

Pitch Report and Prototype

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1. Research

1.1 The Problem

The problem providing context to this new application-based product exists in the area of physical workouts in fitness centers. Through preliminary feedback sessions, a common necessity was observed among people keen on working out at physical fitness centres in order to be highly satisfied with a workout session. A significant number of them were concerned about being highly familiar with their workout surroundings and identified being knowledgeable about the fitness equipment as a critical contributor towards an independent workout. Overall, the participants conveyed that not having to rely on others for guidance resulted in a highly satisfying workout session. However, they were frustrated about the fact that there was no flexible method to accurately identify equipment and ascertain the type of exercises they facilitate. This was especially so for users who change their gyms regularly, as they often had the issue of familiarizing themselves with new equipment.

The design team employed the Co-Design process (Schuler & Namioka, 1993) to create the solution, “Gym Buddy” which is a mobile application which provides a solution to the above identified problem space. Its main feature is the ability to recognize any exercise equipment and provide a variety of information, facilitating an independent and an efficient workout. The user simply takes a picture of any equipment that they are unfamiliar with, and the app will identify it, providing a brief description about the machine and the exercises which can be done based on body part and experience level. These exercises are provided in an easy-to-understand video format which includes both custom made videos for the application and videos from existing databases. Many Gym Buddy features are already being offered by its competitors, but the unique selling point is in its ability to recognize machines via using the camera. It then provides guidance to the user to carry out a personalized workout. The fact that the users can use it in any gym, on different machines further enhances its value among the targeted users of this application.


1.2 Potential Users

Gym Buddy has multiple functions that caters to a variety of users, such as beginners, intermediates and well-experienced gym enthusiasts. Beginners have the following characteristics:

1. They don't have much rapport with regular members.
2. They don't know how to use all the fitness machines.
3. They are unsure about how to get the results they want.

For example, Newbie Norton is a fitness beginner who wants to use learn basic exercises in the gym. With the help of Gym Buddy, Norton can use the camera function to know the name and functionality of any machine. The video demonstration provides him easy guidance on all exercises and thus, Norton can work out efficiently and effectively.

Newbie Norton



"I like to try new things and improve my self"

Newbie Norton is a person who is keen on trying out new subjects areas. He wants to be independent and learn new things by him self. He uses a lot of digital tools to learn and experience new interests.

He has started working out in a gym for the first time and is overwhelmed by the amount of equipment it has. He finds it expensive to afford a personal instructor and hopes to find a way to familiarize him self with the equipment and exercises.

Age : 23

Experience in gym workouts : None

What motivates me?
Learning new things and getting familiarized with them independently.

Things I struggle with..
Inability to locate digital material related to new topics.

What help do I need?
Simple and an inexpensive mechanism to learn how to use the equipment and exercises.

I come across as ...
Open minded and ambitious.

I want to be..
Comfortable in working out using new gym equipment and learn the basic exercises with the correct technique.

Behavior Traits

Experience in working out at gyms

Low High

Consistency in working out

Low High

Time spent on a single workout session

Low High

Knowledge on gym equipment and exercises

Low High

Regular and well-experienced gym enthusiasts often have the following characteristics:

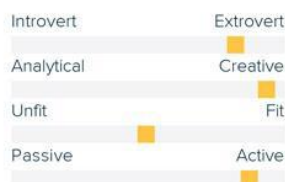
1. They want to know advanced exercises that can be done on exercise machines
2. They may have limited time for a fitness session because they have a busy schedule.
3. They prefer working out independently with minimal interaction with others.
4. They may travel frequently and exercise in different gyms.
5. They want to stay updated about new exercises and machines.

For example, Gym Junkie Zac is a busy traveler with abundant fitness experience. He doesn't like to be interrupted by others when he is working out, nor does he want to bother other gym-goers when he is unsure about a piece of gym equipment. With Gym Buddy, Zac can quickly familiarize himself with new fitness equipment anywhere he travels, by taking photos to search for equipment-related information. Thus, Zac can engage in exercise sessions independently, no matter where he is.

GYM JUNKIE ZAC

Age: 30
Work: Sales Manager
Family: Single
Location: Australia

Personality



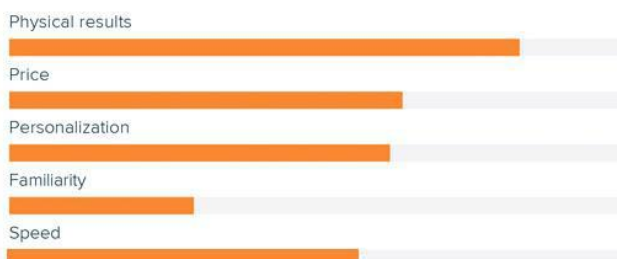
Brands



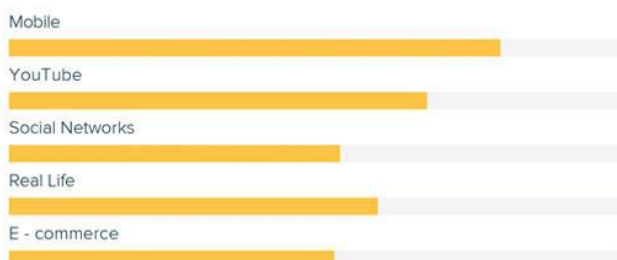
Bio

Zac is new to Australia. He has secured a lucrative job and moved into a nice apartment. He joined the local gym to pursue his passion for bodybuilding. He loves to work out and it is a priority for him. He likes using the mobile and goes online for workout ideas. Between work and social life, he prefers to train independently and in a quick manner. His job involves travelling. Also, he wants to keep track of his performance, in order to achieve and share his fitness achievements. Besides this, he gets frustrated when he found new gym equipment because he doesn't know how to use it.

Motivations



Preferred Channels



"Working out is my passion and staying healthy is my ambition!"

Goals

- Be more efficient using the gym machines.
- To workout no matter where he is and when time isn't on his side.
- Be more efficient using the gym machines.
- Keep up his exercise routine while he's traveling.

Frustrations

- The unfamiliarity of the machines in his new gym.
- He hates that somebody bothered him when he is working out.
- Getting poor results from his workouts.

1.3 Competitor Analysis and Gap in User Experience

There is a vast offering of websites and applications seeking to operate successfully in the fitness industry. This fierce competition necessitates the ideation and implementation of unique and user-friendly features in order to gain meaningful popularity among users. For this competitor analysis, competitors offering similar key features to Gym Buddy were deemed to be: Fitness Apps, YouTube Channels, Personal Trainers and Other Gym Members. The user needs were defined as follows:

1. Easy to Use (Basic Need)

It is imperative that the user can easily navigate the application. This is considered a 'must-have' to a Gym Buddy user as they are not familiar with gym equipment, making ease of use highly pertinent to an efficient workout (Rotar & Kozar, 2017). It has therefore been given a weighting of 5.

2. 24/7 Availability (Performance Need)

Gym Buddy users require guidance on equipment usage though may not be able to get to the gym during the hours that a personal trainer is present. This makes the 24/7 nature of Gym Buddy a 'satisfier', as although this convenience could be expected of an app, it is favourable to the inconvenience of booking a personal trainer. It has therefore been assigned a weighting of 4 (Rotar & Kozar, 2017).

3. Saves Time (Performance Need)

Gym buddy will save users time by eliminating the need to search the internet for equipment they don't recognise. However, this is not as efficient as asking a fellow gym member about equipment so this need has been classified as a 'satisfier' and given a weighting of 4 (Rotar & Kozar, 2017).

4. Reduced Cost (Attractive/Delight Need)

Exercise beginners can expect a moderate cost associated with familiarising themselves through personal trainers, classes or subscription-based applications. As a free app, Gym Buddy users will be pleased by the lack of cost though it may not have been expected. It has therefore been deemed a 'delighter' and assigned a weighting of 3 (Rotar & Kozar, 2017).

5. Personalisation (Performance Need)

Gym Buddy users can create profiles for personalising their experience. Whilst this is a feature of some competing apps, it is not available with alternatives such as personal trainers or YouTube videos and so it is regarded as a 'satisfier' and assigned a weighting of 4 (Rotar & Kozar, 2017).

6. Customisable Workouts (Performance Need)

As offered in Gym Buddy, a user of fitness apps could expect some customisability of their exercise routine. It is however, not an inclusion with alternatives such as YouTube channels or asking fellow gym members, and so has been deemed a 'satisfier' with a weighting of 4 (Rotar & Kozar, 2017).

7. Provide Relevant Information (Basic Need)

Providing information on fitness equipment is the foremost purpose of the Gym Buddy, as well as many competitors. In this context, such information is a 'must-have' and has been given the weighting of 5 (Rotar & Kozar, 2017).

Table 1 - User needs and weighted totals for competitors according to the Kano Model (Rotar & Kozar, 2017).

| | Easy to Use | 24/7 Availability | Saves Time | Reduced cost | Personalisation (profiles) | Customizable Workouts | Relevant Info. | total | weighted total |
|-------------------|-------------|-------------------|------------|--------------|----------------------------|-----------------------|----------------|-------|----------------|
| Fitness Apps | 4 | 5 | 3 | 4 | 4 | 5 | 5 | 30 | 125 |
| Personal Trainers | 3 | 2 | 0 | 0 | 5 | 5 | 5 | 20 | 88 |
| Ask Gym Members | 2 | 3 | 5 | 5 | 1 | 1 | 2 | 19 | 75 |
| YouTube Channels | 4 | 5 | 2 | 5 | 0 | 0 | 3 | 19 | 78 |
| Gym Buddy | 5 | 5 | 5 | 5 | 3 | 3 | 5 | 31 | 129 |
| weighting | 5 | 4 | 4 | 3 | 4 | 4 | 5 | 29 | |

The SWOT (Strength, Weakness, Opportunity, Threat) analysis for Gym Buddy identifies aspects of viability both in relation to competitors as well as the fitness market as a whole.

Table 2 - SWOT analysis for Gym Buddy.

| Strength | Weakness | Opportunity | Threat |
|---|--|---|--|
| Is the only app in the market with the main feature: Photographic gym equipment identification. | Is necessary to have an internet connection for the app to be useful. | The Fitness industry is growing very rapidly (Buck, 2017). | Competitor apps may copy the unique feature (photographing the equipment). |
| Emphasis on speed of app navigation, promoting workout flow. | There is no interaction with a trainer so there is potential the user could misinterpret the exercise. | There is a trend towards using apps to achieve fitness goals (Bucko, 2017). | Gym operators may install devices to provide equipment information in situ. |
| Addresses user needs more effectively than competitors (according to competitor analysis). | Some users would prefer more features as opposed to interface simplicity. | Mobile devices are continuously improving, making it possible to add more features in the future (Mulay, 2015). | Future technologies may render the unique feature (photographing the equipment) trivial or obsolete. |

2. Design Process and Methods

2.1 Prototype Feedback and Design Justification

The following tables delineates user feedback, and the subsequent changes made to the Gym Buddy prototype.

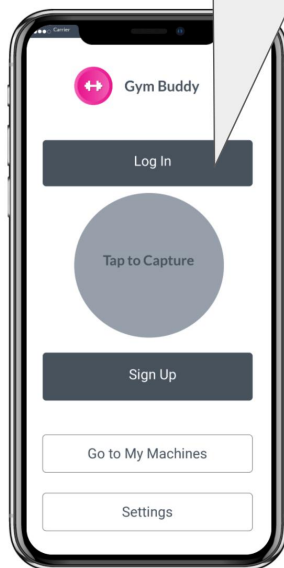
Table 3 - Low to Medium Fidelity Feedback Table.

| Test User Feedback | Changes made to Gym Buddy |
|---|--|
| 1. Users wished to enter details such as goals and preferences. | Ability to make a profile was integrated and 'Log in' and 'Sign up' buttons were included on the home screen. |
| 2. Users said it may not always be appropriate to take photos. | A 'Manual Search' button added to capture screen for searching by brand or model number. |
| 3. Users did not want to read text during a workout. | Text was removed from 'Machine Details' and hidden in an accordion element. This limits the possible interactions with Gym Buddy, thereby promoting quick navigation (Raheel, 2016). |
| 4. Users mentioned that not all exercise results would be appropriate for all users. | A skill level selection screen was added so the users could filter results according to their skill level. |
| 5. Users expressed that they might be overwhelmed by the number of exercise results. | A star system was introduced so Gym Buddy users could rate exercises. This will expedite exercise selection through 'social proof', a powerful tool in guiding user decisions (Mills & Mills, 2017). |
| 6. Users felt demonstrations with pictures and text was not conducive to understanding the exercises. | Full screen video replaced the pictures and text and demonstrated the exercise succinctly and comprehensively. |

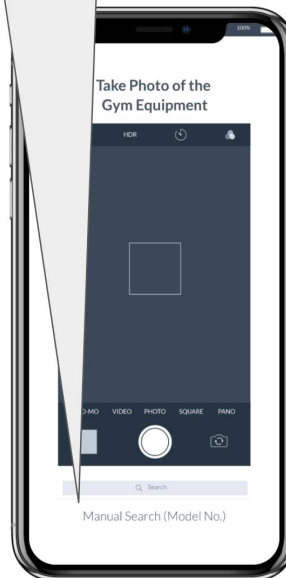
| | |
|---|--|
| <p>7. Users expressed frustration at having to take a picture of an exercise machine to perform an exercise they have previously found.</p> | <p>The 'Save to My Exercises' button was added on the exercise demonstration screen so the user could save exercises to their profile.</p> |
| <p>8. Users felt the app lacked a summary after their workout.</p> | <p>The achievements screen was included, displaying a workout summary, progress towards goals and achievements. This goal-setting feature elicits an emotional response in users and motivates them to continue to pursue their fitness goals with Gym Buddy (Herrmann, Ziegler & Dogangün, 2016).</p> |

Medium Fidelity Prototype Annotations

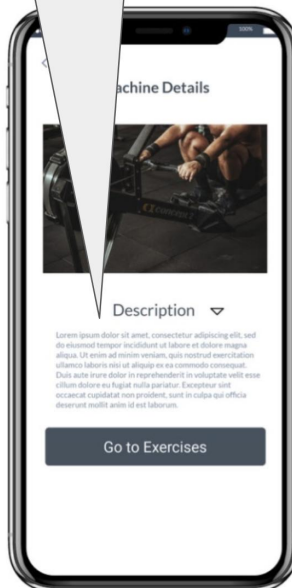
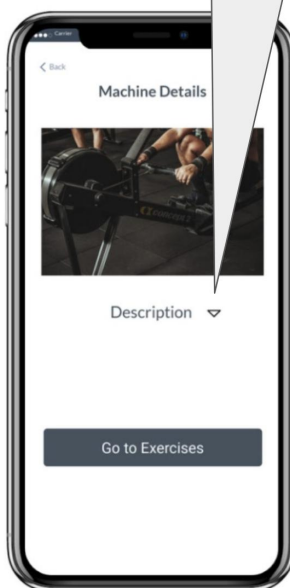
1. 'Log in/Sign Up' to create profile for customisability.



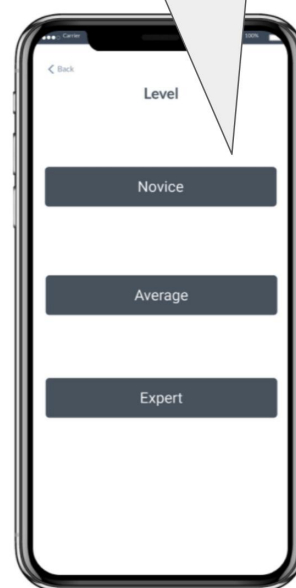
2. 'Manual Search' button for equipment if impractical to take a photo.



3. Remove lengthy explanations unless the user expressly chooses to read.



4. Include the exercise difficulty selection screen.



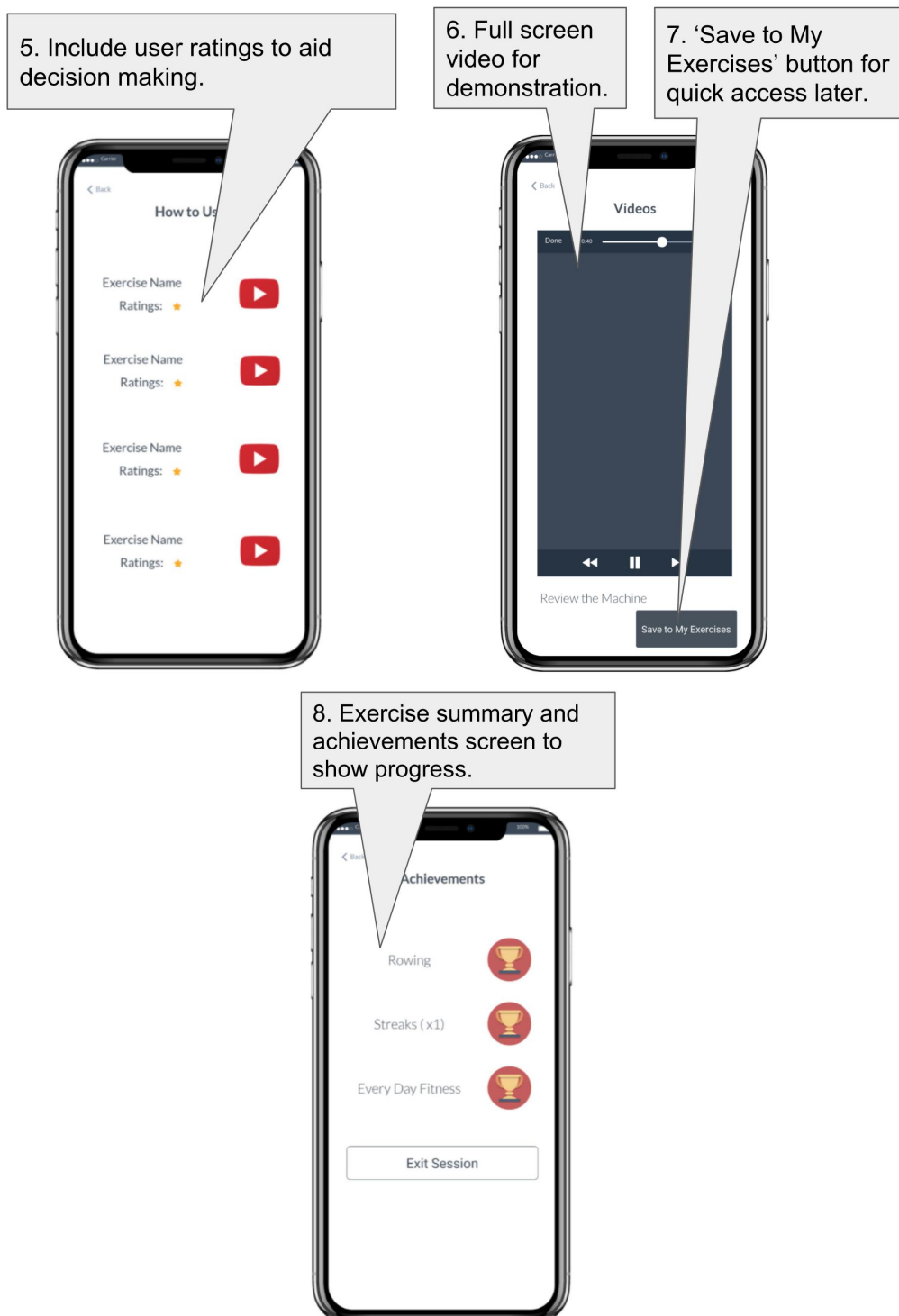
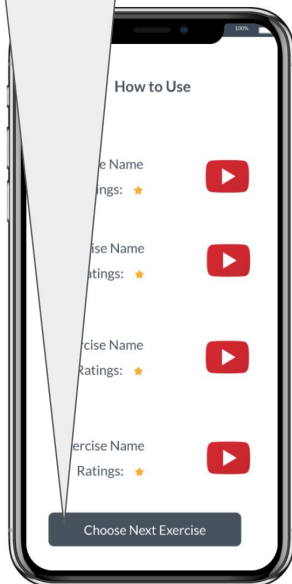


Table 4 - Medium to High Fidelity Feedback Table.

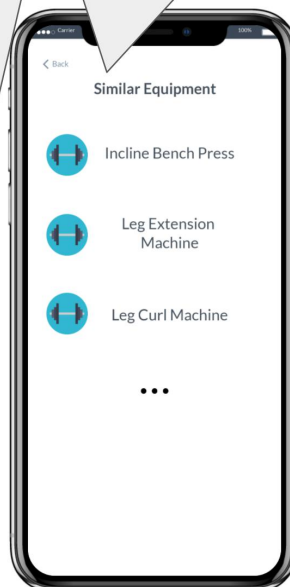
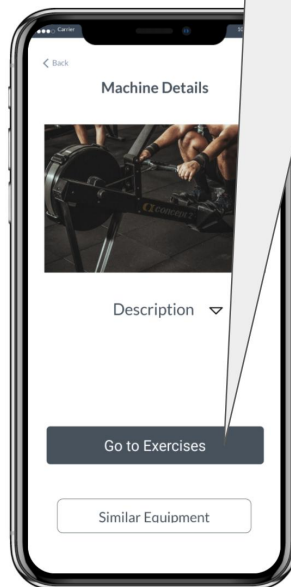
| Test User Feedback | Changes made to Gym Buddy |
|--|---|
| 1. Users were confused as to what to do when they wanted to do the next exercise. | A 'Choose Next Exercise' button was included in the exercise demonstration screen for smooth transition to another exercise. |
| 2. Users expressed the desire to search for exercise equipment that was similar to equipment they liked. | A 'Similar Equipment' button was added to the machine details screen so users could quickly view similar equipment. |
| 3. Users said they would like to share their exercise achievements with friends. | A 'Share Achievements' button was included on the 'Achievements' screen so users could share their activity on social media. This creates a positive feedback environment which will encourage Gym Buddy users to continue their fitness journey (Pinkerton et al, 2017). |

High Fidelity Prototype Annotations

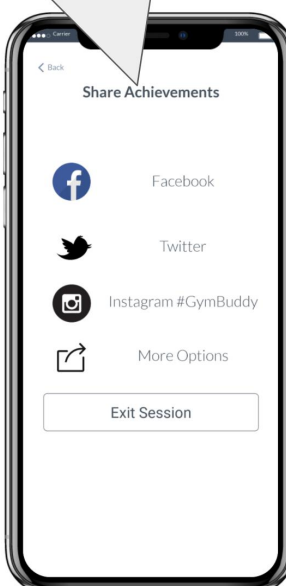
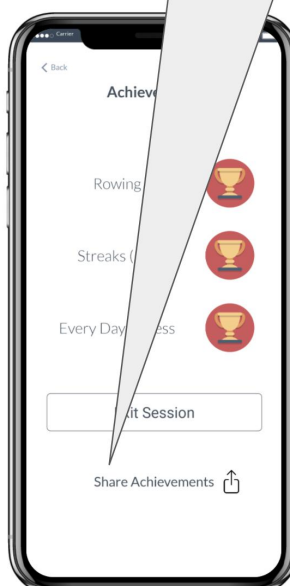
1. The 'Choose Next Exercise' button for a smooth transition to the next exercise.



2. The 'Similar Equipment' button for displaying machines of a similar purpose.



3. The 'Share Achievements' button for users to share their achievements with their friends.



2.2 User Scenarios

Gym Junkie Zac

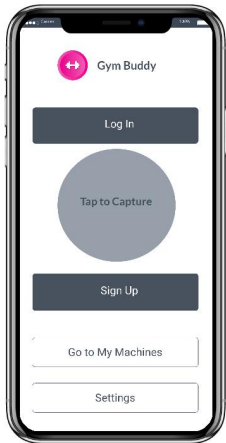
Zac first visits the main screen and chooses the 'Tap to Capture' option as he is unsure if he wants to create an account at this stage. Zac takes a picture of the gym equipment as no one is using the machine he is interested in. The picture is processed and shows Zac the machine details on the next screen automatically. Zac does not want to read the machine description so he chooses the 'Go to Exercises' button which then prompts Zac to select the body part he would like to use the machine for. Zac chooses the button to work out his arms. He is then prompted for his experience level, for which he selects 'Expert' as he feels he is in peak physical condition. Finally, the next screen lets Zac watch a video demonstrating the workout, which he then performs. On the 'Achievements' screen, Zac chooses to share his workout with his Facebook friends, many of whom are gym enthusiasts.

Newbie Norton

Norton opens the main screen, he too chooses the 'Tap to Capture' screen, as he does not wish to make a profile until he knows he likes the gym. Norton then photographs a machine and is presented with the 'Machine details screen. He uses the accordion element to read about the machine as he feels a little overwhelmed and wants all the information available to him. He then chooses the 'Similar Equipment' button to get a quick overview of what equipment would be similar. Norton then chooses to work out his arms and is then prompted to select his experience level, for which he chooses 'Novice' to be sure he can perform the exercise. Norton gets a good understanding of the exercise with the video demonstration and after he tries the exercise, he uses the 'Save to my Machines' button to save it for tomorrow. On the 'Achievements' screen, Norton chooses to simply 'Exit Session' as he doesn't think many of his friends would be interested in his gym activity.

2.3 High Fidelity Prototype

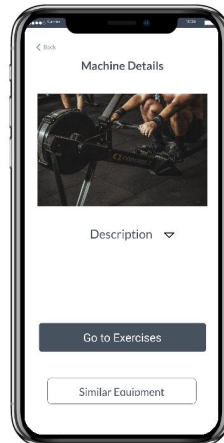
Live prototype at <https://marvelapp.com/86id60a/screen/40314380>



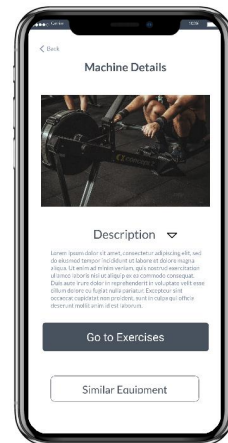
1. Log in/Sign up



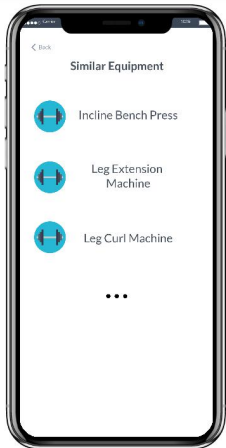
2. Take Photo



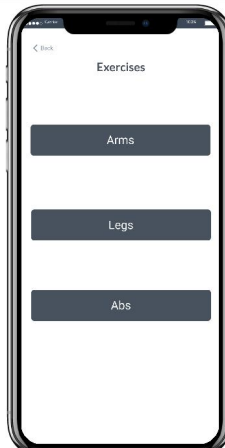
3. Description



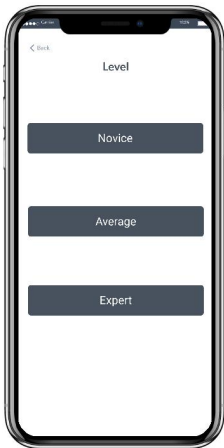
3.1. Machine Details



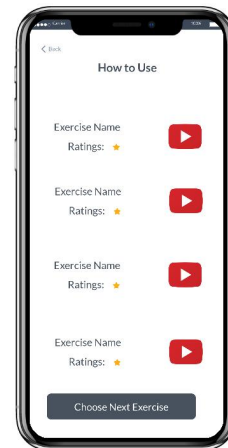
3.2 Similar Equipment



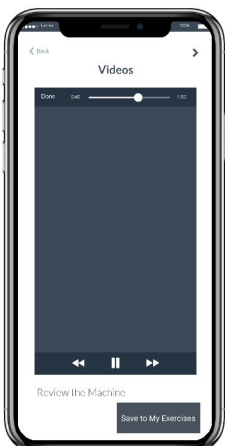
4. Exercises



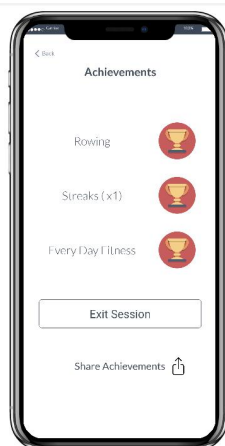
5. Levels



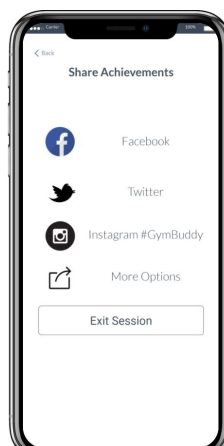
6. How to Use



7. Videos



8. Achievements / Exit



9. Share Achievements



6.1 Chosext Exercise

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