

8020FIT.AI SPRINT 2

PRESENTED BY TEAM FITFORCE





AGENDA AGENDA AGENDA

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- WORKING AGREEMENT
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- METRICS
- RETROSPECTIVE
- SPRINT 3 PLANNING
- PROJECT DEMO (APP & API SCREENSHOTS)
- GITHUB LINK
- LIVE APP DEMO

MEET THE FITFORCE TEAM



ADRIAN EGASAN
Front End Developer



YAW MENSAH
Back End Developer



MUSTAFA AL-TAMEEMI
Back End Developer



MIGUEL LUGO
Front End Developer

MEET THE FITFORCE TEAM



ROHAN PATEL
Back End Developer

ADJUSTMENTS OF FEEDBACK

- The sizing of the diagrams were corrected for visibility
- The story points were assigned according to the Fibonacci sequence
- Users were clearly identified to specific roles
- Acceptance criteria updated to "Given, When, Then" format
- Legends were added to slides
- Product backlog extended to reflect work for all sprints
- We added ExerciseDB API and Spoonacular API instead WGER API

PROBLEM PROBLEM **PROBLEM**

People fail to achieve their nutrition and fitness goals due to overcomplicated health/fitness apps, lack of education, hectic lifestyles, expensive personal trainers & gym memberships, and misinformation in the nutrition & fitness industries.



A man in a gym is shown from the side, lifting a barbell with weights. The background is a brick wall. The text 'PROJECT PROJECT PROJECT' is overlaid on the image. The first two 'PROJECT' words are in white outline font, and the third 'PROJECT' word is in a solid yellow font.

PROJECT PROJECT PROJECT

8020FIT.AI is a comprehensive webapp deigned to optimize nutrition and fitness tracking. End users will take an in-depth quiz on what their fitness goals are as well as body measurements and goal body measurements. The AI will then create custom tailored workouts, and meal plans for the user. End users will also be able to log their workouts and macros to see if they're on track.

MVP (Minimum Viable Product)

- User Profile and Registration
 - a. Obtain user data via onboarding quiz: age, height, weight, fitness goals/experiences, workout preferences
- Workout And Meal Plan Regiment/Recommendation – API
 - a. Workout and Meal Plans are fetched off ExerciseDB API and Spoonacular API based off end user quiz metrics
- Maintain user friendly webapp
- AI Chatbot
 - a. Develop AI chat bot that can answer FAQs based on fitness

Project Name:	8020FIT.AI
Team:	Fit Force
Project Description:	<p>8020FIT.AI is a webapp that uses AI to create as well as track custom tailored workouts and nutrition plans for users based on their own goals.</p> <p>For busy working professionals who want the maximum ROI from fitness and nutrition without it consuming their busy lives the 8020FIT.AI is a customer tailored workout and nutrition plan builder as well as tracker that takes all your information relating to current and goal body measurements, eating habits, training proclivities, athletic goals and so much more to create seamless resistance/cardio workouts along with a delicious but healthy nutrition plan with proper goal tracking unlike other health and fitness apps which are not a comprehensive solution, are difficult to use, and the information displayed in them just ends up causing more confusion for end users our application gets end users hyper targeted on their nutrition and fitness goals by a in depth quiz where the AI will give out custom workouts and nutrition plans along with why it is recommending each specific exercise and meal (based on quiz inputs) as well as tracking important KPIs regarding end user goals which will be created into stunning visuals that can be played around with if the goals need to be tweaked.</p>
Benefit Outcomes:	<ul style="list-style-type: none"> - This app will be an all-in-one solution when it comes to everything health and wellbeing - Users will lose weight easily and it will be easier to track - Users will be able to build muscle - Users will be able to eat delicious, nutrient rich, and satiating meals - Users will have full clarify on where they want to take their health and fitness journey
<u>Github</u> Link:	https://github.com/htmw/2025SA-Team2

WORKING AGREEMENT OVERVIEW

Communication Framework:

- Primary channels: WhatsApp for instant messaging and video meetings
- Weekly mandatory Video meetings via WhatsApp: **2x a week**
- Meeting summaries/immediate action items posted on WhatsApp
- Advance notice required for meeting absences
- Additional meetings scheduled as needed

Workflow Framework

- Task assignments: Volunteer based during WhatsApp meetings
- Task tracking: Google Sheets
- Updates: **Everyday Updates** via WhatsApp Messages
- Collaboration: Share task approaches for feedback
- Workload: Equally divided; team support for struggling members

Team Values Framework

- Foster an effective, inclusive, and flexible environment
- Provide constructive criticism, avoid personal attacks
- Encourage open communication about project concerns before personal deadline
- Report interpersonal conflicts to team leader

Completion Framework

- **Set personal deadlines before official deadline**
- Record responsibilities and deadlines on GitHub
- Completion criteria: Functional code meeting project requirements **2 days** before self-accounted deadline
- Team code testing and review by **at least 2 other members**
- Align documentation with code
- Update code on GitHub
- Determine submission channel in advance

WORKING PROFESSIONAL PERSONA

- Age: 28
- Occupation: Marketing Manager
- Fitness Level: Beginner
- Technology Comfort: Moderate
- Goals: She wants to increase energy levels and lose weight, prefers quick and efficient workouts.
- Challenges: limited time due to a demanding job, limited knowledge about effective workout routines, hard to stay motivated.



COLLEGE STUDENT PERSONA

- Age: 22
- Occupation: Student
- Fitness Level: Intermediate
- Technology Comfort: High
- Goals: Build muscle and increase strength, trying new workout routines.
- Challenges: Limited equipment availability at his gym so he prefers body weight and minimal equipment exercises, needs a variety of workouts to prevent boredom



MIDDLE AGED MOM PERSONA

- Age: 38
- Occupation: Stay at home parent
- Fitness Level: Beginner
- Technology Comfort: Low to moderate
- Goals: Maintaining health and boosting energy for her family, prefers low-impact exercises that can fit around her children's schedules
- Challenges: Finds it challenging to set aside dedicated time for workout, overwhelmed by complex fitness apps, needs workouts that are gentle but effective, due to past injuries



TECHNOLOGIES TECHNOLOGIES TECHNOLOGIES

PROGRAMMING LANGUAGES

- Back End: Typescript
- Front End: React, Typescript

TOOLS

- Visual Studio Code
- AWS Amplify

TECHNOLOGIES TECHNOLOGIES **TECHNOLOGIES**

DATABASE

- AWS DynamoDB

API

- Rapid API (ExerciseDB API)
- Spoonacular API

ALGORITHMS

ALGORITHMS

ALGORITHMS

RULE-BASED MAPPING

- To map quiz answers to corresponding exercises and equipments.

RANDOM SAMPLING

- To make the exercises vary in order each time the user opens the workout page.

RESTFUL DATA FETCHING

- Allows us to get data from a local or remote server via ExerciseDB API

ALGORITHMS

ALGORITHMS

ALGORITHMS

SET DEDUPLICATION AND SAMPLING

- To avoid redundancies, the user gets a variety of exercises that target different muscle groups.

LOCAL DATA STORAGE

- Saves workout routines based on user's key. Retrieves and updates chosen workouts dynamically.

AUTHENTICATION/ACCESS CONTROL

- Secures API and data access using AWS Amplify Auth (Cognito) with role-based access control

ALGORITHMS

ALGORITHMS

ALGORITHMS

WORKOUT HISTORY SORTING

- Sorting workout by date in descending order so users will see the most recent workout completed

HORIZONTAL SCROLLING

- Using a flexbox layout, allows the user to view history from left to right for ease of viewing



WEEKLY

Meetings Twice a Week

SPR 000

January 25 – February 10

SPR 001

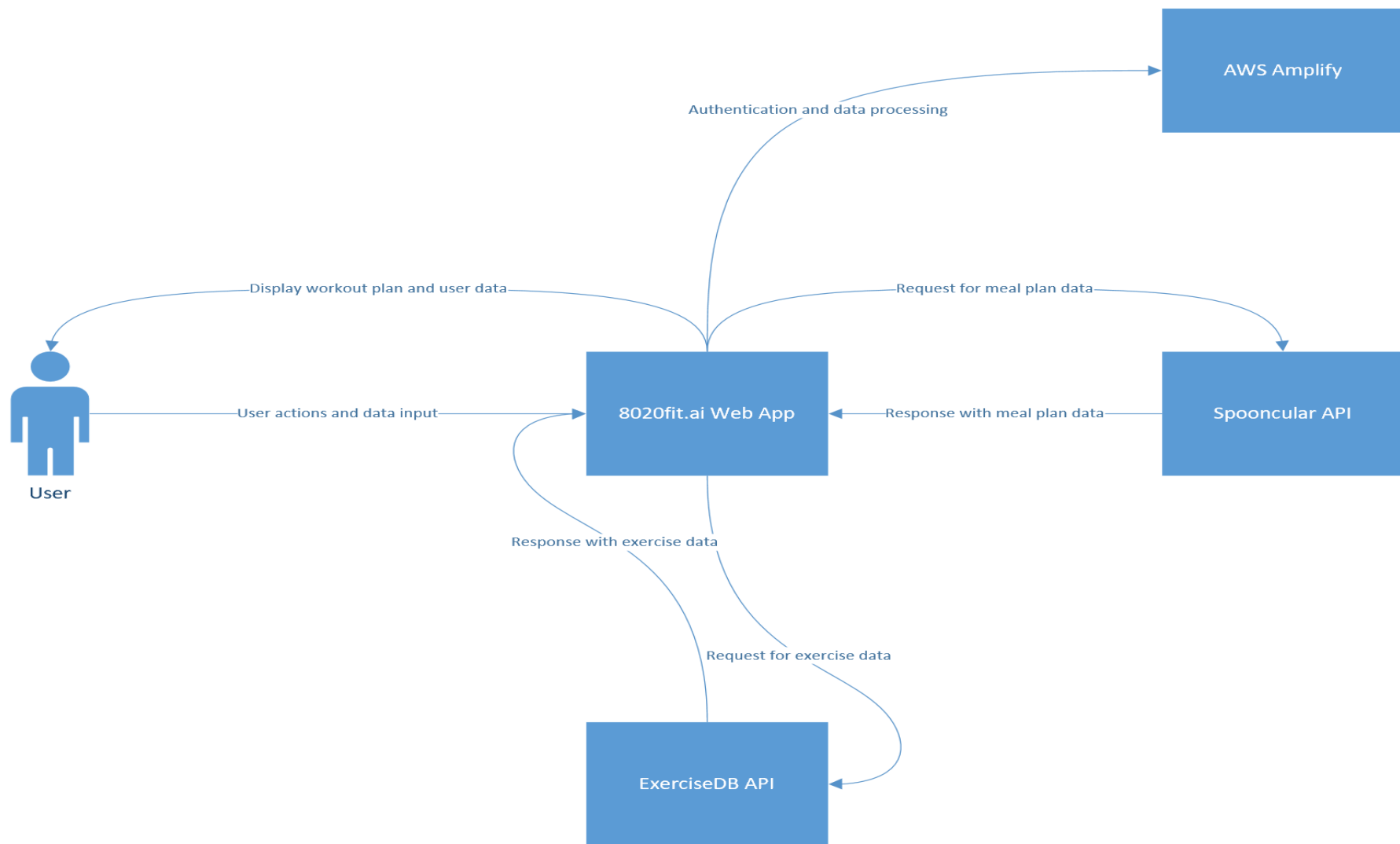
February 10 – March 10

SPR 002

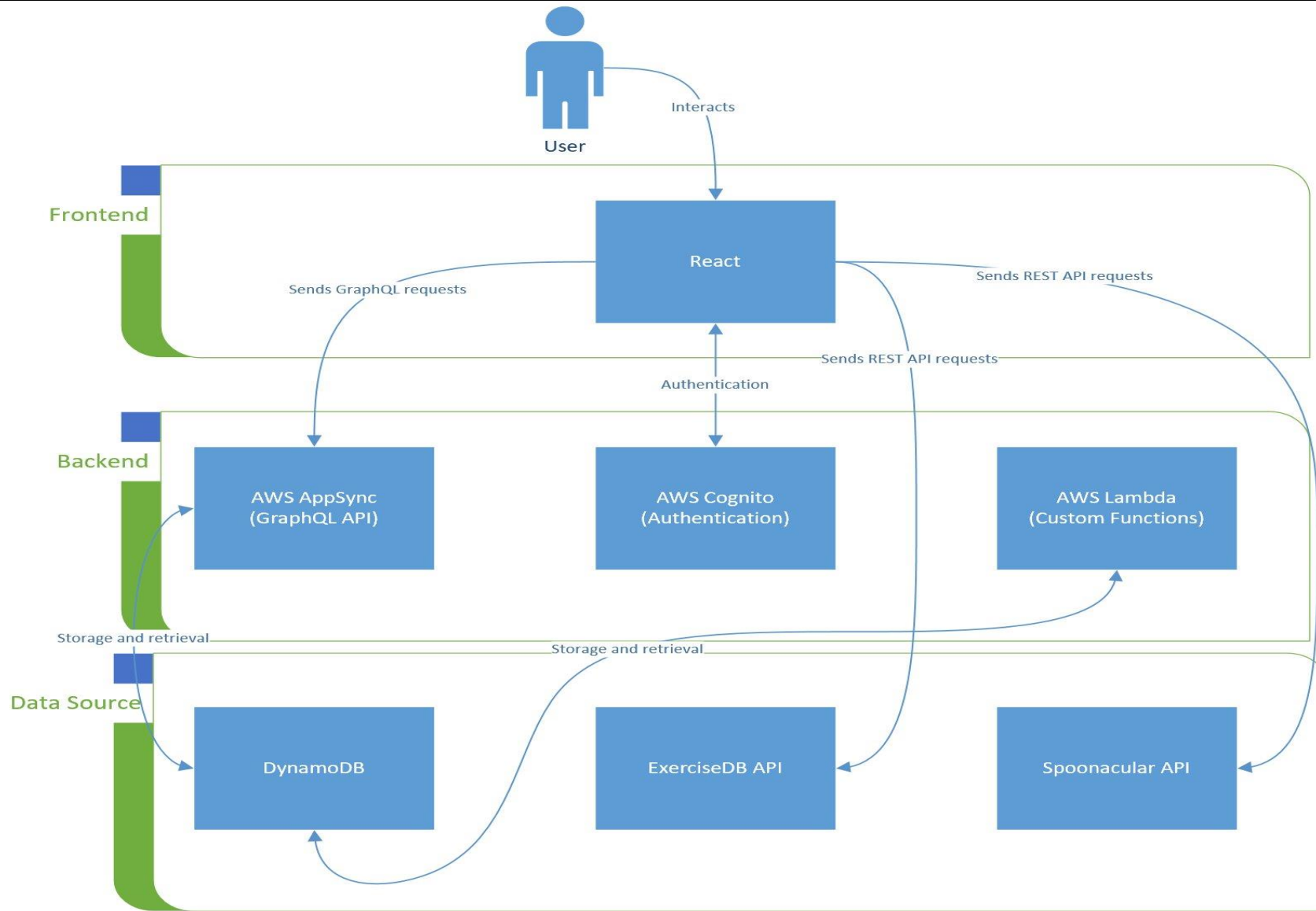
March 10 – April 7

SPR 003

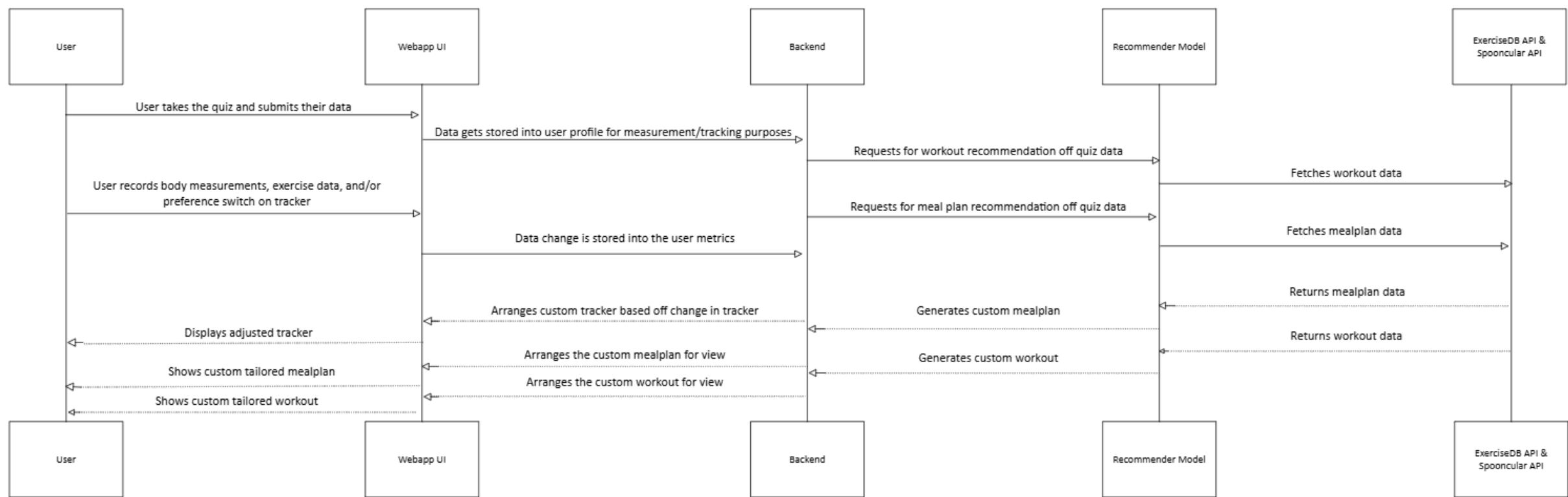
April 7 – May 5



CONTEXT DIAGRAM

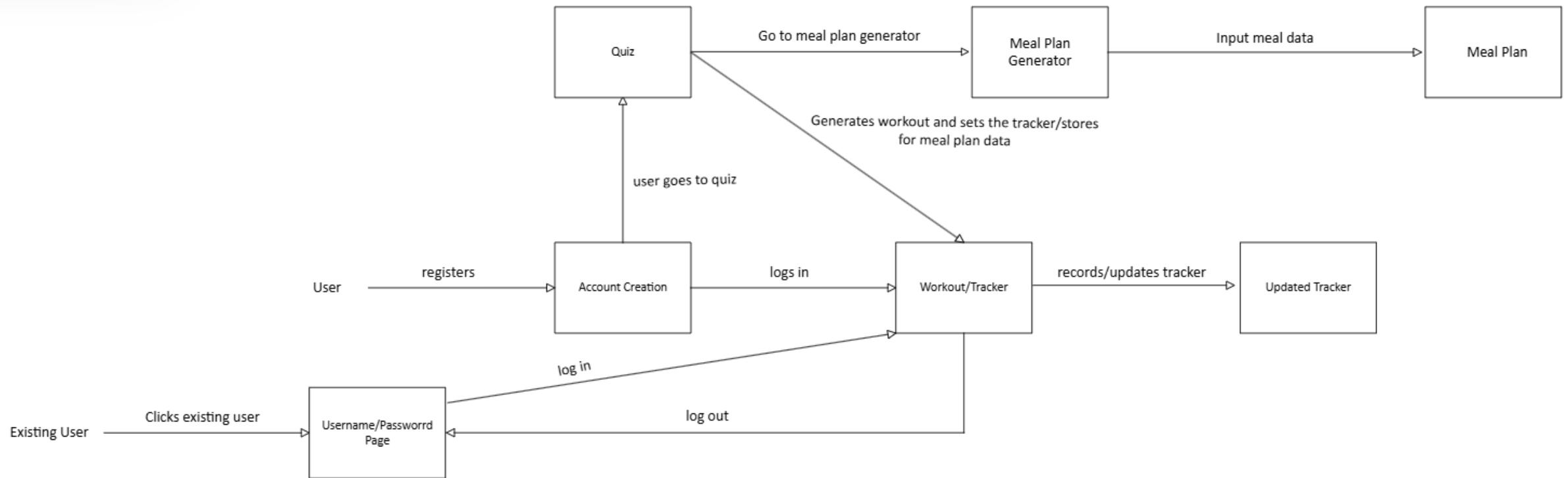


ARCHITECTURE DIAGRAM

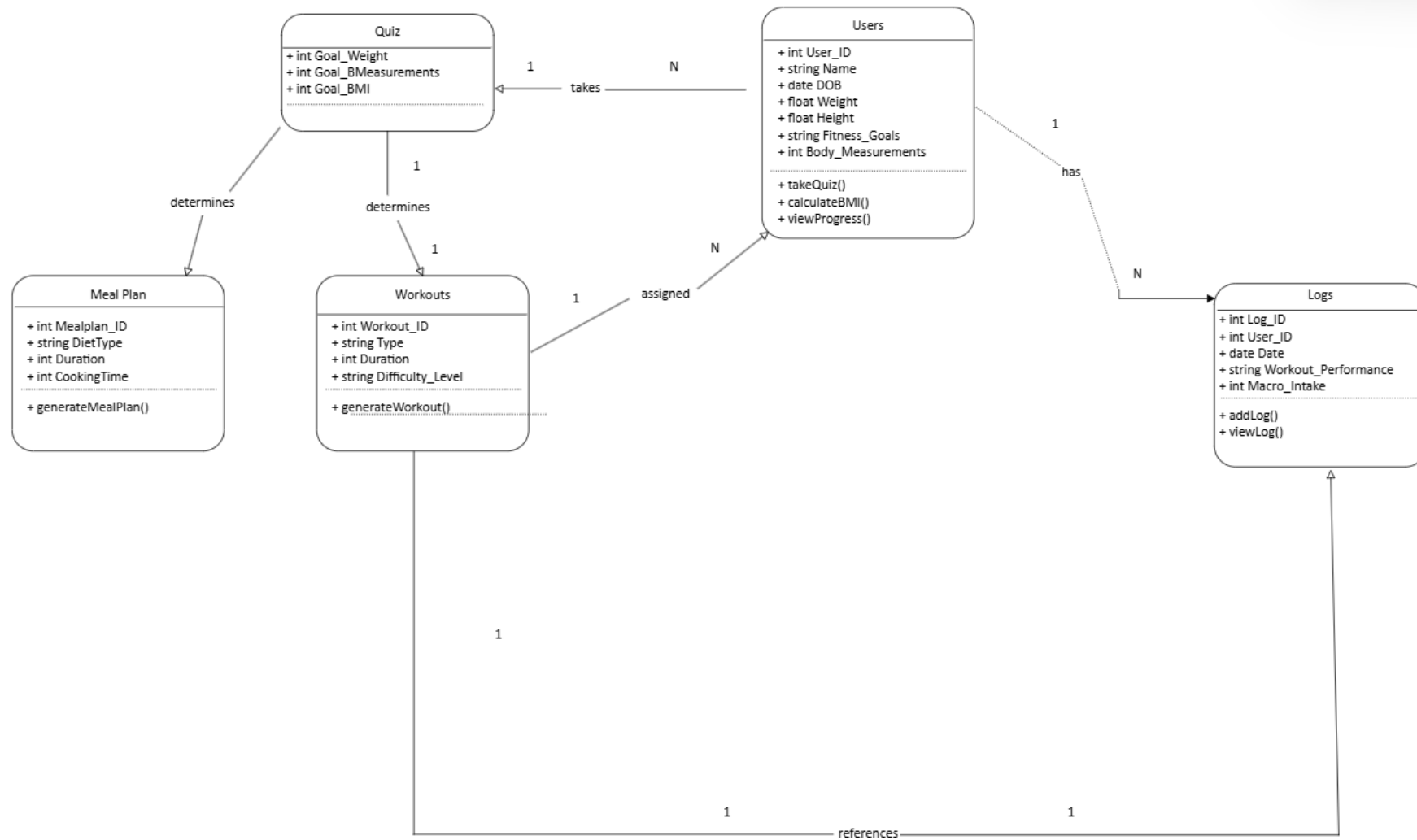


SEQUENCE DIAGRAM

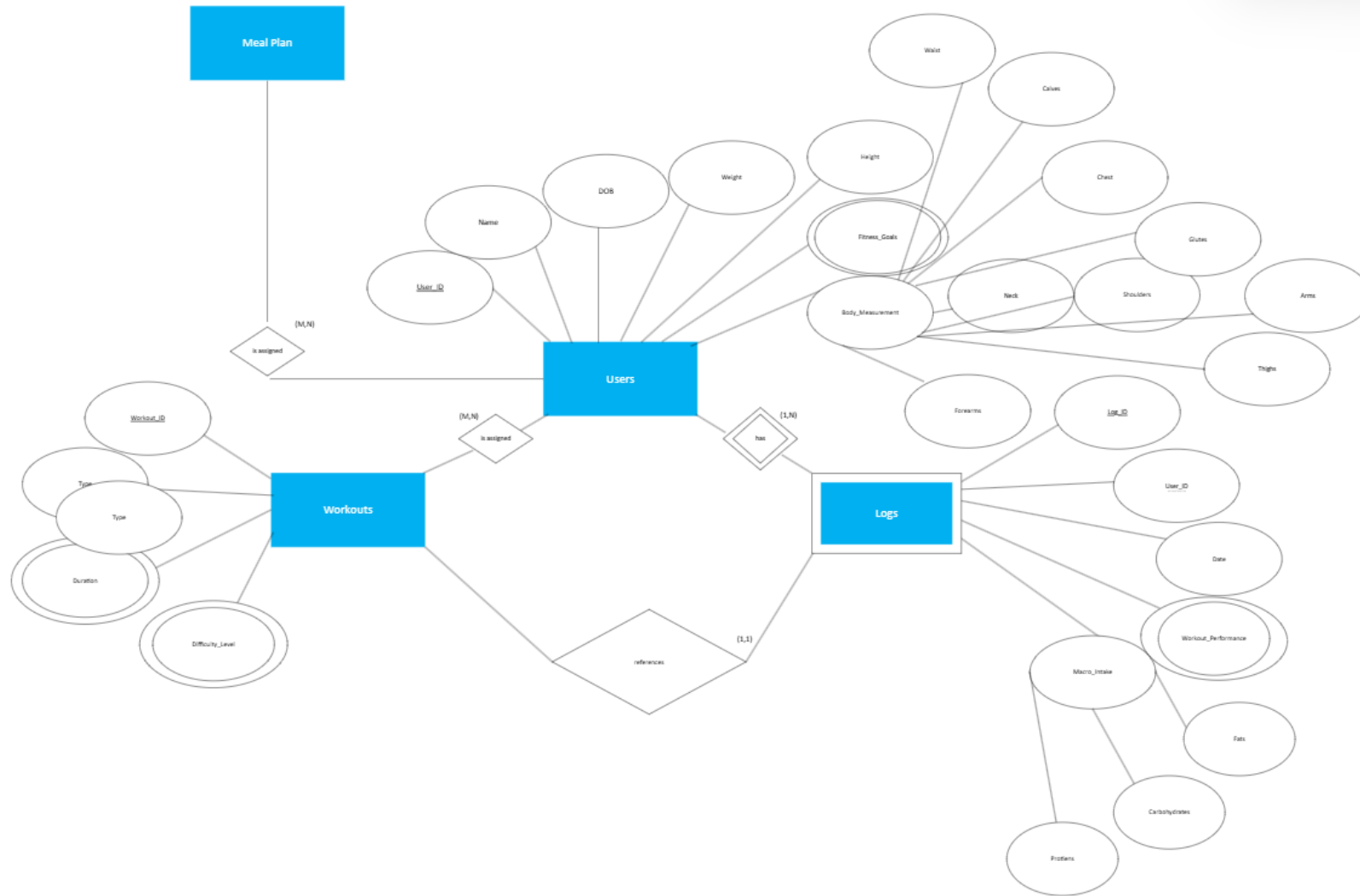
STATE DIAGRAM



CLASS DIAGRAM



ER DIAGRAM



Sprint 1 Recap

- Created delete account function
- Workout tracker for exercises established
- Generated workout based on the quiz data from fitness user
- Finalized front-end design for web app
- Developed product features and requirements

Product Backlog

Sprint 1

Sprint 2

Sprint 3

No.	User Stories	Acceptance Criteria	Feature	Story Points	Priority
1	As a user, I want to register for an account so I can access the webapp.	<p>Given the user wants to register for an account, when they input required information into the registration page, then they can register for an account.</p> <p>Establish password encryption and secure user storage.</p>	User Account	5	2
2	As a user, I want to complete an onboarding quiz so that I can get personalized fitness routines.	<p>Given that the user has just created an account, When they complete all required fields in the onboarding quiz, Then the system should generate and save a personalized fitness routine based on the quiz responses.</p> <p>Database creation to save user preference and body metrics</p>	User Account	6	2
3	As a user, I want to log in securely log in to my account and access my workout routines.	<p>Given that the user has a valid registered account, When they enter the correct credentials on the login screen, Then the system should authenticate the user and display their personalized dashboard with accessible routines.</p>	User Account	5	2
4	As a user, I want to be able to reset my password if I cannot access my account and workout info.	<p>Given that a user initiates a password reset request, When they provide a registered email address, Then the system should send a reset link and allow the user to create a new password securely.</p>	User Account	4	2
5	As a user, I want to build a workout routine based on my fitness goals and available equipment.	<p>Given that a user has completed the onboarding quiz, When they input or update their fitness goals and available equipment, Then the system should update or generate a workout plan aligned with those inputs.</p>	Workout Regiment	10	1

Product Backlog (cont'd)

Sprint 1	
Sprint 2	Priority 1 - High Priority
Sprint 3	Priority 3 - Low Priority

6	As a user, I want to edit my profile information to reflect my fitness progress and have new workout recommendations.	Given that a user is logged in and accesses their profile, When they edit fields such as fitness level, weight, or goals, Then the system should update their profile and dynamically adjust their workout recommendations.	Workout Regiment	6	2
7	As a user, I want to delete my account since I no longer use this program.	Given that a user is logged into their account, When they navigate to the settings page and select the delete account option, Then the system should prompt for confirmation and permanently delete the account upon approval.	User Account	5	2
8	As an admin, I want to manage users and user access to remove inactive accounts and maintain a viable platform.	Given that admins want to manage user access and permissions, when admins manage account permissions, deactivate, or delete accounts, then record of changes will take hold and be managed by system logs.	User Account	8	1
9	As a user, I want to view my workout plan to see the exercises, routines, sets, reps, equipment required to understand what I need to work on.	Given that a workout plan has been generated for the user, When they access the Workout section, Then the system should display the complete breakdown of exercises, sets, reps, and required equipment.	Workout Regiment	7	1
10	As a user, I want to note/mark completed workouts so that I can track my progress.	Given that a user views their workout routine for the day, When they mark an exercise or routine as completed, Then the system should record this completion and update their progress metrics accordingly.	Workout Regiment	4	3

Product Backlog (cont'd)

Sprint 1

Sprint 2

Sprint 3

Priority 1 - High Priority

Priority 3 - Low Priority

11	As a fitness user, I want to use an AI chat feature.	Given that users want an AI chat feature, When the user clicks on the AI chat button, Then Users will be able to use the AI chat feature to enter a prompt.	AI Chatbot	13	1
12	As a user, I want meal plan recommendations.	Given that a user wants meal plan recommendations, When the user interacts with the quiz, Then User will have meal plans generated for them.	Meal/Nutrition	8	2
13	As a fitness user, I want to access a user friendly app.	Given that access a user friendly app, When the user interacts with the system, Then Users will be able to navigate through an app that has a design and layout easy to use, is aesthetically pleasing and increases simplicity.	App	5	3
14	As a fitness user, I want multiple workout recommendations to select from.	Given that a fitness user wants multiple workout recommendations to select from, When the user builds their workout routine or completes the quiz, Then users will be able to select from multiple recommendations that populate to create a workout plan.	Workout Regiment	5	2
15	As a fitness user, I want to view videos on specific workouts.	Given that a fitness user wants to view videos on specific workouts, When the access an build their workouts in the Workout tab, Then the videos will populate along side specific workouts.	Workout Regiment	8	2

Product Backlog (cont'd)

Sprint 1
Sprint 2
Sprint 3

Priority 1 - High Priority
Priority 3 - Low Priority

16	As a fitness user, I want to view my calorie count/macros from meal suggestions.	Given that a fitness user wants to view their calorie count/macros from meal suggestions, When the user enters their info into the quiz, Then users will be able to view macros/ calorie count/ food information in the app.	Meal/Nutrition	8	1
17	As a nutrition enthusiast, I want to access more information on healthy recipes.	Given that a nutrition enthusiast wants to access more information on healthy recipes, When the user interacts with the system, Then Users will be able to view healthy meal options.	Meal/Nutrition	5	2
18	As a fitness user, I want tailored workout recommendations based on my weight.	Given that a fitness user wants tailored workout recommendations based on weight, When the user interacts with the system, Then the users will be able to get workouts based on their fitness goals.	Workout Regiment	5	2
19	As a design student, I want to access a webapp that has a design/layout of the workout page easy to interact with and build routines.	Given that a user wants to access a webapp with a design/layout of the workout page easy to interact with and build routines, When they access the workout section, Then they should be able to navigate a UI that it is aesthetically pleasing and easy to use.	App	2	3
20	As a developer, I want to enhance the AI chatbot to answer specific workout questions.	Given that a developer wants to enhance the AI chatbot to answer specific workout questions, When they update the chatbot features with enhanced prompts/training epochs, Then the system should answer in-depth questions on workouts.	AI Chatbot	8	1

Sprint 3 - Technical User Stories

Sprint 1

Sprint 2

Sprint 3

No.	User Stories	Acceptance Criteria	Feature	Story Points
TU_01	As a developer, I want to define user stories and acceptance criteria.	User stories are written in a universal format: As a [user role], I want [goal] so that [benefit]. Acceptance criteria and story points are defined for each user story.	Technical	2
TU_02	As a developer, I want a finalized project diagram that displays the project components.	Architecture Diagrams, Context Diagram, ER Diagrams, Sequence Diagram, State Diagrams, Class Diagrams.	Technical	1
TU_03	As a developer, I want to generate test cases for Sprint 1 user stories to verify accurate implementation.	Test cases are created for each user story in Sprint 1. Aim is to vet correct feature implementation.	Technical	1

Sprint 3 - Technical User Stories

Sprint 1

Sprint 2

Sprint 3

TU_04	As a developer, I want write a technical paper for the project that represent the technical features and structure of the project.	Technical paper is written and reviewed by team members.	Technical	1
TU_05	As a developer, I want to generate test cases for Sprint 2 user stories to verify accurate implementation.	Test cases are created for each user story in Sprint 2. Aim is to vet correct feature implementation.	Technical	2
TU_06	As a developer, I want to create an installation manual for the project.	The Installation Manual (IM) will assist developers in deploying the web application to the corresponding environment. It will indicate the tools and resources required. The IM will be vetted by team members.	Technical	1

Sprint 3 - Technical User Stories

Sprint 1
Sprint 2
Sprint 3

TU_07	As a developer, I want to develop an API documentation .	The API documentation will have information on all endpoints and request methods. The documentation will be vetted by team members/developers.	Technical	2
TU_08	As a developer, I want to generate test cases for Sprint 3 user stories to verify accurate implementation.	Test cases are created for each user story in Sprint 3. Aim is to vet correct feature implementation.	Technical	1

Sprint 2 Stories

Sprint 2 Stories

Priority 1 - High Priority

Priority 3 - Low Priority

No.	User Stories	Acceptance Criteria	Feature	Story Points
US_08	As an admin, I want to manage users and user access to remove inactive accounts and maintain a viable platform.	Given that admins want to manage user access and permissions, when admins manage account permissions, deactivate, or delete accounts, then record of changes will take hold and be managed by system logs.	User Account	8
US_11	As a fitness user, I want to use an AI chat feature.	Given that users want an AI chat feature, When the user clicks on the AI chat button, Then Users will be able to use the AI chat feature to enter a prompt.	AI Chatbot	13
US_12	As a user, I want meal plan recommendations .	Given that a user wants meal plan recommendations, When the user interacts with the quiz, Then User will have meal plans generated for them.	Meal/Nutrition	8

Sprint 2 Stories (cont'd)

Sprint 2 Stories

Priority 1 - High Priority

Priority 3 - Low Priority

US_13	As a fitness user, I want to access a user friendly app.	Given that access a user friendly app, When the user interacts with the system, Then Users will be able to navigate through an app that has a design and layout easy to use, is aesthetically pleasing and increases simplicity.	App	5
US_14	As a fitness user, I want multiple workout recommendations to select from.	Given that a fitness user wants multiple workout recommendations to select from, When the user builds their workout routine or completes the quiz, Then users will be able to select from multiple recommendations that populate to create a workout plan.	Workout Regiment	5
US_15	As a fitness user, I want to view videos on specific workouts.	Given that a fitness user wants to view videos on specific workouts, When the access an build their workouts in the Workout tab, Then the videos will populate along side specific workouts.	Workout Regiment	8

Sprint 2 Test Cases

US_08 As an admin, I want to manage users and user access to remove inactive accounts and maintain a viable platform.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_08_01	Manage User Access	1. Log into the webapp. 2. Navigate and click on the "Settings" tab. 3. Select "Delete Account". 4. Confirm account deletion.	The system administrator should be able to manage user access, remove users, edit appropriate information.	Pass	Apr 1	Rohan

US_11 As a fitness user, I want to use an AI chat feature.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_11_01	Verify AI Chat Launch	1. Log into the webapp. 2. Navigate and click on the AI chat button. 3. Chat window should open.	The AI chat interface opens up and is ready for prompts/text.	Pass	Mar 22	Miguel
TC_11_02	Verify Accurate Chat Response	1. Open the chat bubble. 2. Enter workout related prompt and receive an adequate response regarding the conversation.	The AI chat will respond to prompts entered for the conversation thread.	Pass	Mar 23	Miguel

US_12 As a user, I want meal plan recommendations.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_12_01	Verify Meal Plan Recommendations	1. Log into the webapp. 2. Navigate and click on the MealPlan tab. 3. Follow the prompts to put in food goals. 4. Continue to and view full meal plan.	Users will receive a full week's meal plan recommendation after entering food goals/accommodations.	Pass	Mar 31	Rohan

Sprint 2 Test Case

US_13 As a fitness user, I want to access a user friendly app.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_13_01	Ensure App Simplicity	1. Navigate through webapp from sign up to app utilization. 2. Review routing and laning pages. 3. Verify app meets minimum requirements.	The app should be easy to navigate, aesthetically pleasing, and have intuitive routing on front- and back- end.	Pass	Apr 6	Yaw

US_14 As a fitness user, I want multiple workout recommendations to select from.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_14_01	Verify Manual Workout Selection	1. Access the Workout tab. 2. Select workouts that are desired to be incorporated into fitness plan. 3. Check tracker and view manually added workouts.	Fitness app users can manually select the workouts they would like to incorporate into their fitness plan.	Pass	Mar 28	Adrian

US_15 As a fitness user, I want to view videos on specific workouts.

TC	TC Title	Step Description	Expected Results	Execution Status	Execution Date	Tester
TC_15_01	Verify Video Generation	1. Login to webapp and access the Workout tab. 2. Create a workout plan based on suggestion or preference. 3. Verify the workouts have an associated video.	Workout recommendations will have a corresponding instructional video supplementation.	Pass	Mar 19	Mustafa

Sprint 2 Stories Completed and Not

US_ID	User Stories	Completed Date	Story Points	Completed
US_8	As an admin, I want to manage users and user access to remove inactive accounts and maintain a viable platform.	Mar 29	8	8
US_11	As a fitness user, I want to use an AI chat feature.	Feb 20	13	13
US_12	As a user, I want meal plan recommendations.	Apr 4	8	8
US_13	As a fitness user, I want to access a user friendly app.	Apr 6	5	5

Sprint 2 Stories Completed and Not

US_ID	User Stories	Completed Date	Story Points	Completed
US_14	As a fitness user, I want multiple workout recommendations to select from.	Mar 25	5	5
US_15	As a fitness user, I want to view videos on specific workouts.	Mar 17	8	8

Team Velocity

Sprint 2 Velocity

Total Story Points: 47

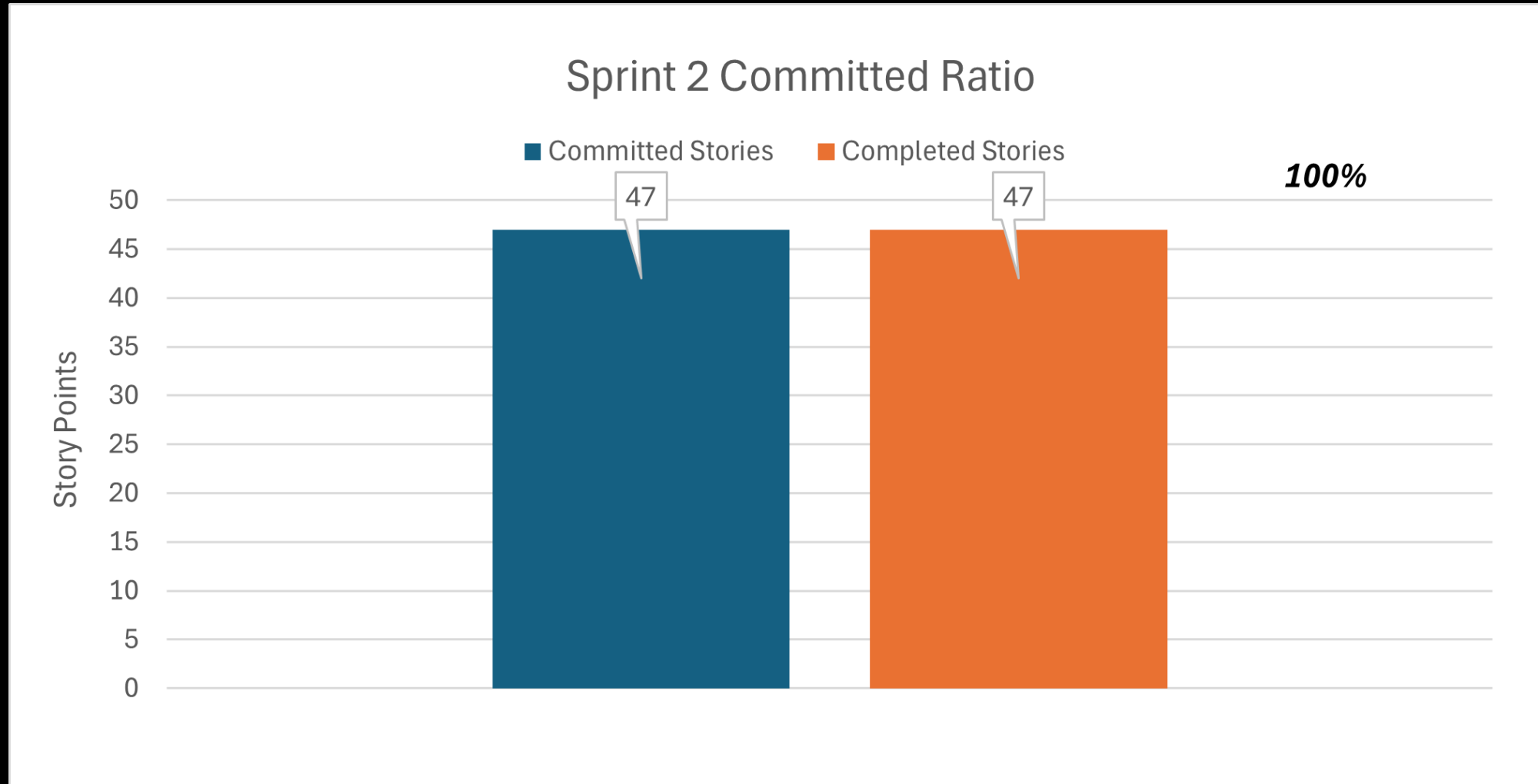
Velocity: 47 story points completed.

Team Historical & Average Velocity

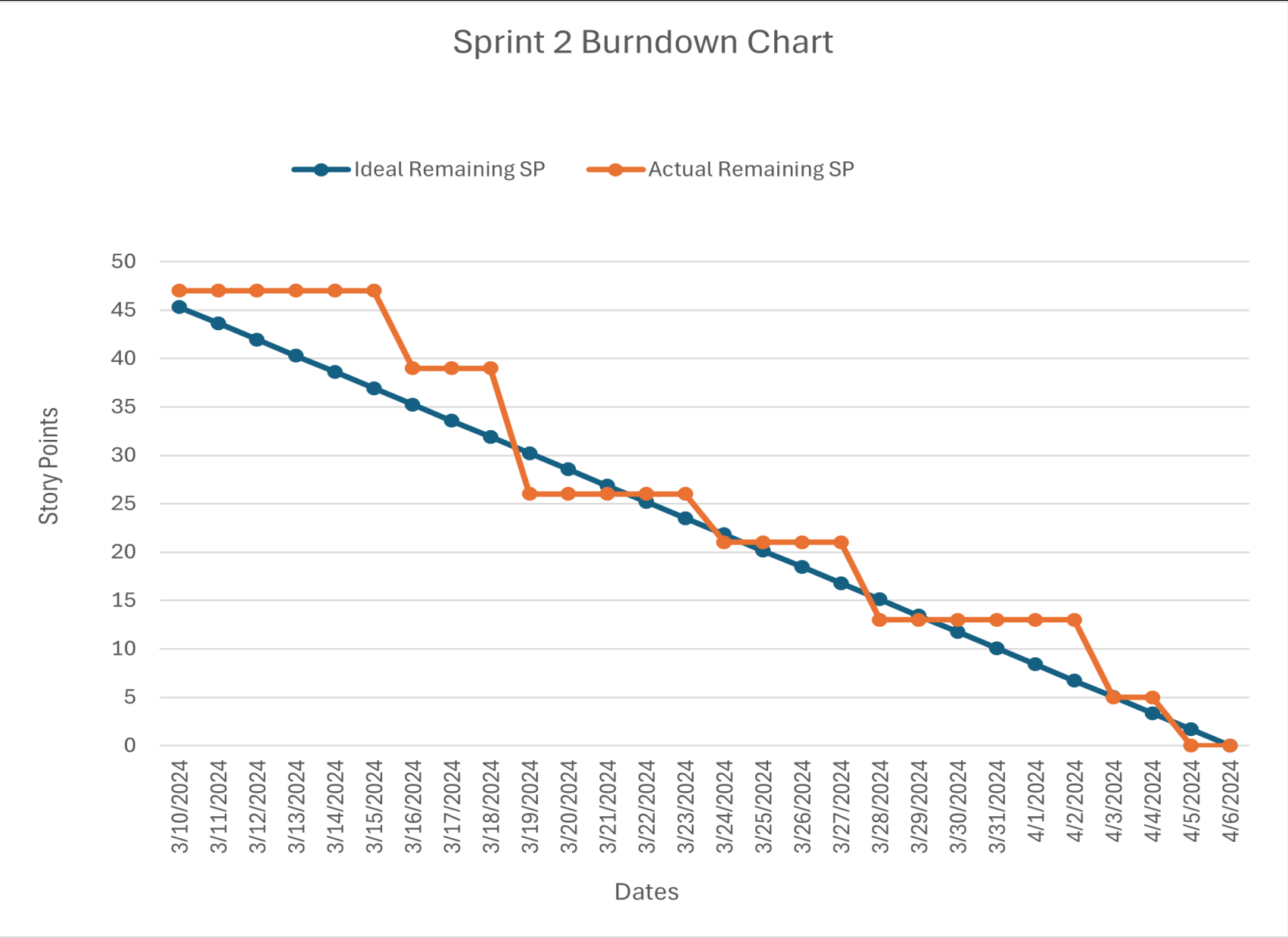
Sprint 1 Velocity: 53 story points completed

Average Velocity: $(53 + 47) / 2 = 50$ points

Committed Ratio



Sprint 2 Burndown Chart



RETROSPECTIVE

RETROSPECTIVE

RETROSPECTIVE

GOOD

- Worked better with us focusing on our own features
- We were open to change if something did not work
- Communication was better regarding updates on the group chats
-

BAD

- Some features took longer to implement
- Features were not exactly as we thought up
- We were able to meet less due to hectic schedules
-

APPLY

- We will meet as often as needed
- We will anticipate more on backup plans regarding features
- Keep communicating even through messages
-

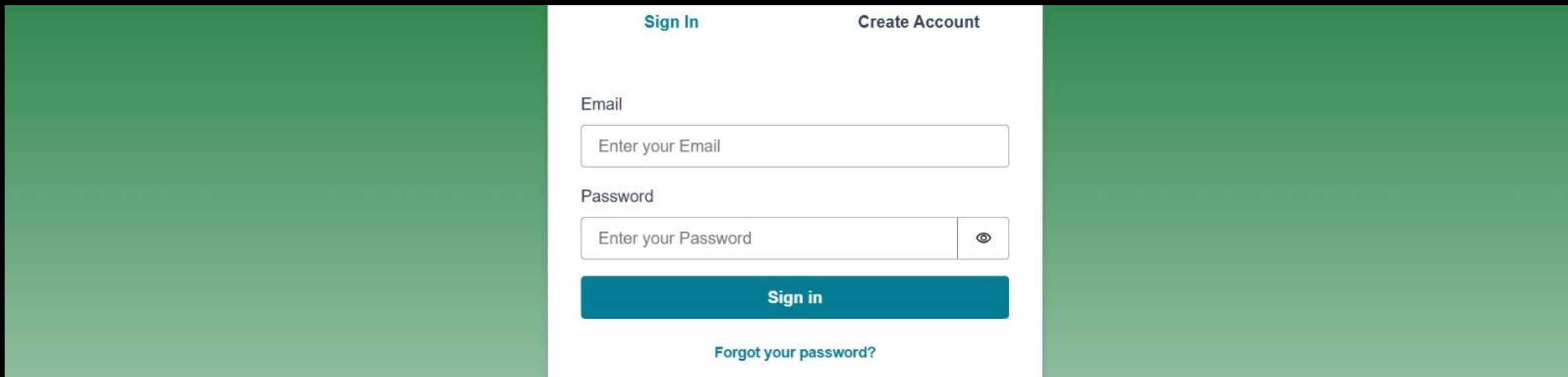
Sprint 3 Planning

US_ID	User Stories	Acceptance Criteria	Feature	Story Points
US_16	As a fitness user, I want to view my calorie count/macros from meal suggestions.	Given that a fitness user wants to view their calorie count/macros from meal suggestions, When the user enters their info into the quiz, Then users will be able to view macros/ calorie count/ food information in the app.	Meal /Nutrition	8
US_17	As a nutrition enthusiast, I want to access more information on healthy recipes.	Given that a nutrition enthusiast wants to access more information on healthy recipes, When the user interacts with the system, Then Users will be able to view healthy meal options.	Meal /Nutrition	5
US_18	As a fitness user, I want tailored workout recommendations based on my weight.	Given that a fitness user wants tailored workout recommendations based on weight, When the user interacts with the system, Then the users will be able to get workouts based on their fitness goals.	Workout Regiment	5

Sprint 3 Planning

US_ID	User Stories	Acceptance Criteria	Feature	Story Points
US_19	As a design student, I want to access a webapp that has a design/layout of the workout page easy to interact with and build routines.	Given that a user wants to access a webapp with a design/layout of the workout page easy to interact with and build routines, When they access the workout section, Then they should be able to navigate a UI that it is aesthetically pleasing and easy to use.	App	2
US_20	As a developer, I want to enhance the AI chatbot to answer specific workout questions.	Given that a developer wants to enhance the AI chatbot to answer specific workout questions, When they update the chatbot features with enhanced prompts/training epochs, Then the system should answer in-depth questions on workouts.	AI Chatbot	8

APP SCREENSHOT

A screenshot of a mobile application's sign-in screen. The screen has a white background with a teal header bar. At the top, there are two links: "Sign In" and "Create Account". Below these, there are two input fields: "Email" and "Password". The "Email" field has a placeholder text "Enter your Email". The "Password" field has a placeholder text "Enter your Password" and a toggle icon (an eye) to its right. Below the input fields is a teal button labeled "Sign in". At the bottom, there is a link "Forgot your password?". The screen is flanked by two large teal rectangular areas.

Sign In Create Account

Email

Enter your Email

Password

Enter your Password

Sign in

Forgot your password?

APP SCREENSHOT

Started

Basic Info — Fitness Goals — Preferences

Basic Info

Age *

Height *

Feet Inches

5 0

Weight (lbs) *

Gender *

Select Gender ▼

Body Type *

Select Body Type ▼

Next

APP SCREENSHOT

The screenshot shows a mobile app onboarding screen with a white background and a green header. The main heading is 'Let's Get Started' in a large, bold, green font. Below the heading is a progress bar with three steps: 'Basic Info', 'Fitness Goals' (which is highlighted in green), and 'Preferences'. Under the 'Fitness Goals' section, there are two dropdown menus. The first is labeled 'Fitness Goal Type *' and has 'Muscle Gain' selected. The second is labeled 'Fitness Type *' and has 'Strength Training' selected. At the bottom of the screen, there are two buttons: a grey 'Back' button on the left and a green 'Next' button on the right.

Let's Get Started

Basic Info — Fitness Goals — Preferences

Fitness Goals

Fitness Goal Type *

Muscle Gain ▼

Fitness Type *

Strength Training ▼

Back Next

APP SCREENSHOT

Let's Get Started

Basic Info

Fitness Goals

Preferences

Preferences

Workout Frequency

3-4 days/week



Preferred Workout Time

Evening



Equipment Available

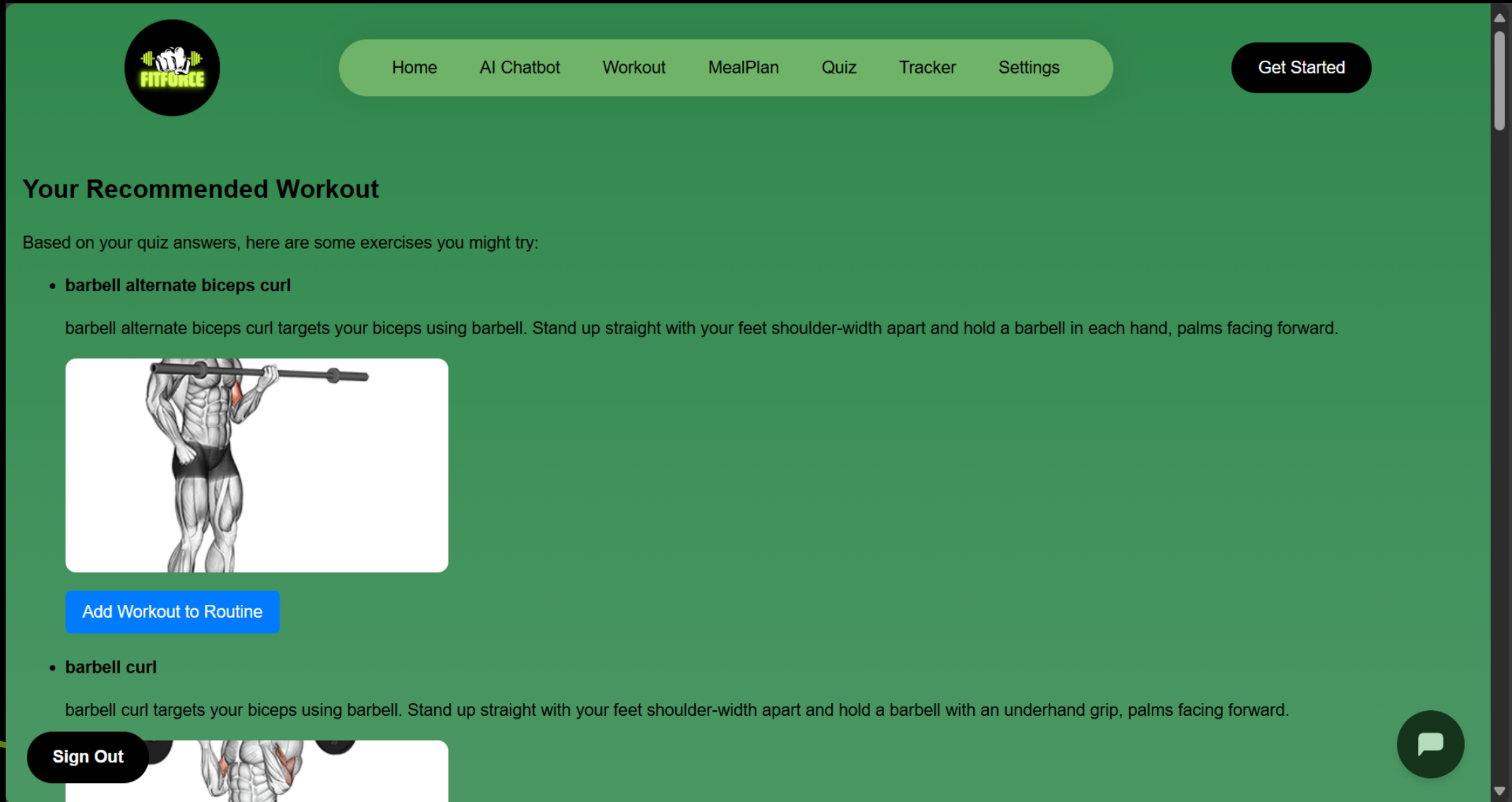
Full Gym Access



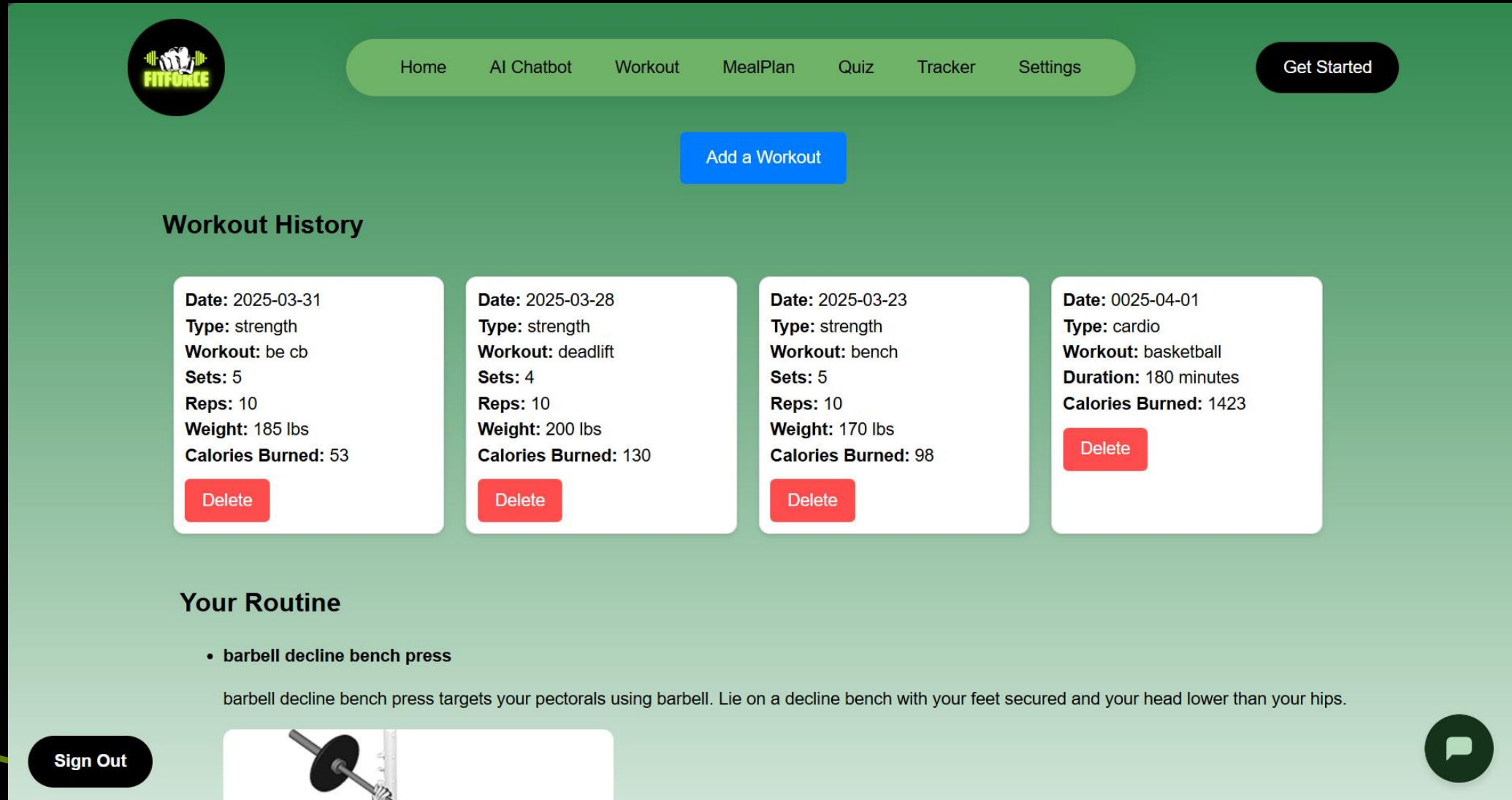
Back

Submit

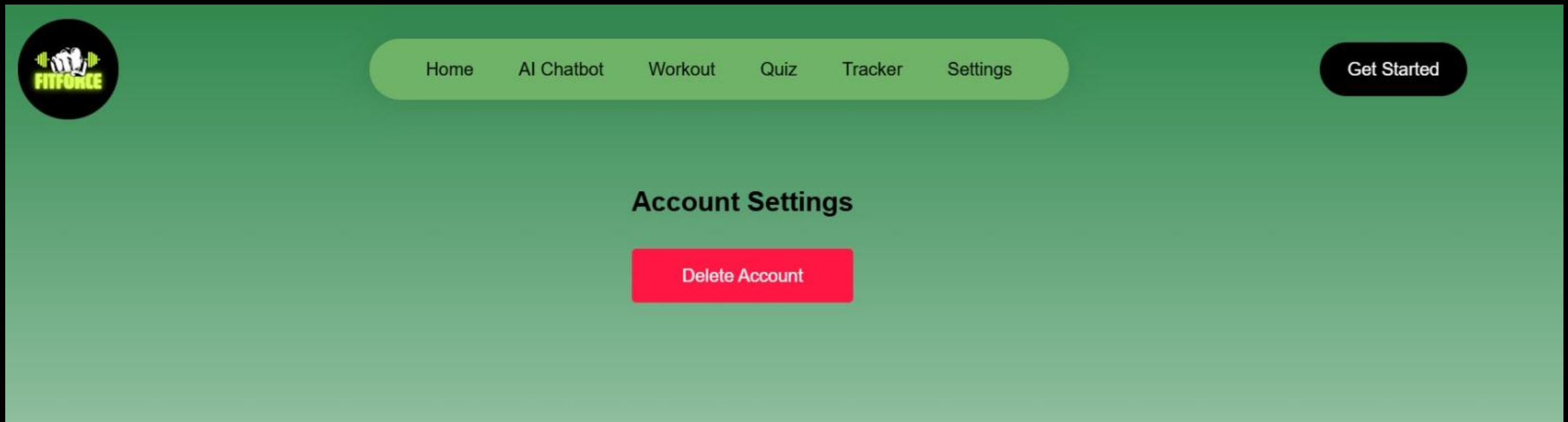
APP SCREENSHOT



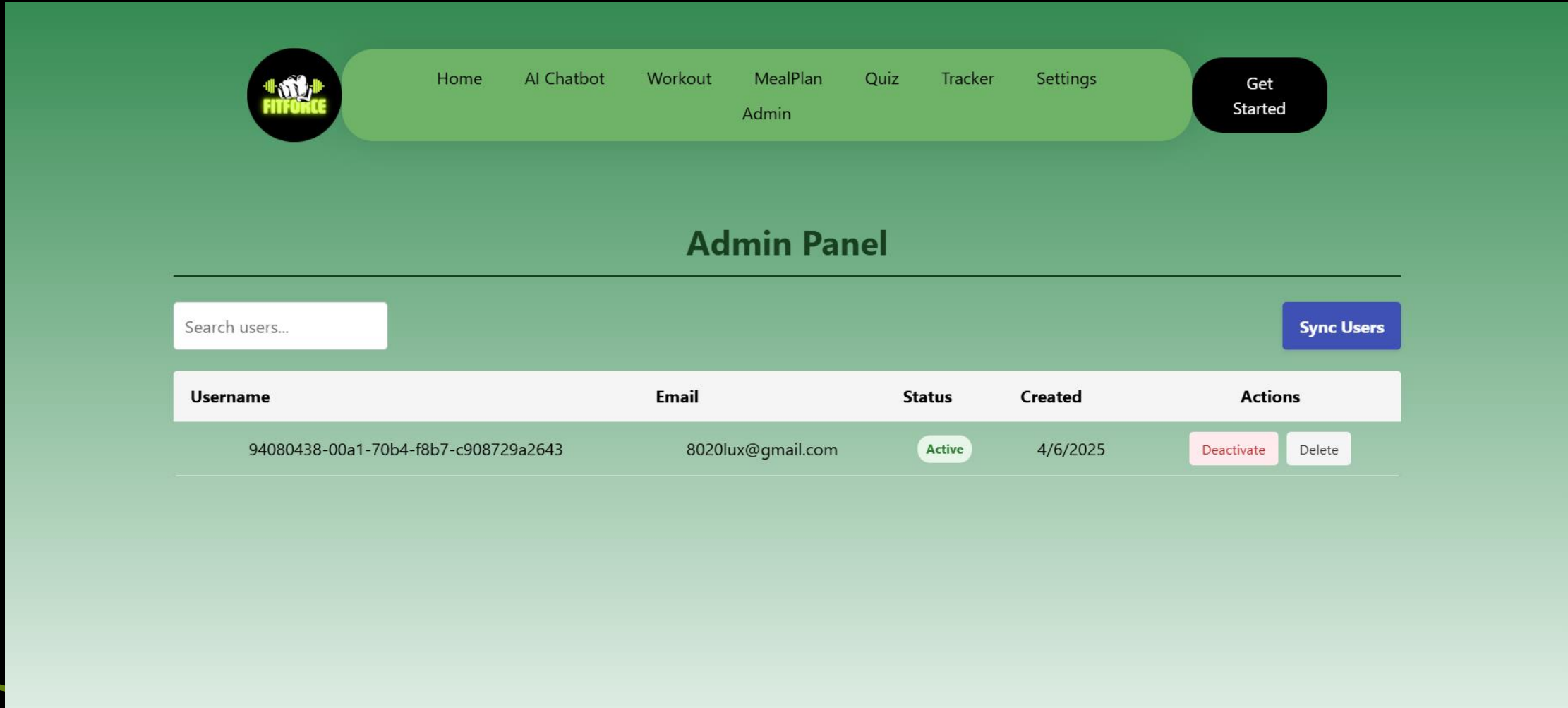
APP SCREENSHOT



APP SCREENSHOT



APP SCREENSHOT



APP SCREENSHOT

Dietary Preferences

Using your profile data: Your meal plan is being personalized using your height (5'6"), weight (160 lbs), age (25), and fitness goal (muscleGain).

Diet Type

No Specific Diet

Food Intolerances

☐ Dairy ☐ Egg ☐ Gluten ☐ Grain ☐ Peanut ☐ Seafood ☐ Sesame

☐ Shellfish ☐ Soy ☐ Sulfite ☐ Tree Nut ☐ Wheat

Meal Plan Duration (Days)

7

Note: Meal plans are generated with 3 meals per day (breakfast, lunch, dinner). The total daily nutritional targets are adjusted based on your profile and goals.

Generate Meal Plan

Maximum Cooking Time (minutes)

60

Cuisine Preferences

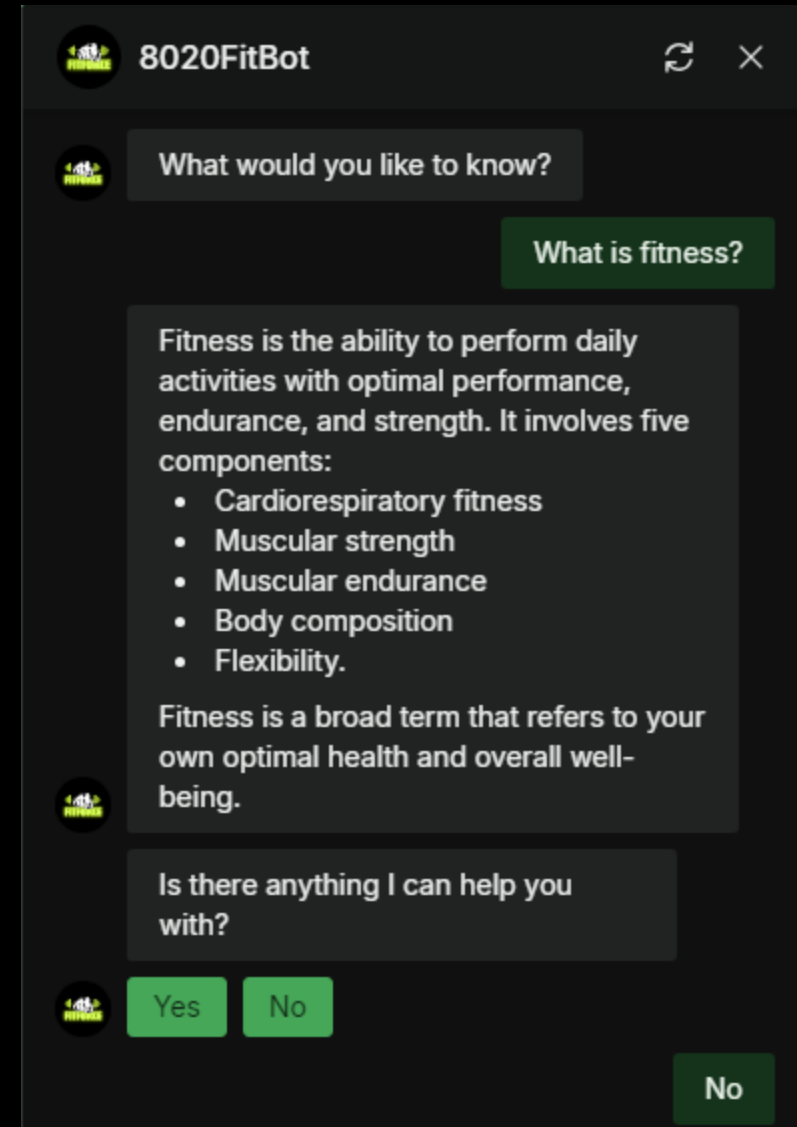
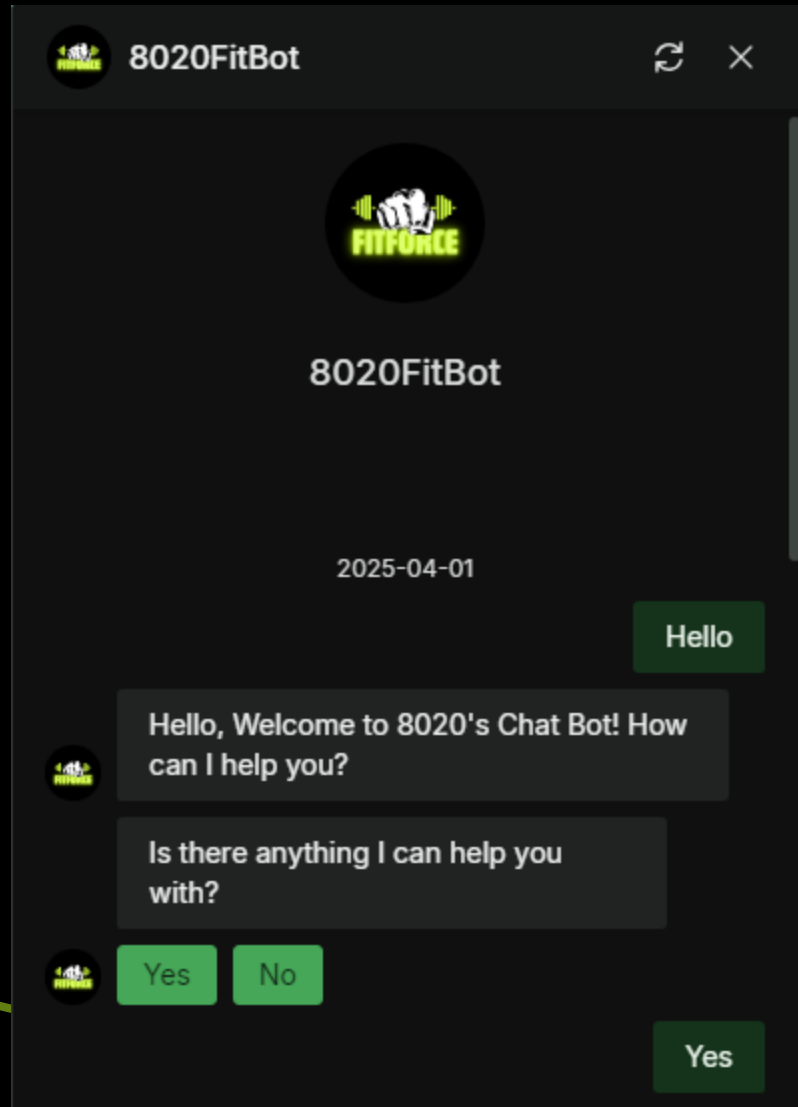
☐ African ☐ American ☐ British ☐ Cajun ☐ Caribbean ☐ Chinese ☐ European

☐ French ☐ German ☐ Greek ☐ Indian ☐ Italian ☐ Japanese ☐ Korean

☐ Mediterranean ☐ Mexican ☐ Middle Eastern ☐ Thai ☐ Vietnamese

Sign Out

APP SCREENSHOT



API

API

AWS AMPLIFY API

- Type: GraphQL API
- Purpose: Manages user onboarding data (storing fitness preferences, goals, etc.).
- How it Works:
 - AWS Amplify automatically generates GraphQL API endpoints to interact with DynamoDB.
 - Instead of manually sending HTTP GET or POST requests (like in Axios), Amplify abstracts API calls through its client models.

EXERCISEDB API

- Type: REST API
- Purpose: Fetches exercise recommendations based on user preferences.
- How it Works:
 - The app makes GET requests to the ExerciseDB API to retrieve exercise data that matches user preferences.
 - This is done through `fetch()` in the `Workout.tsx` component.

AWS COGNITO AUTHENTICATION API

- Type: Authentication API
- Purpose: Manages user authentication (sign-up, login, and identity verification).
- How it Works:
 - AWS Cognito handles authentication and returns a user token after login.
 - This token is used to authorize API requests to Amplify's backend.

API

API

SPOONCULAR API

- Type: REST API
- Purpose: Fetches meal recommendations based on user metrics.
- How it Works:
 - The app makes GET requests to the Spoonacular API to retrieve meal plan data that matches user metrics.
 - This is done through `fetch()` in the `spoonacularService.tsx` component.

API

```
// Retrieves onboarding quiz data for the logged-in user
const result = await client.models.OnboardingData.list({
  filter: { userID: { eq: userID } },
});

// Creates new user data into DynamoDB if not already present
await client.models.OnboardingData.create({
  userID,
  age: parseInt(formData.age, 10),
  fitnessGoalType: formData.fitnessGoalType,
  workoutFrequency: formData.workoutFrequency,
  equipmentAvailable: formData.equipmentAvailable,
  fitnessType: formData.fitnessType,
});

// Updates existing onboarding quiz data
await client.models.OnboardingData.update({
  id: existingRecordId,
  userID,
  preferredWorkoutTime: formData.preferredWorkoutTime,
});

// Retrieves the authenticated user's ID
const currentUser = await getCurrentUser();
const userID = currentUser.userID;

// Fetches exercise data based on user-specific quiz inputs
const equipmentList = mapEquipmentToName(userData.equipmentAvailable);
const targetMuscles = mapGoalToMuscles(userData.fitnessGoalType);
const additionalMuscles = mapFitnessTypeToMuscles(userData.fitnessType);
const allMuscles = Array.from(new Set([...targetMuscles, ...additionalMuscles]));

for (const muscle of allMuscles) {
  const url = `https://exercisedb.p.rapidapi.com/exercises/target/${encodeURIComponent(muscle)}`;
  const response = await fetch(url, {
    method: 'GET',
    headers: {
      'X-RapidAPI-Key': RAPIDAPI_KEY,
      'X-RapidAPI-Host': "exercisedb.p.rapidapi.com",
    },
  });
  const data = await response.json();
  // Filter by equipment and sample results
  const filtered = data.filter((ex: any) =>
    equipmentList.some(e => ex.equipment.toLowerCase() === e.toLowerCase())
  );
  // Map final exercise results
  exercises.push(...filtered.slice(0, 3).map((ex: any) => ({
    id: ex.id,
    name: ex.name,
    description: `${ex.name} targets your ${ex.target} using ${ex.equipment}. ${ex.instructions?.[0] ?? 'Perform with control and form.'}`,
    videoUrl: ex.gifUrl || null,
  })));
}

// Retrieves meal data based on user-specific quiz inputs
const SPOONACULAR_BASE_URL = 'https://api.spoonacular.com';
const API_KEY = 'a298e7d7b6f146ab82baec0971264435';
```



THANK YOU

[HTTPS://GITHUB.COM/EGASAN21/8020FIT](https://github.com/EGASAN21/8020FIT)