

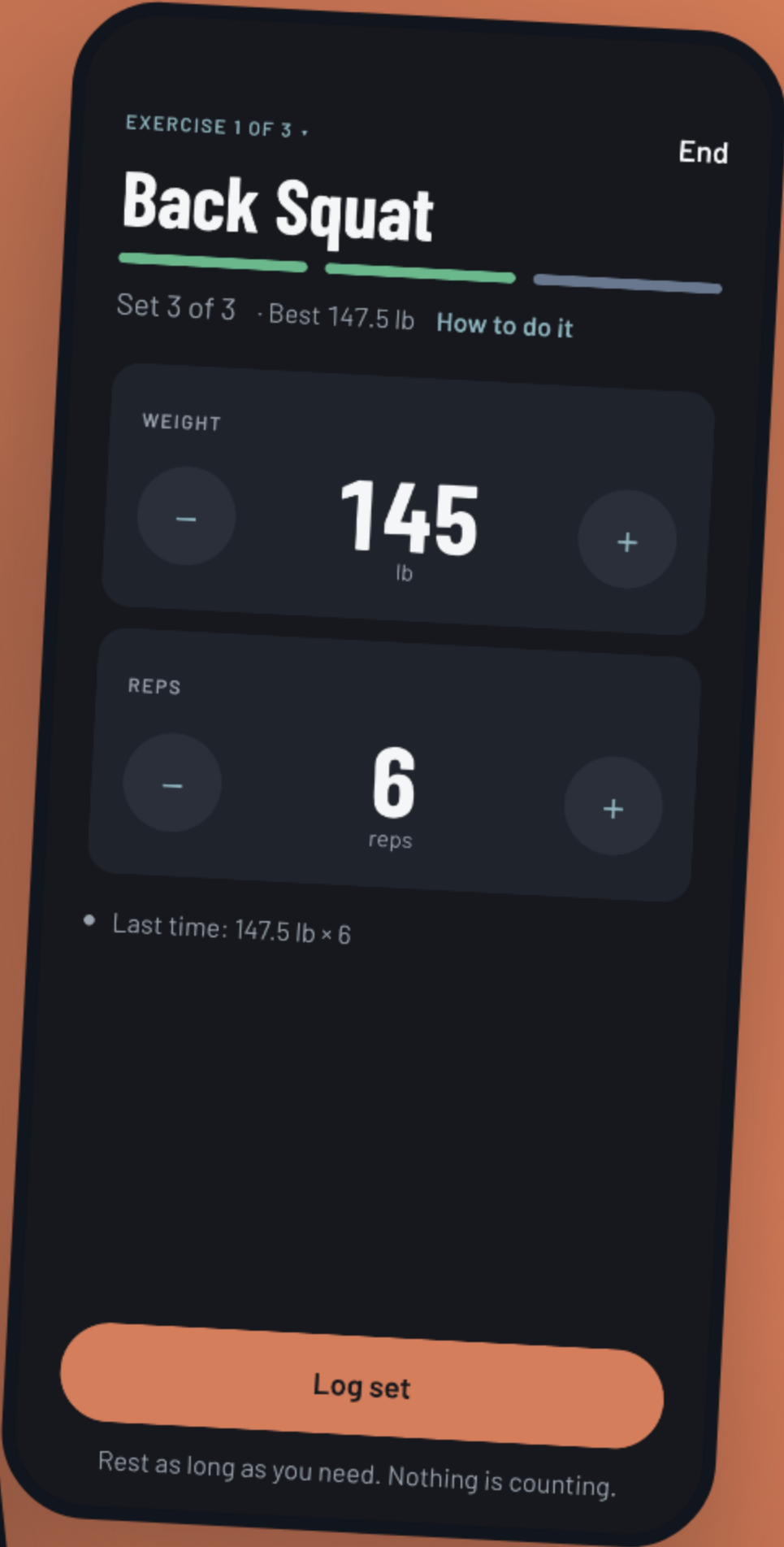
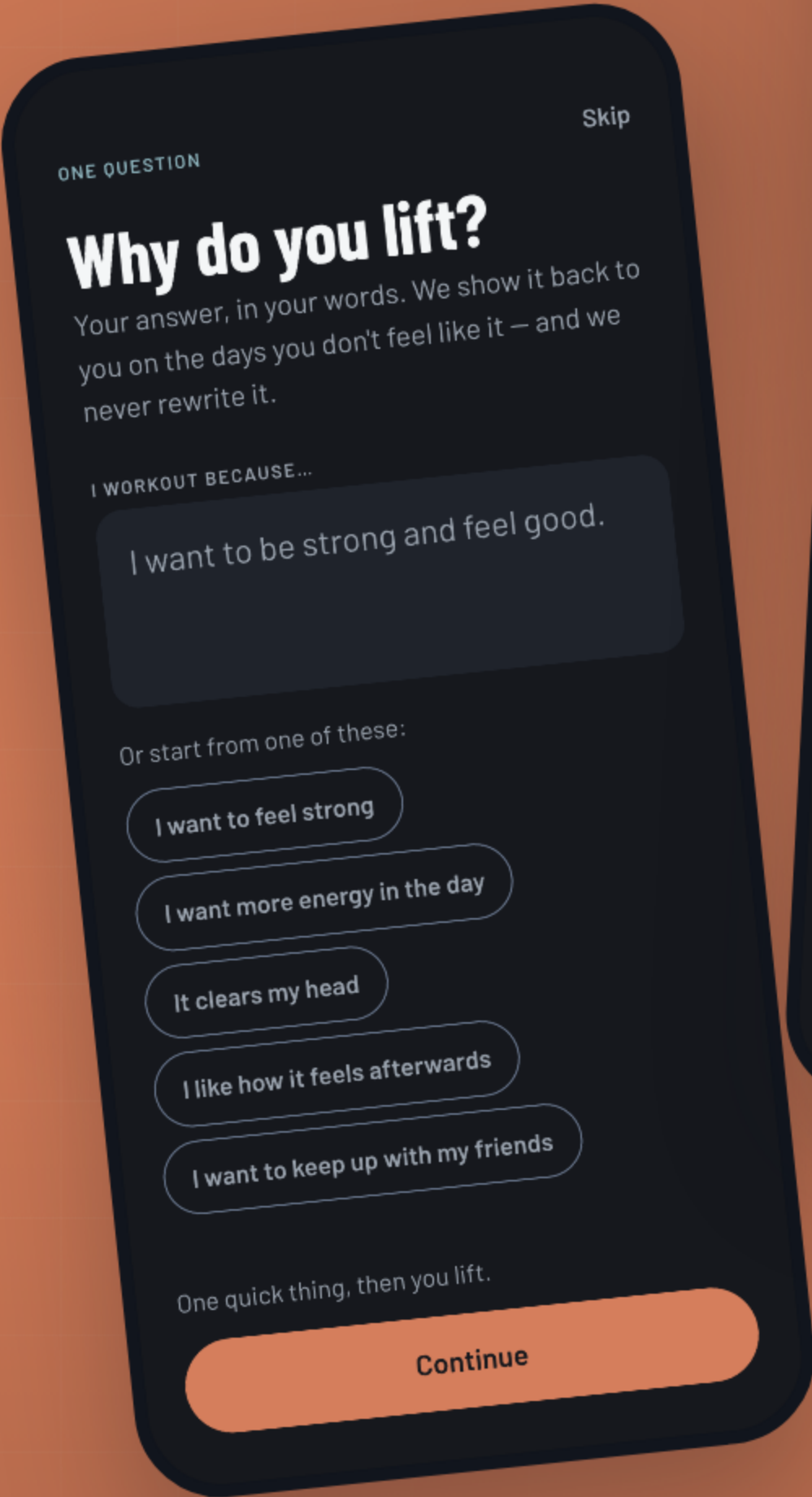
CASE STUDY / 2023 STUDY, 2026 BUILD

HabitaBull Lifting

A gym companion for when you keep losing the habit by week three.



RESEARCH	6 interviews, 3 cohorts, Vancouver
AUDIT	6 fitness apps and I Am Sober
BUILD	Installable PWA, 3 accessibility audits

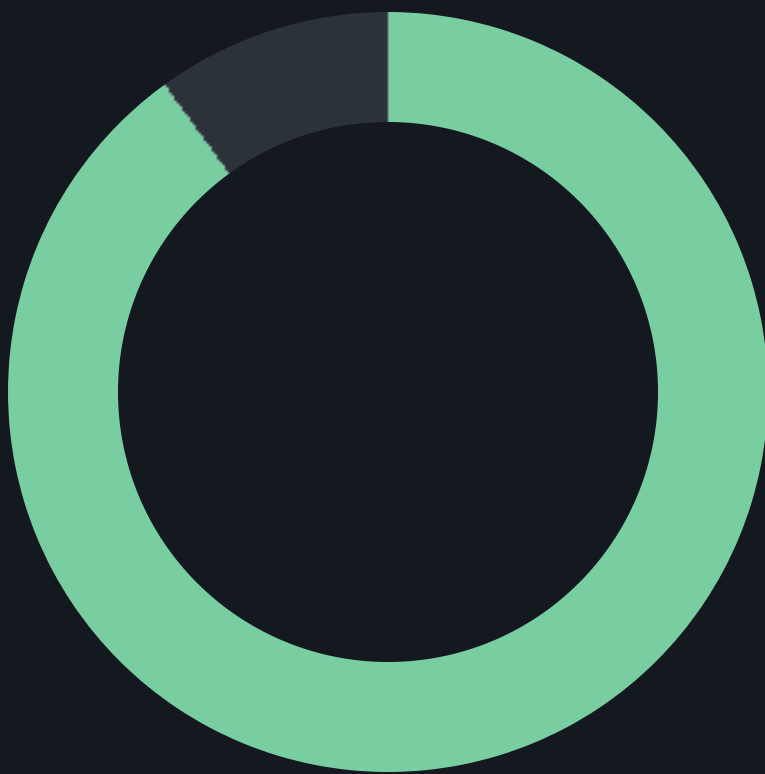


Most people quit within three months.



71–80%

of users
abandon their fitness app
within 3 months of installing
it.



90%

of people
quit their fitness goals entirely
after three months.

Sources from the 2023 deck: Dr. Muscle, fitness app statistics (usage, growth and user engagement); StriveCloud, how Strava keeps its users active and engaged. Retrieved May 2024.

PROBLEM STATEMENT

Motivation fades before the habit forms.

Many people begin a workout regimen **but lose focus and motivation after a short amount of time.**

Conventional gym apps frequently lack elements for goal-setting and habit-building, which are essential for continuous motivation and long-term involvement. In the absence of functional tools for establishing goals and forming habits, users will encounter difficulties in establishing their exercise routines. This undermines the possible advantages of regular exercise due to high drop-off rates and decreased retention.

Problem Statement

Many people begin a workout regimen **but lose focus and motivation after a short amount of time.**

Conventional gym apps frequently lack elements for goal-setting and habit-building, which are essential for continuous motivation and long term involvement. In the absence of functional tools for establishing goals and forming habits, users will encounter difficulties in establishing their exercise routines. This undermines the possible advantages of regular exercise due to high drop-off rates and decreased retention.



ORIGINAL SLIDE, FALL 2023

PROJECT BRIEF

A habit-building partner for people who lift.

Goal-setting, community support, and a reminder of why you started, every time you open the app.

WHO	15 to 35 year olds; weightlifters who struggle with discipline; people who want to improve in the gym long term
WHY LIFTING	General fitness apps are one-size-fits-all, and beginners' weightlifting is intimidating enough that many people never start
2023	Solo designer Figma, InDesign, Photoshop
2026	Designer and developer Next.js, Supabase, installable PWA, 92 commits



2023 CONCEPT: YOUR REASON, SHOWN BACK TO YOU

PART 1

Desk research

Six fitness apps, one sobriety app, and one book about habits.

HABITABULL LIFTING



Six apps, four shared problems.

- 01

Complex user interface

Nike Training Club and Workout Trainer bury workouts under nested menus and unclear navigation
- 02

Lack of customization

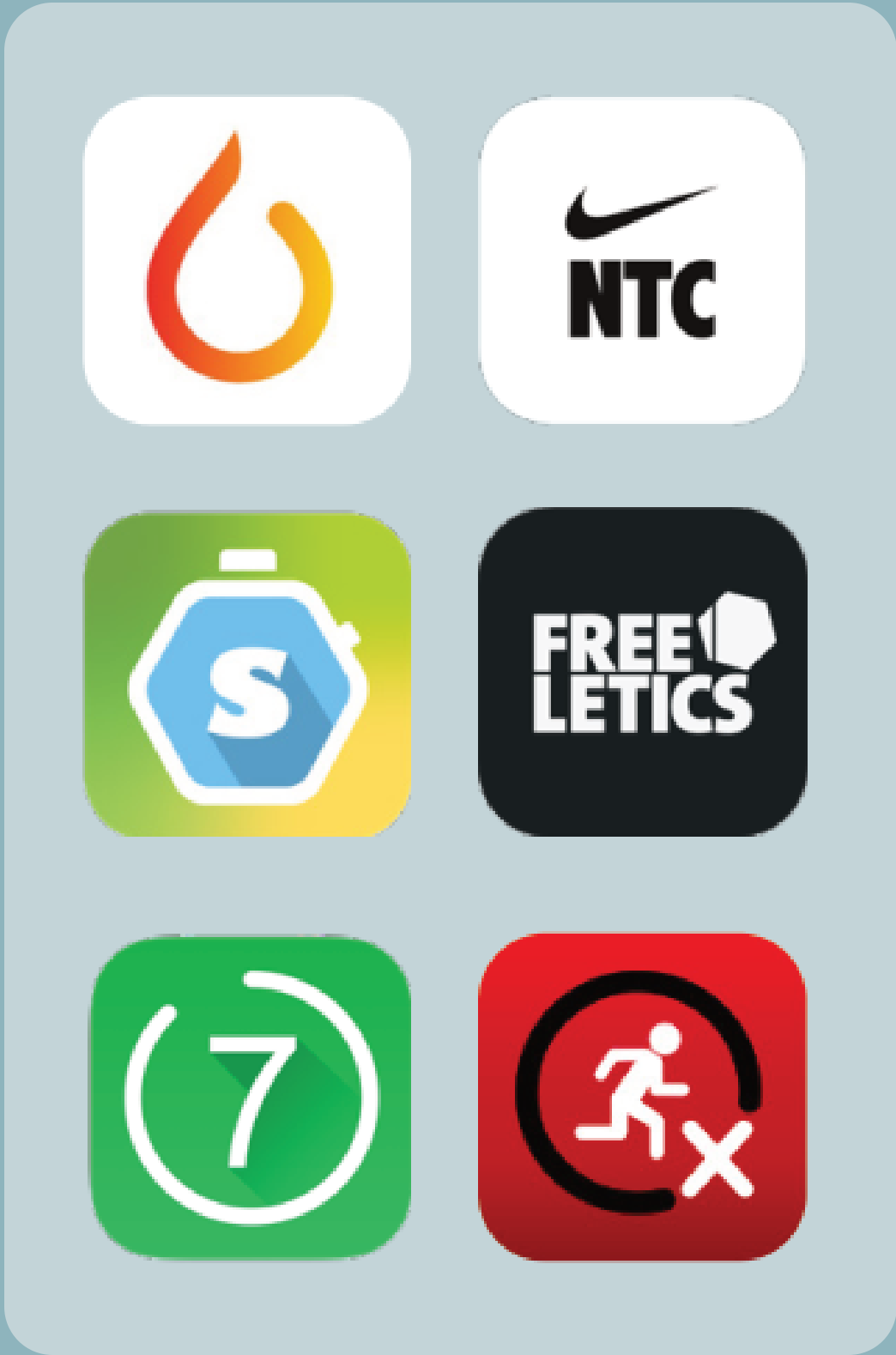
7 Minute Workout and Sworkit ship pre-set routines with no way to adapt to level, preference or goal
- 03

Motivation issues

Self-motivation is harder in an app than in a class; Zombies, Run! gamification fades with the novelty
- 04

Inadequate instruction

Workout Trainer and Freeletics give routines without enough guidance on form, raising injury risk



SWORKIT · NIKE TRAINING CLUB · SKIMBLE · FREELETICS · 7 MINUTE WORKOUT · ZOMBIES, RUN!

Sobriety apps keep people for **years**.

I Am Sober had already solved the retention problem I was working on, with CBT-based behaviour change; it just talked about it in recovery terms.

SUPPORT

Coping tips, motivational quotes, daily encouragement
Supportive communities matter most for people without internal motivation

MILESTONES

Celebrate success; track progress down to the second
Goals and milestones show progress from an objective perspective

AUTONOMY

Ask *why* you want it, to separate intrinsic from extrinsic motivation
Became the "why do you lift?" screen

Desk Research

I Am Sober



How do sobriety apps motivate users?

Support

- Provide support through **coping tips and motivational quotes**
- Offer positive reinforcement with **daily encouragement** including affirmations

Milestones

- Let users **celebrate their success** and achievements
- **Track their sobriety progress** down to the second.

Autonomy Theory

- **Helps Distinguish** different types of motivation (**Intrinsic vs Extrinsic**) by asking **why they want to get sober**
- Doing something because **you want** to rather than doing it for a separate consequence

Takeaways:

Supportive communities are extremely important for people that don't have internal motivation

Goal setting and milestones help users see their progress from an objective perspective

The need to feel in control of one's own behavior and goals is important. Autonomy involves having a sense of volition and willingness in one's actions.



HOW SOBRIETY APPS MOTIVATE USERS, 2023

Six features build a habit.

- 01

Identify the behaviour you want to establish

a consistent workout routine
- 02

Establish when you will do it

log the days you want to train each week
- 03

Be flexible

customizable routines, in case of injury
- 04

Set a goal

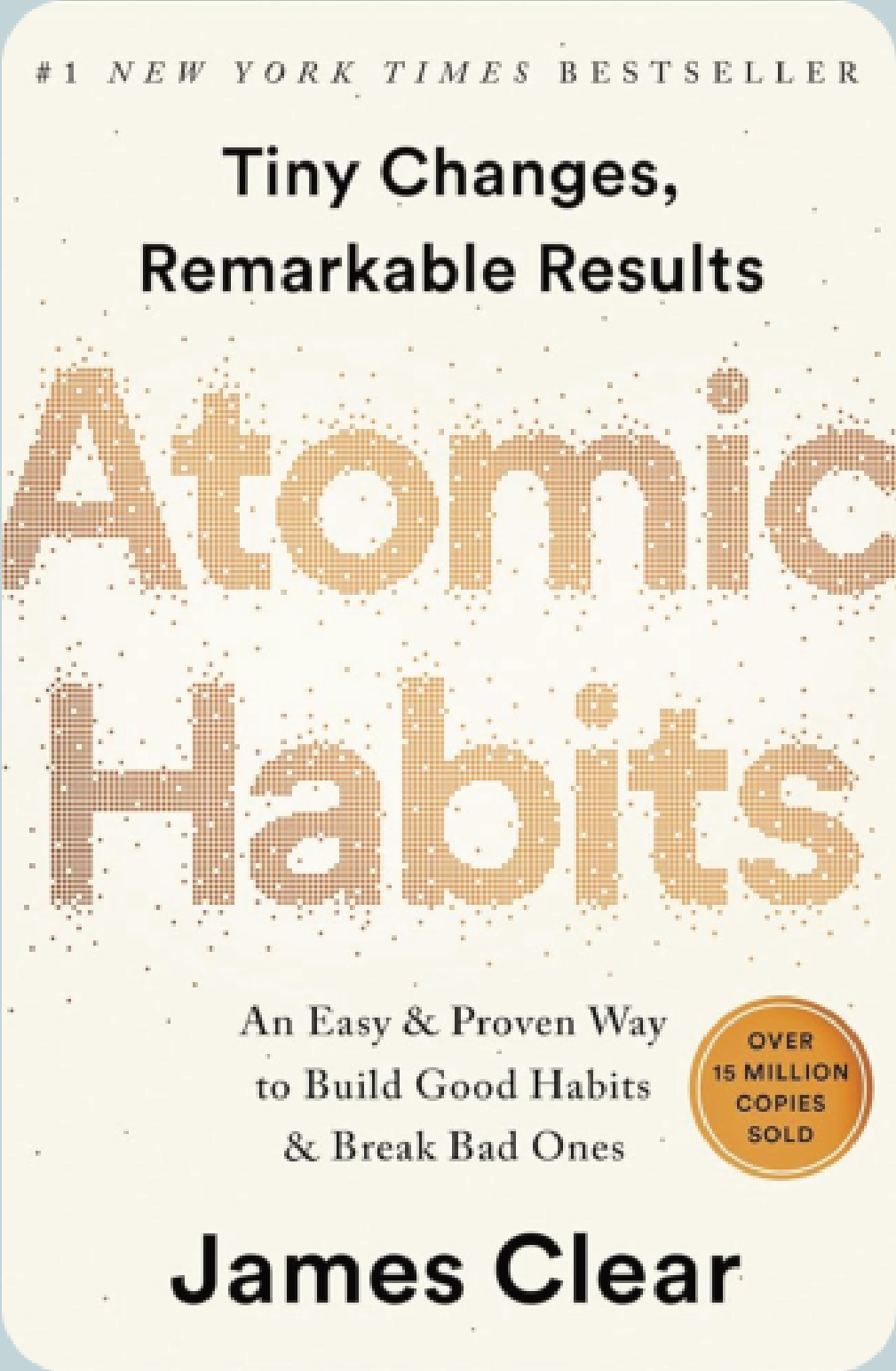
shown every time the app opens
- 05

Repeat consistently

notification reminders
- 06

Reward the repetition

a gamified experience



"A routine or behavior that is performed regularly, and, in many cases, automatically."

JAMES CLEAR, ATOMIC HABITS (2018)

PART 2

Qualitative research

Six in-person interviews in Vancouver, three cohorts, one question tree.

HABITABULL LIFTING



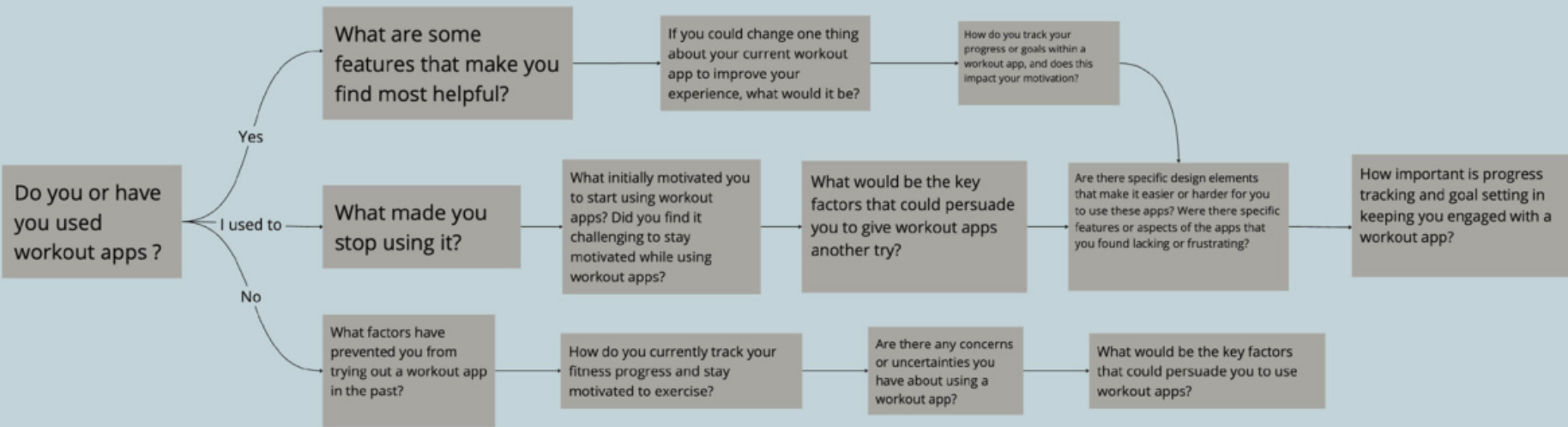
One question decided the branch.

The purpose was to understand the **experiences, motivations and app-specific critiques** of people trying to meet physical goals with the workout apps already on the market.

Every interview opened with "Do you or have you used workout apps?" and followed a different branch for **yes, I used to**, and **no**, so lapsed users could talk about why they stopped and new users about what held them back.

Interview

Questions



QUESTION TREE, 2023

Six people, three cohorts.

USED TO	Ryder, Cathy, Sofia used gym apps, then stopped
USES	Marklin, Miles current gym app users
NEVER	Erin has never used one
RYDER, 17	2 years lifting, 3 times a week tracked progress in a journal
MILES, 35	20 years lifting, 6 times a week tracks progress in a gym app
CATHY, 28	4 years lifting, twice a week tracks progress in a to-do list

Interview

Participants

For my interviews, I selected participants from my community in Vancouver, Canada, incorporating a variety of age ranges to capture perspectives from people of the ages of my target audience. Conducting these interviews in person ensured that the interviewees felt comfortable sharing their personal habits and allowed me to understand their genuine feelings. Questions are **different** based on if users have used a workout app before.

Interviewees

Used to use gym apps		
Ryder	Cathy	Sofia
Uses gym apps		
Marklin	Miles	
Has never used a gym app		
Erin		



PARTICIPANTS BY COHORT, 2023

Three things everyone said.

- 01

They prefer simple, easy-to-navigate interfaces

no distractions on screen; no clutter, payment walls, or intrusive ads
- 02

Progress tracking and goal setting keep them engaged

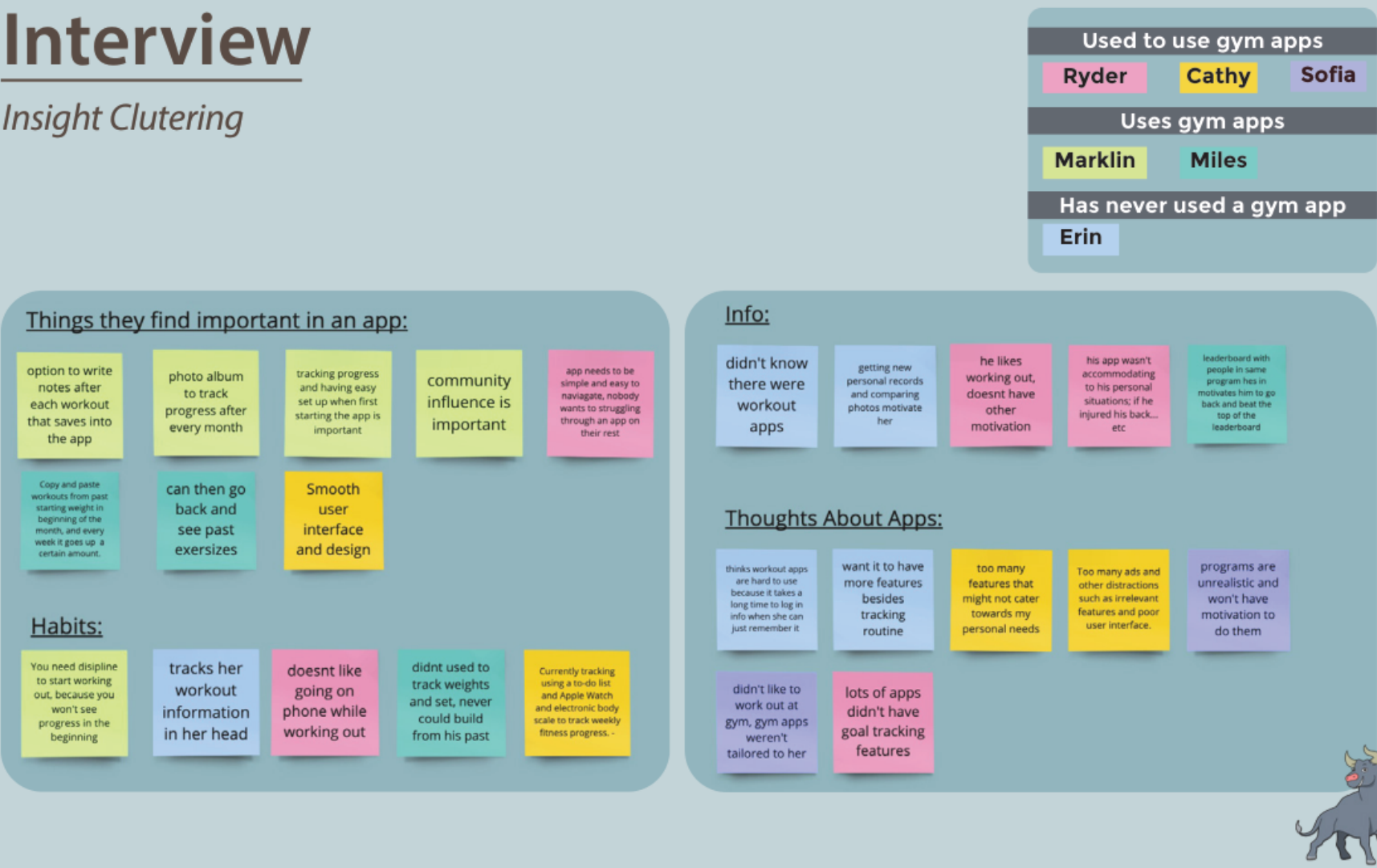
they want to see improvement over time, and wish apps offered something new
- 03

They are motivated by competition

leaderboards or shared goals, and seeing their own improvement

Interview

Insight Clustering



Who I was designing for.

COMPETITOR

Miles. Motivated by competition and rankings; wants community and a seamless interface
dislikes touching the phone mid-workout

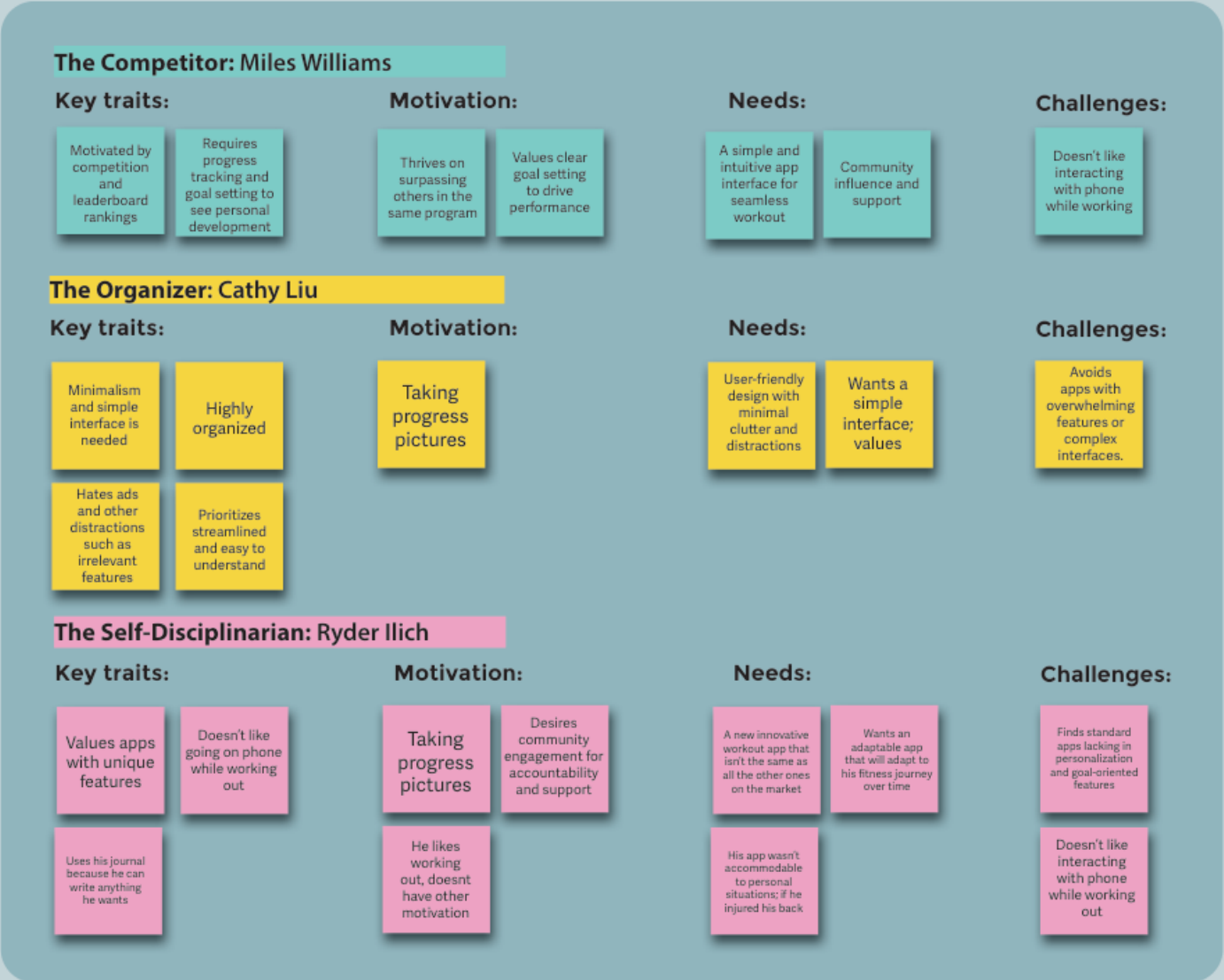
ORGANIZER

Cathy. Minimalist and highly organized; motivated by progress pictures
avoids overwhelming or complex interfaces

SELF-DISCIPLINARIAN

Ryder. Values unique features and a personal touch; motivated by pictures and accountability
wants a personalized routine he can build on

Behavioural Archetypes



ARCHETYPES: TRAITS, MOTIVATION, NEEDS, CHALLENGES

Six findings from the clustering.

- 01

Cluttered and complex interfaces

"Nobody wants to be struggling through an app on their rest."
- 02

Lack of personalized goal tracking

"I didn't used to track my weights and set, so I could never build from the past."
- 03

All have the same feature: tracking a routine

"It takes a long time to log in info when I can just remember it."
- 04

Lacks community support

"I got this app because my friend uses it."
- 05

Inadequate instructions for new users

"Programs are unrealistic and won't have motivation to do them."
- 06

Too many features unrelated to personal needs

"Programs weren't tailored to what I wanted."



TOP FINDINGS, 2023

Six questions set the direction.

- 01 Make it easy for new users to navigate the app?
- 02 Help new users feel confident and informed when they start?
- 03 Incorporate community support within the interface?
- 04 Motivate youth to be disciplined and build healthy habits?
- 05 Add features that make the platform more engaging and supportive?
- 06 Cater to an individual's specific fitness goals and needs?

How Might We...

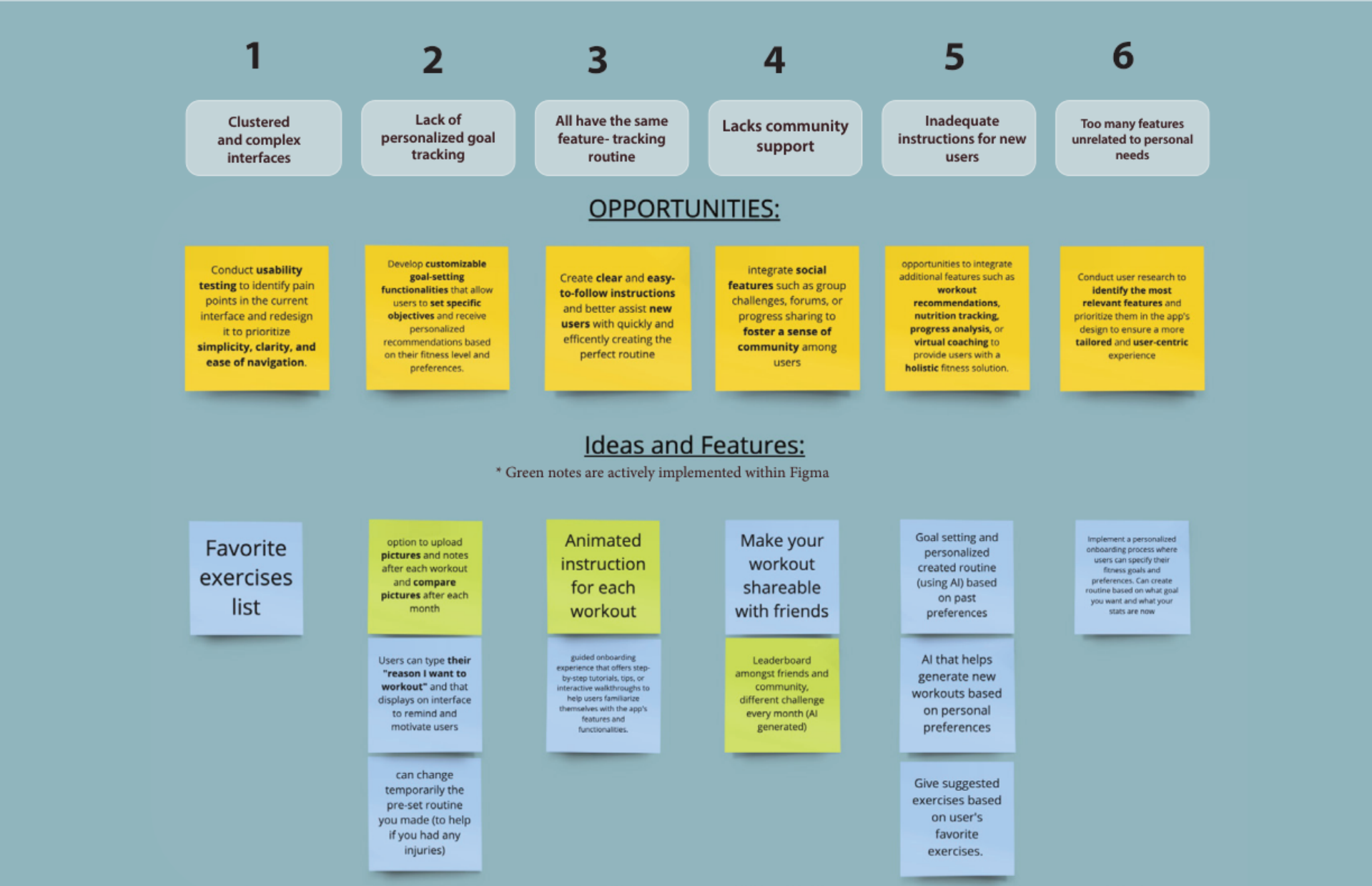
- 1. Make it easy for new users to navigate through the app?
- 2. Ensure that new users feel confident and informed when starting their fitness journey?
- 3. Incorporate community support within the interface?
- 4. Motivate youth to be disciplined to create healthy habits?
- 5. Incorporating additional features and ensure a more engaging and supportive platform for users to achieve their fitness goals?
- 6. Cater specifically to individual's fitness goals and needs?

HOW MIGHT WE, 2023

From findings to features.

Each finding became an opportunity, and each opportunity a set of candidate features. The ones that made it into the 2023 prototype: **favourite exercises**, **progress photos** compared month to month, **animated instruction** for every lift, **shareable workouts**, a written **"reason I want to workout"** shown back on the interface, and a **weekly training calendar**.

Held for later: auto-generated routines from preferences and equipment, and suggested exercises based on favourites. Both shipped in 2026.



OPPORTUNITIES AND IDEAS, 2023

What each finding became, three years on.

01 One thing per screen, made structural

Exactly one orange action per screen and never two, because orange is the only fill that isn't a shade of the ground. The tab bar is absent during a workout: mid-session there is one thing to do.

02 History is the engine, not a feature beside it

Clear every target rep and the weight goes up one increment; miss on three consecutive sessions and it cuts 10% and rebuilds; anything else repeats. Repeating is a valid outcome.

03 Logging survives one thumb, mid-set

56px targets with 44px as a floor, tabular figures so columns don't jitter, and a keyboard that is opt-in: it appears only after a deliberate tap on the number, never on entering the screen.

And the three that reshaped the frame.

04 A crew joined by a code somebody reads out

No account and no password anywhere in the product. What a crew sees is who trained on which day and a photo they chose to share.

05 Every lift teaches itself

All 53 carry a form cue, three or four ordered steps and at least two named mistakes, enforced by a test rather than by diligence. Shown once, on the set where it usually goes wrong.

06 The week is built from her, not from a catalogue

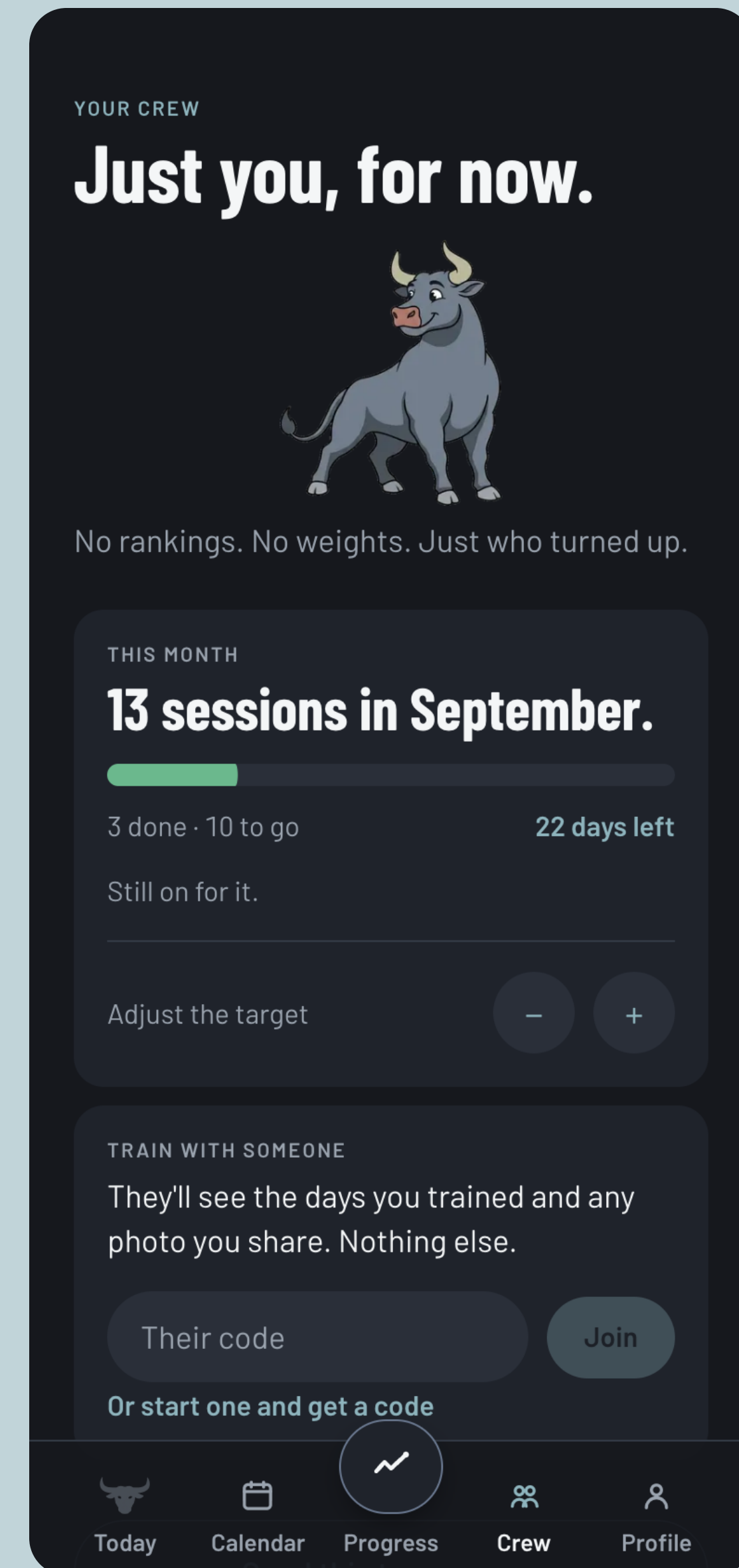
Generated from level, the days she can actually keep and the equipment she has. "Something hurts today" rebuilds the day and changes only today.

Miles wanted a leaderboard. He didn't get one.

Finding 04 asked for community, and the loudest form of it in the interviews was ranking. The 2023 flow built exactly that. The 2026 build took it out, because **ranked by absolute load a leaderboard shames the beginner this product was written for, and beginners quit ladders:** finding 05 arguing against finding 04.

What replaced it came from I Am Sober — a monthly target that is her own schedule counted, and a week of dots per person. Presence, not performance.

There is no weight and no ranking in the crew, and **the database has no column for one.**



A TARGET, NOT A RANKING

PART 3

Design

Four user flows, eight lo-fi prototypes, one HMW pinned to each.

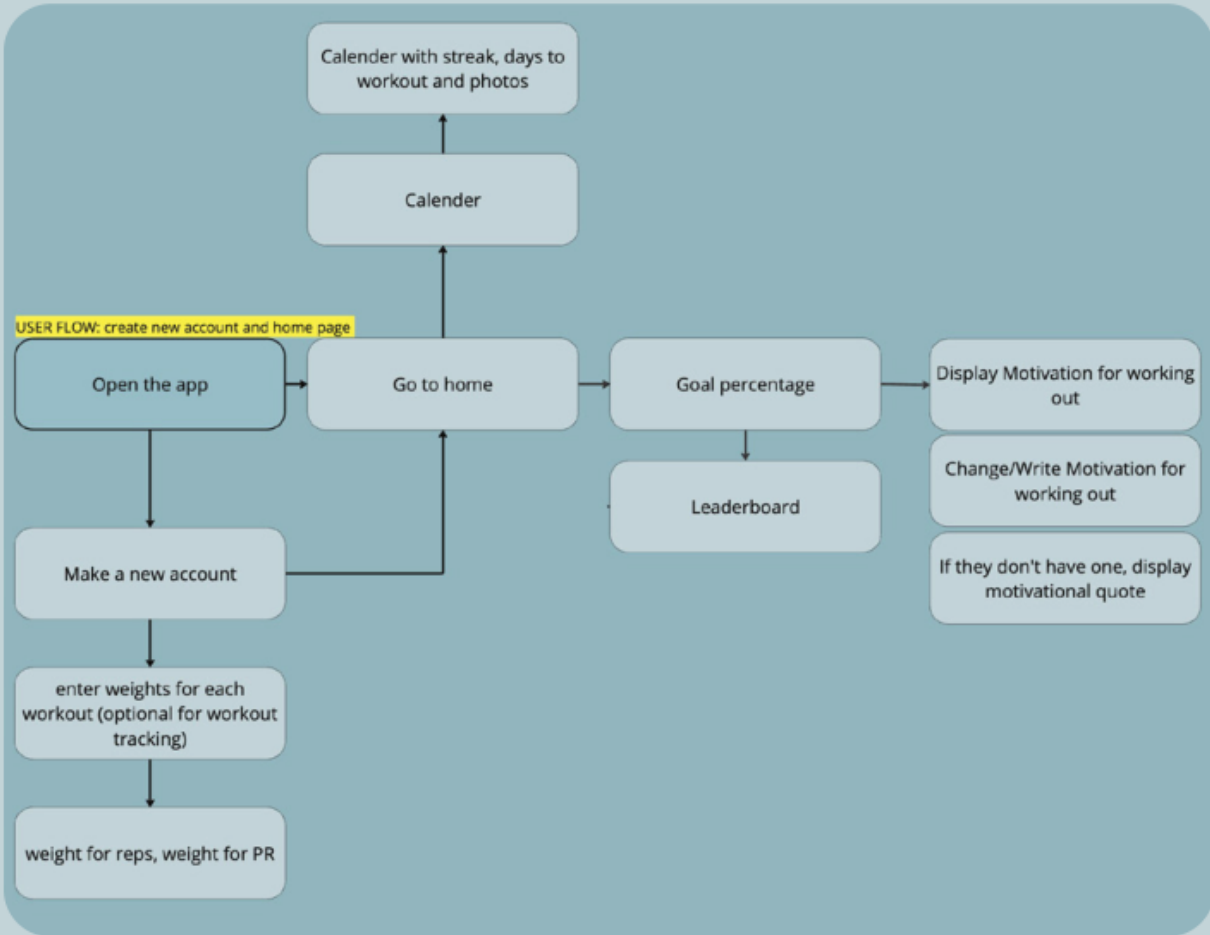
HABITABULL LIFTING



Four flows: start, then build.

User Flow

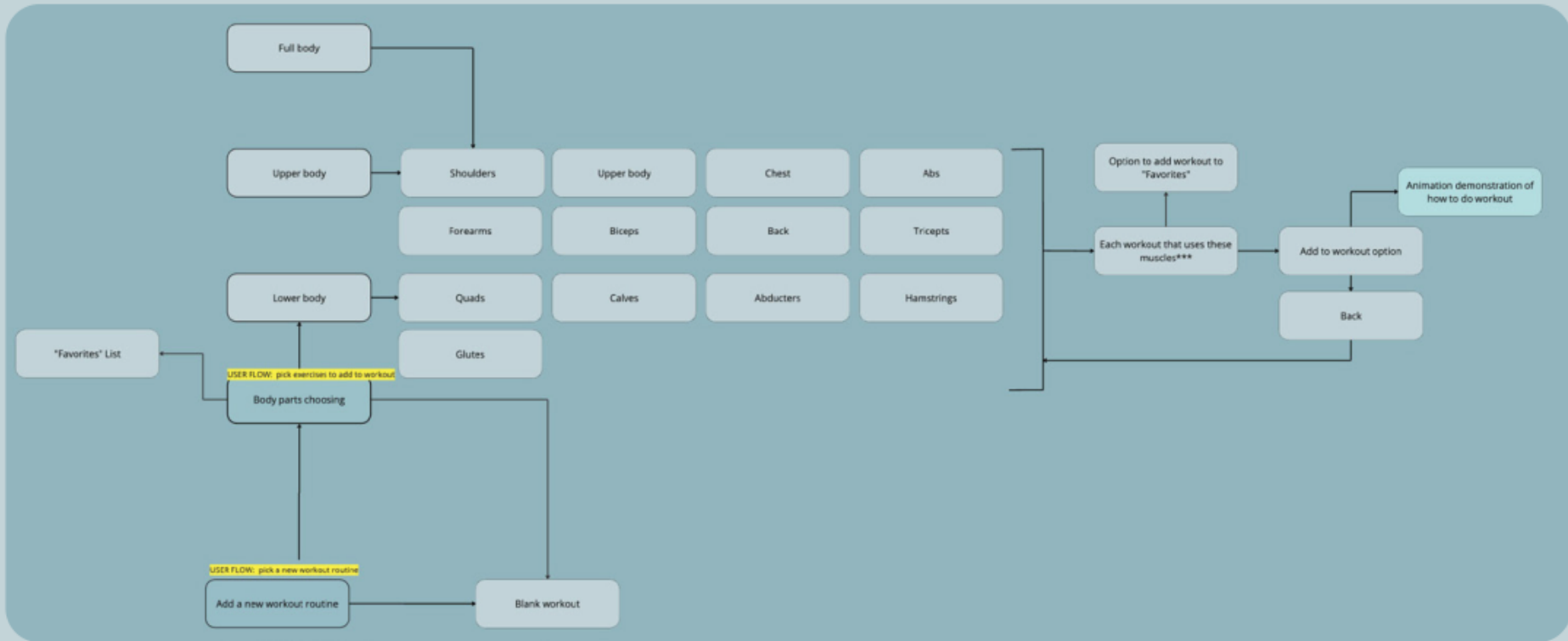
Creating new account and Home



A · NEW ACCOUNT AND HOME

User Flow

Creating a new workout routine

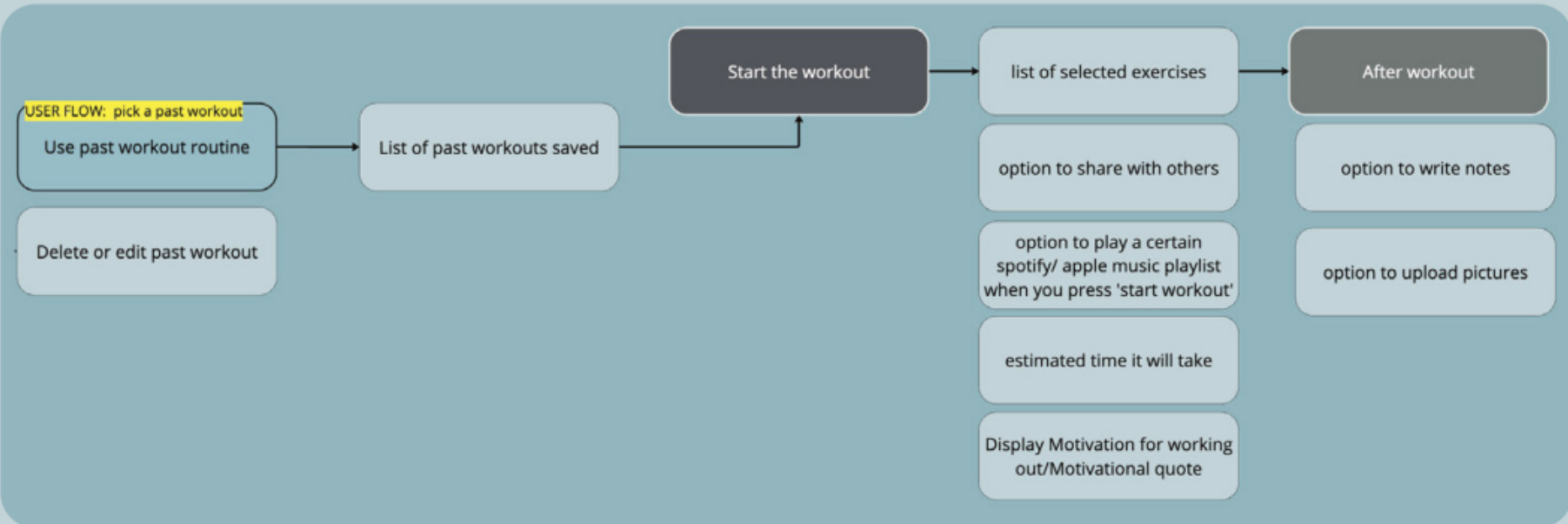


B · CREATE A NEW WORKOUT ROUTINE

Reuse a routine, or let it generate.

User Flow

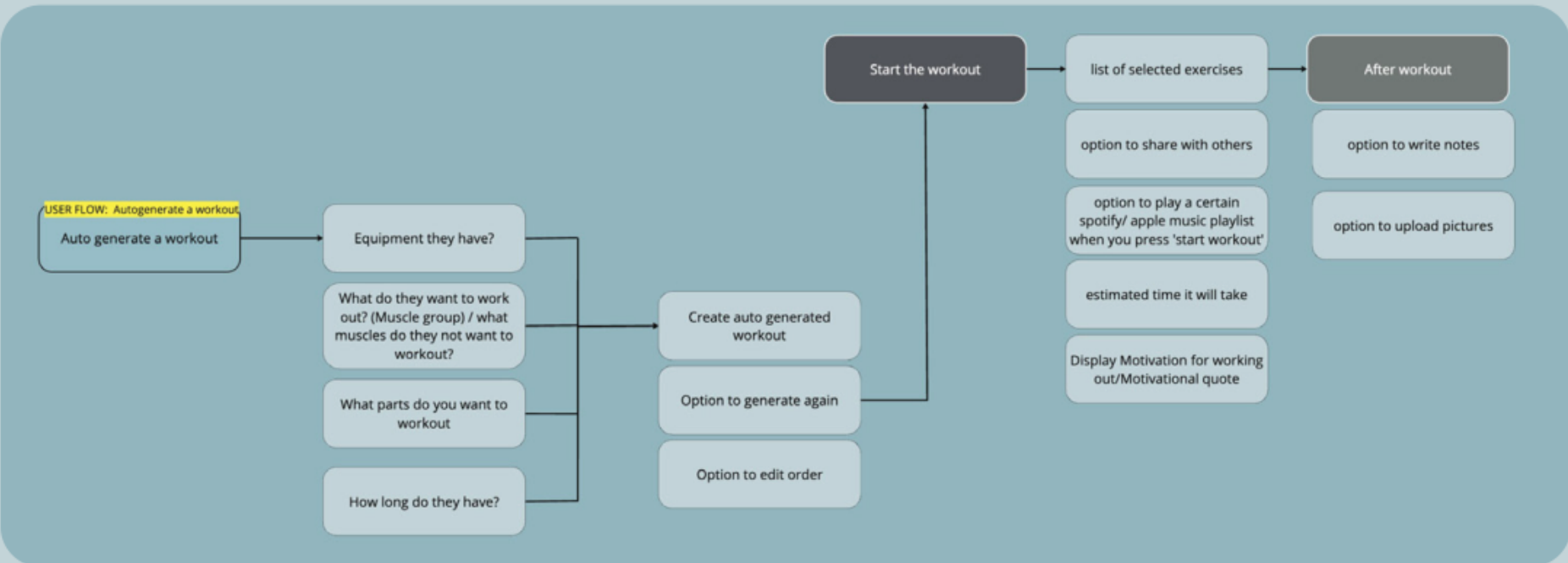
Picking a past workout routine



C · PICK A PAST ROUTINE

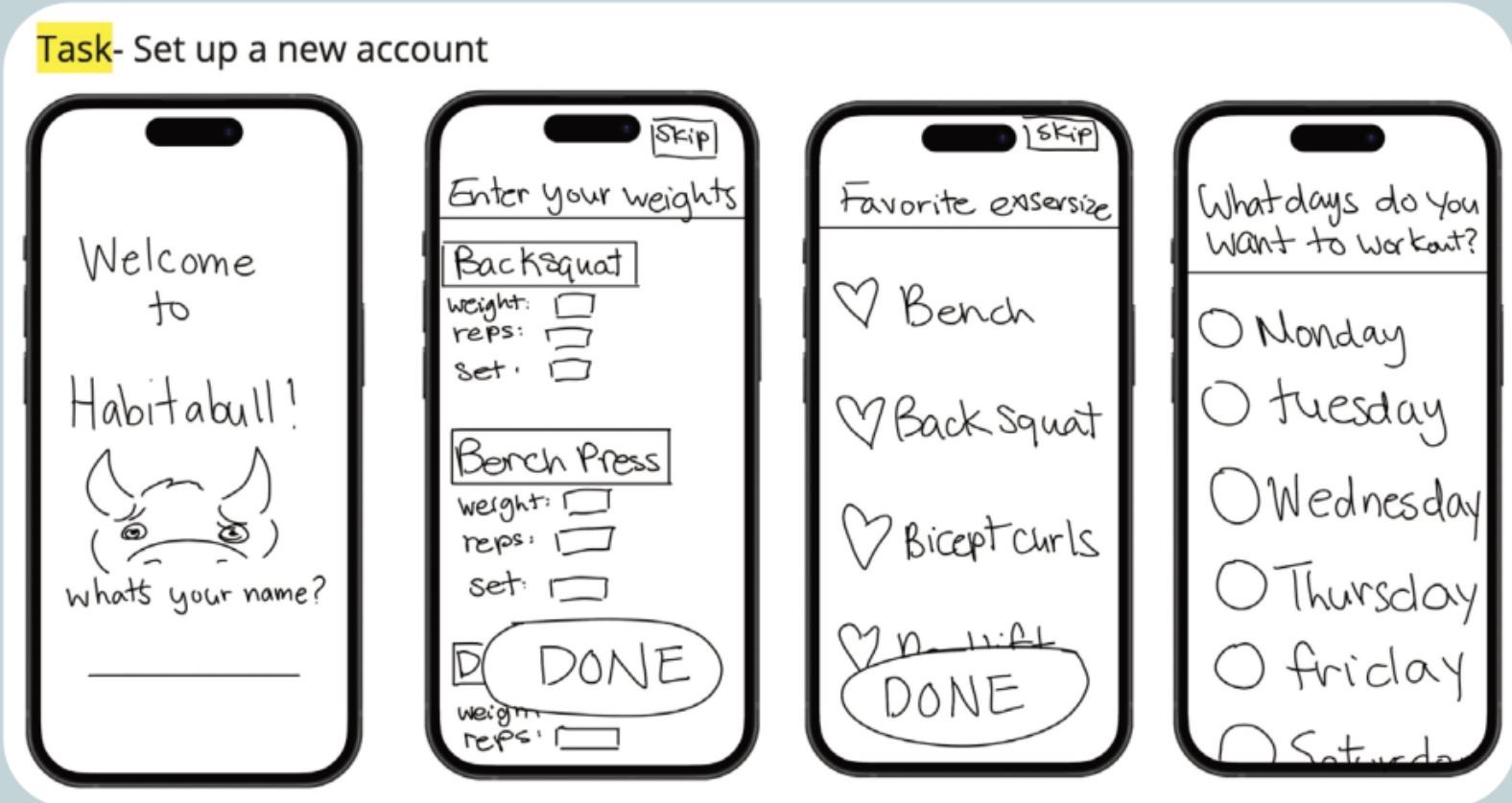
User Flow

Using the Auto-generate feature



D · AUTO-GENERATE A ROUTINE

Every sketch answers one HMW.



Low Fidelity Prototype

Setting up a new account



SET UP A NEW ACCOUNT · HMW 02

HMW make it easy for new users to navigate through the app?



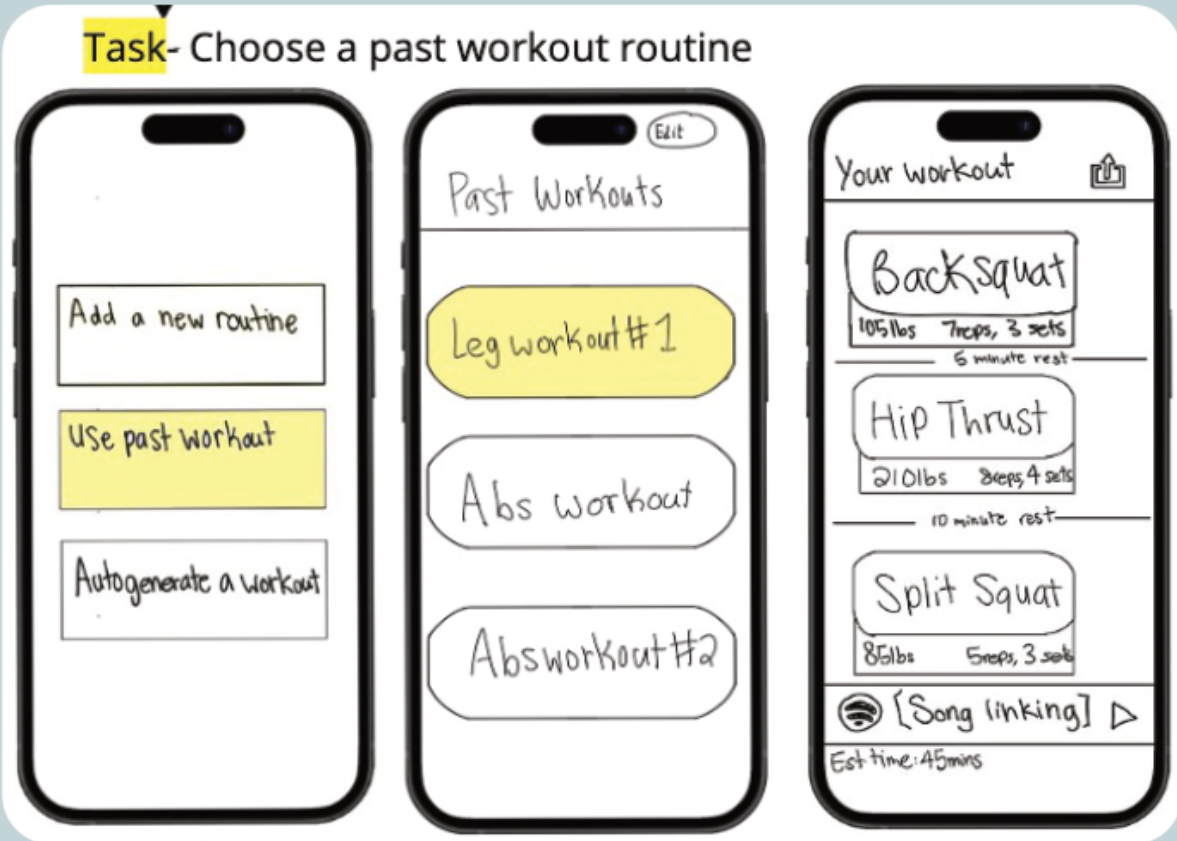
Low Fidelity Prototype

Create a new workout routine



CREATE A WORKOUT ROUTINE · HMW 01

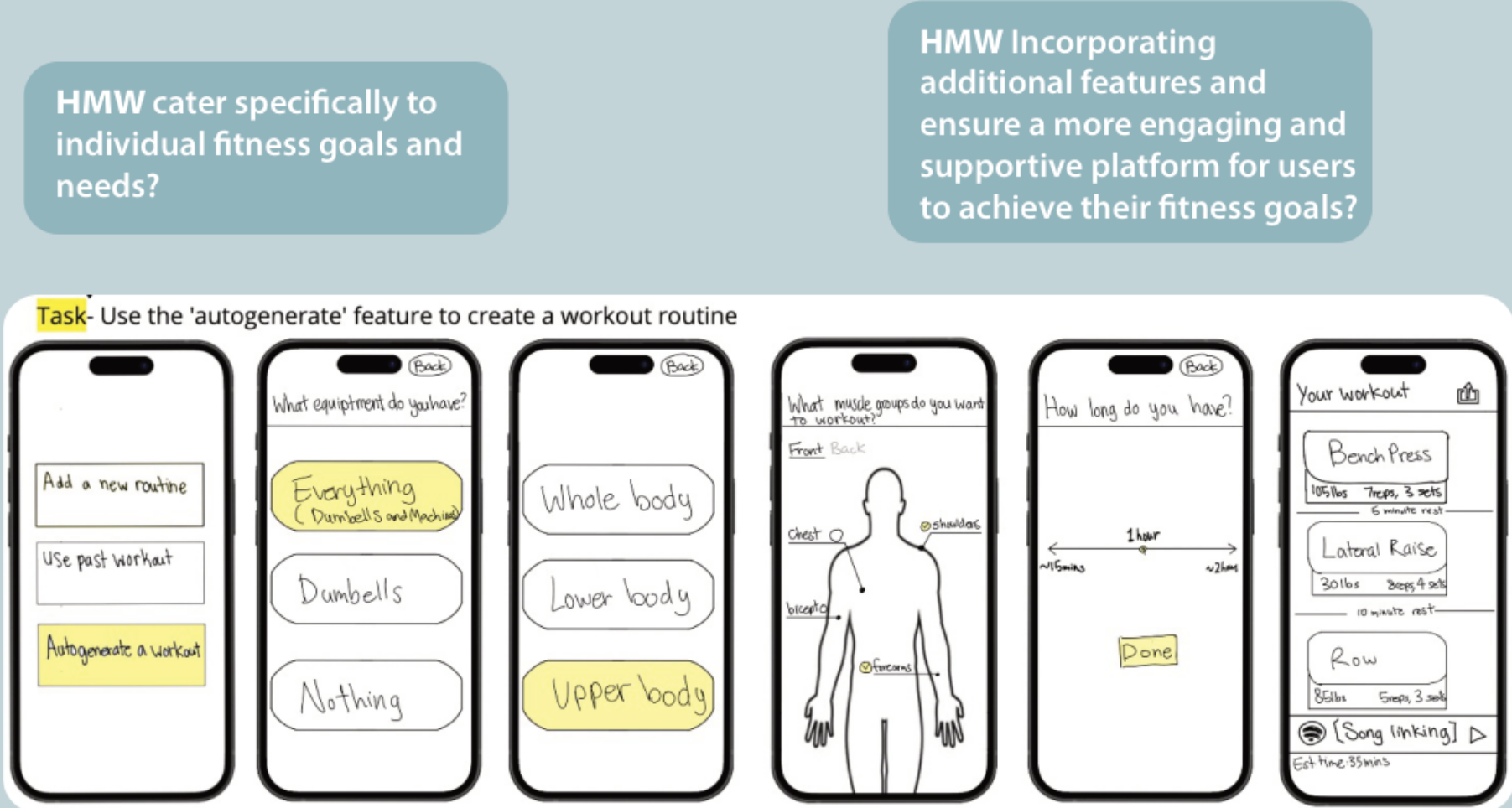
Reuse, generate, look back.



Low Fidelity Prototype
Choose a past workout routine



CHOOSE A PAST ROUTINE · HMW 06



Low Fidelity Prototype
Auto-generate a new workout routine



AUTO-GENERATE A ROUTINE · HMW 05

Photos, form, and a lesson.

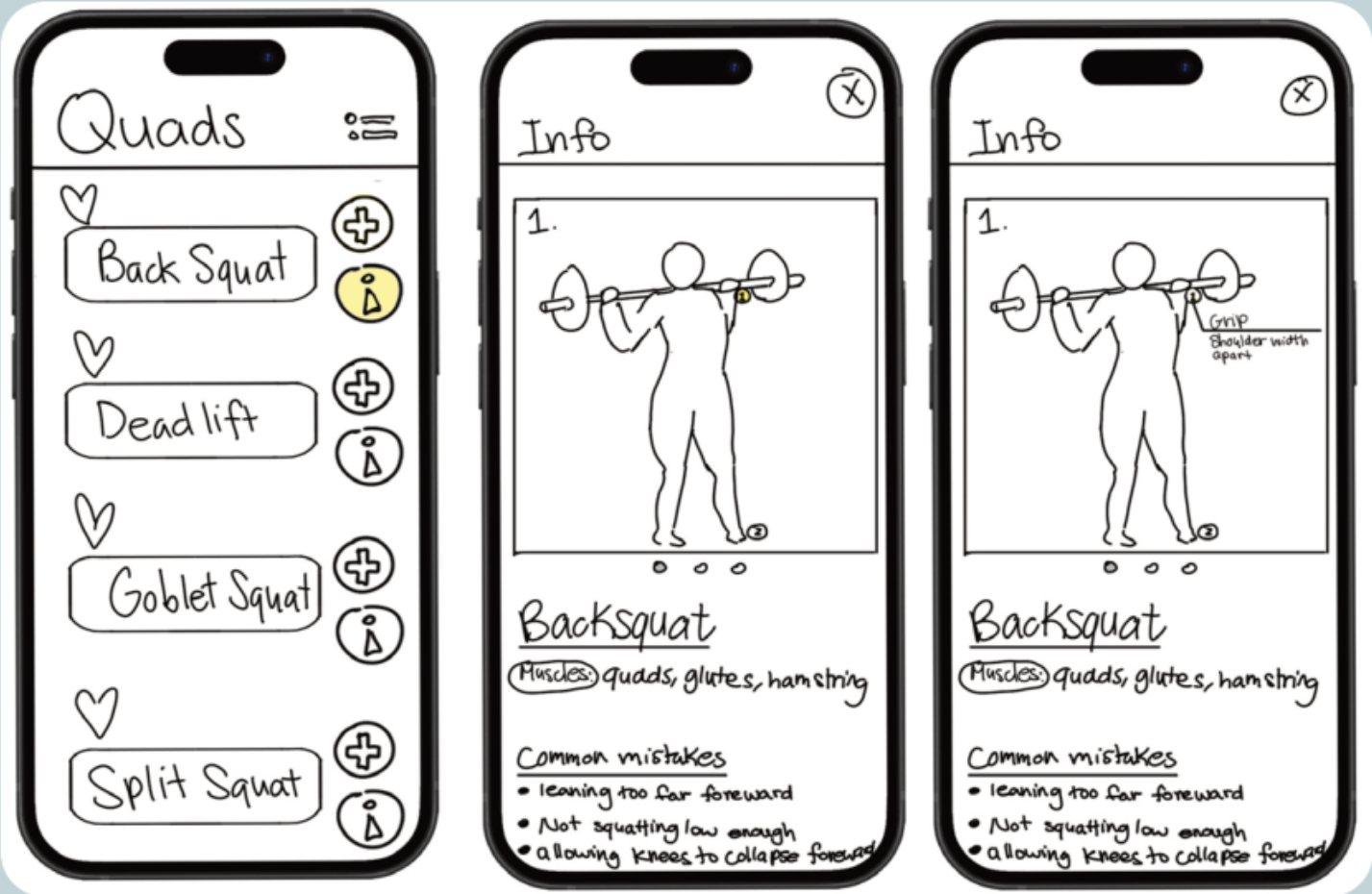
Task- Look at your past photos within the app



HMW motivate youth to be disaplined/ create healthy habit?

Low Fidelity Prototype

Look at past photos on calendar



HMW ensure new users feel confident and well-informed when starting their fitness journey?

Low Fidelity Prototype

Workout tutorial



PAST PHOTOS ON THE CALENDAR · HMW 04

Also sketched in 2023: a leaderboard (HMW 03). It was deliberately replaced in 2026 by a monthly challenge and a private crew feed, because ranking beginners against each other risks shame more than it builds motivation.

WORKOUT TUTORIAL · HMW 02

Same bull, new palette.

2023. Montserrat display, Adelle Sans body. Two muted blues for calm, one dark earth tone for contrast. A grinning bull.



2026, the Oxide pass. Barlow Condensed display, Barlow body. Dark ground, terracotta for action, green for done, every control boundary at 3:1 or better. The bull redrawn with a closed, easy smile.



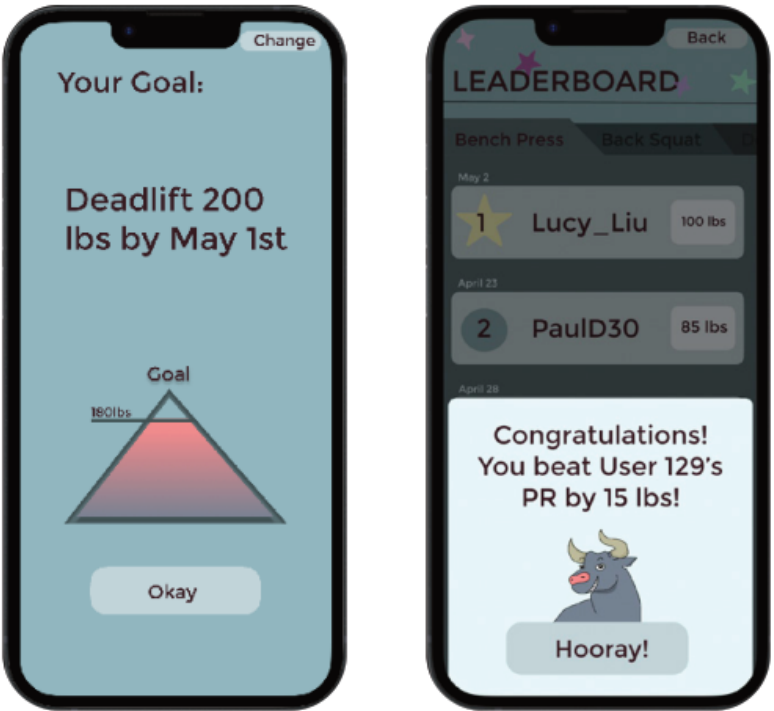
Title Font

Header 2 has a 8:3 ratio with the title

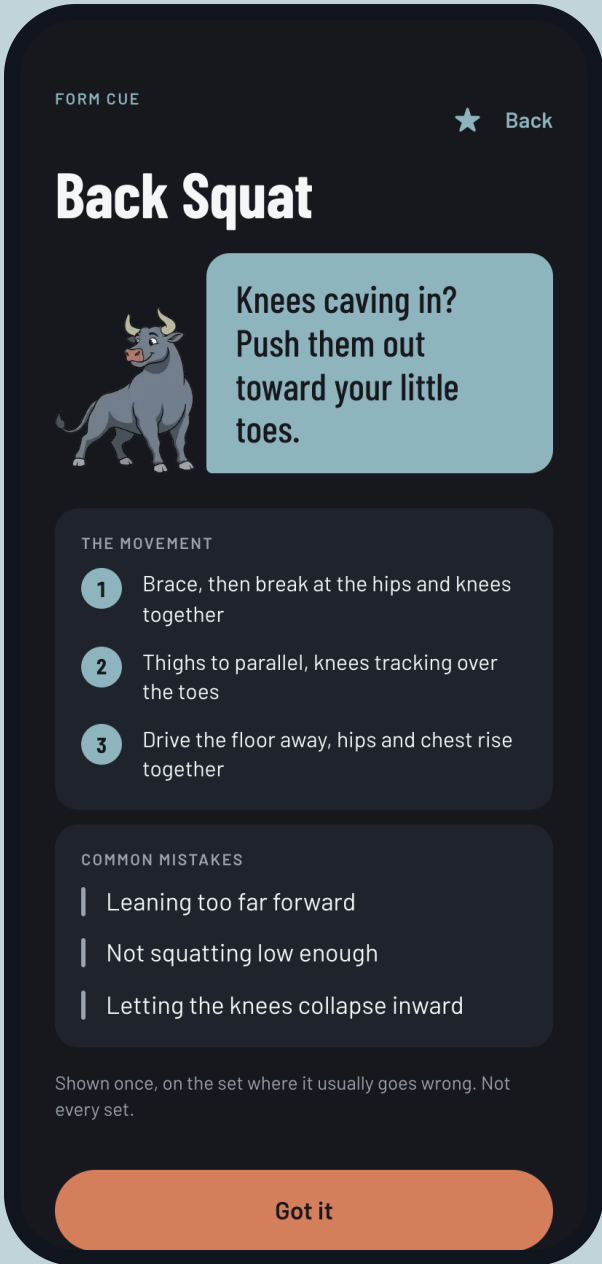
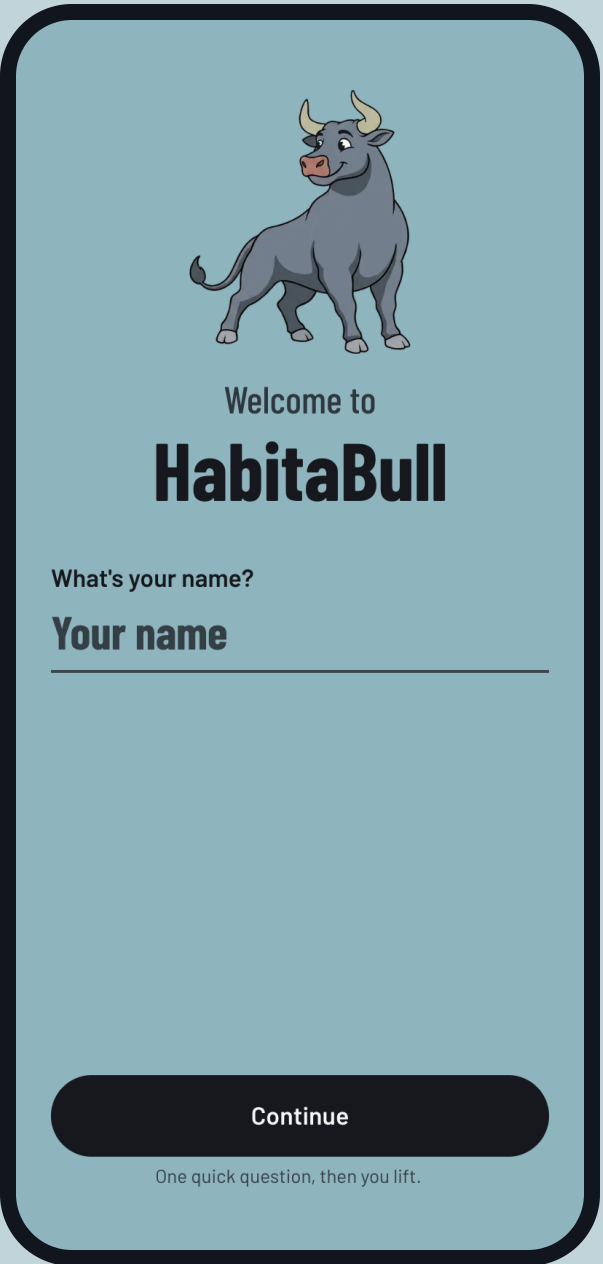
Header 3 is Montserrat Regular

The font Adelle Sans Devanagari is a good body font, with bold being used occasionally for emphasis. This font has designed with clear and distinguishable characters, which helps in maintaining readability even at smaller sizes. This is crucial for body text where clarity is essential for prolonged reading. The leading (distance between the lines) is 11pt, this separation helps in distinguishing between lines, especially in long paragraphs, making the text less dense and more inviting to read.

These are the two app icons that can be changed according to user preferences. Both of these icons feature a soft, muted cyan. The gentle tone of these two blues also a sense of tranquility and peace, which helps in creating a calming effect on the viewer. Darker, earthy tones color provides a strong contrast to the lighter colors in the scheme, adding depth and visual interest.



2023 BRAND GUIDE



2026
APP
ICON,
WELCOME
AND
COACH
SCREENS

PART 4

Built in 2026

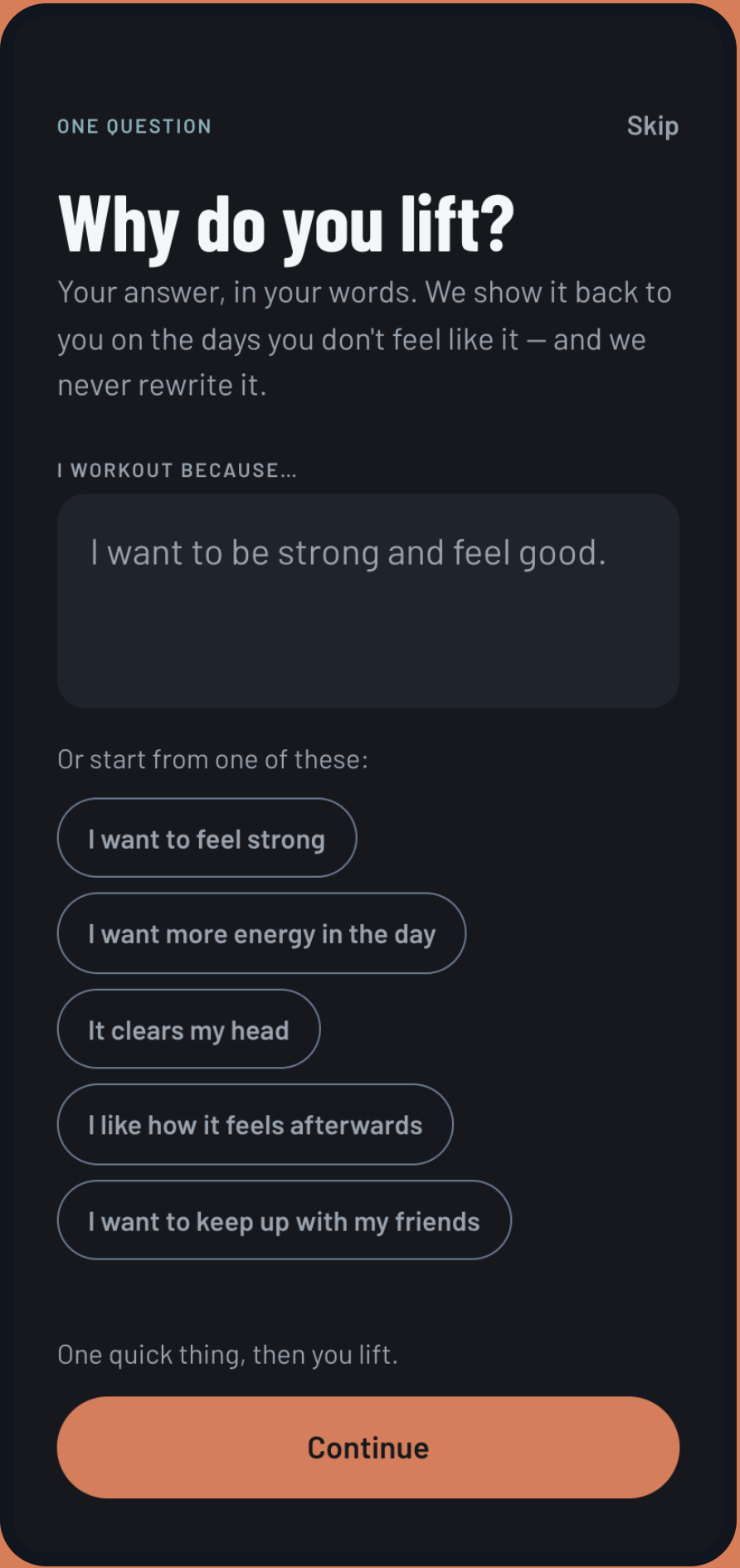
Three years later I rebuilt the app against the same research, with help from Claude Code. 92 commits between August 30 and September 10.

HABITABULL LIFTING

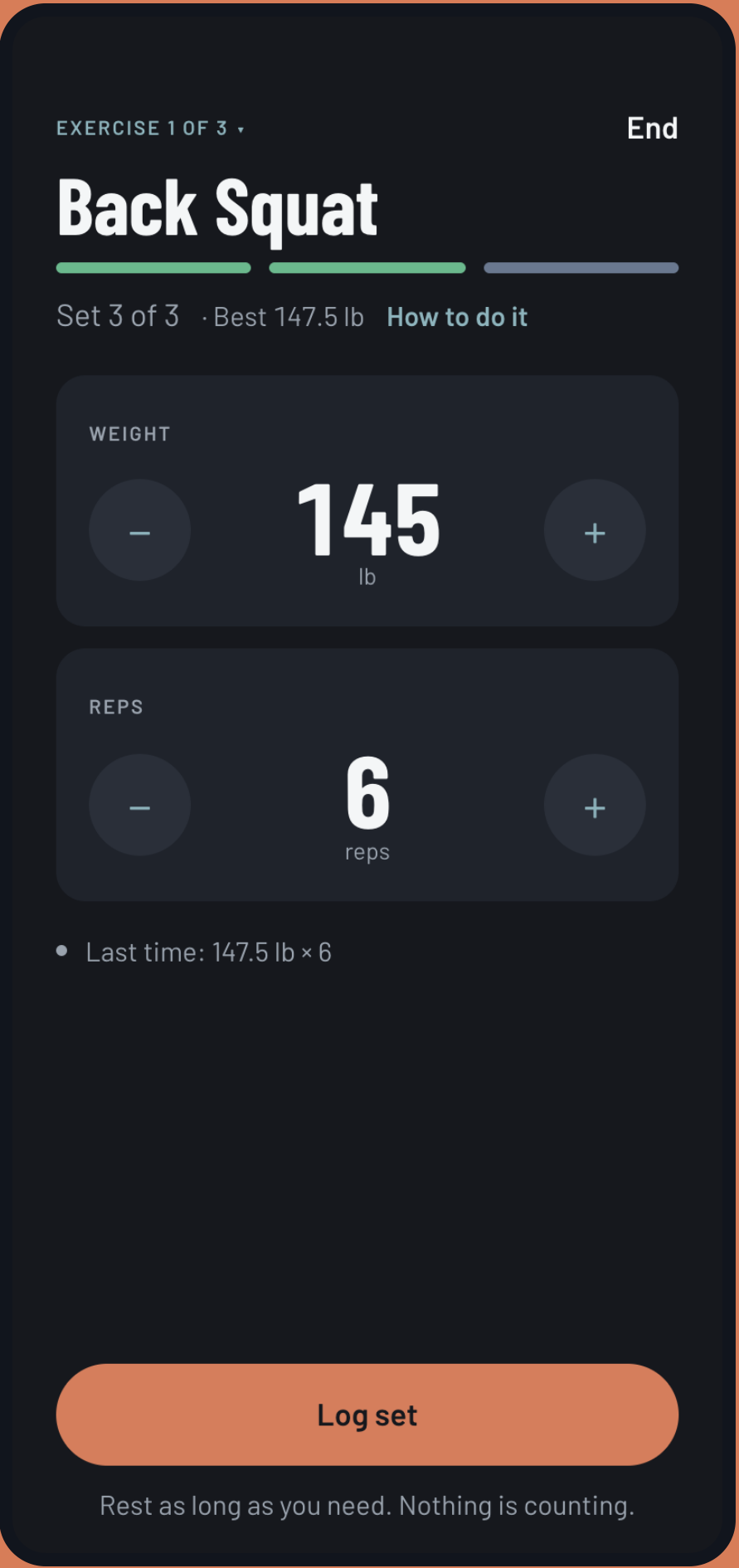


Habit first, load second.

WHY	One question before day one, borrowed from I Am Sober. Your answer comes back on the days you don't feel like it, never rewritten.
WEEK	Pick your days, or describe your week and let the app set it up.
LOG	One-handed set logging with a rest timer that rings and buzzes, and a confirmation that escalates with the result.

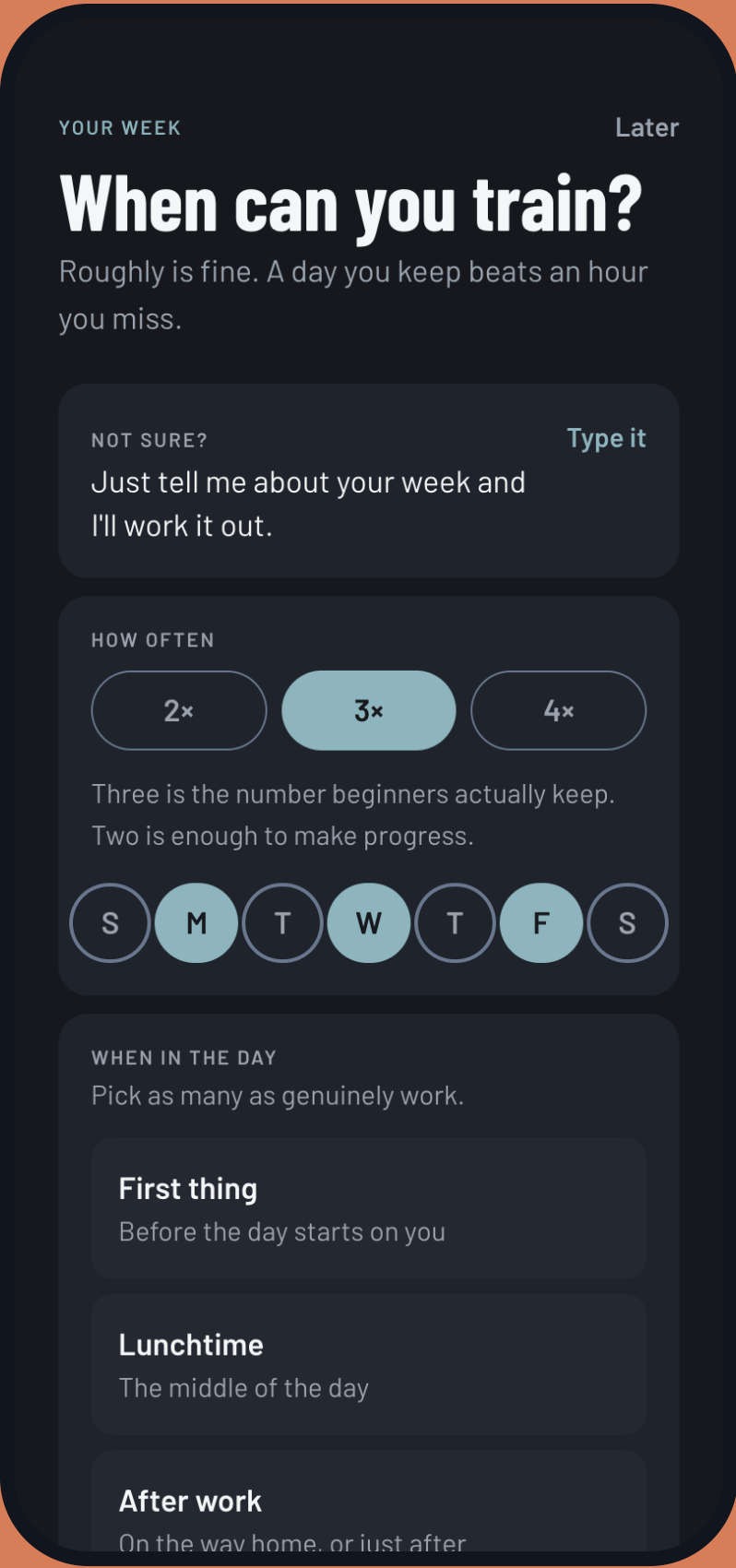


WHY



LOG A SET

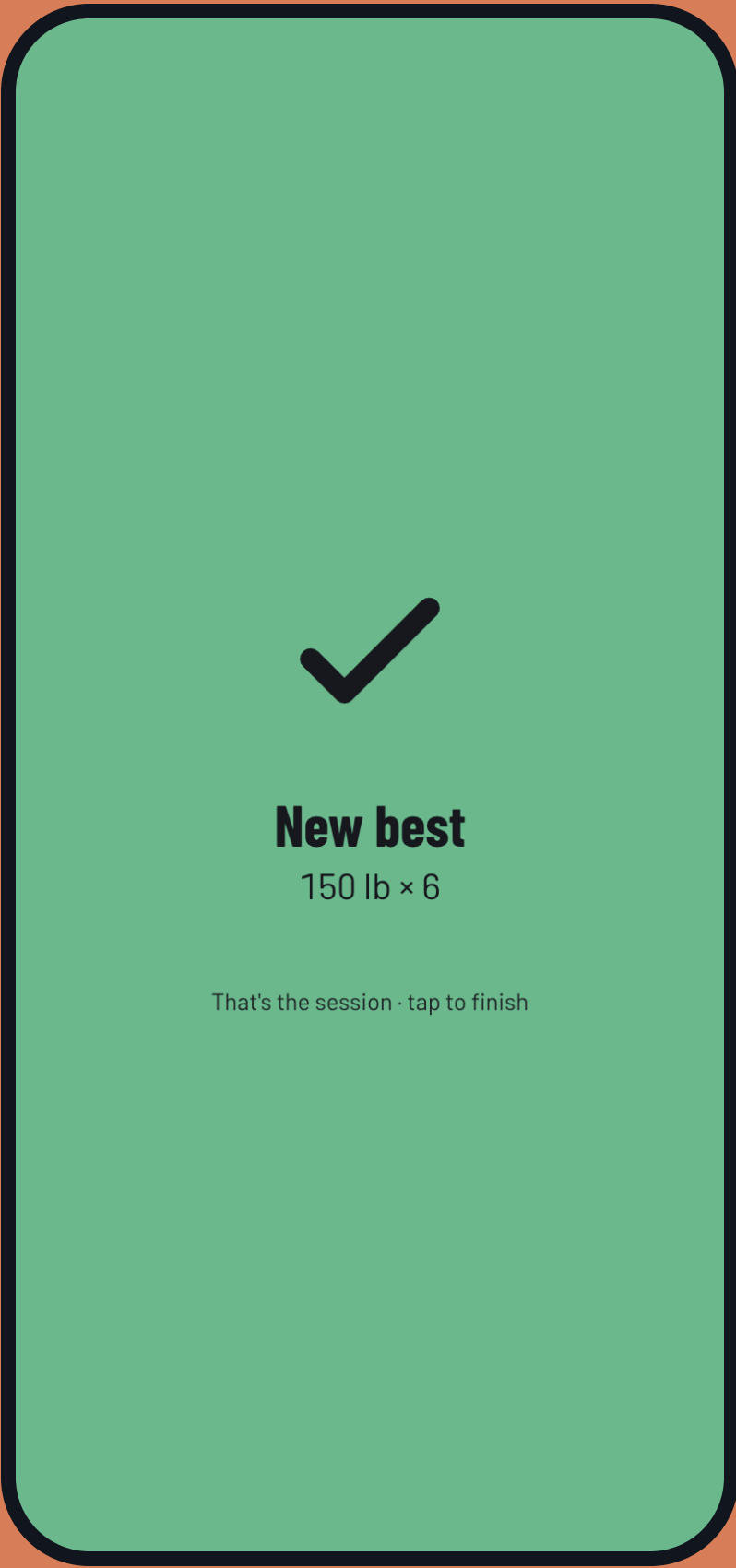
The week, the rest, the record.



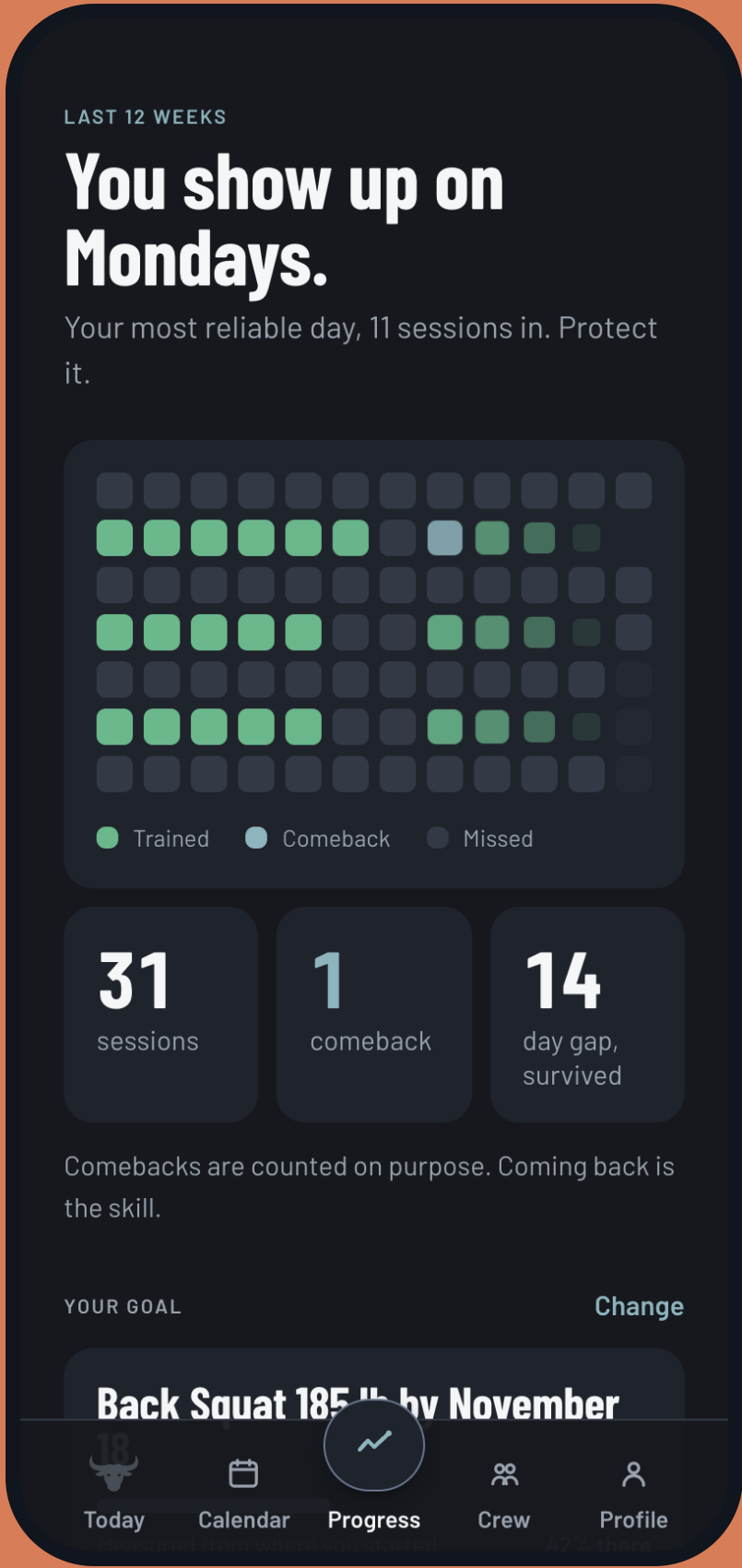
WEEK SETUP



REST TIMER



SET LOGGED, NEW BEST



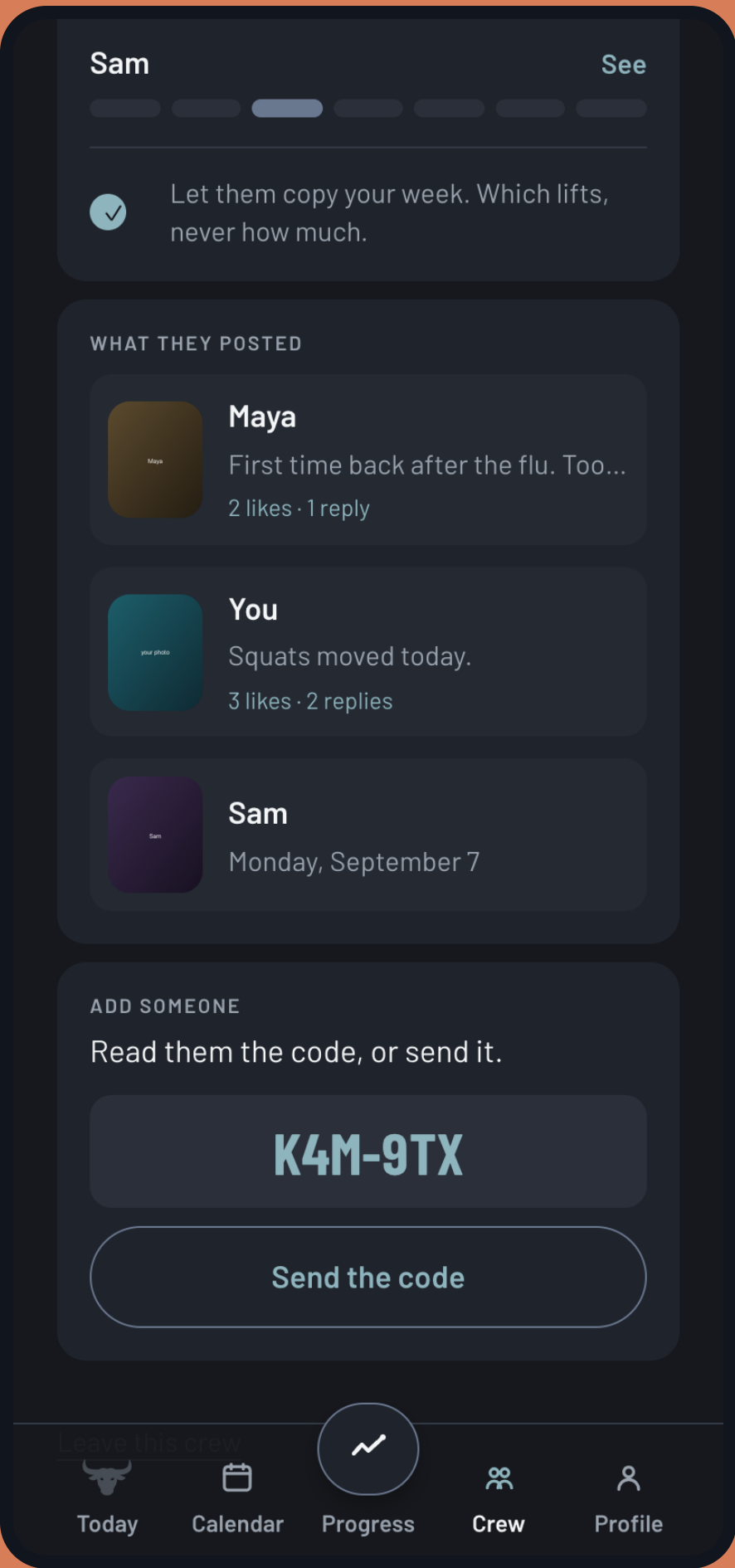
PROGRESS

Community without a scoreboard.

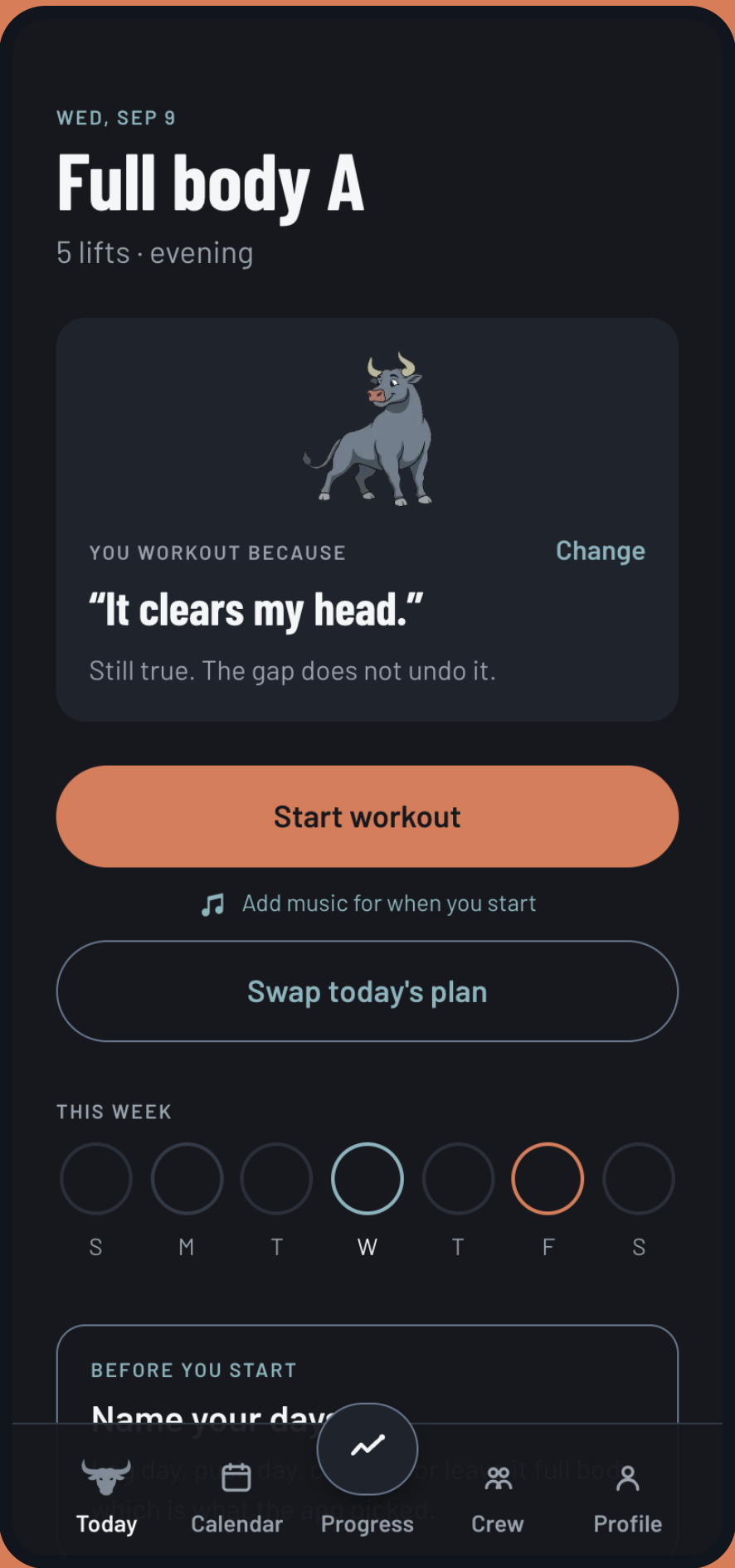
CREW Shared days, photos, likes and replies on a real backend. Open a friend's workout and copy it without copying their numbers.

COMEBACK A different first screen when you return after a gap. No streak lost, no guilt.

YOURS Export and import: one file holding every session, note and photo.



CREW



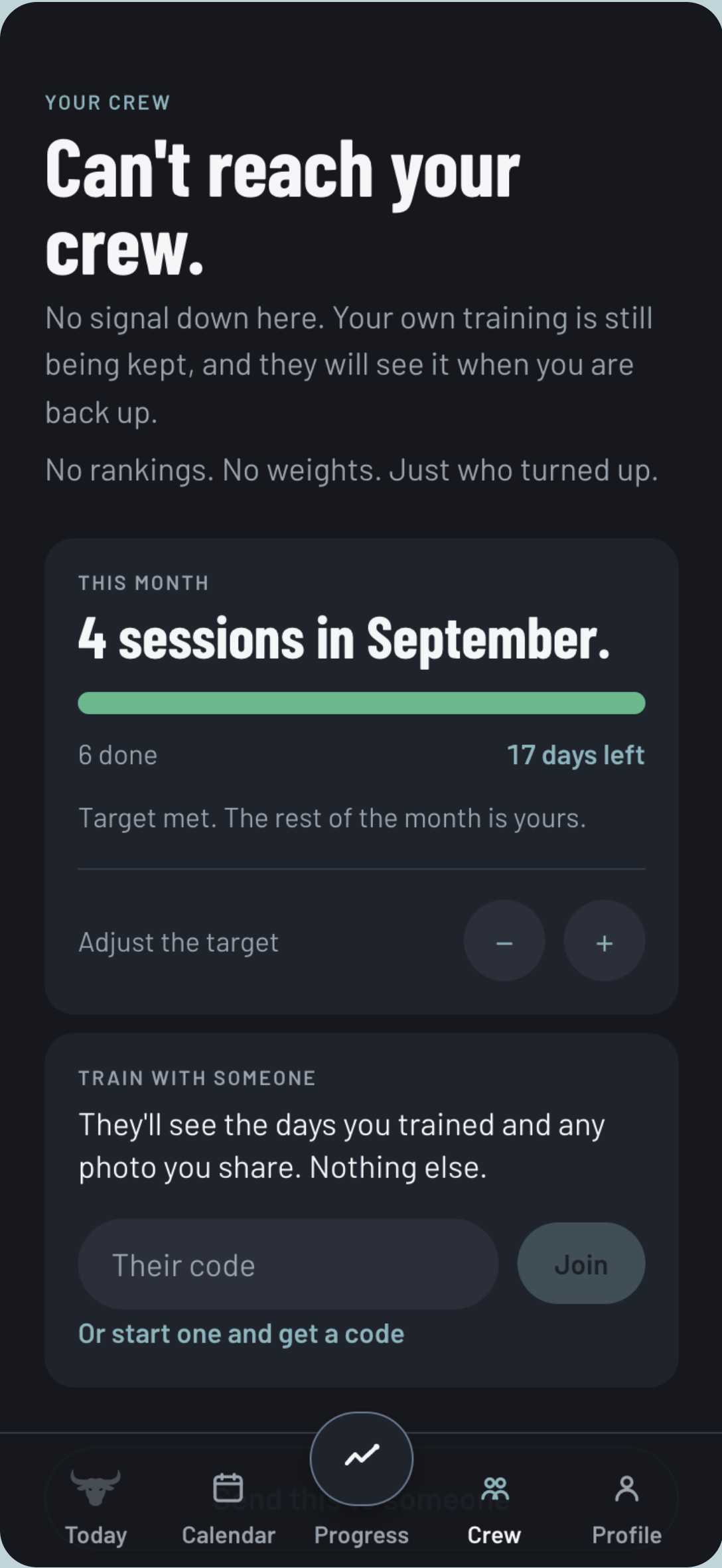
COMEBACK

Most gyms are a dead spot.

Weight rooms are in basements. Everything the app knows already lived on the phone, but it still could not *open* without a network, because the page itself had to be fetched.

A service worker caches the shell at install, so one visit at home is enough. **The document is still fetched network-first** — the rule that stops this becoming the usual installed-app failure of serving a build from three weeks ago.

Underground the plan, logging, the timer and the record all work. Two things need a signal, so two things say so: the crew screen used to report *"Just you, for now."* to somebody with five people in her crew.



NO SIGNAL, AND THE APP SAYS WHICH PART OF IT THAT COSTS

Three audits, each ending in a commit.

01 • PWA

Every control clears 44 by 44

The set segments were the worst offender at 107 by 6 px. Contrast computed for all 21 tokens. No maximum-scale lock: locking zoom is a WCAG 1.4.4 failure

02 • HIG

Regressions the palette swap caused

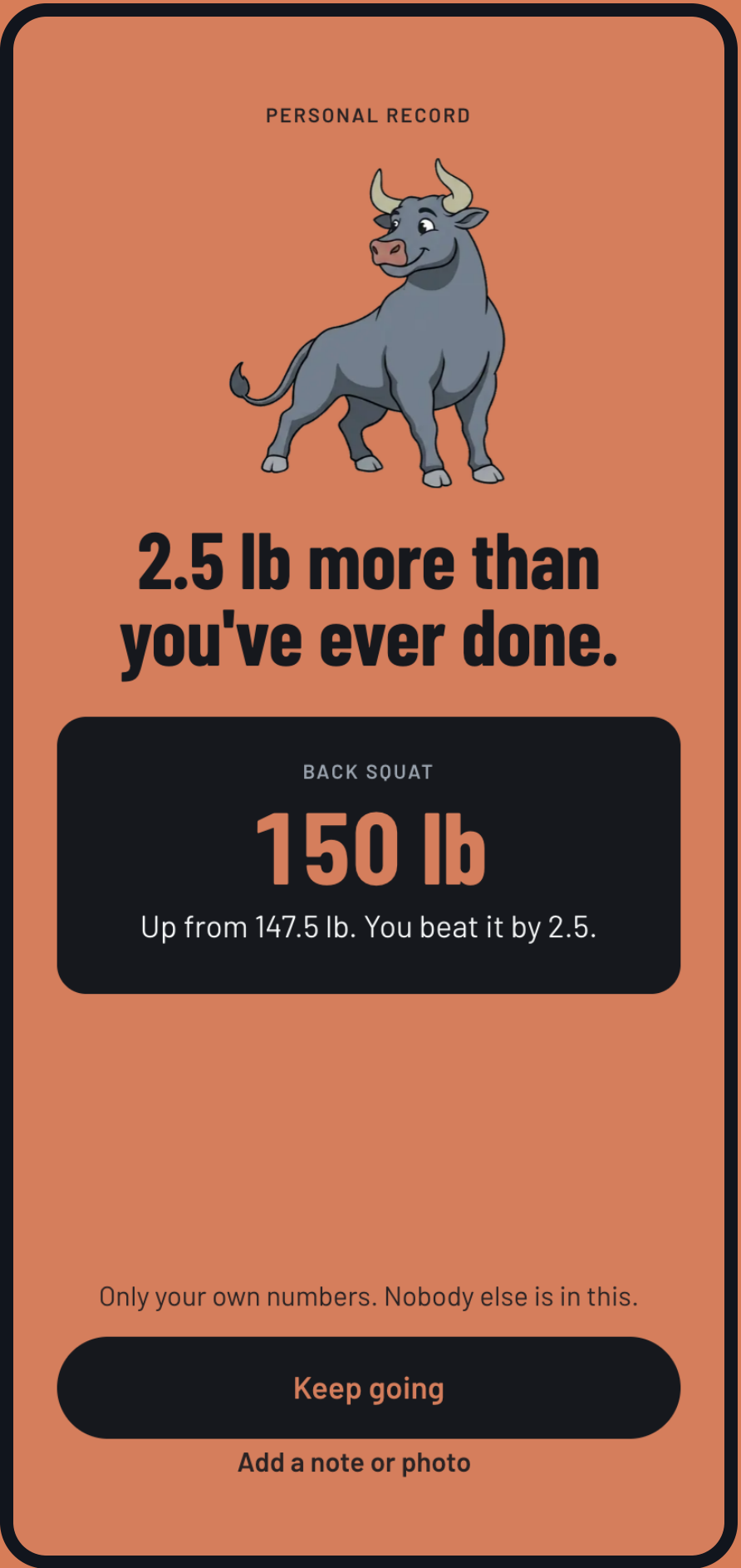
Secondary text on the PR celebration fell to 4.39:1 on Oxide; raised to 5.17:1

03 • A11Y

3 P1s, 5 P2s, 4 P3s

A modal claimed aria-modal while 218 elements outside it stayed tabbable. Focus now trapped both ways and returned on close

No retention or usage numbers are claimed for the 2026 build. It has not launched to users.



PR CELEBRATION, 5.17:1



YOUR DATA

HABITABULL LIFTING

Thank you.

CASE STUDY

lucyliu.xyz/habitabull.html

THE APP

habitabull.vercel.app

CONTACT

Lucy Liu · wl3512@nyu.edu

HABITABULL LIFTING

