

Fitopia

By: Bachelors in Paradise

Darren Pierre 101015833
Paradis Esmaeelzadeh Khadem 100797010
Henri Umba 101022562
Nem Zutkovic 101085982
Mohab Abdelkader 100981616

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1 – Requirements Analysis

A. Overview of Project Idea, Scenarios and Persons

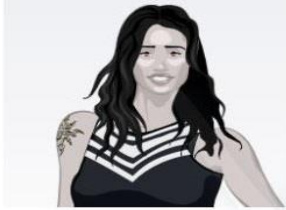
Fitopia is a mobile application for Android and iOS that helps people of all ages find a compatible workout buddy. The general idea is that individuals can join each other in the gym as workout buddies for short or long term. Fitopia makes this possible through creating your profile, recommending workout buddies to you, and allowing you to search for your new workout buddy. As an application, the goal of Fitopia is to become a network of individuals all with one common purpose, and that is to stay fit and live a healthy lifestyle. The larger the network becomes, the stronger and more useful it will be to people trying to find their new workout buddy.

This application is needed because many people that go to the gym struggle to maintain motivation, have an enjoyable experience and fail to push themselves. Currently, you must message people through text-messaging mediums to request a time to go to the gym. More importantly, by increasing access to physical activity, Fitopia promotes a healthy and active lifestyle. This is needed because having an active lifestyle is known to improve the well-being of an individual on a mental and physical level. On the surface, Fitopia, just helps you find a workout buddy, but it does so much more behind the scenes.

A problem Fitopia addresses are individuals with a lack of motivation. People often lack the motivation to take part in physical activity by themselves. Generally, it is more enjoyable and motivating to complete workouts with other people, and that is what Fitopia strives to do...bring people together! A similar problem to lack of motivation is maintaining accountability. When you go to the gym alone regularly, it is easy to get off track and bail on a workout. Having a scheduled workout with someone whom you do not know is surely a way to keep you accountable because it is sort of a “gym date”. Lastly, Fitopia also addresses the problem with safety. Having a spotter, or someone to watch your form while you go to the gym is very helpful. It helps you maintain your form, so you do not injure yourself, and it lets you push yourself because someone is there watching over you during your set. Having a workout buddy, whom you connected with through Fitopia, helps overcome these problems.

Personas and Scenarios

Heather



"I want to get fit again and live a healthy lifestyle. I hope by finding the right workout buddy I will have more motivation to workout"

Age: 21

Occupation: Student/Works at Health Canada

Location: Kanata, ON

Hobbies: Dance & Zumba

Personality

Introvert: ☐ Extrovert: ☒

Motivations

- Losing some extra weight
- Fit into old clothes
- Making new friends



Frustrations

- Lack of motivation
- Not having enough time in a day
- Keeping a healthy diet

Bio

Has a busy schedule with work and school. Tries to make time to go to the gym but lacks motivation all the time. During the beginning of each semester of school, she goes to the gym four times a week but stops going after a few weeks. She used to be a competitive dancer but work and school have forced her to stop dancing as much as she would like. Due to her busy schedule, Heather lacks motivation to go to the gym and eats out most days. She has gained a lot of weight and has lost her confidence.

Heather's hobbies are dancing, going to Zumba classes and watching Netflix. Although she enjoys going to Zumba and dancing, she often finds herself watching Netflix during her free time instead of being active because she lacks motivation and is tired.

Scenario: Heather has recently heard of an application that could help her find a workout buddy. After looking into it, she believes that it will be a greater motivator for her to start committing to going to the gym and getting fit again. While in class, Heather downloaded the app and started creating her profile. She filled out her demographic information and then was asked to state what she was looking for on the application in terms of her goals and the type of workout buddy. She is looking for a female workout buddy that goes to the same Goodlife as her. She hopes that the workout buddy has similar goals as her so that she can vent about her struggles but also work towards her goals with her. Few hours after she created her profile, she receives a notification from the application which provides profiles that are matched up to her profile. After browsing through the profiles, she decides to message a girl that is also 21 and a student. She waits for a response from the other user in order to schedule a workout time that works for both of them.

Charlie



"I want to meet people that love working out and eating healthy like myself"

Age: 35

Occupation: Physiotherapist

Location: Ottawa, ON

Hobbies: Working out, Basketball, Cooking

Personality

Introvert Extrovert

Motivations

- Bulking
- Looking good for my social media pages
- Making new friends
- Eating Health



Frustrations

- Losing weight and muscles
- Not knowing enough people with similar fitness goals
- Keeping a healthy diet without temptations
- Finding a partner that loves working out as well

Bio

Has a busy schedule and often works different hours each week. He loves working out. Charlie is interested in the mechanics of the body and hopes to become a personal trainer as a side job for fun. Although he tries his best to go to the gym five times a week, he sometimes feels like he doesn't have enough energy or motivation to go.

Charlie wants to enhance his eating habits and hopes to cut out drinking. He wants to become satisfied with his body image and his health and motivate others to a healthy lifestyle. He hopes to one day meet a girl that also enjoys working out so that they could share their fitness goals.



Scenario: As Charlie has a busy work schedule and his work hours are all over the place, he has a very difficult time trying to coordinate schedules to go to the gym with his friends. His personal trainer told him that he should download the Fitopia Application so that he could attempt to find someone with similar work hours and goals. After downloading the application, Charlie fills out his demographic information and awaits to be matched with males or females to workout with.

After a day, he receives a message from multiple people that would like to be his workout buddy. After carefully examining his options and the profiles of the potential workout buddies, he chose a female workout buddy as she also has an unpredictable work schedule. The new workout buddy is just getting back to the gym and needs some motivation to workout. She is hoping to learn from her work out buddy and become fit. Charlie and the female workout buddy schedule their first session and plan to meet before hand at a coffee shop to discuss their goals further in person.

Jason



"If you don't find the time, if you don't do the work, you don't get the results."

Age: 28

Occupation: Fitness

Manager/BSc Kinesiology

Location: Ottawa, ON

Hobbies: Working out, CSCS

Personality

Introvert

Extrovert

Motivations

- Staying fit and healthy
- Learning new things
- Change



Frustrations

- People not being self sufficient
- Waking up early
- Social media apps (FB, IG, ...)



Bio

Has a very erratic life schedule. Manages multiple gyms in the city, so every day is very different. Performs Personal Training for a select few clients during the week, strictly by choice because he enjoys helping others achieve their goals. Always tries to stay consistent with meals, eating every 2-3 hours to maintain and build muscle. Despite the variance in schedule, finishes every day before traffic starts.

Totally dislikes social media apps like Facebook, Instagram, Snapchat and LinkedIn, but does enjoy using dating apps like Tinder and Bumble because he gets to meet new people. On the other hand, Jason has no interest in getting married and having children. Likes to get together with his friends every now and then to catch up over coffee, food or some interesting activity. Jason works out with a few friends every now and then.

Travels to explore other parts of the world, but mostly because whomever he is seeing, wants to. Instead he likes to have a steady and consistent life style in the city he is living in. Likes to stick to a routine that is every changing. Very interested in money and investing in various ways. Competes in bodybuilding shows from time to time, but is slowing down due to his age.

Scenario: After Jason installs Fitopia, the system surprisingly doesn't ask him to make an account but syncs the account to his phone. He starts creating his profile right away, typing in his basic personal information (Name, Age, Postal Code, Sex, Height, Weight) along with which fitness center he has a membership to and when he is available. A quick description of himself needs to be entered along with one photo. As soon as he completes his profile, Fitopia already has unfiltered matches for him. They are initially sorted by location (i.e. whoever is closest) and the only possible workout buddies that are shown are those that have the same gym membership as you do. He clicks on the third profile because it is someone around his area and seems to have more experience in the gym. He skims through their profile and notices their availability is great, so he sends a request to that user to go workout at their gym the next evening. The user on the other end gets a notification-style pop-up and quickly accepts the invitation. Such communication and discussion were necessary, as they are only there to schedule a workout.

B. Interview Contents

Interview Script

Project Description:

A mobile application which helps users find a workout buddy. The application matches users based on their characteristics, location, goals and workout patterns. Location and fitness goals are taken into consideration when matching users. The application also has a built-in messaging system. The messaging system allows users to plan and schedule meeting times as well as serves an opportunity for users to get to know each other.

Expected time: 15-30mins

Interviewee Description: Varies based on participant

Demographic information:

- 1) Age:
- 2) Gender:

Questions

- 1) What are your fitness goals?
- 2) How often do you go to the gym?
- 3) How long have you been going to the gym?
- 4) Do you prefer to work out alone or with someone? why?
- 5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.
- 6) How important is a workout location for you?
- 7) Have you ever worked out with a workout buddy before? If yes, how was your experience?
- 8) Is it important for you to know who you workout with? If yes, how important is it?
- 9) Do you smoke?
- 10) Does it matter if your workout buddy smokes?
- 11) Would you describe yourself as more of a shy person or more of an outgoing person?

C. Interview Notes, Updated Personas, Scenarios & Affinity Diagram with Key Requirements

Interview with Josh

Description: Josh is a 4th year computer science student at Carleton. He is interested in men's physique and used to be a bodybuilder

Demographic Information:

- 1) **Age:** 28
- 2) **Gender:** Male

Interview Notes:

1) What are your fitness goals?

Josh's fitness goal is to gain around 7-10 pounds of muscle in the next 3 months

2) How often do you go to the gym?

Josh goes to the gym weekly 4-6 days and spends around an hour for each session

3) How long have you been going to the gym?

He has been going to the gym for 13 years. During this time, there has been a period where he's taken a break from going to the gym.

4) Do you prefer to workout alone or with someone? Why?

Josh prefers to workout with someone, but he finds it hard to find a good workout buddy. The participant enjoys a workout buddy who can spot him when things get hard and to keep up with his workout pace. If the participant works out alone, he often gets distracted on his phone, goes too fast during workouts and tends to have a longer rest period in between sets.

5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.

Josh describes his perfect workout buddy as someone who doesn't listen to music while working out so he can focus on the task at hand. Someone who can make jokes between

sets but doesn't joke when he's during a max set. Someone who's slightly stronger ideally someone who's adding 10% - 20% for his max. Josh prefers someone who's around his age but he's ok with someone who's +- 10 years. He likes talking with someone enjoyable.

6) How important is a workout location for you?

The participant doesn't mind the location of where he does his workout with someone, but they better be a good workout buddy. Someone who has adequate knowledge in working out, someone who's funny and charismatic and nice.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

Josh would not be interested in forming something more with a workout buddy if he was male there only there for a workout. If his workout buddy was a woman, he would be interested in developing something more. In practical sense, Josh has a girlfriend so he would be against working out with a female because he could create problems in his relationship. Josh has worked out with a mutual friend in the past and enjoys it very much.

8) Is it important for you to know who you workout with? If yes, how important is it?

If the person he works out with meets the criteria of a strong, goal-oriented and funny persons it really does not matter to him if he knows the person or not.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?

The participant prefers his workout partner not to smoke during or around the time of the workout.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

The participant would describe himself as more of a socially outgoing person rather than a shy person.

Interview with Ian

Description: Ian works as an administrator at Carleton University and is an avid player of sports. He skis in the winter (usually locally at Camp Fortune) and plays pick up hockey games often. During the warmer summer months, he likes to run outside

Demographic information:

- 1) **Age:** 25
- 2) **Gender:** Male

Interview Notes:

1) What are your fitness goals?

Ian is mostly worried about staying healthy. He would not want to go to the gym otherwise.

2) How often do you go to the gym?

Ian does not go to the gym. However, he does a lot of sports activities. He is very much into hockey.

3) How long have you been going to the gym?

He went to the gym a lot more when he was younger. Nowadays, not so often. He stated “I have been on and off since I was 15 years old. However, now I haven’t gone in a while.”

4) Do you prefer to workout alone or with someone? Why?

Ian works out by himself for runs because it’s convenient to just step outside and go for a run. However, he also frequently plays sports with others, such as hockey, soccer, and usually goes skiing with someone or with a group of people.

5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.

The participant would prefer someone at the same fitness level. Not more skilled or less skilled. But if he had to pick, he would rather have someone less skilled than more skilled, he used to coach so he’s used to that dynamic. He has a slight male preference.

6) How important is a workout location for you?

Location and proximity are very important to Ian. As in, a neighbour would be the most ideal.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

The participant hasn't really worked out with a partner before except for in team sports, though working out in the teams has always helped keep him accountable so he feels working out with a partner would be the same.

8) Is it important for you to know who you workout with? If yes, how important is it?

Ian would rather work out with someone he knows but he has coaching experience so he's comfortable workout out with people he doesn't know as well.

9) Do you smoke? No, he used to.

10) Does it matter if your workout buddy smokes?

It makes no difference to Ian if his partner smokes. He used to so it has no affect on him.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

One on one Ian is quite outgoing, but he can be a bit more shy in teams.

Interview with Jasmin

Description: Jasmin is pursuing a postgraduate degree in the sciences at Carleton. She is an international student from Iran who just arrived in Canada in September.

Demographic information:

- 1) **Age:** 28
- 2) **Gender:** Female

Interview Notes:

- 1) **What are your fitness goals?**

Jasmin wants to lose weight and it also helps her manage her stress levels.

- 2) **How often do you go to the gym?**

The participant goes to the gym bi-weekly.

- 3) **How long have you been going to the gym?**

Since the beginning of the summer the participant has been regularly going to gym after being dragged by a friend.

- 4) **Do you prefer to work out alone or with someone? Why?**

Jasmin prefers to workout with friends. It motivates her and helps her commit to going.

- 5) **Describe the perfect workout buddy? Such as age, gender, fitness level, etc.**

The participant does not have a preference between genders or age. She prefers someone knowledgeable about the gym, that has more experience, and whose expertise she can follow.

- 6) **How important is a workout location for you?**

There is a preference towards working out somewhere convenient, she says “closer is better”.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

Yes, the interviewee has worked out with a friend before and had a positive experience. She learned a lot from them, and they helped her commitment to the gym.

8) Is it important for you to know who you workout with? If yes, how important is it?

The participant has a strong preference for a workout buddy being someone they know.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?

Jasmin said it would affect her experience negatively if the person is a smoker / smokes.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

Jasmin self-described as relatively outgoing.

Interview with Jake

Description: Jake is in his third year of a Computer Science degree at Carleton University. He volunteers as a mentor for other students in the Faculty of Science and enjoys spending time with friends.

Demographic information:

- 1) **Age:** 21
- 2) **Gender:** Male

Interview Notes:

- 1) **What are your fitness goals?**

He doesn't have any specific goals in terms of his health.

- 2) **How often do you go to the gym?**

He doesn't go to the gym that often. Hasn't been there lately.

- 3) **How long have you been going to the gym?**

He hasn't been going to the gym for a long time. He began going to the gym in the summer. However, he has not been consistent.

- 4) **Do you prefer to work out alone or with someone? why?**

"Sometimes by yourself is the way to go. It is more fun to work out with friends". He elaborated that when is more focused, it makes more sense to head to the gym alone. However, in order to keep going you need a friend group who can go with you.

- 5) **Describe the perfect workout buddy? Such as age, gender, fitness level, etc.**

Someone around the same age and males. He stated that "the brotherhood is real". Would like someone who is doing the same workout as himself and has a high fitness level. Very strong. Age and gender do not matter as long as the goals are the same.

6) How important is a workout location for you?

He feels like Goodlife fitness is out of the way from Carleton. Carleton gym is far too busy and small for him. He likes to workout somewhere close and big but somewhere not too busy.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

Yes. They have worked out with two different people before. One was a roommate who is a personal trainer and the other friend has a lot of experience with body building. Both friends have been a great experience working out with.

8) Is it important for you to know who you workout with? If yes, how important is it?

Prefer mutual friends and people that they know. However, they are open to exercising with new people.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?

It doesn't matter to him if his partner is a smoker.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

He is outgoing. However, he admitted that he doesn't do too well in groups.

Interview with Komiljon

Description: Komiljon is a fourth year computer science student at Carleton University. He attends the gym often during the week while also working. He has a very tight schedule and must be organized in order to get things done. He believes that being athletic is not just about health but it's a lifestyle.

Demographic information:

- 1) **Age:** 21
- 2) **Gender:** Male

Interview Notes:

1) What are your fitness goals?

The participant wants to stay healthy and be active. They want to be prepared to play sports and not get injured. Their goal for their body type is to not be overly muscular and have a lean athletic body.

2) How often do you go to the gym?

The participant works out 5 times a week and tries to keep it under an hour on weekdays but works out longer if it's the weekend (typically an hour and a half or less).

3) How long have you been going to the gym?

The interviewee responded with "always" but elaborated that he wasn't always consistent. He would sometimes stop because of injury. He always tries to go either after school or after classes where he can fit it.

4) Do you prefer to work out alone or with someone? Why?

The interviewee prefers to work out alone because they don't have to deal with anyone or organize the session. They believe they have more efficient workouts because they don't have to coordinate at all with the other person. The only disadvantage is that they don't have someone that can spot them for heavy weight lifts.

5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.

Komiljon describes the perfect workout partner as a friend with similar goals and a similar knowledge level. Their gender is not important, but he has a slight preference towards having a male workout partner. He also has a slight preference to go with someone who's more knowledgeable than him so that he can learn but otherwise it doesn't really matter what fitness level they're at.

6) How important is a workout location for you?

Location is quite important to the interviewee. He would prefer that it is close and affordable and says that's why Carleton is important because it's included in tuition and located close by to him.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

He consistently works out separately with two people and describes both as very athletic. One has "an Instagram body" and the other is a "gym rat" which is an avid heavy lifter. He enjoys working out with them because they push him a lot. Both are similar in age to him in their early 20's. The participant said working with a partner takes longer but it feels shorter because you socialize while working out.

8) Is it important for you to know who you workout with? If yes, how important is it?

For the participant it's somewhat important as it's easier to socialize with them.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?

There is a strong preference to not workout with someone who smokes for this interviewee.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

Komiljon self-describes as more of a shy person in crowded places.

Interview with Millie

Description: Millie is an undergraduate student at Carleton and very involved around campus. She wants to one day be a doctor and believes mental health and physical health to be important.

Demographic information:

- 1) **Age:** 21
- 2) **Gender:** Female

Interview Notes:

1) What are your fitness goals?

The participant would like to be able to run longer and lose some weight. Overall, they would like to be more fit and healthy.

2) How often do you go to the gym?

The interviewee rarely goes to the gym, only about once or twice a month.

3) How long have you been going to the gym?

Not applicable as the participant doesn't consistently go to the gym.

4) Do you prefer to work out alone or with someone? Why?

The participant prefers to work out alone as it's easier.

5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.

The interviewee would prefer someone with a higher fitness level though someone at the same fitness level would be okay as well. Someone who is similar / relatable in what they have going on in their lives. A young adult.

6) How important is a workout location for you?

The location isn't very important to her, she will go wherever if needed.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

Yes, the participant worked out with her two roommates at the time. She described the experience as “fine” and said they brought her to machines she never used before.

8) Is it important for you to know who you workout with? If yes, how important is it?

The participant said it is very important for their workout partner to be someone they know, or at least a mutual friend with someone they know.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?

The interviewee said that they have no preference as to whether their workout partner smokes.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

The participant self-described themselves as an outgoing person though she can sometimes be more shy when she’s one on one and likely more shy in a workout setting.

Interview with Rashid

Description: Rashid is a recent graduate from Carleton University currently in the process of looking for employment within his field. For the past few years he has been doing jiu-jitsu for his health. However, over the years, he developed relationships with other jiu-jitsu students to point where practice is just a social engagement.

Demographic information:

- 1) **Age:** 28
- 2) **Gender:** Male

Interview Notes:

1) What are your fitness goals?

Participant's goals are competition based. They pursue martial arts, and so want to be strong and fast.

2) How often do you go to the gym?

The interviewee goes a martial arts gym 5-6 times a week, mostly Jiu Jitsu but sometimes MMA/striking. About once a week for weights at a gym.

3) How long have you been going to the gym?

The participant has been going consistently for 3 years and on and off for 6 years.

4) Do you prefer to work out alone or with someone? Why?

Rashid has no preference, and expresses there are pros and cons to both. He thinks going to the gym by yourself is more straightforward whereas going with a partner is good because you have a spot and it can be more motivating.

5) Describe the perfect workout buddy? Such as age, gender, fitness level, etc.

The participant is looking for someone at the same strength level or who is stronger. Someone they're friends with is ideal. Someone with the same goals/workout. Age doesn't matter and gender doesn't matter as much (though typically women won't be able to lift as

much weight). For fitness level, the perfect partner would also be at the same level or higher. Fitness level is more important than age

6) How important is a workout location for you?

The interviewee wouldn't want to travel anymore than they do when they go by themselves.

7) Have you ever worked out with a workout buddy? If yes, how was your experience?

The participant said "Yes. It was funner". There was more camaraderie, it was more motivating. The participant described working out with a workout partner as very team building and said it can be sometimes more efficient.

8) Is it important for you to know who you workout with? If yes, how important is it?

The participant has a preference that it's someone they know but not very important.

9) Do you smoke? No

10) Does it matter if your workout buddy smokes?


The interviewee said that it does matter a little bit to them if their workout partner smokes, but only if you can smell it on them, otherwise it's not important.

11) Would you describe yourself as more of a shy person or more of an outgoing person?

The interviewee self-described as shy around new people, but otherwise pretty outgoing.

Heather's Persona - Improved

Heather



Motivations

- Losing some extra weight
- Fit into old clothes
- Making new friends







Frustrations

- Lack of motivation
- Not having enough time in a day
- Keeping a healthy diet

"I want to get fit again and live a healthy lifestyle. I hope by finding the right workout buddy I will have more motivation to workout"

Bio

Has a busy schedule with work and school. Tries to make time to go to the gym but lacks motivation all the time. During the beginning of each semester of school, she goes to the gym four times a week but stops going after a few weeks. She used to be a competitive dancer but work and school have forced her to stop dancing as much as she would like. Due to her busy schedule, Heather lacks motivation to go to the gym and eats out most days. She has gained a lot of weight and has lost her confidence.

Personality

Introvert ☐ Extrovert ☒

Heather's hobbies are dancing, going to Zumba classes and watching Netflix. Although she enjoys going to Zumba and dancing, she often finds herself watching Netflix during her free time instead of being active because she lacks motivation and is tired.

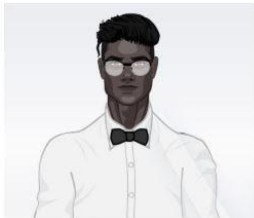
Heather's Scenario - Improved

Through her girlfriends, Heather has recently heard of an application called Fitopia that could help her find a workout buddy. After looking into it, she believes that it will be a greater motivator for her to start committing to going to the gym and getting fit again. While in class, Heather downloaded Fitopia and started creating her profile. She filled out her demographic information, with what she thought to be a very sleek interface, and then Fitopia inquired a few more questions with what she was looking for. The upcoming closed-ended questions were about her fitness goals and the type of workout buddy she would prefer. She was looking for a female workout buddy that goes to the same Goodlife as her. She hopes that the workout buddy has similar goals as her so that she can vent about her struggles but also work towards her goals with her. To Heather, it felt like the account/profile creation process was the simplest she has ever gone through. A few hours after she created her profile, she receives a notification from Fitopia which provided a series of

workout buddies that met Heather's needs. After browsing through the profiles listed, she decided to message a girl that is also 21 and a student. It was a very clean messaging system and it showed Heather when the other person was typing, and when they have read your message. A bit nerve-racking, but also exciting. After she sends her message, the other girl responds quickly because she was also alone, and they plan for a workout session tomorrow. They are both click their home button and exit the app, looking forward to tomorrow's workout.

Charlie's Persona - Improved

Charlie



"I want to meet people that love working out and eating healthy like myself"

Age: 35
Occupation: Physiotherapist
Location: Ottawa, ON
Hobbies: Working out, Basketball, Cooking

Personality

Introvert ☐ Extrovert ☒

Motivations

- Bulking
- Looking good for my social media pages
- Making new friends
- Eating Health





Frustrations

- Losing weight and muscles
- Not knowing enough people with similar fitness goals
- Keeping a healthy diet without temptations
- Finding a partner that loves working out as well

Bio

Has a busy schedule and often works different hours each week. He loves working out. Charlie is interested in the mechanics of the body and hopes to become a personal trainer as a side job for fun. Although he tries his best to go to the gym five times a week, he sometimes feels like he doesn't have enough energy or motivation to go.

Charlie wants to enhance his eating habits and hopes to cut out drinking. He wants to become satisfied with his body image and his health and motivate others to a healthy lifestyle. He hopes to one day meet a girl that also enjoys working out so that they could share their fitness goals.


Charlie's Scenario - Improved

As Charlie has a busy work schedule and his work hours are all over the place, he has a very difficult time trying to coordinate schedules to go to the gym with his friends. With that being said, Charlie much rather workout with someone else because he enjoys being around other people. His trainer told him that he should download an application called Fitopia because it could help him find someone with similar work hours and goals. After downloading the application, Charlie fills out his info, availability, preferred workout location, and expectations in his workout buddy. After

filling out the information, he ends up waiting a day until he receives his first workout buddy match. He is a bit disappointed it took so long to get his recommendations but is happy that he got recommended, multiple workout buddies. After carefully examining his options and the profiles of the potential workout buddies, he chose a female workout buddy as she also has an unpredictable work schedule. The new workout buddy is just getting back to the gym and needs some motivation to workout. She is hoping to learn from her work out buddy and become fit. Charlie and the female workout buddy schedule their first session and plan to meet beforehand at a coffee shop to discuss their goals further in person.

Jason's Persona - Improved

Jason



"If you don't find the time, if you don't do the work, you don't get the results."

Age: 28
Occupation: Fitness Manager/BSc Kinesiology
Location: Ottawa, ON
Hobbies: Working out, CSCS

Personality

Introvert Extrovert

Motivations

- Staying fit and healthy
- Learning new things
- Change

Frustrations

- People not being self sufficient
- Waking up early
- Social media apps (FB, IG, ...)

Bio

Has a very erratic life schedule. Manages multiple gyms in the city, so every day is very different. Performs Personal Training for a select few clients during the week, strictly by choice because he enjoys helping others achieve their goals. Always tries to stay consistent with meals, eating every 2-3 hours to maintain and build muscle. Despite the variance in schedule, finishes every day before traffic starts.

Totally dislikes social media apps like Facebook, Instagram, Snapchat and LinkedIn, but does enjoy using dating apps like Tinder and Bumble because he gets to meet new people. On the other hand, Jason has no interest in getting married and having children. Likes to get together with his friends every now and then to catch up over coffee, food or some interesting activity. Jason works out with a few friends every now and then.

Travels to explore other parts of the world, but mostly because whomever he is seeing, wants to. Instead he likes to have a steady and consistent life style in the city he is living in. Likes to stick to a routine that is every changing. Very interested in money and investing in various ways. Competes in bodybuilding shows from time to time, but is slowing down due to his age.

Jason's Scenario - Improved

One evening, Jason is surfing the web for the latest fitness trends and stumbles upon a new popular app called Fitopia. Thrilled to hear something new has come out for connecting people to go work out together, he goes to install the app on his iPhone. After Jason installs Fitopia, the system surprisingly doesn't ask him to make an account but syncs the account to his phone. He starts creating his profile right away, typing in his basic personal information (Name, Age, Postal Code, Sex, Height, Weight) along with which fitness center he has a membership to and when he is available. A quick description of himself needs to be entered along with one photo. As soon as he completes his profile, Fitopia already has unfiltered matches for him. They are initially sorted by location (i.e. whoever is closest) and the only possible workout buddies that are shown are those that have the same gym membership as you do. He is indifferent if the workout buddy is a male or female. He clicks on the third profile because it is someone around his area and seems to have more experience in the gym. He skims through their profile and notices their availability is just what he is looking for, so he sends a request to that user to go workout at the nearby gym the next evening. The user on the other end gets a notification-style pop-up and quickly accepts the invitation. Not much communication and discussion were necessary, as they are only there to schedule a workout.

Affinity Diagram:

Challenges	Motivations	Filtering	Mandatory Features	Optional Features
Individuals stuck in a routine and hard to break bad habits.	Working out with someone who is on the same journey as you are.	Workout goals. Different types and ambition levels exist within goals.	Algorithm to match users correctly.	Explore alternatives other than going to the gym. For example, Ian stated, “I don’t like going to the gym.”
Not being tech savvy.	An application that is effective and helpful.	Workout availability & frequency.	Simple, sleek and functional UI for users, with great choice of colour.	Enabling users to personalize the app design.
People who are not outgoing or have a hard time meeting new people. Sometimes people would state “I am shy around people they don’t know”.	To finally find a great workout buddy.	Individuals’ level of experience working out.	No login (traditional username/password). Biometric scanning enables account creation, access and deletion.	Detecting fake profiles.
Life’s obstacles exist with scheduling time with another person.	Finding a good personality match.	Workout buddy demographic information (age, sex, etc....).	Having users create a profile that has enough information for matching workout buddy but is not overwhelming.	Premium account/service for additional features.
Getting people involved who are not interested in working out.	Working out somewhere that is convenient.	Location preferences for workout buddy.	Quick search for workout buddies that are nearby.	
Joining a mutual friend or stranger for a workout can be intimidating and scary. Some might feel unsafe.	Meeting new people for some individuals.		Single page scrolling view of user profile.	
			Calendar system for booking workouts.	
		Implement safety features because this is likely to bring strangers together.		

Key Requirements

Challenges:

- Not going to the gym and repeating the same workouts over and over again could be alleviated from getting a workout buddy. For some, it is easy to get bored or fall off the wagon if you are alone.
- Not all individuals are tech-savvy. Making the app simple is key so that everyone can use it.
- There are some interpersonal barriers with the use of Fitopia because not everyone is outgoing and is willing to partner up with a random stranger.
- Some people are very busy and need that extra push from someone else to “make the time”.
- Some people just don’t want to work out at all. Simply motivating them to stay fit and healthy, is a challenge in itself, let alone using Fitopia.
- The notion of safety always comes up when two strangers are meeting up. Establishing a protocol to maintain safety when individuals are meeting up will be important.

Motivation:

- Finding someone who has the same workout goals as you, are usually more motivating.
- Developing an application that is easy to use and does not provide too much visual stimulus to the user will make people “jig” using Fitopia more.
- Finding the right workout buddy! The most important part of all. Finding the right person to go work out with is another great motivational boost.
- Finding a great personality match goes in-tandem with finding the right workout buddy. Users of Fitopia need to find someone they get along with.
- Determining a convenient location for both individuals going to the gym. The shorter the commute, the more likely they are to go work out together.
- In contrast to one of the challenges mentioned earlier, meeting new people is something that motivates others. Some people simply enjoy the thrill of meeting someone new.

Filtering:

- Giving users the option to set close-ended goals or keywords so that users can be matched up properly. Possibly even defining one's level of enthusiasm for such a goal.
- Having the user denote their workout availability for x period.
- Having the user state their level of experience in the gym, from no experience to very experienced.
- Having the user provide all necessary/optional demographic information (race, sex, age, etc....).
- Having the user provide their workout location preference(s).

Mandatory Features:

- Developing a back-end algorithm that will determine the best workout buddy matches.
- The UI of Fitopia needs to be very simple, attractive, fun and sleek. Users don't want to be having a hard time figuring out what to do.
- A challenging requirement, but getting the user to enjoy the app experience without having them to generate another set of login/password combination.
- Having the right amount of profile information requirements for the user, but not so that it is overwhelming, and that they don't want to fill it out.
- Implementing a quick search that finds the nearest workout buddies based on your profile.
- Users don't want to keep clicking the back button over and over to flip through profiles. Having a single scroll view to search through profiles will simplify their quest to find a workout buddy.
- When it comes time for the user to book their workout, a calendar system can be introduced, where users can see the other individual's availability.

Optional Features:

- Fitopia is about bringing people to go to the gym together, but in the future, it would be great to bring people together who want to go for a run, play a summer/winter sport, and stay healthy.
- Providing optional skin colours for the app, and unique emojis for users to have fun using the app.

- Every social media application has fake profiles/bots. Implementing a captcha system or other security measures to prevent fake profiles. Users need to have an organic experience.
- Giving users the ability to upgrade their account to a premium service that will give them more features, and better ways to find their ideal workout buddy.
- Mentioned in another key requirement above, having a safety button/feature in the app in the event of an emergency. Mobile phones already have these in place, but it wouldn't hurt for the app to have this as well.
- Giving users the option to post videos, rather than just photos, of themselves.

2 – Initial Design Alternatives

Design #1: The Perfect Match – Demographic & Interest Design

The purpose and goal of this design is to tackle some of the challenges that were mentioned in interviews at the same time as providing an easy to navigate environment. This design focuses on the user's schedule, demographic information, personality, workout habits as well as some of their interests and goals

Some challenges interviewees discussed were not having enough motivation to go to the gym alone and having barriers such as work and/or school schedule getting in the way. This design provides users with the ability to map out their daily, weekly or monthly schedule in order to match them up with the most suitable workout buddy. In addition to helping them find a workout buddy with a similar life schedule, the application allows users to provide more details regarding their demographic, personality, workout interests, and goals. By allowing for a detailed profile creation where users can provide more information about themselves, this design allows for better filtering and matching of workout buddies.

This design is intended for users to provide as much information as possible by navigating through detailed screens. Although a lot of information is required from the user, the screens are setup with easy to use navigation and terminology to avoid any user frustrations.

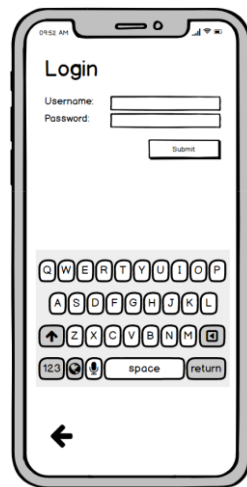
Startup Screen



Create Account



Login Screen (existing user)



Profile Creation



Personality Profile

09:52 AM

Personality

Do you like meeting new people? ☐ No ☐ Yes

Are you talkative? ☐ No ☐ Yes

Are you self-motivated? ☐ No ☐ Yes

Do you prefer activities in:

- ☐ A group setting
- ☐ Alone
- ☐ Other:

← Save →

Workout Profile

09:52 AM

Workout Profile

How often do you workout? (on average)

- ☐ 1-2 days/week
- ☐ 3-4 days/week
- ☐ 5-7 days/week
- ☐ I don't workout yet

How long are your workout sessions?

- ☐ less than an hour
- ☐ 1 - 2 hours
- ☐ 2 - 3 hours
- ☐ 3+ hours
- ☐ I don't workout yet

What is your primary workout?

- ☐ Weight lifting
- ☐ Cardio
- ☐ Group Classes
- ☐ Other:

What is your secondary workout?

- ☐ Weight lifting
- ☐ Cardio
- ☐ Group Classes
- ☐ Other:

← Save →

09:52 AM

Workout Profile Continued

Proficiency of primary workout:

low high

Proficiency of secondary workout:

low high

Where do you prefer to workout?

- ☐ Outdoors
- ☐ GYM
- ☐ Home
- ☐ Work
- ☐ Other:

When do you prefer to workout?

- ☐ Mornings
- ☐ Afternoons
- ☐ Evenings
- ☐ Does not matter

Why do you workout/want to workout?

- ☐ Health
- ☐ Lost weight
- ☐ Gain Weight
- ☐ For fun
- ☐ Other:

← Save →

Schedule & Calendar Sync

09:52 AM

Schedule

FEBRUARY 2020

S	M	T	W	T	F	S
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Work GYM Event

Sync Google Calendar

←

09:52 AM

Sync Google Calendar

Email:

Password:

Submit

Q W E R T Y U I O P

A S D F G H J K L

↑ ↓ ← → space return

←

Search Tool

09:52 AM

Search

Your ideal workout buddy is ...

Age Group:

Gender: ☐ Male ☐ Female ☐ Does not matter

Smoke? ☐ No ☐ Yes ☐ Does not matter

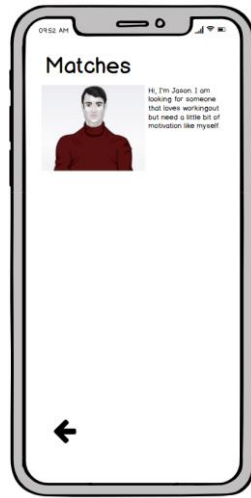
Hobbies:

Goals:

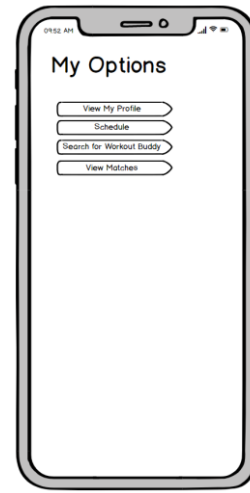
Search

←

Workout Match



Main menu:



Storyboard for Design 1

Scenario: Finding a workout buddy by creating a new profile on Fitopia

The Challenge - Introducing Fitopia



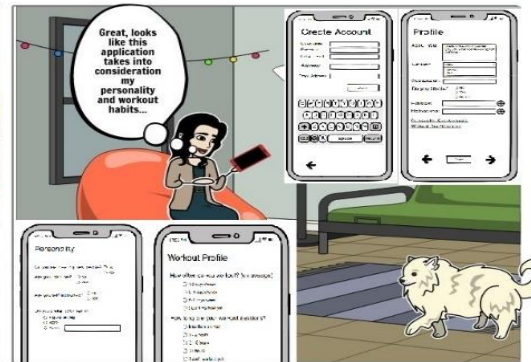
Ashley has had a workout buddy to motivate her to go to the gym for a long time. Unfortunately due to her schedule as well as her friend (Julia) not being able to commit anymore, she has lost her motivation. She has asked her friend for advice where she could find a new workout buddy so she could continue workingout and living a healthier lifestyle. Her friend introduces Fitopia.

The Solution - Getting Started with Fitopia



Ashley asks her friend where she could get started. Julia states that she needs to first download the application and simply create a profile to begin. Ashley decides that she wants to get started with Fitopia as soon as she gets home because she really wants to start workingout again.

Creating a Profile



Ashley finds the Fitopia application easily on the APP Store. Downloads the application and starts creating her account.

Schedule Creation



After creating her profile, Ashley decides on her availability by syncing her google calendar to the application. She decides that she is mostly available for workouts in the evenings and on Saturday mornings.

Searching Tool



Ashley can now use the search tool to find the perfect workout buddy. She selects what she looks for in a workout buddy. As she just created her profile, it will take a bit of time for her to be matched up.

The Perfect Match!



The next morning, as Ashley wakes up to get ready for work, she receives a notification that she has a new workout buddy match! They schedule to meet for a workout at 6 PM.

Design #2: The Simple Approach

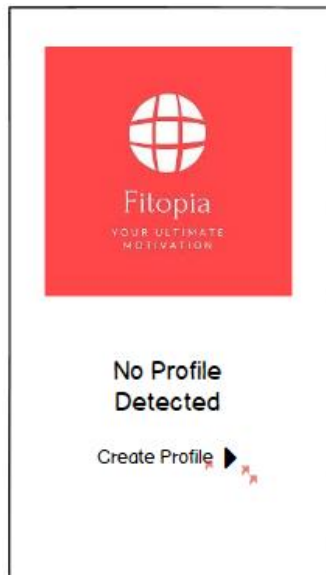
Many users face the challenge of not being tech-savvy. To address this challenge, our goal was simplicity and having a minimalistic design for this prototype. The rationale behind this design goal is various groups of people shy away from using technology because they lack confidence that they have enough knowledge to use techy properly. We want to accommodate every user that falls under some point of the spectrum from tech-savvy to not tech-savvy. We want every user to have a quick, easy and convenient experience with our Fitopia app. By having a design that is simple and minimalistic we can have an app that can be used by non tech savvy people as well.

The key features of this design are profile creation, monthly view of workouts, creating workouts and weekly view of workouts. We don't want the initial process to be time-consuming, we want something quick and easy to follow. For this design, our app uses biometric scanning that enables account creation, access, and deletion. By using biometric scanning, we avoid the hassle of our users going through the traditional login and creating an accounting process. Avoiding these 2 processes our users will have an easier transition to getting set up with the app.

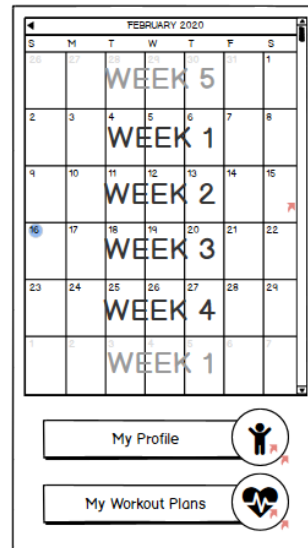
This design fulfils the requirement of a simple, fun sleek application. We achieve this simplicity by not providing all the information at once, so we reduce the cognitive load that a user must process. If we were going to present the user with a large form to fill out, it might overwhelm and/or frustrate the user into abandoning the application. We also portray simplicity by using the visibility design principle. By using the visibility design principle, we can help the user understand what possible set of actions they can take within the first few seconds of browsing the page.

Using the minimalistic approach, this design also fulfills the requirement of creating a non-overwhelming experience of creating a profile. This design only prompts users of the necessary information needed to be matched up with a workout buddy. By using the constraint design principle, we avoid overloading the user with unnecessary information and making it more clear of what course of action they should take.

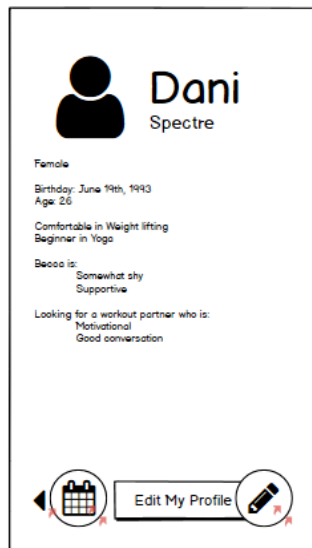
Startup Screen: when no profile is detected



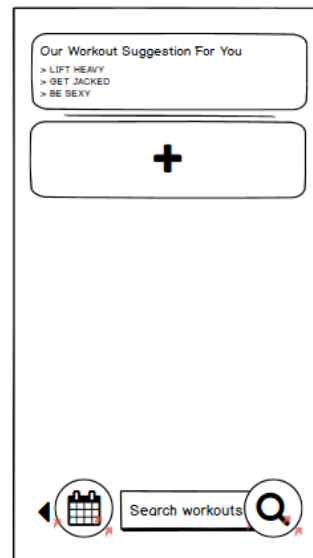
Monthly Calendar View: the start up screen when there is a profile already loaded



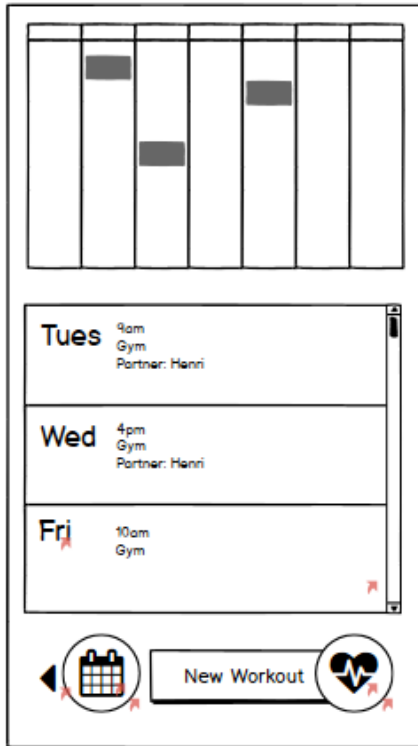
Profile Screen



My Workout Plans



Weekly Workout

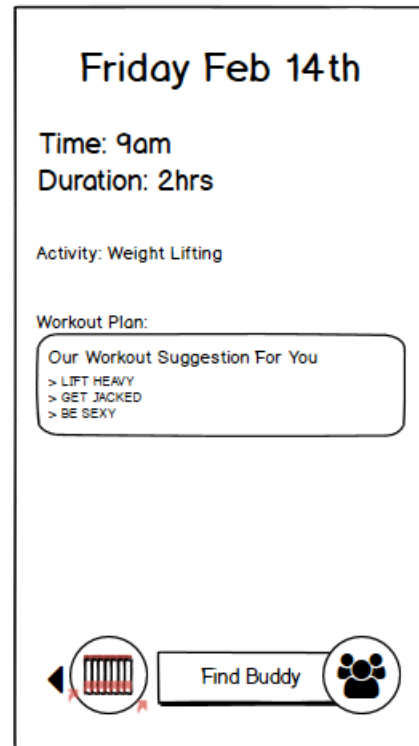


A weekly workout overview and details screen. At the top is a calendar grid showing workouts for Tuesday, Wednesday, and Friday. Below this is a scrollable list of workout details for each day.

Day	Time	Location	Partner
Tues	9am	Gym	Partner: Henri
Wed	4pm	Gym	Partner: Henri
Fri	10am	Gym	

At the bottom, there is a navigation bar with three icons: a calendar, a heart rate monitor, and a group of people. The text "New Workout" is centered between the heart rate and group icons.

Workout Overview



A workout overview screen for Friday, Feb 14th. It displays workout details and a plan.

Friday Feb 14th

Time: 9am
Duration: 2hrs

Activity: Weight Lifting

Workout Plan:

Our Workout Suggestion For You

- > LIFT HEAVY
- > GET JACKED
- > BE SEXY

At the bottom, there is a navigation bar with three icons: a calendar, a heart rate monitor, and a group of people. The text "Find Buddy" is centered between the heart rate and group icons.

Profile Creation Screen 1



A profile creation screen with the Fitopia logo at the top. It contains three form fields for name, birthday, and gender.

What's your name?

When is your birthday?

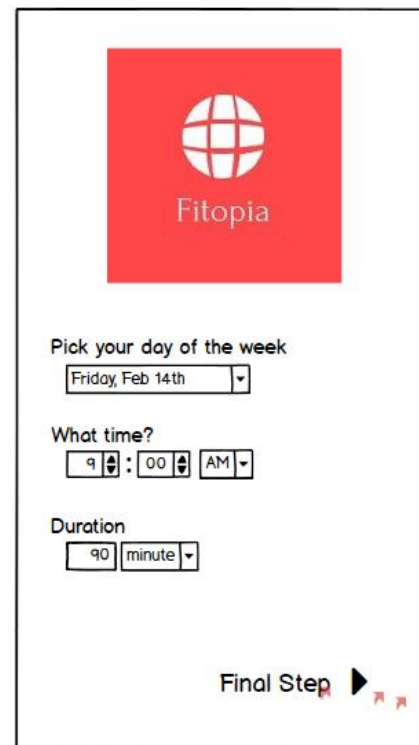
/ /

What's your gender?

☐ Male
☐ Female
☐ Enter gender

At the bottom right, there is a "Next Step" button with a right arrow icon.

Profile Creation Screen 2



A profile creation screen with the Fitopia logo at the top. It contains three form fields for day of the week, time, and duration.

Pick your day of the week

What time?

:

Duration

At the bottom right, there is a "Final Step" button with a right arrow icon.

Storyboard for Design 2

Scenario: Finding a workout buddy by creating a new profile on Fitopia

Ashley's Struggle



Ashley's friend Marcus has been dragging her to the gym for years. She's never worked out without him. Unfortunately Marcus just had a kid and won't be able to take her anymore. Without someone to drag her out, she doesn't know how she's going to get herself to go regularly.

Sam's Suggestion

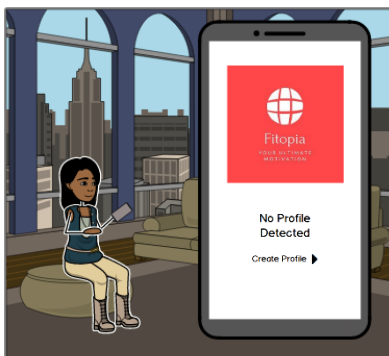


Marcus has a suggestion, when he hasn't been able to get Ashley to come with him to workout, he uses an app called Fitopia to help him find a workout buddy.

Sam's Fitopia



Marcus shows Ashley the app, and how he just puts in his workout schedule and finds a buddy for workouts when he's not going with Ashley.



Ashley decides to download Fitopia once she gets home. The first screen says no profile detected and shows a create profile button, which she clicks. She then gets led through the profile creation questionnaire.




Fitopia

What's your name?

When is your birthday?
 / /

What's your gender?
☐ Male
☐ Female
☐ Enter gender

Next Step ▶




Fitopia

What is your #1 go-to workout activity?
☐ Weight Lifting ☐ Calisthenics
☐ Cardio ☐ Sports
☐ Yoga

How long do you usually workout for?
 <30 minutes 10 minutes 4+ hours

How knowledgeable would you say you are?
 I don't know Comfortable Experienced

Next Step ▶



Fitopia

What is your #2 go-to workout activity?
☐ Weight Lifting ☐ Calisthenics
☐ Cardio ☐ Sports
☐ Yoga

How long do you usually workout for?
 <30 minutes 10 minutes 4+ hours

How knowledgeable would you say you are?
 I don't know Comfortable Experienced

Final Step ▶



Fitopia

Describe yourself around new people:
 Shy Somewhat shy Outgoing

Select any attributes that apply to you as workout partner:
☐ Motivational ☐ Supportive
☐ Knowledgeable ☐ Good conversation

Select any 2 attributes that you look for in a workout partner:
☐ Motivational ☐ Supportive
☐ Knowledgeable ☐ Good conversation
☐ Outgoing ☐ Shy


Complete ▶



Once she finishes, she selects this week.



She has no workouts this week yet, so she goes to schedule a new workout by clicking New Workout, which leads her through the workout creation questionnaire.




Fitopia

Pick your day of the week
 Friday, Feb 14th

What time?
 12:00 AM

Duration
 30 minute

Final Step ▶



Fitopia

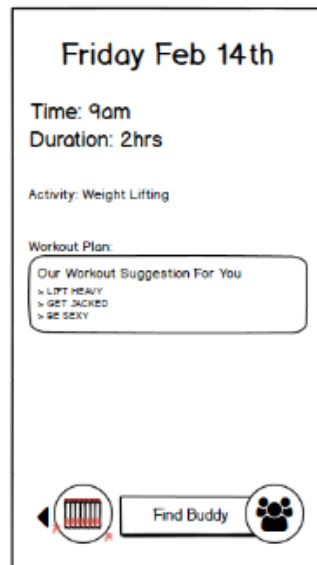
Pick your activity
 Weight Lifting

Pick your workout plan:
 Our Workout Suggestion For You

Schedule Workout ▶



After her workout is created, she clicks her workout and selects Find Buddy.



Later during the evening, when she goes to check her week's workout schedule, she finds she has been paired with a workout buddy: Henri!

3 – Prototype Evaluation and Iterations

A. Selected Prototype

As a team we decided to proceed with our second prototype. In terms of usability goals, our second prototype was superior compared to our first prototype. For our first prototype, named *The Perfect Match*, most, if not all usability goals were traded for effectiveness and efficiency. Meaning that users had to be more focused and attentive whenever using this prototype. Implementations cause mistakes and misunderstandings which may result in problems that yours will have to deal with later.

One such implementation was that of profile creation. When the user is creating a profile, they are prompted to input their username, password, date of birth, address and email. Since the email and password are requested, one would believe that to access the account, the email and password combination is what would be required. However, when accessing one's account, it is instead the username and password combination which are required. Since users must create unique usernames, they aren't going to use memorable or catchy names. Users would most likely, add numbers or prefixes which would mutate their original username into something unique. However, this has the problem of making usernames difficult to remember. Thus, would make it difficult to log in.

Another troublesome implementation during the profile creation is where users get to create their workout profile. At this stage in the profile creation, users are asked what type of workouts they are interested in, along with when they workout, the duration of their workout, and the location and proficiency of the workout. Not to mention, this line of questioning is multiplied by the number of workouts a user participates in. For instance, if a user does push-ups and sit-ups, they then need to state when the push-ups are done, when the sit-ups are done, where the push-ups are done, where the sit-ups are done, and on and on. Although this line of questioning is efficient and effective, it lacks in learnability and memorability.

Within the second prototype these features are implemented more seamlessly as to alleviate user attention to details. First off, users don't have to worry about signing in if they have done it before. This prototype works like a modern mobile application where if you've signed onto the device before, it will automatically sign you in. One may sign-out whenever they want, but this helps with the forgettable username. If the device is not linked to an account, the user could log-on normally by using their email address and password.

When creating workouts, users are presented with a full screen where they may adjust and input information to do with the specific workout. The date is printed up and center as to draw in attention. Below are the time and duration of the workout. The name of the activity follows and right below that is the full workout plan. The workout plan is a list of the workouts currently within the system. Each element of the list is summarized into cards which the user may interact with. Meaning the user could delete and edit which ever workout they pleases with ease.

One feature which is only in this prototype is the workout suggestions. Based on the user's workout goals which they state during the profile creation, workout routine are suggested to the user. If the user selects the workout, it's added to the workout plan. This feature is targeted at users who are beginners and they don't know which workout would help achieve their goals. The feature also works for busy expert users who want to try something new.

B. Wizard-of-Oz Usability Technique

Iteration #1:

This section of the report will describe the results of testing the selected design using a Wizard-of-Oz usability technique. Each description will start with the page name and will explain the participant's behavior, thoughts, and satisfaction with the page.

Participants were generally not satisfied with the start-up page. Participants did not fully understand the nature of the situation and/or what course of action they should take. Participants needed a description of the situation that the page was meant to convey. The participants were puzzled by the message “no profile detected” displayed on the page. Many participants felt that it was an unhelpful error message. Participants were expecting a message that instructed them of what should they do. Lastly, participants didn't perceive the “create profile” visual element as an apparent button.

In the monthly view page, participants were mostly satisfied with a few remarks. Participants were confused about the role of the scroll bar and “WEEK #” messages in the calendar. They expressed that the “WEEK #” messages were unnecessary and negatively affected their ability to read the calendar. Also, participants expressed that the calendar lacked a color contrast between the calendar and the visual element denoting an event on the calendar.

On the My Profile screen, participants were generally satisfied as everything was straight forward to them. Some participants disliked that there was a blank area and suggested that data of their workout commits should fill in that empty area.

In general, participants grasp the intended design goal of the low fidelity prototype. For most parts of the design, participants expressed it had an intuitive and simplistic layout. They liked that the questions were short and easy to answer. Lastly, they liked that there were no ads, so they can solely focus on the task at hand.

Participants also had some general criticism for the prototype. A few participants mentioned that the design was too simple, plain and cause them to lose interest and engagement in the app.

Also, participants commented about the word choice for some questions and instructions. For instance, in the creating a profile page we prompt participants on a spectrum are they shy or outgoing. Participants suggested that they may be hesitant to label themselves as shy because it portrays a weakness or one that has a negative connotation. They suggested that we use more inclusive, inviting word choices for our questions/instructions.

Another criticism that participants shared was some design inconsistencies. Some pages didn't have a back button where it should be expected. Lastly, participants expressed that the design was missing a dedicated page for workout buddies.

Changes we made to improve the design:

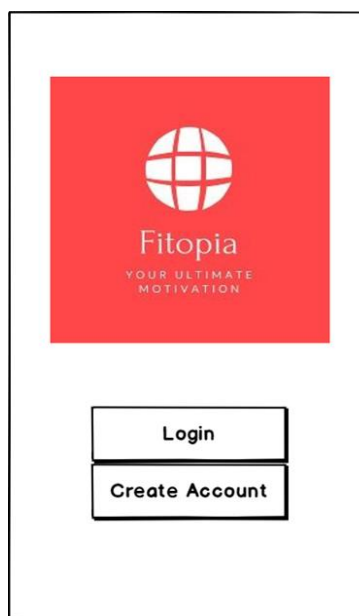


Figure 1: new start-up page

Feedback about the start-up page, had us decide that we were going to change it completely. Although the biometric sign-in interface had good intentions to enhance the user experience, when tested with users it was a design failure. It was a design failure because many participants were

not familiar with the biometric suggested look. We've decided that it would be best to present users with something that they've already seen before. The start-up page has been changed to a view that you would expect to see in a traditional mobile app. The start-up page is now comprised of two buttons to either login or create an account.

The image shows a wireframe of a mobile application interface divided into two vertical panels. The left panel is titled "Create Account" and contains four input fields labeled "Username:", "Password:", "Address:", and "Email Address:". Below these fields is a "Submit" button. At the bottom of the left panel is a full QWERTY keyboard layout. The right panel features a red square logo with a white globe icon and the text "Fitopia" below it. Underneath the logo are two input fields labeled "Email" and "Password", followed by a "Login" button. A back arrow is visible at the bottom left of the left panel.

Figure 2: Create an Account page, login page

As of consequence of the new start-up page, we've created an additional 2 pages. Each page supports one of the options presented on the start-up page. The create an account page is viewed when the user selects to create an account. He/she is prompted with a form with all the necessary information to fulfill their request. The login page prompts the user for their email and password. Both new pages are typically already seen in modern web applications this day and age. This enforces a consistency design principle by using existing web applications design patterns.

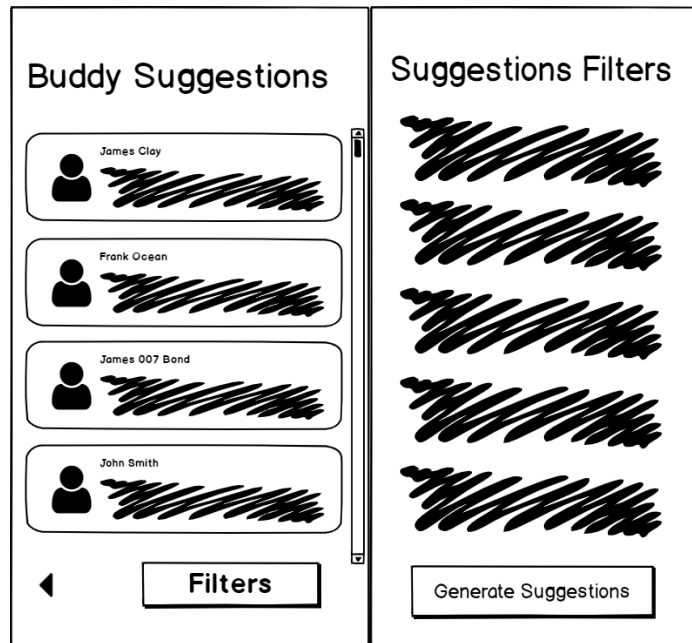


Figure 3: Buddy suggestion, Suggestion Filters

We've now created a new page for our buddy suggestion feature. This new page contains a list of potential gym buddy matches that can pair up with our user for a workout. Each item of the list consists of the potential buddy name and information that are relevant in choosing a gym buddy.

There's also an additional page that demonstrates a filter option used to search for buddies that fit a specified criterion. Users can now personalize their search for a workout buddy based on their preferences.

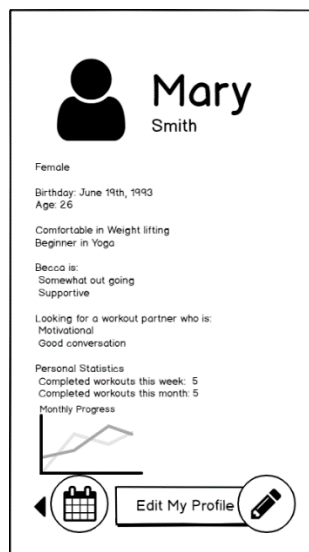


Figure 4: new profile page

The profile page now includes personal statistics of the user. It displays a weekly and monthly review of how many workouts the user has completed. This page also includes a graph that shows users their progress over time.

The image shows two side-by-side screenshots of the updated profile creation pages for Fitopia. Both pages feature the Fitopia logo at the top, which consists of a red square with a white globe icon and the word 'Fitopia' below it.

The left page is titled 'What's your name?' and has a text input field. Below it is 'When is your birthday?' with a date picker and a calendar icon. The third section is 'What's your gender?' with radio button options for 'Male', 'Female', 'Other', and 'Prefer Not to Disclose'. At the bottom, there is a 'Next Step' button with left and right arrow icons.

The right page is titled 'Describe yourself around new people:' and features a slider between 'Soft-spoken' and 'Outgoing', with a marker positioned at 'Somewhat Soft-spoken'. Below this is a section 'Select any attributes that apply to you as workout partner!' with radio button options for 'Motivational', 'Supportive', 'Knowledgeable', and 'Good conversation'. The final section is 'Select any 2 attributes that you look for in a workout partner:' with radio button options for 'Motivational', 'Supportive', 'Knowledgeable', 'Good conversation', 'Outgoing', and 'Soft-spoken'. At the bottom, there is a 'Complete' button with left and right arrow icons.

Figure 5: Updated profile creation pages

The profile creation 1 page has been changed to accommodate gender diversity. It now includes more inclusive options for asking users for their gender identity. The profile creation 1 page also includes a “prefer not to disclose” option, to give users the option to not reveal their gender.

The profile creation 4 page has been slightly changed to accommodate users who dislike referring themselves as shy. Instead of using shy, we use the term soft-spoken to ask the users to describe themselves in a new social context.

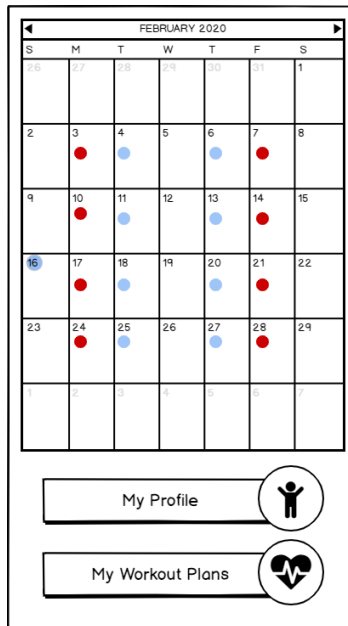


Figure 6: Monthly view

Lastly, the monthly view page has been changed to give the user more meaningful information on the calendar. The calendar now includes colored circles to denote unique workouts. Workouts are automatically assigned colors when users are finished creating their workouts.

Iteration #2:

For this iteration of testing, participants were mostly satisfied with the prototype. However, this did not mean they gave no suggestions for improvements. For the most part, suggestions were simple or basic changes which refined the prototype. In this iteration the login page was heavily criticized. Another difficult page for participants was the monthly viewer. The profile page also causes confusion, especially the statistics of the users. The profile creation slides were very well received as well as the buddy suggestion slide. The filtering link button on the buddy suggestion was criticized for not being more detailed.

The login is comprised of two slides. The first slide has the options of logging in or creating a new account. If the user picks the option to login, they are taken to a page where they enter their emails and password. Participants complained that the first slide should be gotten rid of, and to just give the second slide the option to create an account. The participants argued that leaving the slide as they are makes them feel like they are seeing redundant information which should be on one slide.

The monthly view page made it difficult for users to understand what is going on. In all three cases they needed the page explained by the wizard. When asked for input, participants argued that the colors on dates seem arbitrary. They didn't understand what the colors meant or why they were positioned that way. One participant thought they represented different workout buddies. While another guessed correctly that they are workout schedules. When asked for what could make it more clear, one participant stated some sort of guide for beginners would help users understand it better. While another participant said having a legend depicting what each color stands for would help. Also, they would like to edit the colors of each workout.

The user profile page was received mostly well. Participants were happy with the statistics of how users are doing on the platform. Participants said if they could see the statistics of other users it would make it easier to find workout buddies. When asked for anything they would like different or something they didn't like as much, participants complained that they would like to see more statistical information. Things such as graphs, progress bars, pie charts, and the like were suggested.

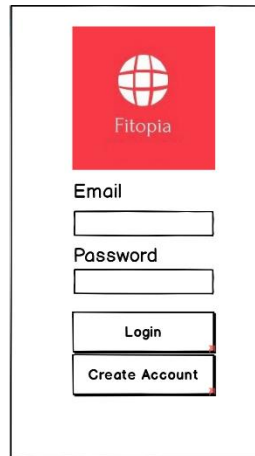
When creating a profile, participants were happy with the options. The participants argued that the possibilities were varied enough to cover most users' choices. However, one participant argued to include the option 'other' just in case there are alternative answers we didn't expect.

When it comes to finding workout buddies to add to certain workouts, participants were happy with the design. They liked seeing the list of potential buddies along with a summary of their profile. However, they didn't understand what the button labelled filters meant at the bottom. They asked what the button does and upon explanation, they thought it could be labeled better.

One general problem which all the participants moan about is the structure of the prototype. It was hard for them to understand how one slide lead into another. A participant pointed out an example where once they choose the option to create an account, they do not get what they expected. They would enter the account details first and then be asked for username, password, address and, their email. Participants thought that this structure should be the other way around. They expected to fill out their password and other important information before inputting profile preferences.

Changes we made to improve the design:

The login page has been altered and made into just one slide. On this slide the users now have the choice to login with their email and password information, or just create a new account. This is so that users don't have two pages just for logging in. Now, if the users want to create a new account or login, it's contained on the same page. This is demonstrated in figure 1.



Fitopia

Email

Password

Login

Create Account

Figure 1: New login page where users have both the option to create an account and login.

The structure of the whole prototype has been completely redone based on the recommendations of the participants. Once the user picks the option to create an account, they are faced with a page where they must first enter a new username, password, address, and email address. In this way, the important information is given first before continuing to the actual profile creation.

During the profile creation, slight changes have been made to the personality options. For each, an 'other' element has been added just in case the user's choice isn't listed. After finishing profile creation, users are now shown the calendar instead of their profile. In this way users use the calendar page to navigate anywhere else within the application.

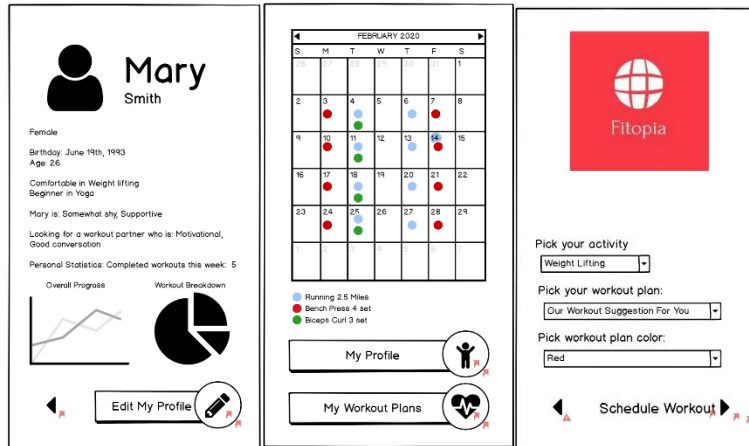


Figure 2: The profile page to the left, calendar page center and, the workout creation page left. These are some of the new pages in the second iteration

The calendar page has now been modified with a legend which demonstrates what the colors mean. The colors could be edited during the workout creation under the option “Pick workout plan color”. From the calendar, users could pick the “My Profile” option to navigate to the profile page. Here, the user’s information has been moved upwards more to make room for the statistical figures. On the right is the graph of the user’s overall progress and on the left is the pie chart of the workout breakdown. This statistical information has been added thanks to participant recommendation.

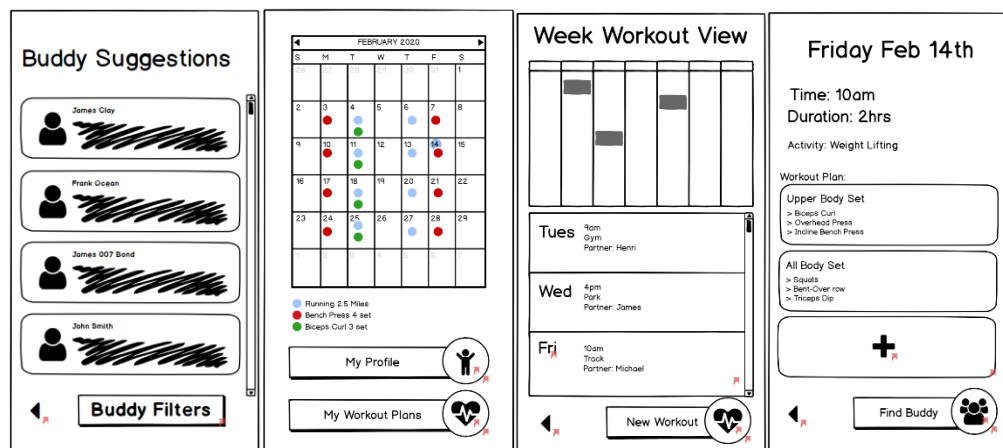


Figure 3: From left to right is the buddy suggestion page, the calendar page, the weekly workout view page, and the daily workout view page. These pages are part of iteration two.

From the calendar page, users could also navigate to the weekly workout view page, by selecting the “My Workout Planes” option. There, users may see the workout for the current week. In the list of days on this page, selecting a day would lead to that daily workout page. Here, the users could add a buddy for the current workout by selecting the option “Find Buddy”. This would lead

them to the buddy suggestions page where users pick buddies for the specific day. The overall navigation has been simplified based on the feedbacks we received from the participants.

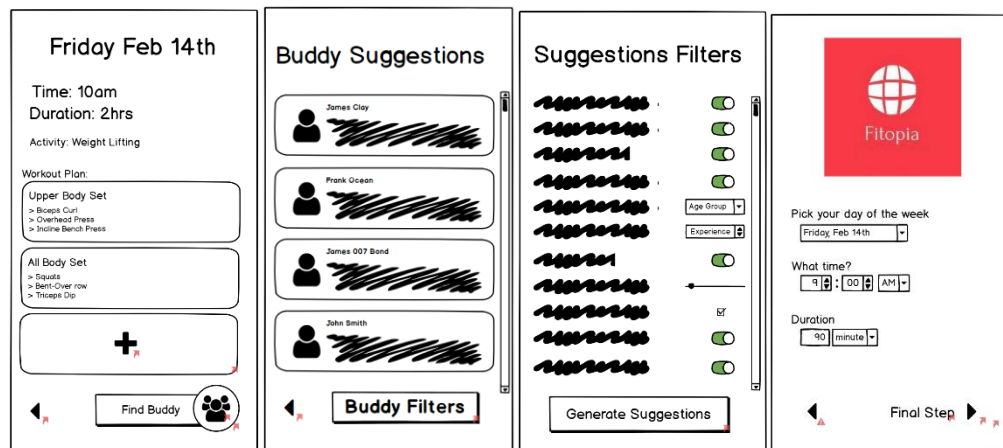


Figure 4: from left to right is the daily workout page, buddy suggestion page, suggestions filter page, and the workout creation page.

While on the daily suggestion page, we edited the workout-plan card list, such that selecting any one of it's elements leads the user to the workout creation page. There the workout which was selected could be edited. The last element within the card list allows the user the ability to add more workout plans, which are created through the workout creation page. Within the buddy suggestion page, we edited the filter button to state “buddy filter”. This makes it more obvious as to where selecting this option leads, the buddy suggestion filter page. We changed the design here to better emphasize that users can change the attributes by which buddies are suggested. On this page, selecting the “Generate Suggestion” option applies these new attributes and changes the buddies suggested to users on the buddies suggestion page.

4 – Usability Inspection Evaluation

Heuristic Evaluation: Mohab Abdelkader			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	There is no form of user feedback.	There are no pop ups or notifications giving the user information. It is just put forth as an assumption that it is completed successfully.	2
Match between system and the real world	No problems.	All language used are very simple and workout related terms are minimized from the system side or user entered so they will understand it.	0

User control and freedom	The user has good control but the freedom could be improved.	There are only specific ways to go between certain screens so while the user does have control their freedom of movement / having to move through minimal screens to get to an action is not optimized.	2
Consistency and standards	No problems.	The design and locations of buttons / actions are consistent throughout.	0
Error prevention	No problems.	The minimalistic design gives users few options to choose from so the errors are naturally minimized.	0
Recognition rather than recall	Picking a workout plan based on name.	If the user does not have good names for their workout plans, they may not remember what the workout plan is when they schedule a new workout.	1
Flexibility and efficiency of use	An option to copy past weeks would help with efficiency of use.	The app could become cumbersome for long-term users if they must manually copy previous weeks' workout schedules. The longer they've been using the app, the more cumbersome it would be if they frequently use the same workouts.	2
Aesthetic and minimalist design	No problems.	This was one of the primary design choices we went forward with.	0
Help users recognize, diagnose, and recover from errors	Could be better with more user feedback.	The minimalistic design helps the user to have only a few and very simple options which prevents error, but if they forgot to enter something for example they might not realise what stopped the without us providing more information.	1
Help and documentation	No documentation / help / guides are available.	This is not an issue as the minimalistic design is extremely easy to follow. Perhaps some notifications to prompt users to aspects they haven't used (and therefore might not understand) would be beneficial.	0

Heuristic Evaluation: Paradis Esmaeelzadeh Khadem			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	No feedback	<p>When a user creates an account, there is no feedback after they press submit that their account has been created. The user is directed straight to the profile screen.</p> <p>Likewise, when the user completes their profile, they should be given feedback that their profile has been saved/created. Feedback is necessary to let the user know that they are progressing through the different stages.</p>	2
Match between system and the real world	None	The terminology used should be understood by any English-speaking user. The information and screens follow other real-life applications as the user first enters their login information or creates an account and then other tasks proceed.	0
User control and freedom	Unable to terminate	When creating an account, the user can terminate. However, during profile creation and workout creation, the user does not have a way to terminate. The user has to either go through every step to get to complete or press back many times to get to the initial screen they started at.	2
Consistency and standards	None	The screens and the buttons are consistent throughout the application.	0
Error prevention	No user input guidance	<p>When creating an account or during profile creation, most applications have a specific format of how users should input specific content. For example, with date during the initial profile creation a format should be indicated to the user (i.e. 2020/02/16 or 2020-02-16) to prevent errors.</p> <p>In addition, there should be an * to indicate the mandatory fields that need to be filled out by the user to avoid any incomplete account/profile creations.</p>	1
Recognition rather than recall	No title on screen	The buttons are fully visible and straightforward. A user should not have any issues navigating through this application or having to remember how to do things. Each screen guides the user on how to complete a task. However, it would be	1

		helpful to provide a title for each screen so that they user knows what they are doing. For example, when creating a workout, it would be helpful to let the user know that they are on the “Workout Creation” screen in case they forget what they clicked on.	
Flexibility and efficiency of use	Nothing in place to speed up process	There is no option to duplicate an entry. For example, when creating a workout, a user cannot duplicate their workout and make simple changes to it. The user will have to go through the entire process in order to complete this task.	2
Aesthetic and minimalist design	Unnecessary labels	In the workout creation steps, there is a label “next step” in order for the user to proceed. The arrow should be sufficient enough to know that in order to proceed the user will have to press the right arrow. For consistency, it should be like the left arrow that should take you to the previous screen.	1
Help users recognize, diagnose, and recover from errors	No error messages provided	There are no errors messages presented to the user. When creating an account, if a user clicks submit with missing information, the user should be provided with an error message that indicates the missing information.	3
Help and documentation	No help/ documentation	The application is designed simply to avoid confusion and questions for users. However, in case the user needs any support with this application, right now there is no help button or feature that they can refer to. This could be problematic and frustrating for a user that needs support.	2

Heuristic Evaluation: Darren Pierre			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	App doesn't provide sufficient feedback on critical operations.	The app doesn't provide enough feedback on the result of certain operations made by the user. For example, when creating a new account, users would typically expect a confirmation message that they're account has been successfully made. Without sufficient feedback on operations, the user will question whether or not his/her operation was successful or not.	3
Match between system and the real world	Lack of support for ESL users.	Lack of support for ESL users. So far, the app only supports English speaking users. ESL users may find it difficult to interact with the app because they may not fully understand what questions and instructions that are presented to them. Thus, creating a bad experience for ESL users.	1
User control and freedom	No problem	The app fully grants the user the ability to exit any unwanted state with ease.	0
Consistency and standards	No problem	The app is consistent in its approach and standards.	0
Error prevention	Assigning the same workout with the same colour.	The app doesn't prevent the error of labeling different workouts on the calendar as the same colour. This will impact the user because it will create confusion when the user checks his/her calendar for workouts. Thus, it will make the user frustrated because they lose the ability to be organized in the app.	3
Recognition rather than recall	Have to recall where the find buddy option.	One of the main features of the app is the ability to find and pair up with buddies. To do this operation, the user must recall that this feature is located not at the home page where you would expect but in a nested operation of clicking. This will create frustration with the user as one of the most prominent features in the app, is few clicks away that they have to remember.	3
Flexibility and efficiency of use	Remove certain buddy suggestions	The app doesn't support the operation to remove a suggestion of a buddy. The user buddy suggestions will be clutter with unwanted suggestions. So to look at new	2

	Flexibility to set up reoccurring workouts	suggestions the user must scroll down an undesired amount. The app doesn't support the operation to set weekly reoccurring workouts. The could create frustration for the user because they would have to do a tedious task of scheduling the same workout every week.	1
	Ability to log out /Ability to delete an account	The app doesn't support operations for the user to log out or delete their account. This will frustrate users because they won't have the freedom to do theses two operations if they desired to do so.	4
Aesthetic and minimalist design	No problem	Every facet of the app contains the necessary information for a user to execute their daily needs.	
Help users recognize, diagnose, and recover from errors	No problem	The app doesn't reach to a state where it presents an error message to the user.	0
Help and documentation	No documentation	The app doesn't provide documentation or tutorials to show how to use the app. This can impact how non-tech-savvy users use the find buddy filters. The user may have a hard time using the filters because they don't know how personalized their search that meets their desire. The user won't get matches that best suits them or may even get the wrong users as of result of this.	3

Heuristic Evaluation: Henri Umba			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	There is no form of user feedback.	Once the user finishes creating a profile, or when they create a new workout, they aren't given any feedback. They must check the system themselves to see if everything is alright	2
Match between system and the real world	No Problems	Workout terms are used for conveying information. We are using the terminology of our target group.	0
User control and freedom	There is no easy way to cancel some processes.	If a user wants to cancel the process of editing their profile. They can't just press cancel, they must press the back button until they are back where they started.	1
Consistency and standards	No problems	Different sections of the prototype do different things. Therefore unless on the main menu, they are controlling one thing at a time.	0
Error prevention	No problems	There are less things on the screen at the same time. Therefore users can focus on certain things at a time. Meaning they can multitask and still use the app.	0
Recognition rather than recall	Slight issue where lack of color contrast makes it difficult to know where to click	If the final product was just plain white like it is now, It would be difficult for users to spot certain things	2
Flexibility and efficiency of use	There is only one fixed way of doing things within the prototype.	If a user wants to create five new workouts. They must go through 2 pages every time. There are no shortcuts.	1
Aesthetic and minimalist design	No problems	Extra information was removed on purpose.	0
Help users recognize, diagnose, and recover from errors	There are no error messages	If a user attempts to move on to the next step without filling out some important details, there isn't an error message.	2
Help and documentation	There is no documentation of how to use the software.	If an average user wants to become an expert user, there is no way for them to learn except through practice with the software.	1

Heuristic Evaluation: Nem Zutkovic			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	The application never keeps you informed when data is being retrieved.	This is an application that requires internet connectivity and having location settings enabled to function properly. There is never any indicator that something is loading your suggested workout buddies or if it is acquiring your location.	3
Match between system and the real world	Button naming conventions are not very descriptive.	Navigating the application can be unclear at times with the wording used to describe the actions of certain buttons. During profile creation the "Next Step" button often appears, giving the user a feeling of "is this a giant staircase?" and the Suggestion filters button "Generate Suggestions" is also unclear.	2
User control and freedom	Back buttons will sometimes restart the entire navigation process.	Back buttons are well implemented in the application, but you could be 3-5 levels deep within the application and it will take you to the home page instead, undoing all your work. Such as the "Suggested buddies" screen's back button.	1
Consistency and standards	Slight inconsistencies between buttons.	The profile creation process loses the notion of buttons and just has text with arrows. The rest of the application uses buttons.	1
Error prevention	There are no error or warning pop ups to the user.	A good example is during the creation of the profile, and you must create your password. There is no warning indicator telling you if your password is weak or not.	1
Recognition rather than recall	No problem.	The home page shows you your workout calendar, so that you can quickly see when your workouts are. Seeing who you are working out with is only one click away, on the "My Workouts" screen. Very little need to recall.	0
Flexibility and efficiency of use	No problem.	The application is a one system fits all type where there is no catering to novice or expert users.	0
Aesthetic and minimalist design	The application has too many screens.	The application feels like a labyrinth when navigating from screen to screen. Getting to the "Find Workout Buddy" screen feels like a victory.	3
	Overwhelming amount of text at times.	The profile creation process has quite of a bit of text, and some users could lose motivation using the app.	

Help users recognize, diagnose, and recover from errors	There are never any error prompts.	This assumes the users will either be unable to input anything in the text boxes and the application will accept it, or the buttons will not function because the user didn't input the correct information.	2
Help and documentation	There is no place to access help or documentation.	None of the screens offer an external URL or place for users to get help.	2

Heuristic Evaluation: Consolidated Results			
Heuristics	Problem(s)	Explanation & Impact	Severity
Visibility of system status	The app does not provide any form of user feedback.	The app doesn't provide enough feedback on the result of certain operations made by the user. For example, when creating a new account, users would typically expect a confirmation message that they're account has been successfully made. Without sufficient feedback on operations, the user will question whether or not his/her operation was successful or not.	2
Match between system and the real world	No problems.	All language used is very simple and workout related terms are minimized in their complexity, so novice users can understand what is happening in the application.	0
User control and freedom	There is no easy way to cancel some processes. Back buttons will sometimes restart the entire navigation process.	If a user wants to cancel the process of editing their profile. They can't just press cancel; they must press the back button until they are back where they started. You could be 3-5 levels deep within the application and it will take you to the home page instead, undoing all your work. Such as the "Suggested buddies" screen's back button.	2
Consistency and standards	Slight inconsistencies between buttons.	The profile creation process loses the notion of buttons and just has text with arrows. The rest of the application uses buttons.	1
Error prevention	No user input guidance. Assigning the same workout with the same colour. There are no error or warning pop ups to the user.	When creating an account or during profile creation, most applications have a specific format of how users should input specific content. For example, with date during the initial profile creation a format should be indicated to the user (i.e. 2020/02/16 or 2020-02-16) to prevent errors. The app doesn't prevent the error of labeling different workouts on the calendar as the same colour. A good example is during the creation of the profile, and you must create your password. There is no warning indicator telling you if your password is weak or not.	1

<p>Recognition rather than recall</p>	<p>Picking a workout plan based on name.</p> <p>No title on screen.</p> <p>Have to recall where the find buddy option.</p> <p>Lack of color contrast makes it difficult to know where to click.</p>	<p>If the user does not have good names for their workout plans, they may not remember what the workout plan is when they schedule a new workout.</p> <p>It would be helpful to provide a title for each screen so that the user knows what they are doing. For example, when creating a workout, it would be helpful to let the user know that they are on the “Workout Creation” screen in case they forget what they clicked on.</p> <p>One of the main features of the app is the ability to find and pair up with buddies. To do this operation, the user must recall that this feature is located not at the home page where you would expect but in a nested operation of clicking.</p> <p>If the final product was just plain white like it is now, it would be difficult for users to spot certain things.</p>	<p>2</p>
<p>Flexibility and efficiency of use</p>	<p>1. An option to copy past weeks would help with efficiency of use.</p> <p>2. Nothing in place to speed up process</p> <p>3. Remove certain buddy suggestions</p> <p>4. Flexibility to set up reoccurring workouts</p> <p>5. Ability to log out /Ability to delete an account</p>	<p>The app could become cumbersome for long-term users if they must manually copy previous weeks’ workout schedules.</p> <p>There is no option to duplicate an entry.</p> <p>The app doesn't support the operation to remove a suggestion of a buddy.</p> <p>The app doesn’t support the operation to set weekly reoccurring workouts. The could create frustration for the user because they would have to do a tedious task of scheduling the same workout every week.</p> <p>The app doesn’t support operations for the user to log out or delete their account.</p>	<p>3</p>

Aesthetic and minimalist design	Unnecessary labels	In the workout creation steps, there is a label “next step” in order for the user to proceed. The arrow should be sufficient enough to know that in order to proceed.	2
	The application has too many screens.	The application feels like a labyrinth when navigating from screen to screen. Getting to the “Find Workout Buddy” screen feels like a victory.	
	Overwhelming amount of text at times.	The profile creation process has quite of a bit of text, and some users could lose motivation using the app.	
Help users recognize, diagnose, and recover from errors	No error messages provided to the user at any time.	There are no errors messages presented to the user throughout the entire lifetime of the app. For example, if a user attempts to move on to the next step without filling out some important details, there isn’t an error message.	2
Help and documentation	There is no place to access help or documentation on how to use the application.	There is no button, feature, or external URL for users to refer to for help. This could be problematic and frustrating for a user that needs support.	2

5 – Workload Distribution and Summary

Name	Student Number	Contributions
Mohab Abdelkader	100981616	1. B) Interview 2. A) Designed prototype 2 2. C) Storyboard for design 2 4. Heuristic Evaluation
Paradis Esmaeelzadeh Khadem	100797010	1. A) 2 Personas & Scenario 2. A) Designed prototype 1 2. B) Description of prototype 2. C) Storyboard for the prototype 4. Heuristic Evaluation 5. Work breakdown table
Darren Pierre	101015833	1. B) Interview & Consent Forms 2. B) Design 2 writeup 3. B) Wizard of Oz technique with participants 4. Heuristic Evaluation
Henri Umba	101022562	1. B) Interview 3. A) Writeup for prototype selection 3. B) Iteration writeup 4. Heuristic Evaluation
Nem Zutkovic	101085982	1. A) Overview of project and 1 Persona & Scenario 1. C) Improved personas and scenarios Affinity diagram Key requirements 4. Heuristic Evaluation & Consolidation

6 – Appendix: Consent Forms

Interview Consents

Researchers' contact information:

Name Darren Pierre
Department
Carleton University Tel: 613-986-4288
Email: darrenpierre@cmail.carleton.ca

Supervisor contact information:

Sana Maqsood
School of Computer Science
Carleton University
Tel: 613-520-2600 x 8753
Email: sana.maqsood@carleton.ca

Do you agree to have your computer screen recorded: ___Yes ___No NA

I agree to participate in this user study:



Signature of participant

Feb. 4, 2020
Date



Signature of researcher

Jan 31 2020
Date

Researchers' contact information:


Name Darren Pierre
Department
Carleton University Tel: 613-986-4288
Email: darrenpierre@cmail.carleton.ca

Supervisor contact information:


Sana Maqsood
School of Computer Science
Carleton University
Tel: 613-520-2600 x 8753
Email: sana.maqsood@carleton.ca

Do you agree to have your computer screen recorded: ___Yes ___No *N/A*

I agree to participate in this user study:


Signature of participant

Jan 31, 2020
Date


Signature of researcher

Jan/31, 2020
Date

Researchers' contact information:

Name Darren Pierre
Department
Carleton University Tel: 613-486-4288
Email: darrenpierre@gmail.com

Supervisor contact information:

Sana Maqsood
School of Computer Science
Carleton University
Tel: 613-520-2600 x 8753
Email: sana.maqsood@carleton.ca

Do you agree to have your computer screen recorded: ___ Yes ___ No *N/A*

I agree to participate in this user study:


Signature of participant

31 January 2020
Date


Signature of researcher

31/Jan 2020
Date

Researchers' contact information:


Name Darren Pierre
Department
Carleton University Tel: 613-956-4288
Email: darrenpierre@cmail.carleton.ca

Supervisor contact information:

Sana Maqsood
School of Computer Science
Carleton University
Tel: 613-520-2600 x 8753
Email: sana.maqsood@carleton.ca

Do you agree to have your computer screen recorded: ___Yes ___No N/A

I agree to participate in this user study:



Signature of participant

30/01/20
Date



Signature of researcher

30/01/20
Date

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Name Darren Pierre
Department
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N/A

I agree to participate in this user study:



Signature of participant

30/01/20
Date



Signature of researcher

1/30/2020
Date

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Name Darren Pierre
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Do you agree to have your computer screen recorded: ☒ Yes ☐ No

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Signature of participant

1/31/2020
Date


Signature of researcher

1/31/2020
Date

Wizard-of-Oz Consents

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Do you agree to have your computer screen recorded: ___Yes ___No N/A


I agree to participate in this user study:



Signature of participant

12/02/2020

Date



Signature of researcher

12/02/2020

Date

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Department
Carleton University Tel: 613-986-4288
Email: darrenpierre@cmail.carleton.ca

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Do you agree to have your computer screen recorded: _ Yes ___ No N/A

I agree to participate in this user study:



Signature of participant

02/12/2020
Date



Signature of researcher

02/12/2020
Date

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Carleton University Tel: 613-986-4288
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Signature of participant

12/02/2020
Date



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12/02/2020
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I agree to participate in this user study:



Signature of participant

12 / 02 / 2020

Date



Signature of researcher

12 / 02 / 2020

Date

Researchers' contact information:

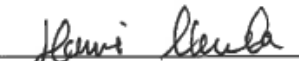
Name Darren Pierre
Department
Carleton University Tel: 613-986-4288
Email: darrenpierre@gmail.com

Supervisor contact information:

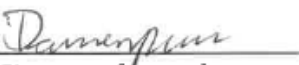
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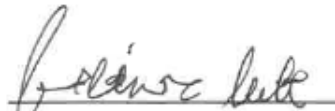
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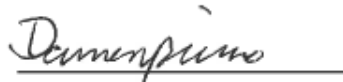
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