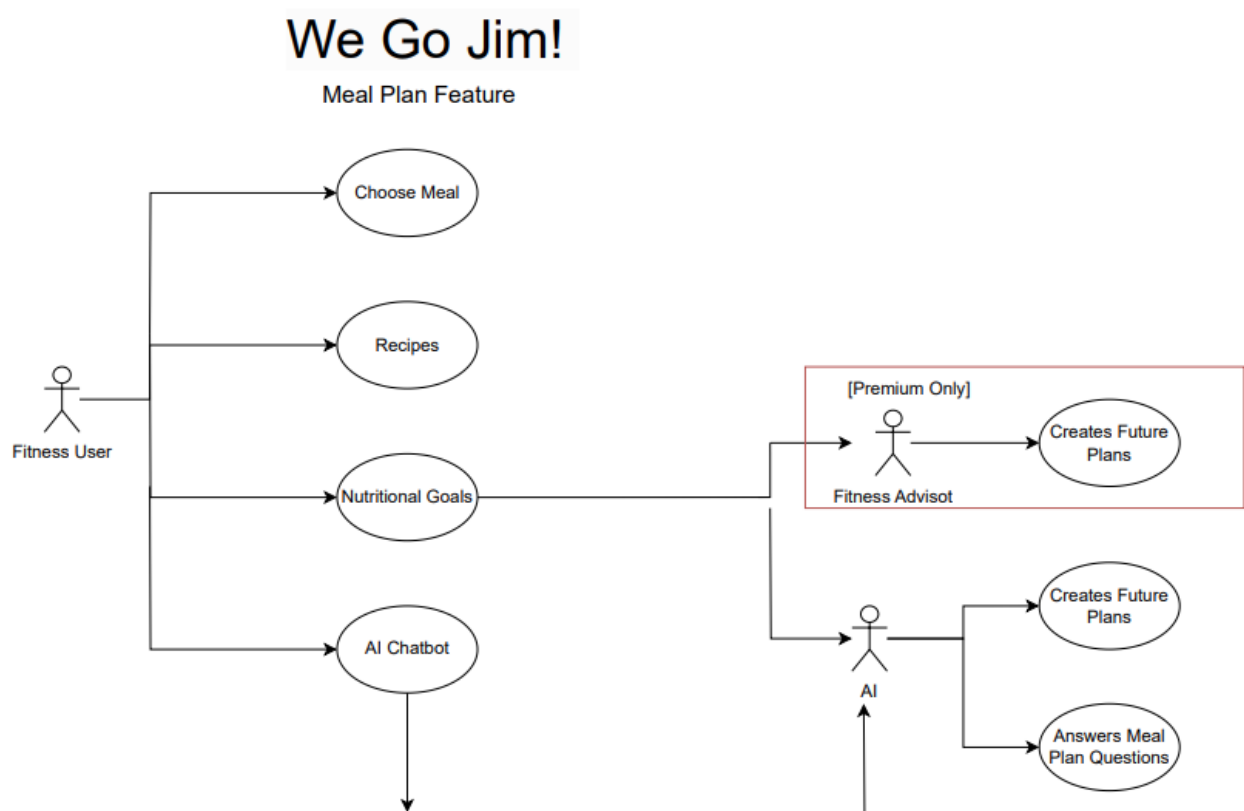
Use Case Title: Meal Plan Feature

Actor: We Go Jim! App User

Stakeholders:
- **App Users**: Accessing personalized meal planning to meet fitness goals.
- **We Go Jim**: Aims to provide meal planning features to support user fitness journeys.

Preconditions:
- User must have an account and be logged in.

Postconditions:
- User receives a personalized meal plan to meet their fitness goals.

Main Use:
- User provides Nutritional Goals to develop plan.
- User can access Recipes aligned with nutritional goals.
- User can choose meals to meet goals.
- AI Chatbot can assist and answers meal questions.
- Premium users can access their Fitness Advisor for professional guidance on meal plans.

Requirements:
- AI Chatbot must be trained to provide accurate advice and adapt to user preferences.
- The Fitness Advisor for premium users offers detailed and personalized meal planning assistance.

Use Case Diagram for We Go Jim's Community Feature:

We Go Jim!

Community Features

Add Friends

Fitness User

View Friends Progress

Friend Leaderboard
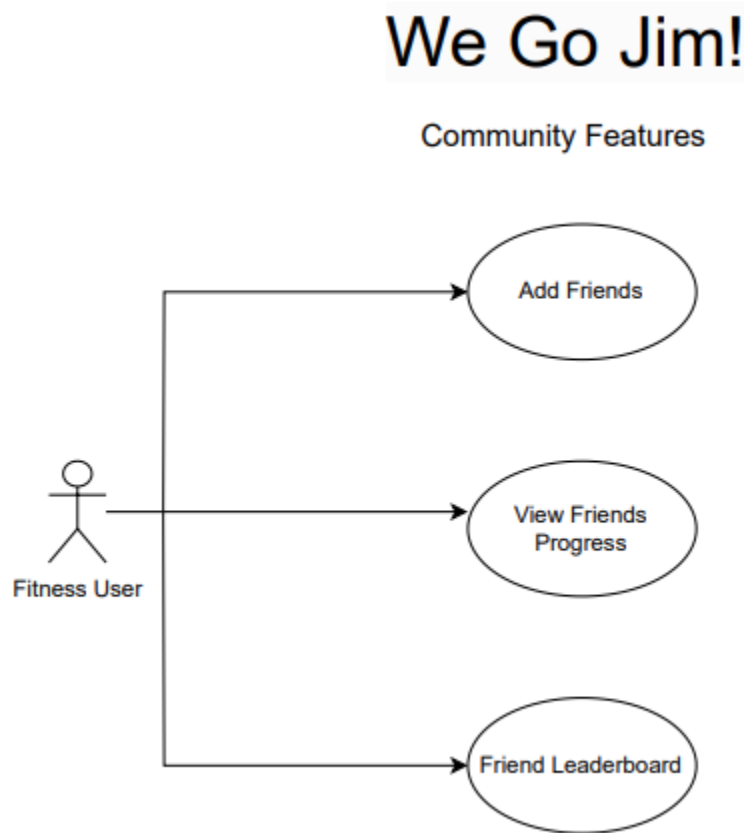
Use Case: Community Features

Title: Community Features

Actor: We Go Jim! App User

Stakeholders:
- **App Users**: To connect with friends, view friend progress, and friendly competition to create an engaging fitness journey.
- We Go Jim: Purpose to increase user engagement and retention by providing a platform with a community.

Preconditions:
- User must have an account.

Postconditions:

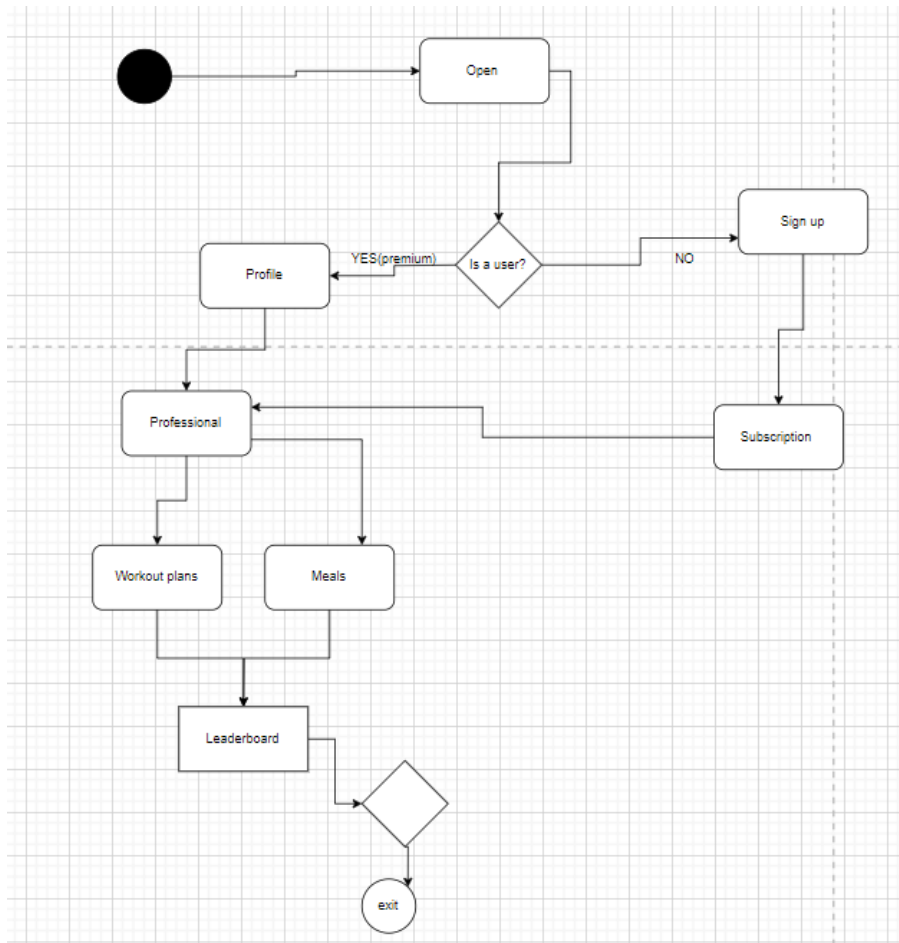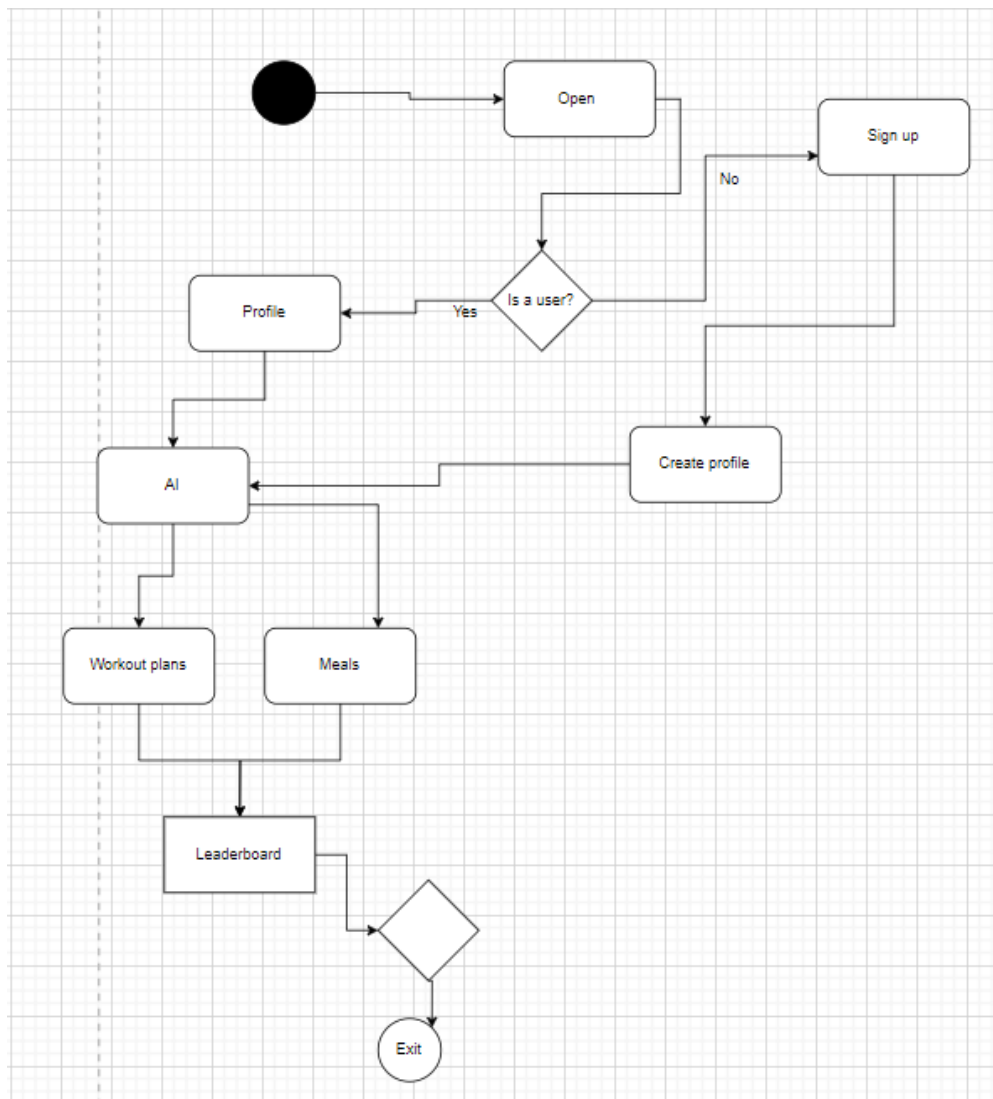- User interacts with the community features.

Main Use:

- User selects the 'Add Friends' feature.
- User sends a friend request to another app user.
- The requested user accepts the request and creates a connection.
- User can select 'View Friends' Progress' to see friends workout results and milestones.
- User accesses 'Friend Leaderboard' to see rankings based on fitness goal metrics.

Requirements:

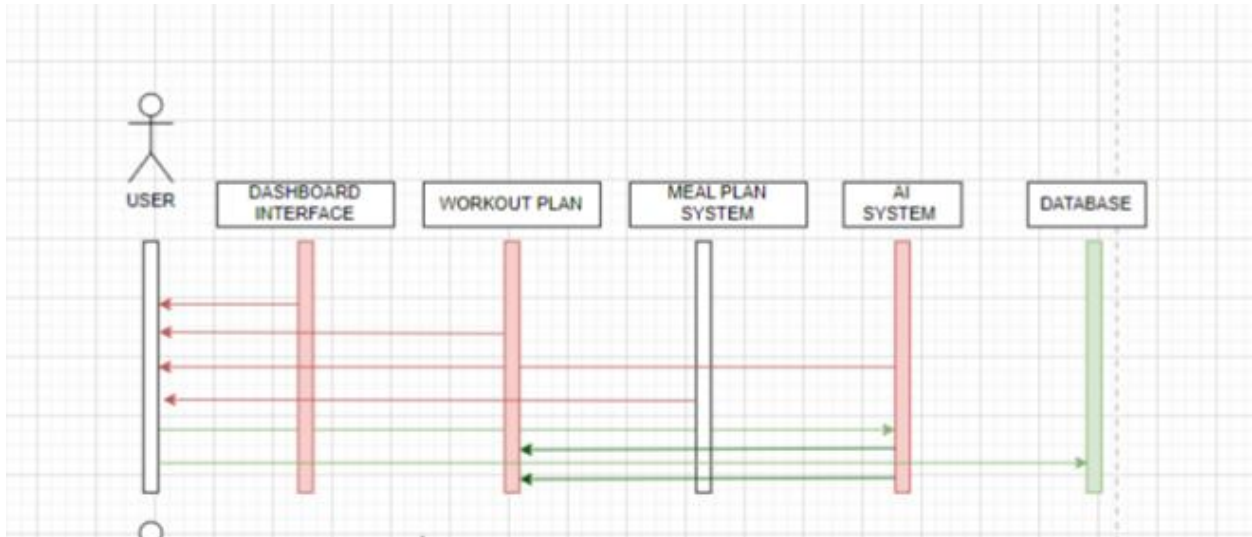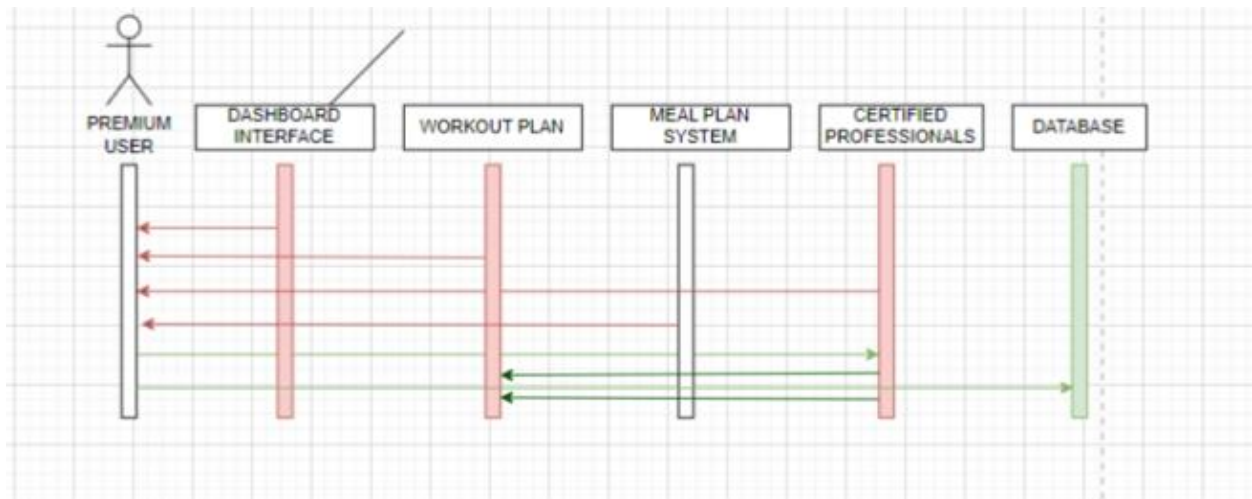- Real-time updates to leaderboard rankings whenever goals are completed.
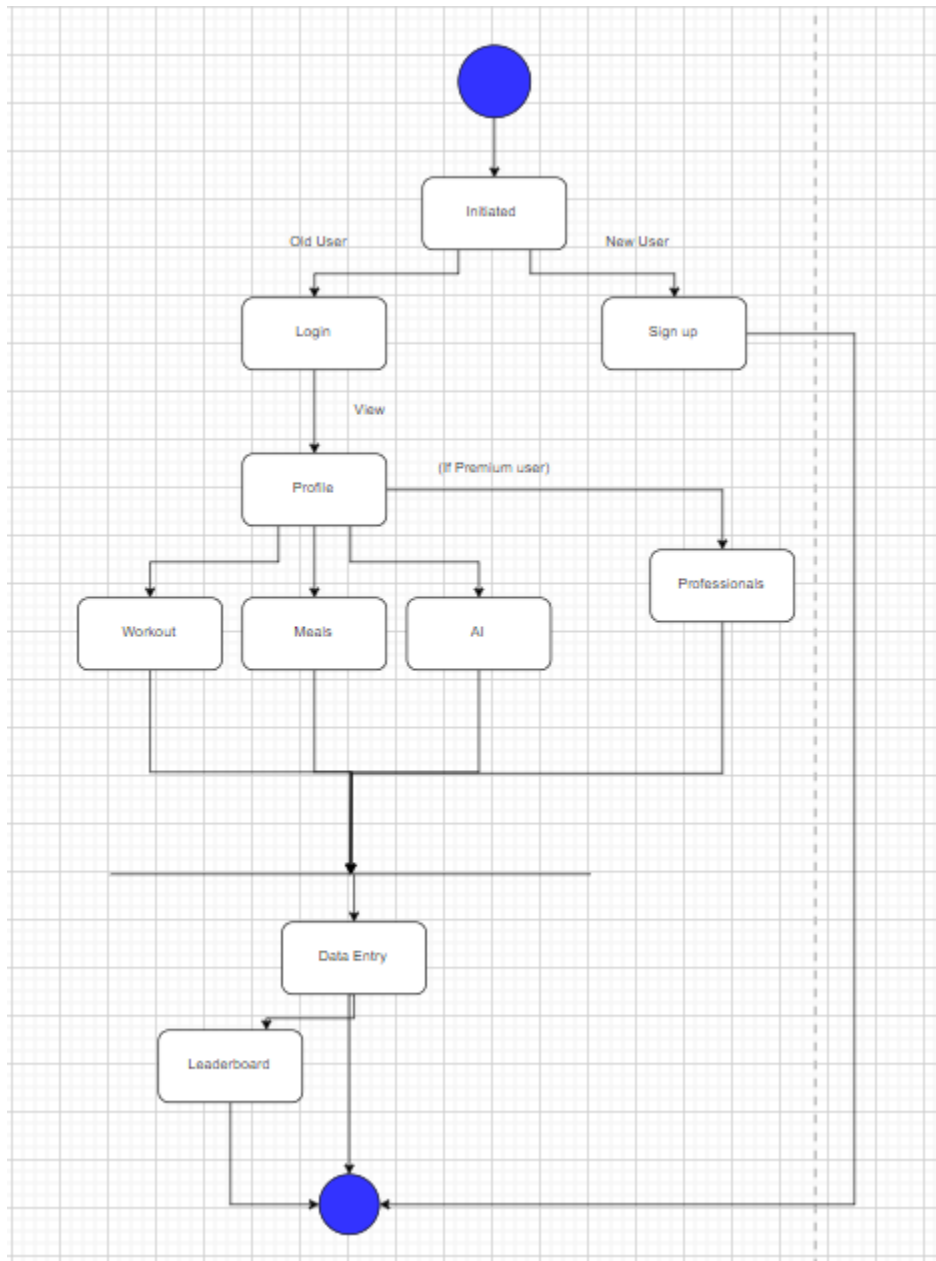
D. Activity diagram: -

Open

Is a user?

YES(premium)

NO

Sign up

Profile

Subscription

Professional

Workout plans

Meals

Leaderboard

exit

E. Sequence Diagrams

Freemium users: -

Premium users: -

F. State Diagram: -

G. ER Diagram

Azure DevOps Link:

- https://dev.azure.com/AdrianLopez12/IS%20699%20Project%20Group%203
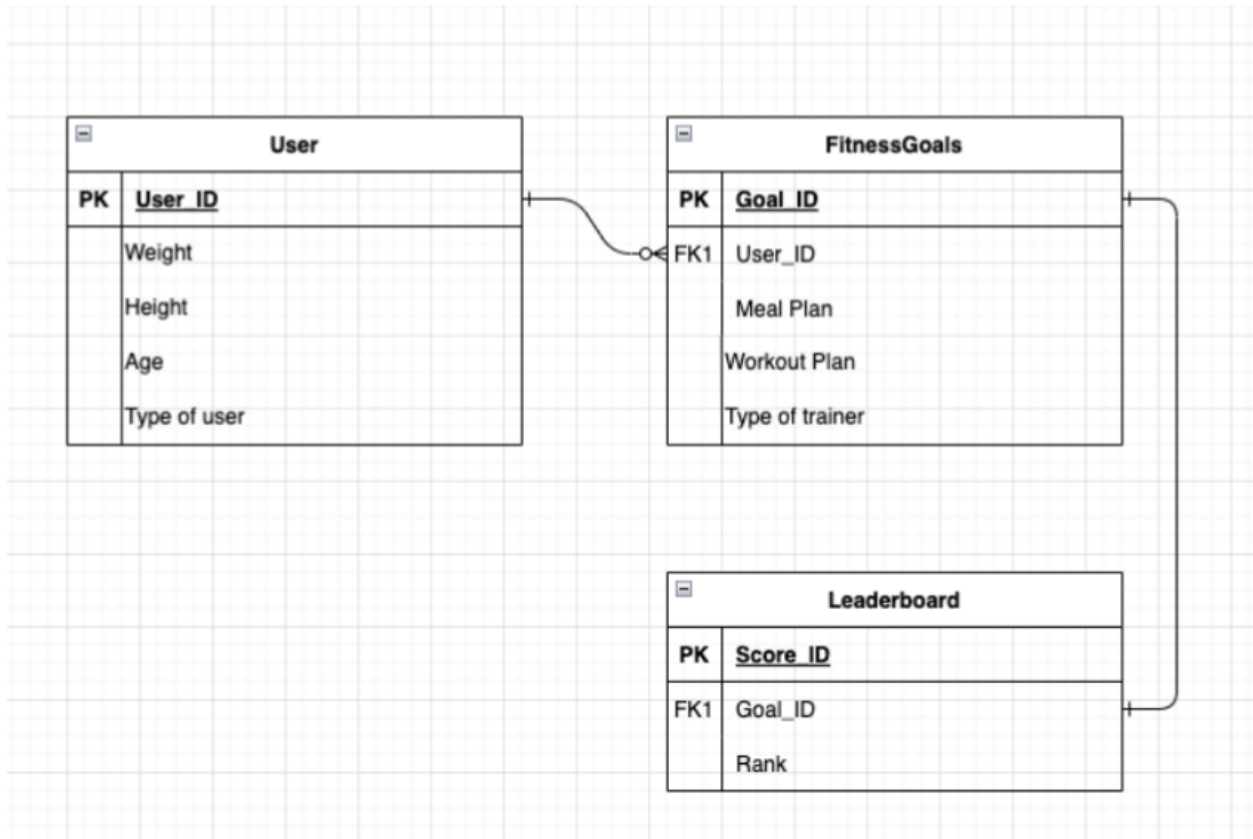
6. System Development:

a. Hardware Requirements:
   - Development Machine:
     - Minimum: Dual-core processor, 8 GB RAM
     - Recommended: Quad-core processor, 16 GB RAM
   - Storage:
     - Minimum: 256 GB SSD
     - Recommended: 512 GB SSD or higher
   - Display:
     - Minimum: 15-inch monitor with a resolution of 1920 x 1080
     - Recommended: 4K monitor for enhanced productivity

b. Software Requirements:
   - Operating System:
     - Windows 10 or macOS Big Sur
   - Integrated Development Environment (IDE):
     - Visual Studio Code, or
     - IntelliJ IDEA

i. Frameworks:
   - Frontend:
     - React.js for the user interface
     - Redux for state management
     - Axios for HTTP requests
   - Backend:
     - Node.js for server-side development
     - Express.js as the web application framework
     - MongoDB/Mongoose for database interactions
   - Additional Frameworks:
     - TensorFlow for AI integration
     - Flask (Python) for specific backend functionalities

f. New Developer Instructions:
   i. Development Environment Setup:
     - Install the recommended IDE (Visual Studio Code or IntelliJ IDEA).
     - Set up Git and configure version control.
     - Clone the project repository from GitHub.

- Install Node.js and npm for backend development.
- Install MongoDB for local database testing.
- Install required plugins and extensions in the IDE for better productivity.

ii. Project Setup:
  - Follow the project's README.md for specific setup instructions.
  - Configure environment variables for API keys, database connections, etc.
  - Run npm install to install project dependencies.

iii. Coding Guidelines:
  - Adhere to the project's coding standards and style guide.
  - Maintain well-commented and organized code.
  - Follow Git branching strategies and commit guidelines.

iv. Testing:
  - Familiarize yourself with the testing frameworks used (e.g., Jest for unit tests).
  - Write and execute unit tests for new features and bug fixes.
  - Participate in code reviews to ensure code quality.

v. Collaboration:
  - Communicated regularly with the team through zoom, texts and emails.
  - Attend team meetings and provide updates on your progress.

vi. Continuous Learning:
  - Stay updated on relevant technologies and frameworks.
  - Seek guidance from senior developers when faced with challenges.
  - Contribute to discussions on improving development processes.

By following these instructions, the new developer will be equipped with the necessary hardware, software, and guidelines to contribute effectively to the development, testing, and running of the "We Go Jim" fitness app.

7. Implementation with Figma Prototype:

a. Testing:

- **Prototype Testing:** Before actual development, conduct usability testing on the Figma prototype to gather feedback from users. This helps identify and address design flaws and usability issues early in the process.
- **Feedback Integration:** Based on user feedback from the Figma prototype, make necessary design revisions to ensure the user interface is intuitive and functional.

b. Deployment:

- **Development Guide:** Share the Figma prototype with your development team to serve as a visual guide during the implementation phase. The prototype provides a clear vision of how the app should look and behave.
- **Version Control:** Use Figma's version control feature to track design changes and ensure consistency between the prototype and the actual app.

c. Training:

- **Training Material:** Create training materials, including walkthroughs and documentation, using Figma prototypes. These materials can be used to train your team and users on how to use the app effectively.
- **Interactive Demonstrations:** Utilize Figma's interactive features to simulate app interactions during training sessions, allowing users to familiarize themselves with the app's functionality.

d. Support:

- **Issue Resolution:** In case of design-related issues reported by users or your support team, Figma allows for quick design adjustments and updates. You can iterate on the prototype to address user feedback efficiently.
- **Collaborative Support:** Collaborate with your support team by sharing the Figma prototype to visually demonstrate solutions to users' problems or inquiries.

8. System Documentation

a. Forms / User Interface:

i. SCREENSHOTS:
For the Login Screen:
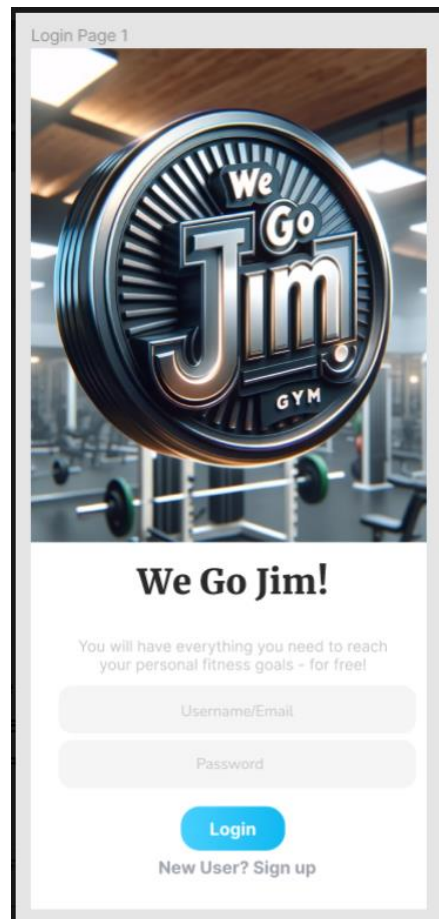
 The screenshot provided is the login screen for our fitness app named "We Go Jim." This screen is the first point of interaction for the user with the app.

End User Instructions:

Purpose:
- This screen is designed for users to access their personal account on the "We Go Jim" fitness app. It serves as a secure entry point to the app's features.

Values to be entered:

- Username/Email: Users must enter their registered email or username associated with their We Go Jim account.
- Password: Users must enter their password.

Outcome:

- Upon entering valid login credentials, users will gain access to the app where they can use AI-generated workouts and meal plans for free users, or access personalized training and nutrition advice if they have a paid subscription.

For the Profile Screen:
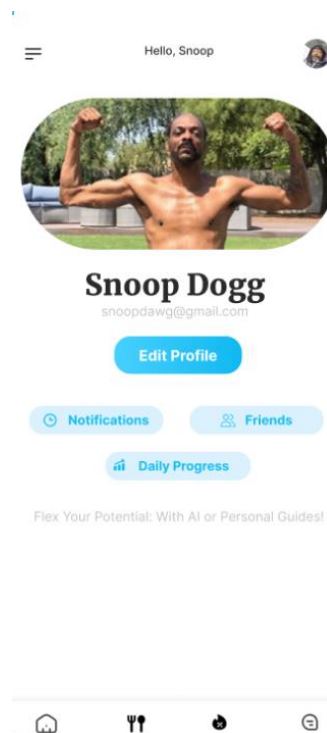
- The screenshot displays a user profile interface within the "We Go Jim" app, personalized for a user named "Snoop."

End User Instructions:

Purpose:

- This screen provides a personalized experience, displaying the user's name, photo, and contact information. It offers options to edit the profile and quick access to notifications, friends, and daily progress.
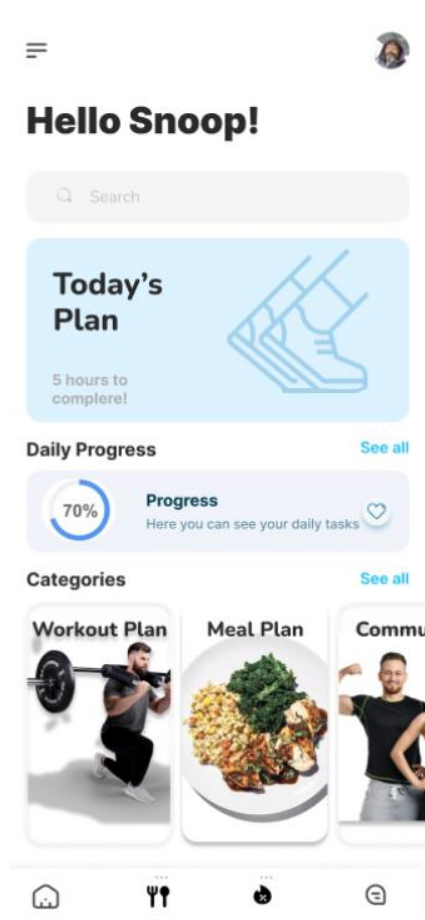
Values to be entered:

- No direct values to be entered on this screen, but the "Edit Profile" button allows the user to modify personal details like name, photo, and contact information.

Outcome:

- The user can navigate to different sections of their profile, update personal information, and view daily achievements and social notifications.

For the Homepage Screen:

- This screenshot shows the homepage of the app, greeting the user by name and providing an overview of daily tasks and progress.

End User Instructions:

Purpose:

- The homepage serves as the central hub for the app, allowing users to navigate to various sections such as workout and meal plans, and see their daily progress.

Values to be entered:

- The search bar at the top can be used to find specific features or content within the app.
- No other direct values to be entered; the user interacts with the app through the buttons and links.

Outcome:

- Access to today's plan, progress tracking, and the main categories of the app, such as workout plans, meal plans, and community connections.

b. Reports / User Interface

i. For "My Workout and Nutrition Progress" Report (End User)

Purpose / Description:

- This report allows users to track their fitness and nutrition progress over time. It shows the workouts completed, meal plans followed, calories consumed/burned, and progress towards specific fitness goals.

Requirements:

- Users should be able to filter the report by date range (e.g., weekly, monthly) and by type of data (workouts, meals).
- The report should provide visual graphs or charts to easily track progress.
- Users should have the option to export the report for personal record-keeping or sharing.

ii. For "User Engagement and Subscription Status" Report (Administrator)

Purpose / Description:

- This report is intended for administrators to monitor user engagement and subscription status. It would show active, inactive, free, and premium users, with the ability to filter by sign-up date, subscription start/end dates, and engagement metrics (e.g., app logins, features used).

Requirements:

- The report must allow administrators to sort and filter users based on subscription status, engagement level, and date ranges.
- There should be a dashboard with key metrics highlighted, such as total number of users, conversion rate to premium, most-used features, etc.
- Administrators should be able to click on a user to see detailed engagement data and subscription history.

9.a. Developed and Fully Functional Features:

Interface Design: Utilized Figma to design and create 5 interface screens for the "We Go Jim" fitness app.
User Interface Elements: Developed visual representations of key components such as workout plans, meal suggestions, and social connectivity features.
Collaborative Design: Leveraged Figma's collaborative tools for team-based design work.

b. Functions/Features in the Backlog:

Functionalities: Since the project is currently in the design phase, functionalities such as AI-generated workout plans, personalized training advice, and the social leaderboard are in the backlog.
Interactive Features: Features like user engagement metrics, data security implementations, and backend integrations are pending development.

i. Prototypes for Missing Features:
 - AI-Generated Workout Plans: Prototype interactive for the users who want to be professional fitness trainers on the app. Who will train the premium users.

- Personalized Training Advice: Create a prototype illustrating the user journey to access personalized training advice from fitness professionals. Include features for video demonstrations, progress tracking, and direct communication.

10. Lessons Learned / References:

a. What Went Well?
Successful collaboration in designing and visualizing the app's interface using Figma.
Efficient utilization of Figma's collaborative features for team-based design work.
Positive reception of the interface screens during review sessions.

b. Challenges Encountered:
Initial learning curve with Figma's features and functionality.
Navigating design decisions and ensuring consistency across interface screens.
Managing time constraints for collaborative design efforts.

i. How Did You Overcome Them?
 - Conducted training sessions to familiarize the team with Figma's interface and collaborative tools.
 - Established design guidelines and conducted regular reviews to maintain consistency. - Implemented a phased approach to design tasks to accommodate time constraints.

c. What Would You Do Differently?
Invest in more comprehensive training upfront to expedite the learning curve.
Establish clearer design guidelines from the outset to streamline decision-making.
Allocate additional time for more iterative design sessions and feedback loops.

d. Software/Approach Used and Decided Against: i. Why? - Utilized Figma for its collaborative design capabilities and ease of use. - Considered other design tools but found Figma to be the most suitable for team collaboration and prototyping.

e. Helpful Insights for Future Development:
Prioritize team training on design tools to maximize efficiency.
Emphasize the importance of consistent design principles and guidelines.
Explore additional prototyping tools to enhance the user testing and feedback process.

f. References:
 i. Figma documentation and tutorials for ongoing skill development.
ii. Design and user experience principles from reputable sources.
iii. Collaboration tools for remote teams for future project planning.

11. Closing Comments:

a. Team's Closing Comments:

i. About the Specific Application:

- Positive reflections on the collaborative design process and the effectiveness of Figma.

- Recognition of the importance of user interface design in shaping the user experience.

ii. About the Class:

- Acknowledgment of the practical application of design principles and collaboration tools.

- Emphasis on the value of clear communication in the design and decision-making process.

iii. Recommendations for Future Classes:

- Include more hands-on sessions with design tools to enhance practical skills.

- Integrate discussions on design principles and their impact on user experience.

- Provide resources on effective remote collaboration tools for future projects.