

The background features a white central area surrounded by colorful geometric shapes and fitness-related icons. In the top left, there is a blue and red dumbbell. In the top right, a red barbell is partially visible. On the right side, there is a large orange circle. In the bottom left, a blue barbell is partially visible. In the bottom right, there is a red jump rope with pink handles. The overall design is clean and modern, using a palette of blue, red, orange, and pink.

A8

Fitbud High-Fi Prototype

Christelle Millos-Lopez, Akanshya Bhat, Jake Restiano, Ethan Yuen

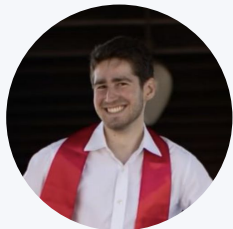
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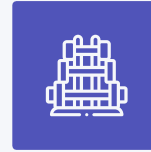


REVISITING OUR...



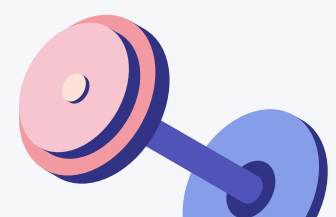
PROBLEM

People, regardless of their current fitness levels or social fitness preferences, **don't actively try to change** their fitness-related habits without support as it requires a lot of **activation energy, effort, and planning** to make it consistent.



SOLUTION

Our app provides you with a gamified **virtual workout buddy** that **schedules** your workouts, keeps you **accountable**, and **accompanies** you through your workout - **adapting** to your needs and making it easier to exercise.



REVISITING OUR...



PROBLEM

People, regardless of their current fitness levels or social fitness preferences, **don't actively try to change** their fitness-related habits without support as it requires a lot of **activation energy, effort, and planning** to make it consistent.



SOLUTION

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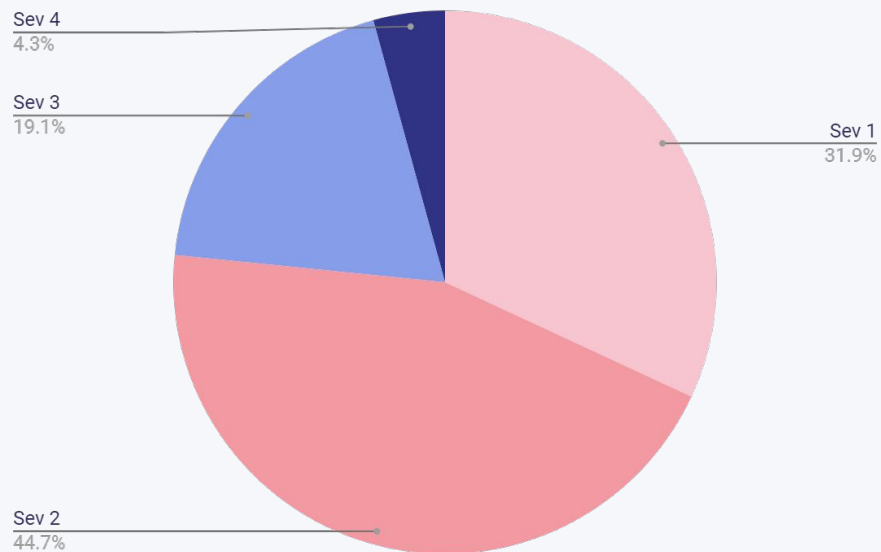
PROTOTYPE DEMO

The background features several abstract geometric elements: a red line forming a loop in the top left; a pink and blue cylindrical object in the top left; a blue square with the number '01' in the center; a blue cylindrical object in the top right; a pink ring on the right edge; a blue ring on the left edge; and a blue and orange cylindrical object with a blue rod in the bottom right. The overall design is clean and modern with a pastel color palette.

01

HEURISTIC EVALUATIONS

HEURISTIC VIOLATION STATISTICS



Sev 1 (15)

Sev 2 (21)

Sev 3 (9)

Sev 4 (2)



39 changes

out of **41** heuristic violations

MORE ON SEV 3 AND 4 VIOLATIONS



SEV 3

9 violations



8 changes



SEV 4

2 violations



2 changes



MOST VIOLATED HEURISTICS



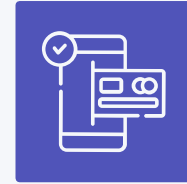
H4

Consistency & Standards
8 violations



H8

Minimalist & Aesthetic
Design
7 violations



H1

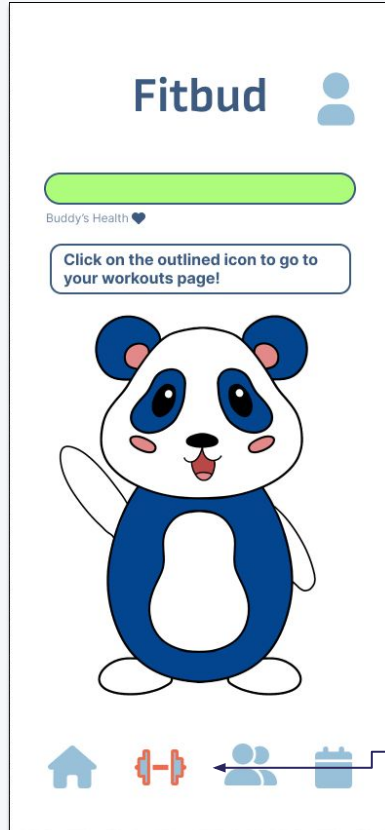
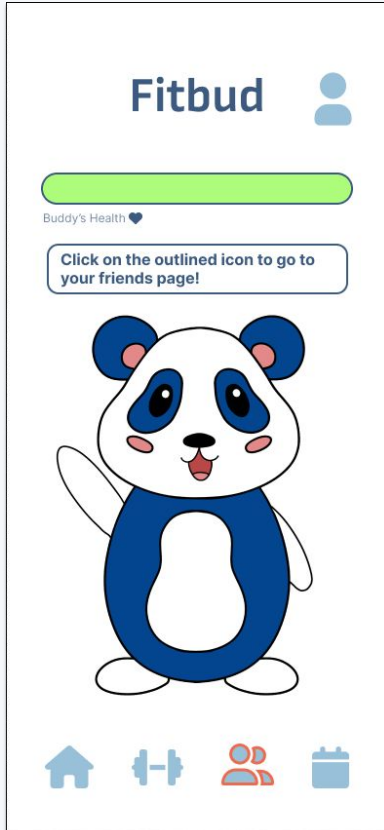
Visibility of System Status
6 violations

The background features a white central area surrounded by colorful geometric shapes: a blue triangle in the top right, a pink triangle in the bottom left, a blue circle on the left, and a pink circle on the right. A red line with a pink and blue handle is in the top left, and a blue and pink striped object is in the bottom right. A blue square with the number '02' is centered above the main title.

02

UI AND PRODUCT REVISIONS

Sev 3



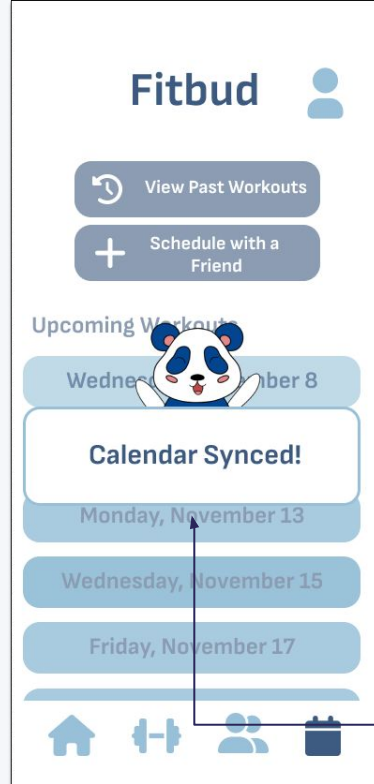
H1: Visibility of System Status

Description: Uncertainty of where to move on from the home screen- especially from onboarding. Home screen is largely dominated by Buddy, who does not mention anything related to fitness upon being pressed.

Fix: Adding a prompt to the homescreen by Buddy showing you what your first steps (welcoming you and looking at your workout plan) should be.

Click to go to page

Sev 3



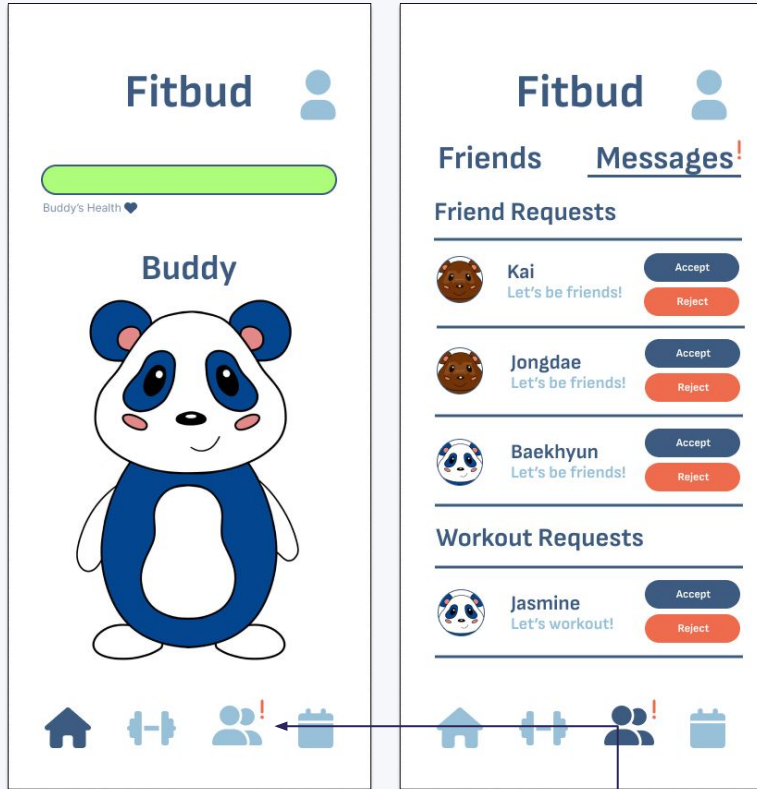
H1: Visibility of System Status

Description: No clear feedback on how my calendar has synced/how my workout calendar has changed after I have synced it- are these tasks aligned with my calendar?

Fix: Adding in a "calendar synced!" notification.

Visible notification

Sev 3



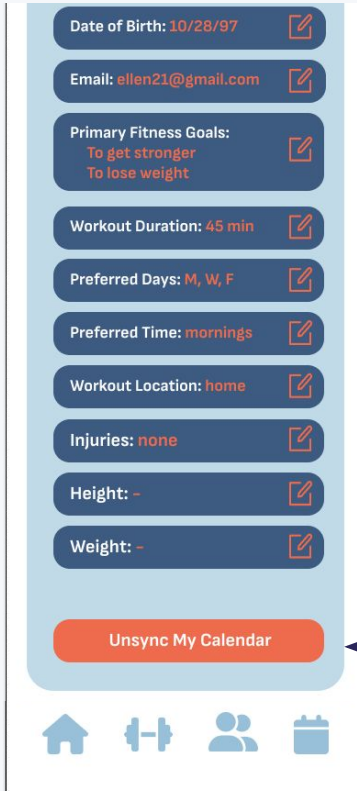
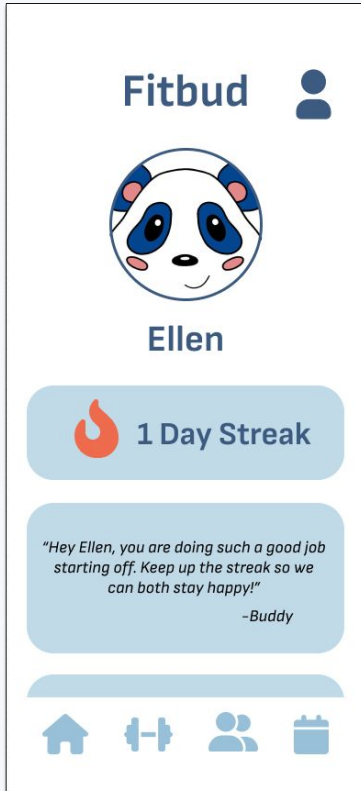
H6: Recognition Not Recall

Description: No correlated notification when a user is sent a workout request in their profile page.

Fix: Add a notification ping on the friends icon on the navbar (new), so users will be alerted to a new request without needing to remember to check their profile.

Notification icon

Sev 3



H3: User Control & Freedom

Description: User does not have the ability to undo calendar syncs/remove user data.

Fix: Add a button in the settings page that allows users to remove their calendar/any other form of user data from the application.

Unsync button

Sev 3



Smaller icon

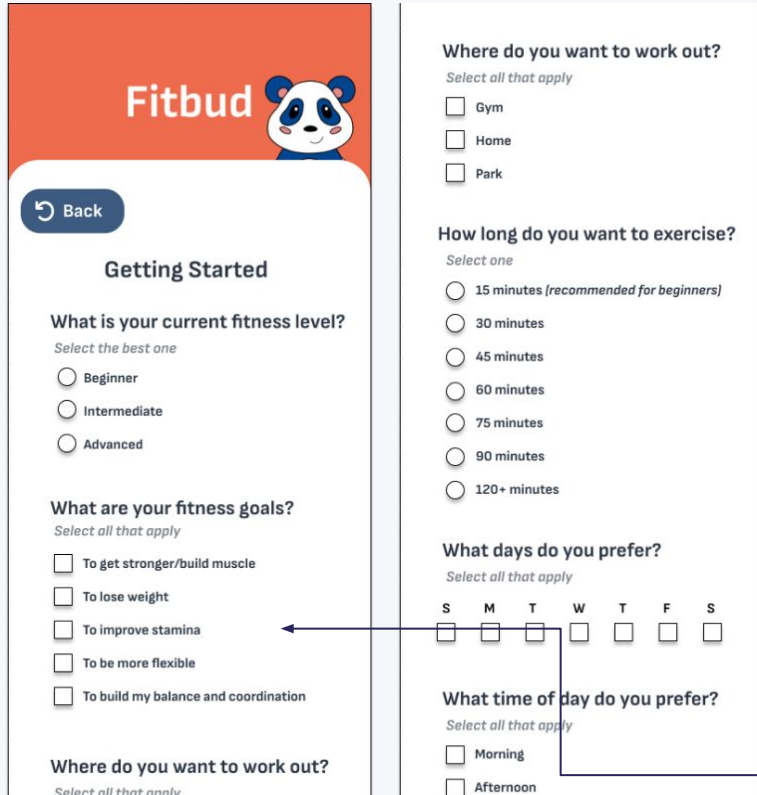
H11: Accessible Design

Description: Key buttons like “Get Started” on the workout screen are the same size and hierarchy as “Edit Workout” and do not stand out.

Fix: Enlarge the “Get Started!” button and make that a primary read of the screen.

Bigger icon

Sev 3



The screenshot shows a mobile app onboarding screen for 'Fitbud' with a panda mascot. The form is titled 'Getting Started' and contains several sections. A blue arrow points from the 'To improve stamina' checkbox to the 'S' checkbox in the 'What days do you prefer?' section. Another blue arrow points from the 'Morning' checkbox to a blue box labeled 'Changed wording'.

Fitbud

Back

Getting Started

What is your current fitness level?
Select the best one

- Beginner
- Intermediate
- Advanced

What are your fitness goals?
Select all that apply

- To get stronger/build muscle
- To lose weight
- To improve stamina
- To be more flexible
- To build my balance and coordination

Where do you want to work out?
Select all that apply

- Gym
- Home
- Park

How long do you want to exercise?
Select one

- 15 minutes (recommended for beginners)
- 30 minutes
- 45 minutes
- 60 minutes
- 75 minutes
- 90 minutes
- 120+ minutes

What days do you prefer?
Select all that apply

S M T W T F S

- S
- M
- T
- W
- T
- F
- S

What time of day do you prefer?
Select all that apply

- Morning
- Afternoon

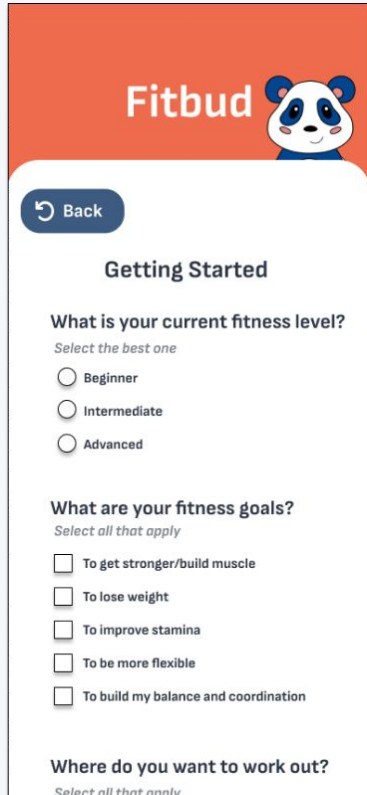
H12: Value Alignment & Inclusion


Description: Fitness goals in onboarding are oriented towards fitness lingo- ex: “build endurance” or “flexibility” versus “balance and coordination”.

Fix: Reword or expand on fitness goals that may align with goals non-fitness oriented users may want- ex: “I want to get stronger/gain muscle”

Changed wording

Sev 3



Fitbud 

[← Back](#)

Getting Started

What is your current fitness level?
Select the best one

Beginner
 Intermediate
 Advanced

What are your fitness goals?
Select all that apply

To get stronger/build muscle
 To lose weight
 To improve stamina
 To be more flexible
 To build my balance and coordination

Where do you want to work out?
Select all that apply

120+ minutes

What days do you prefer?
Select all that apply

S M T W T F S

What time of day do you prefer?
Select all that apply

Morning
 Afternoon
 Evening

Have you been injured before?

Yes
 No

Share the injury for workout plan customization

[Submit](#)

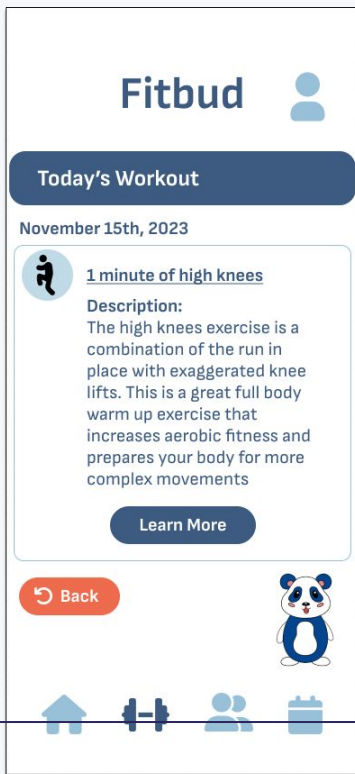
H12: Value Alignment & Inclusion

Description: No measure of user's fitness level or satisfaction level taken in intro survey or before/after workouts

Partial Fix: Within the intro questionnaire, respectfully ask question(s) about the user's current fitness level and capabilities. The ability to edit workouts allows the users to adjust the exercise according to their desires.

Personalized workout for user

Sev 3



H11: Aesthetic and Minimalist Design

Description: Visuals for workouts are small and can be unclear as to what they are envisioning.

Fix: The visual is only an icon and is not meant to represent the workout. However, we slightly enlarged the icon and then added an information page on the exercise if you click on the icon that explains in more detail what the exercise entails.

Click on icon for more information





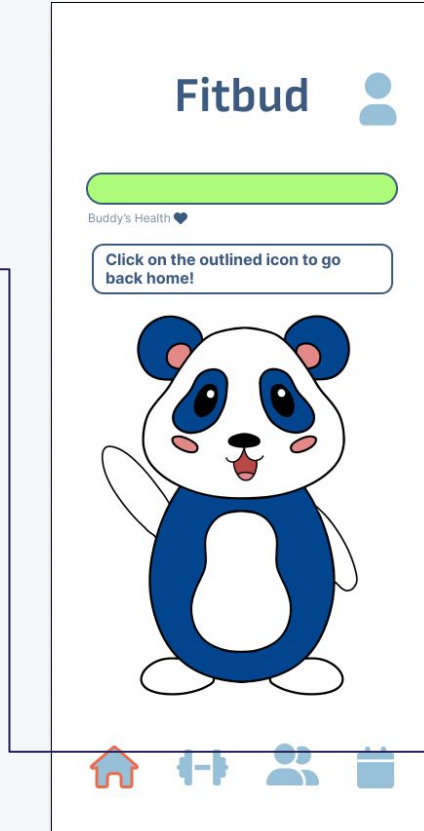
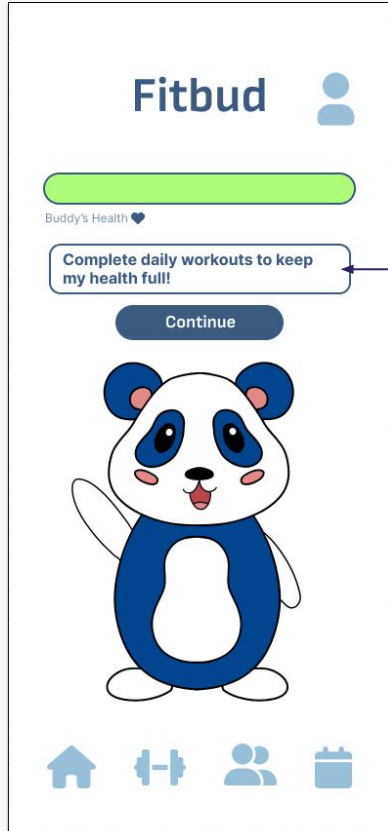
H8: Aesthetic and Minimalist Design

Description: Very cluttered interface in past workouts page; would benefit from summarization.

Reason to not fix: Suggestion was not specific enough and we have already simplified a lot of our user interface with previous edits. Simplifying more would take away understanding of the app.



Sev 4



H1: Visibility of System Status

Description: No clear indication for how to change the status of Buddy's health mentioned on the homescreen, but not mentioned at the end of a workout or anything similar.

Fix: Add a tutorial to show how to use the app for users who sign up. This tutorial contains a message that outlines how to keep up Buddy's health.

Message

Product Change

H12: Value Alignment and Inclusion

Description: Having workouts associated with Buddy's health may not be inclusive.

Fix: While this idea is necessary to urge the user to care for the buddy and motivate them to workout, Buddy can be revived after this occurs and give the user a free pass to restart if this does happen.

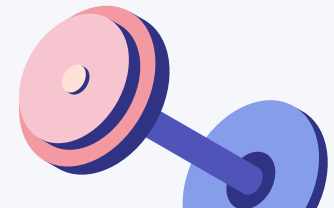
Usability Goals

EFFICIENCY

- Added friends icon to navbar makes navigation much more intuitive
- Tutorial shows the user how to use the app immediately upon signing up
- Resizing of important buttons allows for better first read of screens, guiding users to what is more important

FUN

- Buddy's chosen name is more visible throughout the app
- Buddy holds signs pointing you to different pages instead of just having messages
- Buddy can now easily be revived and is more motivating and enjoyable than stressful for the user

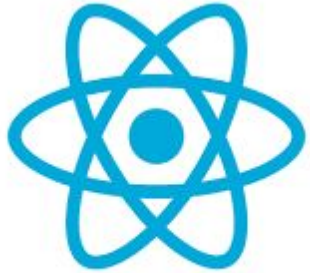


The background features a white central area surrounded by colorful geometric shapes: a blue triangle in the top right, a pink triangle in the bottom left, a blue circle on the left, and a pink circle on the right. Abstract elements include a red string with a pink and blue handle in the top left, a blue cylinder in the top right, and a blue cylinder passing through a pink and blue sphere in the bottom right.

03

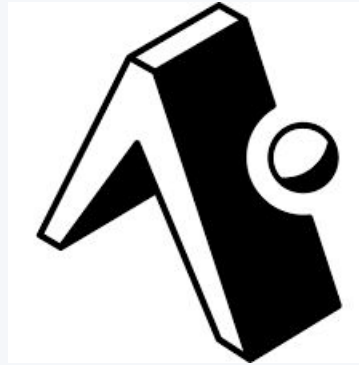
PROTOTYPE IMPLEMENTATION STATUS

Tools Used



React Native

(Application Framework)



Expo
(Software Dev Kit)



VSCode
(IDE)

Task Flows


1. **Simple:** Create a workout plan in an environment accessible to me and schedule that works for me
2. **Medium:** Have an accountability system for my commitment to fitness
3. **Complex:** Connect with friends who are also exercising

Task Flows

1. **Simple:** Create a workout plan in an environment accessible to me and schedule that works for me
2. **Medium:** Have an accountability system for my commitment to fitness
3. **Complex:** Connect with friends who are also exercising

Simple Task Flow (Implemented)

9:06

Fitbud 

Getting started

What is your current fitness level?

Beginner
Intermediate
Advanced

What are your fitness goals?

Strength/muscle
 Weight loss
 Stamina/endurance
 Flexibility
 Balance/coordination

Where do you want to work out?

Balance/coordination

Where do you want to work out?

Gym
 Home
 Outside

How long do you want to work out for?

15 minutes
30 minutes
45 minutes
60 minutes
>1 hour

On which day(s) do you prefer to work out?

Sunday
 Monday
 Tuesday
 Wednesday

60 minutes
45 minutes
60 minutes
>1 hour

On which day(s) do you prefer to work out?

Sunday
 Monday
 Tuesday
 Wednesday
 Thursday
 Friday
 Saturday

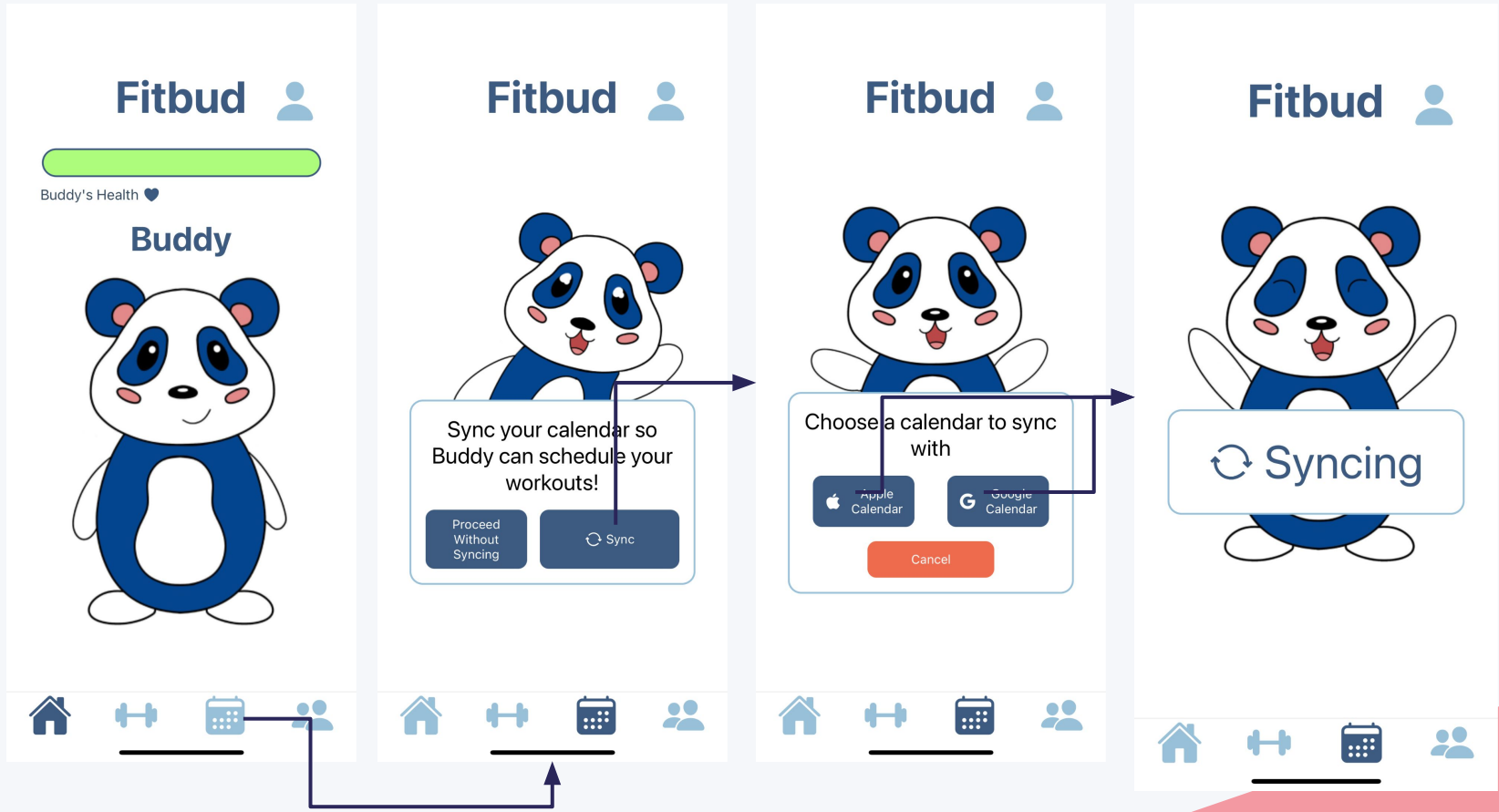
During which time(s) of day do you prefer to work out?

Morning
 Afternoon
 Evening

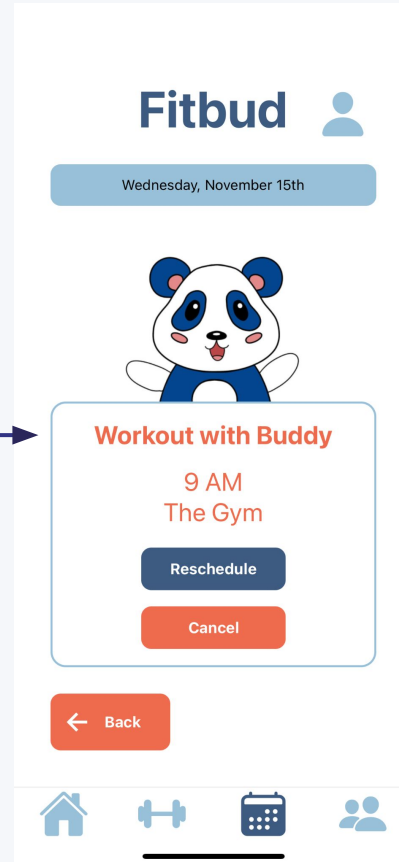
Submit

User Scheduling Preferences

Simple Task Flow (continued)



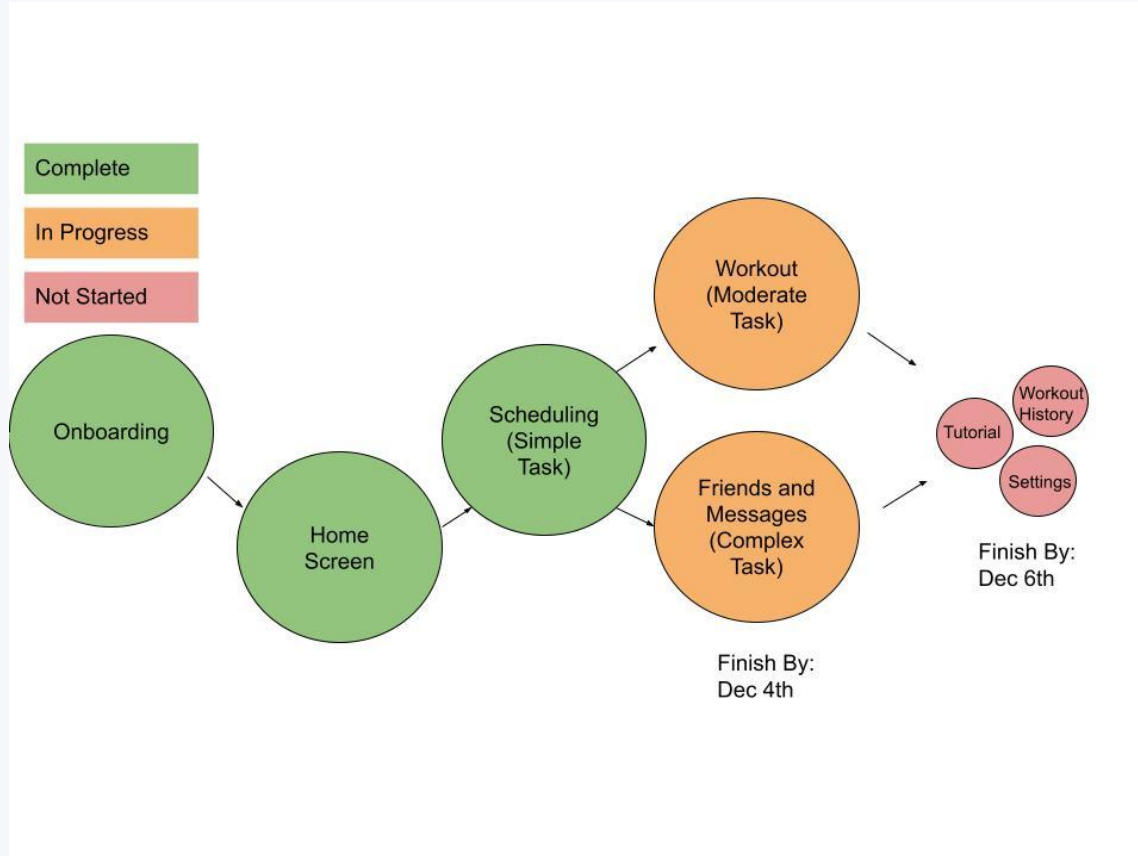
Simple Task Flow (continued)



Not Yet Implemented/In Progress

- **Medium Task Flow (In Progress)**
 - Start and Complete a Workout
 - Edit Workouts
- **Complex Task Flow (In Progress)**
 - Add Friends
 - Send Friend Requests
 - Accept Friend Requests
 - View Friends List
 - Schedule Workouts With Friends
 - Message Friends
- **Other Screens**
 - Workout History
 - Tutorial
 - Settings

Plan to Finish



Hard-Coded Features

- All of the **user's friends** and the **friend you can add** are hard-coded
- The **exercises** in the workouts are hard-coded with a few other hard-coded edits that you can make.
- **"Buddy"** that you can choose

Wizard of Oz

- The prototype claims to be **syncing** the user's calendar and auto-scheduling a workout using an algorithm, but there is no such algorithm.
- A **friend request** will appear on the user's profile. This is an artificial friend, no request was actually sent.
- The user **already has several artificial friends** on their friends list (they are not real people).

The background is white with various geometric shapes and colors. There are blue and pink triangles in the corners. A red line loops in the top left. A blue square with the number '04' is in the center. The text 'PROTOTYPE DEMO' is in the center. There are also blue and pink circles and a blue cylinder in the top right, and a blue cylinder with a pink and blue circle in the bottom right.

04

PROTOTYPE DEMO

00:21

Fitbud



Getting started

What is your current fitness level?

Select option

What are your fitness goals?

Select option

Where do you want to work out?

Select option

How long do you want to work out for?

Select option

On which day(s) do you prefer to work out?

Select option

During which time(s) of day do you prefer to work out?

Select option

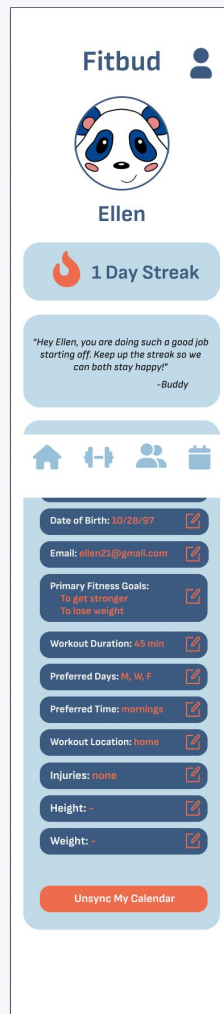
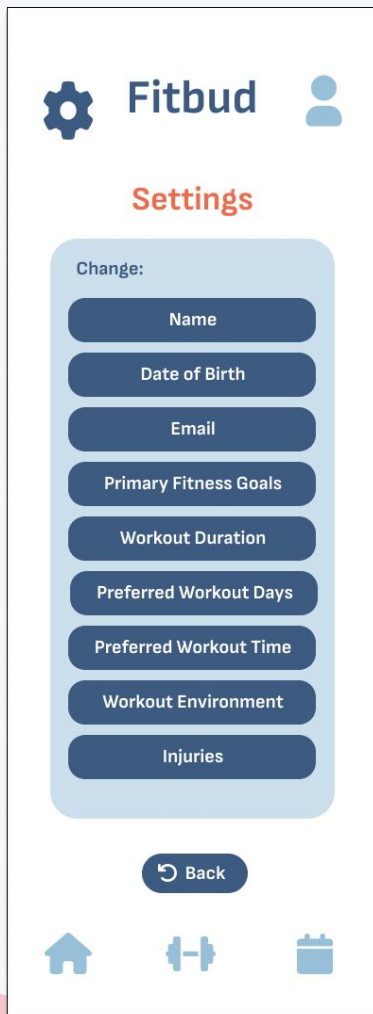
The background is white with several colorful geometric shapes and objects. In the top left, there is a red string with a pink and blue handle. In the top right, there is a blue cylinder. In the bottom right, there is a blue cylinder passing through a stack of orange, blue, and pink rings. On the left side, there is a blue ring. On the right side, there is a pink ring. The overall style is modern and minimalist.

05

APPENDIX



**MORE UI AND
PRODUCT
REVISIONS
(SEV 1 & 2)**



- SEV 2
- Changed layout of profile page so users could edit onboarding information more easily

Fitbud



Viewing A Past Workout

November 6th, 2023



1 minute of high knees



30 seconds of bicycle
crunches



3 sets of 20 squats



3 sets of 15 push-ups



Back



Fitbud



Today's Workout

November 15th, 2023



1 minute of high knees



30 seconds of bicycle
crunches



3 sets of 20 squats



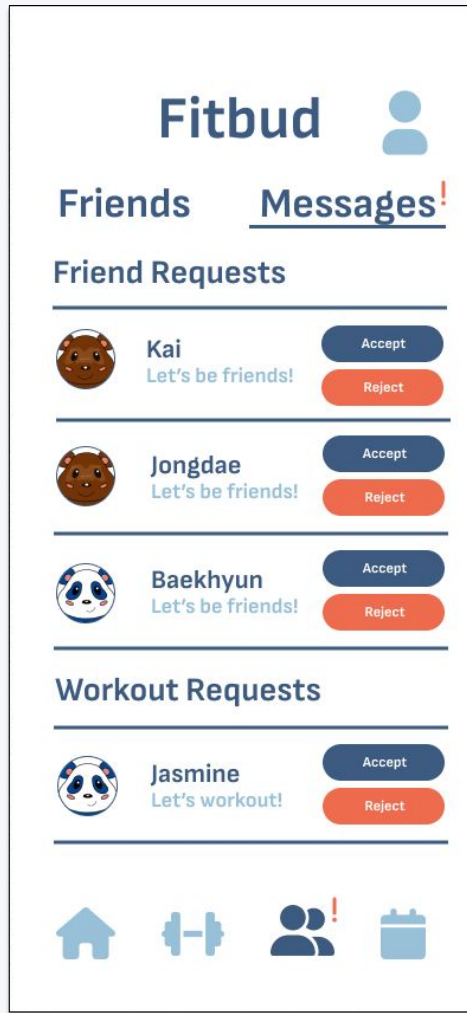
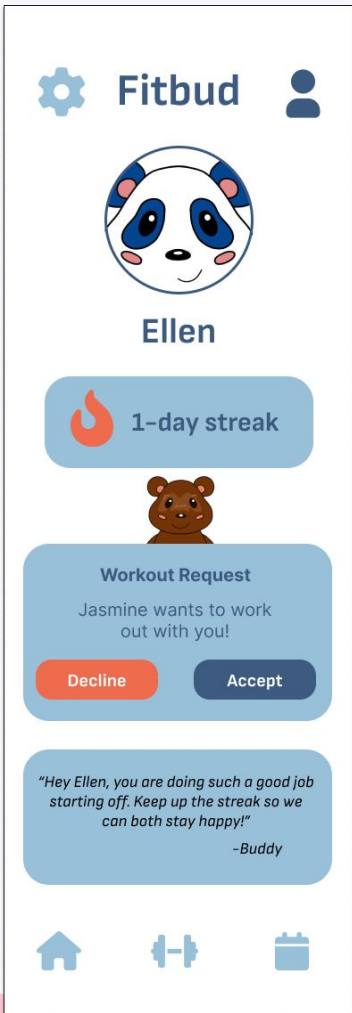
3 sets of 15 push-ups



You have completed
today's workout

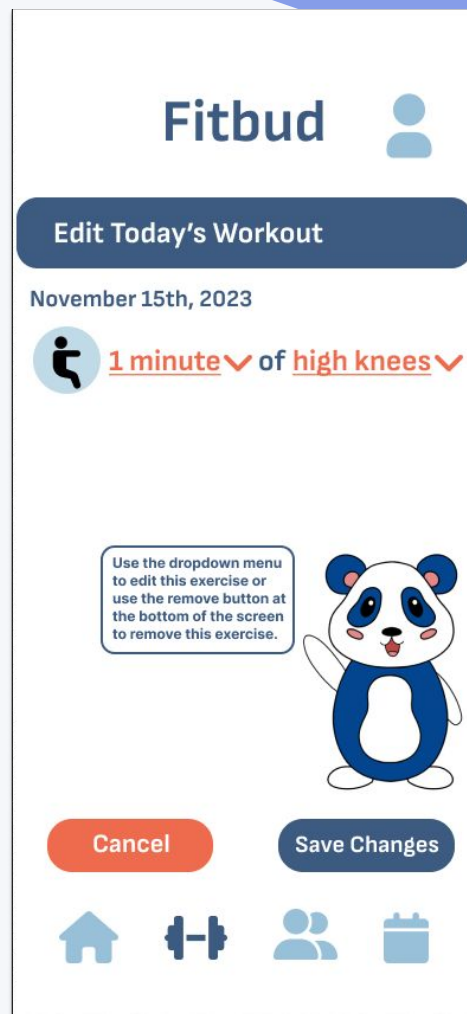


- SEV 2
- Removed the strikethrough to improve readability
- Changed the color according to heuristic eval




- SEV 2
- Moved the notifications all to one location under friends (specifically messages) for more intuitive access

- SEV 1
- Changed color of Buddy's speech text to a darker blue for better readability







- SEV 1
- Removed word "exercise" to avoid cluttering

Fitbud 


Edit Today's Workout

November 15th, 2023


-  1 minute of high knees 
-  30 seconds of bicycle crunches 
-  3 sets of 20 squats 
-  3 sets of 15 push-ups 















  


Fitbud 


Edit Today's Workout





November 15th, 2023

-  1 minute of high knees 
-  30 seconds of bicycle crunches 
-  3 sets of 20 squats 
-  3 sets of 15 push-ups 





- SEV 1
- Made headers of workout page (i.e. High Knees) a darker blue for better visibility






- SEV 2
- Made next button unavailable for a couple of seconds to give users a forced resting period


Fitbud


Today's Workout

November 15th, 2023


 1 minute of high knees 

 30 seconds of bicycle crunches Up next





 3 sets of 20 squats

 3 sets of 15 push-ups

Great job Ellen!! Rest time!



Quit Next

Fitbud

Today's Workout

November 15th, 2023

 1 minute of high knees 

 30 seconds of bicycle crunches Up next

 3 sets of 20 squats

 3 sets of 15 push-ups

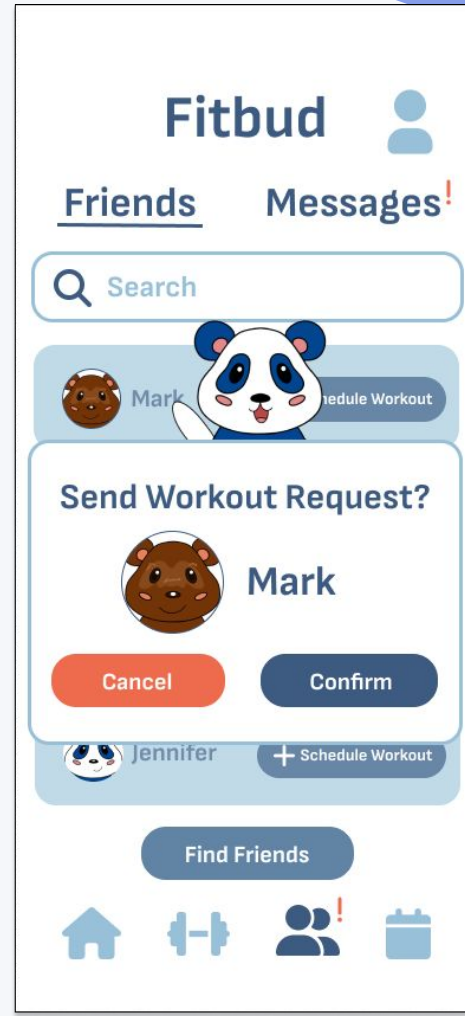
Great job Ellen!! Rest time!



Quit Next

- Not a heuristic violation but integrated well with our addition of a friends tab and made the app more intuitive
- Removed Schedule with Friends from calendar page and moved to friends tab



- SEV 2
- Was unclear what upcoming workouts are with a friend or not

Fitbud 

 View Past Workouts

 Schedule with a Friend

Upcoming Workouts

- Wednesday, November 8
- Friday, November 10
- Monday, November 13
- Wednesday, November 15
- Friday, November 17
- Monday, November 20
- Wednesday, November 22
- Friday, November 25

Fitbud 

 View Past Workouts

 Schedule with a Friend

Upcoming Workouts

- Tomorrow, November 8
- Friday, November 10
- Monday, November 13
- Wednesday, November 15
- Friday, November 17

Friday, November 25
with Mark 

- SEV 2
- Move up back button on screens with scroll so users can easily see
- Make all back buttons orange
- Added Buddy for greater prominence in app



Fitbud

Getting Started

What are your fitness goals?
Select all that apply

Muscle Gain/Strength

Weight Loss

Build Endurance

Flexibility

Balance and Coordination

Where do you want to work out?
Select all that apply

Gym

Home

Park

How long do you want to exercise?
Select one

15 minutes

30 minutes

45 minutes

60 minutes

75 minutes

90 minutes

120+ minutes

What days do you prefer?
Select all that apply

S M T W T F S

What time of day do you prefer?
Select all that apply

Morning

Afternoon

Evening

Have you been injured?
Optional

Yes

No

Submit

Fitbud

↶ Back

Getting Started

What is your current fitness level?
Select the best one

Beginner

Intermediate

Advanced

What are your fitness goals?
Select all that apply

To get stronger/build muscle

To lose weight

To improve stamina

To be more flexible

To build my balance and coordination

Where do you want to work out?
Select all that apply

Gym

Home

Park

How long do you want to exercise?
Select one

15 minutes (recommended for beginners)

30 minutes

45 minutes

60 minutes

75 minutes

90 minutes

120+ minutes

What days do you prefer?
Select all that apply

S M T W T F S

What time of day do you prefer?
Select all that apply

Morning

Afternoon

Evening

Have you been injured before?

Yes

No

Share the injury for workout plan customization

Type here (optional)...

Submit

- SEV 1
- Changed the “box within box” with extra subdivisions
- Included a back button to return to personal information screen

- SEV 2
- Added Buddy's name above Buddy so user can see its name



- SEV 2
- Change Setting Up into page's button wording to avoid confusion

