

First workout app

D2

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1 Problem

We are solving the problem of “first step” on the way to start regular workouts at gym. The application will provide essential exercises divided into days and will help users track their progress along the way without any other external tools (many people who take bodybuilding seriously use Excel or other kind of spreadsheets).

Target group are the people who go to the gym on regular bases and want to track their progress easily as well as people who want to start going to the gym on regular bases and they are totally new to the gym.

After couple of interviews we found out that most of the people use some other external tools to solve current problem of tracking the progress.

2 Development model

For this application, we have decided to use prototype implementation.

1. First, we will implement main feature – list of training plans and exercises, statistics of each exercise and weight increase mechanism.
2. We will show first prototype to end users and we will collect feedback. After that we will try to design global statistics, i.e. general representation of condition of user's training, e.g. if user regularly trains, most successful exercise etc.
3. We will show second prototype to end users and we will collect feedback. After that we will try to design dashboard, which will contain links to main application features. E.g. there will be one item of statistics, next training plan, recommendations etc.

3 Requirements

- Application will store training plans and exercises which user chooses.
- Application will recommend goals for each training.
- User will be able to choose days and repetitions of his trainings.
- Application will include different types of trainings and code will be open for changes.
- Application will notify users.
- User will be able to choose his preferred measure units (lbs., kg).

4 Use-case

Application will cover 1 type of user.

List of main use cases:

1. User lists his training plans
2. User creates / edits training plan
3. User starts workout
4. User lists statistics
5. User changes settings

4.1 User creates / edits training plan

Main gateway (user creates training plan)

1. User lists all training plans

2. Application shows section with list of all training plans
3. User clicks on edit button
4. Application adds to the section additional control buttons
5. User clicks on **add button**
6. Application shows form of new training plan details (main information)
7. User fills the form and submits it (or clicks on cancel button and discards changes)
8. Application creates new record of training plan and opens section of that training plan (then user can add new exercises)

Alternative gateway (user edits existing training plan)

5. User clicks on **edit button** of selected training plan
6. Application shows form of existing training plan details (main information)
7. User changes the form and submits it (or clicks on cancel button and discards changes)
8. Application updates existing record of training plan (connected archived training plans are not changed)

Alternative gateway (user deletes existing training plan)

5. User clicks on **delete button** of selected training plan
6. Application deletes record of training plan (connected archived training plans are not changed)

4.2 User starts workout

1. User lists all training plans
2. Application shows section with list of all training plans
3. User clicks on selected training plan
4. Applications shows section of selected training plan
5. User taps on Start button
6. Application lists enlarged view of exercises of selected training plan, i.e. exercises he has to accomplish. Each exercise has recommended goal to complete (e.g. weight to lift, distance to run)
7. After completing each exercise user enters (swipes on screen) whether he has successfully completed exercise, or not.
8. After each swipe application saves data to the history and computes next recommended goal depending on selected algorithm.
9. When user completes his training, he will be redirected to the successful message screen.
10. Application shows workout summary to user and creates new record of archived training plan with all records of archived exercises.

4.3 User lists statistics

1. User lists all training plans
2. Application shows section with list of all training plans
3. User clicks on selected training plan
4. Applications shows section of selected training plan. Section contains list of exercises.
5. User clicks on selected exercise.

6. Application shows section of selected exercise. Section contains information about exercise and statistics.

4.4 User changes settings

1. User clicks on personal section
2. Application shows list of all setting, e.g. weight units, distance units, turned on/off automatic weight increase
3. User clicks on edit button

5 Features

In this section are described main functions.

5.1 Training plan and exercises

Main function will be ability of application to store training plans and exercises, see Figure 1 - Training plan class diagram. Classes shown in diagram are only containers for storing user data and do not contain any computing logic.

When creating training plan user sets name of training and which day of week he wants to train (optional – made for notifications and calendar view). And adds exercises. Each training plan contains 0 or more exercises. It is done that way so user can divide his types of trainings, e.g. training for arms, training for back and training for legs.

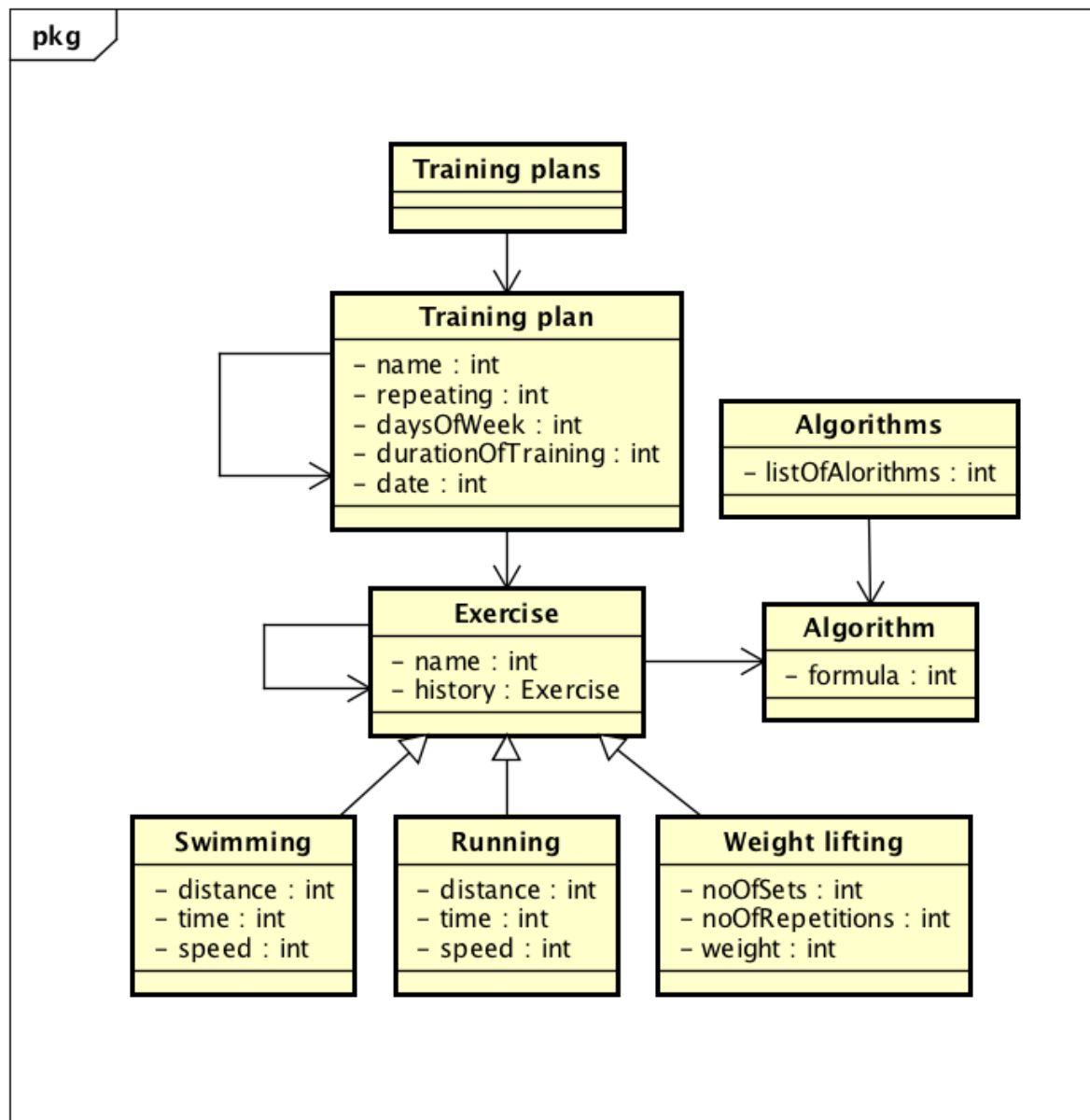
There are different types of exercises. For first version are drafted following types:

- Lifting weights
- Running
- Swimming

After completing training application will archive training plan and exercises and recommend new goals.

Archived training plan will be connected to current training plan. Application will set in archived training plan date of training and duration. Archived training plan will also contain archived exercises with information whether exercise was completed.

Current training plan – application will change in each exercise measuring units (increase, decrease or leave the same). More in Algorithm of goal computing.



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Figure 1 - Training plan class diagram

5.2 Algorithm of goal computing

Based on data in history of exercise (previous exercises) application will compute next recommended goal. In first version recommended goal will be weight depending on type of training.

Primal idea for algorithm is equation based on quadratic sequence with limitation on big numbers.

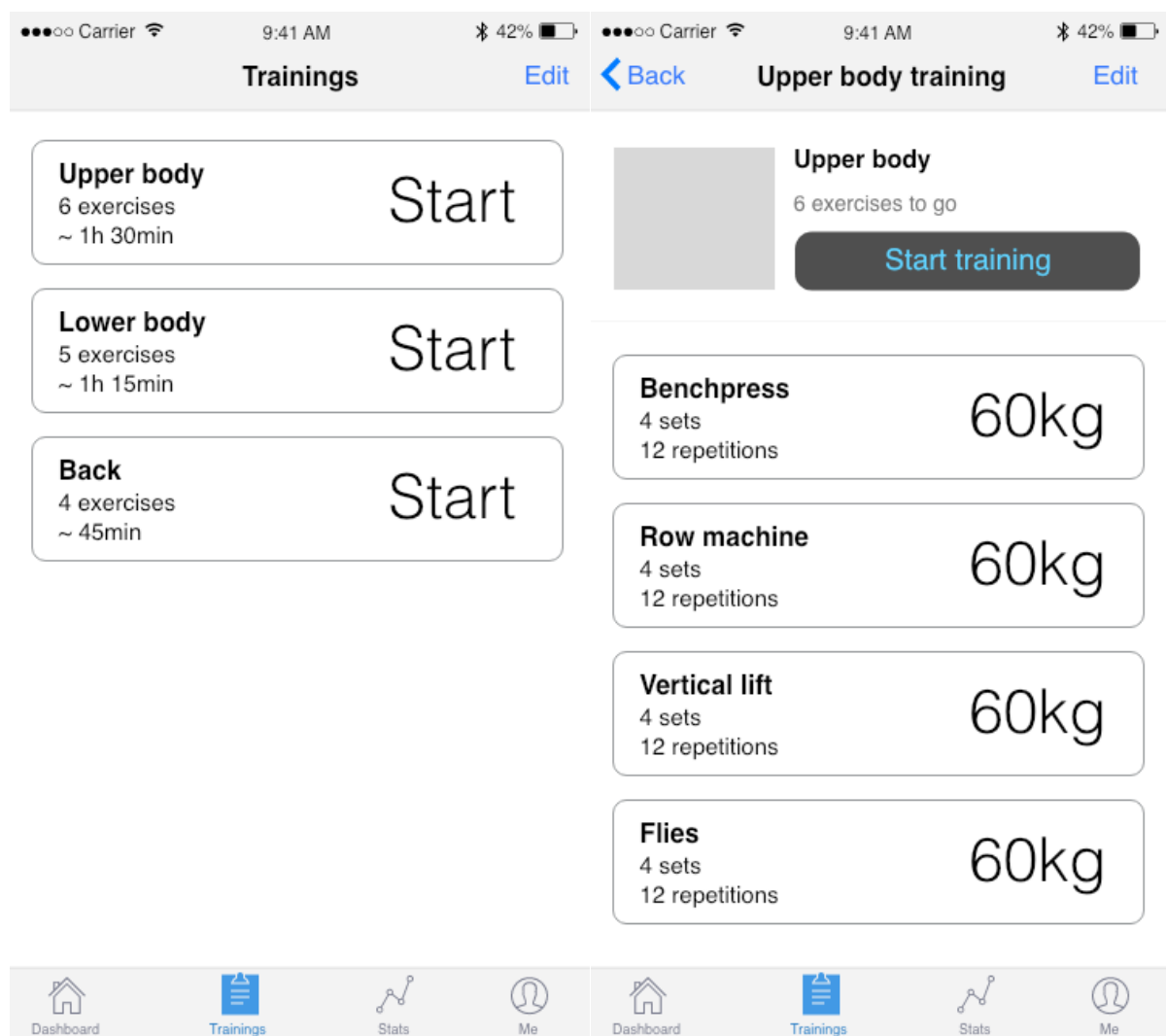
6 Wireframes

Application will contain 4 main sections:

- Dashboard – homepage-like section, with main application features (3. version of prototype)
- Trainings – section contains list of training plans, list of exercises in each training plan and exercise details (1. version of prototype)
- Stats – user data statistics (2. version of prototype)
- Profile – information about user and setting (1. version of prototype)

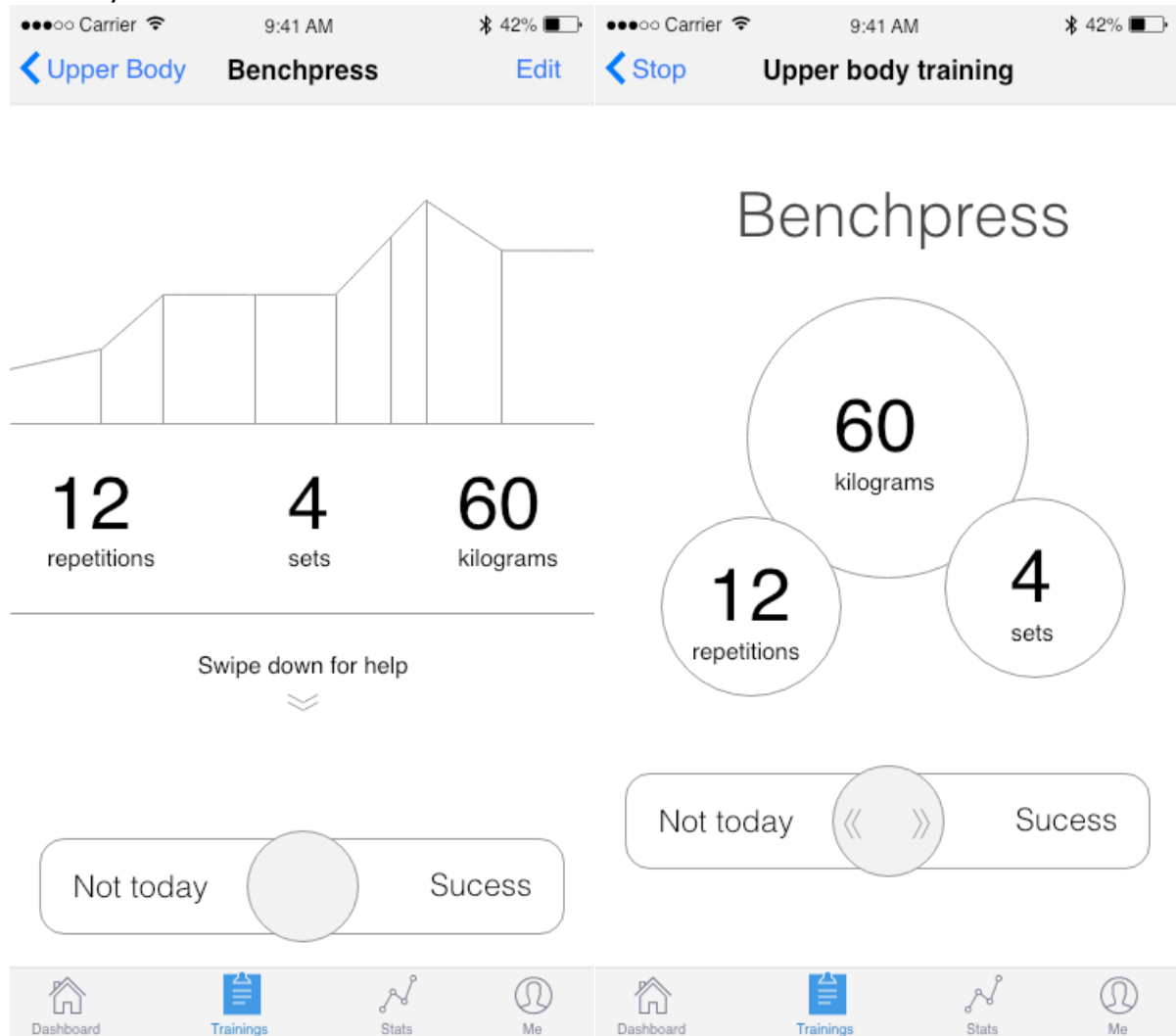
6.1 Training plans

Trainings section contains list with records of training plans (on left). Each Training plan contains list of exercises, details about training plan and start training button (on right).



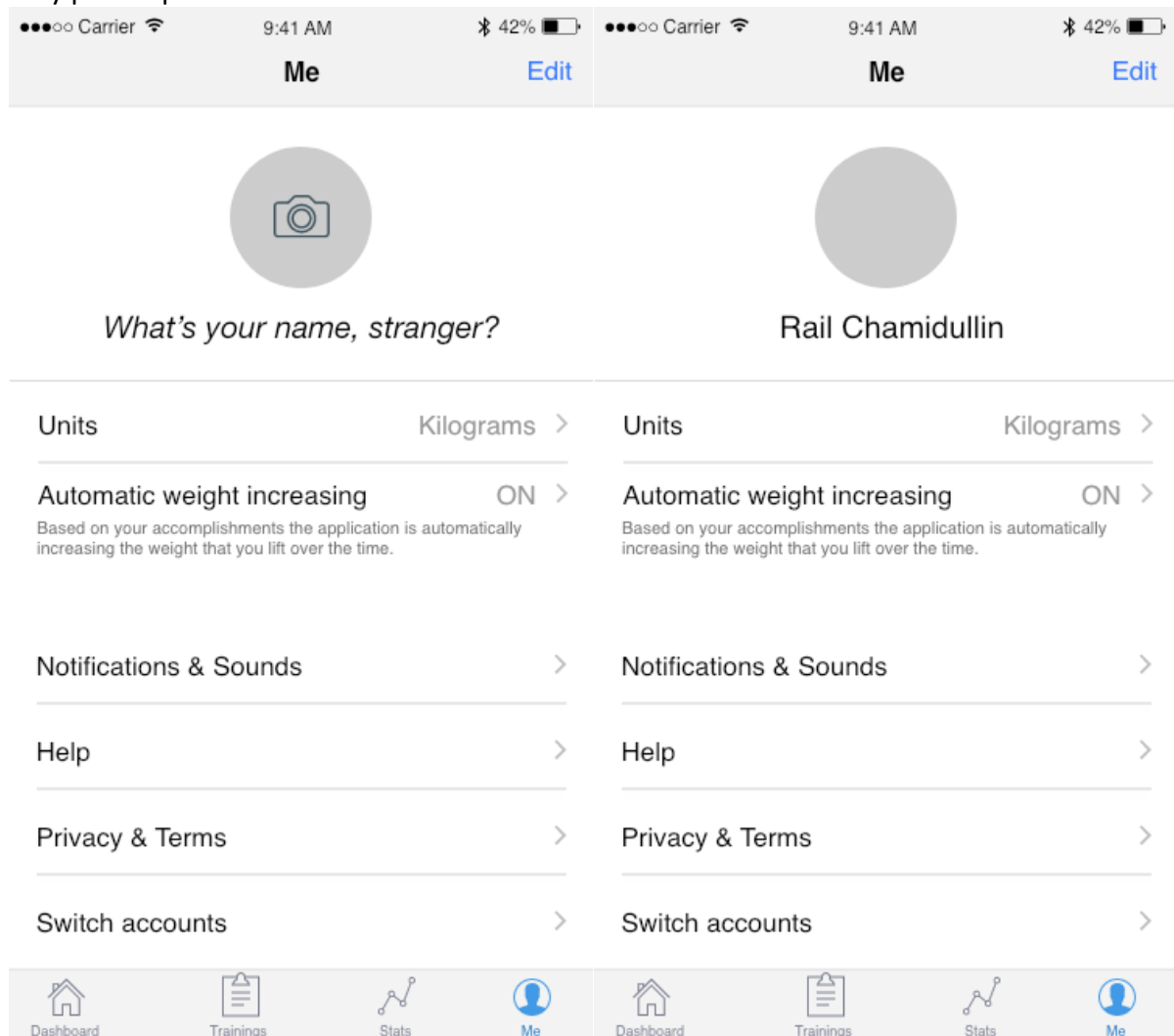
Record of exercise contains information about exercise (repetition, sets, weight), statistics and swipe button for finishing exercise with successful or failed result (on left).

There is alternative representation of exercise (on right) without statistics and different circle style.

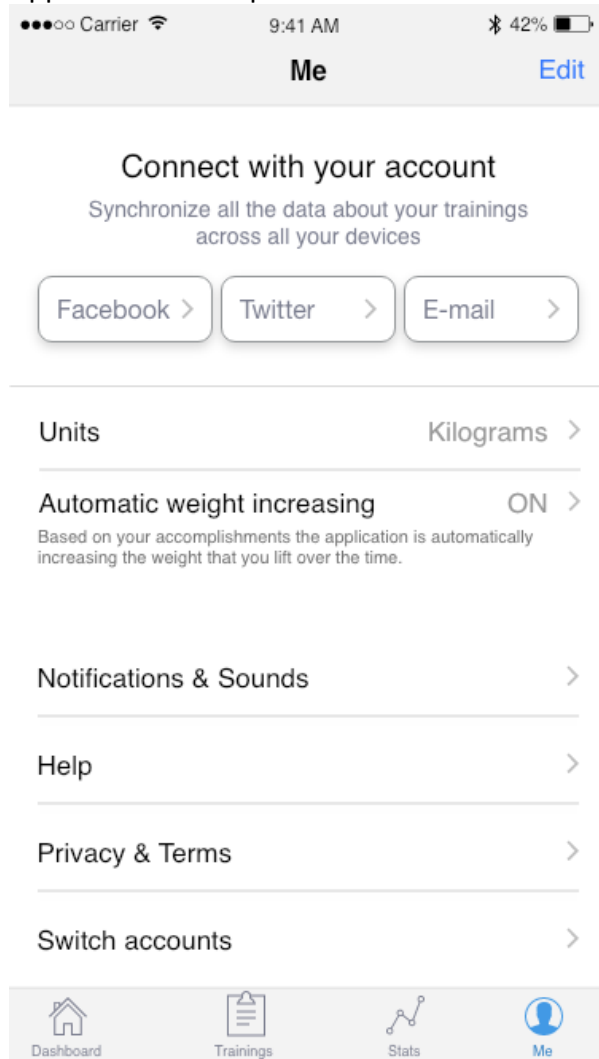


6.2 Profile

Profile section contains user information and setting. In first version user information will be only profile picture and name.



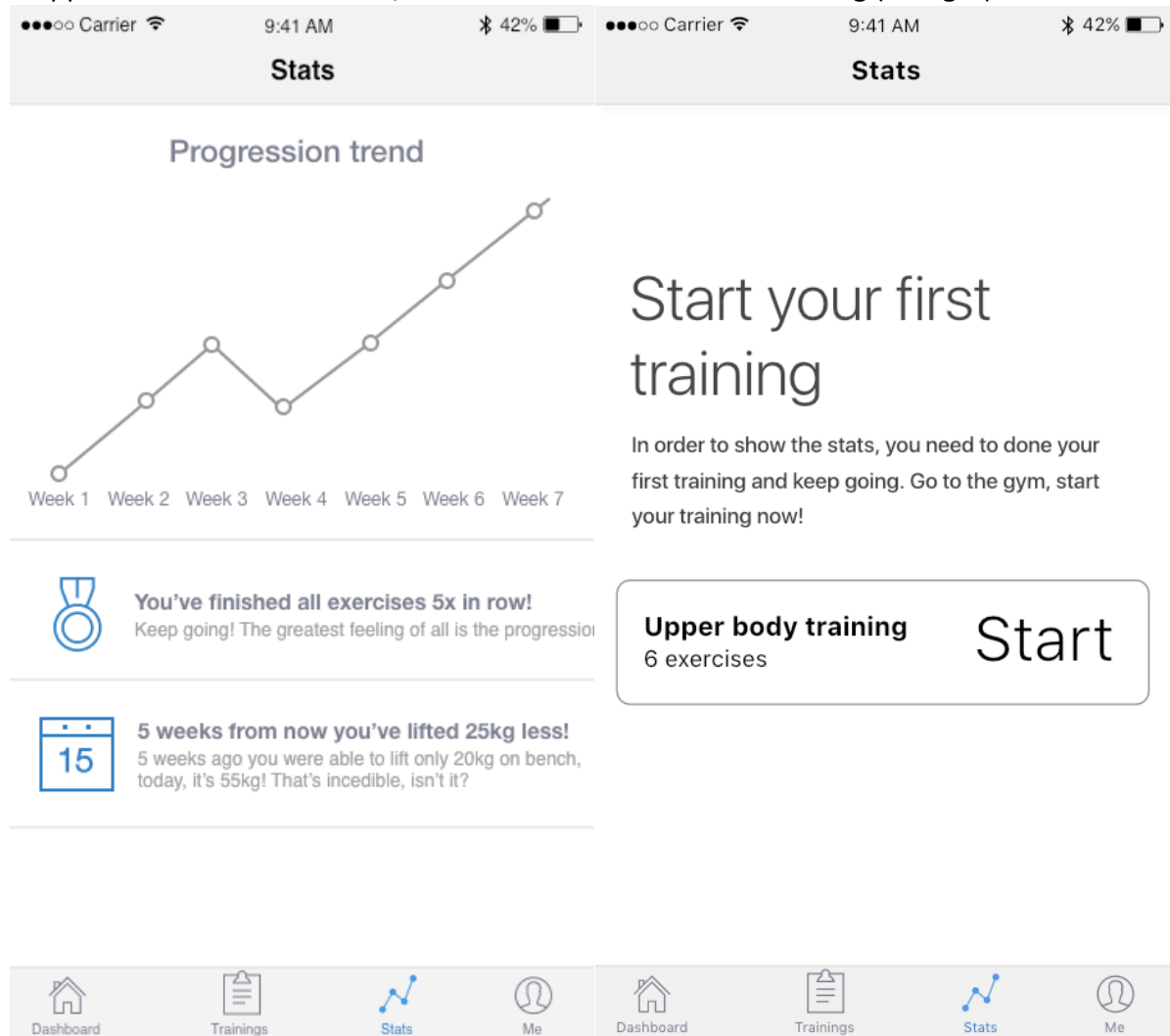
In later version, there will be implemented possibility of connecting social network account. Application will import main user data and users will be able to share their achievements.



6.3 Stats

In statistics section application will show general representation of condition of user's training (progression trend – this feature we have to think out in details after first version of prototype) and scored achievements (on left).

If application has no user data, it will show link to start first training (on right).



6.4 Onboarding

We are thinking about showing application onboarding, which will help to create default training plans. This feature could make easier for new users to orientate in our application and understand principles of training in gym.

Carrier 9:41 AM 42%
Body part [Next >](#)

What part of your body you want to work on?

☒
Upper & Lower Body
Highly recommended

☐
Upper Body only

☐
Lower body only

Carrier 9:41 AM 42%
[< Back](#) **Workout frequency** [Next >](#)

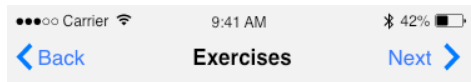
How often do you want to workout weekly?

☒
4x per Week
(2x Upper Body & 2x Lower Body)
Highly recommended

☐
2x per weeeek
(1x Upper Body & 1x Lower body)

Next: How often you want to workout? >











Next: Double-check exercises >



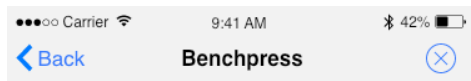
Double-check the exercises

We've recommended you some. But if you already know what fits you best you can change them here. You will be also able to change them later.

Upper body training

-  Benchpress 
-  Row machine 
-  Vertical pull 
-  Vertical push 
-  Flies 

Finish Setup >

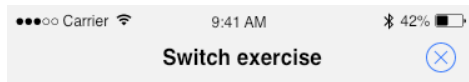


Animated GIF

Benchpress

This exercise is well known, helping chest to grow.

More and more detailed description of the given exercise will come here. More and more detailed description of the given exercise will come here. More and more detailed description of the given exercise will come here. More and more detailed description of the given exercise will come here. More and more detailed description of the given exercise will come here. More and more detailed description of the given exercise will come here.



Chest

Benchpress



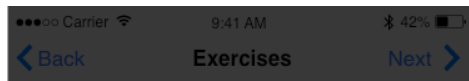
Animated GIF

Benchpress



Animated GIF

Benchpress



Double-check the exercises

We've recommended you some. But if you already know what fits you best you can change them here. You will be also able to change them later.



Animated GIF

Benchpress

This exercise is well known, helping chest to grow.

7 Testing with potential users

We have presented our wireframes to two people selected based on their experience at gym. Kristina is prototype of a “normal” person who has been to the gym few times in her life and David is the opposite. The person who is most of his time at the gym. This is the feedback the we have gathered.

7.1 Tester #1: Kristina

7.1.1 Kristina’s profile

21yo, university student

Do you go to the gym regularly?

No.

How many times in your life have you been to the gym? (Approximately)

25

Have you ever read anything about body exercises in your spare time?

Yes.

What platform do you use on your mobile phone?

Android.

Are you familiar with iPhones behavior (design patterns)?

No. Not really.

7.1.2 Tasks

Setup your workout intentions (setup the app for the first time)

Without difficulties.

- **Do you know what actions can you perform on exercises?**
Figured out what will come after taping on “switch” icon
Figured out what will happen after taping on exercise name (not sure if she would tap there without asking)
Didn’t get the dots on the left side of the exercise. Her guess was that she can remove the exercises
- **Can you interchange bench-press in your upper body training?**
Without difficulties.

How do you understand testing the maximum weight?

She does. She stated basically the correct purpose: “based on this maximum weight the app will setup the weight that I will lift later”

Did you find setting up your maximum weight difficult?

Not. It was easy.

Which of the prepared maximum weight testing flows fits you the most?

The one where I can roll the numbers. It's easier and faster to enter.

How would you add a new training?

Without difficulties.

Is the notification that you see in the dashboard screen encouraging you?

Yes.

Walk me through one training and show the statistics after that.

Without difficulties (maybe we can hide bottom menu during the training. It won't lead user to tapping on the menu)

Can you change units from kilograms to lbs?

This was a problem. First she headed to 'Trainings' screen (wanted to change it according to the training). After that she headed to specific exercise and thought she can change it there. Lastly she realized that maybe under 'Me' (her profile) section she can find this setting. And it was a win!

She added that she would never think that she can make this change in profile screen.

Log out from application (reset all your data)

Without difficulties.

Change exercises in your training.

Without difficulties.

7.1.3 General thoughts

What are the things that you think can be better?

In exercise description, she pointed out that, it is better to use 2-3 images rather than gif. Because there is usually need to stop gif to examine picture in detail.

During on-boarding, it will be (maybe) better to use standard iOS form passage, e.g. set of settings which is shown after installation of iOS update.

What did you like about this application?

She liked stats screen where she can see her progress. As well as she found really encouraging and nice!

7.1.4 Test environment

In-house, using tester's computer

7.1.5 Takeaways

Summary of the problems that we came across

- Changing kilograms to lbs
- The form of showing the exercises (GIF / images / video)
- Following more iOS design patterns
- We should focus on removing distractions on every screen
- Changing the order of exercises during on-boarding (maybe consider instead of names of the exercises the name of the body part)

7.2 Tester #2: David

7.2.1 David's profile

19yo, high school graduate, 2nd at Slovak Championship in Fitness

Do you go to the gym regularly?

Yes, 5 times per week.

How many times in your life have you been to the gym? (Approximately)

Can't come up with number. Has been at gym 5x per week for the past 5 years.

Have you ever read anything about body exercises in your spare time?

Yes. A lot.

What platform do you use on your mobile phone?

Android.

Are you familiar with iPhones behavior (design patterns)?

No. Not really.

7.2.2 Tasks

Setup your workout intentions (setup the app for the first time)

Without difficulties.

- **Do you know what actions can you perform on exercises?**
 Figured out what will come after tapping on "switch" icon
 Figured out what will happen after tapping on exercise name (stated that he wanted to try what it does)
 Did get the dots on the left side. Figured out that he can reorder the exercises.
 However, he stated that it is not a good idea to be able to reorder exercises on the beginner level. It's good to start with the biggest muscles and continue to the smaller ones.
 Pointed out, that it is good to first list the name of the body part/movement and then the exercise related to that part/movement.
- **Can you interchange bench-press in your upper body training?**
 Without difficulties.

How do you understand testing the maximum weight?

I should do as many repetitions as possible with particular weight.

Did you find setting up your maximum weight difficult?

No. However I don't want to and don't need to test the maximum weight on all of the exercises.

Therefore we should divide exercises into "2 categories". One where we do test a maximum weight. Second where we do not test the maximum weight, only recommend people to select the weight that they are comfortable with and can do all the repetitions technically proper. These exercises don't increase their weight every week. We need to figure out the input of this weight and further increasing of this weight (probably manually).

Which of the prepared maximum weight testing flows fits you the most?

Rolling numbers since there will be average only 5 exercises to test the weight.

How would you add a new training?

Wasn't really sure. (Probably because he is not familiar with iOS design pattern of "Edit" button in the top right corner. However, I believe, we can improve this part of the flow and add another button to add a new training)

Is the notification that you see in the dashboard screen encouraging you?

Yes.

Walk me through one training and show the statistics after that.

Without difficulties. I would only change the area where I swipe my success. It would be good to add a message like: "Have you done all of the repetitions properly?". Naming "not today" vs. "success" is a bit confusing.

Can you change units from kilograms to lbs?

Wasn't really sure again. After some time he figured out that he would go to 'Me' section.

Log out from application (reset all your data)

Without difficulties.

Change exercises in your training.

Again the same problem with unfamiliarity with iOS design patterns.

7.2.3 General thoughts

What are the things that you think can be better?

I don't think that it's a good idea to give me an option to choose from upper / lower body or both. Ideal for a human body is to do both.

In the case that the app will be without selecting lower/upper body you can handle this friendlier (for a human body) in the frequency setting. You can focus more on upper or lower body but the user will do both (e.g. 2x per week upper body, 1x per week lower body).

Be more careful about naming the part of body and exact exercise (it was confusing from time to time).

It would be cool to put there a sentence like: “For a good development you should hit all types of motions” and list all the categories of exercises e.g. horizontal push — bench press, dumbbell press etc.

Be more precise and concrete with the copy (labeling/naming).

Only with some of the exercises you want to test the maximum weight. Others you will need to start with some recommended weight that will allow you to do these exercises properly.

I don’t like the idea of skipping the training. The app should force me to my workouts. (However, there are the times when you can’t really do your workout because you are for example on vacation)

Instead of a generic splash screen there could be some motivational quote. Or something like: “Welcome back, we have missed you”.

There is a room for exploration how to track how many sets I have done during my training and maybe help me to countdown the time how long I should rest between exercises (usually it’s 2 minutes).

It would be good, after finishing the training, to be send to the statistics of my training. Or after tapping on stop the exercise going back to the training detail. Also, I really want to have an opportunity to ‘go back’ during the training and see the overview of the training (how many exercises do I have left, etc.)

What did you like about this application?

Simplicity. Motivational feel.

7.2.4 Test environment

Remotely (over the Google Hangouts with shared screen), using tester’s computer

7.2.5 Takeaways

We have found out a lot of interesting information about trainings, tips for the application and so on. Therefore, it’s better to read the whole test and general thoughts where I have summarized takeaways as well.