

## Project 2

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### Purpose

The project aimed to develop a workout manager app, enabling users to log exercises, sets, and upload images. I incorporated real-time Firebase integration and managed multiple API calls for added complexity.

### Log-in Page

Started with a simple login page featuring a logo and basic form. Initially, users could log in with just an email and password. Later, added Firebase authentication to enforce account requirements. Implemented a registration button for new users. Included a remember credentials switch. Successful logins directed users to their profile; unsuccessful attempts prompted error messages for account creation or password correction. New account click led to the registration page.



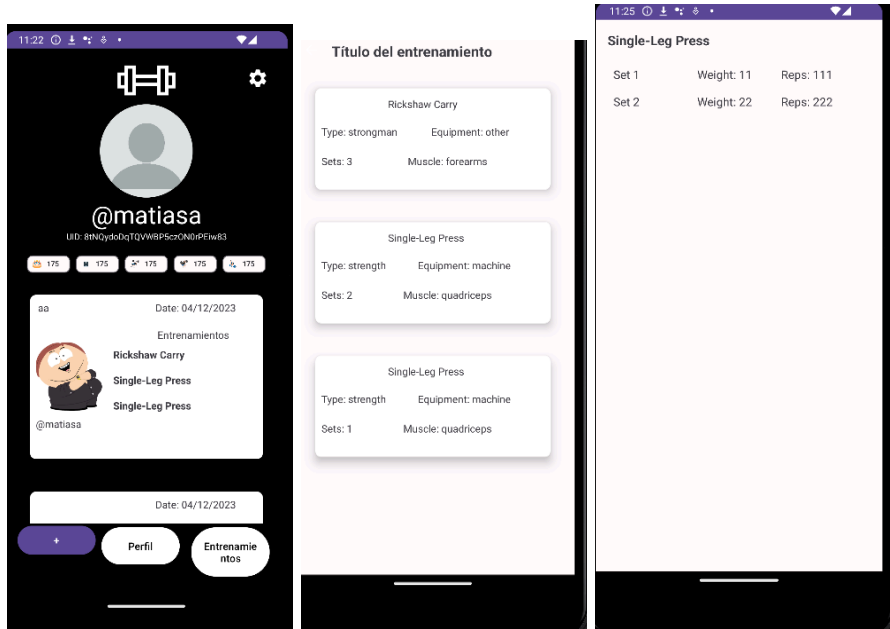
### Register Screen:

Implemented a registration screen requiring username, birthday (selected via a calendar button), email, password, and password confirmation. Added a switch for saving credentials. Added a checker to duplicate usernames and emails in the database. Upon successful registration, users were redirected to their activity screen, with data sent to the Firebase real-time database. Invalid inputs triggered error messages prompting users to rectify the issue.



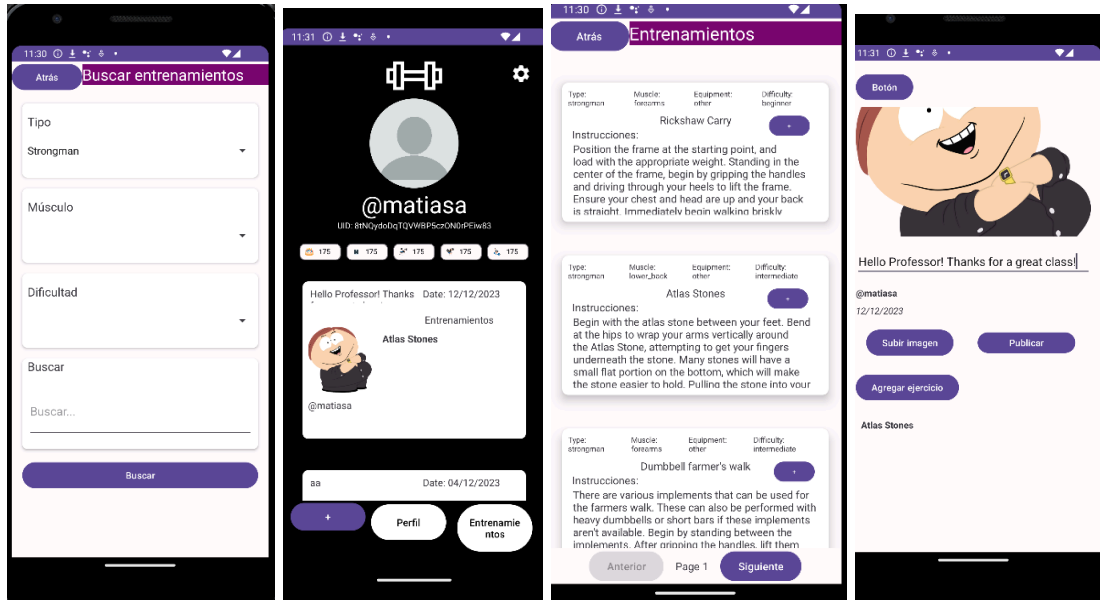
User Home Screen:

Designed a user home screen featuring the display of the username. Pending features include the ability to edit weight, personal records, and profile picture. Implemented three buttons: one for posting workouts, one for returning to the home screen, and another for viewing all available workouts. Incorporated a recycler displaying posted workouts as clickable cards. Clicking a card reveals detailed information such as the date, workout name, exercises performed, and corresponding sets, reps, and weights.



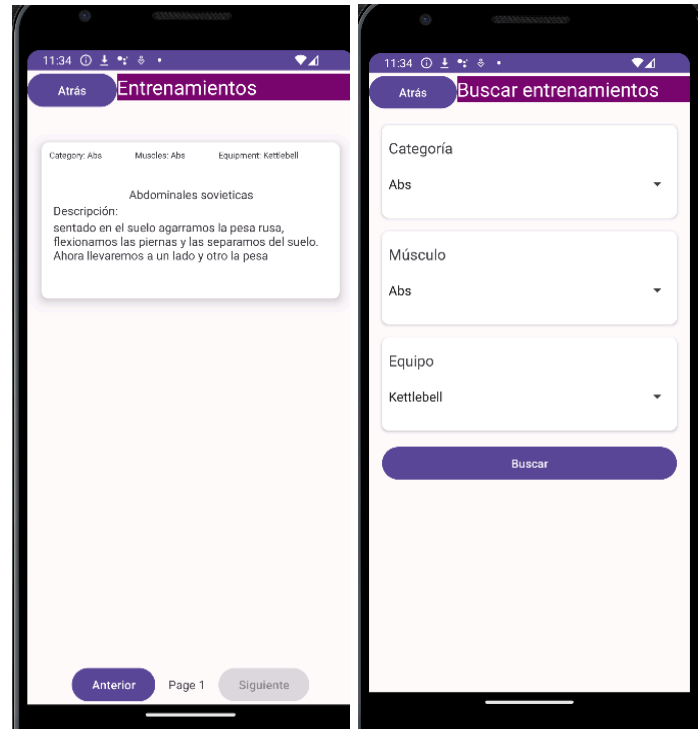
### Post Workout Screen

Implemented the post workout screen as the most challenging part. Clicking the workout button led users to input a title and workout image, displaying username and date. Users then moved to a filter screen to choose desired filters and categories for exercises. Invalid filters prompted a return to the original page, while valid ones displayed a recycler with API-retrieved exercises. Each exercise card included details and a plus button to add the exercise. Clicking the button directed users to a set screen, allowing up to five sets with weight and reps input. After completing the exercise, users returned to the post workout screen, where they could add more exercises, change their picture, title, or post the workout. Posting sent all information to the database for display in the user home screen.



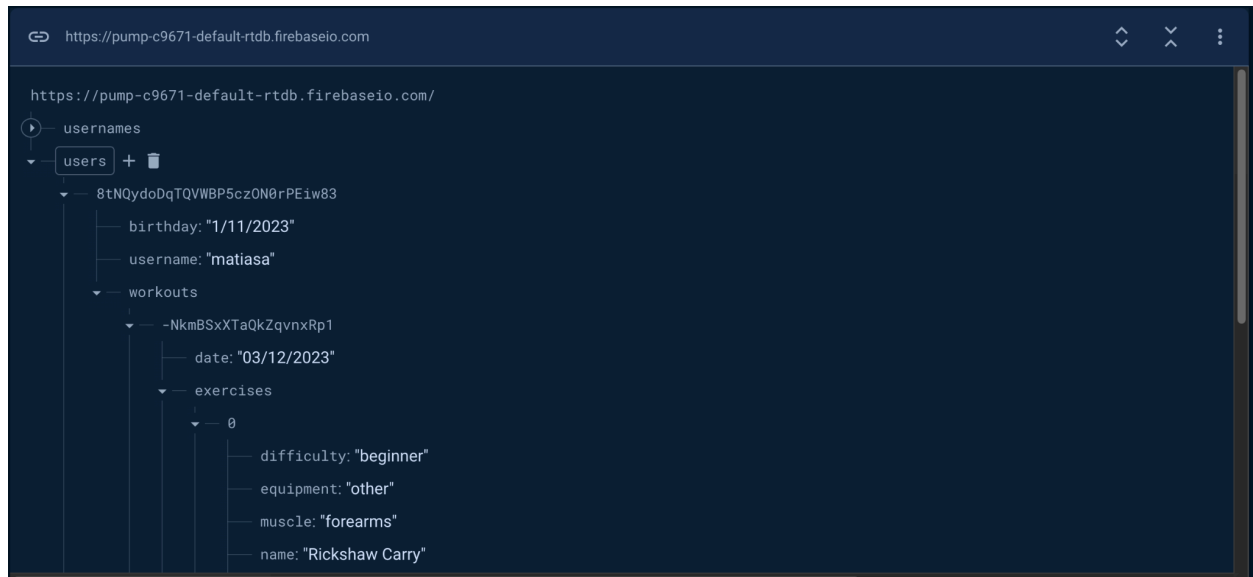
### All Workouts Screen

Designed a all workout screen with a filter allowing users to choose between muscle or equipment categories. Implemented filtering, sending the chosen filters to a recycler displaying exercises retrieved from the API. Provided pagination for excessive results, enabling users to load more, and suggested different filters if results were insufficient.



## Complexities

Implemented Firebase authentication and a real-time database, utilizing two API calls for exercise retrieval. Utilized the wger API for a comprehensive exercise list, albeit with slower performance. Incorporated the Ninjas Exercising API for speed, handling its limitation of 10 calls with pagination and offsets. Added Spanish language support and allowed users to input and upload their desired images to the database.



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## Conclusion

The project posed significant challenges, requiring problem-solving and skill development. It provided a rare opportunity to apply creativity and skills to a personally meaningful product, allowing me to use APIs and databases effectively. Overcoming challenges with API implementation and database familiarity was notable. The project not only enhanced technical skills but also demonstrated that dedication and effort can turn an idea into a successful creation. Proud to have completed the app's full development.



