



FitM8

Final Project Report

June 17, 2025

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Introduction

We began our project with the idea of creating a fitness-based dating application, where matches would be formed based on shared physical activities and/or dietary habits, with the goal of helping users find a partner to pursue a healthy lifestyle together.

To explore the real needs and interests of potential users, we conducted interviews and distributed questionnaires. From the feedback gathered, we discovered that many people were more interested in finding a workout companion than a romantic partner — someone with similar sports interests to stay motivated and active together.

After reflecting within the group, we decided to narrow the focus of the project to a single, accessible sport: running. This allowed us to concentrate on a more specific and engaging user experience, making social connections easier and more meaningful. The entire project, including source code and documentation, has been made publicly available on GitHub: <https://github.com/faustozamparelli/FITM8>.

Theme:

Our application aims to connect users through the creation and discovery of running-related activities, with the goal of promoting social interaction, motivation, and well-being through sport. By matching people based on their running habits and preferences, we hope to encourage healthy routines and build a community around shared fitness goal.

Competitor Analysis

We analyzed the main tools and platforms currently used by people to find workout partners or join fitness activities.

- **Fitness-focused social apps (e.g., Strava, Nike Run Club):** Primarily focused on tracking, not finding new training partners. Social features are limited.
- **Dating apps with fitness filters (e.g., Bumble, Fitafy):** Still emphasize romantic intent over fitness companionship.
- **Local Facebook groups and Meetup:** Often too general, large-scale, and infrequent for meaningful one-on-one connections.
- **Gyms and fitness clubs:** Limited to physical spaces and memberships, with weak social connectivity.
- **Word of mouth and personal networks:** Effective but limited in scope and often unavailable to newcomers.

This showed the need for a platform tailored to **runners** seeking companionship, without romantic pressure or performance obsession.

Interviews

Interview Process

We conducted interviews over several days, alternating between direct observation and informal conversations both on campus and with friends and acquaintances. The interviewees came from a variety of academic backgrounds, with a strong presence of students from the University of Rome La Sapienza, as well as participants from other contexts or academic environments. This diversity allowed us to gather a broad range of perspectives on physical activity, motivation, and the role of social connection in fitness.

The first step in our needfinding process was to design open-ended, neutral questions to uncover user needs without influencing responses. Interviews were conducted primarily in person, with some remote sessions via video call. The main goal was to gather qualitative insights that could inform the development of broader quantitative tools later in the process.

To guide our approach, we followed key principles from *The Mom Test* by Rob Fitzpatrick, which emphasize understanding users through their real-life experiences rather than abstract opinions. This helped us focus on concrete, behavior-based insights rather than assumptions or preferences.

We applied the following interviewing guidelines:

- Talk about their life, not your idea
- Ask about specific behaviors
- Listen for concrete facts and actions
- Ask for numbers and specifics
- Look for emotional signals

The interviews were structured using a five-step format:

1. **Introduction** – The interviewer introduced themselves, explained the purpose of the interview, addressed any ethical concerns, and asked for consent to record when appropriate.
2. **Warm-up** – Light, general questions helped create a comfortable, non-threatening atmosphere.
3. **Main session** – The conversation focused on fitness habits, routines, motivation, social dynamics, and challenges. The semi-structured format allowed for flexibility depending on the flow of discussion.
4. **Cooling-off** – A few easy, informal questions helped ease out of the core conversation.
5. **Closing** – The interview ended with a thank-you and a clear signal that the session had concluded.

Several interviews were conducted in pairs, which facilitated a more natural conversational tone and allowed us to manage spontaneous small groups when they formed organically.

This approach helped us gather grounded, emotionally rich data that played a crucial role in identifying real user needs and informing the direction of our design.

Key Insights from the Interviews

Training alone is common, but unsatisfying. Many students reported working out alone, often due to a lack of alternatives or difficulty finding a partner to share their routine with. Nonetheless, several expressed a desire to train with others to boost motivation and make physical activity more enjoyable.

Consistency and motivation are recurring challenges. Those who train alone frequently struggle with waning motivation caused by boredom or lack of external stimulation. Having a workout partner or small group was seen as a key factor in maintaining commitment over time.

Physical activity is also viewed as a social opportunity. Activities such as gym workouts, functional training, or team sports were perceived as spaces for interaction and exchange—more natural than purely digital social contexts. While some participants shared positive experiences of finding groups through social media, others found it difficult to integrate into new sports communities after relocating.

Diet matters, but it's not central when choosing workout partners. Even those who follow strict dietary habits prefer matches to be based on shared fitness interests rather than eating habits, which were seen as more personal or private.

Interest in a dating component is limited. Many participants expressed skepticism toward integrating romantic features into a sport-related context. Instead, there was strong interest in a neutral space focused on building authentic connections based on shared goals, allowing relationships to evolve naturally over time.

Openness to tools that connect people through sport. The idea of an app that helps users find workout partners was met with enthusiasm. The most appreciated features included the ability to filter by type of activity, skill level, time, and location—with the goal of helping users form compatible pairs or small groups.

Questionnaire

To better understand the preferences, habits, and expectations of our target users, we designed and distributed a questionnaire focused on three key themes: fitness habits, social and relationship dynamics (friendship/dating/training groups), and diet. In order to maximize participation and engagement, we decided to include a playful and unconventional reward at the end of the survey: a personalized “insult” generated by an AI based on the user’s answers. This idea was inspired by the popularity of humorous, AI-generated content that often goes viral among younger audiences — the core demographic we aimed to reach with our application (87.4 % of them are 18–30 years old).



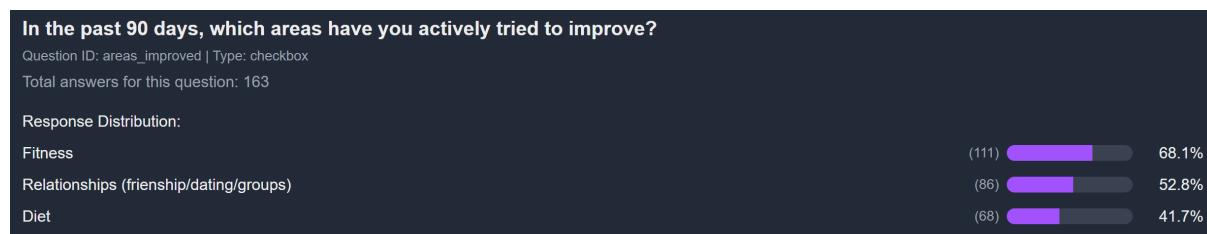
To ensure responses were as objective and reliable as possible, we deliberately limited the questionnaire to questions about users' past behaviors and experiences, avoiding those related to future intentions or hypothetical scenarios. This approach proved to be effective, and we collected a total of **174 responses,** providing us with a rich set of data to analyze user needs and validate the direction of our project.

Demographic Study. The demographic analysis shows a slight male majority, with 58% identifying as male and 40.8% as female. A small percentage (0.6%) preferred not to disclose their gender.



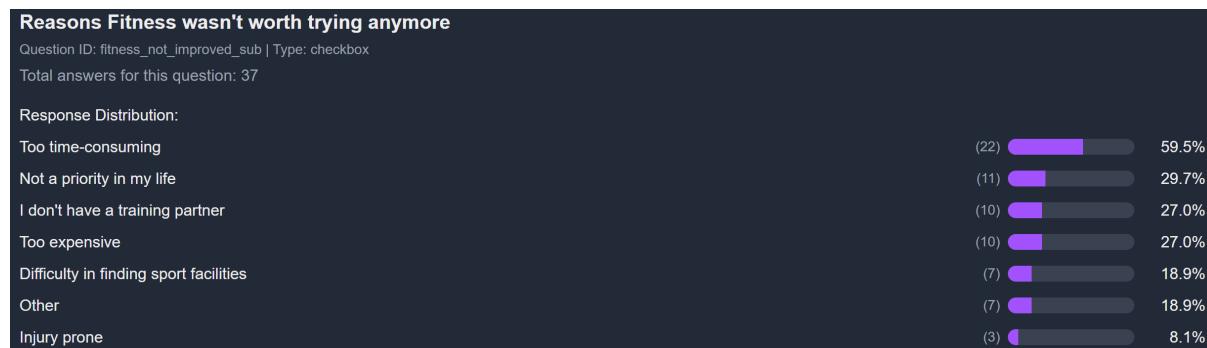
Areas of Improvement. Among the areas participants actively worked on in the last 90 days, the main ones are:

- Fitness (68.1%)
- Relationships (52.8%)
- Diet (41.7%)

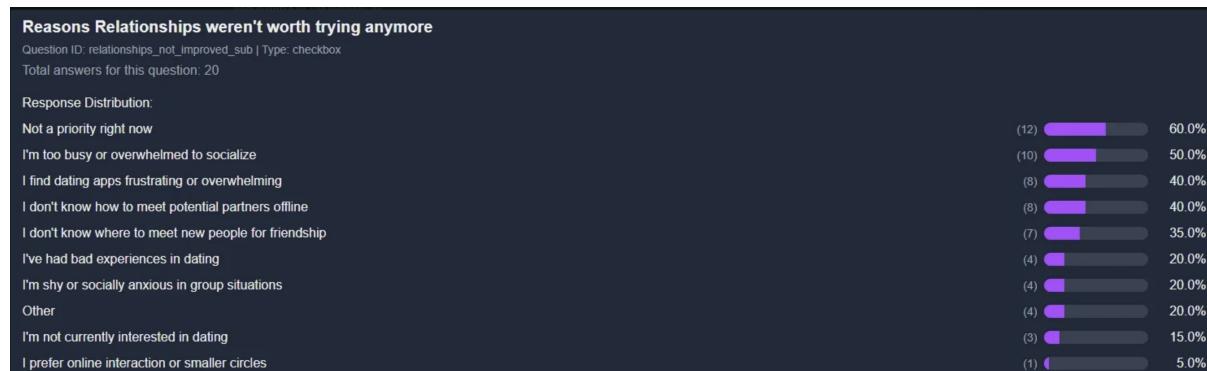


Reasons for Non-Participation. Those who did not try to improve **fitness** mainly reported it was no longer a priority (56.3%) or that they were already satisfied (42.2%). Frequent reasons included:

- Too time consuming(59.5%)
- High costs and lack of workout partners



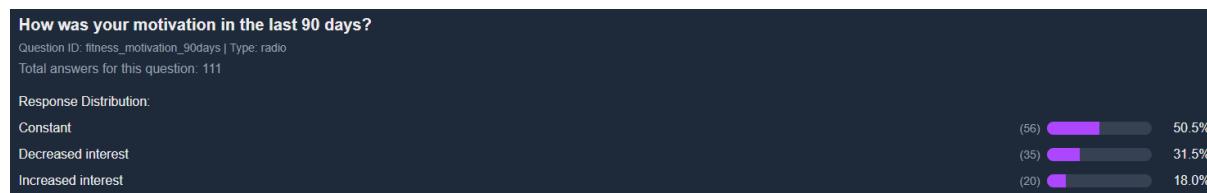
Regarding **relationships**, 76.7% say they are already satisfied, but those losing motivation cite feelings of overwhelm, frustration with dating apps, or difficulties with offline interaction.



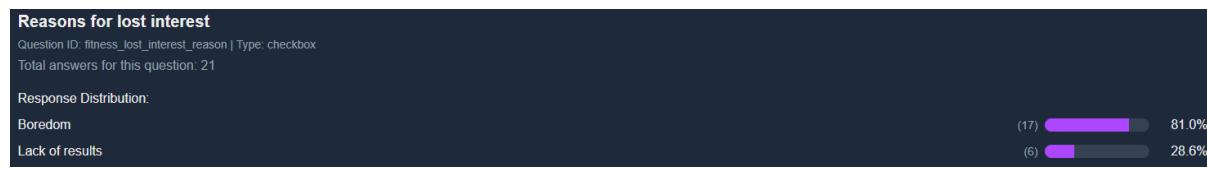
Fitness Motivation (Last 90 Days).

Fitness::

- 50.5% maintained steady motivation
- 31.5% experienced decreased interest
- 18.0% saw an increase in motivation



Boredom was the primary reason for loss of interest (81.0%), followed by lack of results (28.6%).



Relationship:

- experienced increased interest, helped by positive outcomes or encouragement
- 35.6% kept steady motivation
- 24.1% lost interest, often due to rejection or lack of progress



Dating App Usage. 66.3% have never used a dating app, citing:

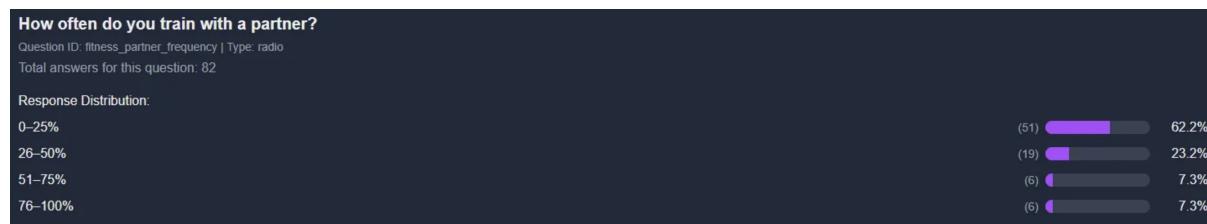
- Preference for offline approaches (66.7%)
- Feeling that apps don't feel natural (54.4%)

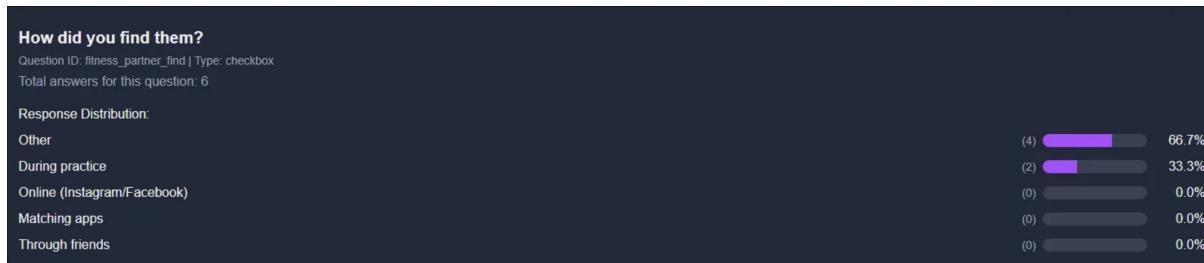


Improving Social Life. Most users prefer improving their social life by joining groups centered around shared interests like cooking, music, or books, with over 60% favoring this approach. Gradually exposing themselves to more social situations is also popular, helping build confidence step by step. Many find doing sports or physical activities with others and spending time in smaller, more relaxed social settings effective ways to connect.



Training Partner Habitsand discovery methods. The majority of respondents (62.2%) rarely train with a partner, doing so only 0–25% of the time. A smaller group trains with a partner more regularly, with about 23% doing so between 26–50% of their workouts, and only 14.6% training together more than half of the time. Among those who do find training partners, most (66.7%) discover them through other means not specified in the survey, while some meet partners during practice sessions (33.3%).





Full Dataset. The full dataset is available at: <https://hci-service.vercel.app/form/fitm8/results>

Needfinding

Based on the responses collected through our questionnaire, we began to identify the key needs expressed by young users interested in fitness and well-being — particularly those aged 18 to 30, who represented 87.4% of respondents.

Training Habits & Motivation

One of the most prominent issues that emerged was the **difficulty in finding workout partners**. A majority of users (62.2%) tend to train alone, and only a small portion have regular training companions. When users do find a partner, it's usually through unstructured or spontaneous encounters.

Another recurring theme was the **loss of motivation**, mainly due to **boredom (81%)**, lack of visible progress, or the sense that working out alone is less stimulating and rewarding.

Social Needs & Group Activities

Users also expressed a clear desire to **enhance their social life** through meaningful, shared experiences — with **group physical activity** being one of the most appreciated contexts. In fact, many preferred exercising with others over other forms of social interaction, especially purely digital or random ones.

There's also a widespread need to **easily discover and join group workouts**, with clear, accessible information about location, time, activity type, and required fitness level.

Dating vs. Friendship: A Key Design Decision

A critical insight emerged regarding **romantic versus platonic connections**. While we initially explored the possibility of incorporating dating elements, the data made it clear that this direction would not align with most users' expectations:

- **66.3%** of respondents have never used dating apps.
- It is important to note that only 86 out of 174 participants reached and answered this question, which means the actual proportion of dating app users is likely lower than the nominal **33.7%**.
- Among them, the top reasons included a **preference for offline interactions (66.7%)** and the feeling that dating apps **don't feel natural (54.4%)**.
- Many users also shared a sense of **frustration** with current dating platforms and expressed a stronger interest in meeting people through **shared interests**, without romantic pressure.

As a result, we made a **deliberate decision to focus the app on friendship and community-building** through fitness — rather than on dating. The goal is to offer a safe, casual, and inclusive environment where users can **connect over common wellness goals** and form lasting connections without the constraints or expectations typical of dating apps.

Narrowing the Scope: Why We Chose Running

To maintain focus and maximize user engagement, we decided to **concentrate on a single sport: running**.

This decision was based on direct feedback from user interviews, where **running consistently emerged as one of the most practiced and accessible physical activities** among our target demographic.

By focusing on running, we are able to design a more tailored experience — from event creation to partner matching — that directly addresses users' habits and preferences, while simplifying the onboarding process for new users.

Tasks

To validate the core functionalities of our app and ensure they meet user needs, we have defined the following key user tasks for testing and development. These tasks were identified after an initial review and discussion with the professor, helping to align them with both project goals and user expectations.

Task 1: Plan Your New Workout, Joinable by Future Runners

Task steps:

- Open the *Create New Run* pane
- Fill in the information about your run (date, time, location, distance, pace, etc.)
- Review your upcoming workouts on the home page

Scenario:

You are a regular runner who wants to plan a 5K run in Villa Borghese next Saturday morning. You want to invite other runners to join you for motivation and company. Use the app to create a new workout event and share it with the community.

Task 2: Find a Suitable Partner to Join on a Run**Task steps:**

- Open the *Discover* modal view
- Browse other runners' profile cards and their upcoming workouts
- Swipe left or right based on your interest to find compatible partners

Scenario:

You are looking for a running partner who matches your pace and schedule. You prefer morning runs around 7 AM and can maintain a 5:30 min/km pace. Use the app to find and connect with runners who fit your preferences.

Task 3: Chat with Your Future Running Partner or Group**Task steps:**

- Open the *Chat* tab
- Review your scheduled workouts and events you've joined
- Open a chat with your running partner(s) or group
- Send a message to coordinate plans
- If you are the event creator, edit the run details as needed

Scenario:

You want to coordinate and communicate with the runners who will join your workout. Use the chat to organize meeting points, discuss pace, or make any changes to the event details.

Storyboarding

This section presents the storyboard for three main tasks in the **FitM8** application. Each task is represented visually with a sequence of screens created using *StoryboardThat* illustrating the user's main interactions.

Task 1: plan your workout,joinable by future runners

The user creates a new running workout that is visible to others.



Task 2: find a suitable partner to join a run

The user searches for a running partner with compatible preferences and habits.



Task 3: Communicating with the Partner or Group

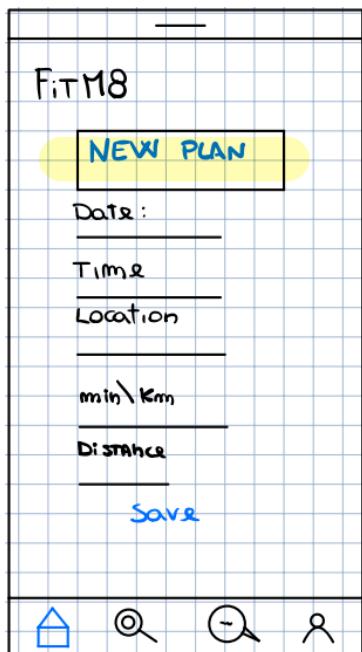
The user communicates with a running partner or group to coordinate workout details.



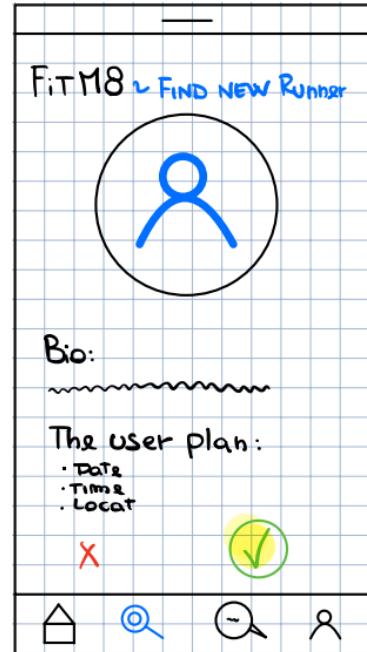
Prototyping

Paper prototype 1

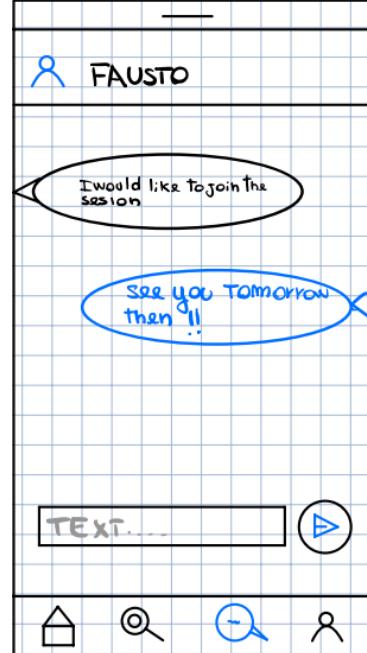
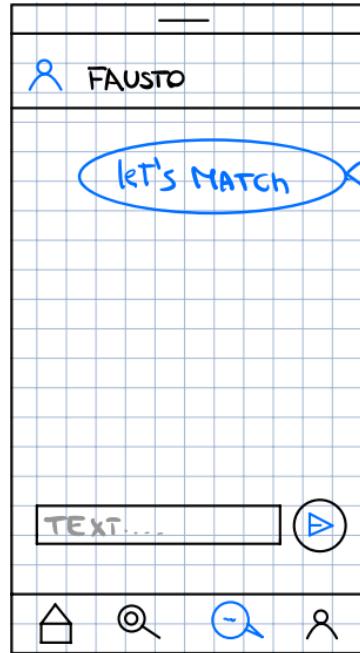
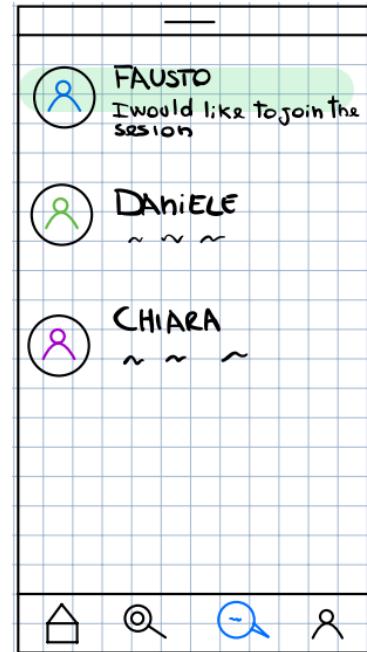
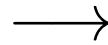
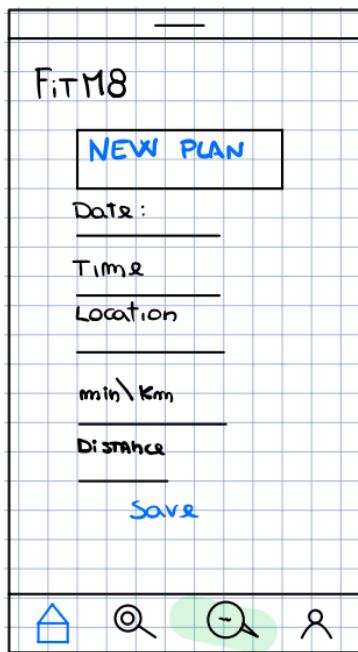
After creating the Storyboard, we designed the screens of the application. We hand-draw some sketches using online tools.



(1) Plan your workout



(2) Find a suitable partner



Interactive Web Prototype 1

Based on the paper prototype, we developed a first interactive web prototype using v0 by Vercel.

The application enables users to plan their target runs by setting key parameters such as distance, pace, location, date, and time. Once a user defines their running plan, the app facilitates finding compatible running partners through a filtering system that ranks

potential partners based on the similarity of their run plans.

The core interaction for selecting partners is inspired by a Tinder-like swipe interface. Users can swipe left to discard or swipe right to connect with suggested partners. Each partner profile displays relevant information, including their running plan details and a brief bio, allowing users to make informed decisions when choosing potential partners.

After successfully connecting with a partner, users are directed to a chat interface. Within the chat, they can discuss and negotiate adjustments to their running plans, agree on a shared schedule, and build rapport before running together. This seamless integration from planning to partner selection and communication is designed to create a user-friendly flow that encourages social interaction and collaborative run scheduling.

Link to the prototype: <https://v0-fitm8-digital-prototype.vercel.app/mobile>

Evaluation 1

After finalizing the design, we conducted a series of in-person usability tests to verify that users could navigate and use the app as intended. The results of these sessions were recorded and organized into the corresponding folders within the project repository.

During testing, some participants provided verbal feedback, and we later incorporated the suggested changes into the prototype.

During each testing session, one team member guided participants through usage scenarios and explained the tasks to be completed. Another observed and recorded the sessions for later analysis. When usability issues emerged, we discussed them immediately, and in some cases, modifications were made on the spot to improve the prototype based on participant feedback.

For each iteration, each user has been asked to:

1. Plan a new workout, including location, time and target pace and distance
2. Find a suitable partner to join on a run
3. Chat with their running partners

We conducted one expert based evaluation and five user based evaluations to assess the app's usability and effectiveness.

We used the Cognitive Walkthrough approach, focusing on whether the interface actions align with user goals and are discoverable and understandable. The evaluation centered on three key questions for each task:

- Is the effect of the action the same as the user's goal?
- Can the user see that the action is available?
- Will the user understand that this is the correct action to take?

Expert based evaluation. The expert evaluation revealed that users generally found the app's interface clear and intuitive. When planning a workout, users were able to easily access the planning feature and understood how to enter all necessary details such as location, date, time, and pace. The system's confirmation of the entered information was well received, and users appreciated the flexibility to adjust parameters like time multiple times.

However, an important usability issue arose with the “Save” function. Although users clearly saw and understood the save button, they were surprised when saving also triggered a search for a running partner. This unexpected coupling of actions caused confusion, as participants expected separate controls: one to save their workout and another to find a partner. This indicated a need to reconsider the design to avoid mixing these two distinct steps.

In the partner search task, users navigated to the “Discover” section without difficulty and quickly understood how to browse profiles and initiate chats. The notification system for messages was also straightforward, with users easily accessing and responding to partner communications through the notification bell.

User based evaluation. The evaluation showed that users were unsure where to start because the app offers both a big “Find a partner” button and a “Plan” option. Some users clicked “Find a partner” first because it looked easy and colorful, while others chose “Plan” to set their running preferences. This caused confusion about the correct order of actions. Users also expected the app to suggest partners automatically after planning their run, but instead they had to swipe through profiles manually, which was not clear to them.

The filter button that helps narrow down partner options was hard to find and understand. It was small and not very visible, so users often missed it. Even when they found the filter, users misunderstood what it filtered by, expecting difficulty levels but seeing matches based on similarity to their plan. The color coding used was nice but unclear because there was no explanation, leading to some misunderstanding.

The swipe interface was familiar because it worked like popular dating apps, but the buttons for swiping left or right were too small and not clearly labeled. This made it harder for users to know which action they were taking. Scheduling a run with a selected partner was frustrating because the “Schedule Run” button was either unresponsive or hard to find, and users wanted bigger, more colorful buttons that gave clear feedback.

Users found the chat feature easy to use and were able to send and receive messages without difficulty. However, they missed the ability to add emojis, which they thought would make conversations more fun and expressive. When setting pace preferences, users were often unsure what the numbers meant and asked for labels such as “Beginner” or “Advanced” to better understand their options.

Users also wanted motivational features like badges, trophies, or achievements to reward their progress and keep them engaged. Finally, some found parts of the app redundant, such as having “Training Partners” shown on the homepage when the chat already showed their contacts. They suggested adding a way to save favorite runners or planned runs for easier access later.

Overall, the app allows users to complete the main tasks but has some confusing and

hidden elements. Making key buttons larger and clearer, explaining icons and colors better, and adding fun motivational features would greatly improve the user experience.

Interactive Web App Prototype 2

In the second attempt at developing the interactive web application prototype, we focused on addressing the primary issue identified during user evaluations of the first version: the homepage was too complex and caused confusion. To solve this, we simplified the homepage to focus solely on planning the next run, removing other buttons.

Further feedback highlighted additional usability and design issues. The “Discover” tab was considered unnecessary and was recommended to be removed. Instead, a modal view should be used to present discovery content in a more streamlined and contextual way.

Other improvements included showing the user’s next workout directly on the homepage to enhance clarity and immediate feedback. In the discovery interface, the other users’ upcoming workout plans should be prioritized and made more visible, allowing for quicker and more informed partner selection.

To simplify the app further and improve accessibility, we also removed the login process and filtering options. These changes aim to reduce friction and focus on the core experience: planning a run and finding a suitable partner quickly and intuitively.

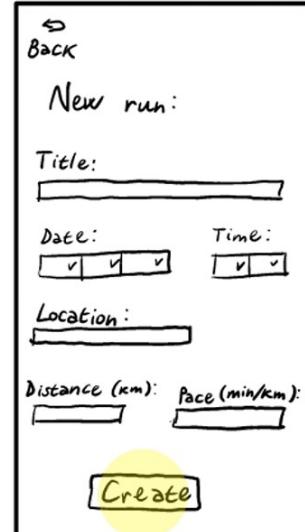
Link to the prototype: <https://kzmlefoteiuagtsgevrb.lite.vusercontent.net/>

Paper prototype 2

We designed another paper prototype to sketch the new layout and interface based on the recommended modifications.



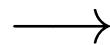
Home page



(1) Plan your workout



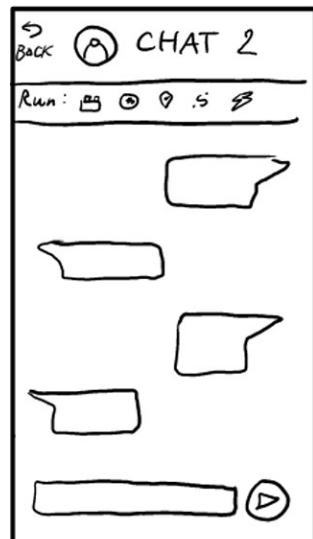
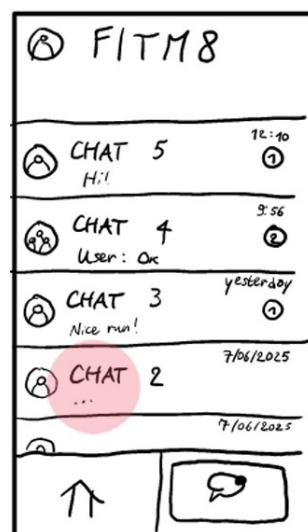
Home page



(2) Find a suitable partner



Home page

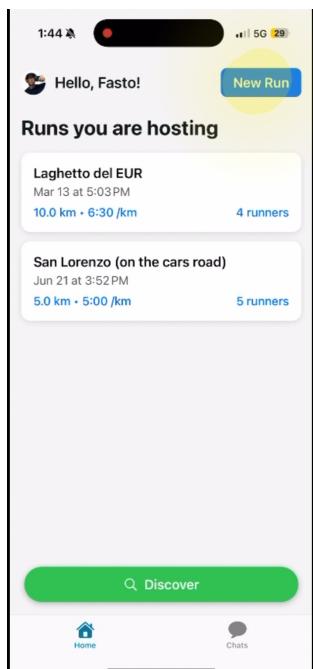


(3) Chat with your running partner/group

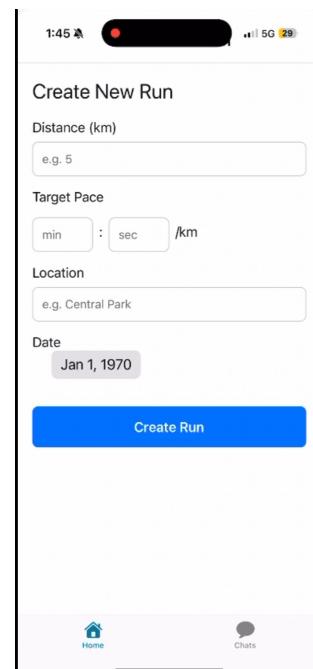
Interactive IOS App

Based on the paper prototype, we developed a Web IOS App using Expo.

The application features a bottom navigation bar with two primary sections: Home and Chats. The Home tab acts as the main hub for users. At the top of the screen, a profile button is positioned on the left, allowing users to access their personal settings, while a “New Run” button on the right enables quick workout event creation. Below this, users are presented with a titled section, “Runs you are hosting,” which presents a list to scroll of upcoming events that the user has organized. Each entry includes key details such as location, date, time, distance, target pace and number of runners who has already joined.

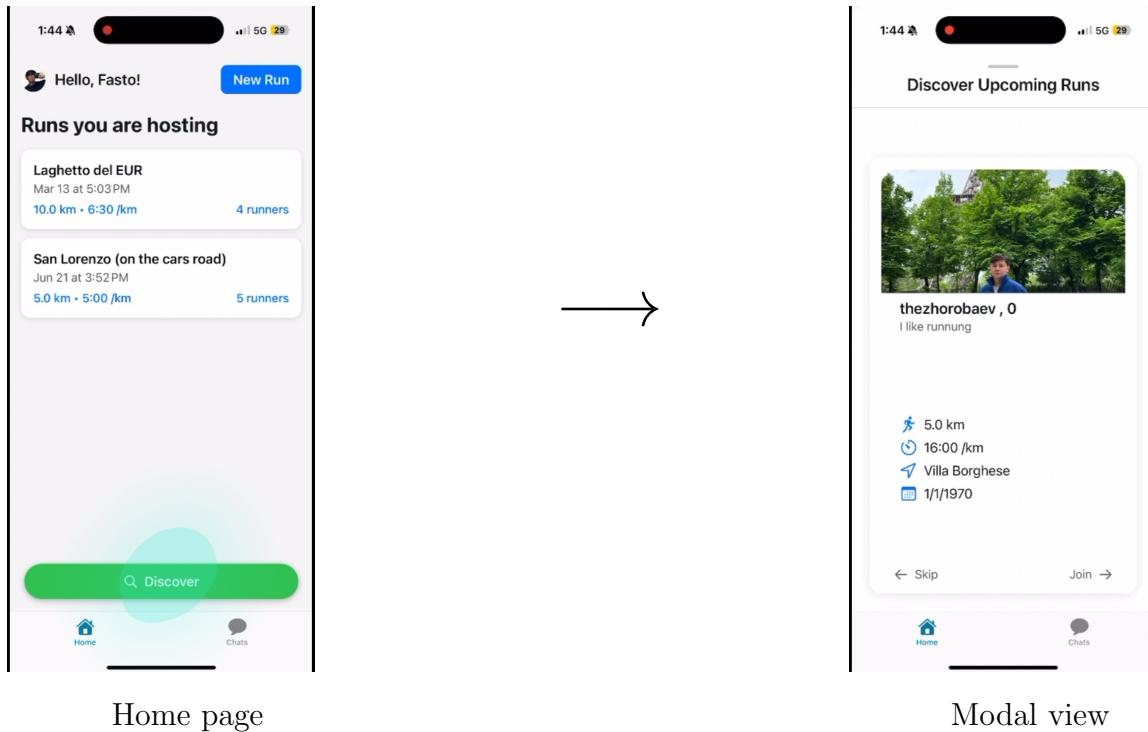


Home page

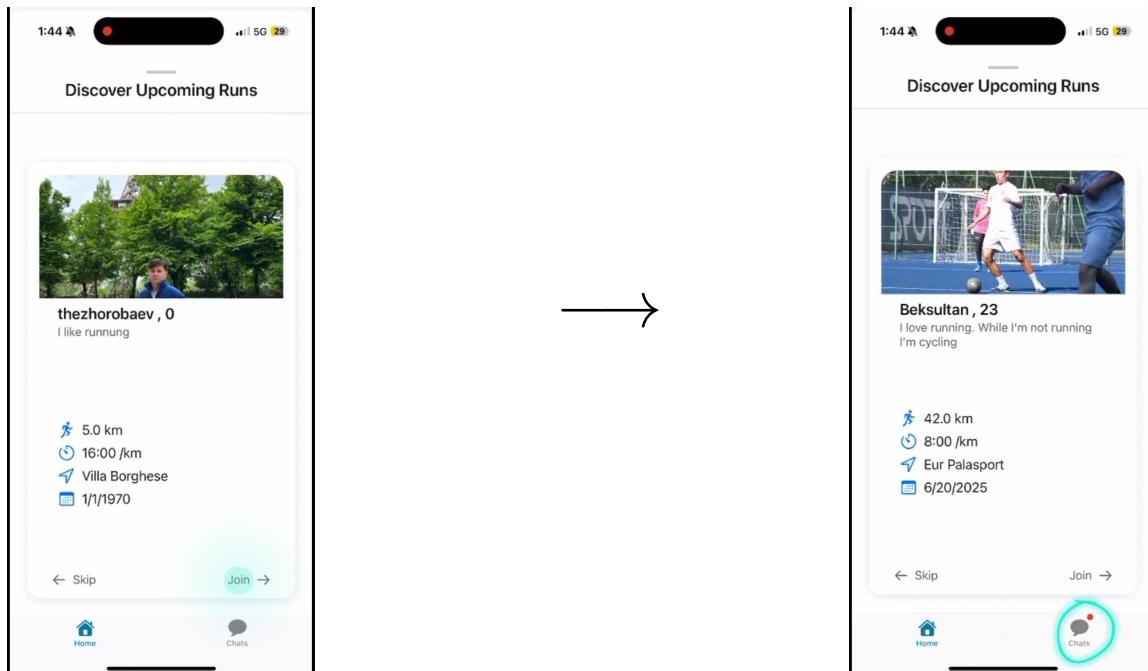


Task 1: Plan your workout

A floating action button labeled “Discover” is positioned at the bottom of the Home screen. When tapped, it opens a modal interface that displays events organized by other users in a swipe-based format.

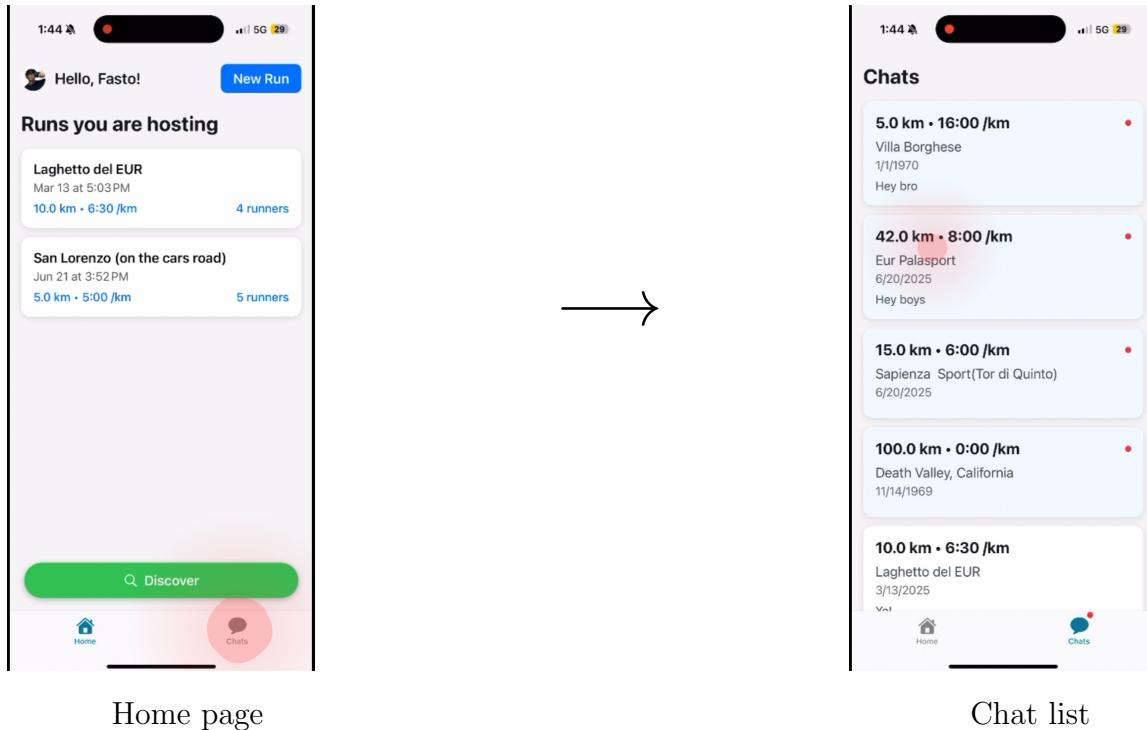


Users can swipe left to skip an event or swipe right to express interest. Swiping right also triggers a red notification bubble on the Chat tab, indicating the potential for a new conversation or connection based on mutual interest.



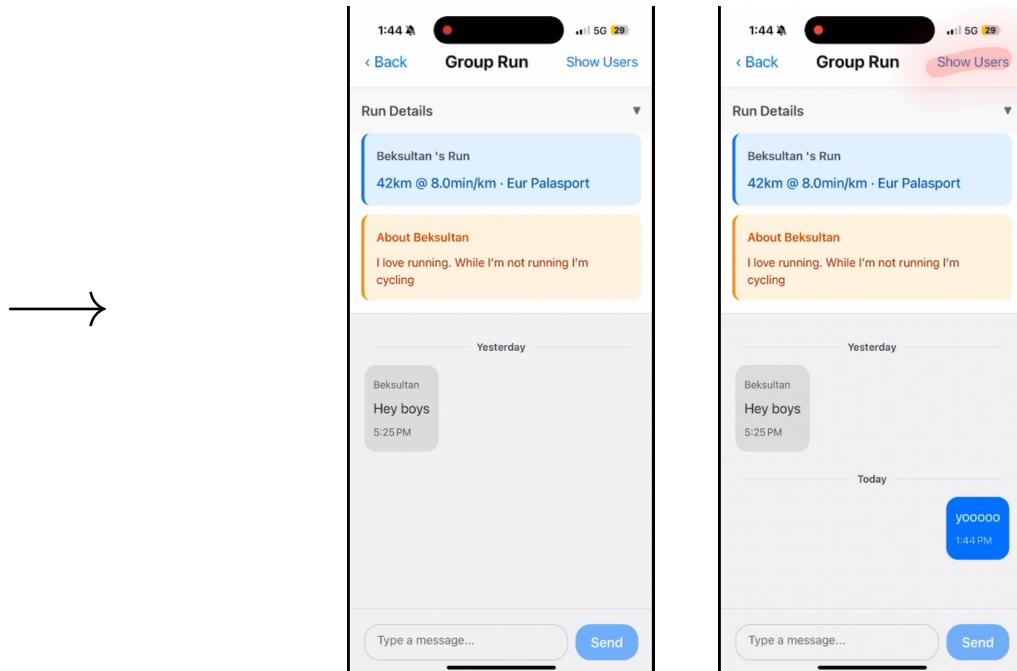
The Chat tab brings together all the events the user is attending, whether they are the host or simply a participant. Each event includes a dedicated chat, supporting ongoing communication with other attendees. When new messages are received or a new chat is

initiated, a red dot appears on the Chat tab icon to signal unread activity, such as when a user swipes right on an event in the Discover modal to express interest.

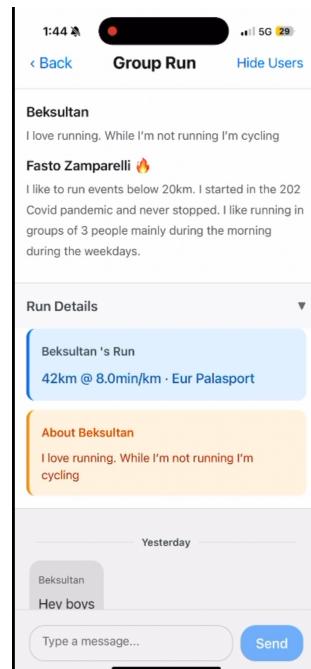


Once inside the chat dedicated to an event, users can communicate directly with all participants who have joined the run, whether as hosts or regular attendees. The chat supports real-time messaging, facilitating organization, coordination, and information sharing before, during, and after the activity.

In addition to messaging, users can view the full list of participants in the event. There is also a section displaying the event details, including the date, time, meeting point, and type of activity planned.



Task 3: Chat with your partner/group



Evaluation 2

Expert based evaluation. The expert evaluation, conducted using the Cognitive Walkthrough method, revealed that the core functionalities of the app are generally well designed and easy to navigate. Participants were able to complete the main tasks—planning a run, joining an existing run, and using the chat feature—without significant difficulty.

The interface was described as intuitive and visually clear, with recognizable mobile interaction patterns (e.g., swiping cards, notification dots) that supported user actions.

However, several usability issues emerged that may hinder the overall user experience if left unaddressed. A key problem was identified in the Discover section: once a run is skipped, it cannot be recovered, limiting user flexibility and potentially leading to missed opportunities. Additionally, the absence of filters (such as by distance or location) made the search process inefficient and less user-driven.

In the run creation flow, the default date input showed January 1, 1970, which was flagged as confusing and clearly a placeholder or system error. This undermines user trust and suggests the need for better validation and defaults (e.g., current or future dates only).

Other concerns included lack of transparency around how user data (like profile bios) are used for matchmaking. The expert raised privacy implications, emphasizing the importance of notifying users that their information is being processed and potentially used for algorithmic suggestions.

The chat system, on the other hand, was appreciated for its clarity and responsiveness. The ability to directly message participants after joining a run was considered effective. One recommendation was to make run details collapsible within the chat to reduce visual clutter.

User based evaluation. Overall, users described the interface as simple, clean, and easy to navigate. Core functionalities were found to be accessible and well-aligned with user expectations. The process of creating a run was intuitive, and users easily located the “New Run” button and successfully entered the required details. Feedback was considered appropriate, and the presence of the created run in the “Hosting” section reinforced user confidence in the system.

In the Discover section, users appreciated the swipe-based interaction for browsing runs, describing it as engaging and mobile-friendly. However, one key issue was consistently identified: there is no way to undo a swipe, making it easy to accidentally dismiss a potentially interesting run. This lack of reversibility reduced the sense of control and introduced friction in the discovery process. Additionally, participants noted the absence of filters by time, location, or distance as a limitation when trying to find relevant events.

The in-app chat feature was well-received. Users were able to access the chat after joining a run, send messages, and view participant information without confusion. The clarity of the interface and real-time responsiveness were highlighted as strengths. However, users expressed a desire to collapse or minimize run details within the chat to reduce visual clutter and improve readability.

Participants also raised minor concerns around transparency—for instance, how their profiles and data were being used for matchmaking purposes. Although these concerns did not prevent task completion, they point to a need for clearer communication regarding data usage and privacy.

In summary, the user-based evaluation confirmed that FitM8 supports key user tasks effectively, but would benefit from improved discoverability controls (e.g., swipe recovery, filters) and enhanced UI feedback (e.g., collapsible elements, better default inputs). These findings, in combination with the expert insights, provide a strong foundation for iterative

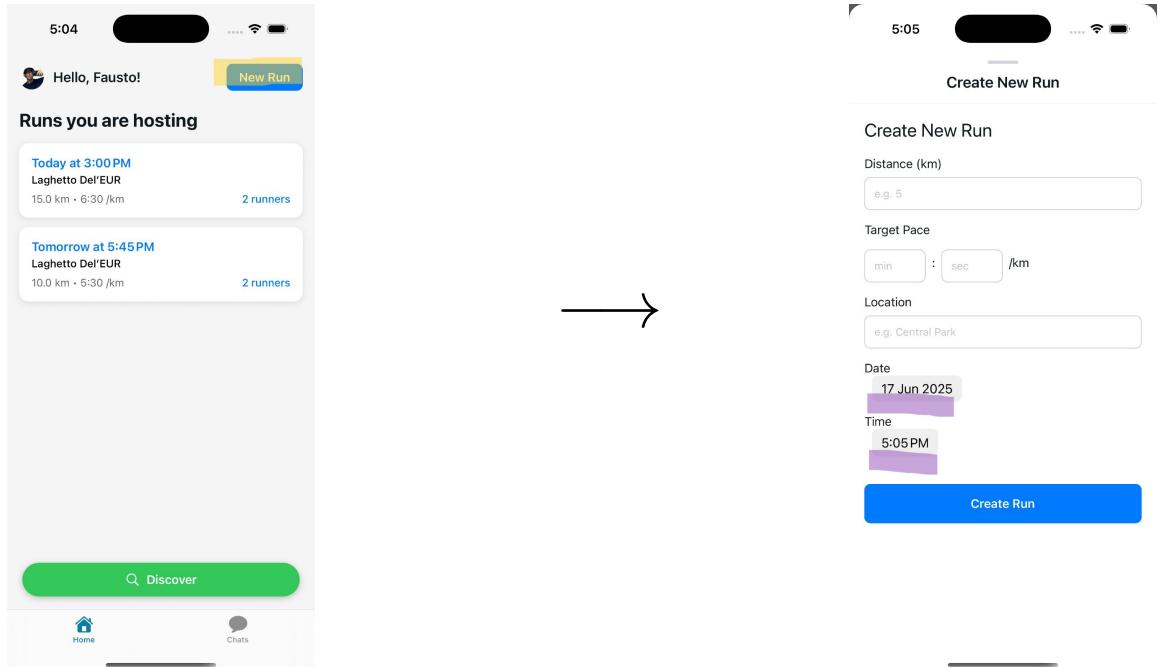
refinement.

The Final Version

Following the latest expert evaluations and user testing sessions, we implemented a series of significant changes that shaped the final version of our product. These adjustments aim to improve the user experience, interface consistency, and overall usability of the app. The main changes include:

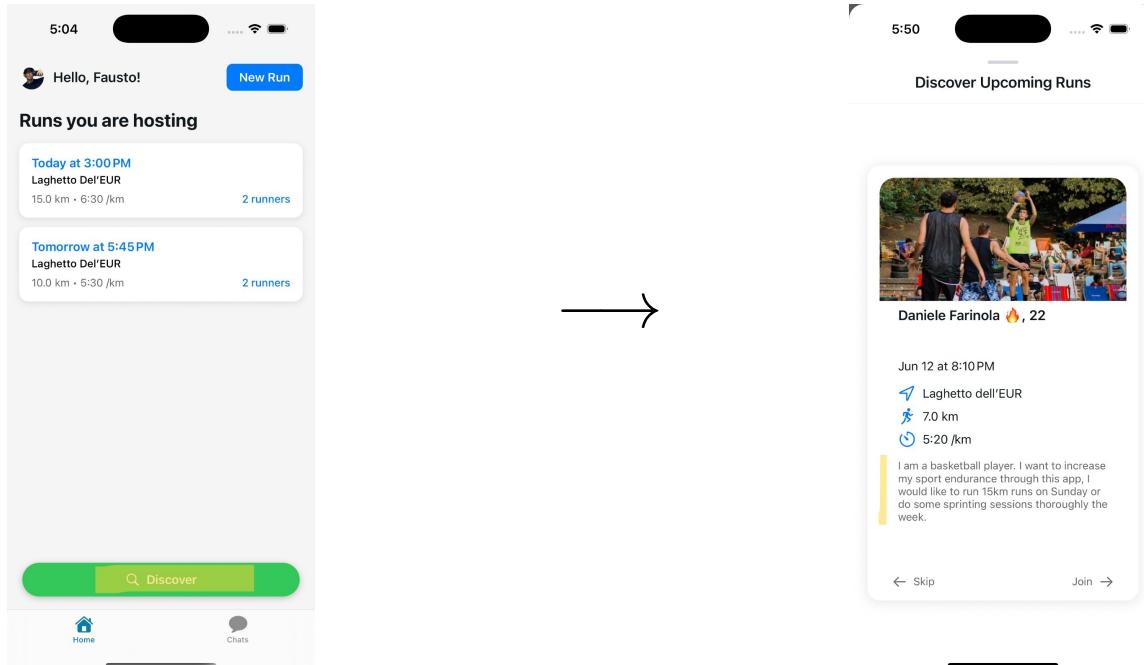
- **New run creation:** the default date is now automatically set to the current day, preventing the creation of runs in the past.
- **Optimized modal view:** the modal view now covers the tab bar, providing a more immersive and consistent experience.
- **Visual feedback when joining a run:** an animation has been added each time a user joins a run, offering clear and immediate visual feedback.
- **Resized run details in chat:** the “Run Details” section within the chat has been resized to improve readability and better utilize screen space.
- **User bios repositioned:** user bios are now displayed below the run details (km, pace, position, date) to create a clearer hierarchy of information.
- **Time selection in run creation:** in addition to the date, users can now also select a specific time when creating a run.

These improvements were directly driven by user feedback and reflect an iterative, user-centered approach to product development.



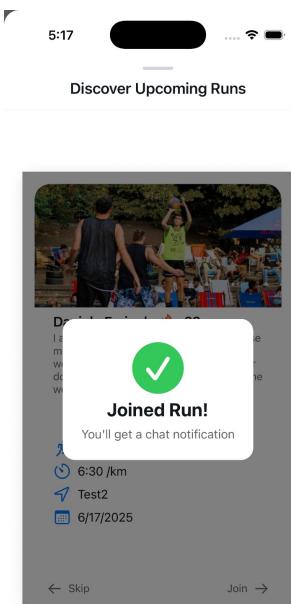
Home page

Task 1: Plan your workout

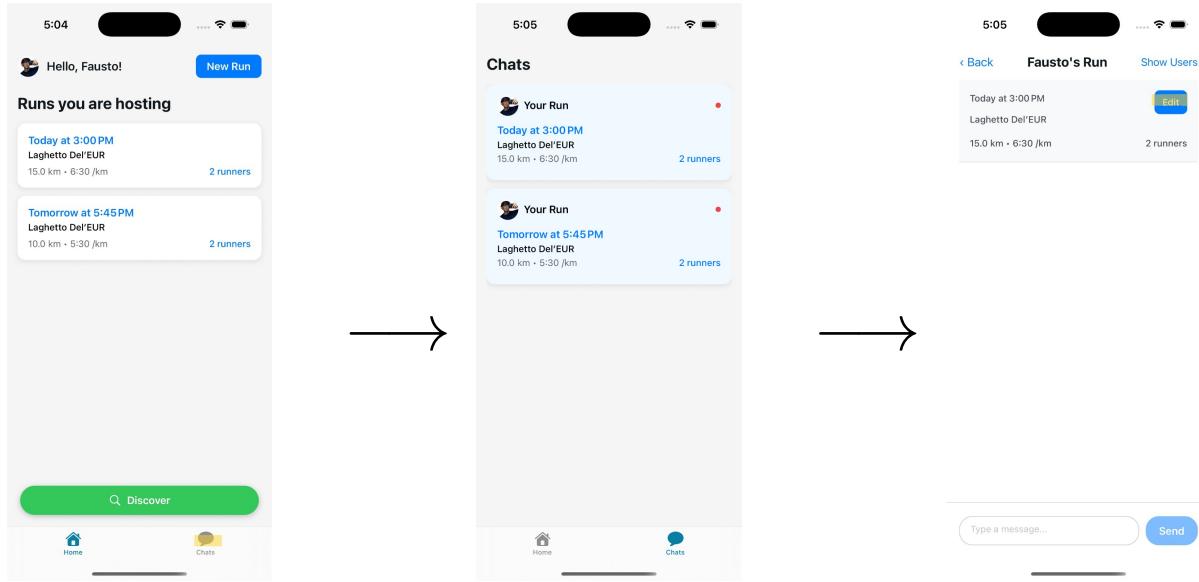


Home page

Task 2: join a run



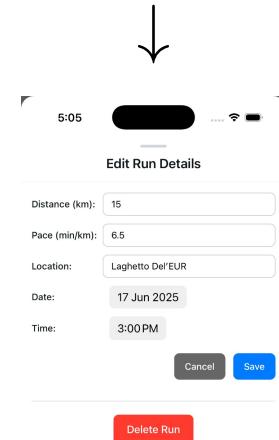
Feedback



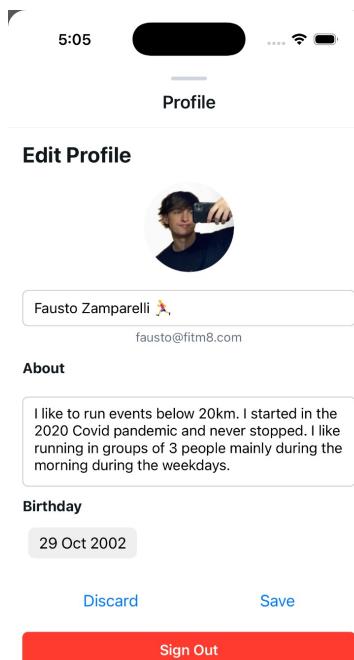
Home screen

Chats

task 3:Chat



Edit run



Edit settings