Sprint One

**Discuss FrontEnd and BackEnd Endpoints**

GetAllWorkouts

GetAllClients

GetClient

GetWeeklyReport

GetFitnessData

GetTotalCalories

**BackEnd Technologies**

Database

* SQL - Previous experience, easy language
* MobgoDB
* AWS - Popular within industry, previous experience, online help
* Azure - no experience, alternative

Language

* C# - Learning Currently, Limited experience
* Node/Express/JS - Previous Experience, Easier Language

**SmartTech APIs**

Fitbit api, Apple Watch api, MyfitnessPAl (calorie tracker)

**Potential External Collaborators**

\*Calum Moore (Personal Trainer)

\*Rory Forster (Personal Trainer)

Dkit Sport

GAA Teams

Crossmaglen Gym

Conor McCrink

Nutritionists

Protein Companies (MyProtein, Whey, MegaPump)

**FrontEnd Technologies**

React Native - previous experience, easy language

Flutter - popular within industry

Angular - easy for cross-platform

Native App(Android Studio, XCode)

**Possible Testing Techniques**

Unit testing, Acceptance Testing, HOW?

**Trainer Vs Client View**

Trainer will see a summary dashboard

First with all their clients - showing which are active currently

Then they can see a weekly/last 7 days report of their clients activity

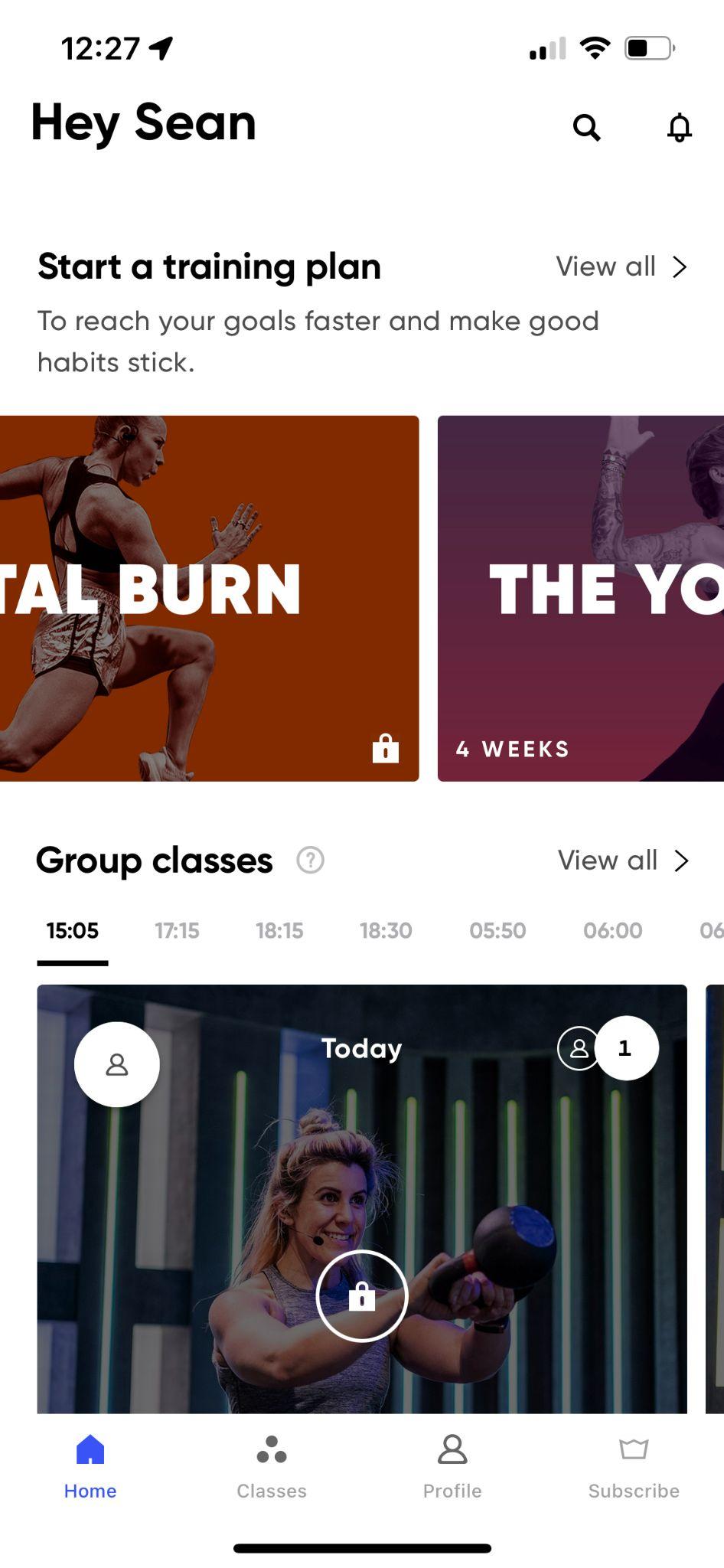
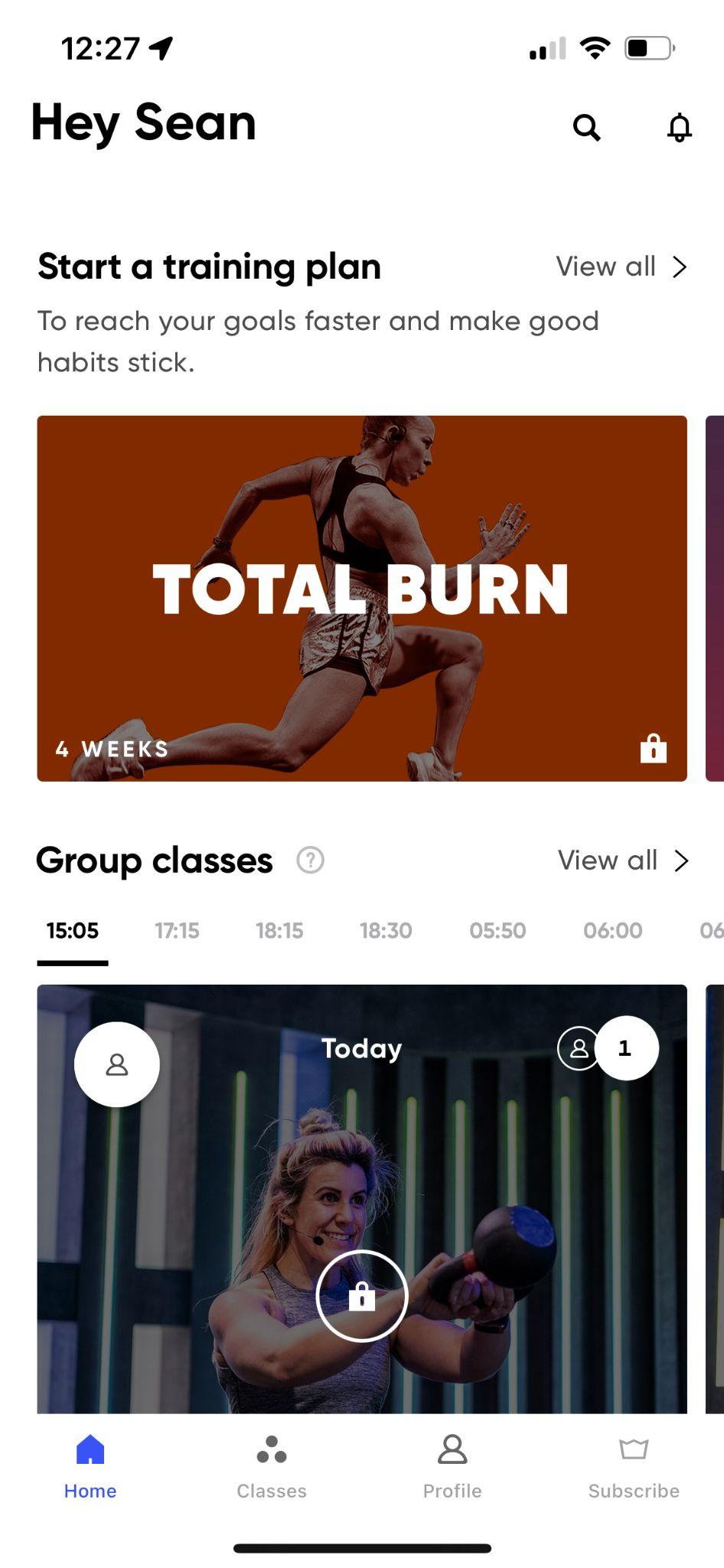
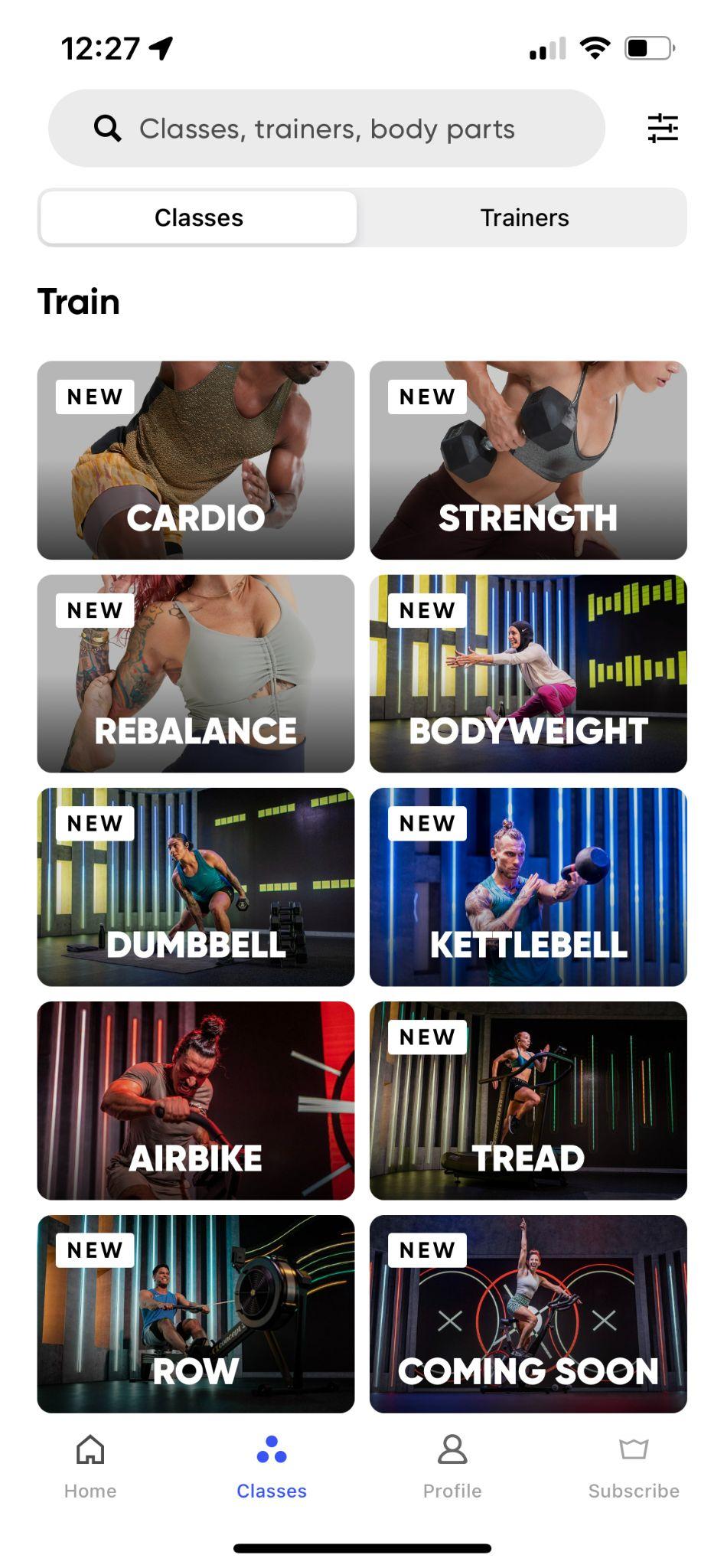
Client will see a calendar with all upcoming workouts

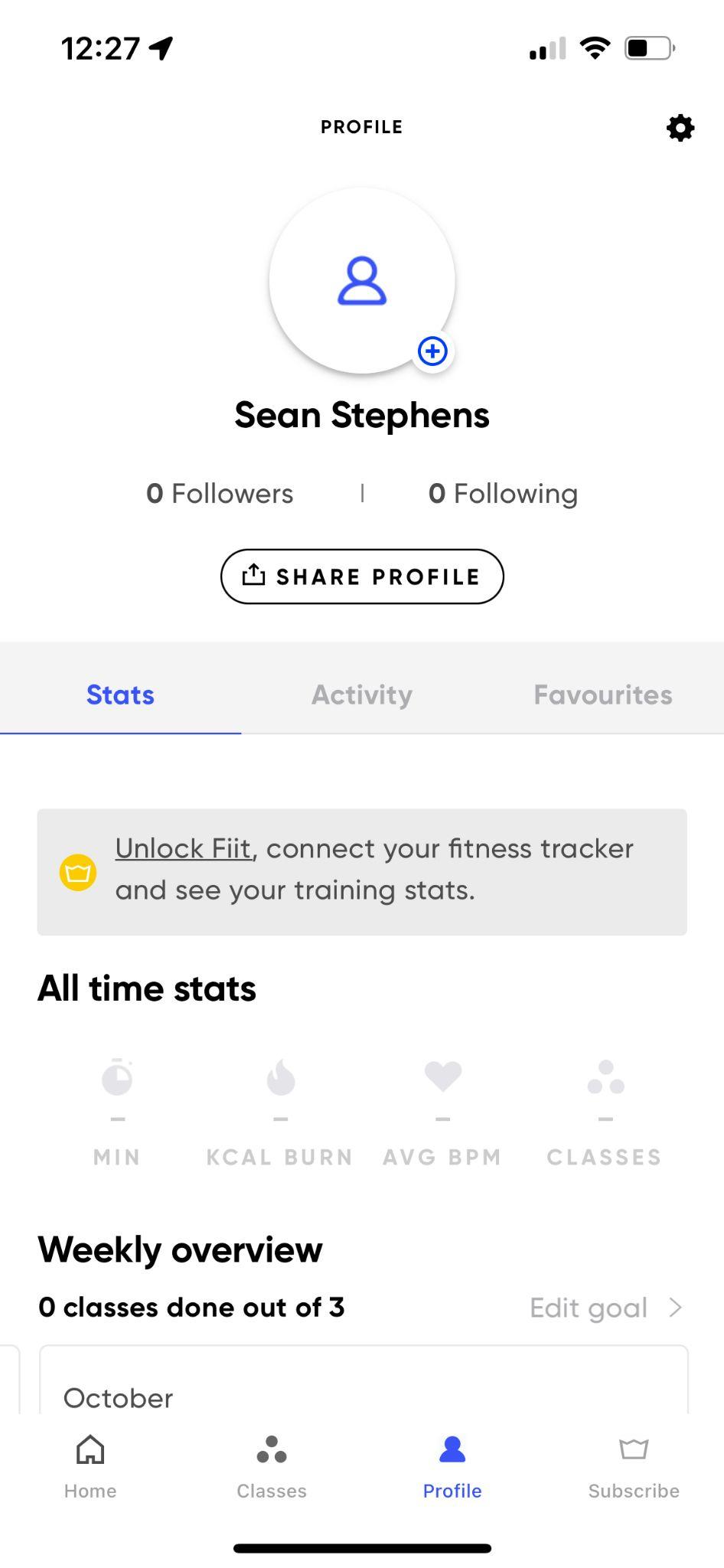
They will also see their summary dashboard with their weekly activity

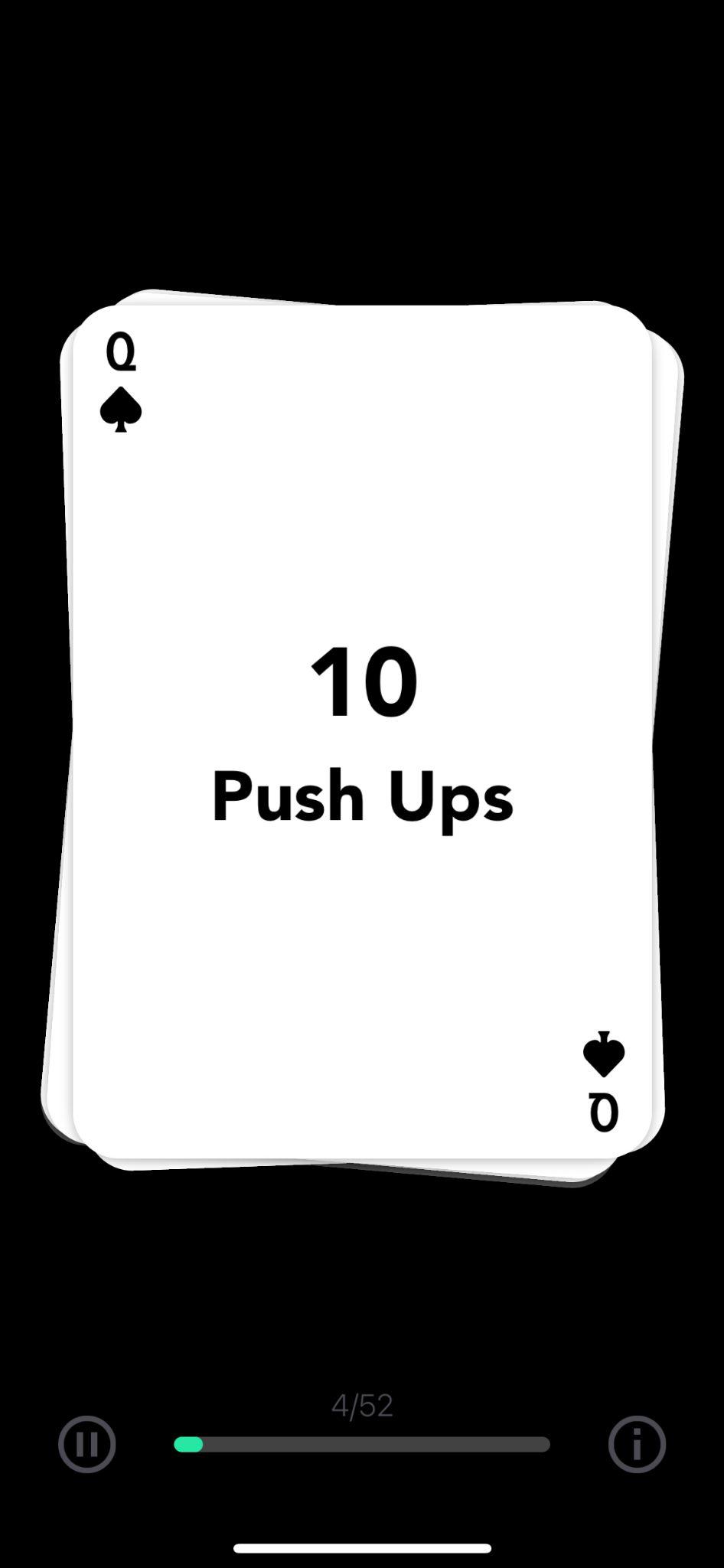
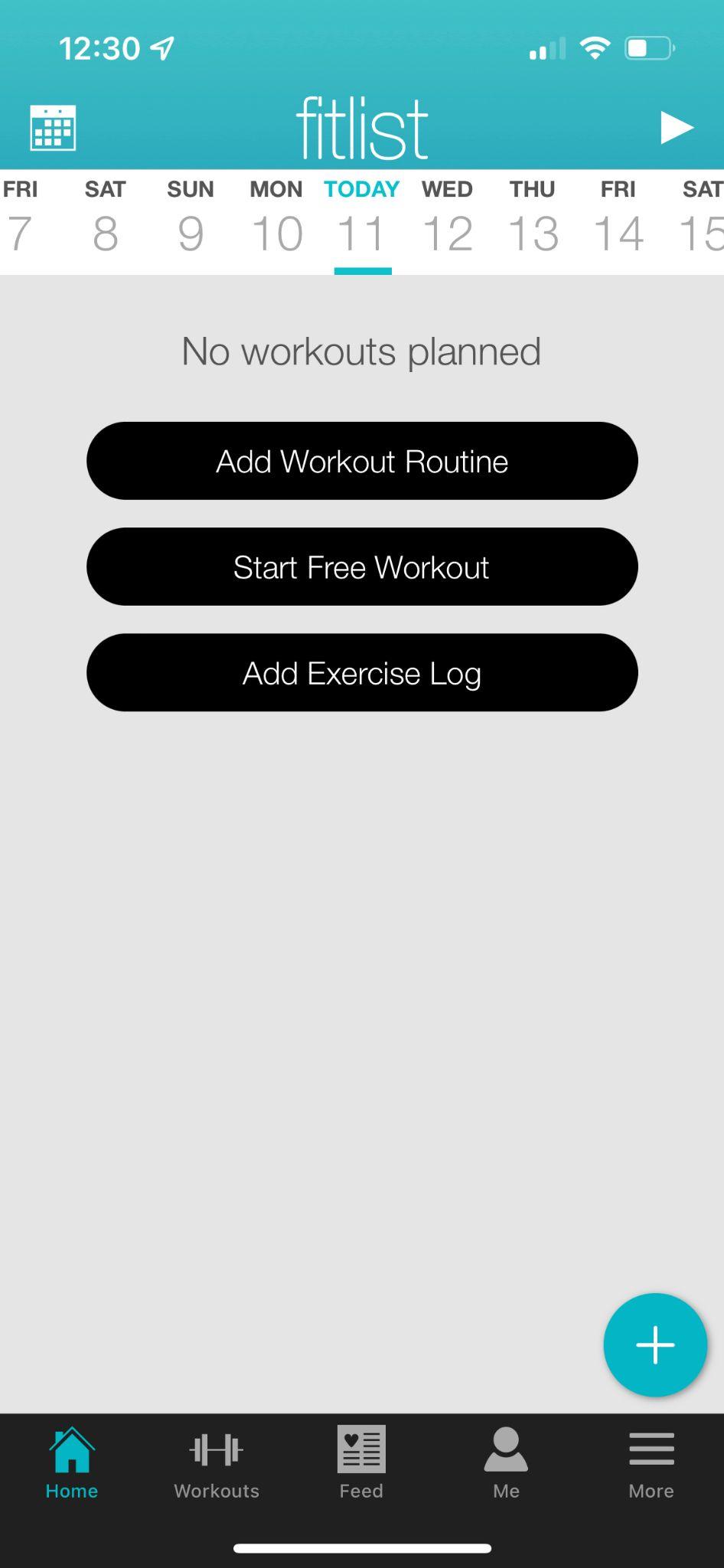
Also with the opportunity to view different workouts and mark them as complete

They have the ability to add records, and calorie records

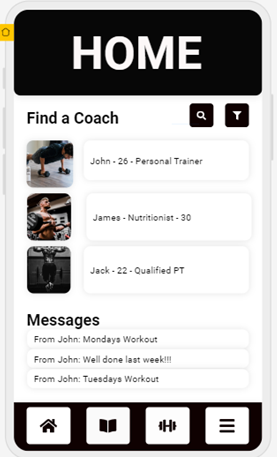
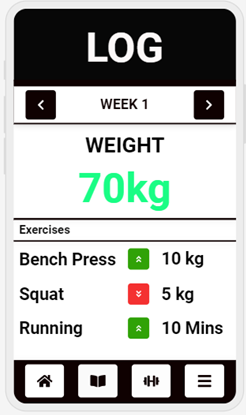
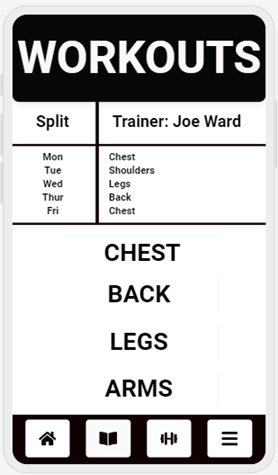
**Similar Applications**

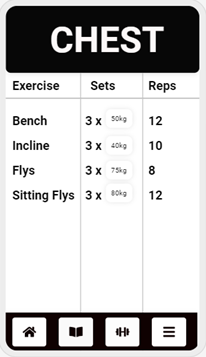
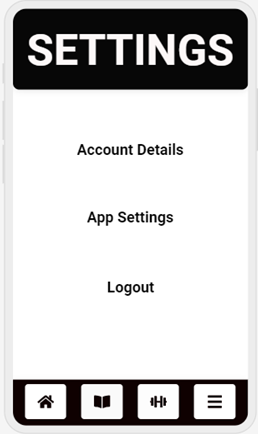
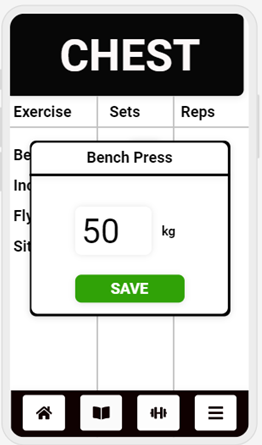
TrueCoach, MyFitnessPal, Freeletics, FiiT, fitlist, RepCount, \*Sweat Deck

FiiT

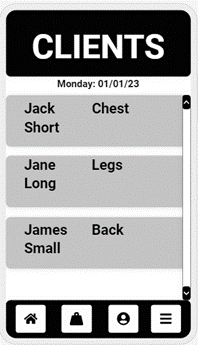
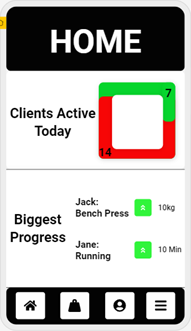
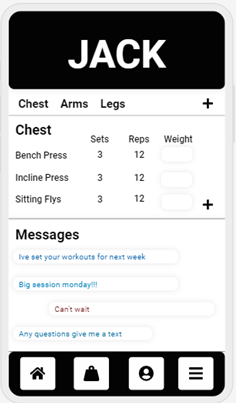


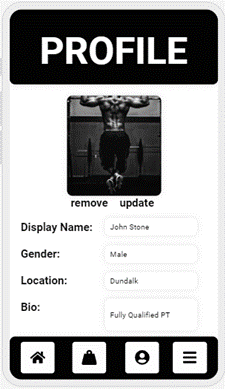
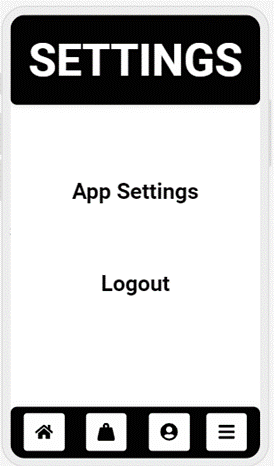
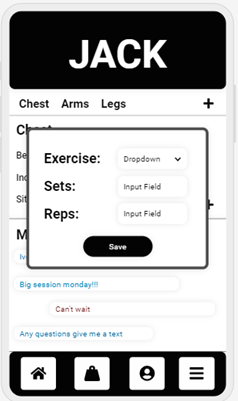
**Initial UI Designs - Client View**





**Initial UI Design - Coach View**





**Potential End User - Questions and Feedback**

What are your main troubles when trying to ensure a client is keeping on track?

The main troubles faced are as I am not seeing the clients face to face everyday it is hard to know what they are doing on a daily basis and I have to trust that they are following the plan I have given them and are truthful to me. I must also be able to differentiate between my different clients ensuring that I know exactly what plan I have them on and not forget to check in with any of them. Another issue is that I may only see them face to face once a week so have to pack a lot into that session.Do you find clients can be dishonest when reporting back to you?

Do you find it difficult to separate professional and personal life when managing clients through social media?

Yes. Clients may feel that they have let me or themselves down and find it hard to always be truthful. They may have a bad week and don’t want to say that they have ate too much or not exercised enough. However it would be much better if they told truth as I am here to help them and it is in their best interest to tell the truth.

Would you use an application that allows you to track clients workout progress at the click of a button?

Yes, I would definitely use this app as it would save a lot of time for both me and the client as I will be able to instantly track their progress and make any adjustments to their plan as necessary. The client will also get instant feedback.

Would you use an application that allows you to view your clients calorie and macro intake at the click of a button?

Yes, seeing clients calorie and macro information at the click of a button would be very handy as it would allow me to instantly see a specific clients information and allow them to take more calories/carbs/protein if they are losing weight to fast/feeling weak or less calories if they are not losing weight. Having this information stored for each client will save time for me as I do not have to keep physical records of this and can access them easily, giving me more time with the client.

Would you use an app that allows for messaging between you and your client online?

A messaging app between clients would be great as it would allow me to separate personal messages on social media and messages from my clients making sure I don’t get clients and friend mixed up. Some clients may also not have certain social media outlets so an app with an easy interface for all levels of computer literacy would be a great work around for this.

Would you use an app that allows you to make use of all of these features in one?

Having these 3 components combined in one app would be perfect for me and any Pt. It would save a lot of precious time and hassle. It would also make the experience of having a pt for the client much less daunting.

If so, which additional features would you like to have included, that you feel could help in your profession?

Some additional features which I would find helpful would be; a frequently asked questions section where clients may be able to find the answer to a query in real time incase I cannot respond to them immediately. I would also like the possibility of having a section where I put videos of certain exercises being performed by me so the client can view if they need help.

Sprint Two

**Create Technical Journal**

Each member created there mahara page for their technical journal starting with sprint 1 review

**Decide on final backend server language**

Node.js works well with React front end as both written in JavaScript.

Node.js has a large collection of ready-to-use packages and dynamic link libraries that will save a lot of time. NPM is in charge of such libraries (Node Package Manager).

ASP.NET is preferred by developers and enterprises for larger applications, whereas Node.js. is more suitable for fast, lightweight software and mobile applications.

For hosting a react application, NodeJS is the best platform. Node JS can be used for server-side development and React JS / React native for front-end development reducing the need for multiple languages and frameworks.

Backend Server Language for project: **Node.js**

Justification

We have pervious done node in second year so it will be easy to implement. Where we are currently just learning C# and time we finish the module we past Christmas time which means we won’t be coding any backend till then.

**Discuss design**

Discussion based on the colour schemes and possible UI designs

Colours:

* Blue and white - positive and easy read

Logo:



Alternative Logos:



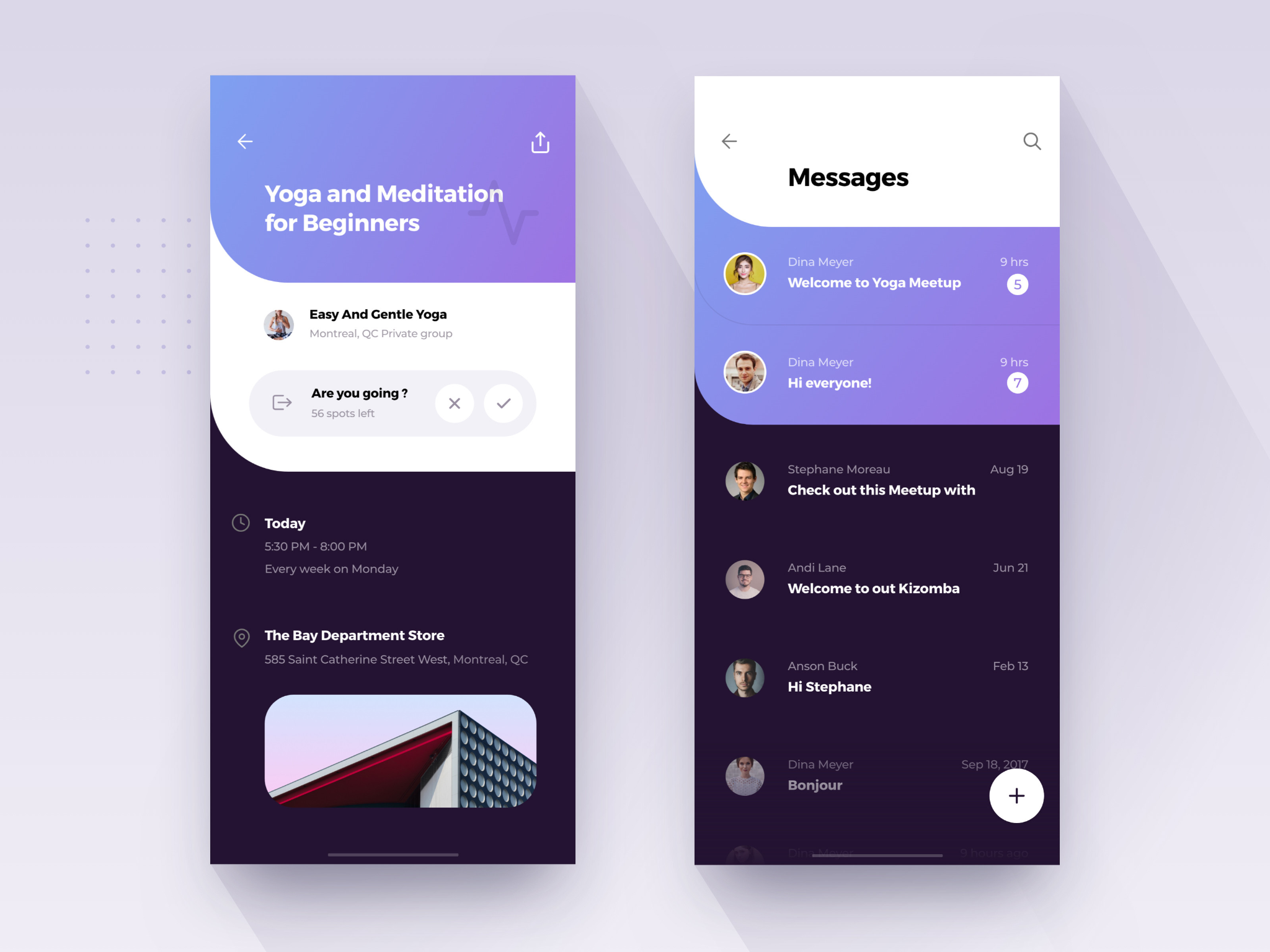


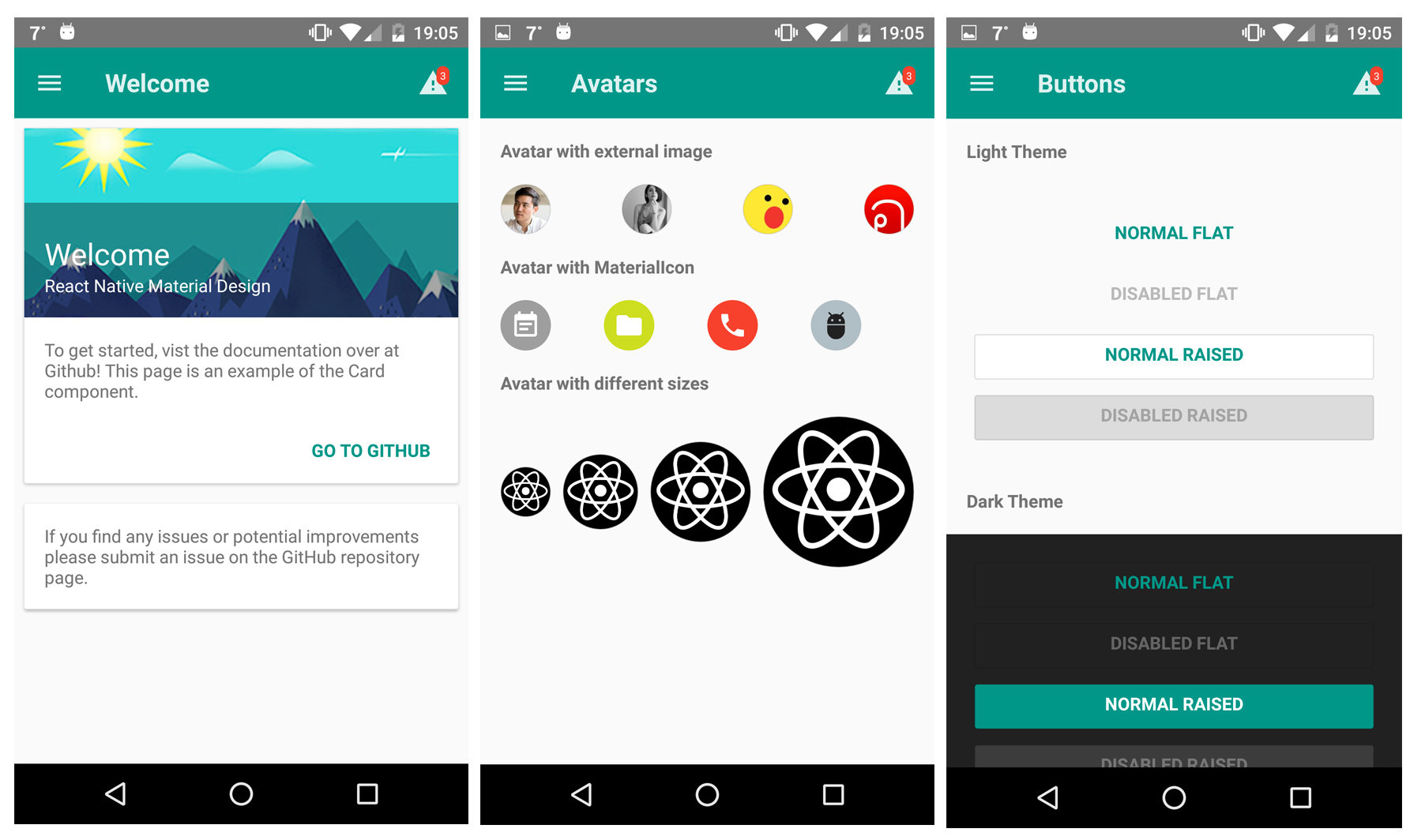


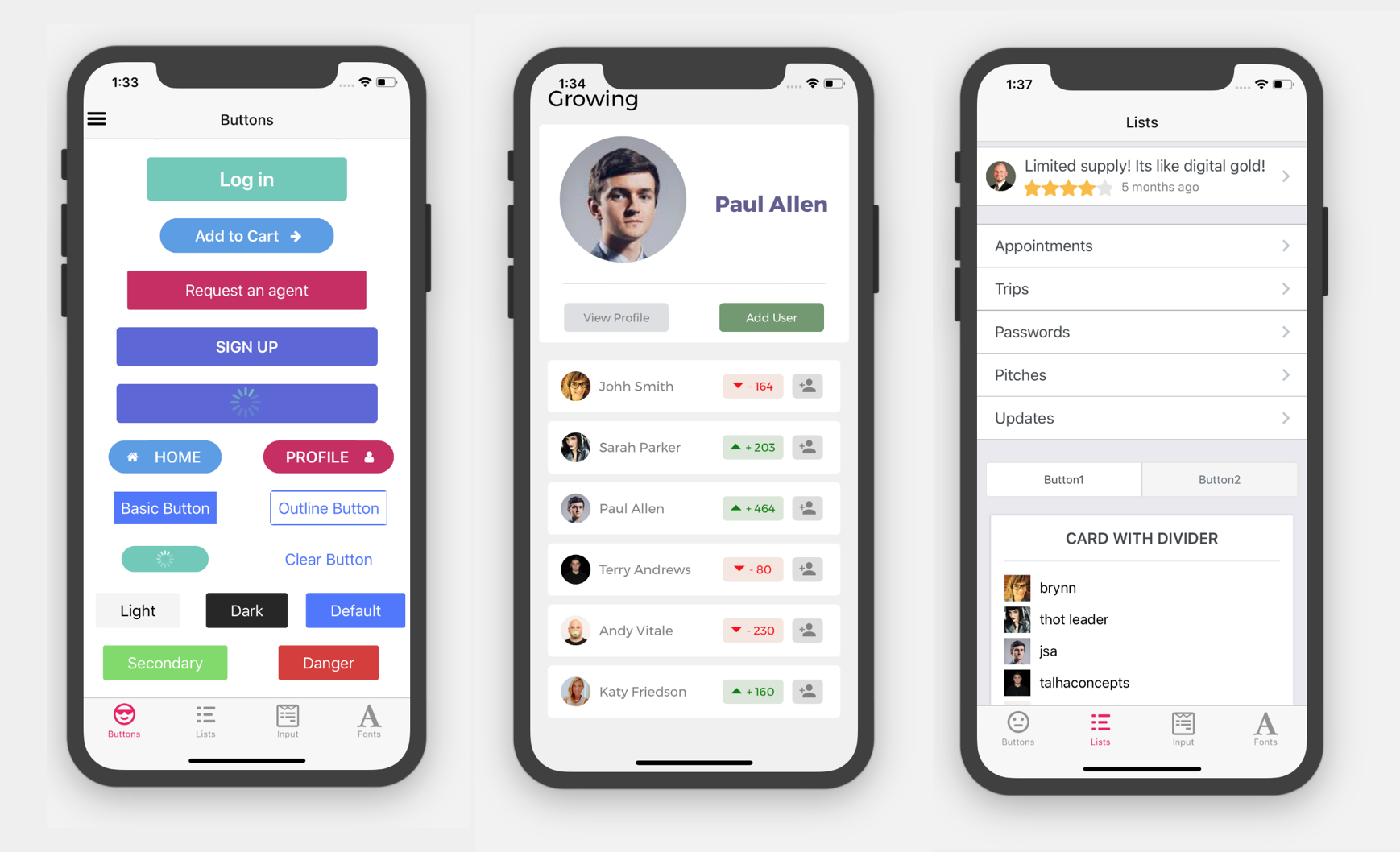


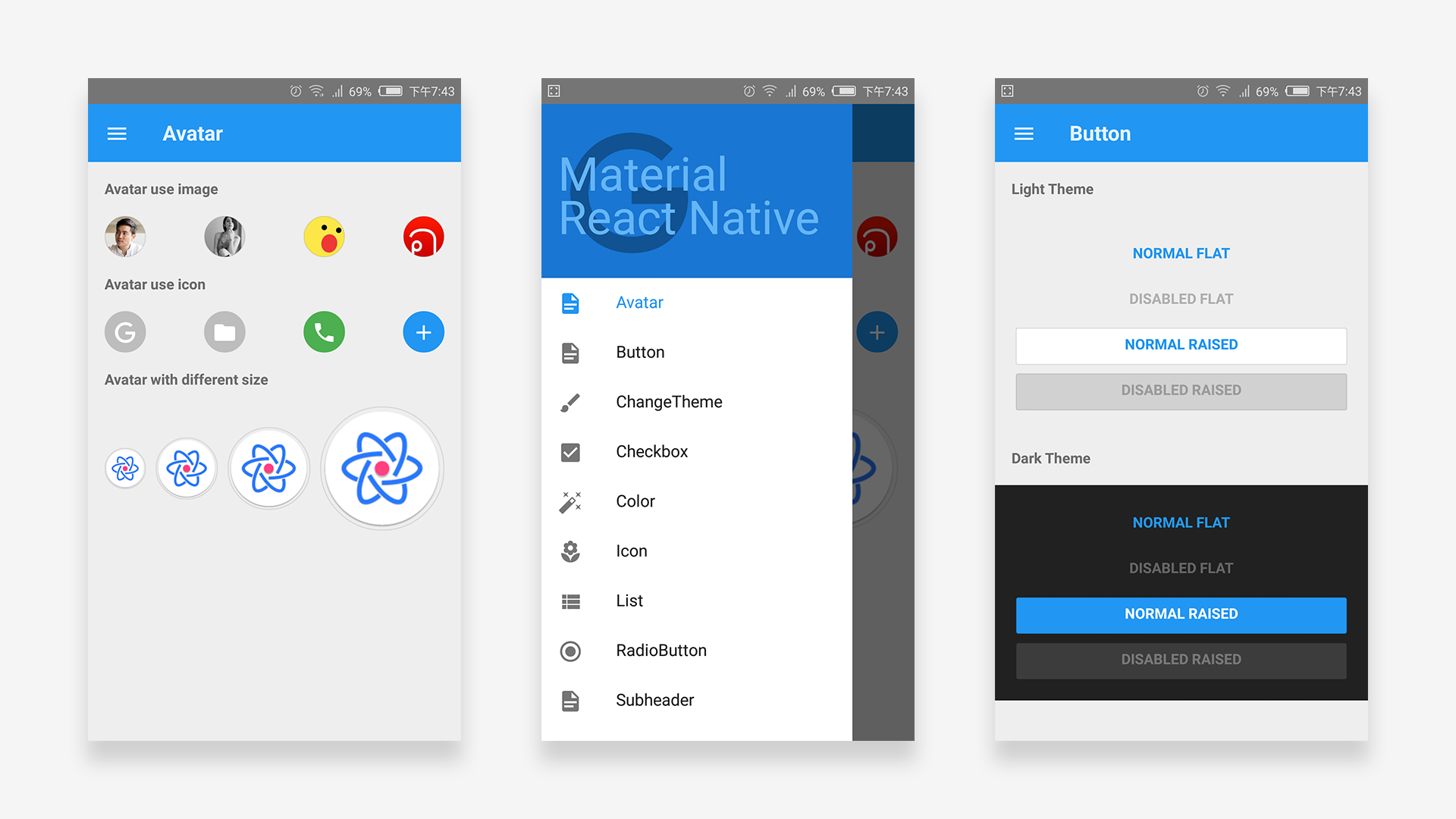
**Research popular react native designs**

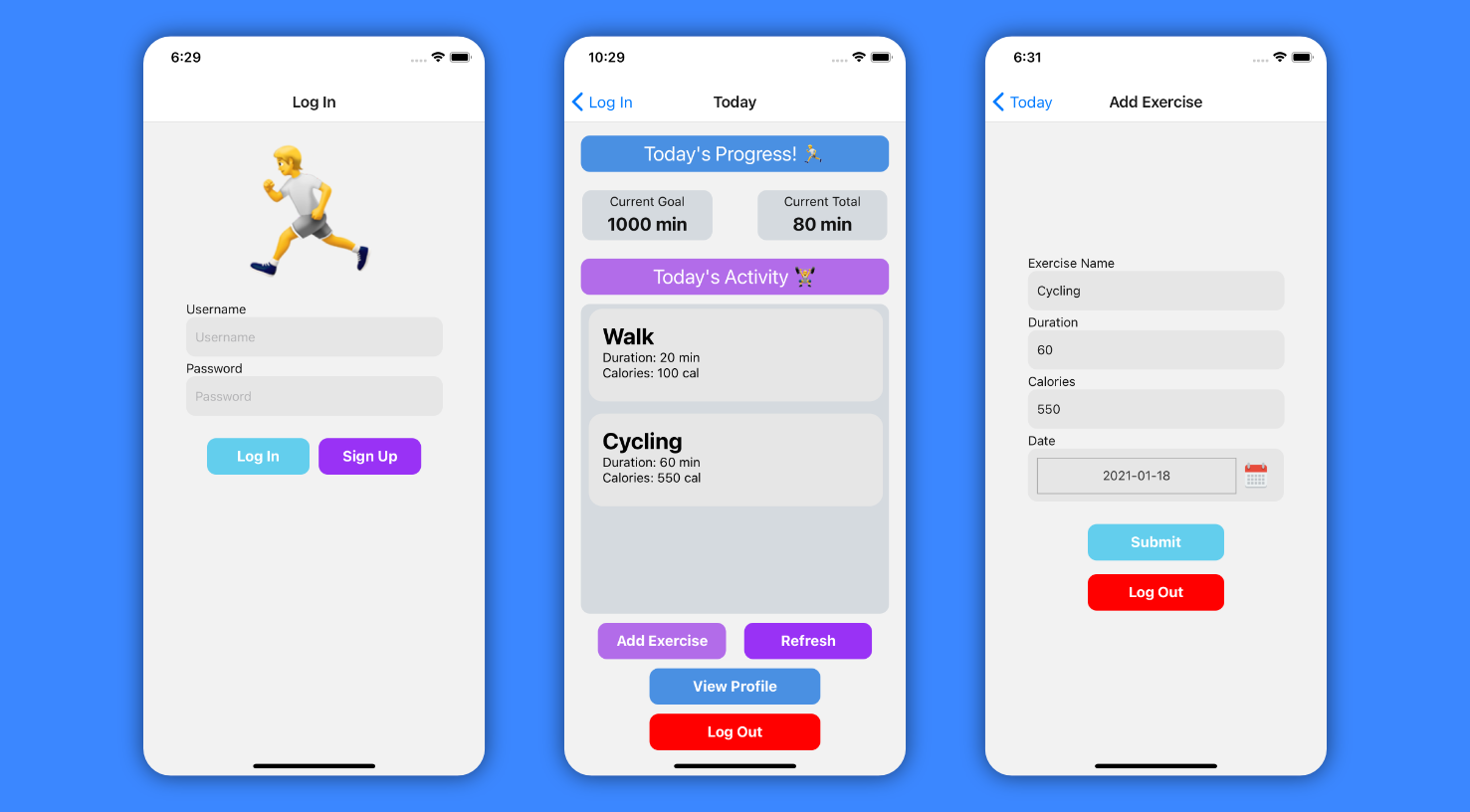
Screenshots















**Define github rules**

When the Main app repository is Created: Everyone clones it to the there local machine at the start

=== When developing ====

* Before start developing Pull (or just clone again) the most recent version down to your local machine (to get any changes from people work)
* When create a new feature such as login form: create a new branch called login
* Push that branch up to the group gitHub (Dont merge it locally then push it or it will delete all code up there)
* When pushed. Go to GitHub and create a Merge Request
* When everyone one is together or on a call can then review it and merge it into the main branch if not conflicts with code. Or canassign a single / multiple to review it on git

If we agree merge request is missing some code that person can add it and just recommit and we look at the merge again

Once all done that branch can then be deleted.

https://www.youtube.com/watch?v=MnUd31TvBoU —video for help. It is done with commands but can use GUI if easier

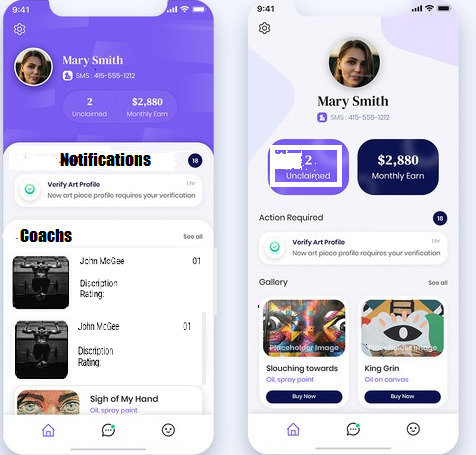
**Draw up initial trainer view designs**

Need to discuss loop of interation

Need a list of screens

**Client/Coach Same Screen:**

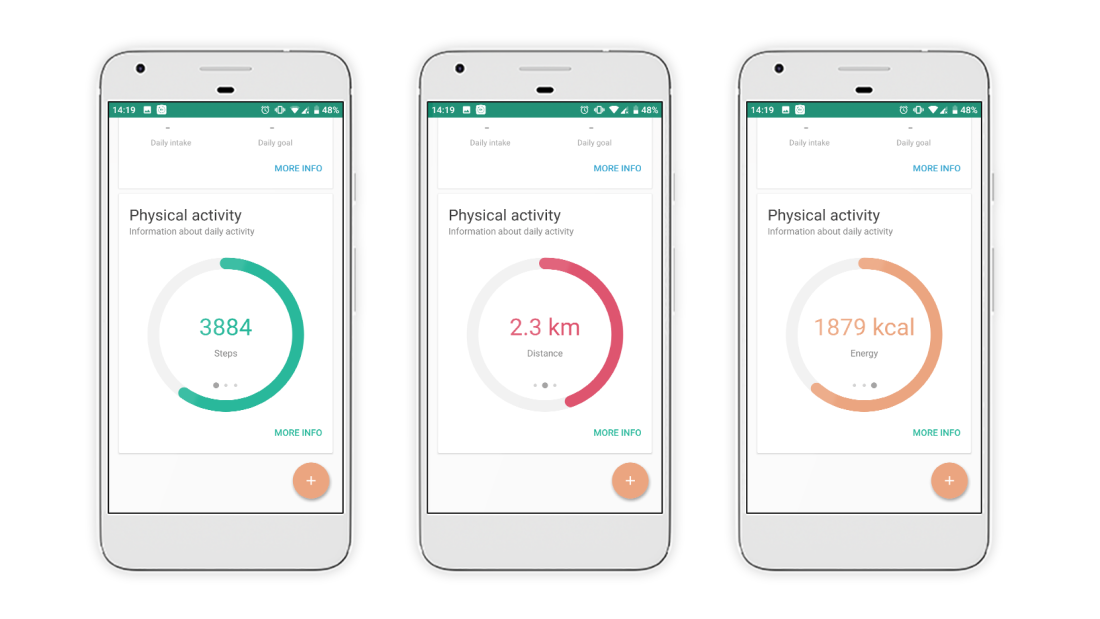
* Login
* Forgot Password
* Layout (same three tab layout) (Home, Message, profile)
* Messaging page



**Client Unique:**

* Client Register
* Client Home Page
* Small card top of screen similar to above (showing picture of yourself at top of screen) Name, Date when your next workout is if you have on. How many days your in in progress bar(start - end) 90 day challenge
* Notifications tab as shown above (messages, cancel workout message from coach)
* Below it if you have a coach show the routines you have e.g. mondays workout click on it and it opens the **routines page**. No coach shows a list of coach click on it and it opens the coaches **routines page** where you can select a coach.
* Client Profile Page

1. Clients username
2. Clients calorie target
3. Client target e.g. gain muscle how much they have gained from last time they got measured (progress bar)
4. Client physical activity (distances, steps, calories burned)
5. Water intake potentially



* Clients Routines Page
  + Shows the routine for the client when they should do it on a certain date, every day, once a week, what coach assigned them ths.
  + Click on a routine opens the individual exercises for that routine.

**Coach Unique:**

* Coach Register
* Coach Home Page
  + Small card top of screen similar to above (showing picture of yourself at top of screen) Name, Date when your next session is. Number of clients.
  + Notifications tab as shown above (messages, cancel workout message from coach)
  + Below shows a list of your clients if you have any click on a certain client or show all it bring you to your **“Clients Page”** Showing an overview of all clients.
* Coach Profile page
  + Change days of the week you are available , times your available.
  + Link to edit the coach page where coach can edit there coach card and coach details.
  + Option to view routines, update routines, create routines and delete routines. .
* Clients Page For Coach:
  + View list of clients
  + Sort through clients search bar
  + Filter
  + Quick buttons on side of client card to book meeting or message
  + If coach clicks on **individual client** it takes them to the client card.
* Individual Client
  + Can view clients profile calories workout,, image, what they are eatting
  + Send message or send session request
  + Give the client feedback how good they are doing and what they are improving on
  + Suggest workout routine can click something like “create routine” and it takes them to the **Routines Page.** THey can select to send a routine they have already created, edit routines, make a copy of a previous routine and rename it to send to another client.
* Routines page
  + Option to create new routine, copy previous routine, edit routine.
  + Select the current routine to send to user.
  + If edit or copy takes the user to an individual routine page with the prefilled details from the previous routine, ready to update.
* Routine individual:
  + Button to confirm or add to routine.
  + Pressing add opens modal with details on move name and reps.
  + Confirm pops up a modal asking the user to save the routine ord save as option allowing the individual to save or override an existing routine.

**Rory Foster (TrueCoach Personal Trainer)**

**True Coach Positives:**

· Video comes up when typing in exercise

**True Coach Negatives:**

· Poor video library (uses YouTube instead)

· Cannot save circuits (has to create multiple times for different clients)

· Does not sync program changes across clients

**Recommendations:**

· Can create and save workouts and assign to groups of users

· Use YouTube videos linked to app that display good correct form

· Have updates to plans that can sync across users. Works with assigned users to a workout and workout only needs changed, cuts down on workload for PT

**Research API returns and OAuth Authentication**

#### **Step 1 - Generate the Code Verifier and Code Challenge**

Using a base64 encoder

IZEeyHlEbyFjLyGHCyLw6iJeDXrzVV-at9vMRAg2-G8

#### **Step 2 - Request Authorization to Fitbit User Data**

https://www.fitbit.com/oauth2/authorize?client\_id=238XB5&response\_type=code

&code\_challenge=IZEeyHlEbyFjLyGHCyLw6iJeDXrzVV-at9vMRAg2-G8&code\_challenge\_method=S256

&scope=activity%20heartrate%20location%20nutrition%20oxygen\_saturation%20profile

%20respiratory\_rate%20settings%20sleep%20social%20temperature%20weight

#### **Step 3 - Retrieving the Authorization Code**

URl taken from the web link

#### **Step 4 - Exchange the Authorization Code for the Access and Refresh Tokens**

POST https://api.fitbit.com/oauth2/token

Authorization: Basic QUJDMTIzOkRFRjQ1Ng

Content-Type: application/x-www-form-urlencoded

#### **Step 5 - Receive the Access and Refresh Tokens**

{

"access\_token": "eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiIyMzhYQjUiLCJzdWIiOiI5VDNRVkQiLCJpc3MiOiJGaXRiaXQiLCJ0eXAiOiJhY2Nlc3NfdG9rZW4iLCJzY29wZXMiOiJyc29jIHJzZXQgcm94eSBybnV0IHJwcm8gcnNsZSByYWN0IHJsb2MgcnJlcyByd2VpIHJociBydGVtIiwiZXhwIjoxNjY2MTE2NjA2LCJpYXQiOjE2NjYwODc4MDZ9.CbwEb13lZ6XskFs8OS0O3VYPnSpAC1qOUg-FV3Z-2Q8",

"expires\_in": 28800,

"refresh\_token": "01129a72d55af6ea704c2ba62d773ea8a64c26d6768210e4006e19b3eebde5b6",

"scope": "location sleep temperature weight oxygen\_saturation nutrition heartrate settings profile social respiratory\_rate activity",

"token\_type": "Bearer",

"user\_id": "9T3QVD"

}

Now we can make GET requests to the api and get my own personal smartwatch data back

* Total steps
* Floors climbed
* Heart rate
* Max v02
* Calories
* Sleep
* Stress management
* Workouts
* Duration
* Profile Details

