**The App Idea**

An application that integrates communication between personal trainers and clients for organising training programs and tracking progress.

**Web:** Coaches can use the web-based app to set workout routines for their clients and track their progress by viewing analytics.

**Mobile:** Clients can see the programs assigned to them and can document what exercises they do on each day and can track their own analytics.

**Web App Pages**

**Home Page:** Coachescan see a ‘feed’ of the workout sessions that their clients have completed from newest completed workout session to oldest. This is on the left side of the screen. Each item in the feed shows the readiness score that a user has inputted, the time a user spent doing the workout session, the intensity of the session that the user has recorded, and the total weight the user has lifted in their session. The right side of the screen will be a section saying ‘Needs Programming’ that will be populated with clients that don’t have any scheduled programs for the following week, where the coach can click on them to access the clients calendar.

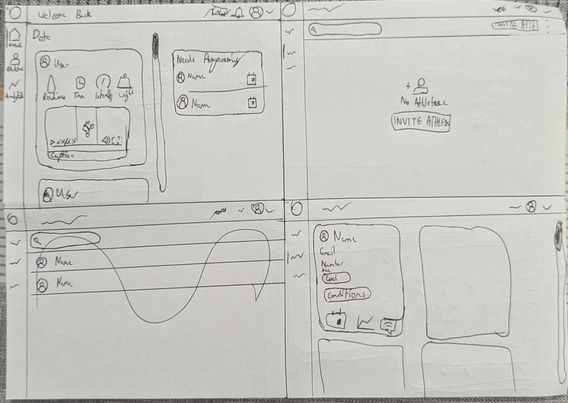
**Athletes Page:** Coaches can view all of their athletes here, where it will be presented in a card-like view. Each card has the client’s image in a circle in the top left corner, followed by their name. Under that is information storing their email, number, age, goals, and medical conditions. Beyond that are the actions the coach can take with that athlete (each action is accessed by clicking their icon) – calendar, analytics, and chat. The calendar icon takes them to the calendar page for that client, analytics to the analytics page for that client, and chat to the chat page for the client. In the top left, coaches can search for specific clients, and the top right, coaches can invite new clients to join them. If there are no clients, coaches are presented with a screen that says invite athletes.

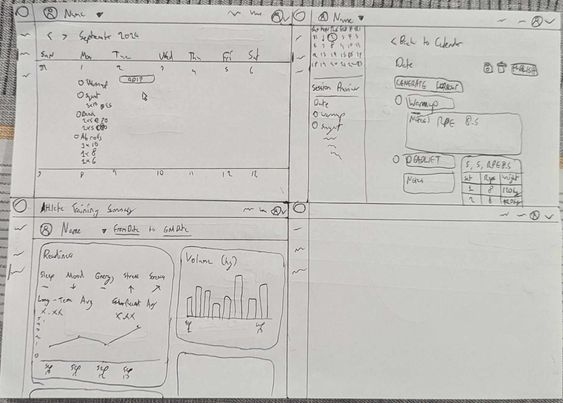
**Calendar Pages:** Each client has their own dedicated calendar page which is essentially a calendar that coaches can access to populate workout sessions on each day. This view shows the workout session planned for each specific date, and coaches can also click the ‘edit’ button by hovering over each day to add/change a workout session. At the top of the page is a drop-down box with client names that users (coaches) can click to change the page to a different client.

**Workout Sessions Page:** After coaches click into the workout session for each day, they can fill out information to setup the workout for the specific date. At the top, coaches can navigate back to the calendar for that client. From there is information displaying the date. In line with this is a button to save the session, and a button to delete the session and start over. Underneath is a button for generating a workout program with AI. In here coaches can add new exercises from the exercise library for the client to complete. They can assign how many sets, reps, and what weight they should complete it at. They can also add any notes about the specific exercise that they may want the client to read. The sets, reps, and weight at each set is set up in a tabular format for the coach to adjust to the right of the exercise name and notes section. Saving the workout session adds the workout to the date. On the left side of this page is a mini calendar to navigate to a different day, and a session preview that displays the exercises in a session based on what information the coach has setup so far.

**Analytics Page:** Coaches can view how their clients are progressing in this page. This is unique for each client. The first card tracks the client’s readiness scores, displaying the sleep, mood, energy, stress, and soreness metrics, and whether it is higher, the same, or lower on average. This is measured against their long-term average (last 6 months) and is based on the last 14 days. The numbers for the overall long-term average (last 6 months for the average of all metrics to calculate total readiness score) and recent average (last 14 days for the average of all metrics to calculate total readiness score). The next card tracks the total volume lifted of weight each day in the given date period. This is presented in a column graph, showing the weight on the left-hand side, and dates across the bottom (but these dates are hidden only the first and last dates are shown). At the top of the page, coaches can change the client that they are looking at through the same drop-down box in the calendar page, and they can adjust the date range for the data being shown to them.

**Chat Page:** Coaches and clients can communicate with each other through chats. This is a generic chat page, where different chats are displayed in a column on the left, where the coach can search for a client’s name. If a client’s name is clicked on, then the right side is the chat with all the messages between the coach and that client.





**High-Level Requirements**

1. **User Authentication**:
   * Although you mentioned the MVP is for coaches/PTs only, in the future, implementing user authentication (e.g., through JWT) might be important to restrict access to the app.
2. **Client Management**:
   * Coaches should be able to view details of each of their clients.
   * Data includes client profiles (name, age, email, number, fitness goals, conditions).
3. **Workout Program Creation**:
   * Coaches need to create custom workout programs for each client, with options to set exercises, sets, and reps.
   * Coaches can select exercises from a general Exercise Library that contains pre-defined exercises (name).
   * Coaches can track workout history for clients.
4. **Exercise Library**:
   * A generic library containing various exercises.
   * Each exercise includes data such as name and instructional media (video link).
   * Exercises from this library populate the workout programs.
5. **Progress Tracking and Analytics**:
   * The app should track a client’s performance for each exercise (weights lifted, reps completed, personal best).
   * Visual progress data such as charts and statistics that reflect the client's improvement over time.
6. **GenAI-Based Workout Plan Generation**:
   * Use GenAI to recommend a workout plan for a client based on progress. For example, if a client’s performance plateaus, the system could suggest changes or new exercises based on available data.

**PostgREST API Integration**

1. **API Endpoints**:
   * /clients: Fetch or manage client data.
   * /coaches: Fetch or manage coach data.
   * /workout-programs: Retrieve or modify workout programs for clients.
   * /exercises: Access the exercise library.
   * /client-progress: Fetch or update a client’s progress.
2. **CRUD Operations**:
   * **GET** requests to fetch data (e.g., fetching all clients or exercises).
   * **POST** requests to create new entries (e.g., add a new workout program).
   * **PATCH/PUT** requests to update client data (e.g., updating workout progress).
   * **DELETE** requests to remove data (e.g., deleting a workout program).
3. **Authentication and Authorization**:
   * Use JWT tokens for authentication (in the future, if required), allowing access to specific endpoints based on coach permissions.

**Database Integration**

A screenshot of a computer

Description automatically generated

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**Colours:**F2AE30

C0C0BF

CCCCCC

D9D9D9

1E1E1E

Dummy Data:

INSERT INTO users (name, email, role)

VALUES

('John Coach', 'john.coach@example.com', 'coach'),

('Emily Coach', 'emily.coach@example.com', 'coach'),

('Mark Client', 'mark.client@example.com', 'client'),

('Lucy Client', 'lucy.client@example.com', 'client');

INSERT INTO clients (user\_id, age, fitness\_goals, medical\_conditions)

VALUES

(3, 30, 'Build muscle', 'None'),

(4, 28, 'Lose weight', 'Asthma');

INSERT INTO exercises (name, media\_url)

VALUES

('Squat', 'http://example.com/squat-video'),

('Bench Press', 'http://example.com/benchpress-video'),

('Deadlift', 'http://example.com/deadlift-video');

INSERT INTO workout\_sessions (client\_id, session\_date, total\_weight\_lifted, readiness\_score, session\_duration, intensity)

VALUES

(1, '2024-09-01', 500, 8, 60, 7), -- Mark's session

(2, '2024-09-02', 300, 7, 45, 6); -- Lucy's session

INSERT INTO workout\_details (workout\_session\_id, exercise\_id, sets, reps, weight)

VALUES

(1, 1, 3, 10, 100), -- Mark's session includes squats

(1, 2, 3, 8, 80), -- Mark also did bench presses

(2, 2, 3, 12, 60), -- Lucy's session includes bench presses

(2, 3, 4, 6, 120); -- Lucy did deadlifts