
COMP3423 HCI Group Project

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Prototype Link: [Click Here](#)

1. Case Study

1.1. App Selection

The app we have chosen is *Fitbod: Gym & Fitness Planner* ([link](#)). *Fitbod* is a personalized fitness app with over 226.1K Ratings on the App Store as of Nov 29, 2024. The app focuses on generating customized workout plans for strength training, muscle building, and weight loss. The app adopts its recommendations based on user's fitness level, available equipments and goals. It features over 1,000 exercises and was supposedly popular among western market.



While the functionalities of the app does live out to its promises, the UI/UX of *Fitbod* is significantly lacking. In the following sections, we will be going over the design issues that we have identified, and our proposed improvements.

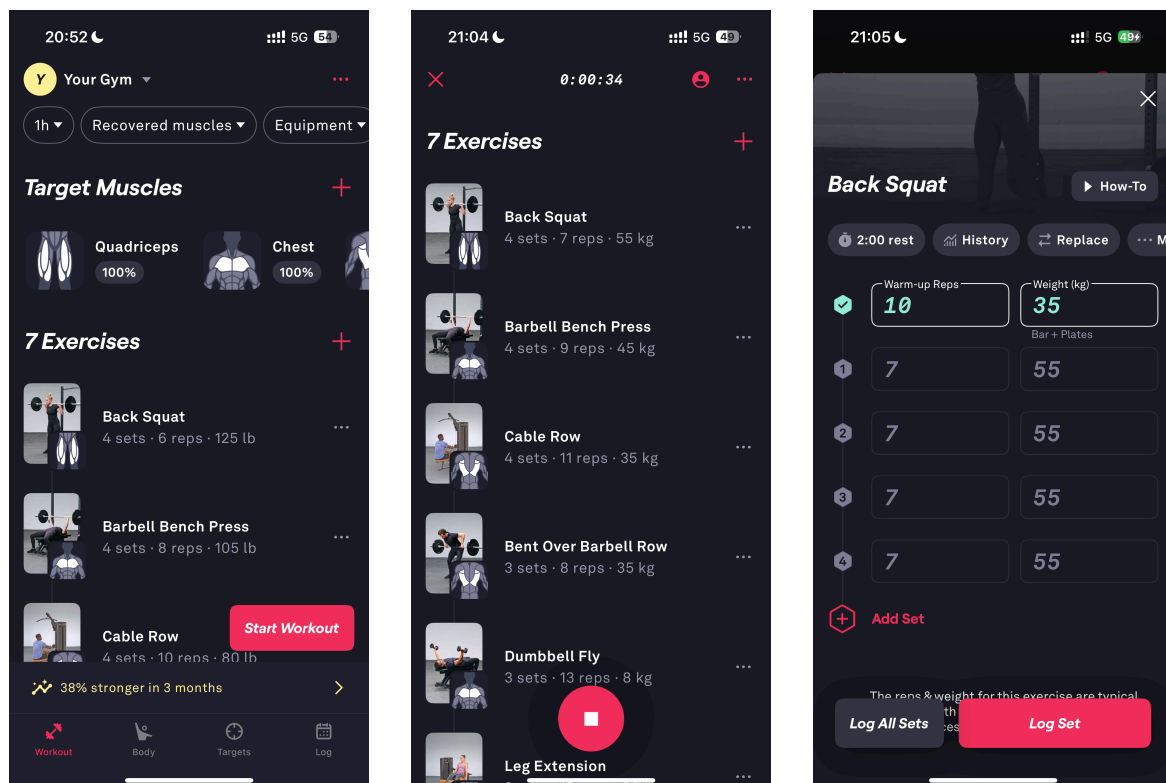


Figure 1:

Main screens of *Fitbod* (from left to right): 1) homepage, 2) workout selection, 3) sets and repetitions view for one specific workout

1.2. Identified Issues

Numerous design choices of *Fitbod* that does not align with HCI design principles were identified. These problematic designs contributed to its unintuitive user interface and cumbersome user experience.

The following listed issues corresponds to each of the screenshots shown in Figure 1 (from left to right). **Notably, we categorized the design issues to page and found a total of six major problems that need improvement.**

1.2.1. Homepage

The homepage (the *Workout* page) of *Fitbod* appears **fragmented**. Specifically,

- 1) The whole screen can only show two to four exercises. For users who need to train multiple muscle groups, or those who have complex training plans, this lack of information density meant that they need to scroll up and down frequently to grasp the full picture of today's workout routine.
- 2) In addition, even if users remember all their exercises, it's still difficult for them to have a comprehensive understanding of the muscle groups they are training for. For example, if a user plans to do seven exercises, it is very hard to fully remember which target muscle group(s) each of these exercises.

1.2.2. Connection Between Homepage and Workout Page

There is a lack of connection between the homepage and the workout selection page. There should be another page allowing users to confirm the exercises, as well as adding and removing chosen exercises. From the perspective of ergonomics, users are unlikely to add / remove exercises from the home page. **An additional page would explicitly remind, or encourage users to review and adjust their training plan.**

1.2.3. Workout Page

The workout page **lacks crucial progress information**. Users cannot see their overall workout completion status at a glance, as each workout is displayed in isolation without progress indicators. To track completion, users must navigate into each workout's submenu, manually count completed sets, and calculate total progress themselves. This increased cognitive load hinders the user experience.

1.2.4. Sets and Repetition View

The sets and repetition view **violates established design conventions** for *modal windows*, which will undermine the purpose of the page and mislead users. Specifically,

- 1) This page is designed as a primary workout logging screen where users spend significant amount of time; yet it is presented as a pop-up *modal window*, which is typically for brief, temporary interactions, contradicting to its core purpose. From the perspective of ergonomics, *modal windows* are used to **draw users' attention**, and users need to quickly resolve the issue by the modal windows, so it is not satisfactory to use a modal window here.

- 2) Additionally, the Log All Sets / Log Set buttons at the bottom are where Cancel / Done are usually go in standard *modal screen* control placements. Therefore, users might expect these buttons to close the modal rather than record their workout data.

1.2.5. Log Page

The *Log Page* of *Fitbod* is overly **complicated and fragmented**, as shown in Figure 2. At a glance, the whole page lacks coherency, leaving users confused. The specifics are discussed below.

- 1) The top of the page presents some statistical data such as number of workouts this month and the number of goals achieved. However, such a design failed to provide an intuitive insight at first glance.
- 2) The subsequent *Calendar* does not show the full month. The limited weekly view constrains user's ability to grasp their broader progress pattern. By displaying only seven views, the sense of achievement for their consistent effort might be less intense compared to that of displaying the full month.
- 3) For each workout logged, the corresponding day in the calendar will display a thin, white circular completion ring to indicate the completion rate. However, these vague lines fail to create strong enough visual feedback. Furthermore, the completion ring starts clockwise from the 9 o'clock position, contradicting the convention of starting from 12 o'clock. This mismatch impairs the user's ability to deduce its purpose via context priming.

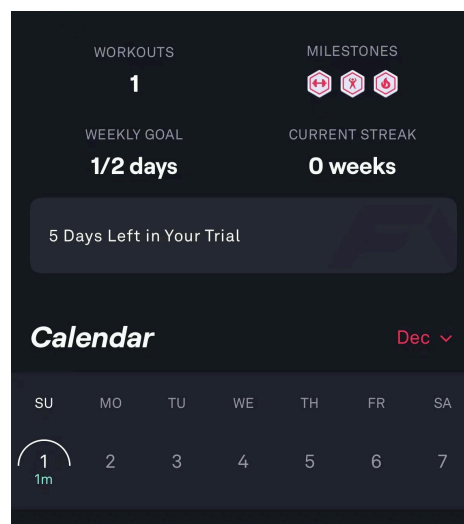


Figure 2: Poorly designed Log Page of *Fitbod*

1.2.6. The Very Problematic Settings Page

The settings page suffers from significant usability issues in terms of 1) **information hierarchy**, 2) **content presentation**, and 3) **visual consistency**. Here's why:

- 1) This supposed settings page is titled *Your Gym*, yet has a subsection called *Workout Settings*. *Your Gym* creates a misleading expectation that the page's primary

functionality is to “select equipments available at my gym”, when it actually serves as a preferences control panel for everything workout-related. This misalignment between the title and the actual content scope confuses users. A more appropriate hierarchy would use *Workout Settings* or just *Settings* as the main title, and *Your Gym* as the logical subsection.

- 2) Lengthy, low-contrast descriptive text are used throughout the settings page. This verbose approach cause unnecessary cognitive load. What’s worse, most of these descriptions were no more than a redundant paraphrase of its parent title, a complete waste of precious screen space.

The lacks of meaningful grouping in the *Workout Settings* section impairs navigation efficiency. High-level settings like *Fitness Goal* are indiscriminately placed together with low-level, specific settings such as *Cardio Recommendations*. Without further sub-categories, it overwhelms the user by forcing them to read through each setting to find the one they wish to customize.

- 3) The settings page also presents significant issue with visual consistency. As shown in Figure 2, the typography for each setting is highly inconsistent. Different fonts, size, and style disrupted visual harmony and professional polish.

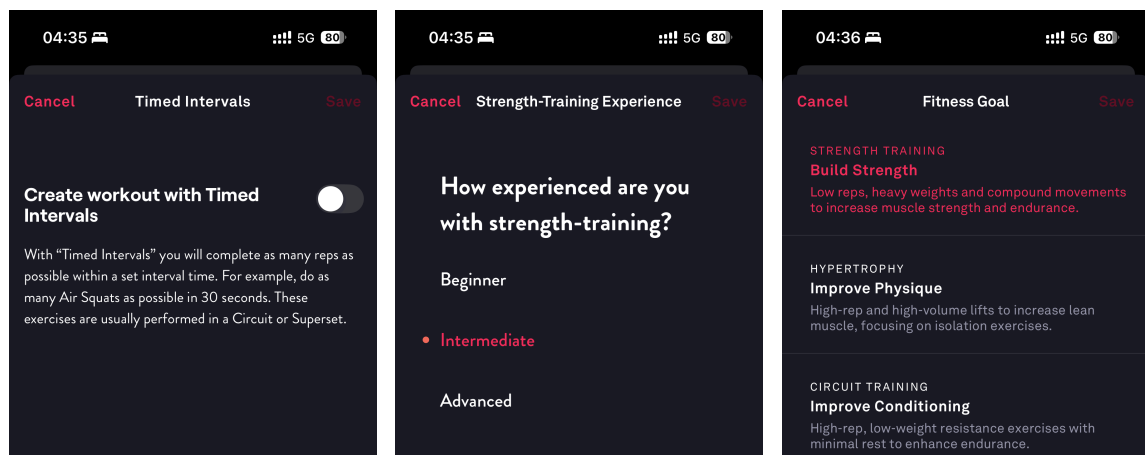


Figure 3:
Typographic inconsistencies and poor visual hierarchy in the settings page

1.3. Proposed Improvements

Based on the aforementioned issues in [Section 1.2](#) , we propose a series of improvements to enhance the user experience. This sections discusses these redesigns.

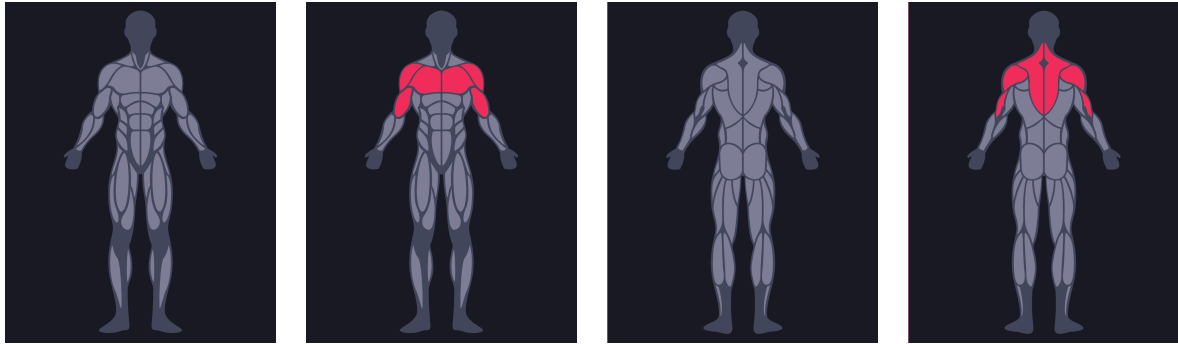


Figure 4:

Proposed redesign displaying targeted muscle groups using full-body illustrations with highlighted muscles, improving intuitiveness and reducing cognitive load.

1.3.1. Improved Homepage

Fitbod's isolated list of muscle groups on the homepage is less intuitive than a **holistic visual anatomical representation** of the whole body. Therefore, we propose an enhanced interface (Figure 4) featuring an interactive human body diagram where muscle groups are visually highlighted. This new design will completely replace the old problematic homepage, allowing users to clearly understand their current training plan.

In the human body diagram, target areas recommended for daily training are pre-highlighted in **red**, while users can freely select or deselect additional muscle groups. This visual approach provides immediate, intuitive feedback about the day's workout focus and allows for intuitive workout planning.

The **full-body** anatomical visualization eliminates the need to mentally piece together the list of body parts, reducing cognitive load and improving the user experience. This direct visual feedback helps users better understand their training distribution and make more informed decisions about their workout routine.

1.3.2. A Newly-Added Workout Selection Page

To better encourage users to review their current exercise plans and make it easier for them to add or remove exercises for today's training, we have designed a new workout selection page. This also resolved the issue mentioned in [Section 1.2.2](#) . Here, users can review the exercises planned for today's training, reorder them, or add and remove exercises to update their training plan.

1.3.3. A Newly-Added Available Exercises Page

Also, as we mentioned in the previous section, there will be a page showing all the available exercises. For users, just looking at the English phrases will not provide enough

information about the exercise. Therefore, we used GIF animations to **dynamically** present each exercise movement to the users, so they can quickly select the exercises they want.

1.3.4. Improved Workout Page and Sets and Repetition View

The **lack of crucial progress information** in the workout selection menu and the **misuse of the modal window** when logging workout sets can be resolved by eliminating the two-level menu system in favor of a **single-page interface**. The proposed change integrates the logging interface across all workouts on the same page.

This addresses both issues we mentioned in [Section 1.2.3](#) and [Section 1.2.4](#). Having the logging interfaces for each workout on the same page gives the user a straightforward perception of their overall progress (See Figure 4 for an intuition). Additionally, dedicating a full page to workout logging resolves the confusion created by *Fitbod's* modal windows that falsely suggest temporary interactions.

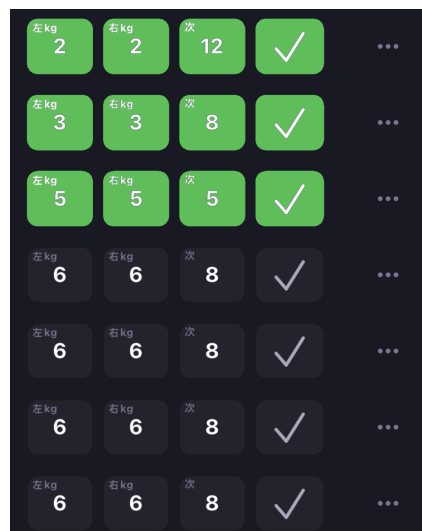


Figure 5: Proposed single-page, consolidated workout logging interface that provides the users with a clear, intuitive view of their overall completion.

Also eliminates the confusion of modal windows.

1.3.5. Improved Settings Page

The issues with the settings page (as discussed in [Section 1.2.6](#)) can be resolved through a series of redesigns and layout adjustments.

- 1) First, to address the inappropriate information hierarchy in the *Fitbod's* old design, we propose replacing the original title of *My Gym* with *Settings* and restructure the subsections for better logical coherency.
- 2) Secondly, the redundant and burdensome descriptive text in *Fitbod* should be eliminated, replaced by tightly grouped settings bars similar to that of iOS's *Settings* app. This would provide much greater information density. Finally, to resolve the issue with visual inconsistency, we propose using unified typography and iconography

across the page. Specifically the *Inter* font style and the *SF Symbol* icon family will be used in our redesign.

- 3) Moreover, for beginner users, especially those unfamiliar with workout experiences, they may not know what each setting's options mean. Therefore, we need to retain part of *Fitbod*'s design philosophy. At the same time, we proposed to significantly shorten the length and reduce the complexity of descriptive texts, while incorporating a more visually appealing layout. With this design, we propose two types of the *Settings* page: *roomy* and *compact*, which greatly increases the adaptability for different user groups and provides all users with more options to suit their preferences.

2. Designing

2.1. Redesign (w/Screenshots)

We have successfully redesigned the *Fitbod* based on our proposed changes stated in [Section 1.3](#). In the following sections we will take a deep dive into the major sections of our redesign, showcasing how we fixed the issues presented in *Fitbod*.

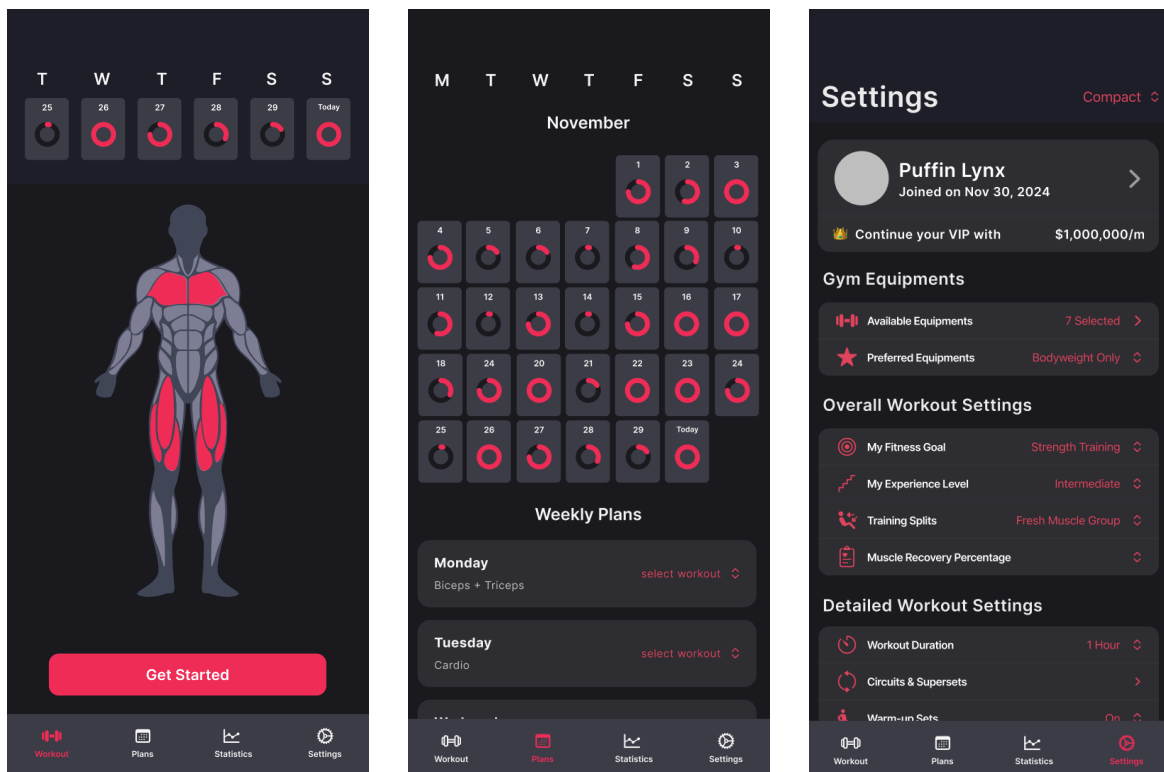


Figure 6: Redesigned homepage (left), redesigned planning page (middle), and redesigned settings page (right).

2.1.1. Homepage

Figure 6 (left) showcases our redesigned homepage as per our purposed improvement in [Section 1.3.1](#). The use of a full-body anatomy illustration provides an intuitive grasp

of the workout of the day. The users can select or deselect muscle groups by simply pressing areas of the anatomy illustration.

As opposed to having to scroll through a text-based menu to select new muscle groups, this approach is much more straightforward and frictionless.






2.1.2. Planning Page

In response to the issues with *Fitbod*'s log page discussed in [Section 1.2.5](#) , we introduce a redesigned *Planning Page*. As shown in Figure 6 (middle), our calendar displays an entire month, instead of a 7-day view as in *Fitbod*. Each day of the calendar features a progress ring with vivid color contrasting the background. This, combined with the starting position of these progress rings from 12 o'clock position instead of 9 made it obvious to the user its purpose. When viewed as a whole our redesigned calendar allows for a holistic grasp of the workout achievement of the month.

2.1.3. Workout Selection Page

As discussed in [Section 1.2.2](#) , an intermediate step between home page and the workout page is needed. Specifically, user might not find the recommended workout routine on a particular day suiting, and therefore wanted to customize their plan. Instead of adding new workouts to the routine after the workout has already started, a more natural and progressive way is to create an explicit confirmation page where the user could add, delete, or change workout order in batches.

This is exactly what we did. Figure 7 (left and middle) is our newly designed workout selection page which *Fitbod* lacks. Initially, there are some pre-selected workout based on the smart recommendations. Each workout is grouped together based on their primary muscle groups. Within each group, the user can:

- Add new workout by pressing the green  icon on the top right. The user
- Change the number of sets by plus or minus button of the  1 
- Change the workout order by holding  and dragging the workout around.
- Delete an unwanted workout by pressing the  button

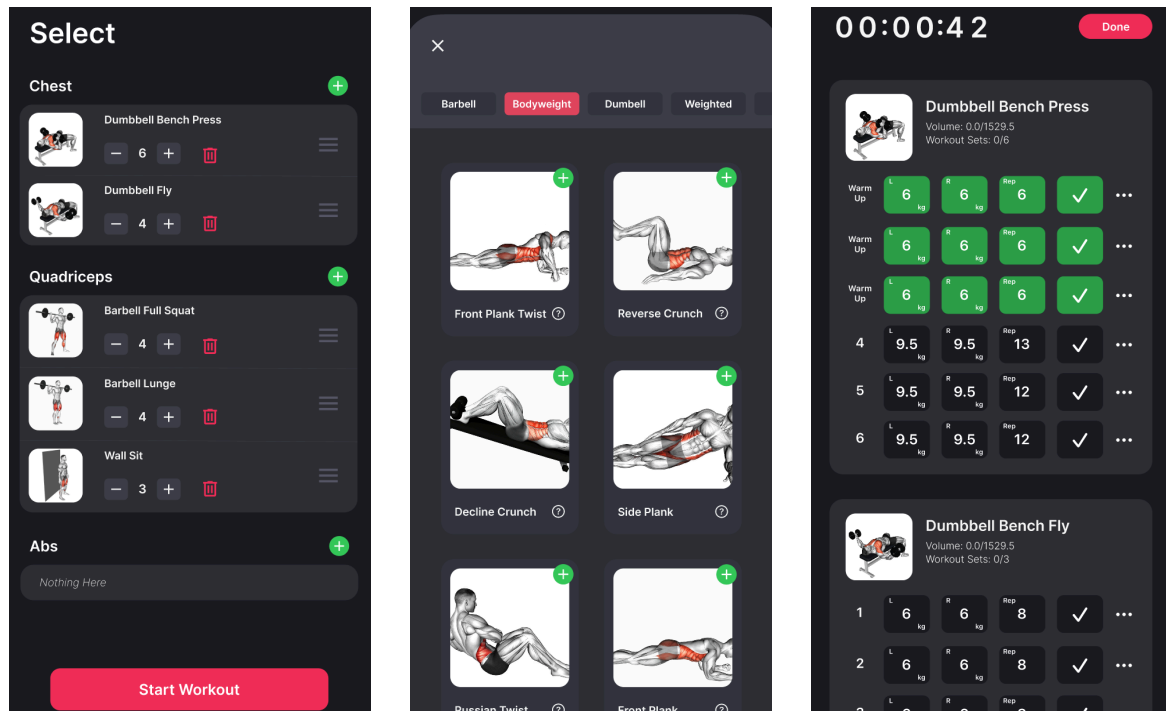


Figure 7:
Redesigned workout selection page (left)
available exercises page (middle)
and redesigned workout page (right)

2.1.4. Settings Page

Figure 6 (right) presents our redesigned Settings page, addressing the significant usability issues identified in the original *Fitbod* design. The title of the settings page has been changed from *My Gym* to *Settings*, with *Gym Equipments*, *Overall Workout Settings* and *Detailed Workout Settings* now placed as logical subsections. The chubby settings in the original design of *Fitbod* has also been replaced with more compact, tightly grouped setting blocks. These setting blocks eliminated the unnecessary subtitles, improving information density.

2.2. Tests and Feedbacks

2.2.1. Test Paths

We conducted comprehensive tests paths to verify that our newly designed app aligns better with HCI design principles and philosophies. They include:

- Users will open the app, and quickly check which muscle group(s) they are currently working on.
- Users will select the muscle group(s) for today's training. Since their physical condition is good today, they want to explore some exercises they have not experienced before, focusing on muscle groups they do not train often, while also keeping today's planned exercises.

- Users will begin their workout and complete the exercises one by one, marking them as completed with a checkmark. Additionally, there is a timer that allows them to track how long they have been training.
- Users will open the *plan page* to gain an understanding of their training progress over the past month. At the same time, they will also take a quick look at what they need to train this week and may make some adjustments.
- Users will open the *Settings* page to change specific settings, e.g., change the overall training plan. Since many items are on the Settings page, they want to quickly locate the item they are looking for.

2.2.2. User Test Description

We conducted several tests, which covered all test paths mentioned in the previous section. Let's break it down:

- Open the app, and check the muscle group(s) currently being trained.
- Add or remove one or two muscle groups.
- Press the *Get Started!* button to start a workout.
- View the current exercises, and add a new one.
- Browse over the *Available Exercises Page*, view the GIF for each exercise, and click the “?” buttons to get an overview of the exercises. Eventually, a new exercise will be selected.
- Start the workout. Check the timer and mark each exercise as completed one by one.
- After finishing the workout and returning to the homepage, open the *plan page* to view this month's training results.
- Realize to want to adjust the training goals, and go to the *Settings* page to make a change.

2.2.3. User Test Result

We conducted user tests with three participants: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] the improved navigation, stating that switching between workout plans was seamless and intuitive.

[REDACTED]

[REDACTED]

[REDACTED]. In the workout page, I can also mark exercises as complete without opening a secondary menu, which keeps my workout flow uninterrupted.”

[REDACTED]

[REDACTED]. It resembles that of

iOS's native fitness app which I really like.

2.2.4. Maze Result

Here, we present our Maze test results — primarily the *heatmap*. Through the heatmap, we quickly gained insights into whether the test users could easily identify where they could interact and whether they could quickly understand the purpose of our buttons. We provide three test heatmaps as examples here:

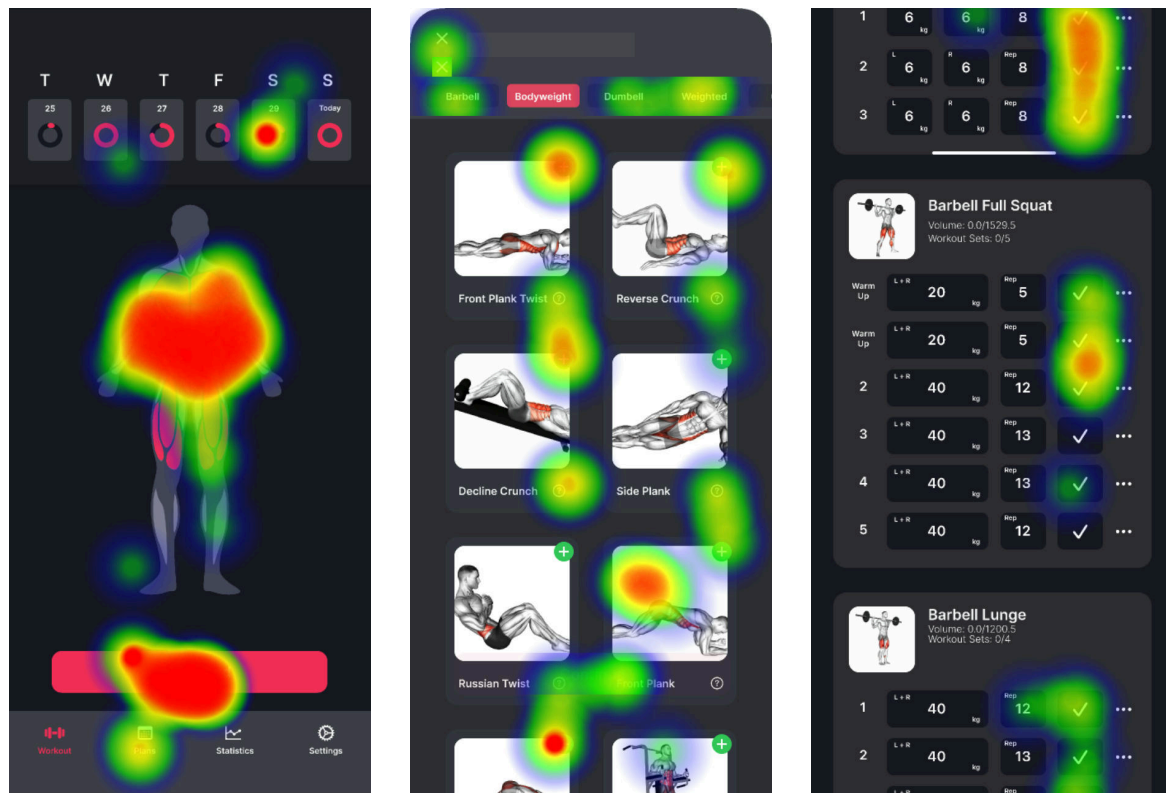


Figure 8: Maze heatmap of homepage (left), available exercises page (middle), and redesigned sets and repetitions view (right).

The Maze heatmaps show that test users seldom accidentally touch areas without buttons, indicating that they can quickly understand the design of our app and have a clear understanding of the location and function of each button. Therefore, our design demonstrates a high level of usability and thus improved user satisfaction.

3. Design for Disabilities

For people with disabilities, especially those with visual or motor impairments, our design is also tailored to help them adapt more quickly. Specifically,

- 1) We used **high-contrast color schemes** to enhance readability. Our black-and-red contrast is appropriate, as it highlights key elements while maintaining a harmonious balance across the overall page. This is particularly helpful for users with visual impairments. We drew inspiration from **traffic lights**, selecting red and green

as the primary colors alongside black. For completed exercises, we use a row of green indicators, which enhances contrast and is beneficial for users with visual impairments.

- 2) We used GIF animations to avoid the need for frequent clicks, making our app more suitable for users with mobility challenges.

4. Conclusion

We reviewed the design issues across multiple *Fitbod* pages, we addressed these problems, and we created an improved version. We redesigned these problematic pages, and in the following tests, we proved that our new design is significantly more user-friendly, comfortable, and satisfying compared to the original *Fitbod* app.