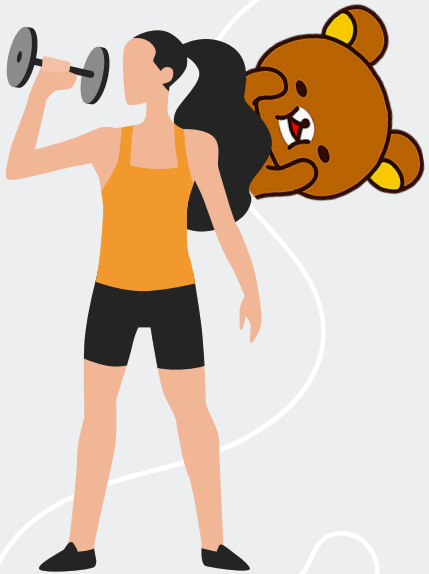
A6: Interactive Medium-Fi Prototype

FitBud



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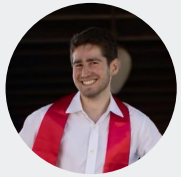

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FitBud

Your new pal, here to make fitness **fun** and **easy**

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.

Values in Design

Review of Ethical Considerations

THE SCANDAL: Users who fail their goals could face self-esteem issues

- Users who seek out a workout app may already feel subpar in their exercise habits
- Failure to meet goals set by the app may worsen their feelings of ineptitude
- Could damage body image

THE SIREN: Gamification of Health

- The gamification of exercise could lead to unhealthy exercise habits among users
- It may cause individuals to workout far more than is healthy, increasing risk for injuries and harm

THE BACKSTABBER: Misuse of Data and Lack of Privacy Protection

- For one of the features, we are asking users to share their calendars
- Calendars contain personal information and if this information was leaked or used inappropriately, it would be incredibly wrong
- Our users would begin to distrust us and it would pose many ethical problems as well
- Similarly, this applies to their health and personal information that they are sharing with us as well

Encoded Values

1

Inclusivity

Users of **all fitness backgrounds** can **benefit** from the app

2

Flexibility

We **accommodate** and **tailor** to the user's **schedule** and **abilities**

3

Safety

Ensure **protection** and **physical safety** of users

4

Privacy

Users should **trust** that their personal info is **secure**

5

Inspiration

Users should feel **motivated** and **encouraged** at all times

Ethics Encoded in Values

1

Inclusivity

Users should feel that they belong on the app and that the app supports them. This should prevent **THE SCANDAL** in which users face self-worth issues

2

Flexibility

By tailoring workouts to a user's needs/schedule, they should feel ready to face their goals without intimidation or obstacles that could damage self-esteem (prevents **THE SCANDAL**)

3

Safety

Users should not feel prompted by workout gamification to overwork themselves or attempt exercises that are beyond their experience level or exercises that may be unsafe given an injury (prevents **THE SIREN**)

4

Privacy

Users share personal info and schedule info so that Buddy can plan their workouts. They should **trust** that this information is not available to their friends or developers (prevents **THE BACKSTABBER**)

5

Inspiration

Users should not feel in any way discouraged by the app. Buddy should constantly be uplifting the user in order to prevent **THE SCANDAL** in which users face self-worth issues

Value-Aligned Features

- **Inclusivity**
  - Users fill out **questionnaire** during registration regarding their **fitness level** and **interests**, and **workouts** are **tailored** accordingly, making them feel welcome and prepared
- **Flexibility**
  - Users can **customize** their workout **length** and **days**, helping them feel confident and comfortable with their workouts
  - Google/Apple **calendar** can be **synced** for **automatic** workout **scheduling,** removing mental pressure that could make users feel unable to exercise
  - Users will not feel **inadequate** due to scheduling difficulties

Value-Aligned Features

- **Safety**
  - Buddy chooses **safe exercises** given knowledge of a user's **injury history**
  - The gamification of health could lead to **unhealthy exercise habits**, so Buddy only schedules **one workout per day**
- **Privacy**
  - Group workout feature limited to **friends** – prevent unwanted behavior
  - It would be **unethical** to share a user's information, thus friends cannot view each other's calendars, just their scheduled workout time
- **Inspiration**
  - Companionship of fun and cute **virtual buddy** provides **support** and **motivation**
  - Keep Buddy healthy by exercising and feel **rewarded**
  - Buddies will only offer words of **encouragement and motivation** to prevent losses of self-worth

Possible Value Tensions

Inspiration vs. Safety and Inclusivity

We decided that Buddy would "die" if users do not maintain their workout goals. This is meant to be motivating and **INSPIRATIONAL** while also holding users accountable to their goals. However, failing at their goals and facing punishment could lead to self-worth issues for those starting out. This could damage mental health and make users feel unwelcome, presenting a **SAFETY** and **INCLUSIVITY** concern.

We should consider striking a balance by having Buddy be reborn after death in an encouraging and inspiring manner

Inclusivity and Flexibility vs. Privacy

In order to promote **INCLUSIVITY**, users will input workout preferences. In order to promote **FLEXIBILITY**, users will sync a calendar and allow Buddy to schedule their workouts. This collection of data could cause **PRIVACY** concerns, as users may feel that their information is at risk by using our product.

In order to prevent the leaking of personal information, friends/other users will not be able to view a user's personal information or their calendar. They can only view the date/time of scheduled workouts with trusted friends.

3 TASK FLOWS

SIMPLE

Create a workout plan in an environment accessible to me and schedule that works for me

MODERATE

Have an accountability ~~and reward~~ system for my commitment to fitness

COMPLEX

Connect with friends who are also exercising

Usability Goals & Key Measurements

Usability Goal #1: Efficient

Tasks take little time to **complete**

UI takes little time to **navigate**

Key Measurements

Average time taken to complete tasks should be under 2 minutes

This will help us evaluate the efficiency with which users can navigate our interface

Usability Goal #2: Fun

User enjoys working out with the app **more than without**

Buddy is **motivating** and **rewarding**

Key Measurements

We want users to express joy at least once when interacting with their buddy (i.e. smile, laughter, or comment that shows their enjoyment)

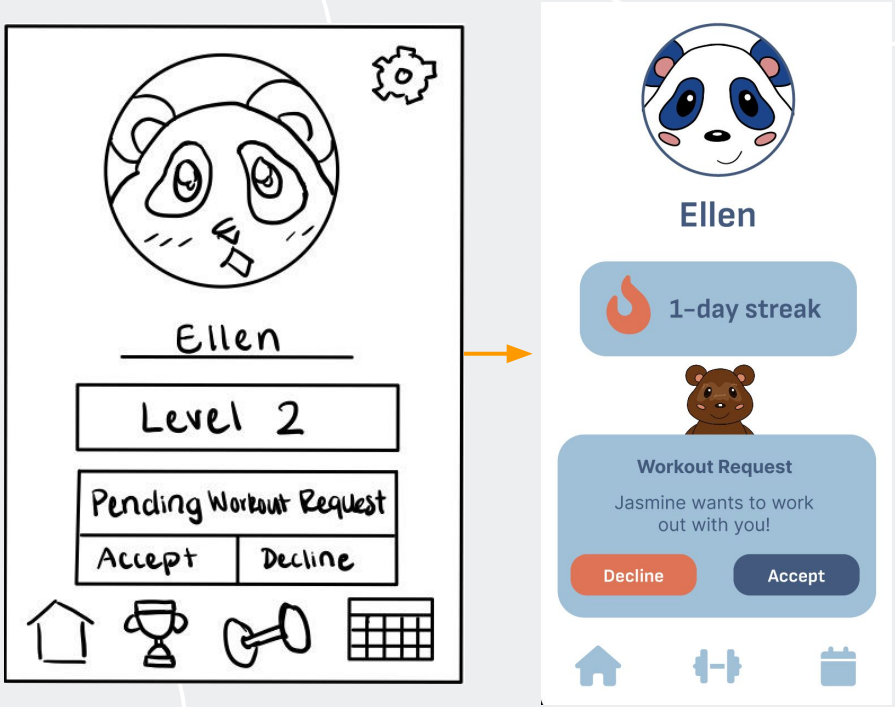
This will allow us to measure the joy that our product brings to the exercise experience

Progress Towards Usability Goals

- **Efficiency**
  - Workout history moved to calendar tab – more intuitive
  - Streamlined calendar – no need for duplicate of calendar app
  - Simpler reward system – no more wardrobe
- **Fun**
  - New level system with goal of keeping Buddy alive and well
  - Workout scheduling with friends

Revised Interface Sketches

UI Change #1: Workout Requests



Feedback:

- Users wanted **more information from workout requests** (from whom? when? where?)

Change:

- Workout requests now include the **name of the requester**

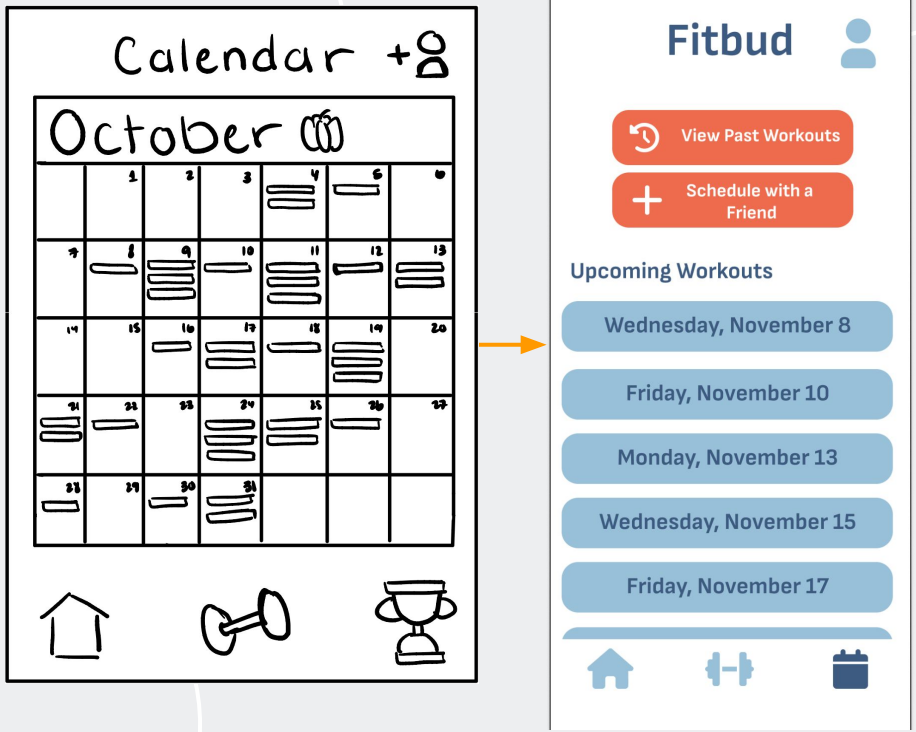
Rationale:

- Important to know the sender of the request
- One of the main points of Fitbud is to abstract away and automate workout scheduling, so not necessary to include time

Usability goals:

- Efficiency – user needs to know the sender of the workout request to quickly decide to accept or decline it

UI Change #2: Calendar/Schedule



Feedback:

- Users found a **duplicate** of a standard calendar app within Fitbud redundant

Change:

- Calendar page removed, replaced by workout scheduler with upcoming workouts, workout history, and group workout scheduling

Rationale:

- Implementing a duplicate mobile OS calendar would be an **unnecessary hassle** – no need to see non-fitness related events in a fitness app

Usability goals:

- Efficiency – **streamlining and simplifying** the app allows the user to stay focused on fitness without cluttering the app

UI Change #3: Navigation Bar

Old nav bar: since we're on the home screen, no home button

New nav bar: consistent throughout, selected screen is highlighted with darker color

Feedback:

- Users did not like how the **nav bar changed** depending on which page the user was viewing and sometimes completely disappeared
- Users **did not understand the purpose** of challenges

Change:

- Nav bar is **always present** and contains the same three buttons – home, workout, and schedule – with a darker shade of blue to indicate the currently selected page
- Challenges page and button were removed

Rationale:

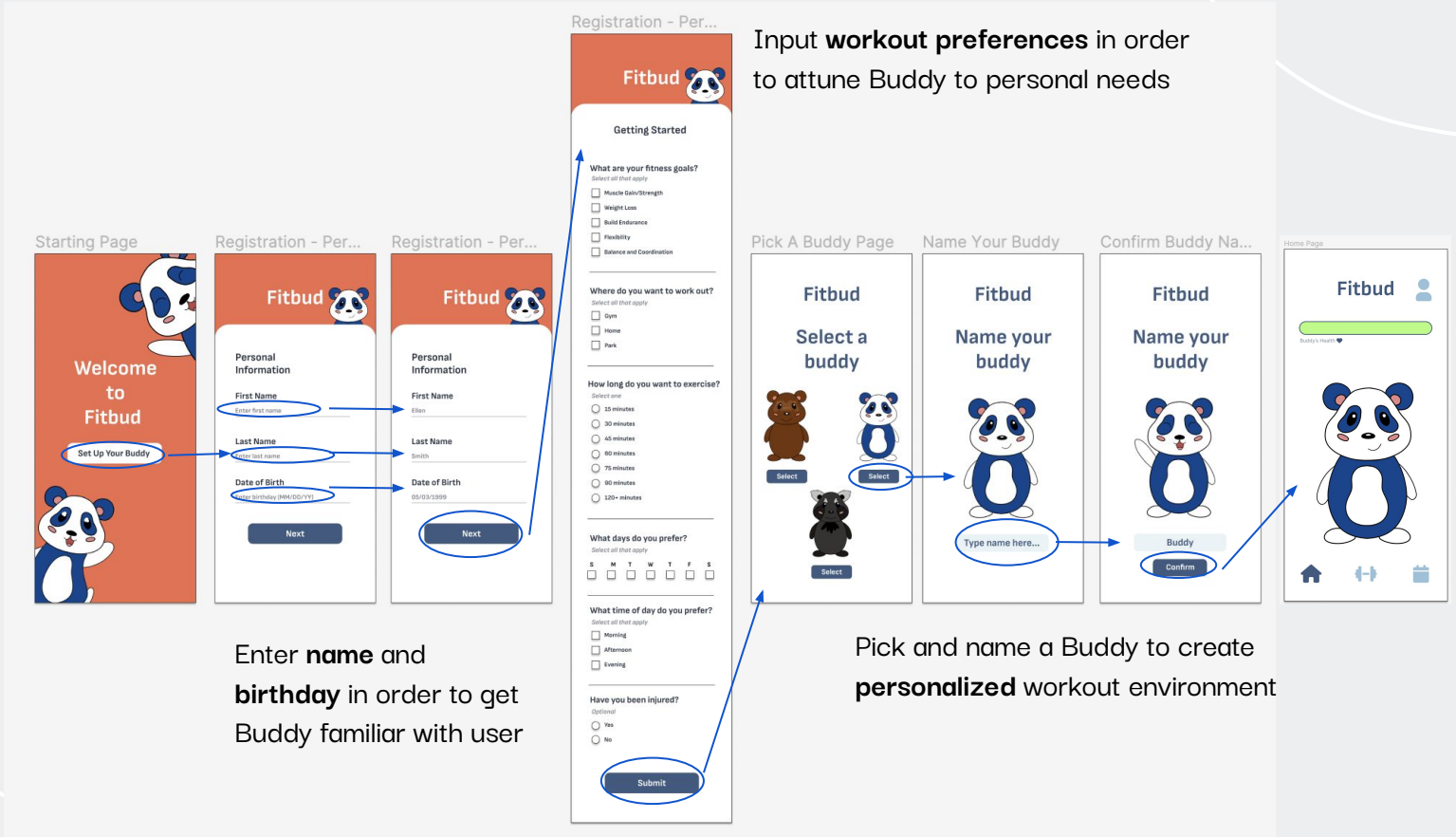
- Maintaining a **consistent** navigation bar is standard practice – having it change and disappear led to **confusion** and **inefficiency**
- Challenges were **unnecessary** and felt out of place with the rest of the app

Usability goals:

- Efficiency: navigating the app is now more **intuitive** and **seamless**

Medium-Fi Task Flow

Simple Task Part 1: Set Up Your Buddy

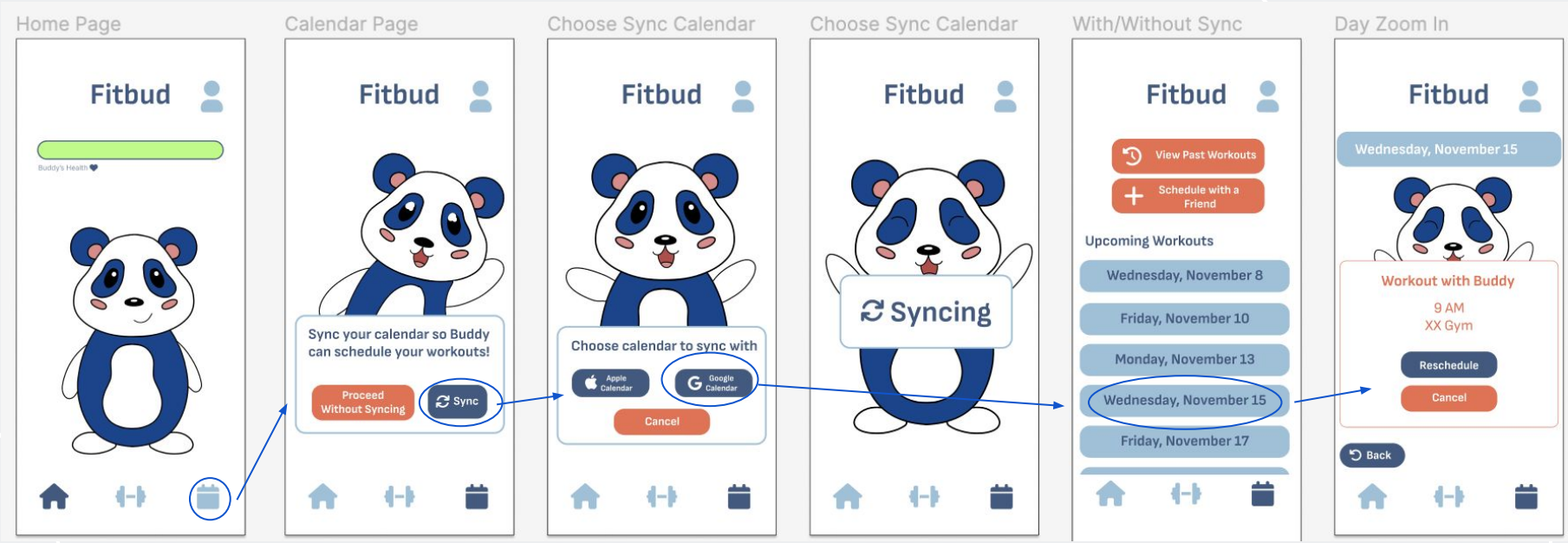


Input **workout preferences** in order to attune Buddy to personal needs

Enter **name** and **birthday** in order to get Buddy familiar with user

Pick and name a Buddy to create **personalized** workout environment

Simple Task Part 2: Workout Scheduling



From home screen user goes to **scheduling page**

Sync calendar: Buddy can **automatically schedule a workout** for the user according to their schedule

Choose which calendar to sync with

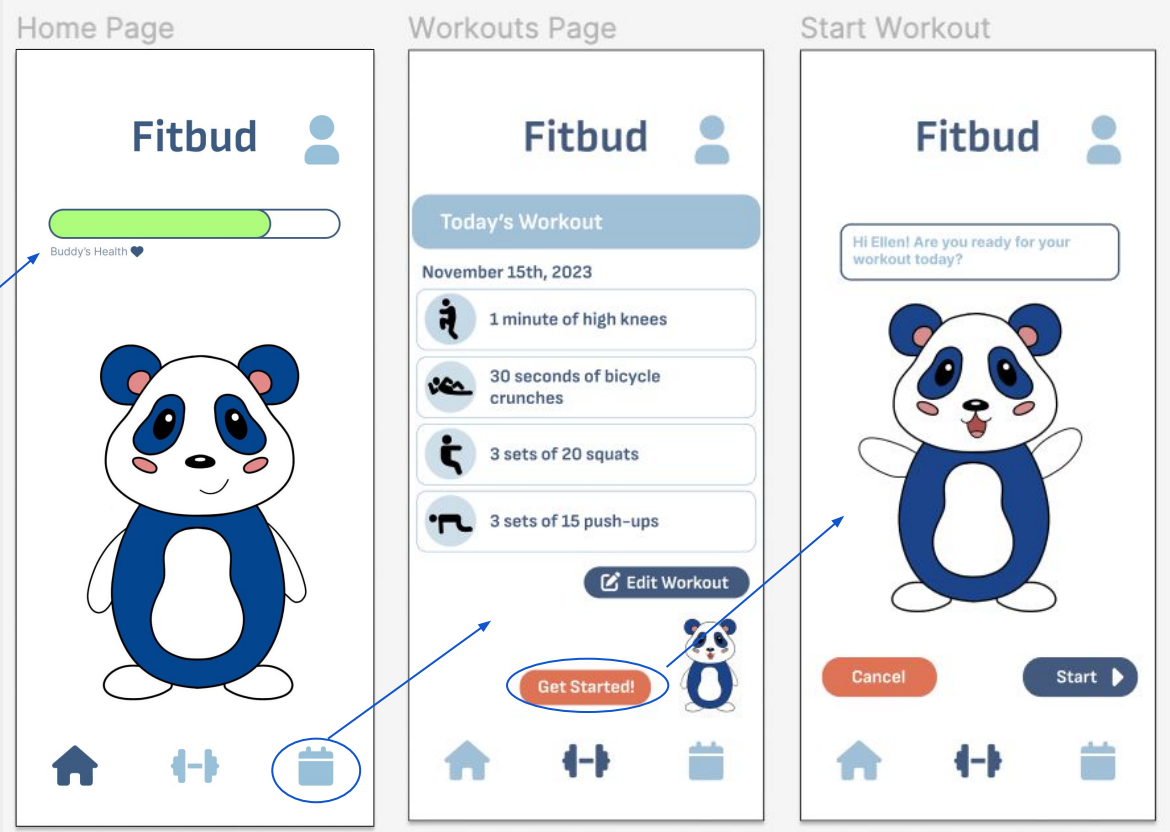
Loading screen while syncing

Select an **upcoming workout** to view details

View **workout details** and **reschedule** workout if necessary

Moderate Task Part 1: Buddy's Health Motivates User

Buddy's health needs to **be maintained by working out**

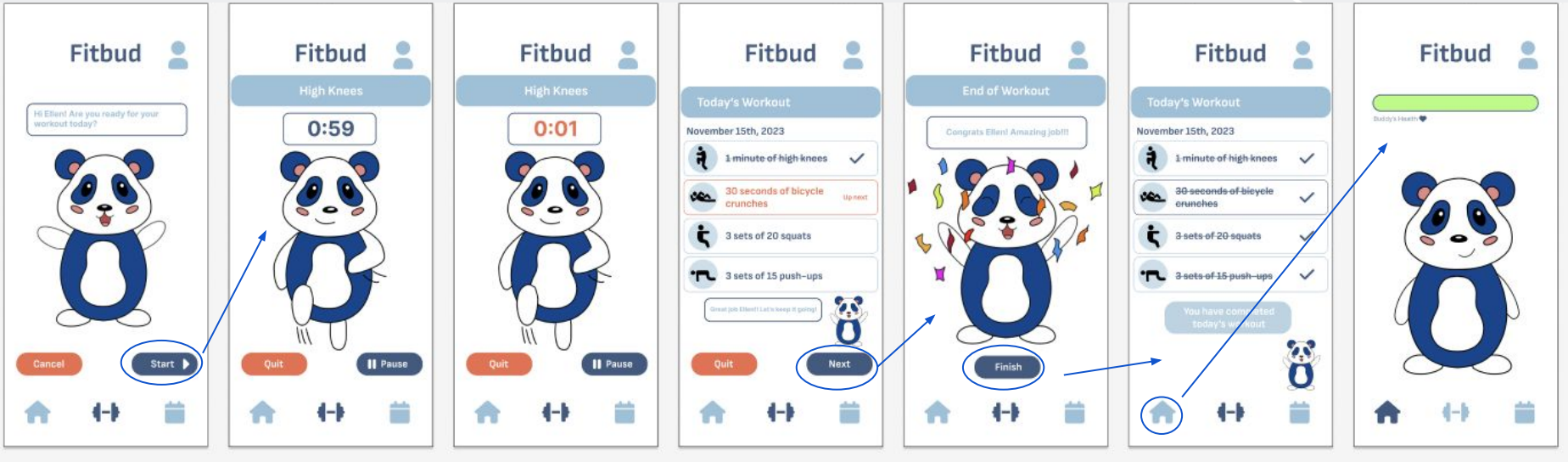


The user selects the **workout button** from taskbar

User reviews **workout components and starts when ready**

User can press **start to begin the workout timer**

Moderate Task Part 2: User Maintains Buddy's Health by Completing a Workout

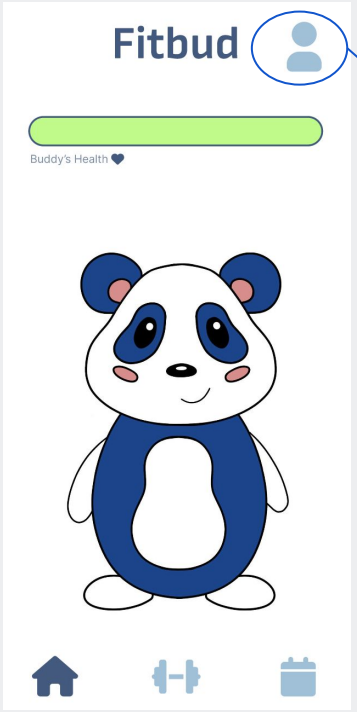


User **begins workout and completes exercises with Buddy**. In this case, the user performs a high knees exercise until the timer runs out.

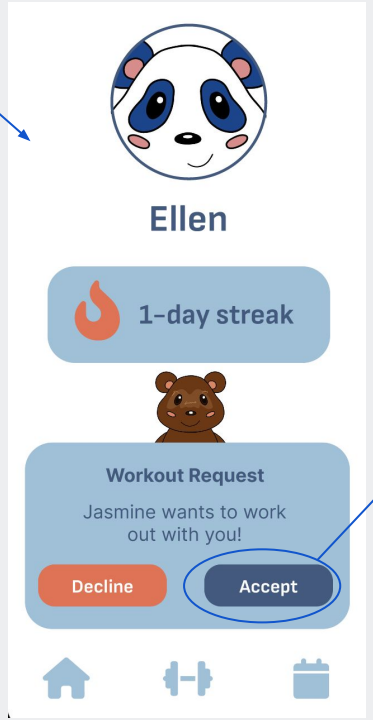
User must progress through **each scheduled exercise** before finishing

Upon **completing the workout** and returning to the home screen, the user will find that **Buddy's health has been bolstered**, ensuring them that their accountability has not gone unnoticed

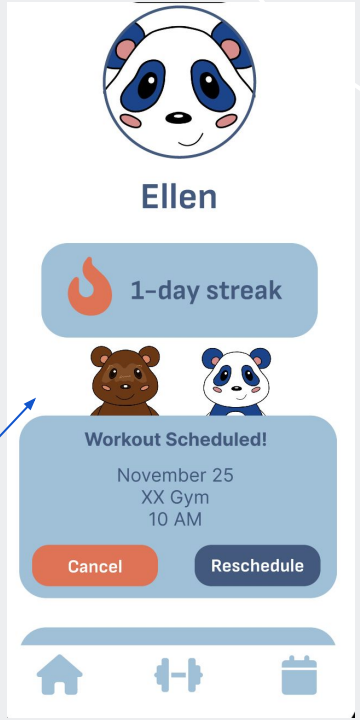
Complex Task Pathway 1: Accept Workout Request



Press profile button to view **incoming workout** requests

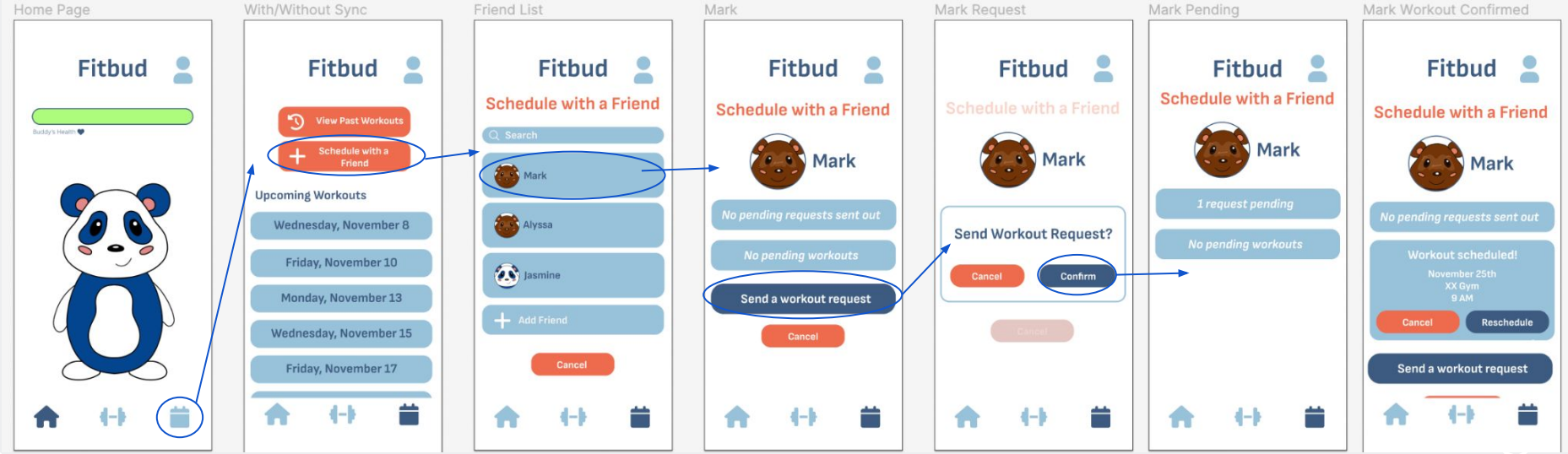


Accept a friend's workout request from the profile screen



Once accepted, a user can **cancel or reschedule the workout**

Complex Task Pathway 2: Send Workout Request



User accesses scheduling page from home screen

User **selects "schedule with a friend"** button

User **selects a friend** (Mark) from their friends list

User **chooses to send** their friend (Mark) a **workout request**

User **confirms request**, making social interactions feel clear and intentional

Request is submitted, and is shown to be **pending**

The user's friend (Mark) has accepted the request, and a scheduled workout is now **visible**

Prototype Implementation

Tools for Constructing Prototype

We used the Figma wireframing tool to create the Medium-fi prototype

Pros

- Allowed us to build a **fleshed-out, functional UI**
- Allowing **users to experience and execute our task flows** without requiring the team to do any technical development

Cons

- **Figma highlights valid click locations on the prototype**, which could interfere with our evaluations by providing test users with an undesired hint
- **Text boxes and questionnaires must be prefilled**, which can limit the individuality of test users and dampen their experience
- **Figma has no memory**, making it difficult to adjust task flows based on previous user changes

Limitations of Prototype

Previous Figma cons create several limitations:

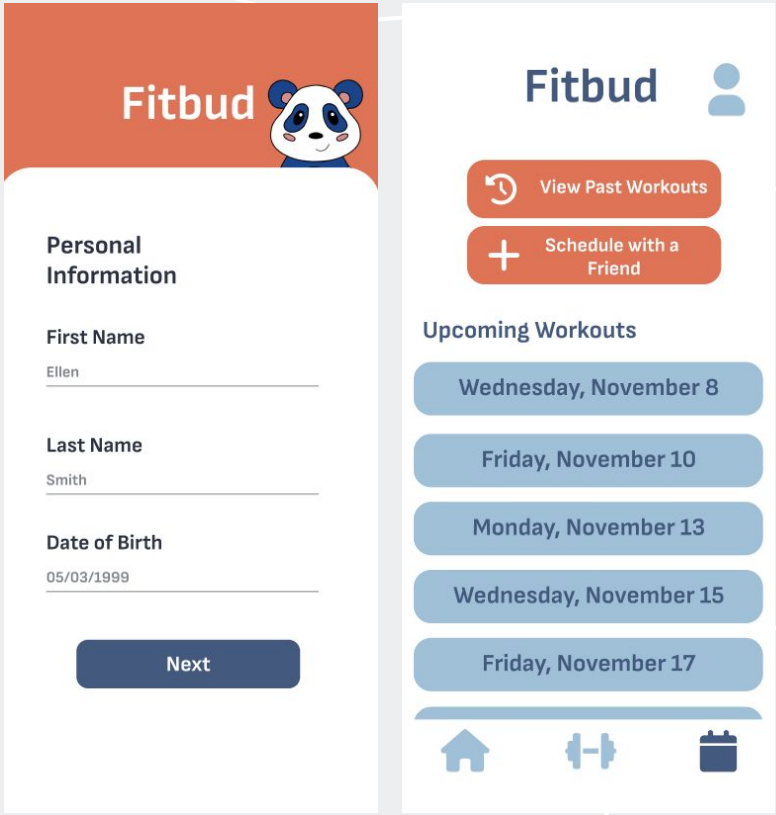
- **Text boxes and questionnaires must be prefilled**, which can limit the individuality of test users and dampen their experience
- Figma does not allow for any sort of memory, so **nothing is "saved."** The prototype cannot remember that a workout has been completed or that a calendar has already been synced.

Additional Limitations:

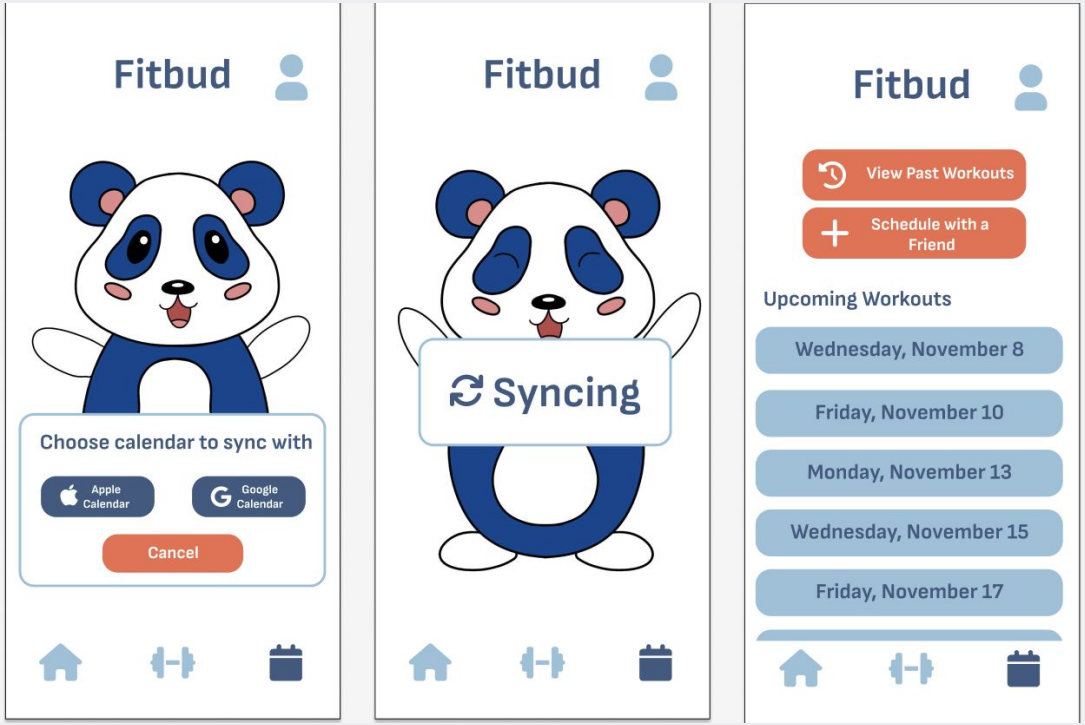
- The **workout section of the prototype is greatly abbreviated**; only one exercise is included and not all modifications are possible.
    - Including every exercise within a workout would be repetitive and would overcomplicate any testing of a task involving completing a workout.
- There is no memory as to whether or not the **user chose to sync the calendar** and they will **have to redo it every time** they enter that task flow. This also applies to whether or not you have added the friend that has been hard-coded (they will not appear on the friends list if you revisit the page).

Hard-Coded Features

- **User data** is not customizable
  - Name, birthday, buddy name, email, and password are all hard-coded as well as the selected Buddy himself.
- All of the **user's friends** and the **friend you can add** are hard-coded
- **Scheduled workouts** (past, present, and future) are hardcoded into the user's schedule

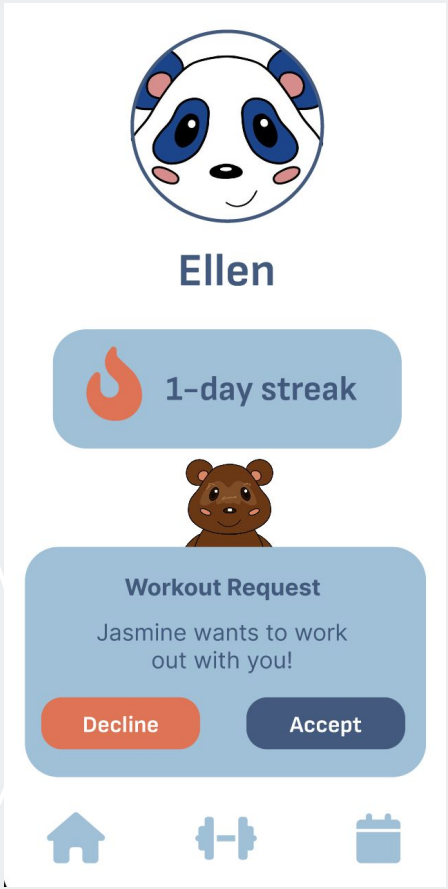


Wizard of Oz Features

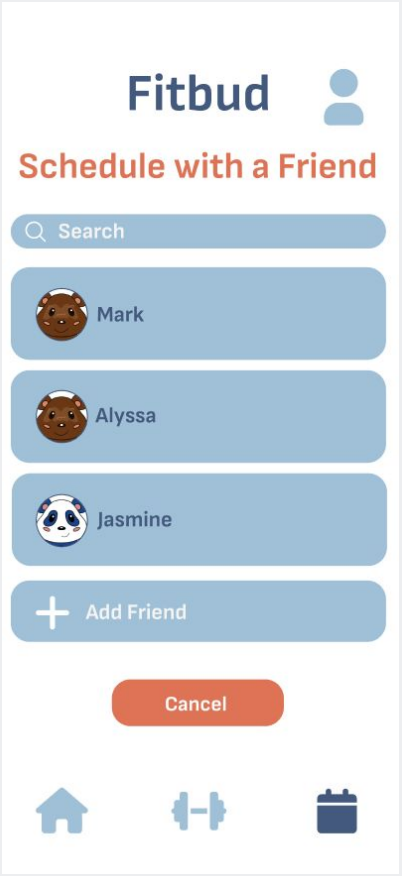


The prototype **claims to be syncing the user's calendar and auto-scheduling a workout** using an algorithm, but all workouts are actually hard-coded

Wizard of Oz Features



A **friend request will appear on the user's profile**. This is an artificial friend

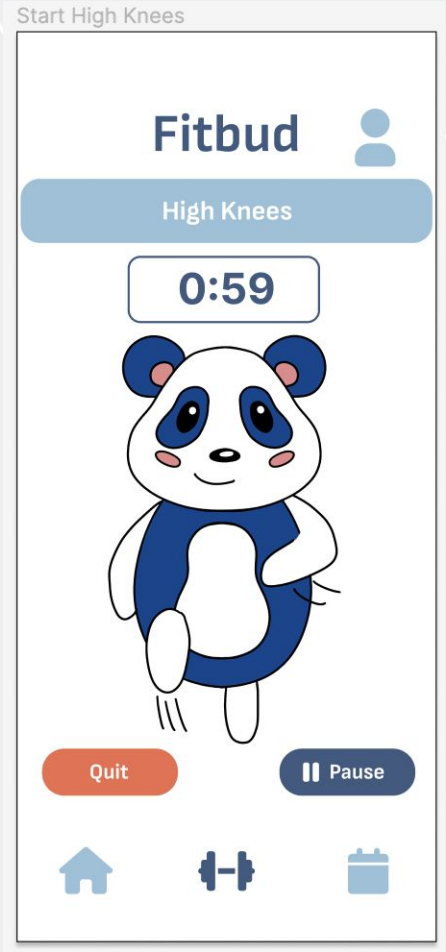


The **user has several artificial friends** on their friends list

Link to Prototype

Appendix

Link to Lo-Fi Changes



UI Change #4: No Skip Exercise

Feedback:

- Skipping and resuming workouts is confusing and awkward

Change:

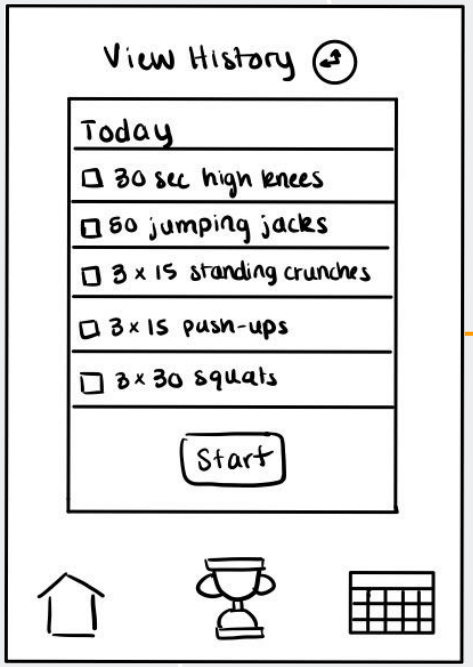
- Skip button has been removed entirely

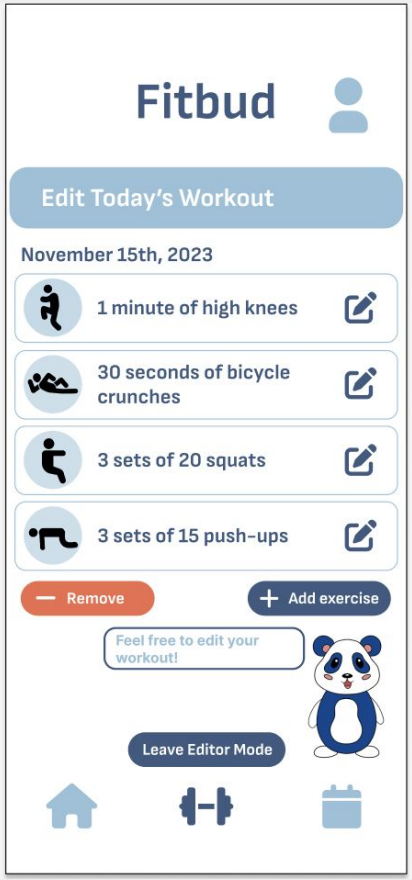
Rationale:

- The act of skipping an exercise part-way through and resuming later undermines the effectiveness of a workout. It also makes it difficult for the user to keep track of which exercises have been completed. The change of the editing still allows for the basic functionality.

Usability goals:

- Efficiency – user must readily know which exercises have been completed at all times, allowing them to finish a workout in a straightforward manner





UI Change #5: Editing Workouts

Feedback:

- Users want the ability to **edit workouts**

Change:

- Edit button on "today's workout" screen, allowing users to ender "**editor mode**"

Rationale:

- Workouts are auto-generated according to the user's preferences, but user may want to switch it up due to preference, injury, or other reasons

Usability goals:

- Fun – allowing the user some freedom to choose the exercises they want to do will make workouts more enjoyable