Motivation and Problem Selection

The goal of this project was to analyze user needs for a fitness app by identifying their challenges, pain points, and objectives when using fitness technology. My motivation for choosing this topic stemmed from a common frustration: I found myself relying on multiple apps to track different aspects of my fitness journey. One app for calorie counting, another for step tracking, and yet another for workout routines. Despite the abundance of fitness apps available, there seems to be no single solution that seamlessly integrates all these features. This personal experience, along with similar frustrations shared by many others, inspired me to explore this problem further. By conducting research and interviewing individuals with diverse fitness backgrounds, I aimed to identify these gaps and provide valuable insights for designing a more comprehensive and user-friendly fitness app.

Needfinding Methodology

In this section, I explain the methodology I used to gather user feedback, how participants were selected, and the methods we used to ensure diverse perspectives.

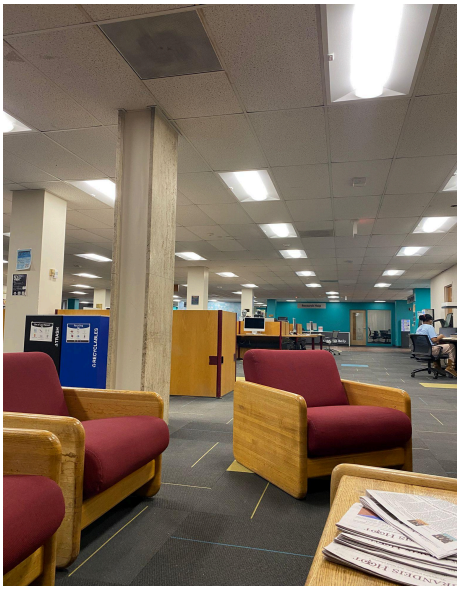
Participant Selection and Recruitment

To gain diverse insights, I conducted interviews with three individuals, each with unique experiences and fitness goals. Participants were selected based on their familiarity with fitness apps and their distinct approaches to fitness. This diversity was key to capturing a broad range of use cases. While all participants maintained a regular fitness routine, their engagement with fitness apps varied: some used them consistently, others occasionally, and some not at all. The participants were:

- **Noah (pseudonym)**: A climber and weightlifter who follows a weekly workout routine targeting different muscle groups each day. She is very mindful of her calorie intake but does not use fitness apps due to past negative experiences with calorie-counting apps linked to eating disorders.
- **Arthur (pseudonym)**: A college student seeking a simple way to track his steps and maintain a fitness routine. He uses an app called *Exercise* primarily for step counting.
- **Zain (pseudonym)**: A fitness trainer based in New York (originally from South Asia) who consistently uses multiple fitness apps in his fitness journey. His focus is on both step counting and calorie tracking, utilizing *StepsApp* for step tracking and either *MyFitnessPal* or *Lose It* for food logging.

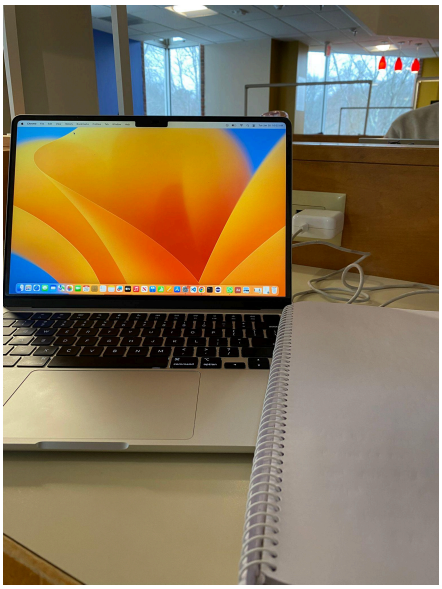
Interview Process and Questions

Interviews were conducted in-person and virtually to accommodate participant preferences and schedules



Noah interviewed in Farber Library

Arthur interviewed in Sherman dining hall



Zain interviewed via zoom

A semi-structured interview format was used, allowing for both open-ended and specific questions, which facilitated rich discussions. Key questions included:

Fitness Routine & Technology Use:

- What is your fitness routine like, and how does technology play a role in it?
- Do you currently use any fitness apps? Which ones and why? If not, why? Have you used any fitness app before?
- How often do you use the app, and what features do you use most frequently?

User Needs & Challenges:

- Have you ever felt frustrated or disappointed using the app? If so, what happened?
- Are there any tasks or features you wish the app could do but currently cannot?

Goals and Motivation:

- What goals are you trying to achieve using the app (e.g., weight loss, muscle gain)?
- How does the app help or hinder your progress toward those goals?
- What motivates you to keep using the app? What could cause you to stop using it?

Suggestions & Improvements:

- What would make the app easier or more enjoyable to use?

- If you could design the perfect fitness app, what would it include?

Interview Results and Analysis

Key Themes Across Interviews

Through the three interviews, I uncovered a range of perspectives on existing fitness and nutrition apps. While some participants shared common frustrations, others revealed unique pain points based on their personal habits, cultural backgrounds, and technological preferences.

Simplicity and Ease of Use: Many participants expressed frustration with complex and cluttered app designs. Noah explained, "*I prefer minimalistic designs in apps with a monochrome color scheme or at least an option to choose the interface color. It reduces visual overload and makes the app more enjoyable to use.*" Similarly, Zain shared his frustration, saying, *"It was hard for me to find the feature to log the previous day's calories in 'MyFitnessPal.*" These insights highlight usability issues, where essential features are not easily accessible.

Comprehensive Tracking: Participants felt that many fitness apps lacked comprehensive tracking features. Both Noah and Zain emphasized the need for tracking beyond calories. As Noah put it, *"I want an app that can recommend workouts based on my previous exercises and challenge me to step up my routine."* Zain added, *"The app should include food groups specific to various cultures,"* pointing out that fitness apps often overlook these crucial aspects, leaving users without a full picture of their health.

Personalization & Flexibility: The desire for more personalized features was strongly emphasized. Noah voiced, *"I want an app that can recommend workouts based on my previous exercises and challenge me to step up my routine."* She also highlighted the importance of flexibility in workout suggestions, including recovery periods, to better support her individual fitness goals as an athlete.

Motivational Features: Motivation was identified as critical to maintaining fitness routines. Arthur noted, *"My app calculates the number of steps I need to take to reach my weight loss goal, but it would be nice to have something on the home screen or a streak system like Duolingo."* Noah also added, *"I'd love a visual representation of my fitness routine, like a graph showing my progress over days and months."*

Pain Points: Several major pain points emerged through these three interviews:

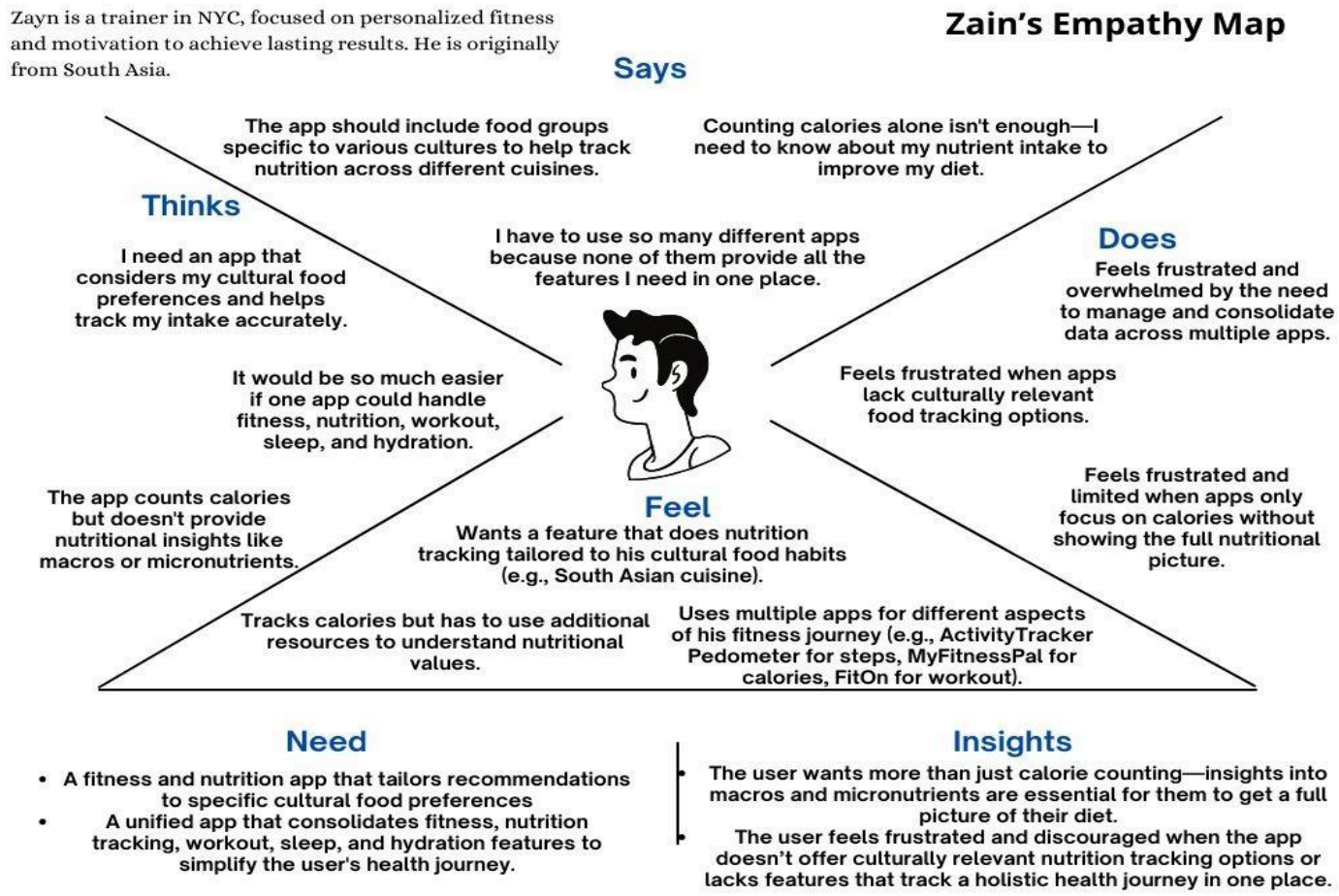
1. **Lack of Integration:** Zain stated, *"I have to use different apps for fitness, nutrition, and workouts. It makes tracking less effective because my data is all over the place."*
2. **Limited Nutritional Insights:** Zain also noted, *"Sometimes I feel like I have a nutrient deficit. If the app could tell me, 'You had X amount of carbohydrates more or Y amount of protein less today,' I could balance my diet better the next day."*
3. **Workout Tracking Deficiencies:** Noah pointed out, *"Most fitness apps lack features like tracking muscle groups and recovery periods, which are really important for me as a weightlifter and climber."*

Key Takeaways:

- Users prefer minimalistic, easy-to-navigate designs.
- Comprehensive tracking features, such as hydration, sleep, and muscle recovery, are essential.
- Integration of fitness, nutrition, and recovery data is crucial.
- Personalized and flexible workout plans can boost long-term user engagement.
- Culturally inclusive nutritional tracking is necessary to cater to diverse users.

Empathy Map:

The following empathy map is based on insights gathered from Zain, a fitness trainer who regularly uses multiple fitness apps. His experiences highlight key challenges and opportunities for improving fitness app usability and integration.



Tensions, Contradictions, and Surprises

Contradictions: While some participants sought highly detailed tracking, others found such features overwhelming. Zain wanted deep insights into macronutrients and calorie intake, while Noah found calorie statistics discouraging due to her past struggles with eating disorders. This highlights the need to balance functionality with simplicity.

Surprises: A significant surprise was the cultural aspect of nutrition tracking. Many users struggled with apps that did not recognize their food habits, highlighting an often-overlooked issue.

Tensions: There was a clear tension between personalization and ease of use. Highly customized apps can feel too complex, contradicting the desire for minimalism.

Inferences, Conclusions, and Initial Assessment of Needs & Insights

Inferences:

- Many users struggle with cluttered interfaces, leading to frustration and disengagement.
- Integrated tracking across fitness, nutrition, and wellness is a key need.
- Successful apps must cater to varying engagement levels, from casual to advanced users.
- Personalized recommendations are essential for long-term motivation.
- Inclusivity in nutritional tracking is crucial for diverse users.

Interview Conclusions:

- A well-designed fitness app should focus on simplicity, personalization, and holistic health tracking.
- Users seek a one-stop solution that integrates fitness, nutrition, and recovery.
- Motivational tools like streaks, progress visualization, and variety in workouts are essential.
- Accessibility and inclusivity must be prioritized.

Initial Assessment of Needs & Insights:

- Unified platform for tracking all aspects of health.
- Clean, intuitive design with minimalist features.
- Advanced nutritional insights, including culturally relevant food options.
- Adaptive and personalized workout recommendations.
- Enhanced motivation tools, such as streak tracking and progress graphs.

Suggested Features for a Comprehensive Fitness App

Based on the insights and feedback gathered from user interviews, here are some feature recommendations for designing a more effective and user-friendly fitness app:

1. Integrated Health Tracking

- **All-in-One App:** Consolidate fitness, nutrition, hydration, sleep, and recovery tracking in a single interface to eliminate the need for multiple apps.

2. Personalized Recommendations

- **Tailored Workout Plans:** Suggest workout routines based on previous activity, fitness goals, and recovery periods.
- **Dynamic Challenges:** Offer challenges to encourage users to improve performance, like increasing step goals or trying new workouts.

3. User-Friendly Interface

- **Minimalistic Design:** Clean and visually appealing design with intuitive navigation, customizable themes, and color schemes (e.g., monochrome for users like Noah).
- **Quick-Access Widgets:** Add widgets for step counts, progress streaks, or daily goals on phone home screens.

4. Motivational Tools

- **Progress Visualization:** Use graphs and charts to show progress in areas such as weight changes, calorie intake, and workout performance over time.
- **Streak and Achievement Systems:** Include features like streak tracking and badges (similar to Duolingo) to keep users engaged.

5. Comprehensive Nutritional Insights

- **Detailed Macronutrient Analysis:** Offer breakdowns of macronutrients and micronutrients, with daily and weekly summaries.
- **Culturally Inclusive Food Database:** Include food options specific to various cultural diets, making the app more inclusive for diverse users like Zain..

7. Enhanced Usability

- **Offline Mode:** Allow users to log workouts or meals even without an internet connection.
- **Smart Notifications:** Send reminders for hydration, meal logging, or workout sessions based on user habits and schedules.

8. Accessibility Features

- **Customizable Metrics:** Offer the ability to toggle specific features on or off (e.g., calorie tracking for users like Noah with eating disorders).

The insights gathered from this project highlight the complexities of designing a fitness app that effectively addresses the diverse needs of users. By identifying key pain points such as fragmented tracking systems, limited cultural inclusivity, and usability challenges, it becomes evident that there is significant room for innovation in the fitness technology space. A comprehensive app that unifies fitness, nutrition, and wellness tracking while offering personalized and accessible features could fill these gaps

and enhance user engagement. Additionally, integrating motivational tools and culturally inclusive features would further ensure that the app resonates with a broader audience. By prioritizing simplicity, personalization, and inclusivity, the proposed features have the potential to create a seamless and empowering experience for users, helping them achieve their fitness goals with greater ease and satisfaction.